



Demographic Trends in Japan and the Future of Life Insurance

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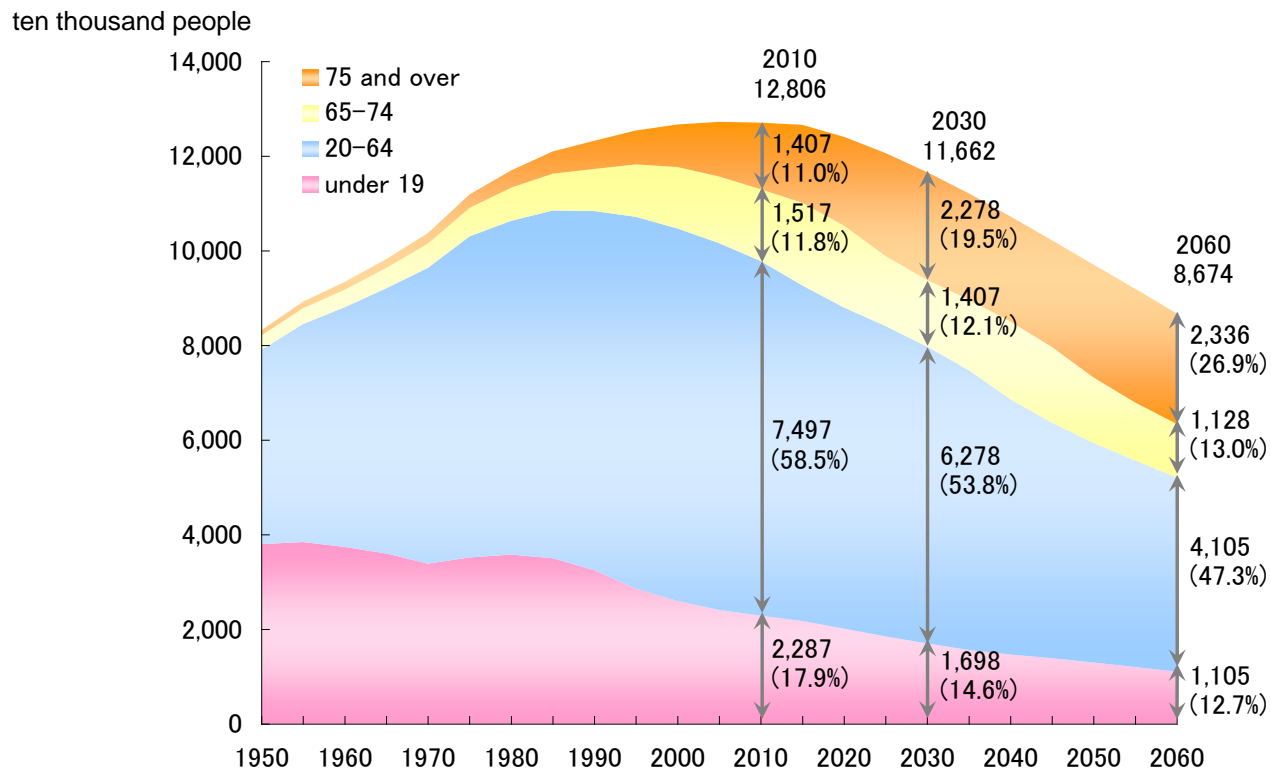
- Demographic Trends in Japan
- Effects of Declining Birthrate and Aging Society on Life Insurance
- Business Case Studies of Declining Birthrate and Aging Society in Japan

Demographic Trends in Japan

Population Trends in Japan

- Japan faces a dramatic population decrease due to the declining birthrate and aging population
 - Japan's population will have shrunk by 30% by 2060
 - People aged 65 and older will account for 40% of the total population

Fig. Actual and projected population of Japan by age, 1950-2060

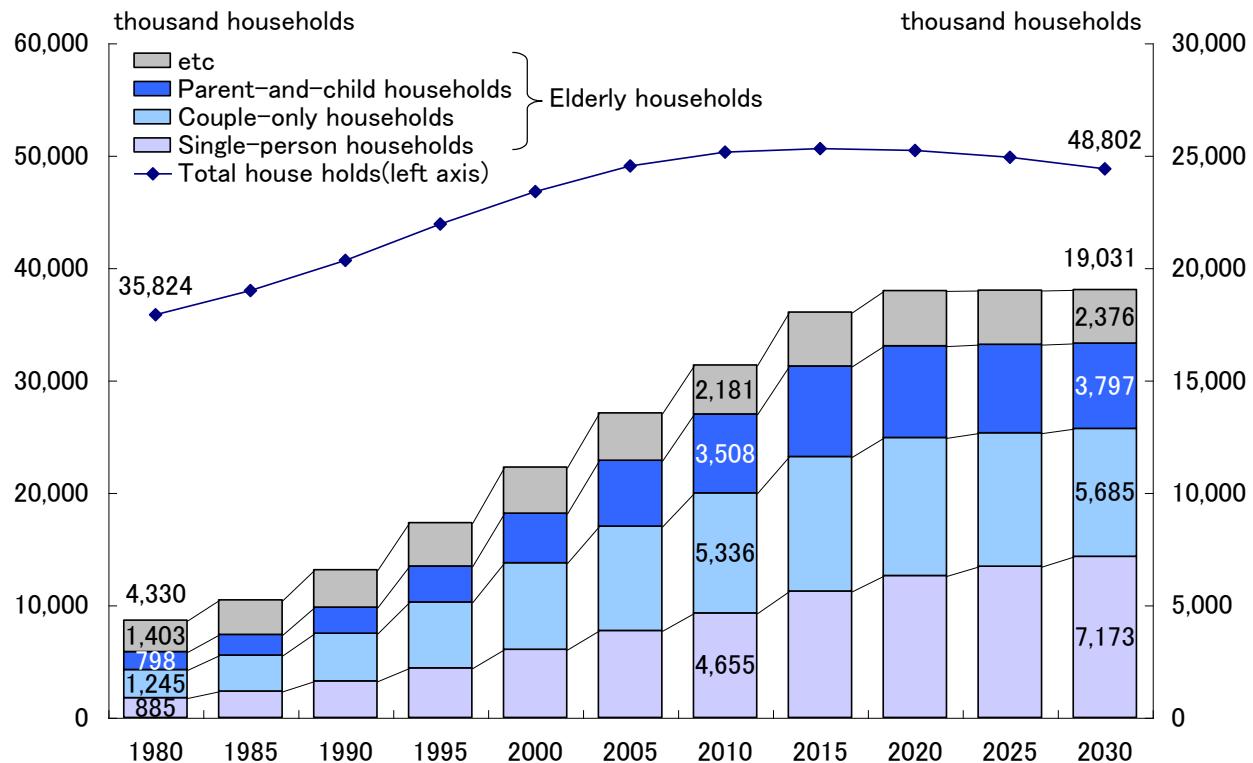


Source: National Institute of Population and Social Security Research, 2011, Ministry of Internal Affairs and Communications in Japan, 2010

Trends of Elderly households in Japan

- Elderly households will account for 40% of the total households in Japan by 2030
- Single elderly households have been increasing

Fig. Actual and projected number of total households (left axis) vs. elderly households broken down by household type (right axis) in Japan, 1980-2030

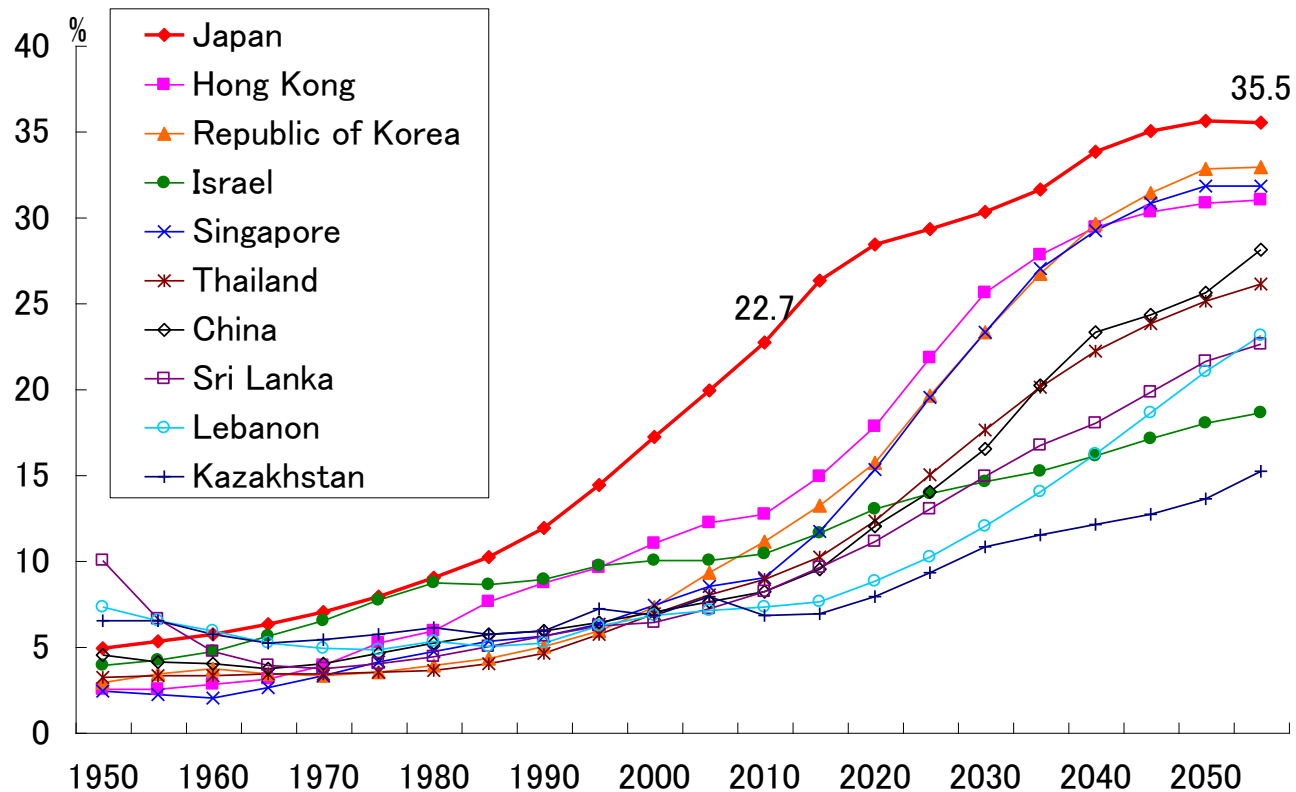


Source: Government of Japan, 2011

Trends of Elderly population in Asia

- Japan has the highest percentage of elderly people in Asia

Fig. Actual and projected percentage of elderly people in Asia : the 10 highest countries in 2010, 1950-2055



Source: United Nations, 2010

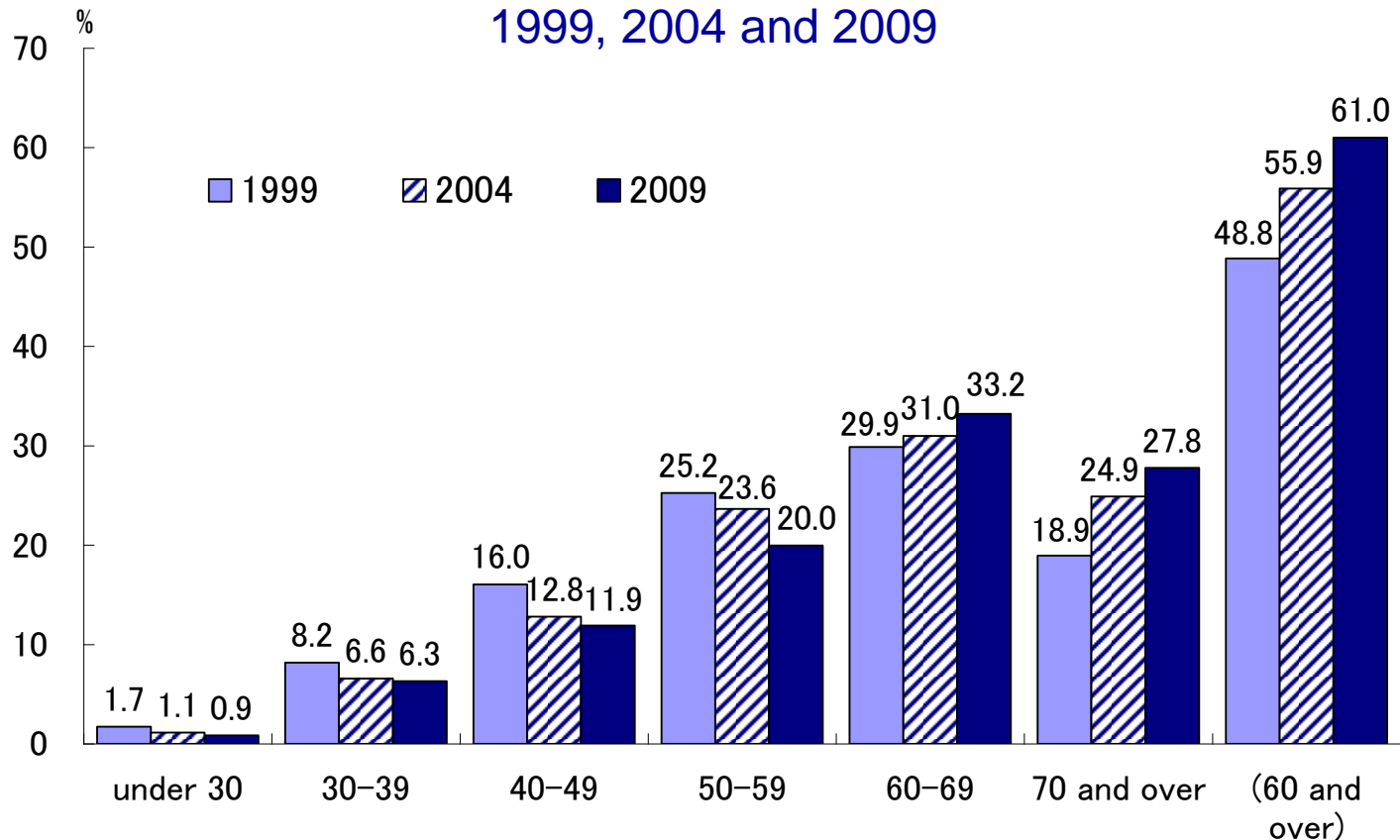
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6 Trends of Households Financial Assets in Japan



- Over 60% of Japan's 1,500 trillion yen of household financial assets are held by elderly households

Fig. Proportion of household financial assets by age in Japan, 1999, 2004 and 2009



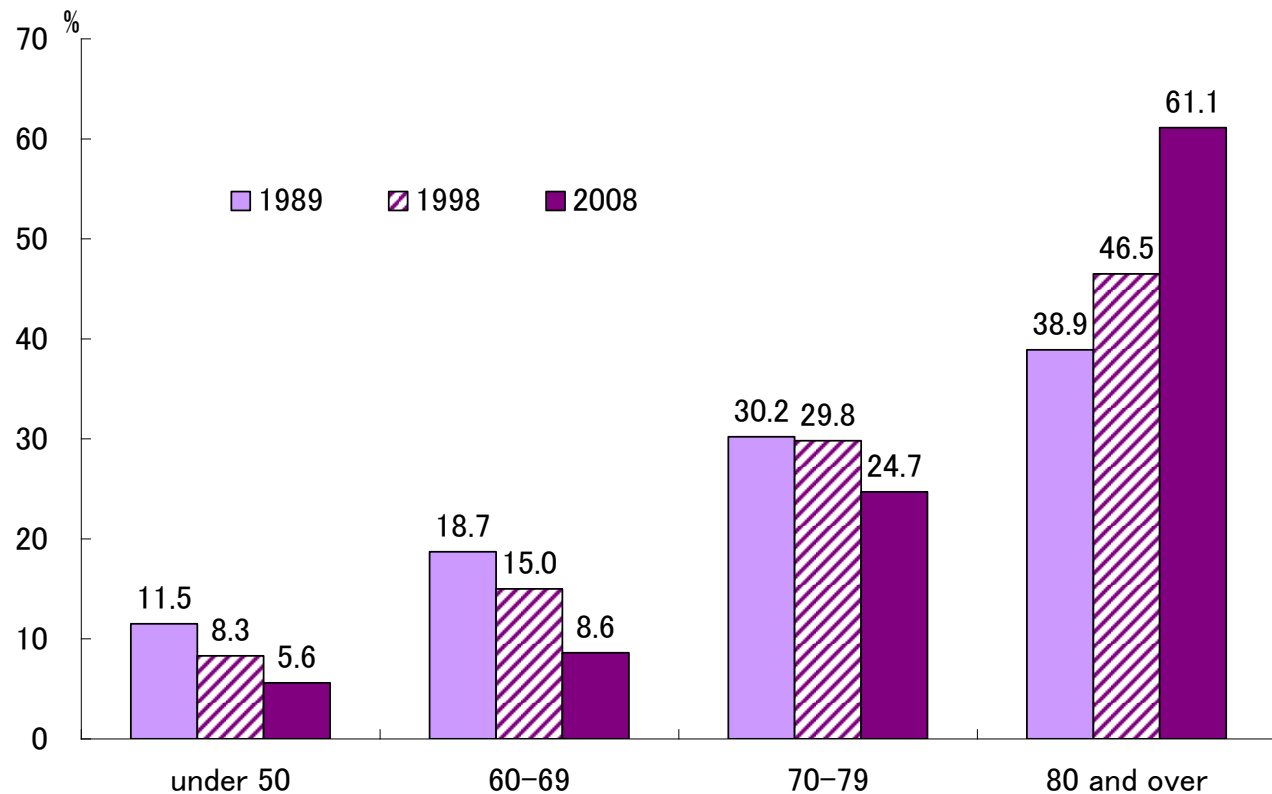
Source: Ministry of Internal Affairs and Communications, 1999, 2004 and 2009

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Inheritance Trends in Japan

- Over 60% of Japan's inheritances is received by people aged 80 and over

Fig. Proportion of inheritance by age in Japan, 1989, 1998 and 2008

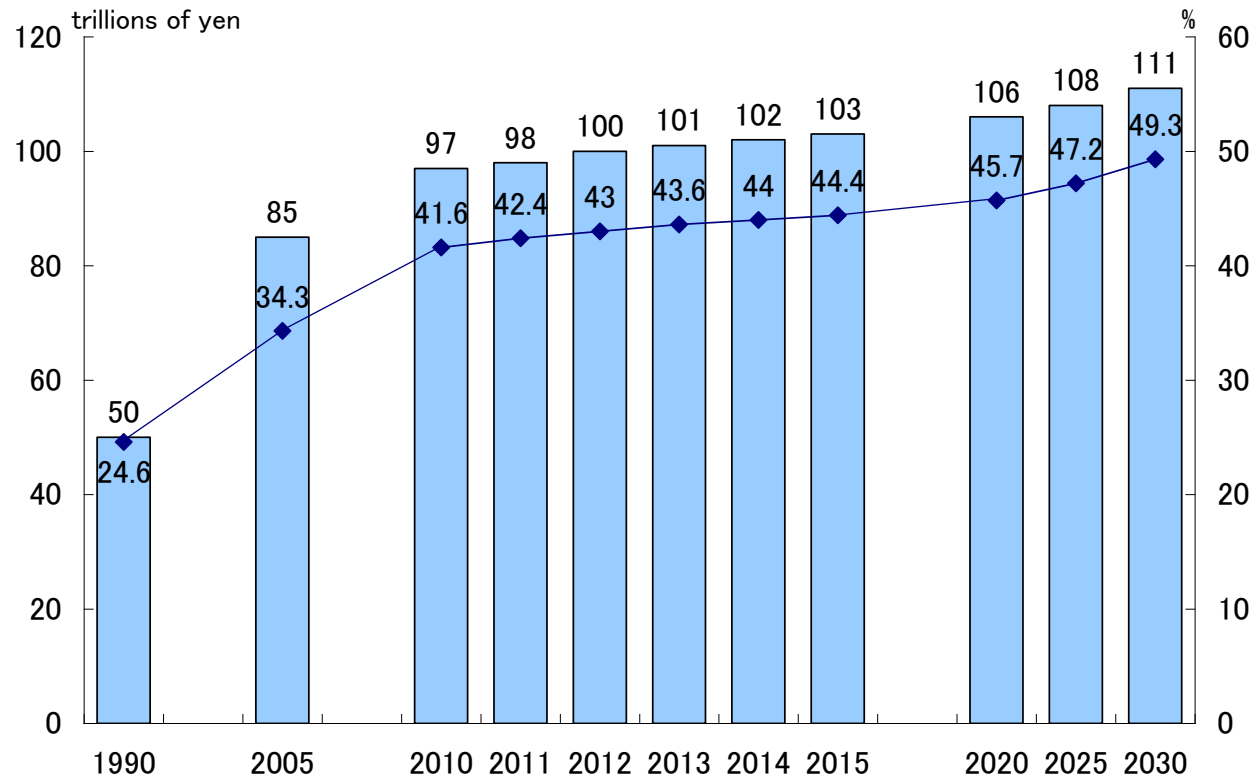


Source: The Tax Commission, Cabinet Office, Government of Japan

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■ Consumption by elderly exceeded 100 trillion yen in Japan

Fig. Actual and projected consumption by elderly(left axis) and consumption by elderly rate (right axis), 1990-2030



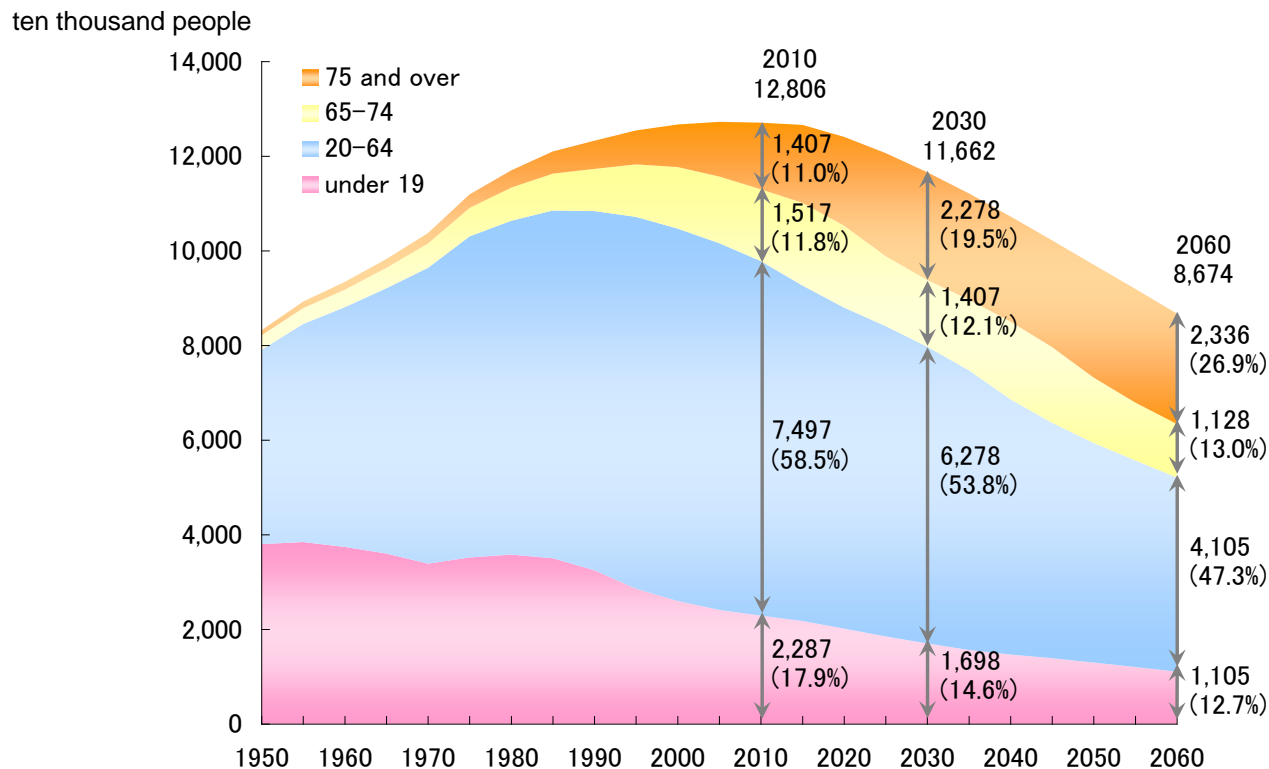
Source: NLI research Institute, 2013

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Declining Birthrate in Japan

- Japan faces a dramatic population decrease due to the declining birthrate and aging population
 - Japan's population will have shrunk by 30% by 2060
 - People aged 65 and older will account for 40% of the total population

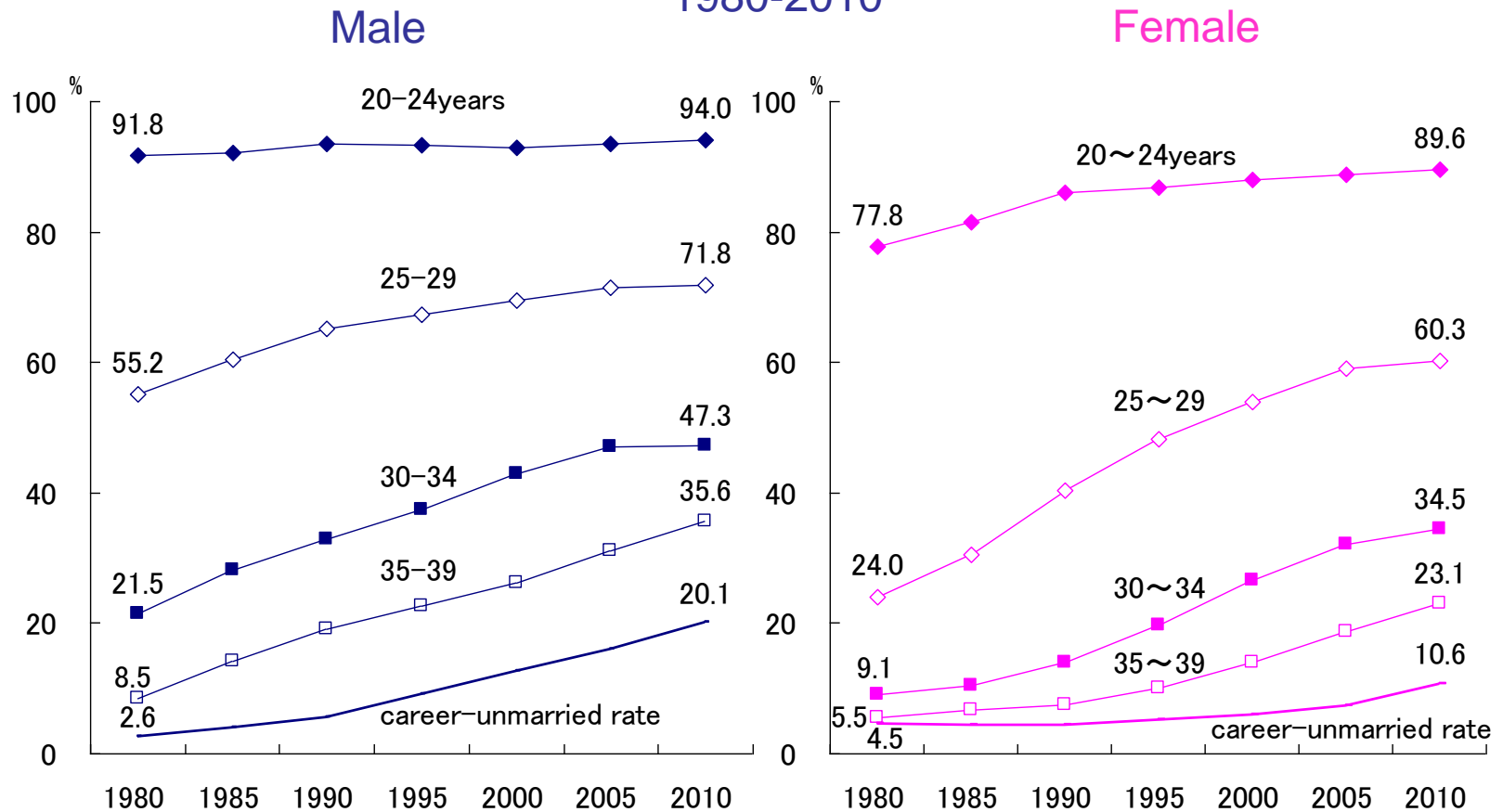
Fig. Actual and projected population of Japan by age, 1950-2055



Source: National Institute of Population and Social Security Research, 2011, Ministry of Internal Affairs and Communications in Japan, 2010

■ Rate of unmarried people has been rising in Japan

Fig. Rate of unmarried people in Japan by age and gender, 1980-2010

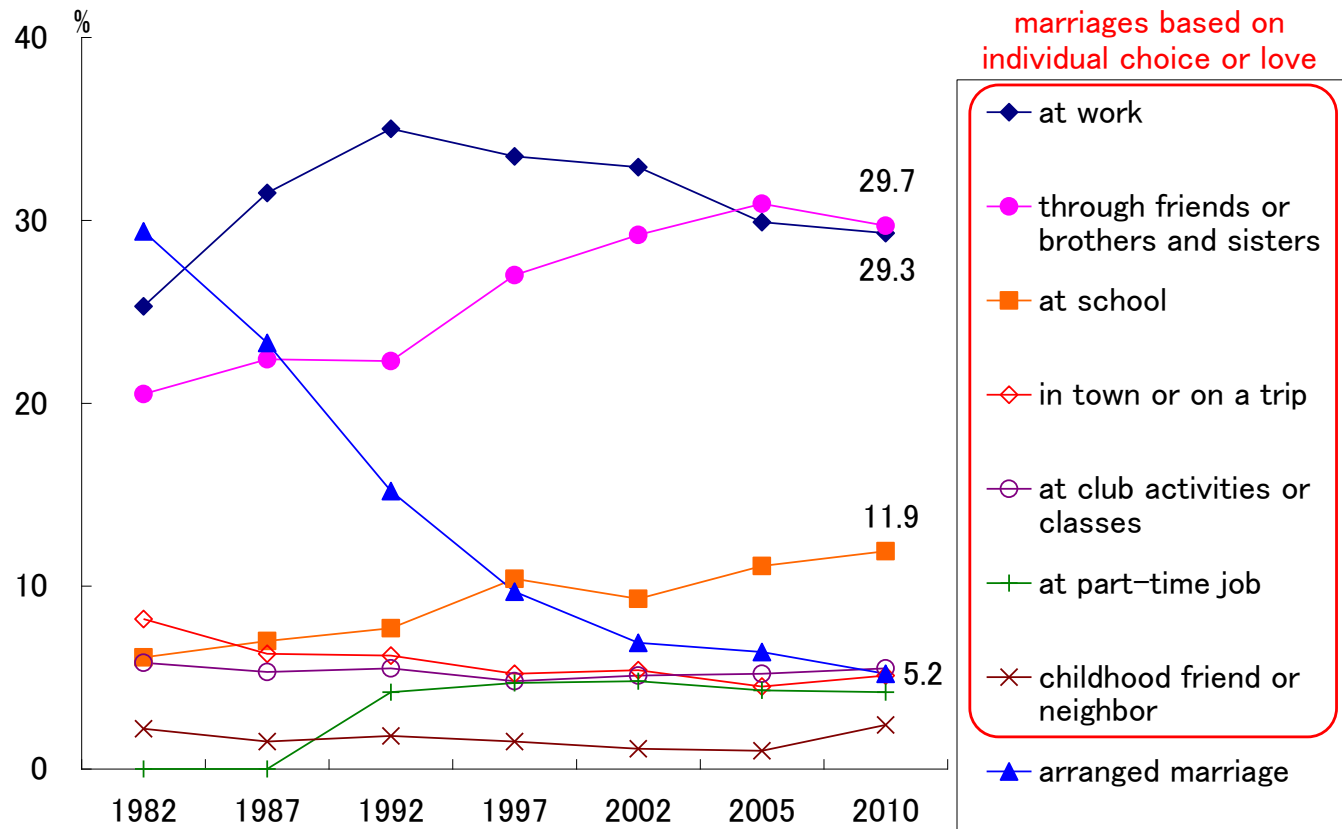


Source: National Institute of Population and Social Security Research, 2011

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- Number of arranged marriages has been decreasing, and currently 90% of marriages are based on individual choice or love

Fig. Rate of encounter of marriage in Japan, 1982-2010



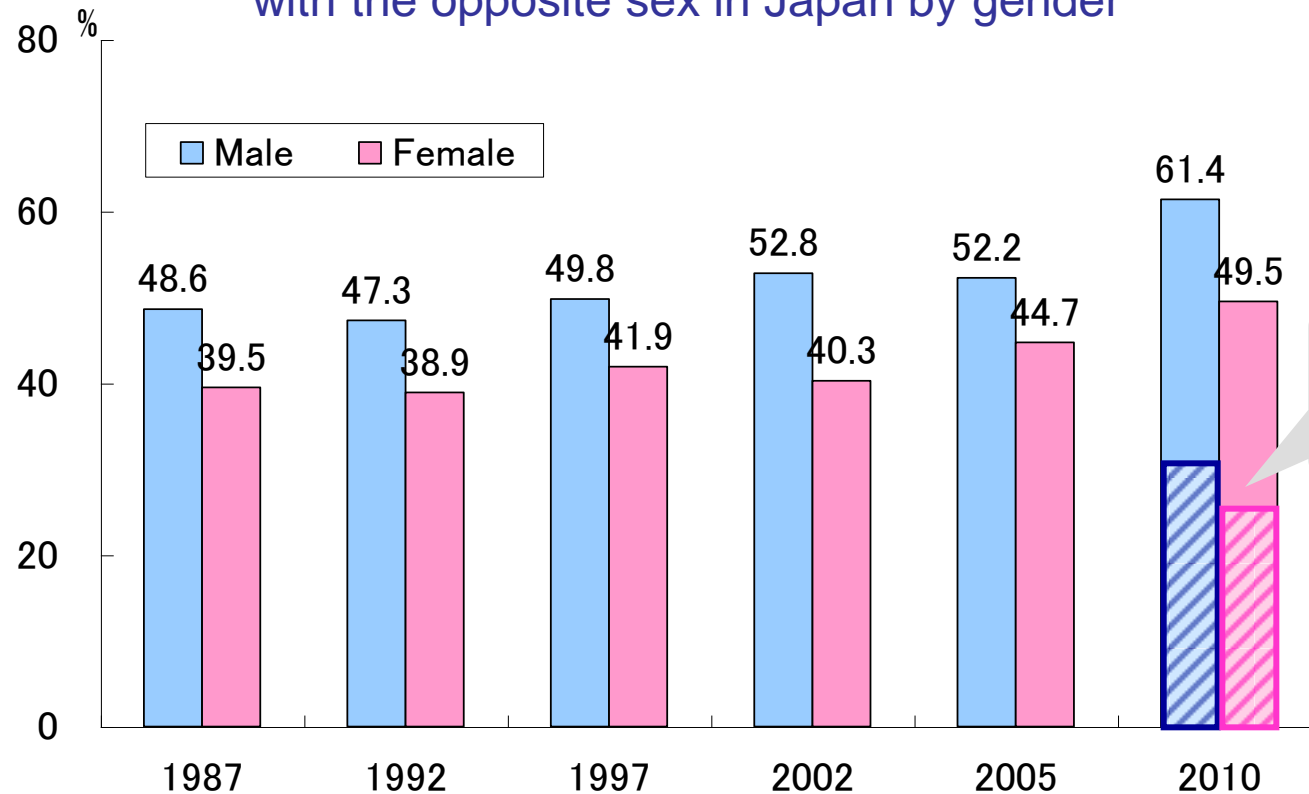
Source: National Institute of Population and Social Security Research, 2011

Background on Declining Birthrate in Japan



- Dating with the opposite sex has been turning negative
- “Herbivore men” and single women have been increasing in Japan

Fig. Percentage of unmarried men and women not dating with the opposite sex in Japan by gender



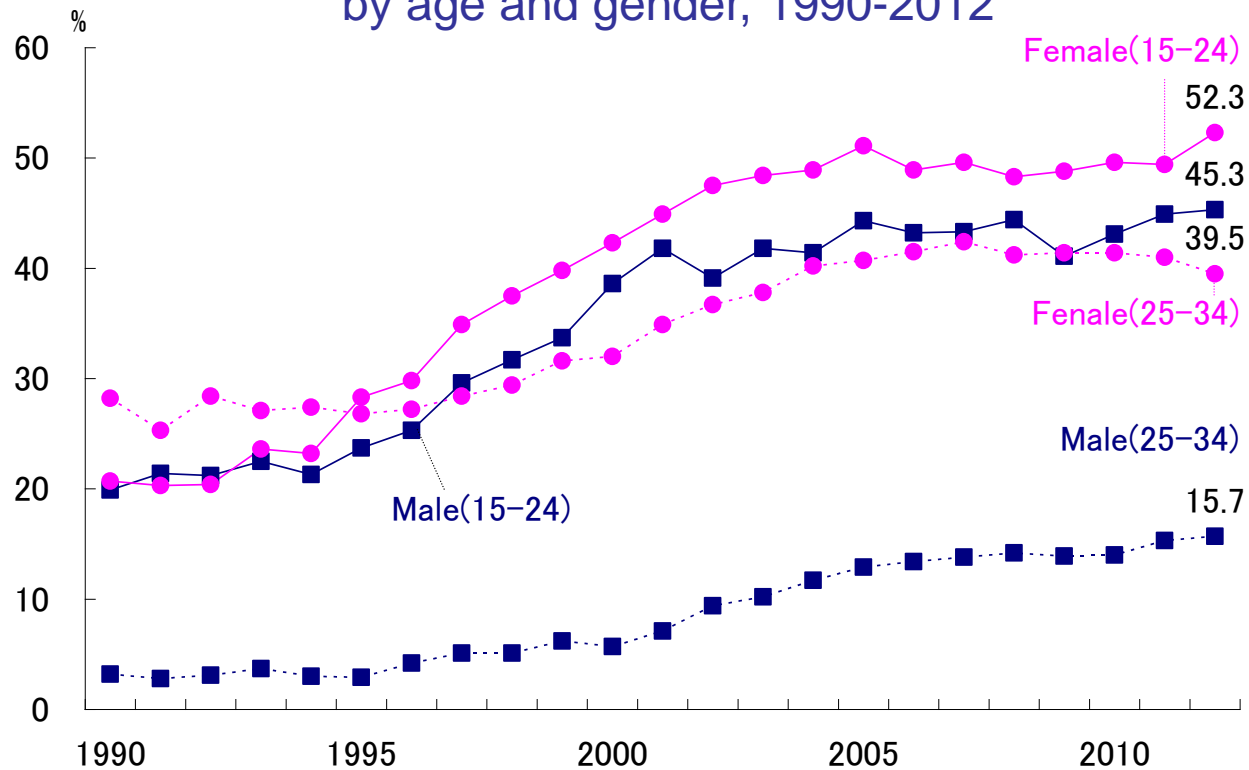
About 50% of them have no interest in dating

Source: National Institute of Population and Social Security Research, 2011

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- From the late 1990's, the rate of temporary employment of young people has been increasing in Japan, and recently about 50% of people in their 20s are in temporary employment

Fig. Rate of temporary employment of young people in Japan by age and gender, 1990-2012

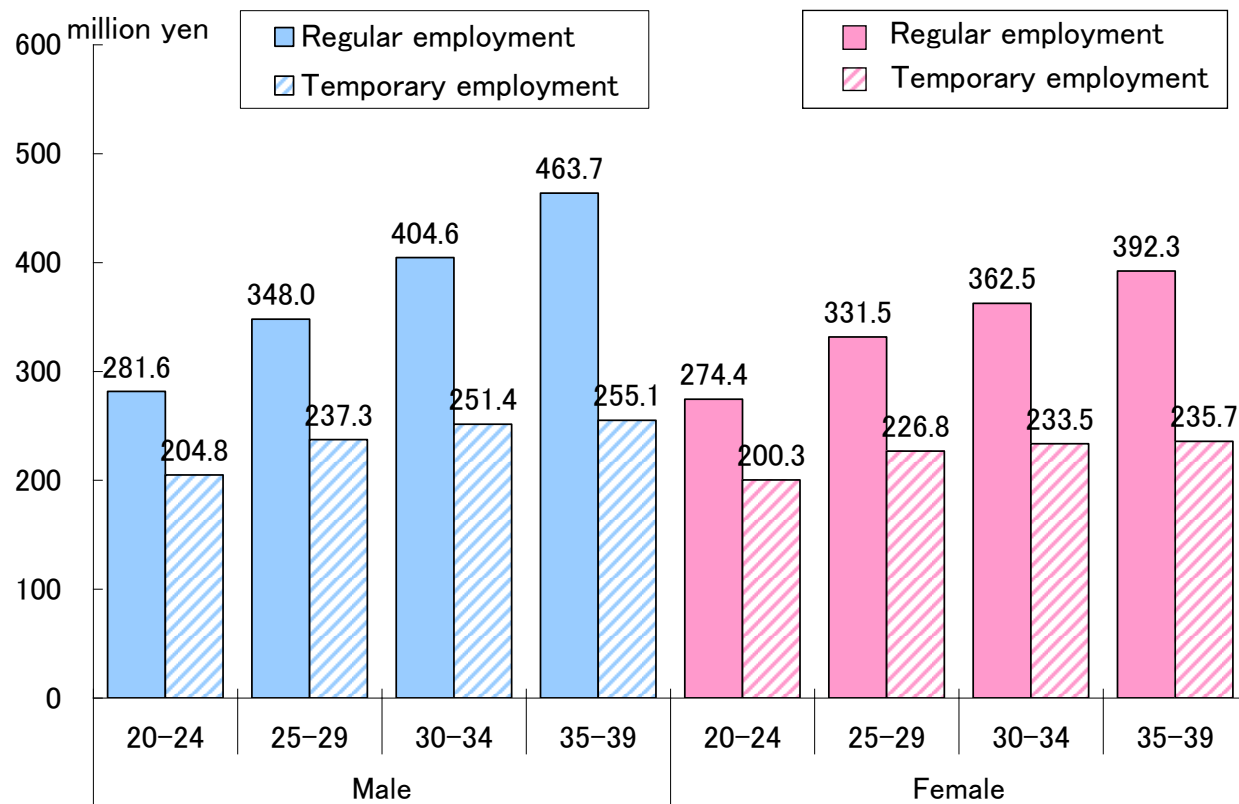


Source: National Institute of Population and Social Security Research, 2011

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- Difference between annual income of regular employment and temporary employment is increasing with age

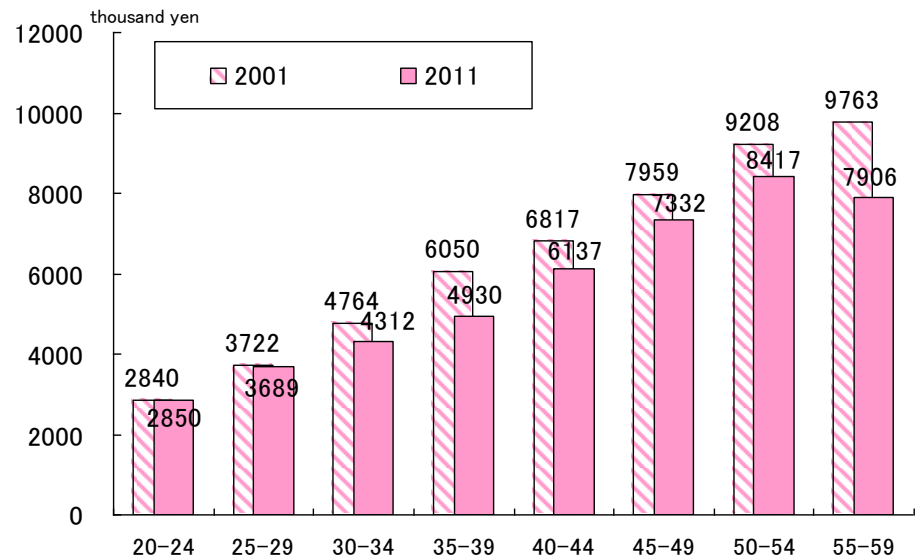
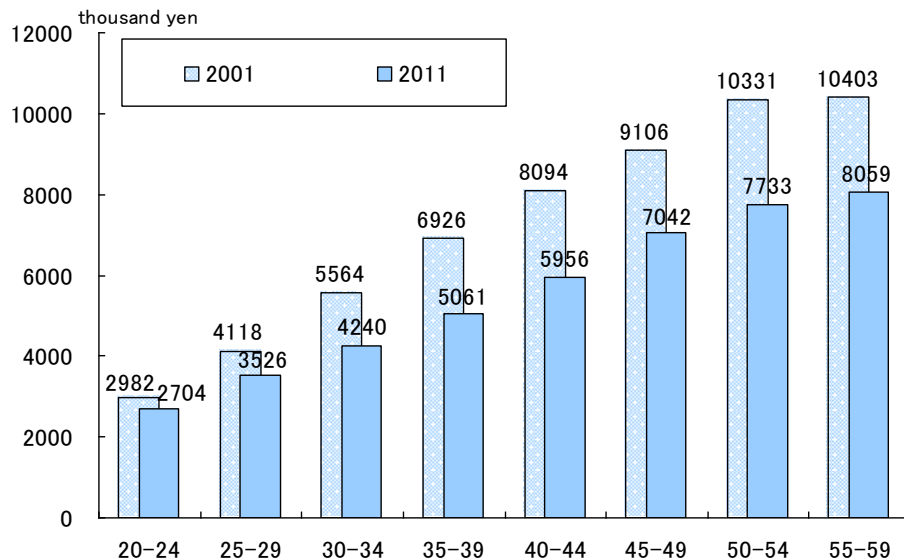
Fig. Annual income of employment by employment condition, age and gender, 2012



Source: Ministry of Health, Labor and Welfare, 2012

- Due to the decrease of annual income growth with age, it become difficult for young people to feel reassured about their future income

Fig. Annual income of standard worker by age and gender, in 2001 and 2011

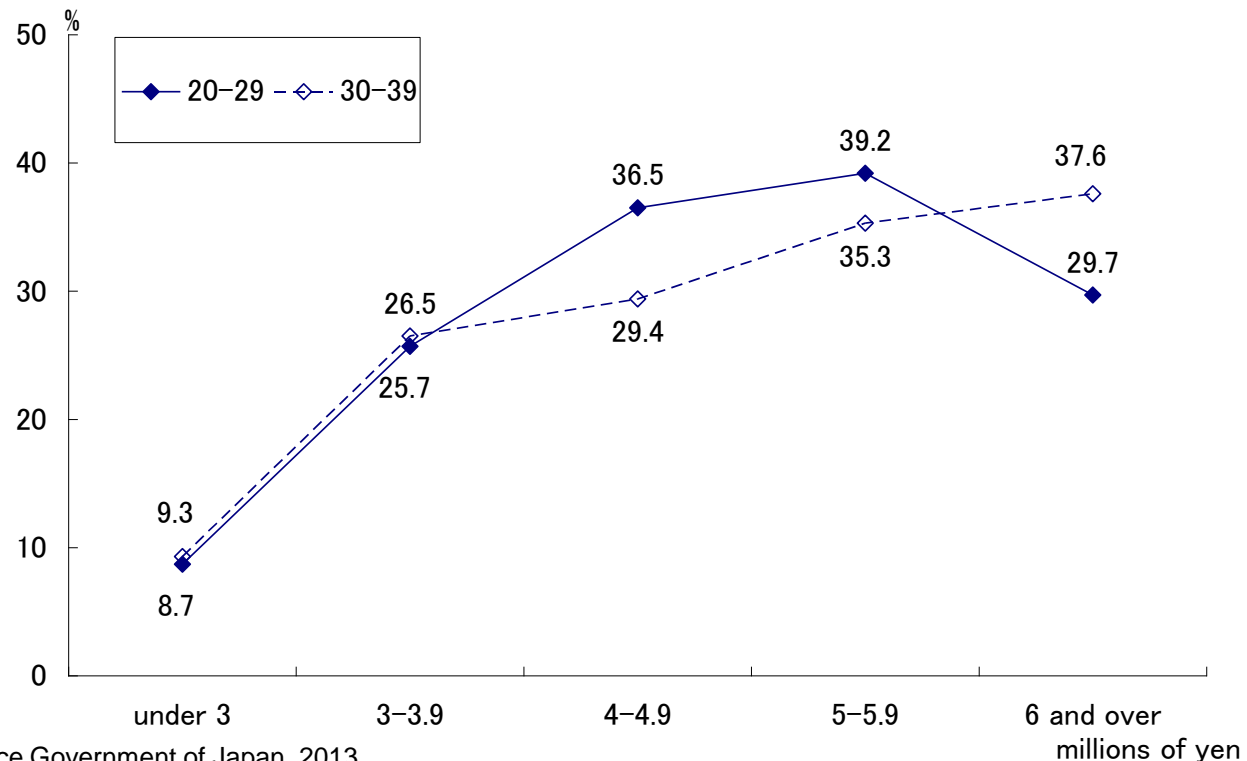


*standard worker : employees who continue to work at same company since graduation

Source: Ministry of Health, Labor and Welfare, 2012

- Marriage rate is proportional to annual income.
- Income of less than 3 million yen presents an obstacle to having a family

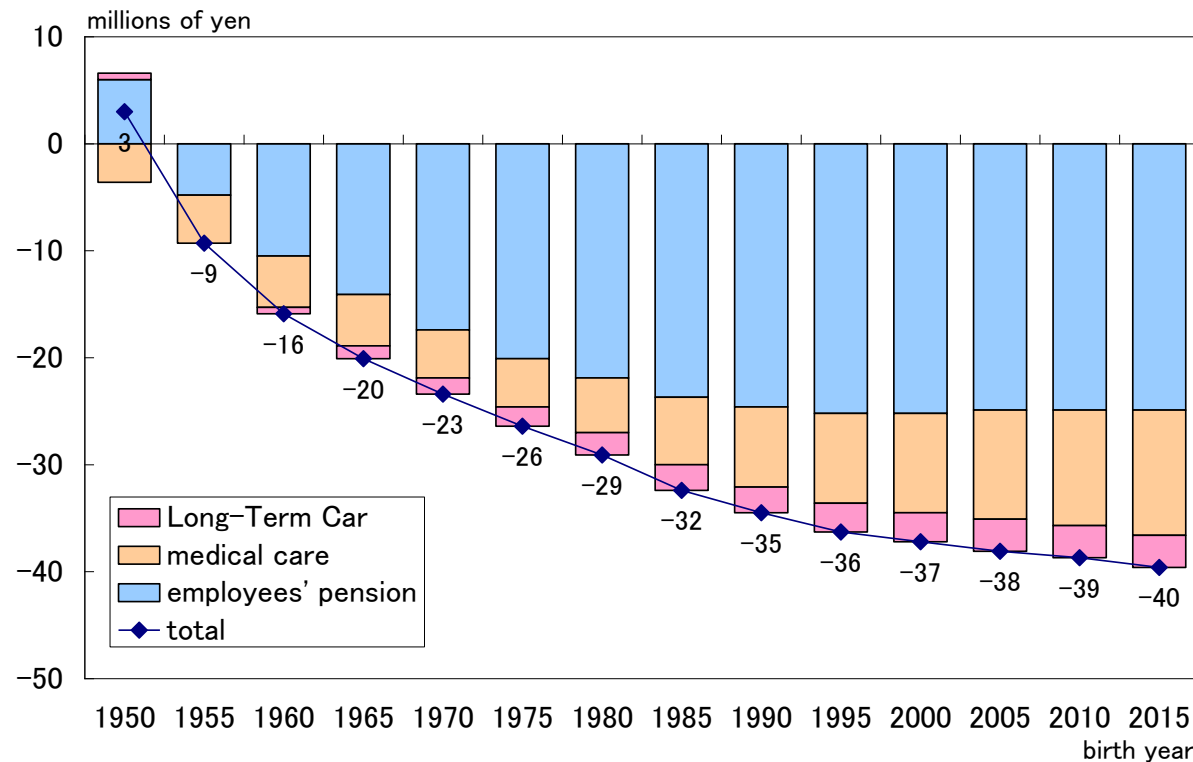
Fig. Male's marriage rate by age and annual income, 2011



Source: Cabinet Office Government of Japan, 2013

- Social security benefits loss among those born after 1950. Loss increases year by year

Fig. Generation gap of benefits and burdens of social security system
: Value obtained by subtracting the life insurance premiums from lifetime service entitlements



Source: Tokyo newspaper, 2012/5/31

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Background on Declining Birthrate in Japan

- Average age of first marriage has been increasing
- Birth rate has been decreasing

Fig. Average age of the first marriage in Japan by gender, 1950-2011

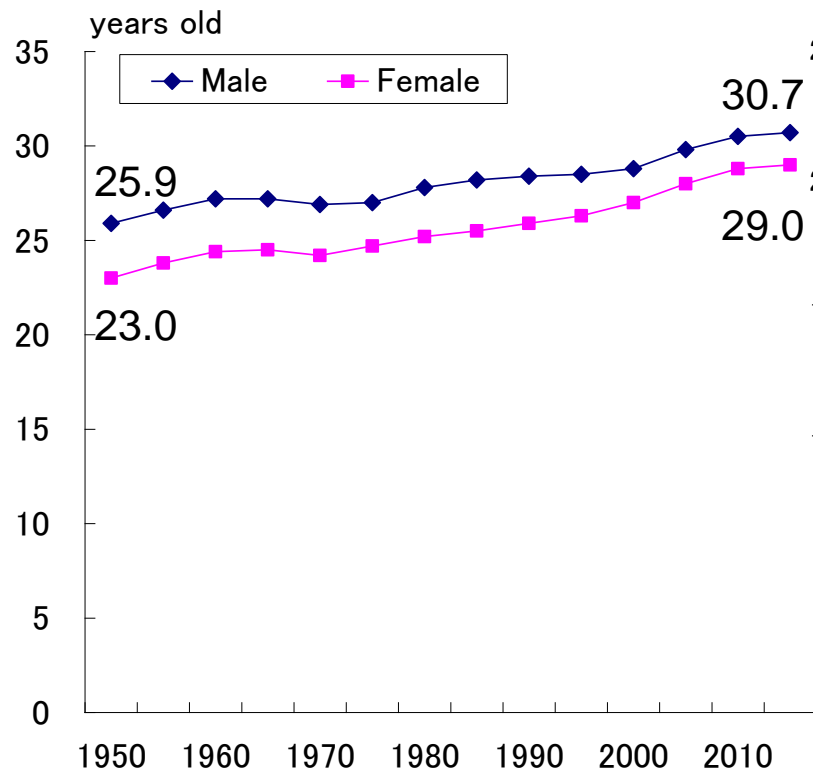
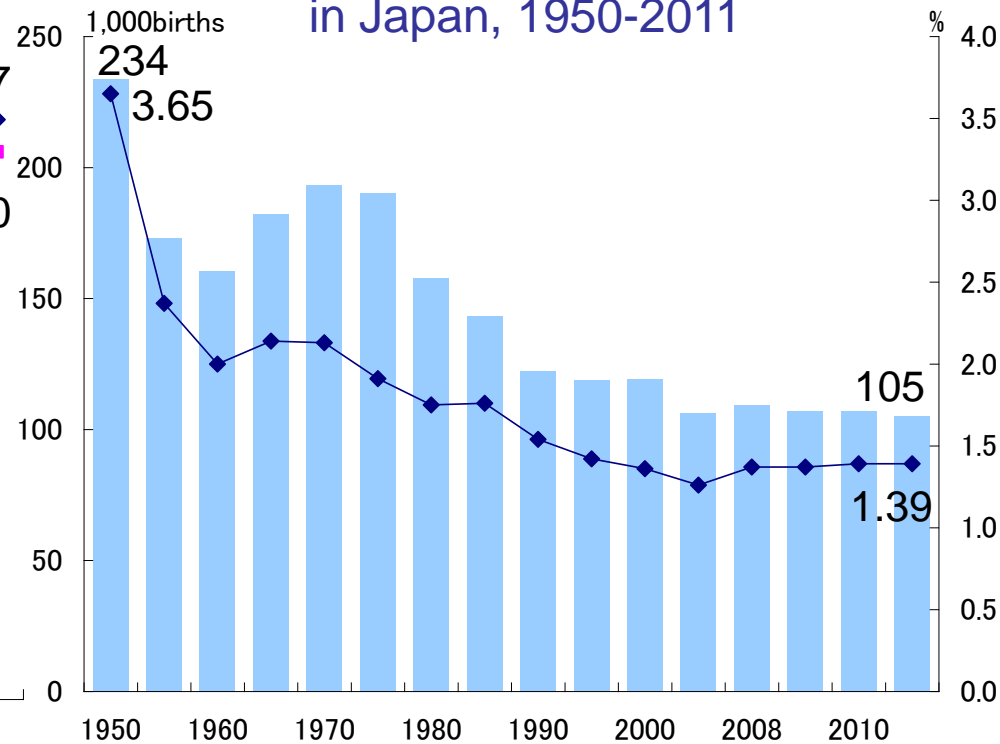


Fig. Number of births (left axis) vs. the total fertility rate (right axis) in Japan, 1950-2011

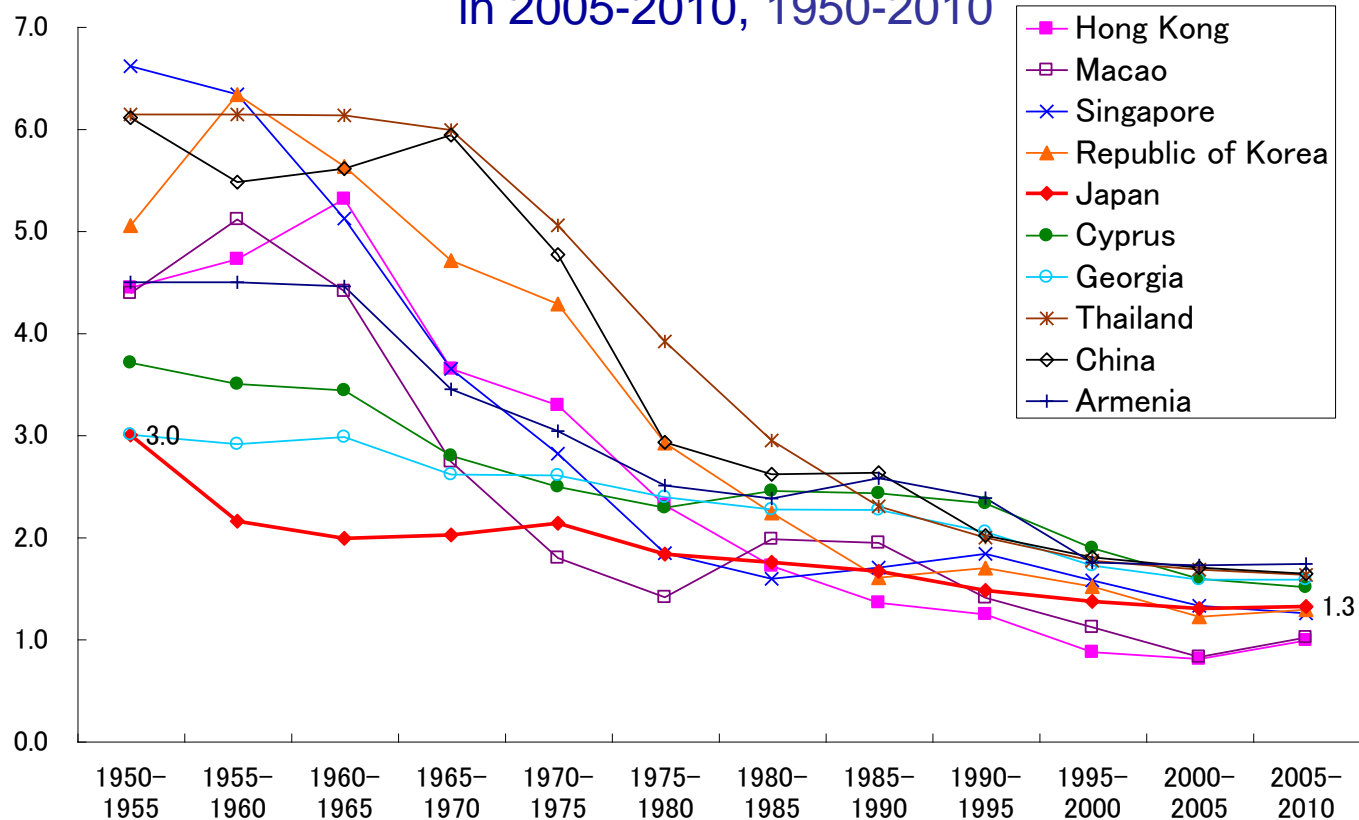


Source: Ministry of Health, Labor and Welfare, 2011, National Institute of Population and Social Security Research, 2011

Background on Declining Birthrate in Japan

- Though Japan had the lowest birth rate, recently the birth rates of Hong Kong, Macao, Singapore and Republic of Korea have been lower than that of Japan

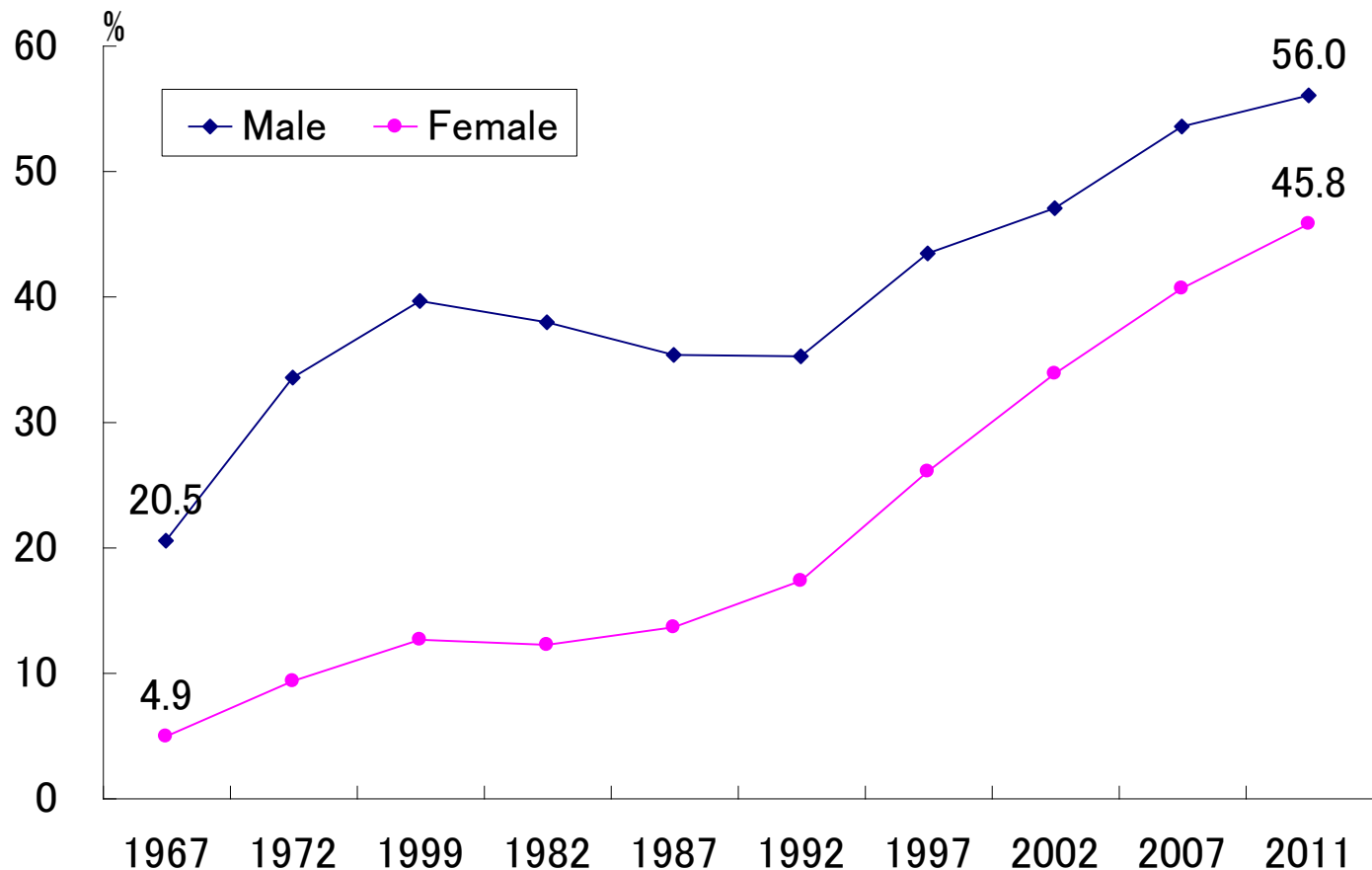
Fig. Actual total fertility rate in Asia: the 10 lowest countries in 2005-2010, 1950-2010



Source: United Nations, 2010

- Female college enrollment rate has been rising in Japan

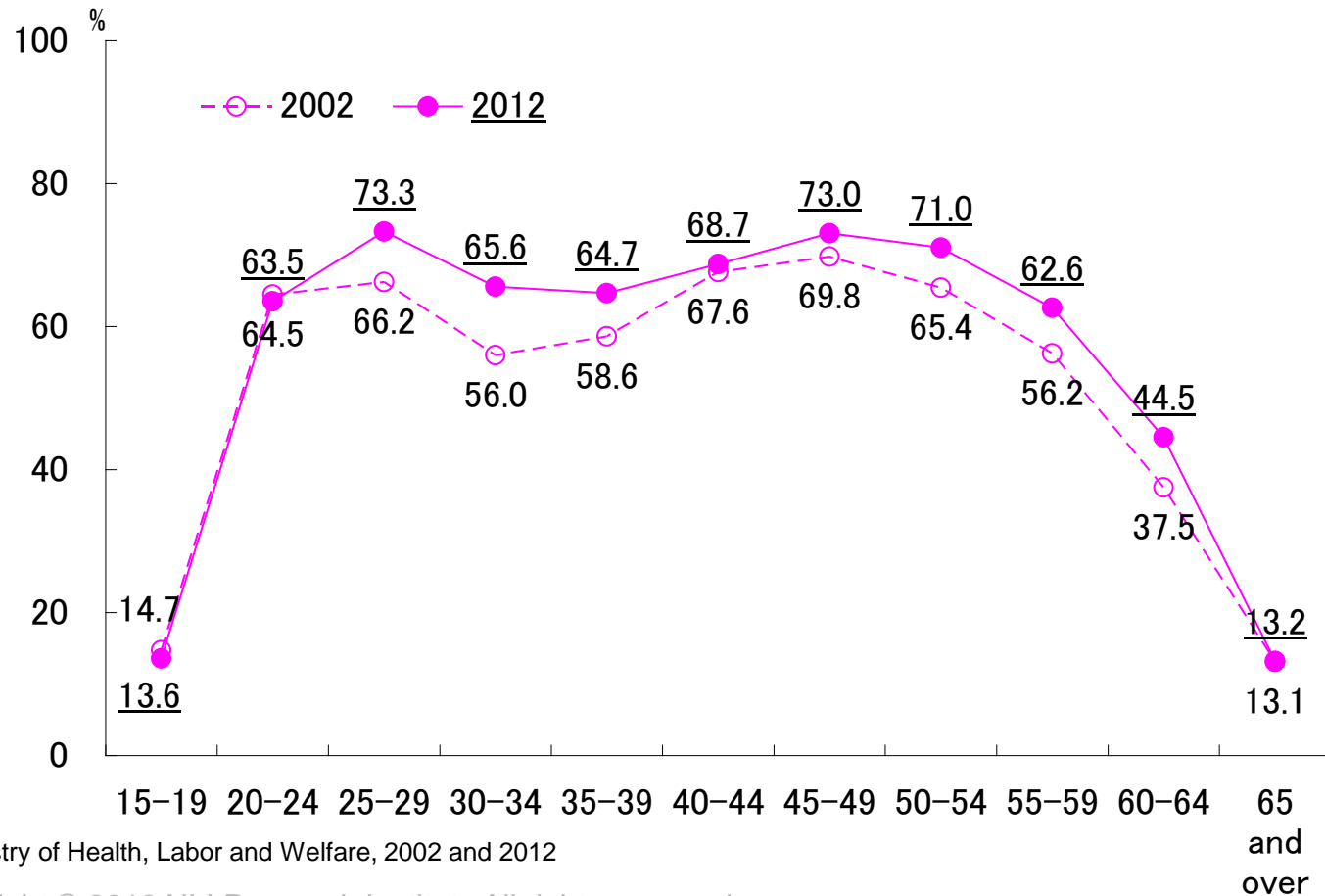
Fig. College enrollment rate in Japan by gender



Source: Ministry of Education, Culture, Sports, Science & Technology in Japan, 2012

- Female employment rate in age group 25 to 39 has increased

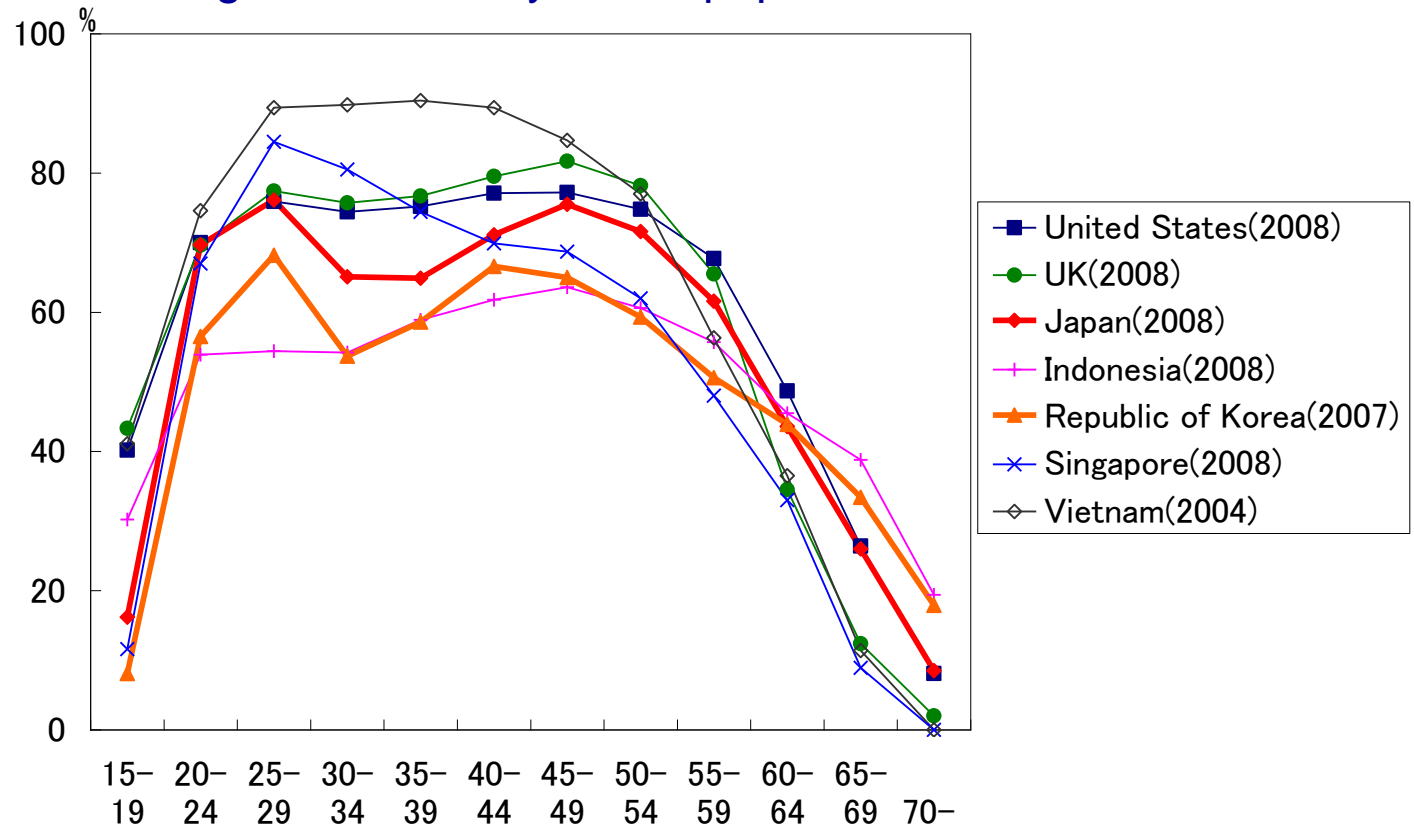
Fig. Female employment rate in Japan, 2002 and 2012



Source: Ministry of Health, Labor and Welfare, 2002 and 2012

- Female employment rate in age group 25 to 39 of Japan and Republic of Korea dip

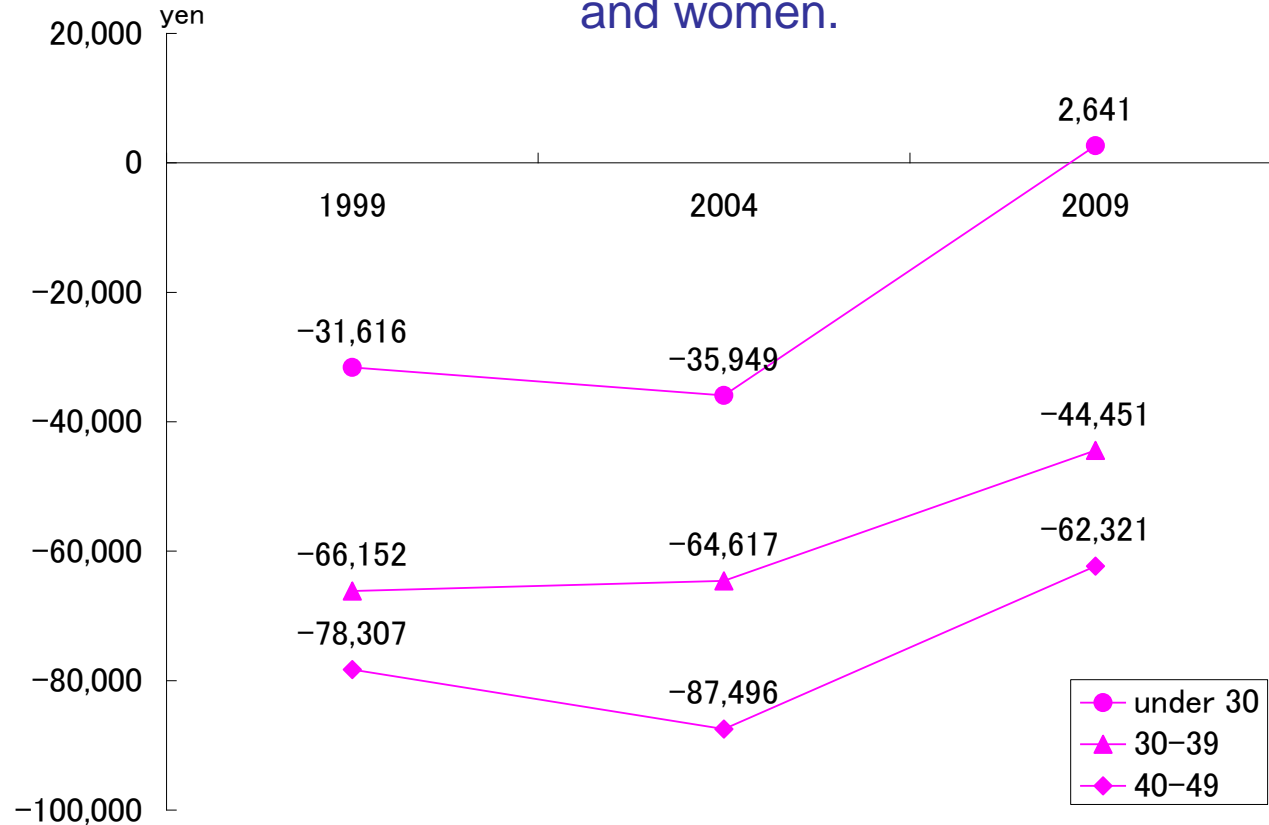
Fig. Economically active population rate of women



Source: Ministry of Internal Affairs and Communications in Japan,2013

- Difference of disposable income between sexes has been decreasing

Fig. Difference of disposable income between employed single men and women.

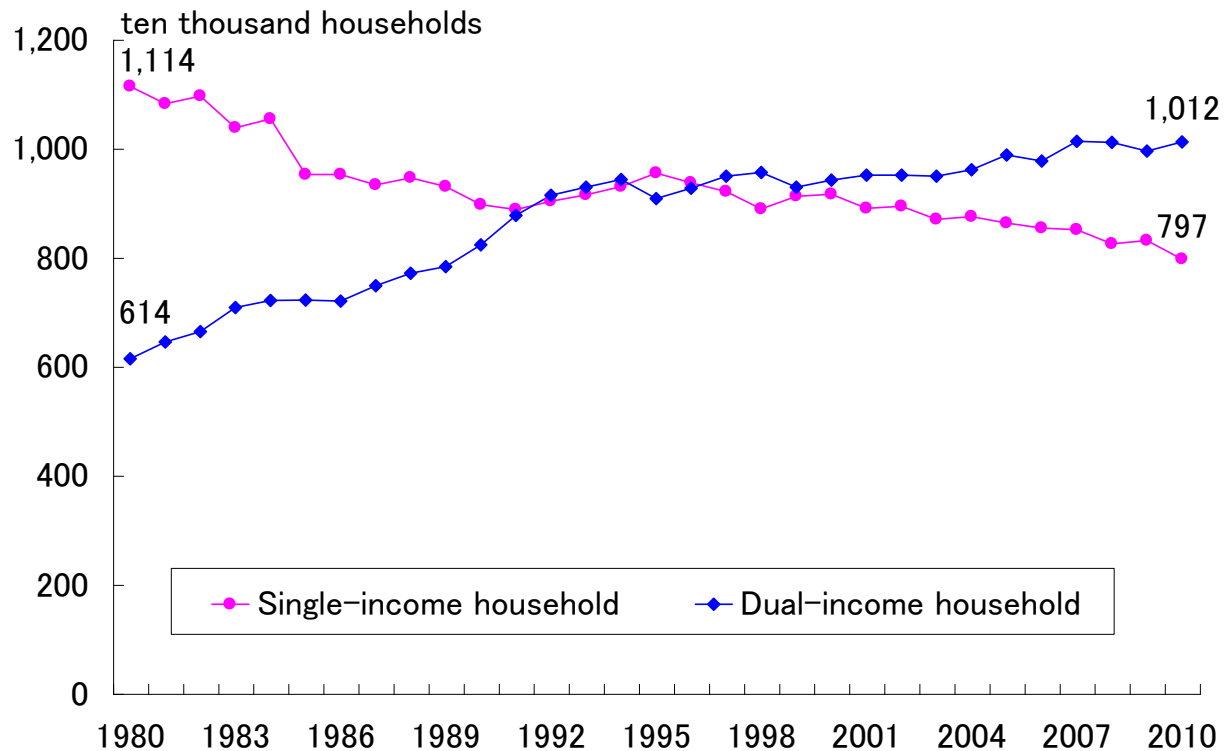


Source: Ministry of Internal Affairs and Communications, 1999, 2004 and 2009

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- The number of dual-income households has surpassed that of single-income households with a housewife in Japan since around 1995 due to rising female college enrollment rate and the recession

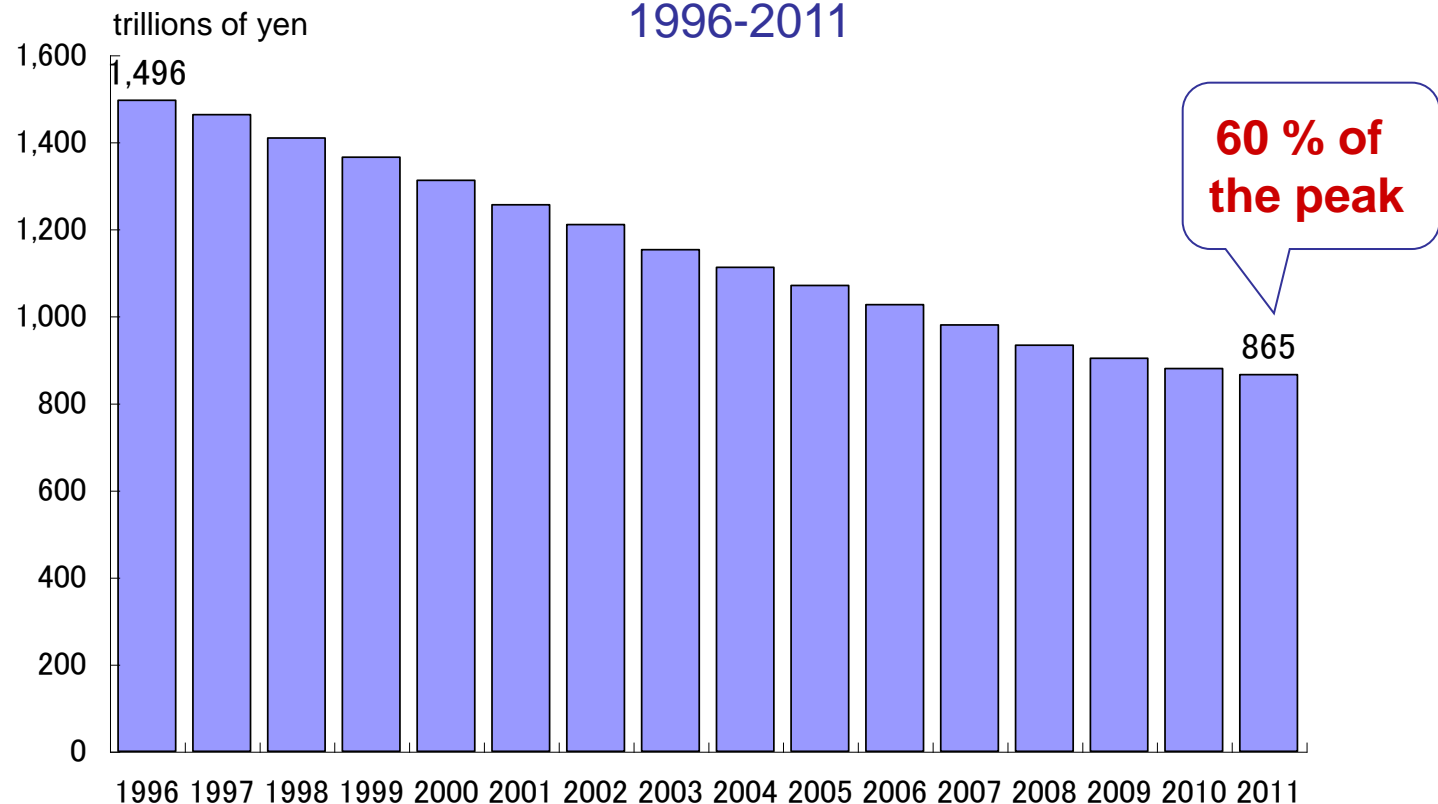
Fig. Number of single-income households with a housewife and dual-income households in Japan, 1980-2011



Effects of the Declining Birthrate and Aging Society on Life Insurance

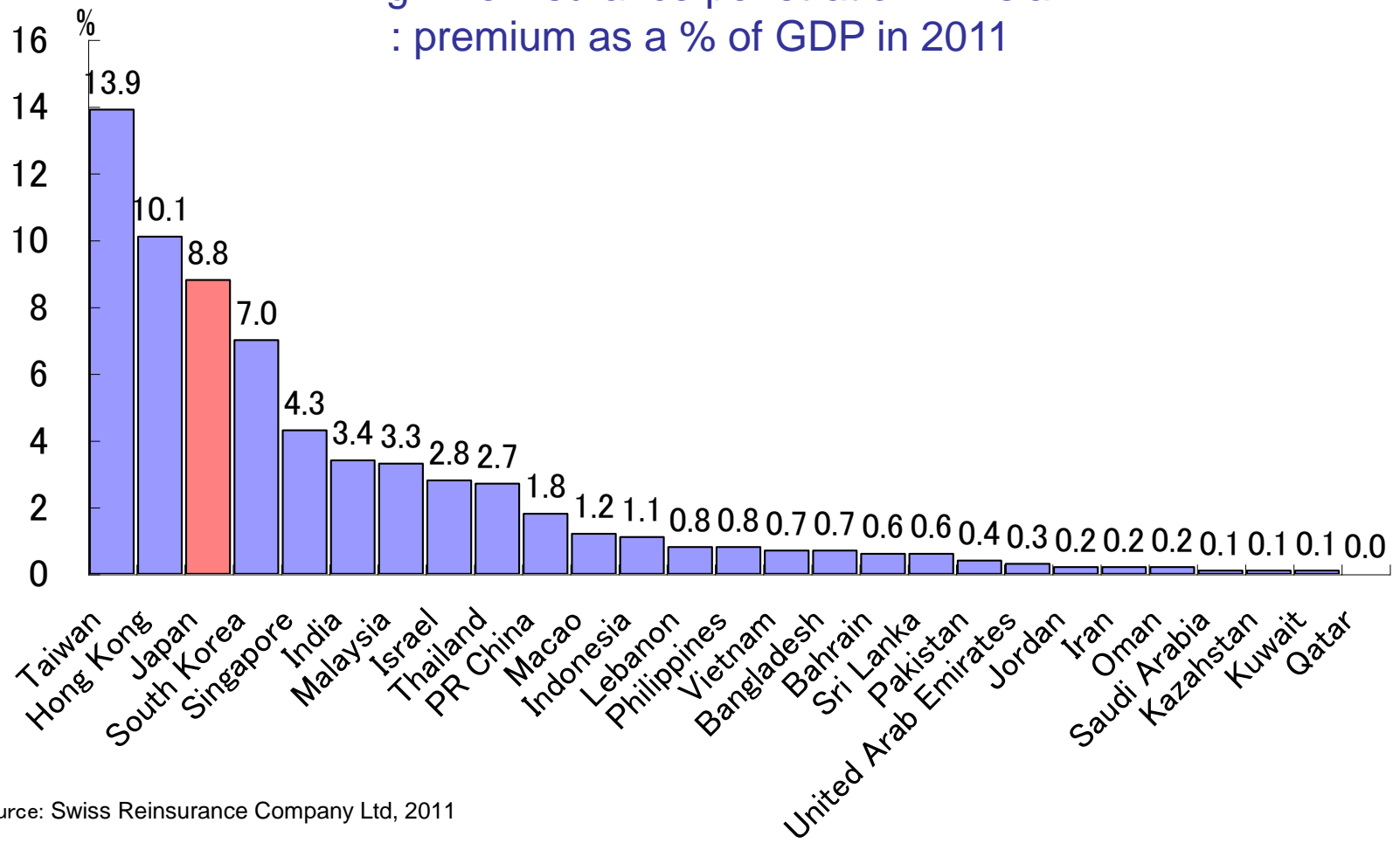
- **Japan's life insurance market has been shrinking** due to the declining population, declining birth rate, tendency of late marriage and rising unmarried rate

Fig. Amount of policies in force of individual life insurance in Japan, 1996-2011



- The life insurance penetration in Japan is higher than in almost all other Asian countries

Fig. Life insurance penetration in Asia
: premium as a % of GDP in 2011



- **How large will the market size be?**

Based on the projected population shrinking by 30% by 2055, it is estimated that the size of Japan's life insurance market will shrink accordingly.

- We try to estimate the number and amount of individual life insurance of new policies and policies in force up to 2055.

■ Calculation procedure

● New policies

Number

$$NN_{\text{time,gender,age}} = (NN_{2009,\text{gender,age}} / P_{2009,\text{gender,age}})(P_{\text{time,gender,age}})$$

Amount

$$NA_{\text{time,gender,age}} = (NA_{2009,\text{gender,age}} / P_{2009,\text{gender,age}})(P_{\text{time,gender,age}})$$

Projected population

● Policies in force

Number

$$FN_{\text{time}} = FN_{t-1} + NN_t - DN_{\text{time}}$$

Amount

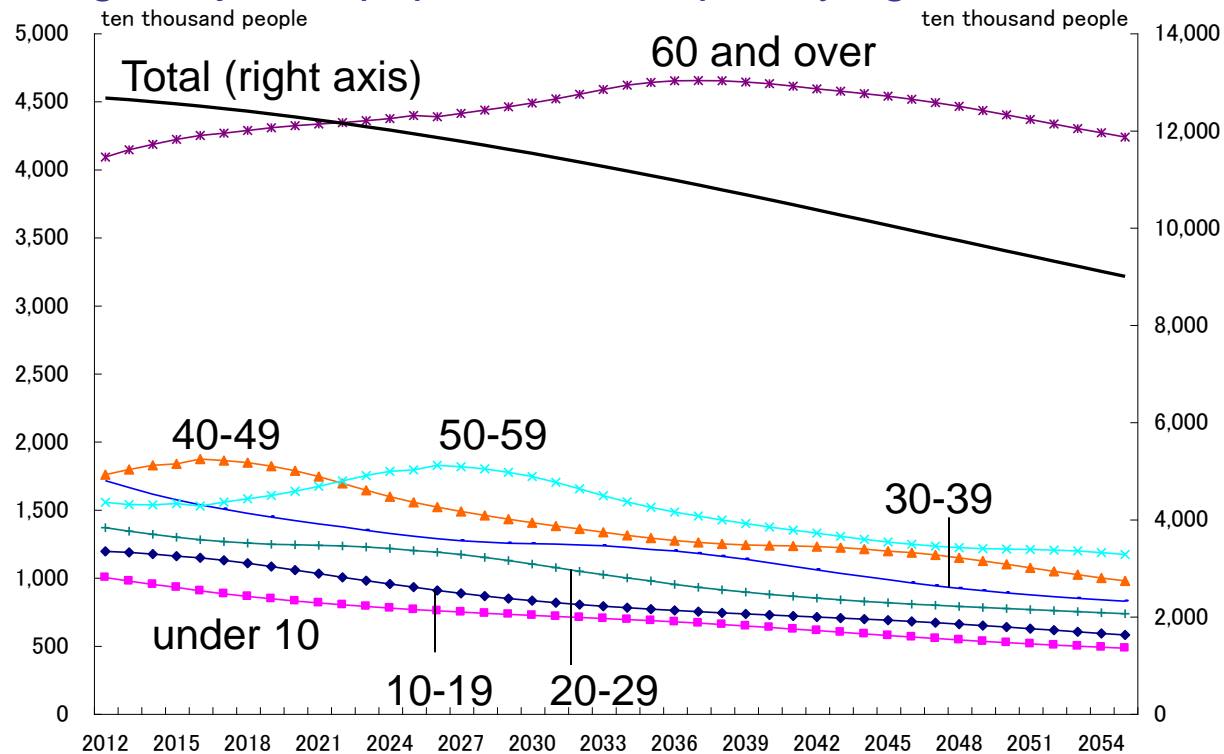
$$FA_{\text{time}} = FA_{t-1} + NA_t - DA_{\text{time}}$$

Cancelled and invalid policies

The actual number and amount of policies in force broken down by age and gender are not available, therefore we calculated only the total number and amount.

- **Total population will decrease to 70% of the present by 2055**
- Population of people under 40 will decrease monotonically
- Population of people over 40 will initially increase due to the influence of the Baby Boomer generation and their children, and then decrease

Fig. Projected population of Japan by age, 2012-2055





- The number of new policies will decrease by 40% by 2055
 - People under 40 make up a high percentage of the number of new policies. Therefore the decrease in the population of people under 40 will influence the total number of new policies.
- The age composition will shift towards the older age range

Fig. Projected number of new policies of individual life insurance in Japan, 2012-2055

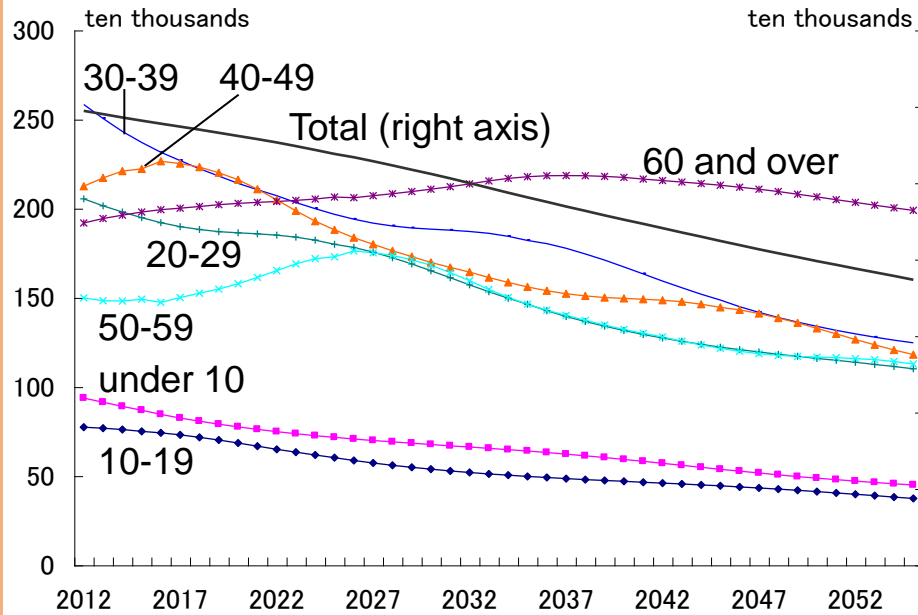
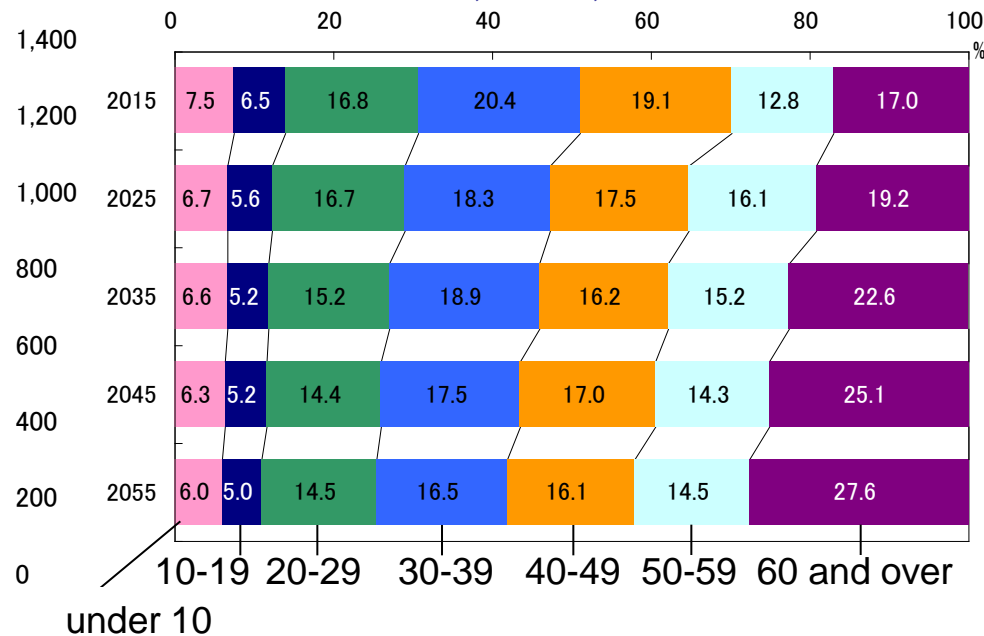


Fig. Age composition of new policies of individual life insurance in Japan, 2015 vs. 2025, 2035, 2045 and 2055





- The small population size of young people who tend to make higher volume policies will decrease by 50% by 2055
- The age composition will be older, but not so much compared with the number of policies

Fig. Projected amount of new policies of individual life insurance in Japan, 2012-2055

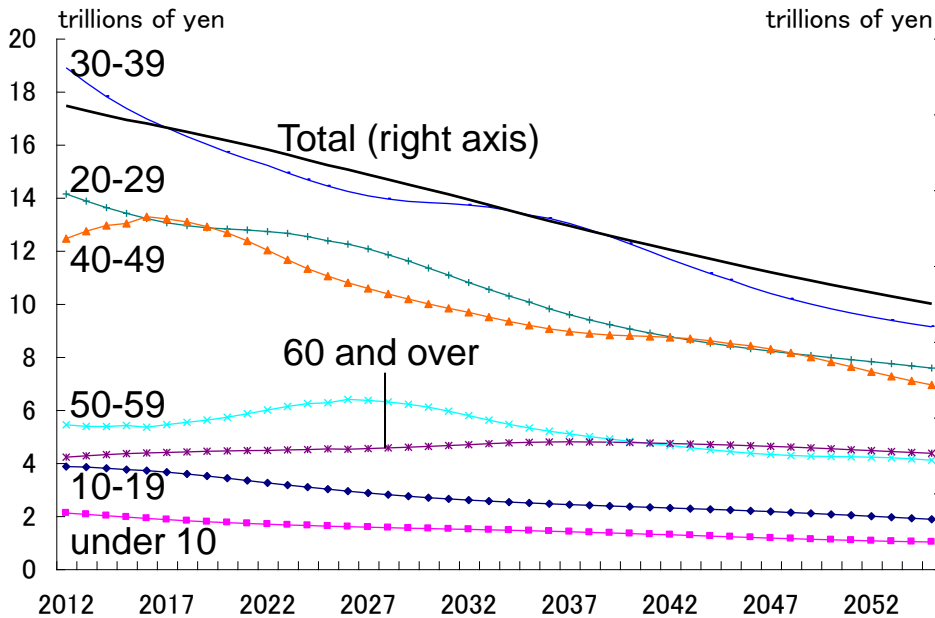
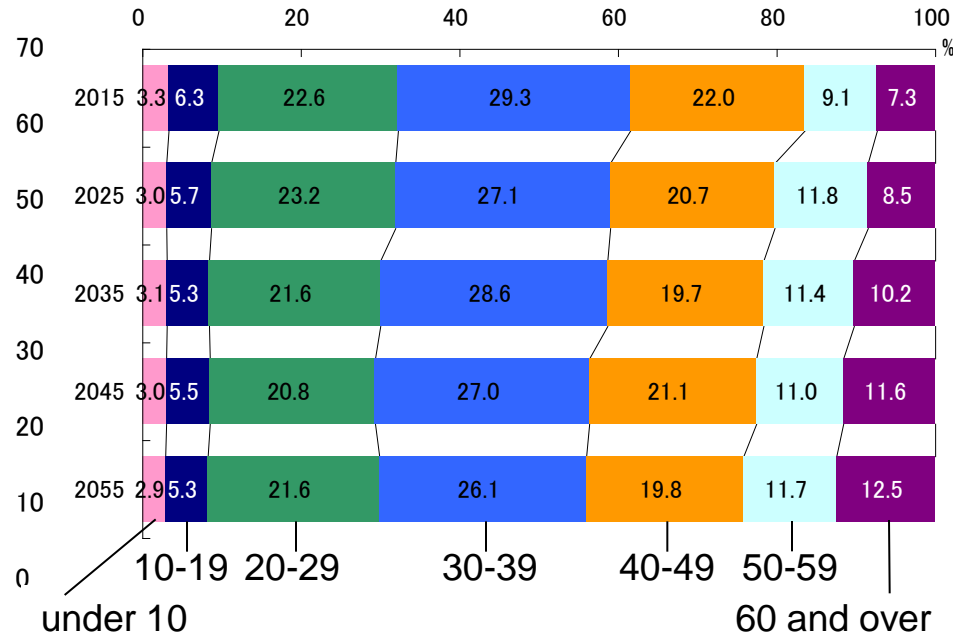
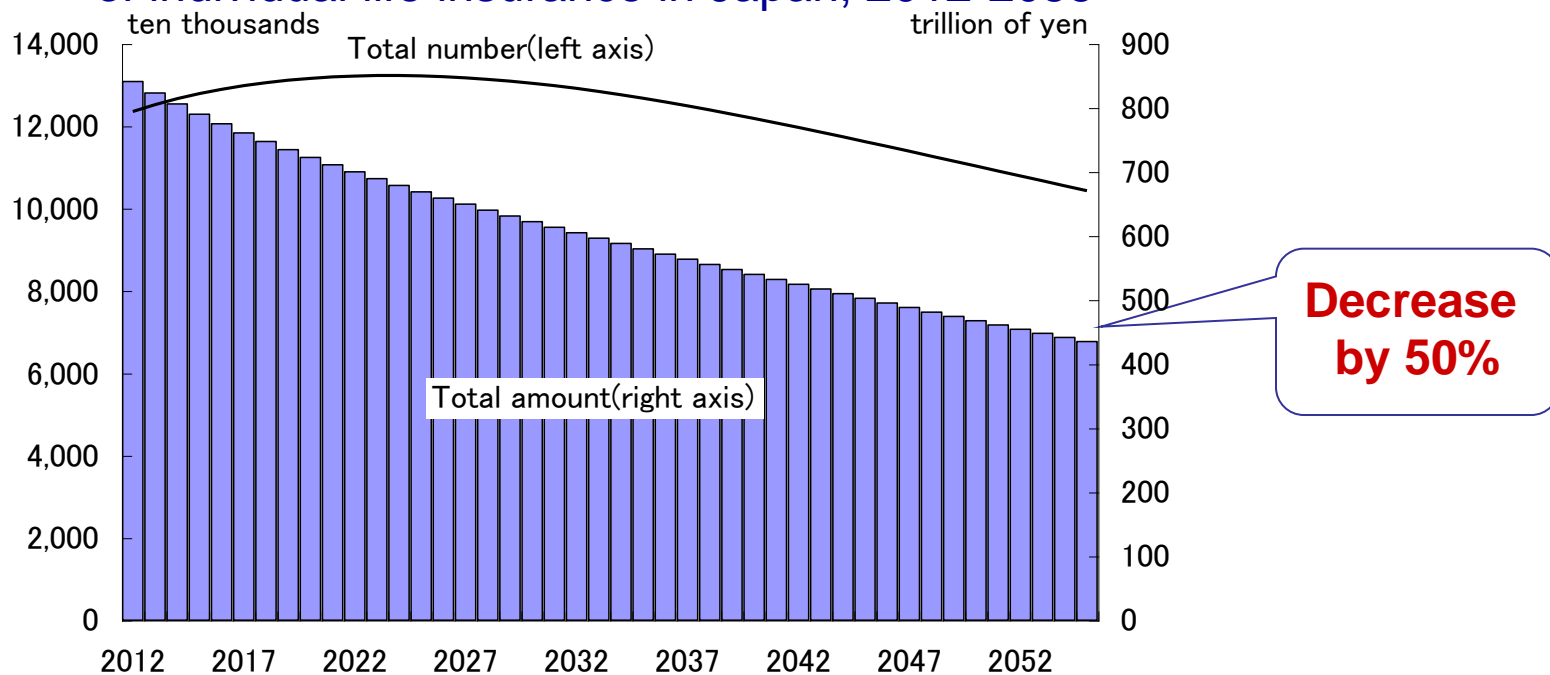


Fig. Age composition of new policies of individual life insurance in Japan, 2015 vs. 2025, 2035, 2045 and 2055



- **The number of policies in force will be 90% of the current number**
 - The number of policies in force has been increasing with private medical life insurance in recent years
 - For the present, the increasing tendency of private medical life insurance influences the total number, but after a while it will start to decrease
- **The amount of policies in force will decrease by 50% by 2055**

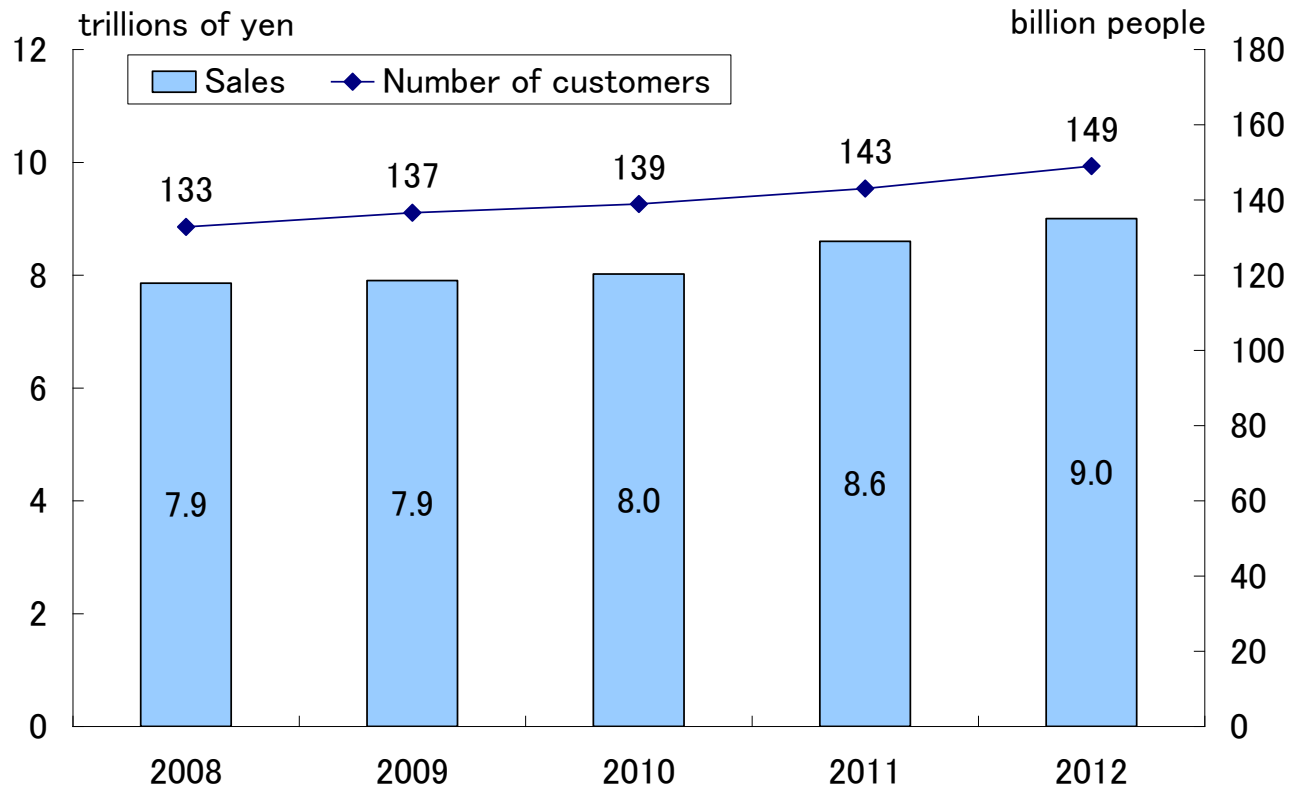
Fig. Projected number and amount of policies in force of individual life insurance in Japan, 2012-2055



Business Case Studies of Declining Birthrate and Aging Society in Japan

- Despite the recession and the decreasing population, sales of convenience store has been increasing.

Fig. Convenience store sales (left axis) and convenience store customers (right axis) in Japan, 2008-2012

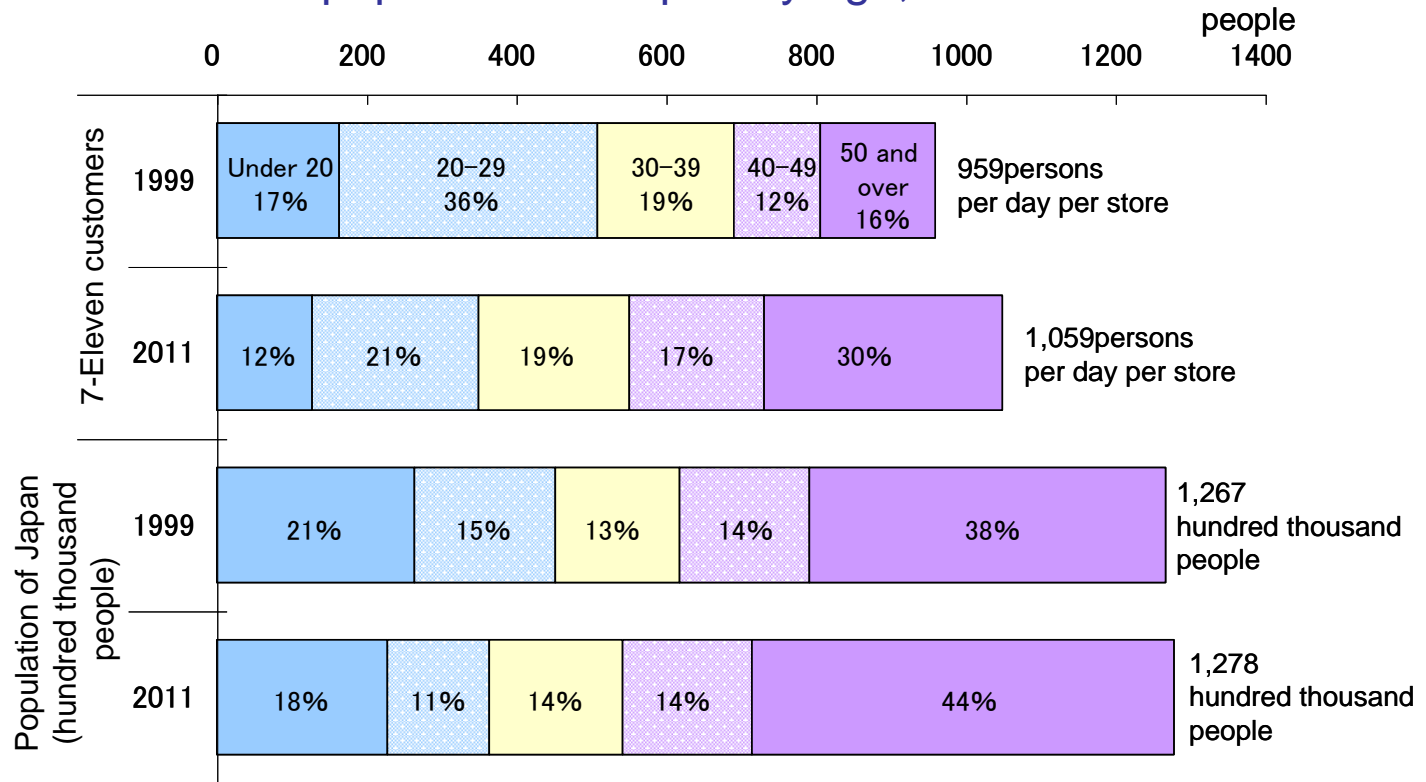


Source: Japan Franchise Association, 2012

- 7-Eleven customers have aged faster than Japan's population.

Japan's leading convenience store operator

Fig. Number of customers of 7-Eleven in Japan and population of Japan by age, 1999 vs.2011

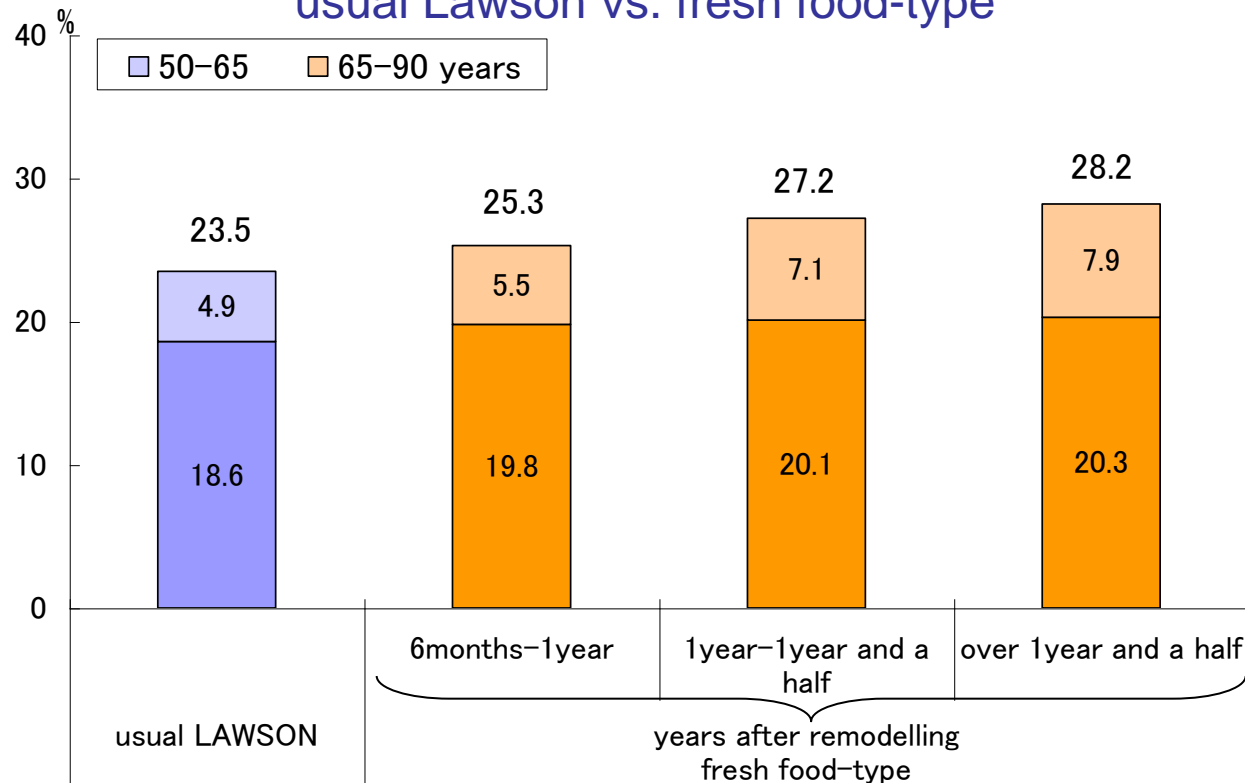


Source: Seven & i Holdings Co., Ltd. and National Institute of Population and Social Security Research, 2011

- The number of senior and female customers has increased in the fresh food-type Lawson stores

The second largest convenience-store operator in Japan

Fig. Ratio of elderly people in Lawson stores by age, usual Lawson vs. fresh food-type



Source: Lawson, Inc., 2011

- Nestle Japan has been focusing on selling “Nescafe Dolce Gusto”, which is a coffee machine that can make one cup of coffee at a time

Traditional Coffee Maker



several cups at simultaneously

Nescafe Dolce Gusto

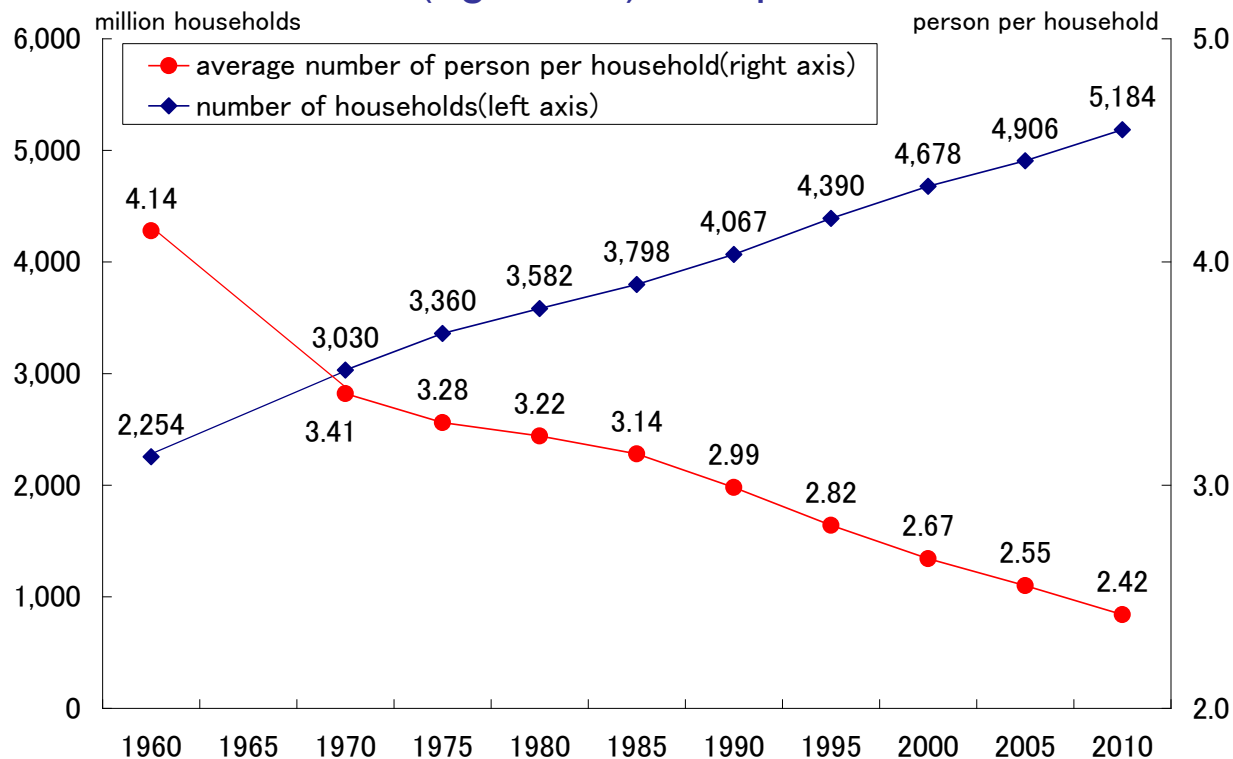


Capsule of coffee

One cup at a time

- Though the number of households has been increasing due to the increase in the number of single-person households, the average number of persons per household has been decreasing

Fig. Number of households (left axis) vs. average number of person per household (right axis) in Japan, 1960-2010



Source: National Institute of Population and Social Security Research, 2011

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- Nestle Japan added two favors of “Kit Kat” for adults, one is bitter and the other is Japanese Maccha
- Sales of “Kit Kat” increased by 20%

Fig. “Kit Kat” for adults

Bitter taste

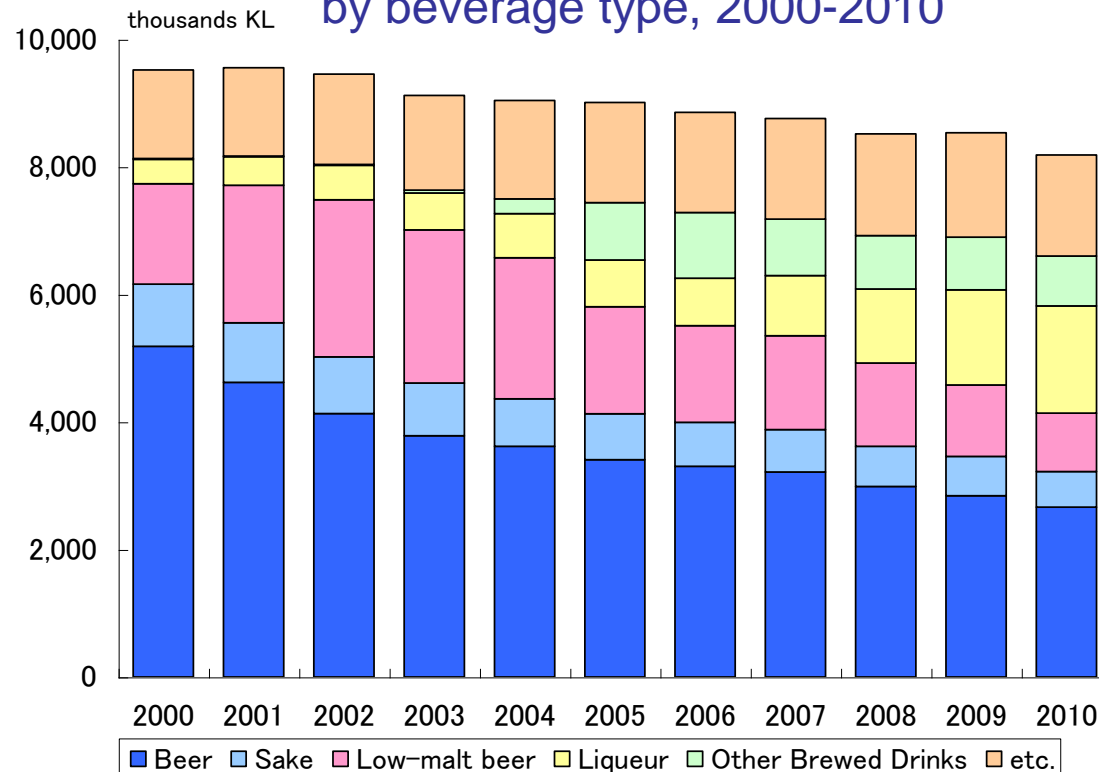


Japanese Maccha taste



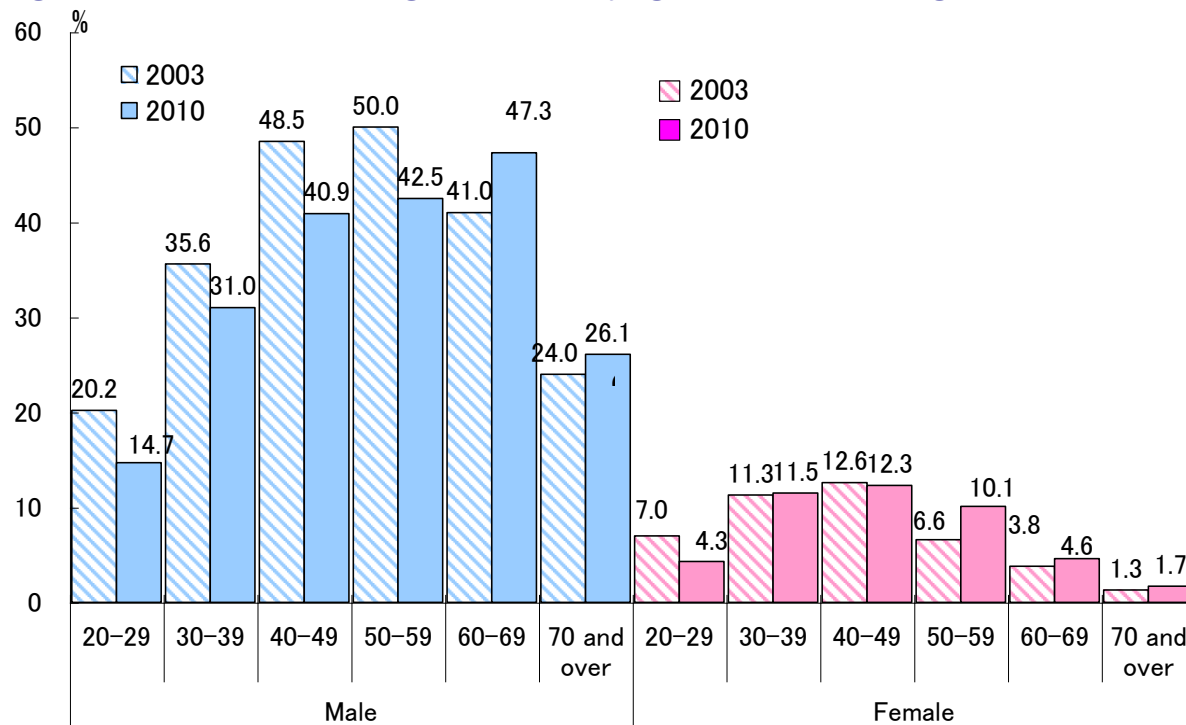
- Alcoholic beverage market has been shrinking in Japan
- Consumer's preferences for alcoholic beverages have been changing in lower alcoholic ones

Fig. Breakdown of alcohol consumption in Japan by beverage type, 2000-2010



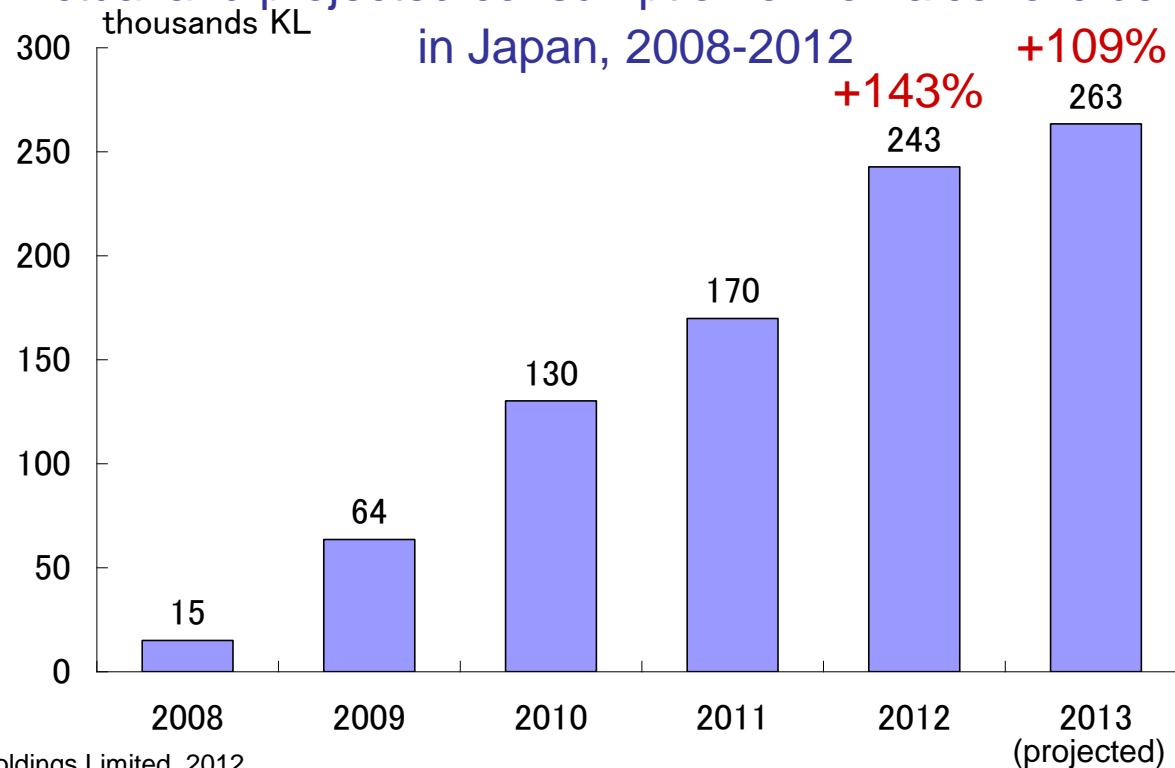
- Ratio of drinking habits has declined among young men and women, as well as among the men under 60-year-olds
- On the other hand, it has risen among over 60-year-olds

Fig. Ratio of drinking habits by gender and age, 2003 vs. 2010



- Japan's non-alcoholic beverage market has been growing in recent years
- Non-alcoholic beverages are consumed as not only an alternative of alcoholic beverages, but also are enjoyed by people who abstain from alcoholic beverages

Fig. Actual and projected consumption of non-alcoholic beverages in Japan, 2008-2012



Conclusion

■ Demographic Trends in Japan

- Japan faces a dramatic population decrease due to the declining birthrate and aging population
- Elderly population has been increasing
 - Elderly households will account for 40% of the total households in 2030, and single elderly households have been increasing
 - Money is unevenly distributed in favor of elderly households in Japan
 - ◆ Over 60% of Japan's 1,500 trillion yen of household financial assets are held by elderly households
 - ◆ Over 60% of Japan's inheritances are received by people aged 80 and over
 - ◆ Consumption by the Elderly exceeded 100 trillion yen in Japan

■ Demographic Trends in Japan

● Birth rate has been decreasing

■ Rate of unmarried people has been rising

- ◆ Currently 90% of marriages are based on individual choice or love
- ◆ Dating with the opposite sex has been turning negative
- ◆ “Herbivore men” and single women have been increasing
- ◆ The rate of temporary employment of young people has been increasing
- ◆ Difference between annual income of regular employment and temporary employment is increasing with age
- ◆ Marriage rate is proportional to annual income.
- ◆ Income of less than 3 million yen presents an obstacle to having a family
- ◆ Social security payments result in a benefits loss among those born after 1950.

■ Average age of first marriage has been increasing

- ◆ Female college enrollment rate has been rising
- ◆ Female employment rate in age group 25 to 39 has increased
- ◆ The number of dual-income households has surpassed that of single-income households with a housewife

- Effects of the Declining Birthrate and Aging Society on Life Insurance
 - Japan's life insurance market has been shrinking due to the declining population and birth rate, tendency of late marriage and rising unmarried rate
 - The amount of policies in force will decrease 50% by 2055

- Business Case Studies of Declining Birthrate and Aging Society in Japan
 - Convenience store sales have been increasing
 - The reason for the increase is that the convenience store operators realized the demographic trends ahead of the actual changes and adopted effectively
 - Nestle Japan responded to the demographic change
 - Nestle Japan has been focusing on selling “Nescafe Dolce Gusto”, which is a coffee machine that can make one cup of coffee at a time and is suitable for households with a decreasing number of persons
 - Nestle Japan added two favors of “Kit Kat” for adults, one is bitter and the other is Japanese Maccha aimed at the changing tastes of the Elderly
 - Alcoholic beverage market has been shrinking
 - On the other hand, sales of non-alcoholic beverages have been increasing rapidly due to the changes in consumer's preferences and demographic trends

- Although the existing market is shrinking, **we have to learn from other industry's case studies, and adopt a proactive approach to increase new targets such as elderly people or unmarried people by recognizing the demographic trends quickly and accurately.**
- By so doing, we might be able to mitigate or change the expected market shrinking scenario to some extent.



Thank You!



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