

Workshop for the International Collaboration Project:
Studies on Employment Situation of Young People through the Micro-Simulations

By Economic and Social Research Institute, Cabinet Office, Government of Japan
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Projections of living arrangements and poverty rates
for the elderly in Japan—Effect of changes in
nuptiality behavior after the 1980s on the poverty rate

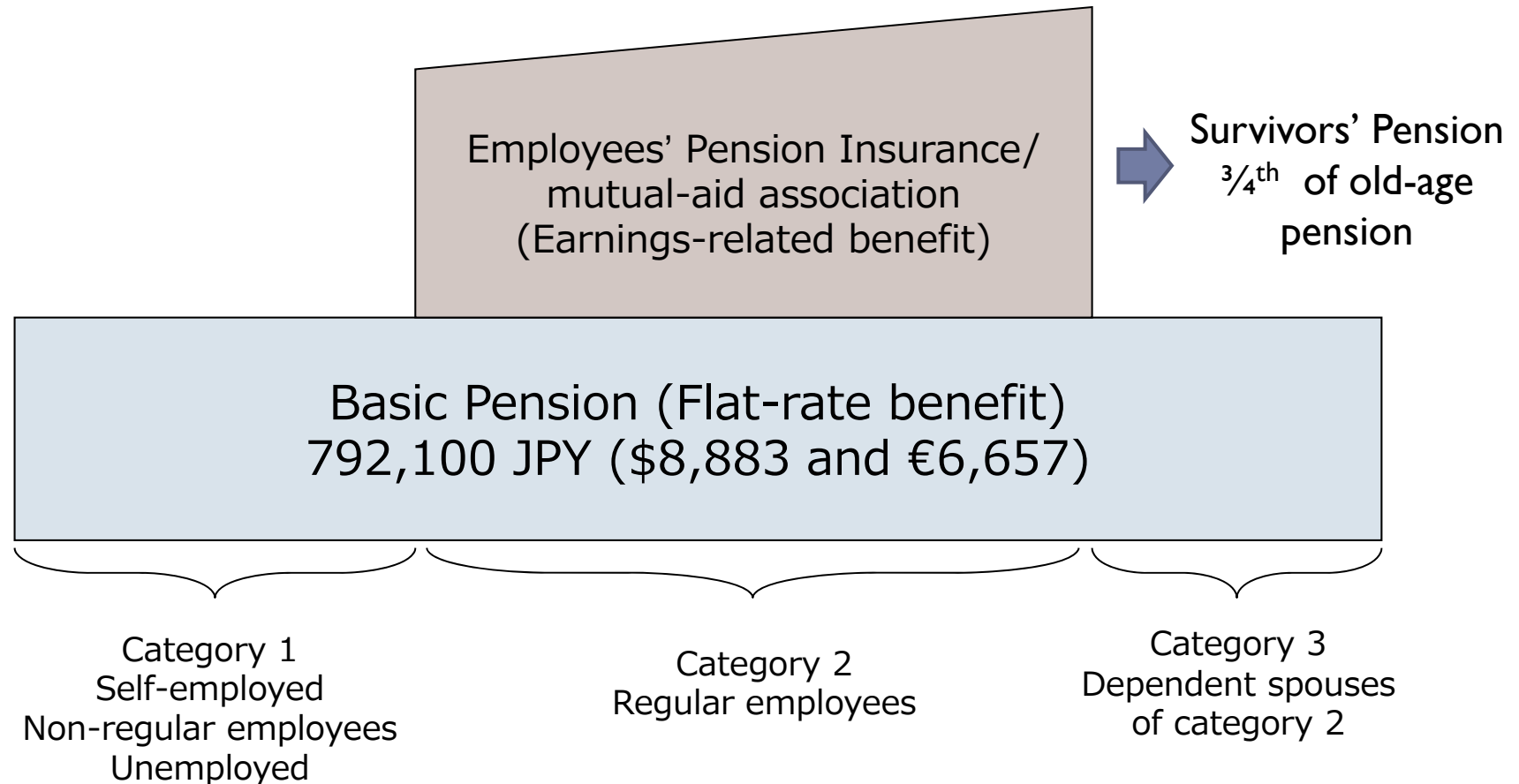
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Outline

1. Introduction
 - ▶ Public pension scheme in Japan
 - ▶ Women's pension benefits by marital status
2. Outline of a dynamic microsimulation model for Japan
3. Simulation results under baseline scenario
 - ▶ Number of demographic events
 - ▶ Marital status of the elderly
 - ▶ Living arrangements of the elderly
 - ▶ Household income distribution
 - ▶ Poverty rates by age group and sex
4. Effect of changes in nuptiality behavior after the 1980s on poverty rate
5. Conclusion

Public pension scheme in Japan



$$\text{Basic Pension} = 792,100 \times \frac{[\text{premium paid period}] + [\text{exempted period}] \times 0.5}{480 \text{ months}}$$

Pension premium for Basic Pension

▶ Category 1

- ▶ A flat rate of 15,100 JPY (\$169 and €127) per month
- ▶ Low-income earners are exempt from paying premium, but their old-age pension will be reduced according to the exempt periods and non-payment periods.
- ▶ A considerable number of people do not pay their premiums.

▶ Category 2 and 3

- ▶ The premium is included in the insured person's premium to Employees' Pension Insurance (16.058% of pension remuneration)
- ▶ Problems such as non-payment of premium do not arise.

Benefit adjustment systems

- ▶ **Benefit adjustment in accordance with macroeconomic indicators**
 - ▶ The amount of newly awarded pension is adjusted by the take-home wage increase rate
 - ▶ The amount of pensioner's benefit is adjusted by the CPI increase rate
- ▶ **“Macroeconomic slide system” introduced in the 2004 amendment**
 - ▶ The amount of pension is reduced in response to changes in the number of insured persons and increase in the average life expectancy.
 - ▶ The reduction is expected to start at year 2012 and end at year 2038.

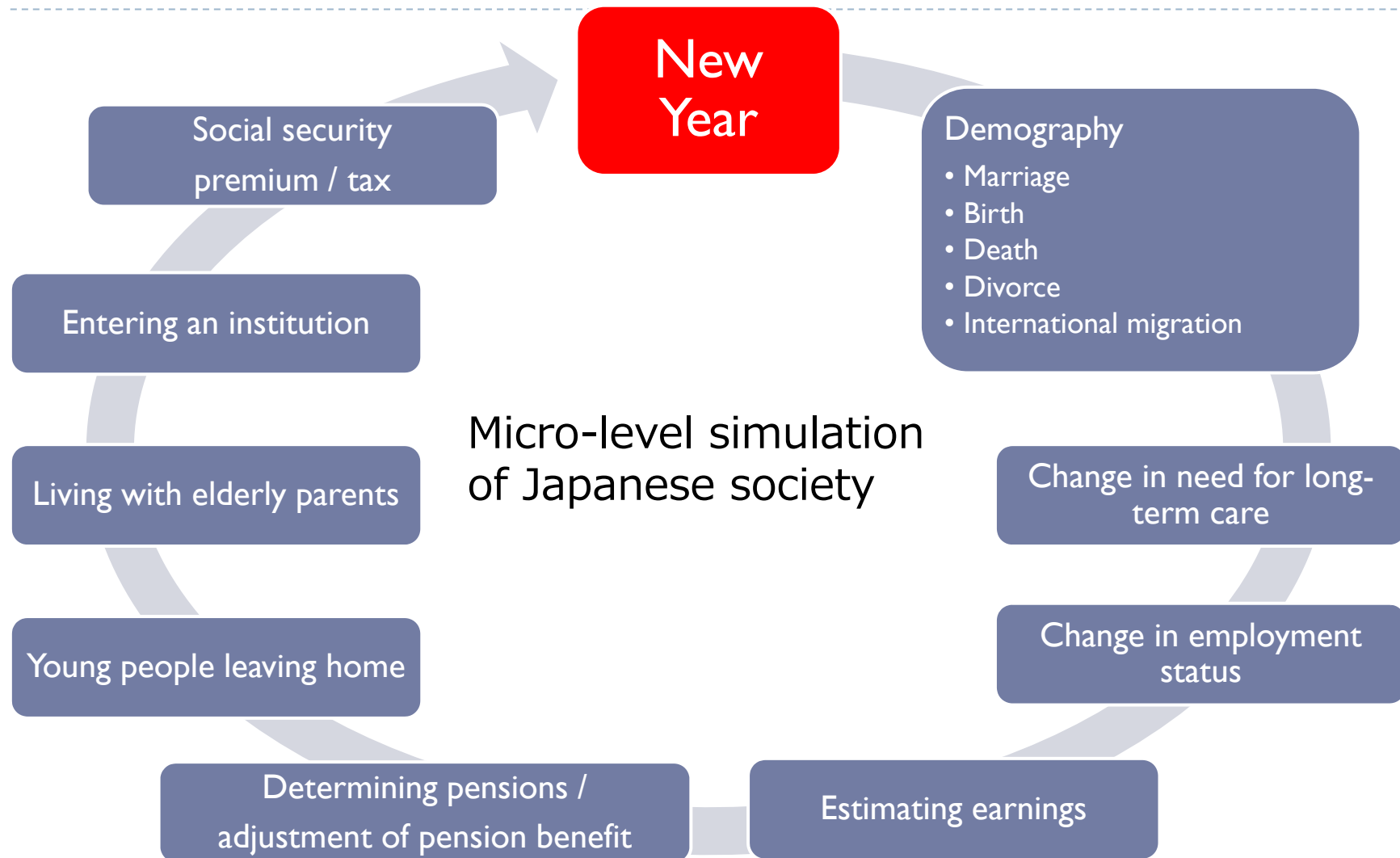
Premises of pension scheme

- ▶ The scheme supposes a post-war lifestyle in Japan
 - ▶ Most men and women get married.
 - ▶ Husbands work as regular employees (Category 2) and wives are dependent homemakers (Category 3).
 - ▶ They seldom get divorced.
- ▶ Index of adequacy
 - ▶ Replacement ratio for a specific couple is still used as a “model.”
 - ▶ The husband is covered by the Employees’ Pension Insurance.
 - ▶ The wife is dependent on him for 40 years.
- ▶ However
 - ▶ Marriage rate has decreased significantly after the 1980s.
 - ▶ Divorce rate has increased significantly after the 1980s.
 - ▶ Many regular employees have been replaced by non-regular employees after the 1990s.

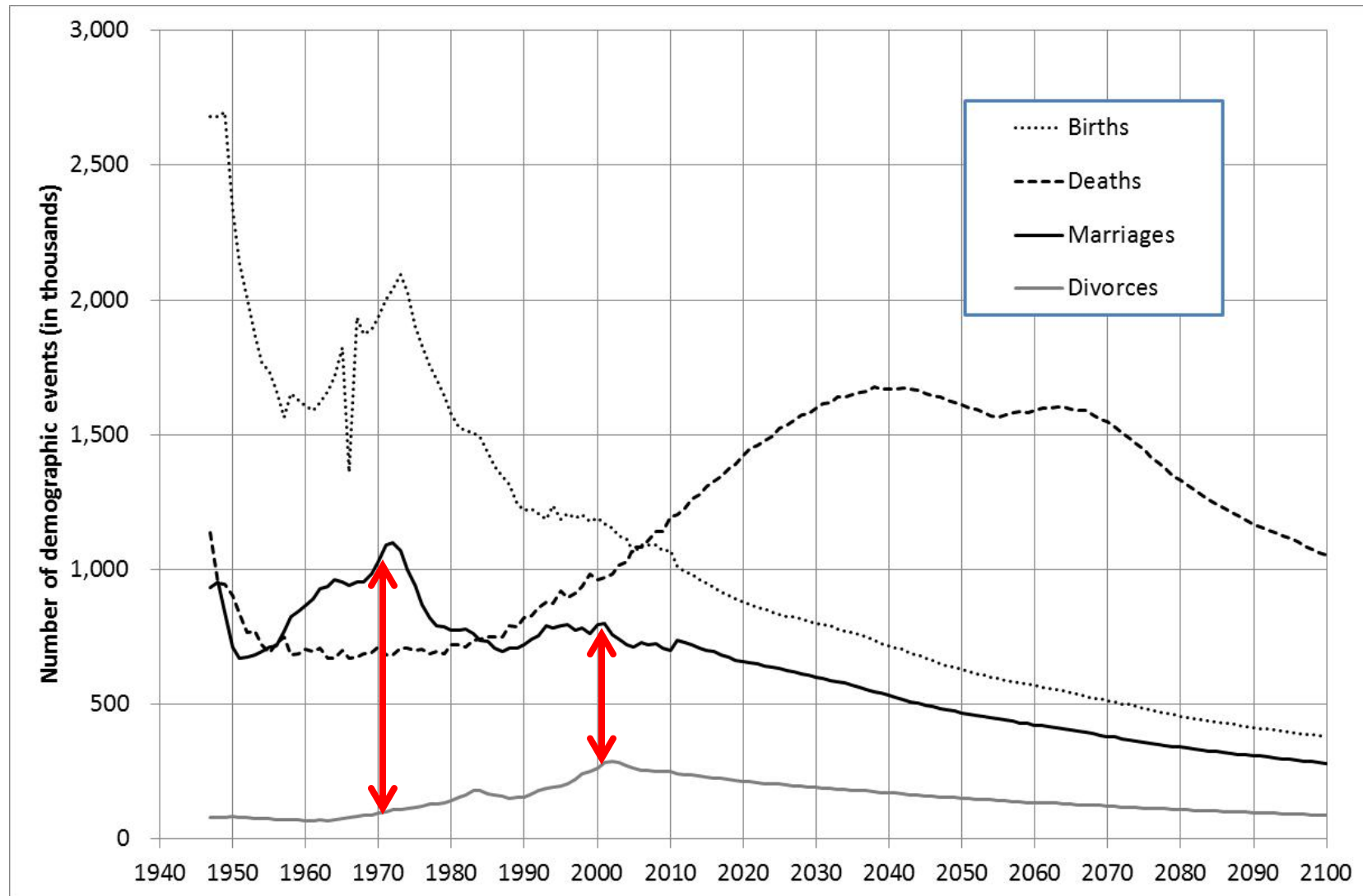
Women's pension benefits

- ▶ **Married (dependent spouse)**
 - ▶ Full basic pension (+ Husband's pension)
 - ▶ If the husband was a regular employee, his pension is generally high.
- ▶ **Widow**
 - ▶ Full basic pension + Survivors' pension
 - ▶ Survivors' pension is $\frac{3}{4}$ th of the husband's earning related pension.
- ▶ **Never married, Divorced**
 - ▶ Basic pension + Earnings-related pension (if any)
 - ▶ If she has non-payment periods, her basic pension is reduced.
 - ▶ Earnings-related pension for women is generally lower than that for men because there still exists wage inequality between men and women.

Microsimulation model: INAHSIM



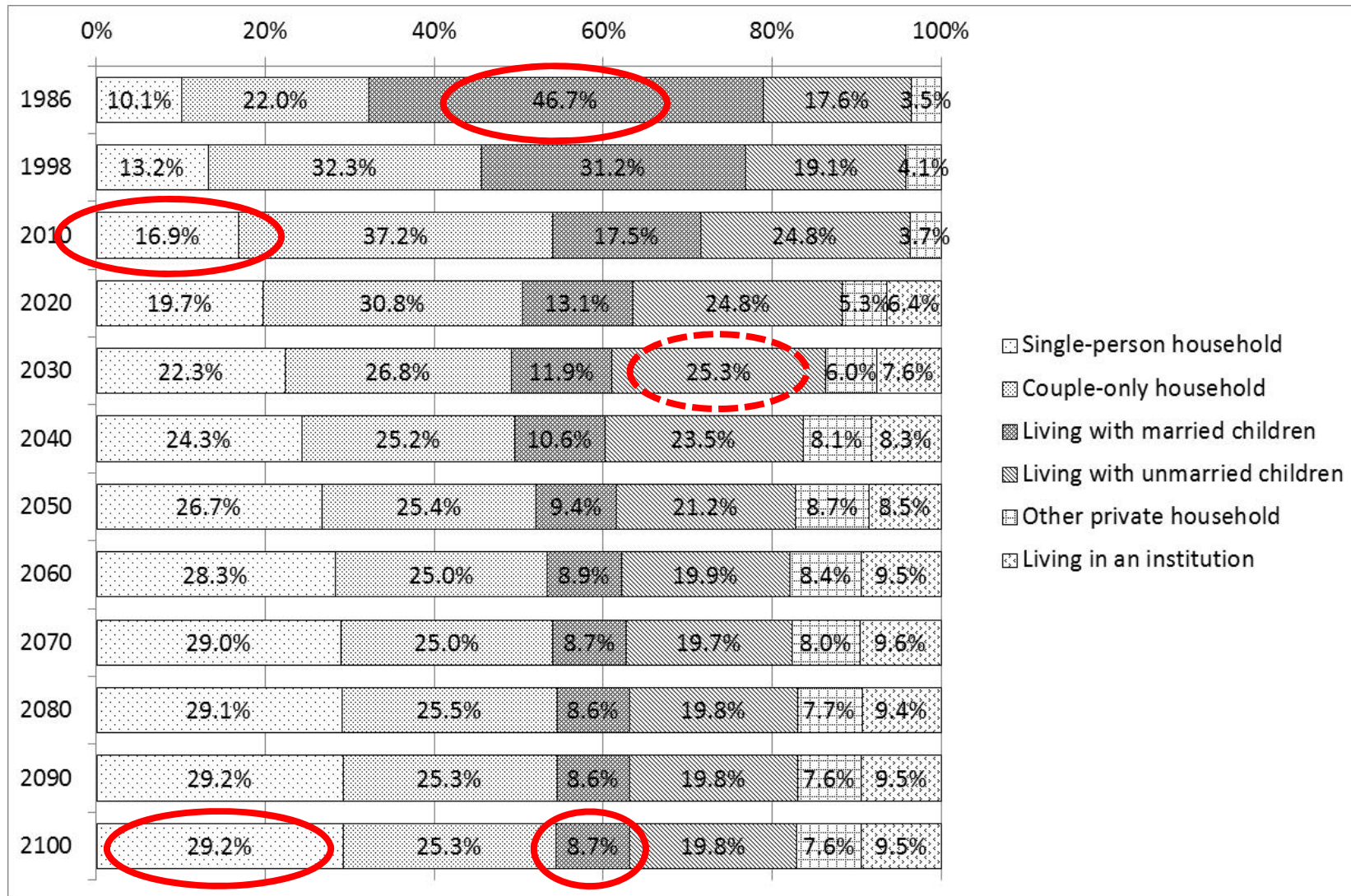
Numbers of demographic events



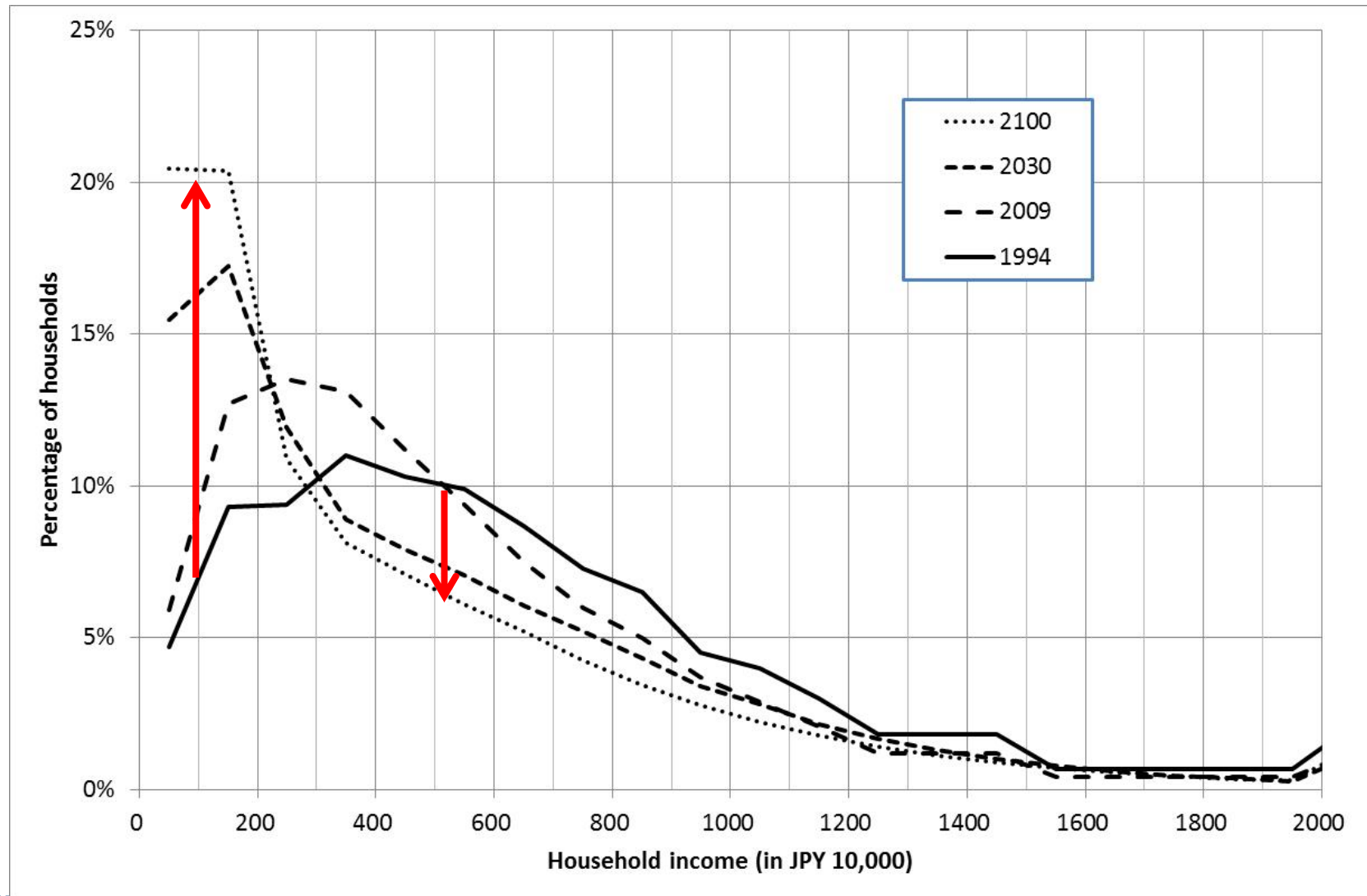
Marital status for the elderly

Year	Male				Female			
	Never married	Married	Widower	Divorced	Never married	Married	Widow	Divorced
1970	0.9%	76.0%	21.8%	1.3%	1.2%	31.4%	65.7%	1.8%
1990	1.1%	83.6%	13.8%	1.5%	2.3%	40.5%	54.2%	3.0%
2010	3.7%	81.8%	10.8%	3.7%	4.0%	49.6%	41.7%	4.7%
2030	13.4%	68.0%	11.8%	6.8%	6.6%	44.7%	39.3%	9.3%
2050	23.7%	59.0%	9.7%	7.6%	15.4%	40.3%	32.4%	11.9%
2100	26.4%	56.6%	8.8%	8.2%	17.6%	37.3%	32.4%	12.7%

Co-resident family type



Household income distribution

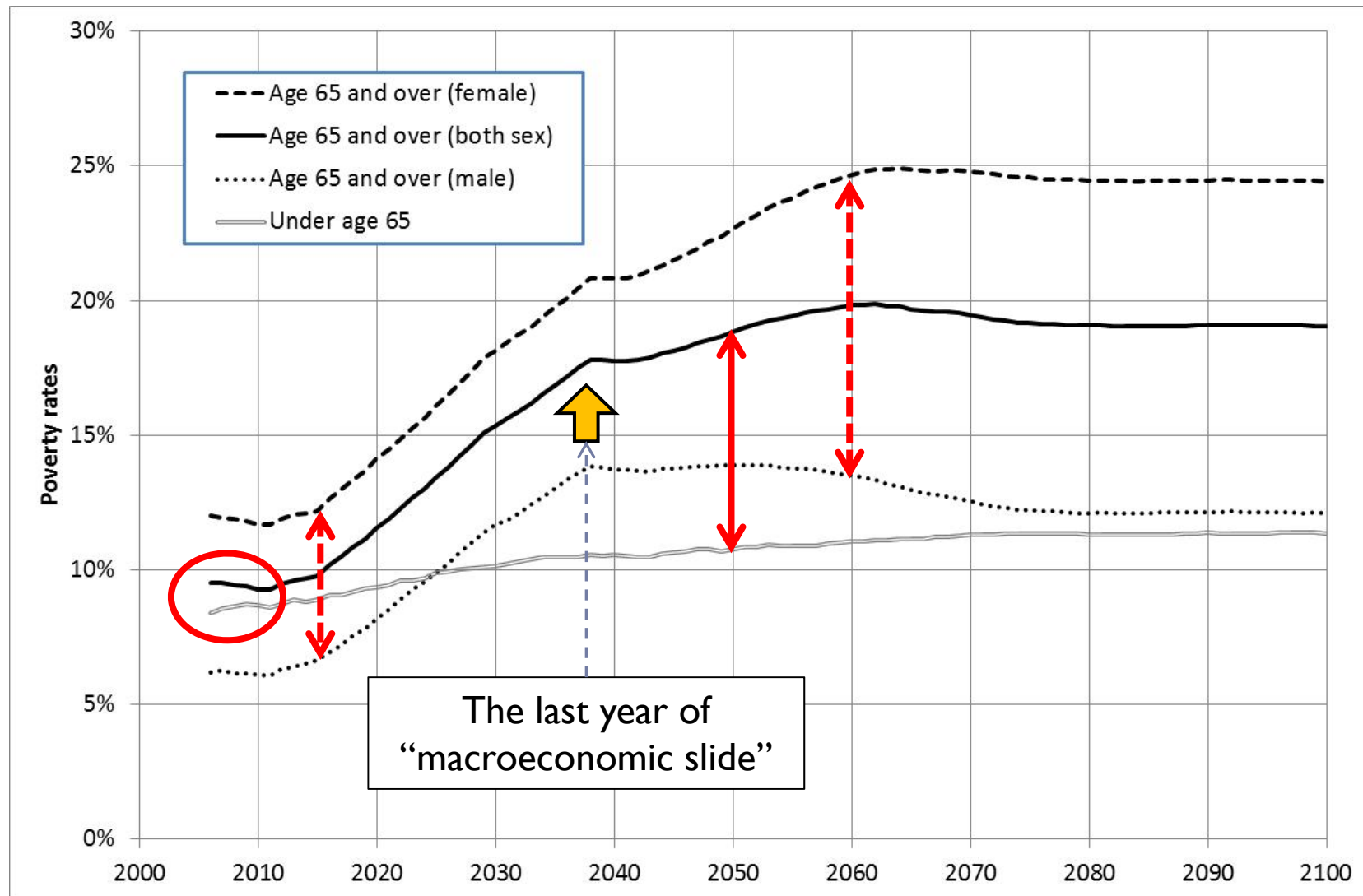


Definition of poverty

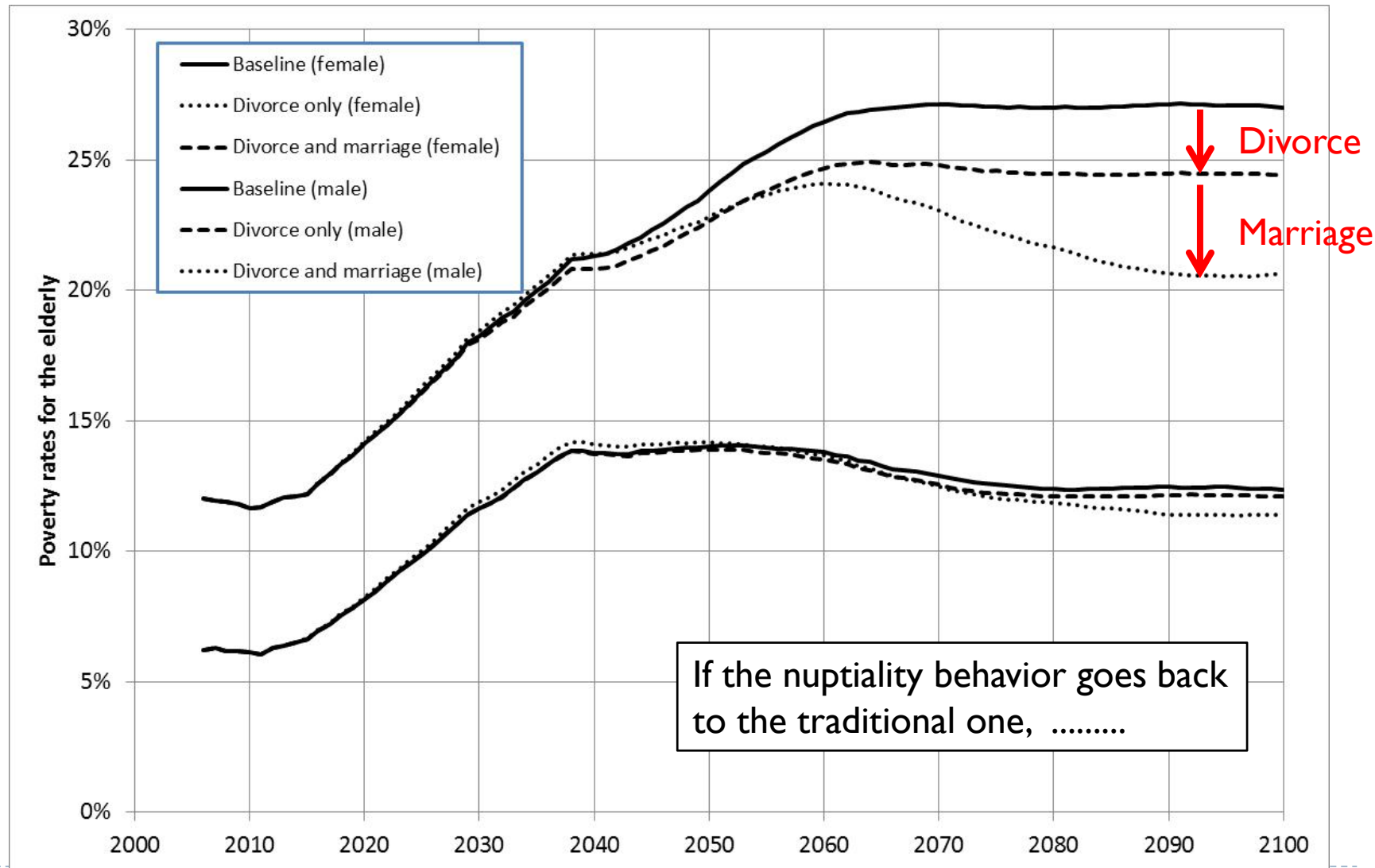
Type of household	Household members	Livelihood assistance per month
Nuclear family	33-year-old husband 29-year-old wife 4-year-old child	145,770 JPY (\$1,635 and €1,225)
Single-person household	68 years old	72,370 JPY (\$812 and €608)
Couple-only household	68-year-old husband 65-year-old wife	109,440 JPY (\$1,227 and €920)
Single-mother household	30-year-old mother 4-year-old child 2-year-old child	128,420 JPY (see note) (\$1,440 and €1,079)

Note: Additional benefit for a single-mother household is excluded because INAHSIM does not include social security benefits for that household.

Poverty rates by sex and age group



Changes in nuptiality behavior



Conclusion

▶ Poverty rate in Japan

- ▶ The poverty rate in Japan will increase in the future.
- ▶ That is will mainly impact the elderly, especially on women, for two reasons:
 - ▶ Reduction of pension benefits due to the “macroeconomic slide system”
 - ▶ Increase in the percentage of never-married or divorced elderly women

▶ Problems with the current public pension scheme

- ▶ It still assumes a post-war family in Japan. However, this premise is no longer valid.
- ▶ As long as the social insurance system is applied to the basic pension, increase in poverty rate is inevitable.
- ▶ It seems difficult to effectively reform the current public pension scheme.

Conclusion (Cont.)

▶ Policy implications

- ▶ Improvement of the employment environment and resolution of the wage inequality between men and women are very important.
- ▶ However, resolution of these problems does not have an immediate effect on the elderly's lives.
 - ▶ Low amount of pension benefits is promised to today's low-income earners.
 - ▶ Nuptiality behavior will not likely go back to the traditional one.
- ▶ We should recognize that the current public pension scheme does not protect all the people from poverty risks in their old age.

▶ Proposal

- ▶ A national minimum benefit plan should be introduced for the elderly (or for the late elderly).
- ▶ At the same time, a review of the generous benefits for dependent wives and widows is also necessary to generate financial resources for the national minimum benefit.

Thank you