Intergenerational Equity and Gender Gap

in Pension Issues

Takayama, N. Prof. Dr.

RIPPA and Hitotsubashi University

n-takayama@nensoken.or.jp

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Organization

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Intergenerational Equity Issues: Overview

Intergenerational equity could matter, if younger and future generations were forced to bear excess burdens which they themselves would not be responsible for, arising from decisions made by the preceding generations. As long as the standard of living for younger actively-working generations is overall higher than that for retired older ones, securing pension equity between generations might not become acute. Otherwise, an incentive compatibility problem on pensions would get more serious among younger generations.

Intergenerational equity considerations vary among different pension schemes.

PAYG DB Plans: political risk

Seniors are strong voters while the younger people and future generations currently have so weak or no political powers. The interest of future generations is likely to be neglected.

Two time lags were evident for politicians. One is the lag for a majority of them to realize changed unfavorable circumstances. The other is the lag for them to adopt painful policy measures.

cf. several proposals for revising voting systems

→ Demeny (1986): the number of non-adult children

→ Oguro-Ishida (2012): voting rights in proportion to life expectancy

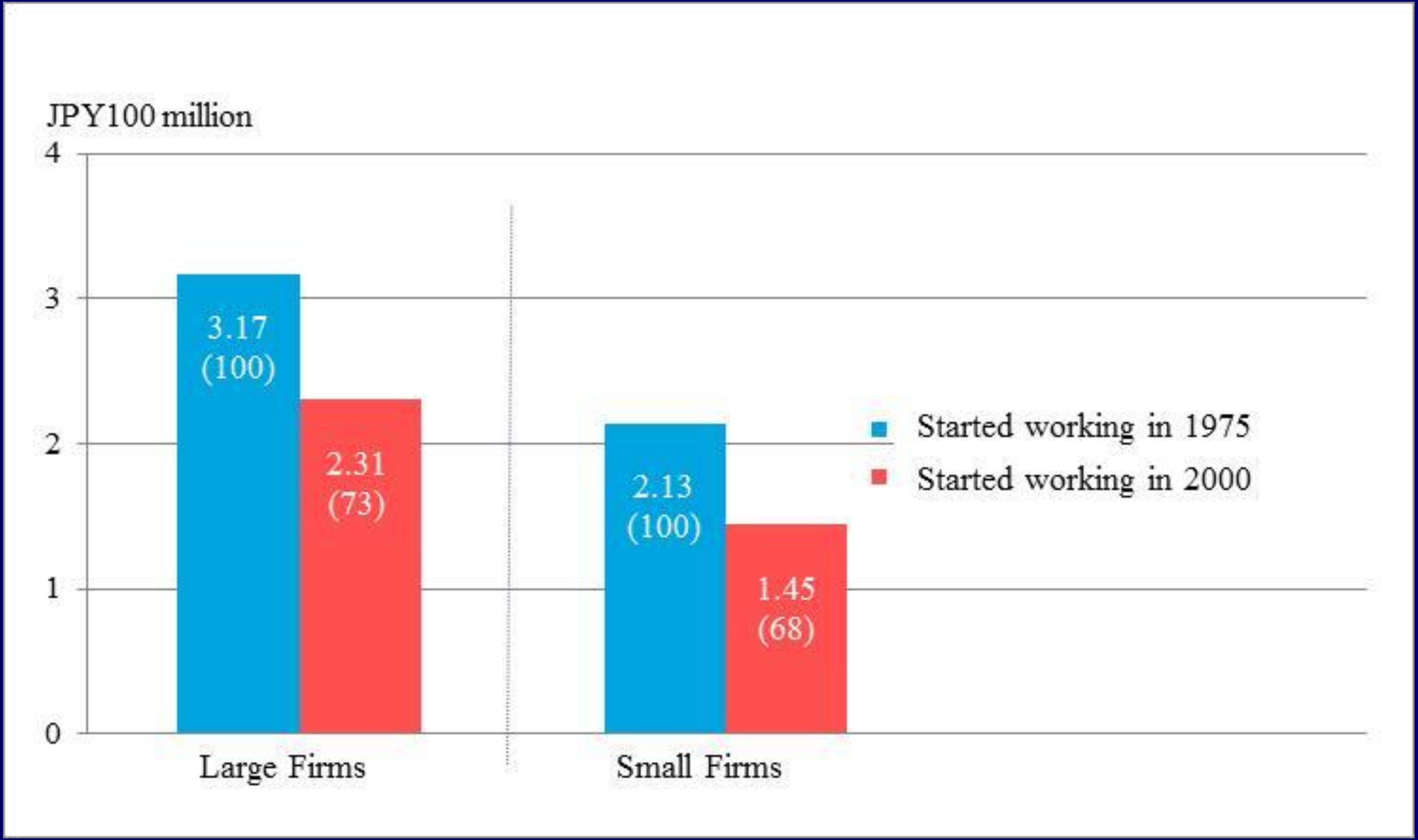
→Frischmann (2005): the Iroquois' law of seven generations

PAYG DB Plans: Changing Circumstances (1)

Continued economic growth mitigates difficulties in maintaining the PAYG pension finance healthy. Were the economy to fail to expand when the share of senior citizens in the population increased, the real after-tax pay of workers would decline. Younger people would despair of achieving a higher standard of living than their parents, and the existing level of intergenerational transfers from workers to the retired would become hard to maintain.

Current Japan might be an extreme case. Due to the long-lasting economic slump, the expected lifetime wages for current younger generations could be about 30 percent lower in real terms than those for the current older generations. For the past 20 years, the wage/salary profile for younger generations has been flattened. A majority of current younger generations in Japan accordingly have their perception that they will not be better-off than their parents' generation in terms of the living standard.

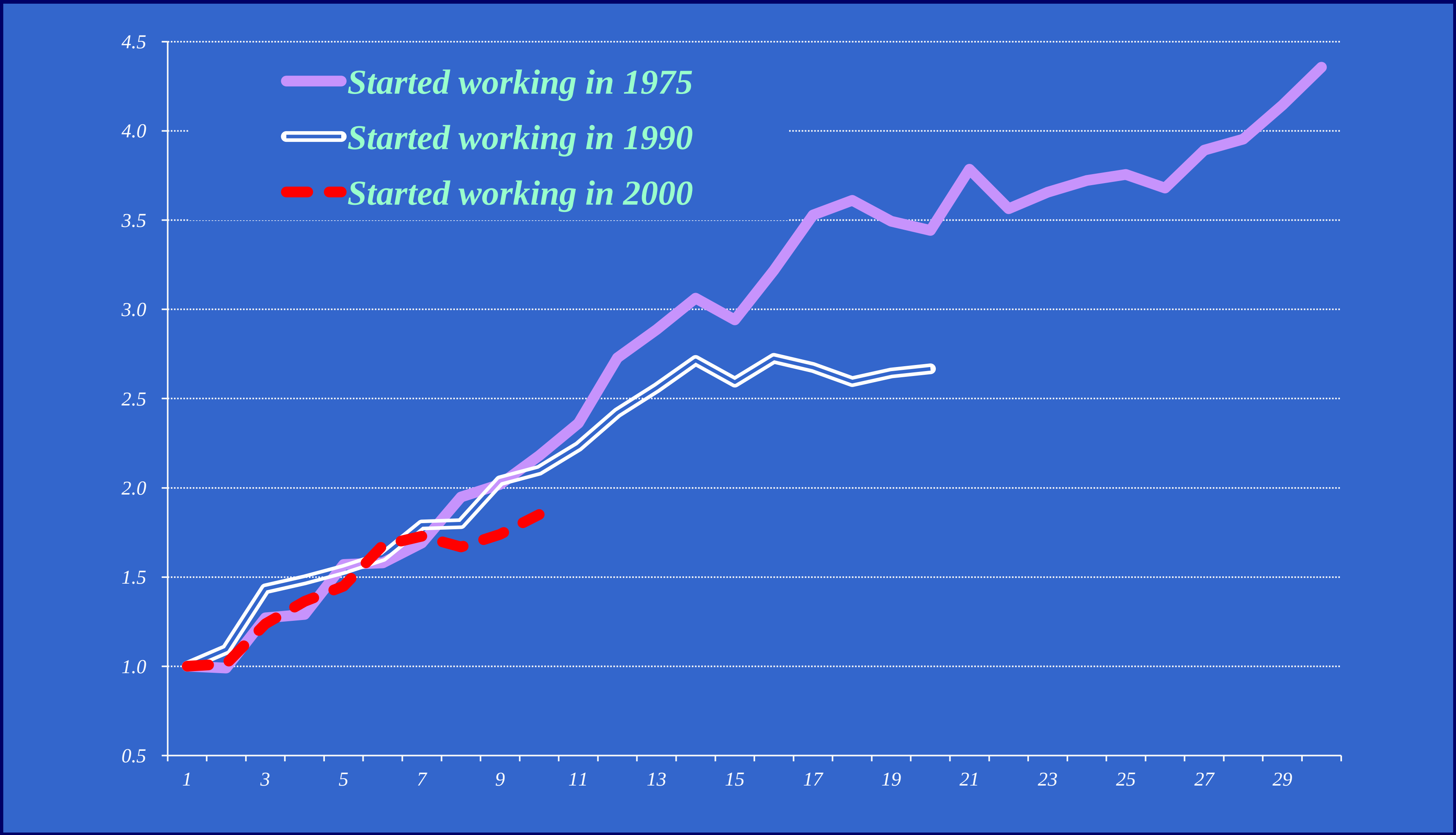
Reductions in Lifetime Wages in Japan



Notes: University graduates, white collar in manufacturing industry, in terms of 2005 wages, assuming zero rate of the discount rate.

Source: Hori-Iwamoto (2012)

Lifetime Wage Profiles for Workers in Manufacturing Industry



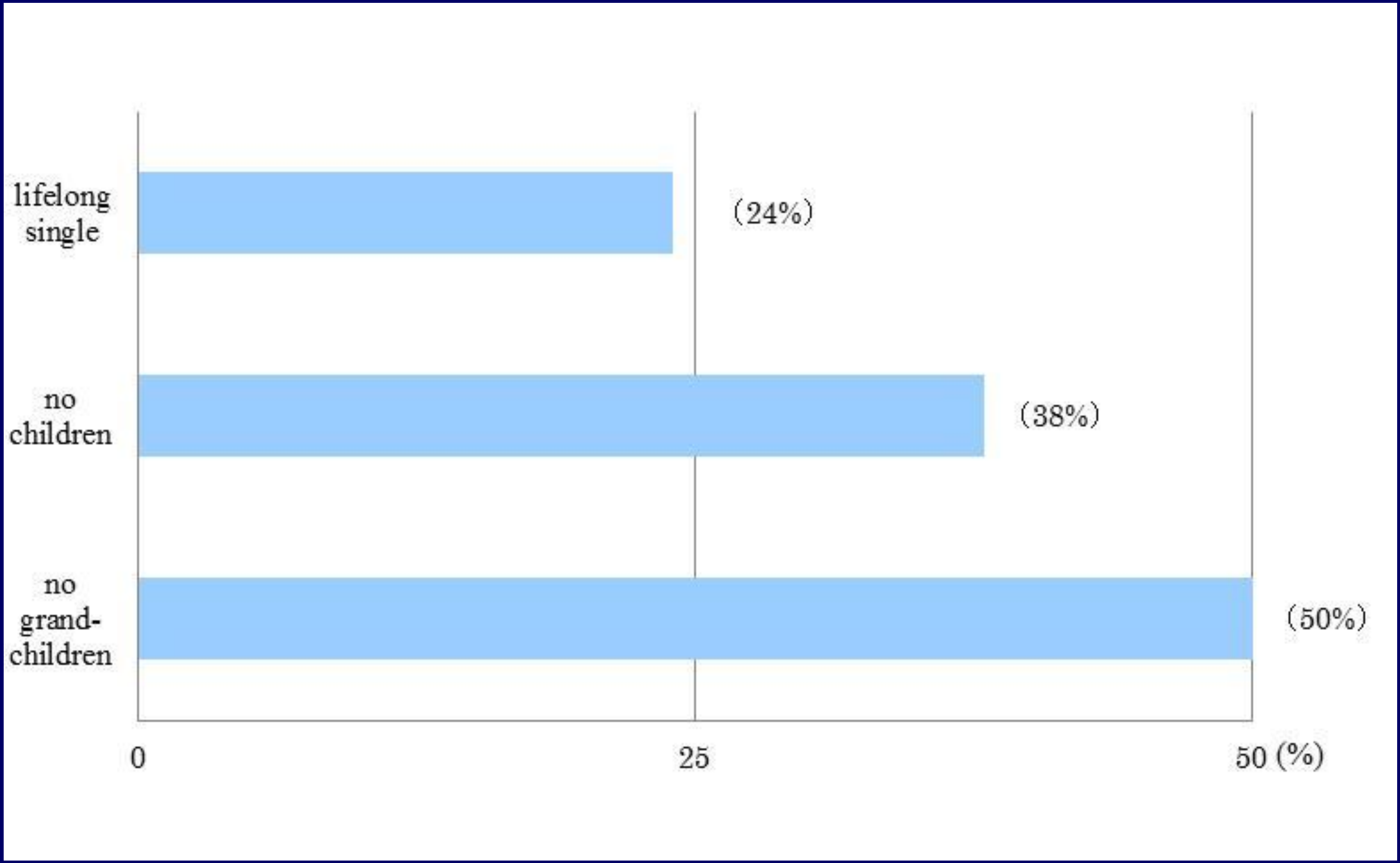
Note: Large manufacturing firms; college-educated white-collar workers

Source: Hori-Iwamoto (2012)

PAYG DB Plans: Changing Circumstances (2)

To make the matter worse, the total fertility rate in Japan remains at a very low level around 1.3 or 1.4. A distinguished expert in demographic issues, Dr. R. Kaneko estimated that nearly 40 percent of women who were born in 1990 would have no children during their whole life and around 50 percent of them would have no grandchildren if the current low fertility rate remain unchanged in the future. The Japanese family structure might soon face a drastic change, which could intensify tensions between generations. The public sense of intergenerational solidarity would be weakened, then.

Probabilities of No Children in Their Lifetime and No Grandchildren for Women Who Were Born in Japan in 1990



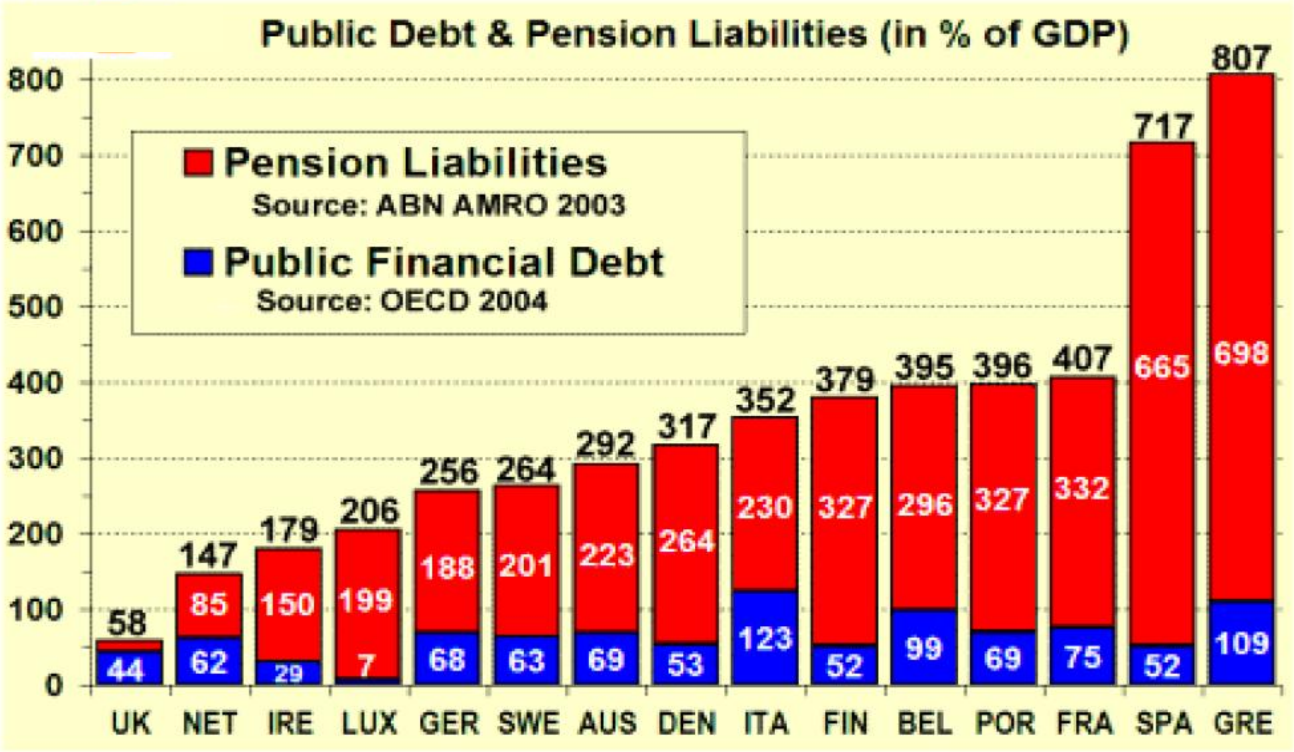
Source: Kaneko (2008)

Excess Pension Liabilities in Percent of GDP

The long-term financial sustainability of the PAYG pension system can be checked more properly by overtime changes in excess liabilities accrued from contributions made in the past (or accrued-to-date net liabilities, in other words) than yearly changes in its current account balance. The next slide presents public debt and social security pension liabilities in percent of GDP in the European Union. A reduction of these hidden and implicit liabilities is crucially dependent on political will.

The United States and Sweden publish the balance sheet of social security pensions once a year. Its annual release enables the public to make an early check on changing long-term financial situations of social security pensions. It is worth recommending for other countries.

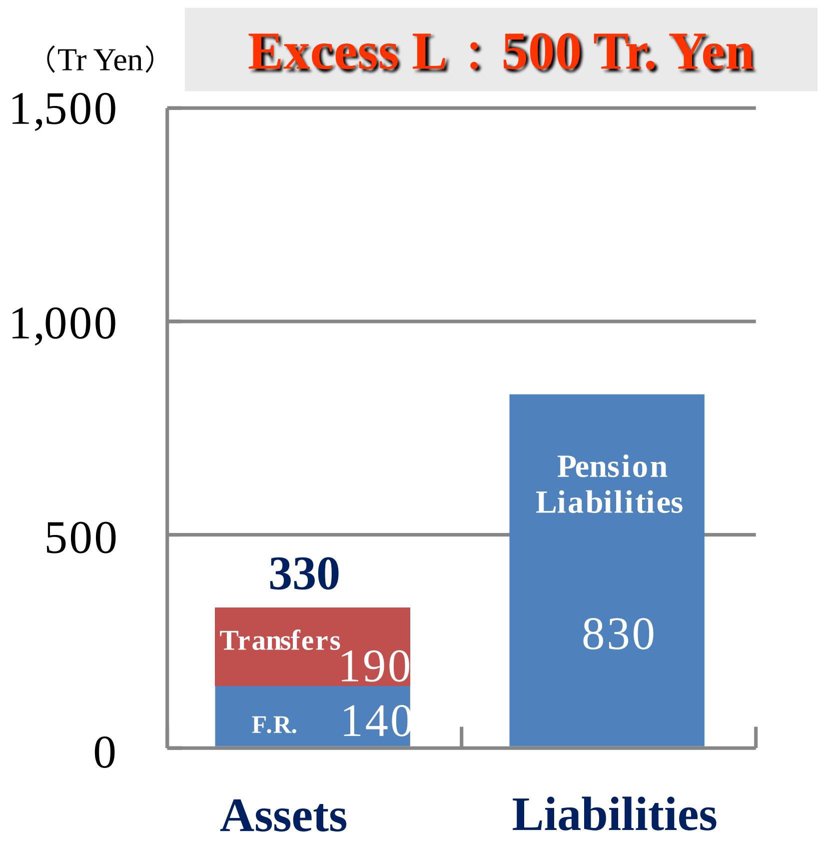
Public Debt and State Pension Liabilities (in % of GDP)

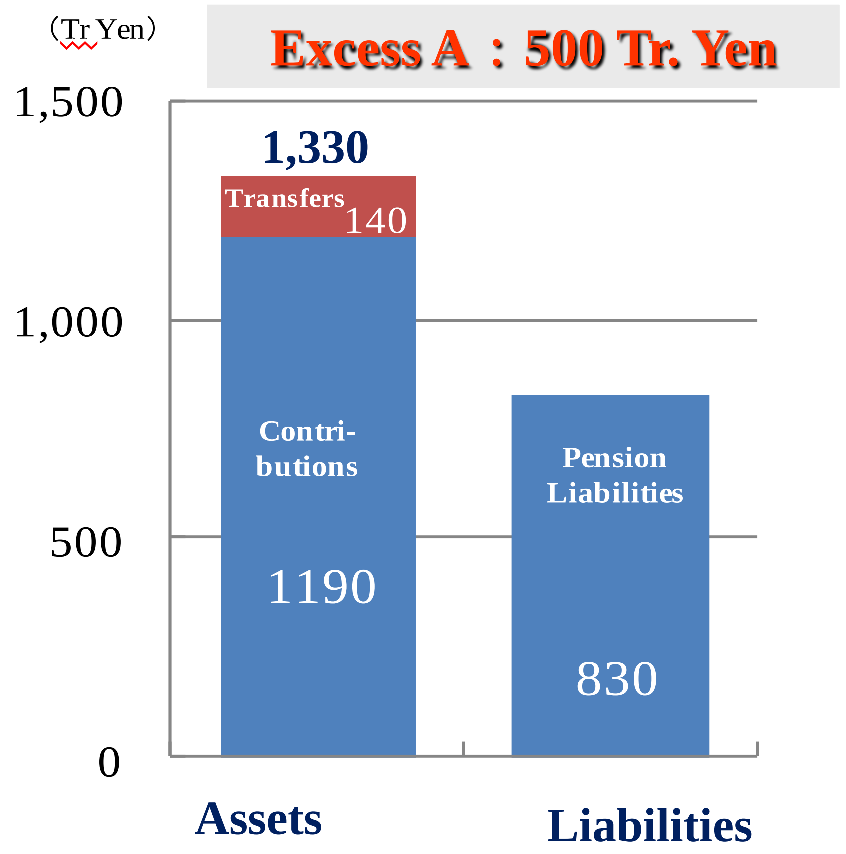


Source: Chytilova and Mejstrik (2007, p.13)

Balance Sheet of the KNH in Japan

(as at 31st March 2010)





Part One (PAST)

Part Two (FUTURE)

Automatic Adjustment (1)

The benefits and contributions in PAYG DB plan should be changed in a timely and proper way to respond to changing circumstances. It partly comes from the incompleteness of planning for different possible outcomes in the future. Everlasting reforms are required to keep the system viable.

The most serious problem in the PAYG pension system is how to reduce the political risk above mentioned. Automatic adjustments are found to be a wise way to do it.

Sweden invented an automatic balance mechanism to ensure the social security pension system viable in the long term.

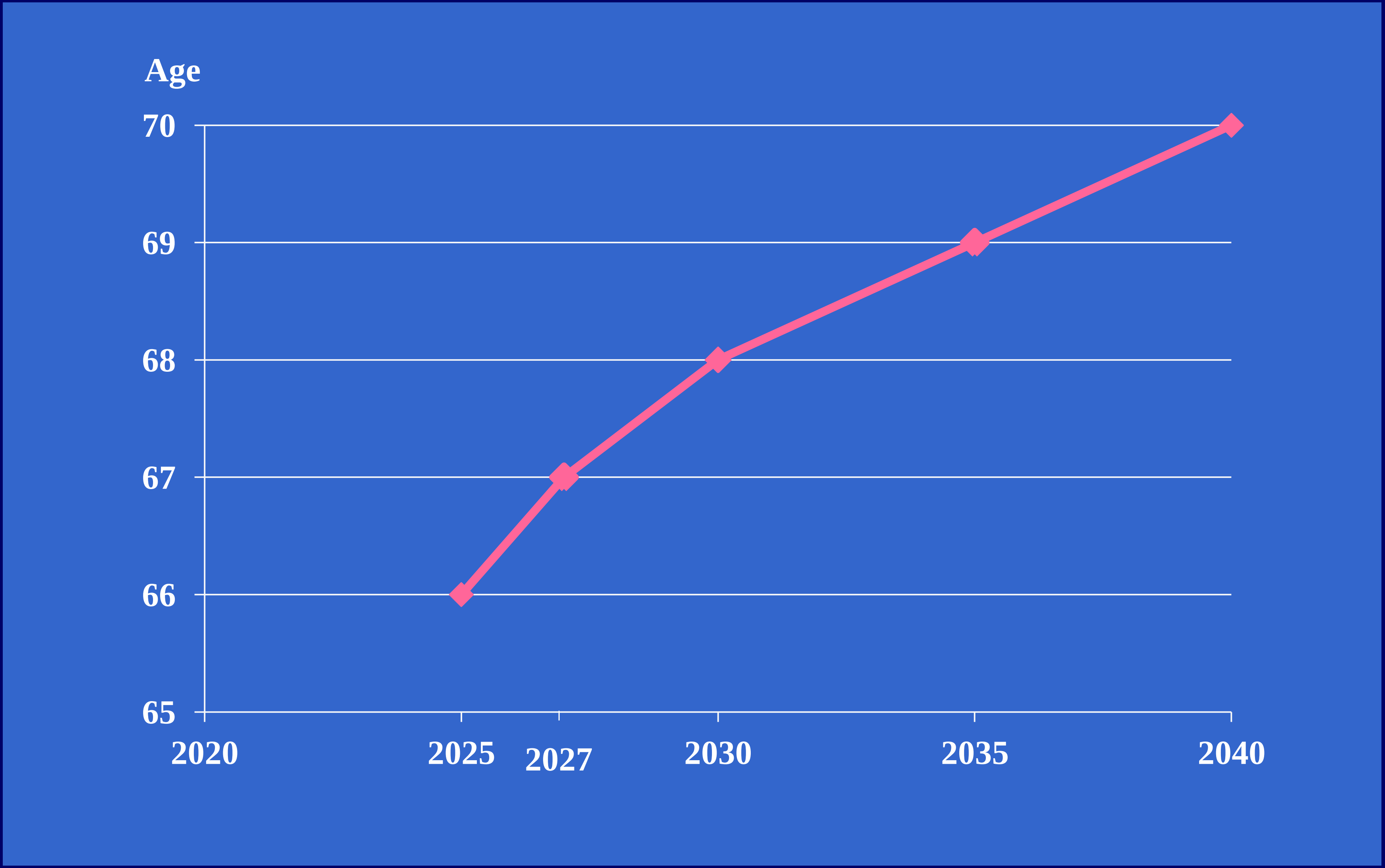
Automatic Adjustment (2)

Germany and Japan already introduced new indexation formulas of pension benefit levels based on demographic changes.

In 2006, Denmark introduced an automatic indexation of the normal pensionable age to longevity. This step is based on the realization that indexation to longevity is quite a wise move in order to avoid political risks while ensuring equity between generations, since the average period that individuals will receive social security old-age pension benefits will be the same for all generations. Denmark’s Ministry of Social Welfare anticipates that the normal pensionable age will reach 70 around 2040.

cf. The Netherlands and Italy

Expected Normal Pensionable Age in Denmark



Source: EU (2008) "Denmark, National Report on Strategies for Social Protection and Social Inclusion 2008-2009"; p.55.

Notional Defined-contribution Plans

In a NDC plan, each contribution is directly linked to the pension benefit on an individual basis. On an aggregate basis, however, some adjustment is required to maintain the long-term financial sustainability, since NDC plans are financed on a PAYG basis.

Sweden did downward adjustments in the level of pension benefits in 2010 and 2011 under the automatic balance mechanism. In 2011, Italy decided to rapidly increase the normal pensionable age from 65 to 67 during the years to come, and to introduce an automatic indexation to longevity from 2018 on.

Funded Defined-benefit Occupational Plans

Funded DB occupational plans seem to be free from intergenerational equity issues at first sight. It is basically assumed that any risks involved in these plans are all shared within each generation.

A rate of return from investment is intrinsically volatile, and an unexpected poor investment performance induces increased unfunded pension liabilities, which the sponsor companies have to make up for.

If the sponsors suffer from financial difficulties or facing bankruptcy, a wage cut and disemploying a considerable number of their actively-working employees are inevitable, together with braking hard to new employment. Through these measures, entitlements to pension benefits for current pensioners are protected at the expense of younger actively-working employees. Thus, DB plans will incur equity issues between generations irrespective of PAYG or funded.

Funded Defined-contribution Plans

A funded DC plan will face an investment risk (namely, quite a volatile rate of return), a risk of future earnings trajectories, an inflation risk, and an unexpected longer life expectancy. Since better instruments to minimize these risks are missing, very few generations could be lucky enough to avoid these risks in their long lives. Many people would be forced to receive an unexpected low amount of pension benefits in their old age. Market forces are usually merciless, inducing a long list of the victims within each generation under funded DC plans.

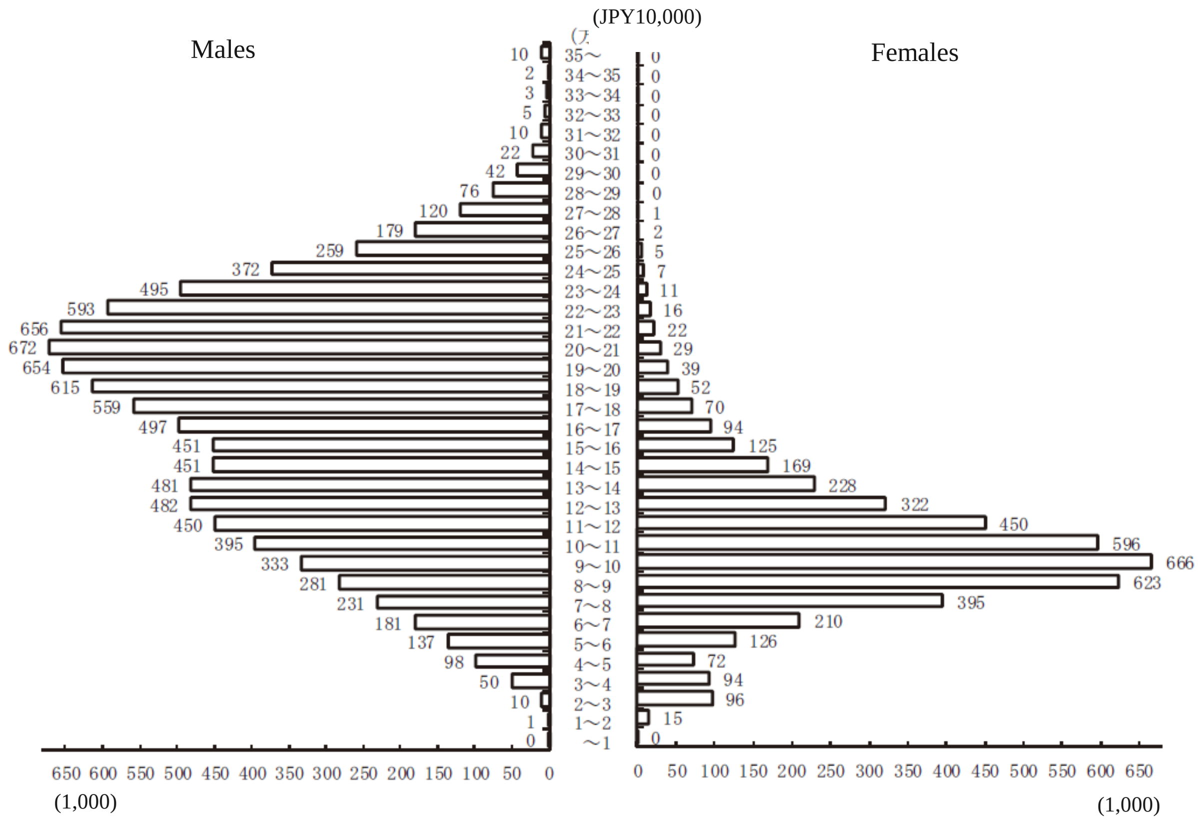
By definition, DC plans fix the contribution rate, regardless of financial or notional, and all the unpleasant adjustments, if any, are to be made on the benefit side.

Gender Gap Issues: Overview (1)

Women are likely to receive a lower amount of pension benefits from social security than men. Take Japan, for instance. In 2010, on average, the monthly amount of old-age benefits for women from the major pension program (KNH) was JPY104,000, just around 60 percent of the amount for men (JPY171,000).

Further, women are likely to live longer than men, and are typically younger than their husbands. An overwhelming majority of recipients of a survivor pension are accordingly women, whereas the level of a survivor benefit is not adequate very often. In old age, women usually face a greater risk of poverty since the principal income source for a majority of the elderly women is a pension benefit from social security.

Distribution of Monthly Amounts of Old-age Benefits of the Major Social Security Pension Program for Private Sector Employees in Japan in March 2011



Source: Ministry of Health, Labor and Welfare, Japan, The 2010 Annual Report of Social Security Pensions, 2012 (in Japanese).

Gender Gap Issues: Overview (2)

There are several reasons for gender difference in the level of pension benefits. Among others, women's wage rates are lower than men's one on average. Moreover, women are apt to work for fewer hours per week as a atypical employees, and participate for fewer years in market work than men, sparing more time for caring for their children and elderly dependents. Still more, women often work in the informal sector where no entitlement to pension benefits is provided. In addition, many countries punish divorced women in terms of pension benefit entitlements.

Needless to say, pension policies do not always come first. Measures for directly removing persistent gender differences in labor market participation and for directly changing an unequal division of caring roles are critically important for achieving greater gender neutrality in pensions.

Old-age benefits: Lower Wage Earners

Pensions can do something to partly remedy the wage gap, however, which will benefit a majority of women who earn lower wages, in the end.

The contribution rate can be set at a lower level for low wage-earners. This may encourage employers to increase their labor demand for low wage-earners.

If a country implements a two-tier benefit system including a flat-rate basic benefit, as is the case in the UK and Japan, or a progressive benefit formula of the US type, then the gap in pension benefits will be smaller than the gap in wages.

Old-age benefits: Non-regular Employees

Entitlements to social security earnings-related pensions were often limited to regular employees working for full time per week. A growing number of countries have expanded their coverage of earnings-related pensions to non-regular atypical employees.

Its expansion, however, induced employers to offer a lower wage rate to atypical employees working for shorter time per week. It also induced them to partly change their employment contract into a contract-based work with self-employed persons. It increased the number of the “pseudo” self-employed. Additionally, if the system implementation is weak, the coverage expansion to non-regular employees will induce a growing number of persons working in the informal sector.

Old-age benefits: Credits to Child-raising (1)

A growing number of countries have provided special pension credits to those persons under maternity leave and parental leave. A typical way is to exempt them to pay SS contributions, while ensuring them to receive pension benefits as if they were paying their contributions as before, during their maternity leave and parental leave. The required money is paid out of GR or contributions made by other insured persons.

Some countries give special advantages to those women who work as atypical employees while engaging in child-raising. Germany treats them as if they were earning wages 1.5 times their actual wages until their children reach 10 years old, within a wage limit. Some critics say, however, these advantages will reduce an incentive to remain or resume as full-time regular employees.

Old-age benefits: Credits to Child-raising (2)

Canada and the UK calculate career average earnings by dropping years spent in child-raising. This calculation may give more advantages to higher-earning women.

Other countries promise a plus alpha old-age pension benefit to those who raised their child (children). The purpose of implementing this benefit is to maintain a higher fertility rate. Few countries have a lower contribution rate for those in child-raising, however, although several countries once examined it.

cf. Pension credits to care-givers to the frail elderly remain very few in numbers, but a growing number of countries have set up a social insurance system for long-term care.

Old-age benefits: Full-time Housewives (1)

Pension arrangement for a dependent full-time housewife varies country to country, and by stages of economic development. Pension design can be individualistic, or be based on a household unit. If purely individualistic, no cares are paid to a dependent full-time housewife and no survivor pension is provided. If purely individualistic, again, lower wage earners receive a lower amount of pension benefits, as well.

Many countries have household-based social security pensions, however. If a husband earns wages/salaries and makes contributions to social security, his dependent wife is entitled to receive her old-age pension benefit.

Old-age benefits: Full-time Housewives (2)

Entitlements to old-age pensions differ in some ways. Typically, pension promises to a dependent wife are around one half of the old-age benefit her husband receives. Another option is an equal earnings-split between husband and wife in entitling pension benefits. This may reduce a men's incentive to marry, however.

In Japan, full-time housewives of regular employees are automatically entitled to the flat-rate basic benefit, without being required to make any direct individual payment to the social insurance pension system. Instead, the required money to pay these benefits comes from contributions made by singles and from general revenue. This entitlement raised contentious issues, however. Single women and dual-income couples have often attacked the current provisions geared toward full-time housewives as unfair.

Old-age benefits: Divorced Wives

Divorce after many years of marriage used to bring out a very low amount of old-age pension benefits for a wife who had a short earnings history. Currently many countries have implemented a special provision, providing pension benefits to a divorced wife, by introducing an equal earnings-split between spouses during their marriage. This provision increased an incentive for women to legally divorce.

Old-age benefits: Normal Pensionable Age

Many countries used to have a lower normal pensionable age for women than men. Other things being the same, this provision favored women, whereas it induced them to retire earlier than men.

Labor force participation rates for women are usually lower than men in their sixties.

A lower actual retirement age for women indicates shorter years of coverage in social security pensions, resulting in a lower level of old-age pension benefits.

Women live longer than men, on average. Under unisex mortality tables, women are likely to receive more in present discount value of social security pension wealth.

Labor Force Participation Rates of the Elderly in Japan

A: Males

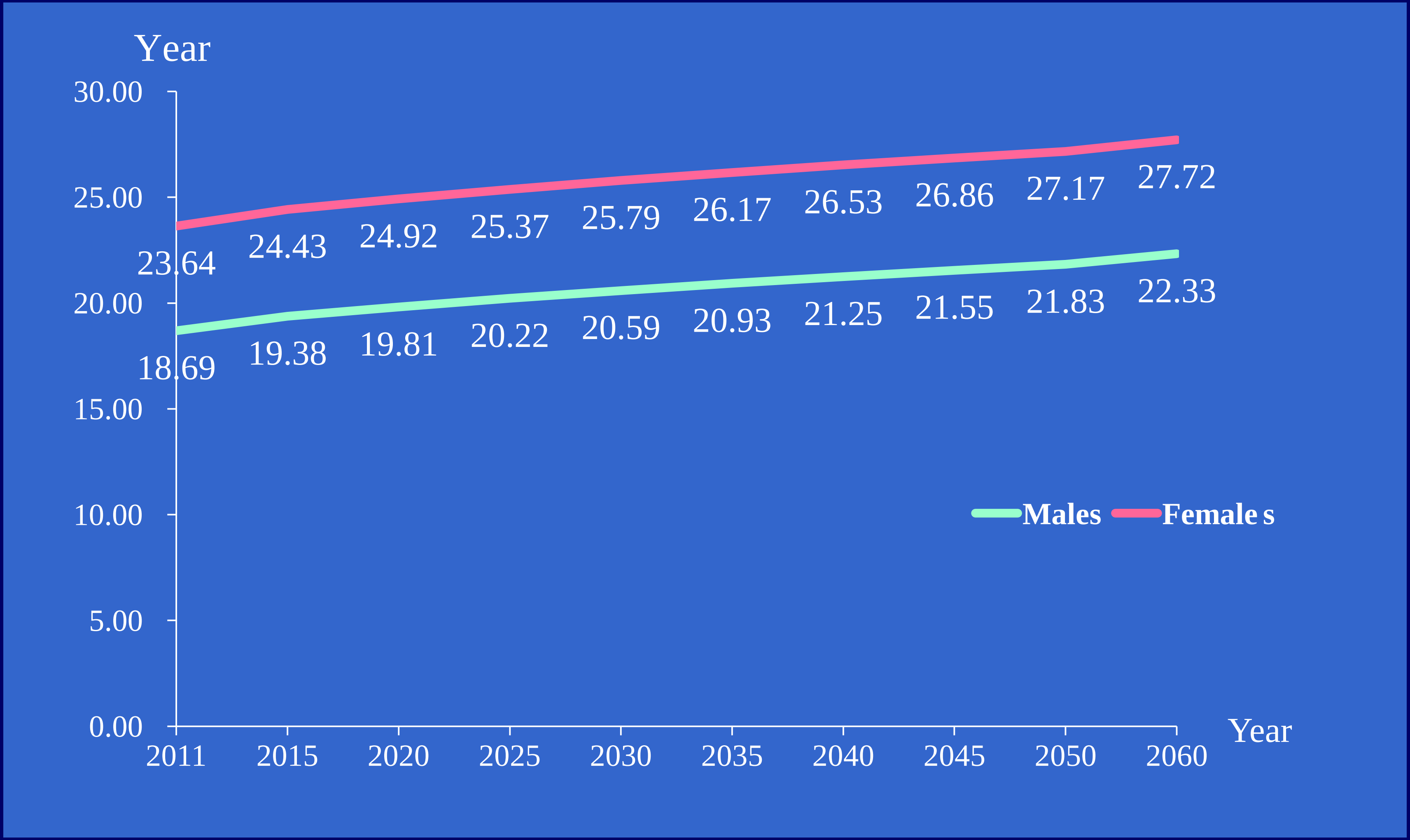
Year	Age		
	60-64	65-69	70+
1975	79.4%	63.9%	31.6%
1980	77.8	60.1	28.4
1985	72.5	55.6	26.8
1990	72.9	54.1	26.3
1995	74.9	54.2	26.1
2000	72.6	51.1	24.3
2005	70.3	46.7	21.1
2010	76.0	48.9	19.6

B: Females

Year	Age		
	60-64	65-69	70+
1975	38.0%	27.7%	9.3%
1980	38.8	25.8	9.6
1985	38.5	26.8	10.0
1990	39.5	27.6	10.4
1995	39.7	27.2	10.3
2000	39.5	25.4	9.8
2005	40.1	24.0	8.7
2010	45.7	27.4	8.4

Source: Statistics Bureau, Ministry of Internal Affairs and Communications, Japan, Labor Force Survey.

Life Expectancy at Age 65 in Japan



Source：National Institute of Population and Social Security Research (2012).

Survivor Benefits

An overwhelming majority of recipients of survivor pensions are women, and among them a higher head-count ratio of poverty is observed. Some countries still have a compelling need for increases in the level of survivor pensions.

In a traditional DB pension system, survivor benefits are financed by the overall income of the system. If a higher level of survivor pensions is in need, then an increased contribution rate or a reduced level of old-age pensions is required. Alternatively, a severer qualification of disability pensions can provide a higher level of survivor benefits. Needless to say, survivor pensions benefit couples, while single persons have no access to them. There are winners and losers from a change in survivor pensions.

Challenges Ahead (1)

Women's roles in home responsibilities and their employment conditions have been changing. The same pension system can have different impacts on the gender pension gap among varying cohorts of working-age women.

Gender issues on pensions are much complicated and there are no single solutions. There often take place trade-offs between equity and incentives to work. Some remedy options benefit part of women at the expense of other persons. Singles and couples have their different preferences, while the interest of a single-earner couple often contradicts that of a dual-earner couple.

Challenges Ahead (2)

Since social values vary person to person, it is not an easy task for societies to reach a compromise regarding gender issues on pensions. Still missing are refined empirical studies using panel data on the impact of alternative pension policy options on equity between men and women, incentives to market work, and care activities. Cool and careful evidence-based policy considerations are badly needed, instead of heated discussions based on specific ideologies or vested interests.