Annual Actuarial Report on the Public Pension Plans in Japan

Fiscal Year 2020 (Key Points)

1. Adjusted Financial Status

The adjusted financial status of the public pension plans as a whole in FY2020 is as follows:
The Actuarial Subcommittee compares the financial status of individual schemes transversely across the schemes. In light of the fiscal management performed based on the pay-as-you-go system as a rule, the Subcommittee expressed the financial status of a scheme in a slightly different way from the original income statement by dividing it into the following two parts: "Annual balance of revenues and expenditures excluding investment income"[1] and "Investment income." Hereafter we call the financial status expressed in this way the 'Adjusted financial status.' The revenue of the public pension plans as a whole was composed of JPY 38.6 trillion of the contribution income, JPY 13.2 trillion of the national and local government subsidies, etc., and so on. The total amount of revenues excluding investment income was JPY 52.5 trillion. The expenditure was mainly composed of JPY 53.4 trillion of benefit disbursements, and the total amount of expenditures was JPY 53.7 trillion. As a result, the annual balance of revenues and expenditures excluding investment income was negative JPY 1.2 trillion.
Then, the investment income was positive JPY 44.5 trillion on a market value basis. This was due to the strong performance of equities in Japan and overseas.
The reserves of the public pension plans as a whole at the end of FY2020 was JPY 233.9 trillion on a market value basis which increased by JPY 43.4 trillion compared with the previous fiscal year (See **Figure 1** below and **Figure 2-3-2** in the full text of the annual report).

Figure 1 Adjusted financial status (FY2020)

	Item		Whole Employees' Pension Insurance	National Pension		Public pension plans as a whole
				National Pension Account	Basic Pension Account	
			JPY 100 million	JPY 100 million	JPY 100 million	JPY 100 million
	Reserves at the previous fiscal year end (a)	(on a market value basis)	1,782,686	85,232	37,281	**1,905,199**
Revenues (adjusted financial status base)	Total amount		498,137	34,090	249,757	**525,271**
	(of which) Contribution income		372,802	13,365	•	**386,168**
	(of which) National and local government subsides etc.		113,305	18,308	•	**131,613**
	(of which) Subsidies from Basic Pension		4,680	2,370	•	•
	(of which) Revenue of the contribution to Basic Pension		•	•	249,663	•
Expenditures (adjusted financial status base)	Total amount		511,980	36,604	245,106	**536,977**
	(of which) Benefit disbursements		292,067	3,491	238,053	**533,612**
	(of which) Contribution to Basic Pension		217,735	31,928	•	•
	(of which) Benefits equivalent to Basic Pension (Subsidies from Basic Pension)		•	•	7,050	•
	Annual balance of revenues and expenditures excluding investment income (b)		△13,884	△2,514	4,651	**△11,706**
	Investment income (c)	(on a market value basis)	424,373	20,489	10	**444,873**
	Others (d)	(on a market value basis)	206	52	-	**258**
	Reserves at the fiscal year end (a + b + c + d)	(on a market value basis)	2,193,421	103,259	41,942	**2,338,623**
	Change in reserves from the previous fiscal year end	(on a market value basis)	410,735	18,028	4,661	**433,424**

Note 1: To observe whole Employees' Pension Insurance (EPI) and the fiscal revenue and expenditure situation for EPI as a whole, "give-and-take" exchanges between EPI implementation organizations are excluded from both revenues and expenditures. In the same way, "give-and-take" transactions within the public pension plans are excluded from both revenues and expenditures for the public pension plans as a whole.
Note 2: Whole EPI and public pension plans as a whole do not include the substitutional portion for Employees' Pension Funds (EPFs).
Note 3: The amount recorded as "Others (d)" is "Transfer to reserves from the Business Account" in EPI Account and the National Pension Account of NP.

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[1] Calculation excludes "Investment income" and "Withdrawal from reserves" of the National Pension Account of NP and the Basic Pension Account of the NP on the revenue side and excludes "Losses on the sale of marketable securities, etc." of the National Public Officers Mutual Aid Associations (NPO-MAAs) and the Local Public Officers Mutual Aid Associations (LPO-MAAs) from "Others" on the expenditure side.

2. Insured Persons

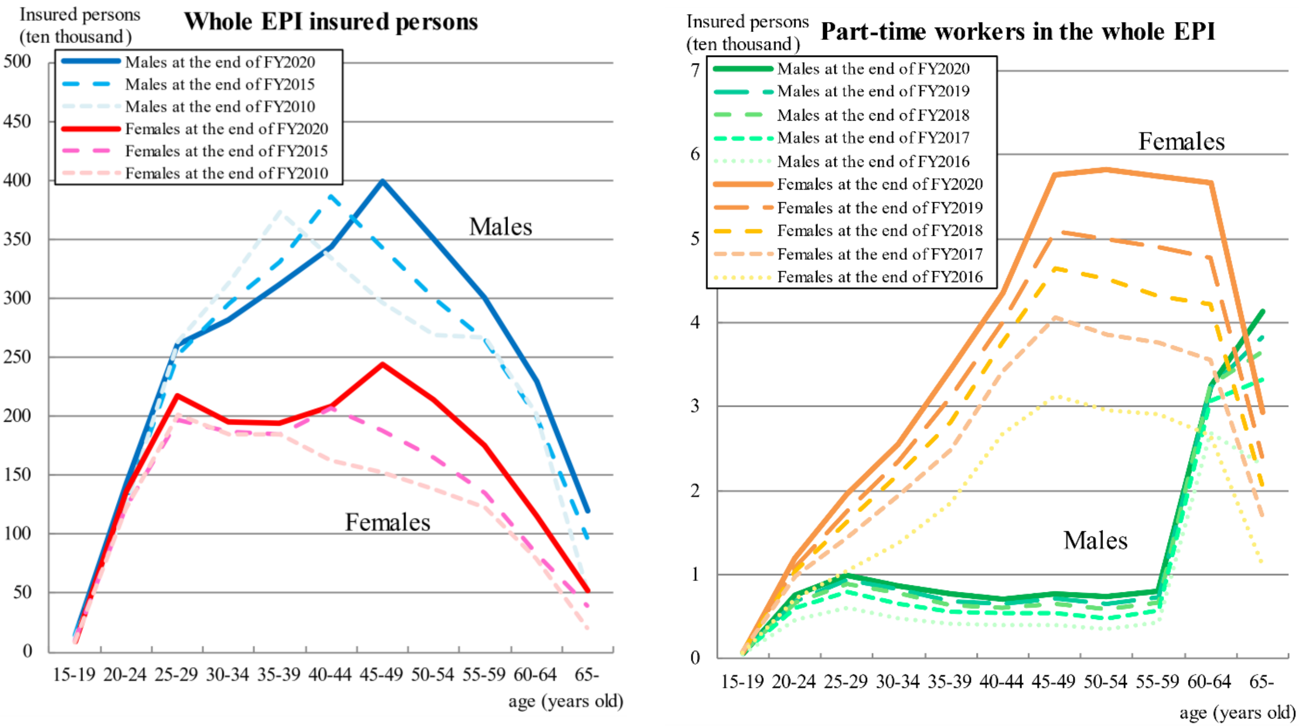
As of the end of FY2020, there were 45.13 million EPI insured persons (including 0.53 million part-time workers, comprising 1.2% of the overall EPI total), 14.49 million for NP Category-1 (namely, self-employed persons, etc.) and 7.93 million for NP Category-3 (namely, dependent spouses of EPI insured persons). These brought the total number of insured persons for the public pension plans as a whole to 67.56 million. While the number of insured persons of EPI increased, that of insured persons both NP Category-1 and Category-3 decreased, resulting in a decrease of 0.1% for the public pension plans as a whole, the first decrease in five years.

The increase in the number of EPI insured persons and the decrease in those insured in NP Category-1 and Category-3 is considered attributable to the effect of a shift from persons insured in NP Category-1 and Category-3 to EPI, as more people are becoming employed amid a decrease in the working-age population.

The rate of increase in the number of insured persons for EPI is 0.6%, which is reduced to 0.4% if part-time workers are excluded. For part-time workers alone, the rate of increase is 12.3%[2]. The number of part-time workers has continued to increase, from 0.29 million at the end of FY2016 to 0.53 million at the end of FY2020 (See **Figure 2-1-1** in the full text of the annual report).

Regarding the age distribution of EPI insured persons, for the entire cohort of whole EPI male insured persons, the age group accounting for the largest proportion shifted from 35-39 a decade ago to 40-44 five years ago, followed by 45-49 at the end of FY2020 (as the junior baby-boomer generation aged). As for the whole EPI female insured persons, the number – with the exception of the 15-19 age group – increased. For part-time workers as a proportion of the total number of EPI insured persons, the number of those insured increased from the end of the previous fiscal year, with the exception those in the 15-19 age group (See **Figure 2** below and **Figure 2-1-6** in the full text of the annual report).

Figure 2 Change in the age distribution of EPI insured persons



[2] The number of male part-time workers increased by 6.6%, while the number of female part-time workers increased by 14.4%. Thus, the increase in the number of female part-time workers is significant.

3. Comparative Analysis of Actual Results to the Projections made by the 2019 Actuarial Valuation

By comparing actual results through FY2020 with the assumptions and future projections of the 2019 Actuarial Valuation, the following points were confirmed.

It was confirmed that the trend of the number of NP Category-1 insured persons decreasing and becoming insured by EPI is progressing faster than the future projection of the Actuarial Valuation. If this trend continues, it may enhance the sustainability of NP and contribute to curbing future declines in the benefit levels of BP (See **3-2-14** in the full text of the annual report).

In addition, the actual fertility rates for 2019 and 2020 were roughly in the middle of the assumed intermediate fertility rate and the assumed low fertility rate in the 2017 population projections, which underpinned the 2019 actuarial valuation (See **Figure 3-2-1** in the full text of the annual report), and actual contribution income in 2020 was confirmed to be lower than the future projection.
Should these deviations from future projections continue over the medium to long term, rather than temporarily, which is thought to be partly due to the COVID-19 pandemic and other factors, the impact on finance of public pensions[3] would be significant.

From the perspective of finance of public pensions, we should pay attention to the long-term trend of actuarial status, regardless of the short-term change, including those of demographic and economic factors.

[3] According to 2019 Actuarial Valuation, for the low fertility rate and medium mortality rate cases, the replacement ratio (after adjustment of benefit levels) is projected to be below 50% for all economic assumptions (49.2% for Case I (after FY2049), 47.8% for Case III (after FY2050), and 39.7% for Case V (after FY2069)) in the future.