

**Overview of the Annual Actuarial Report on
the Public Pension Plans in Japan
Fiscal Year 2019**

Pension Actuarial Subcommittee of the Social Security Council

0. On the annual actuarial report on the public pension plans in Japan Fiscal Year 2019

- The “Annual Actuarial Report on the Public Pension Plans in Japan” is a compilation of the results of cross-plan analysis and assessment of the financial status of Japan’s public pension plans each fiscal year from a professional perspective, based on the reports from each pension plan and implementing organization.
- This report clarifies trends in actual performance and compares it with actuarial valuation, and also summarizes the financial status of entire Employees' Pension Insurance (EPI) including Mutual Aid Association, etc.

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 - Section 3 Comparison of actual and projected fiscal indices
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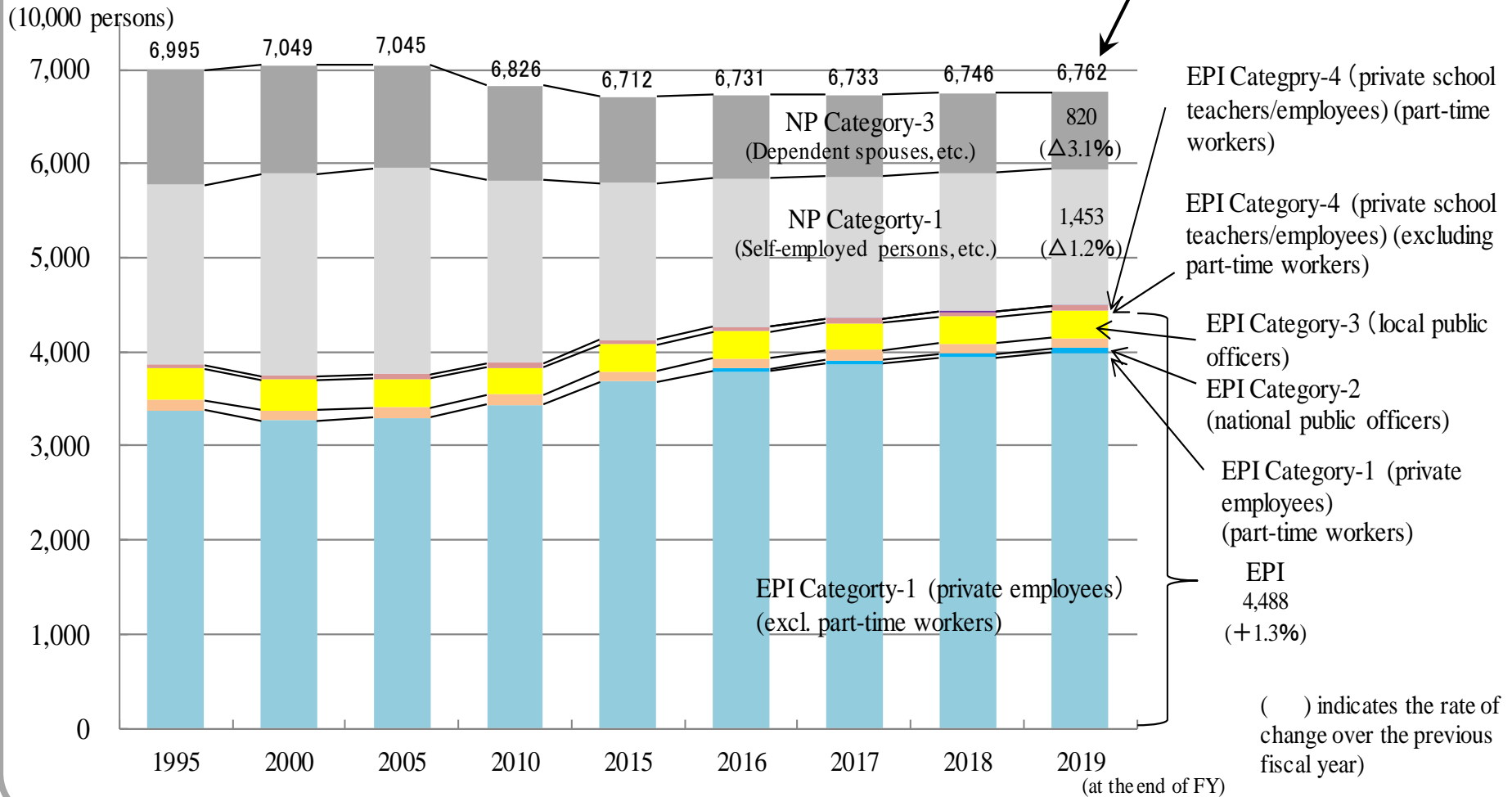
Reports and hearings for FY2019 report

- **87th Pension Actuarial Subcommittee**
(Held on March 15, 2021)
 - Employees' Pension Insurance (Category-1)
 - National Pension/Basic Pension Plan
- **88th Pension Actuarial Subcommittee**
(Held on April 27, 2021)
 - National Public Officers Mutual Aid Associations
 - Local Public Officers Mutual Aid Associations
 - Private School Teachers/Employees Mutual Aid Association

**Current situation and trends of insured persons
(Excerpt from Chapter 2, Section 1)**

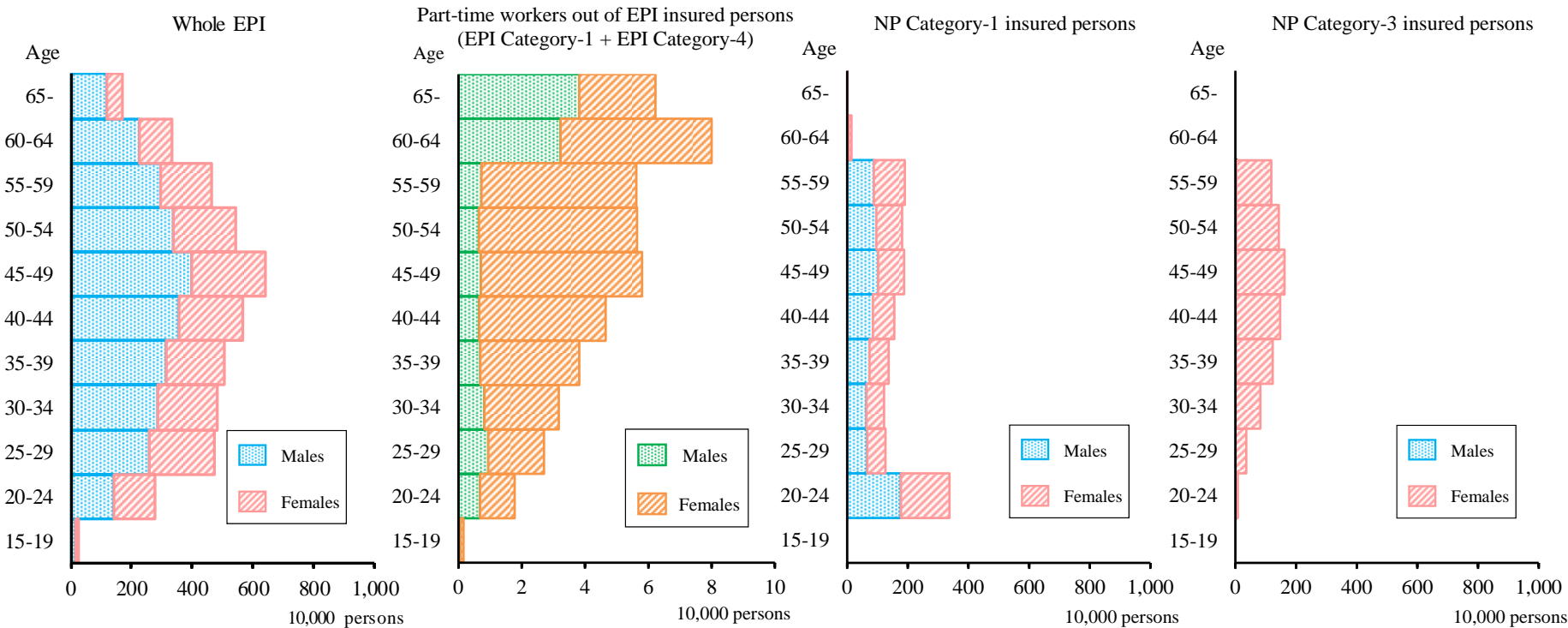
1. Trends in the number of insured persons with a public pension

- In FY2019, while the number of the national pension (NP) Category-1 and Category-3 insured persons decreased, that of EPI insured persons increased and therefore the total persons insured under the public pension plans increased by 0.2%.
- The rate of increase in the number of insured persons for EPI is 1.3%, which remains unchanged after the part-time workers are excluded. For part-time workers alone, the rate of increase is 8.6%.



2. Age distribution of insured persons

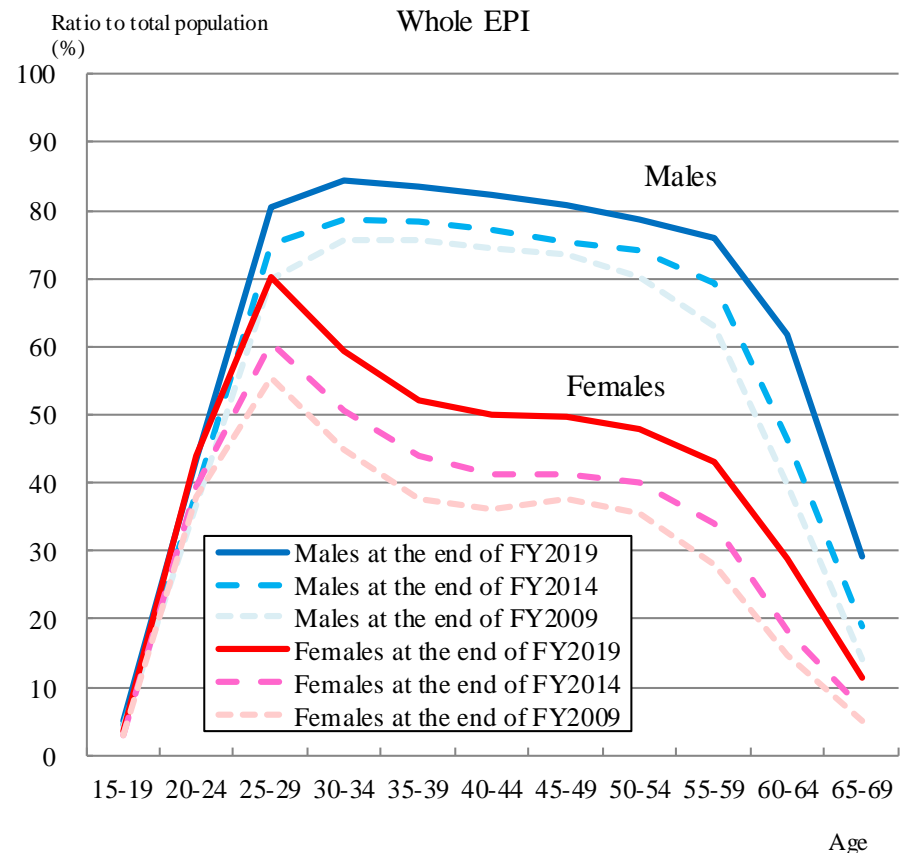
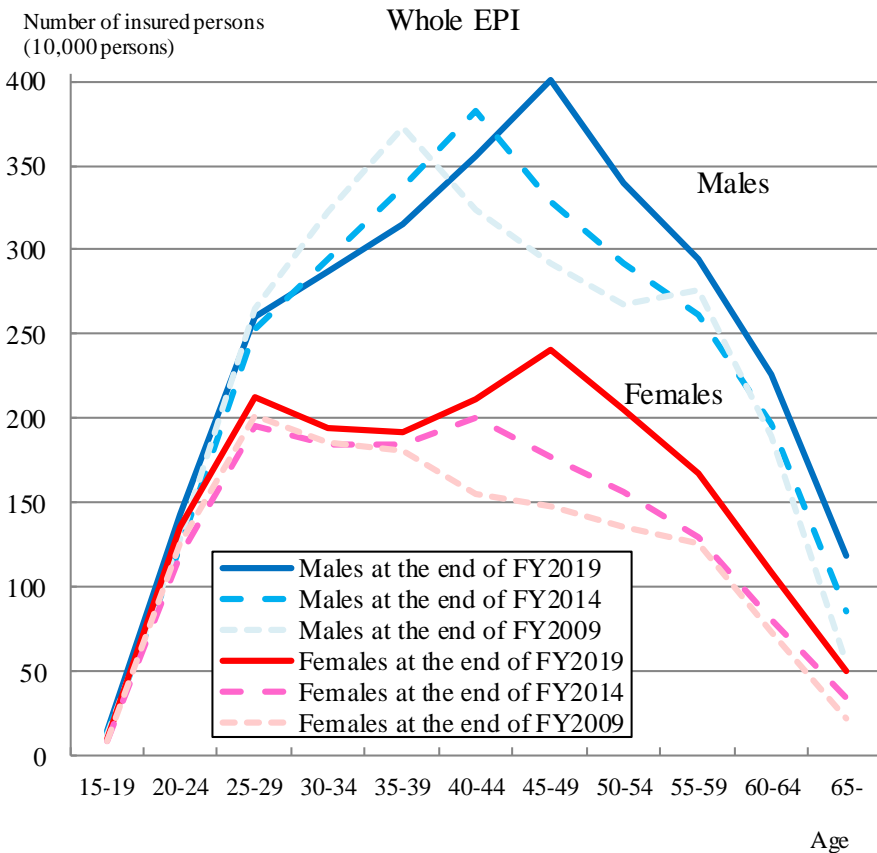
- Age distribution of the insured persons as of the end of FY2019 shows that the largest proportion of insured persons is in the 45-49 age group for the whole EPI and NP Category-3 insured persons.
- Among the part-time worker EPI insured persons (comprising 1.1% of all EPI insured persons), most males are aged over 60, while most females are aged between 40 and 64.
- For NP Category-1 insured persons, the age group of 20-24 comprises the largest proportion, exceeding 20%.



3. Change in age distribution of insured persons (whole EPI)

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in the annual
report

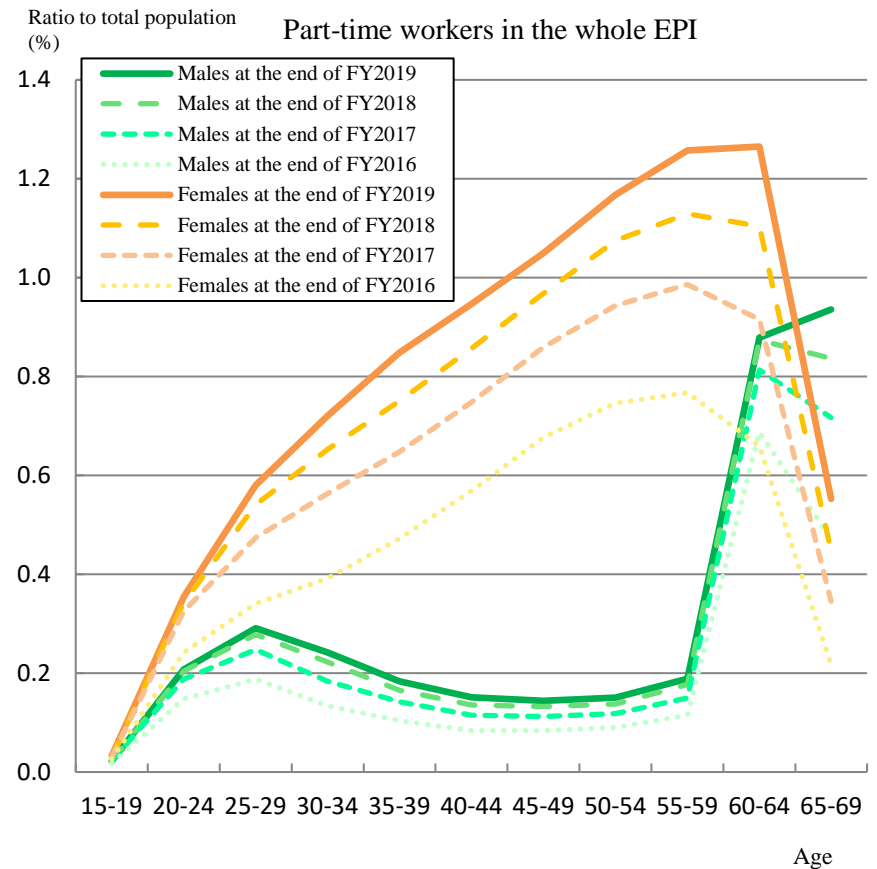
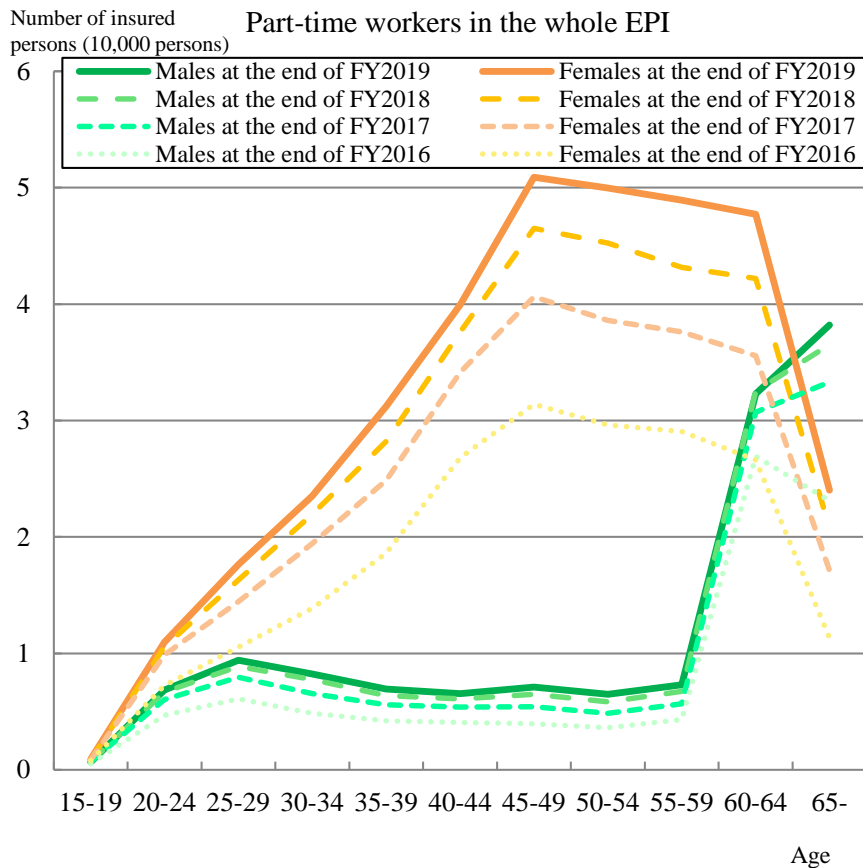
- For the entire cohort of whole EPI male insured persons, the age group accounting for the largest proportion shifted from 35-39 a decade ago to 40-44 five years earlier, followed by 45-49 at the end of FY2019 (as the junior baby-boomer generation aged). The second peak that the age group of 55-59 formed a decade earlier has disappeared, as the baby-boomer generation retired. As for the entire cohort of whole EPI female insured persons, the number of those aged 40 or over increased. The number of insured persons aged 65-69, both male and female, has also increased in the past five years.
- Viewing insured persons as a percentage of the population, it increased in each age group for both males and females, compared with five years before. In particular, as evidenced by the increased percentage of insured aged 65-69 from 18.8 to 29.1% for males and 7.0 to 11.5% for females, it emerged that the employment of those aged 65 or over is progressing.



4. Change in age distribution of insured persons (part-time workers)

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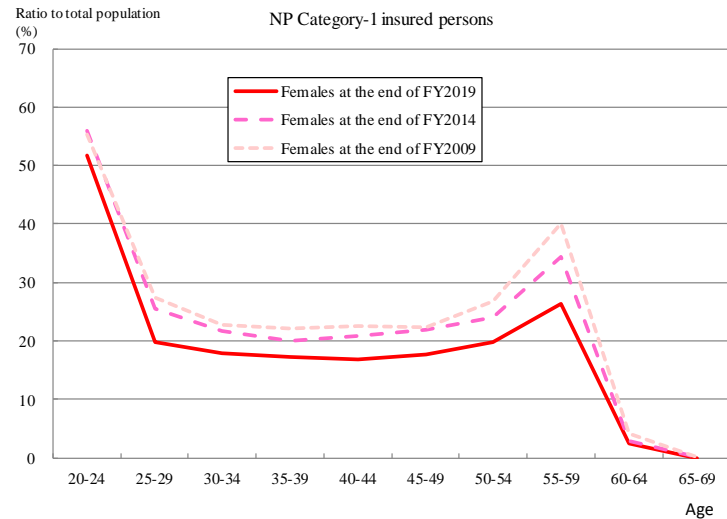
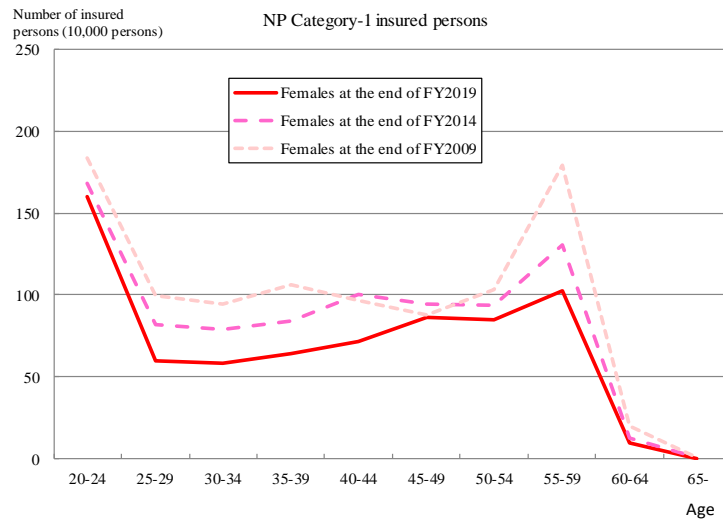
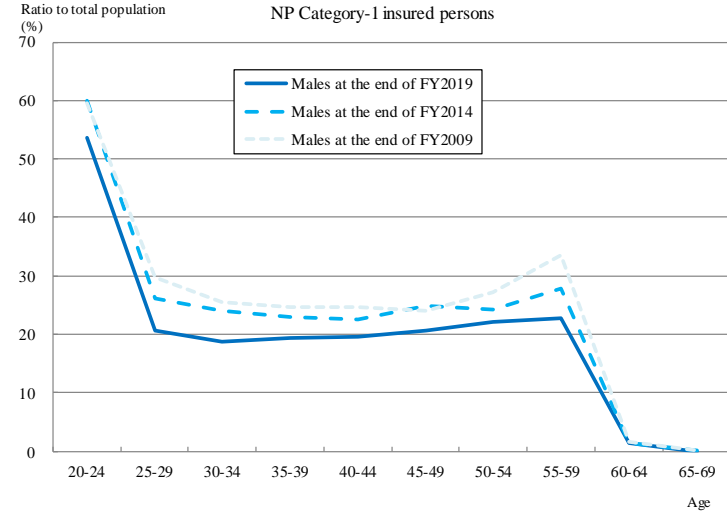
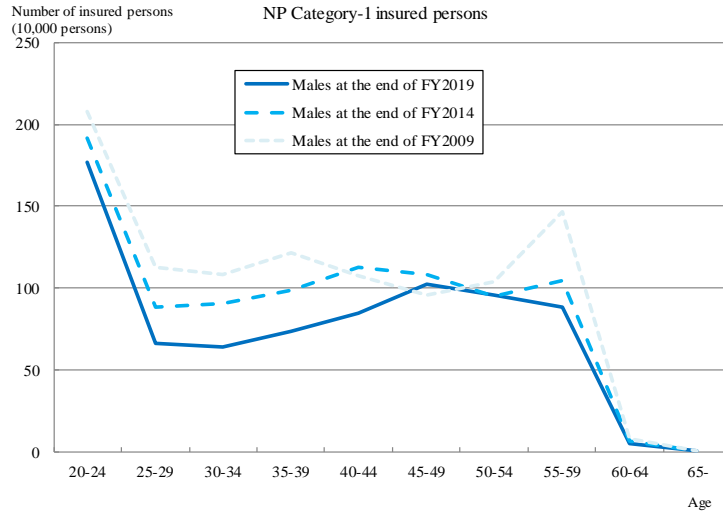
- For part-time workers (1.1% of the whole EPI), the number of insured persons increased from the end of the previous fiscal year, except for males aged 15-19 and 60-64.
- The number of insured persons as a percentage of the population rose compared to the end of the previous fiscal year, except for males aged 15-19.



5. Change in age distribution of insured persons (NP Category-1)

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report

- For NP Category-1 insured persons, the total number of insured persons declined for both genders, except for the shift in the junior baby-boomer generation.
- The number of insured persons, as a percentage of the population, declined in all age groups for insured persons of all genders compared to five years ago.



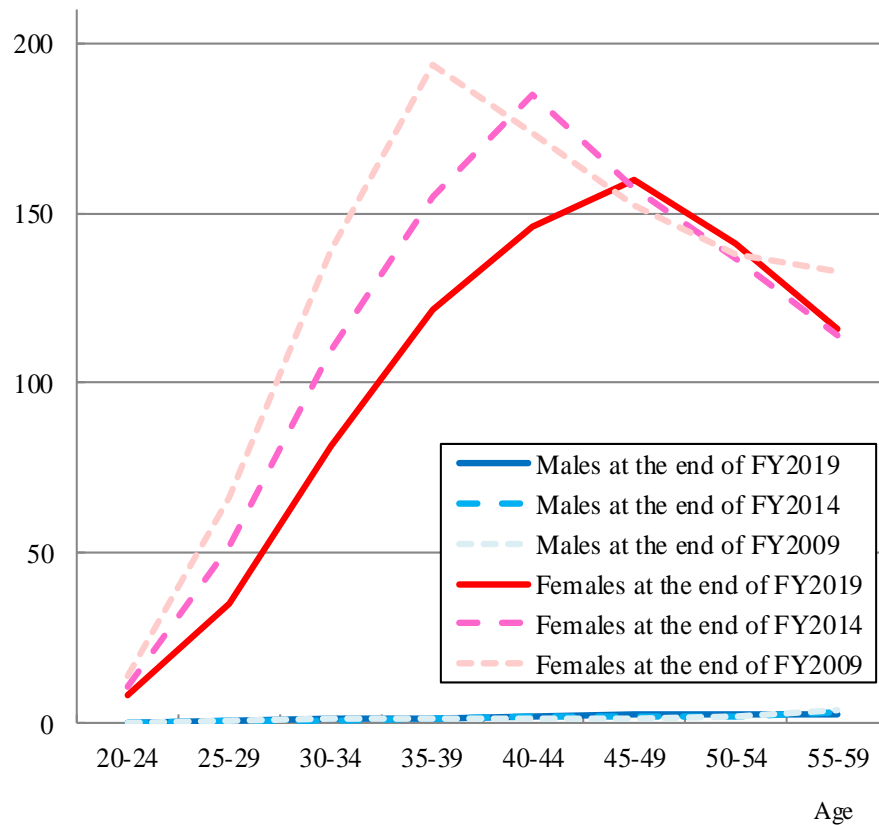
6. Change in age distribution of insured persons (NP Category-3)

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- For female NP Category-3 insured persons, the group under 44 years old has declined significantly.
- Looking at the number of insured persons as a percentage of the population, there was no significant change in the number of males from five years ago, while the number of females declined in all age groups from five years ago.

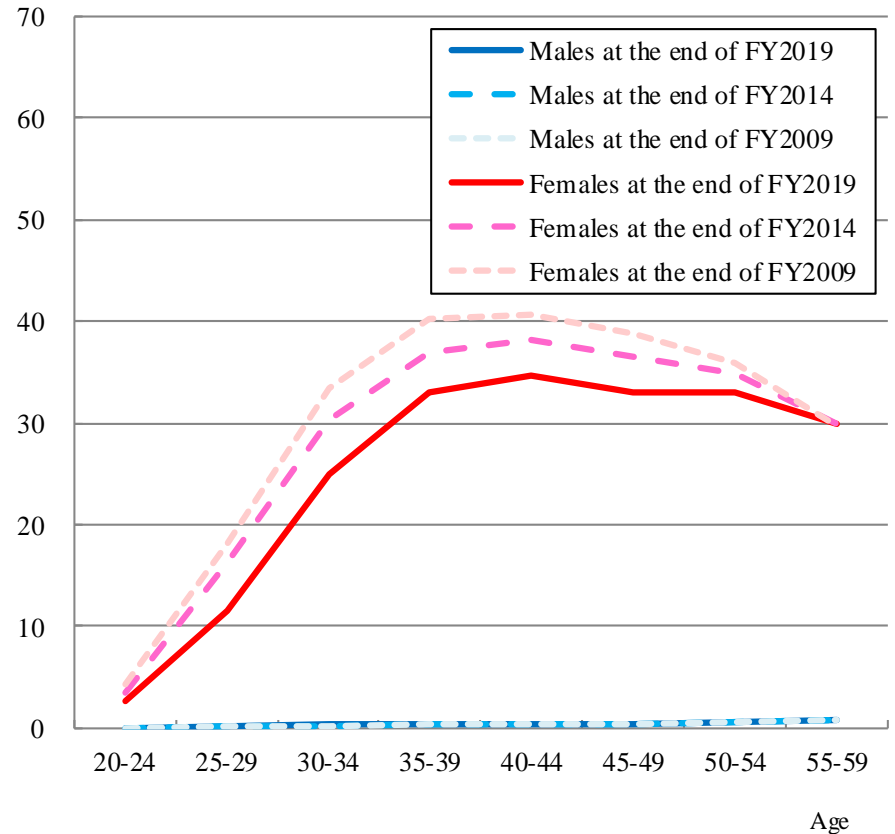
Number of insured
persons (10,000 persons)

NP Category-3 insured persons



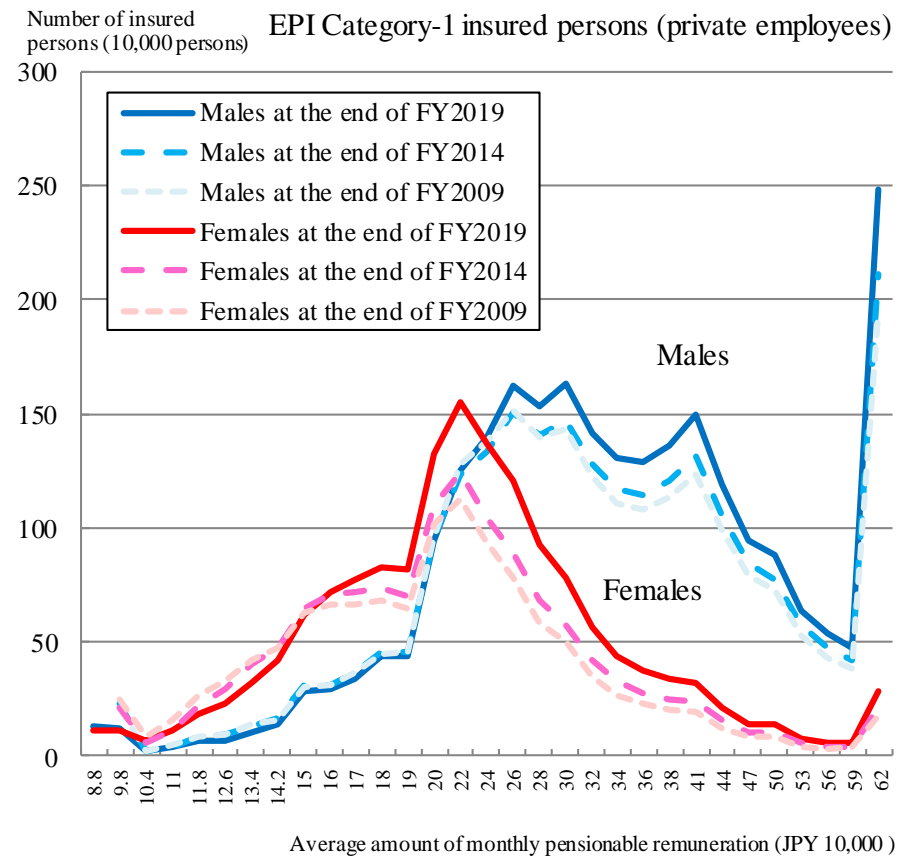
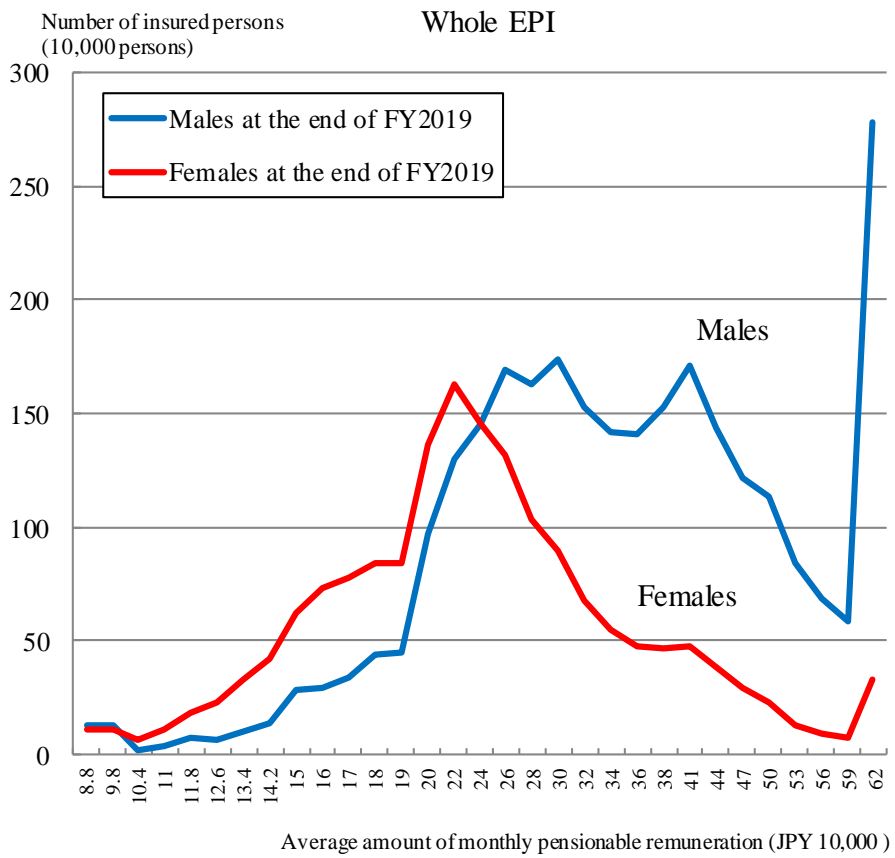
Ratio to total
population (%)

NP Category-3 insured persons



7. Distribution of EPI insured persons by standard monthly remuneration

- The largest monthly remuneration of EPI received by male insured persons is JPY 620 thousand and the distribution of insured persons peaks at JPY 260-300 thousand and JPY 410 thousand respectively.
- The distribution peaks at JPY 220 thousand for whole EPI female insureds.
- The distribution of EPI Category-1 insured persons (private employees) is almost the same as the distribution of the whole EPI; compared to the distribution five years ago, the number of insured persons increased for male insured persons, with the exception of JPY 98 thousand and JPY 118-200 thousand categories. The number of insured persons increased, except for JPY 98 thousand and JPY 110 to 150 thousand categories.



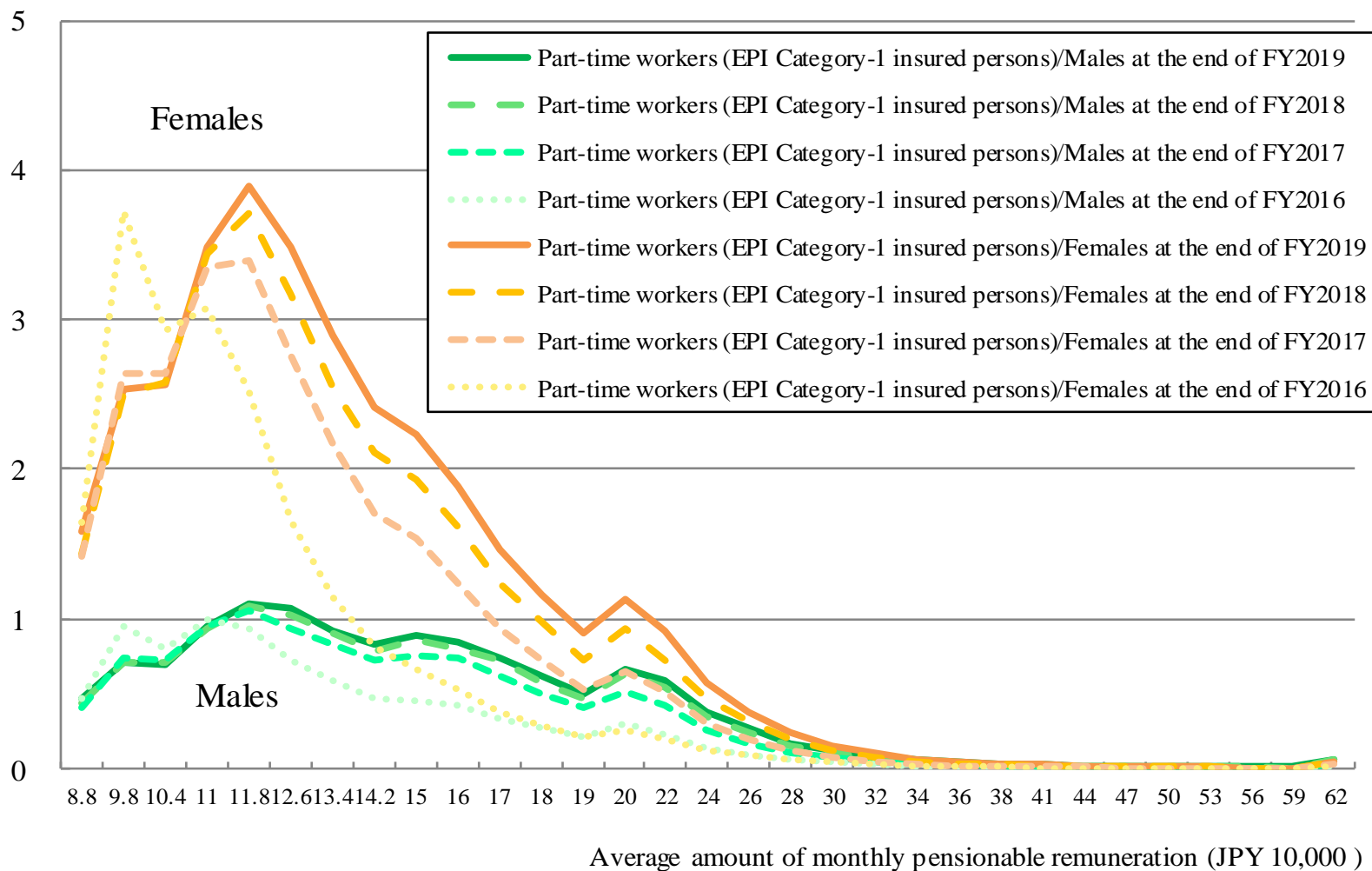
8. Distribution of part-time workers by standard monthly remuneration

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in the annual
report

The distribution of part-time workers in EPI Category-1 insured persons (private employees) peaks at JPY 118 thousand for both genders. That changed from the FY2016 distribution, where the peak was standard monthly remuneration of between JPY 98 to 110 thousand for insured persons of both genders.

No. of insured persons
(10,000 persons)

Part-time workers in EPI Category-1 insured persons (private employees)



**Current situation and trends of beneficiaries
(Excerpt from Chapter 2, Section 2)**

9. Trends in the total amount of pensions for beneficiaries

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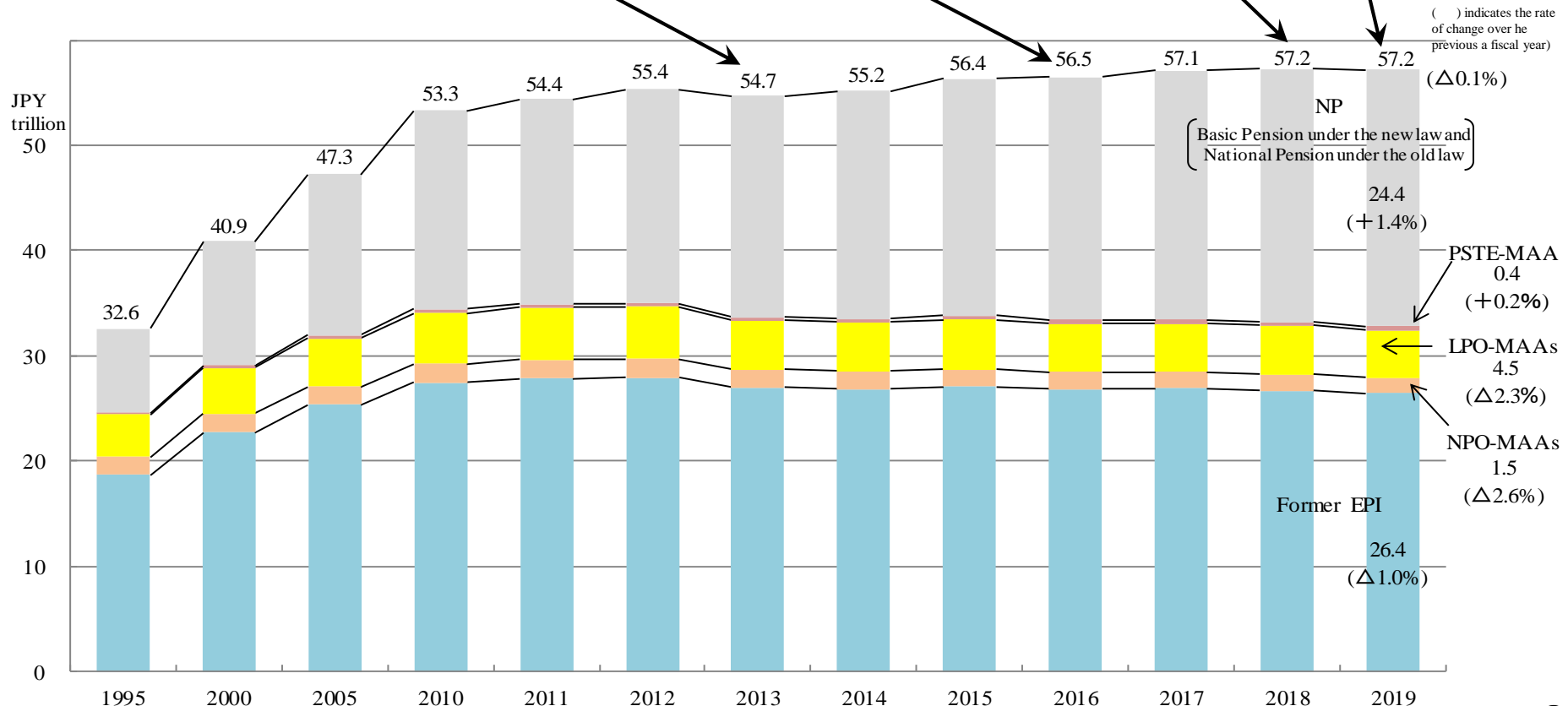
The total pension amounts at the end of FY2019 were JPY 57.2 trillion for the entire public pension plans. Compared to the end of FY2018, the total pension amount of the former EPI, the National Public Officers' Mutual Aid Associations (NPO-MAAs), and the Local Public Officers Mutual Aid Associations (LPO-MAAs) declined, while that for the Private School Teachers/Employees Mutual Aid Association (PSTE-MAA) and the NP increased.

Pensionable age for the earnings-related portion was raised to 61 years old for male insured persons and MAAs (and other) female insured persons and the fixed portion of special payment ceased. Further, the benefit pertaining to the Onkyu period for NPO-MAAs and LPO-MAAs was reduced from August 2013 (from October 2013 for actual payment) pursuant to the Employees' Pension Scheme Integration Act.

Pensionable age for the earnings-related portion was raised to 62 years old for male insured persons and MAAs (and other) female insured persons

Pensionable age for the earnings-related portion was raised to 61 years old for female insured persons of the former EPI and the fixed portion of special payment ended.

Pensionable age for the earnings-related portion was raised to 63 years old for male insured persons and MAAs (and other) female insured persons.

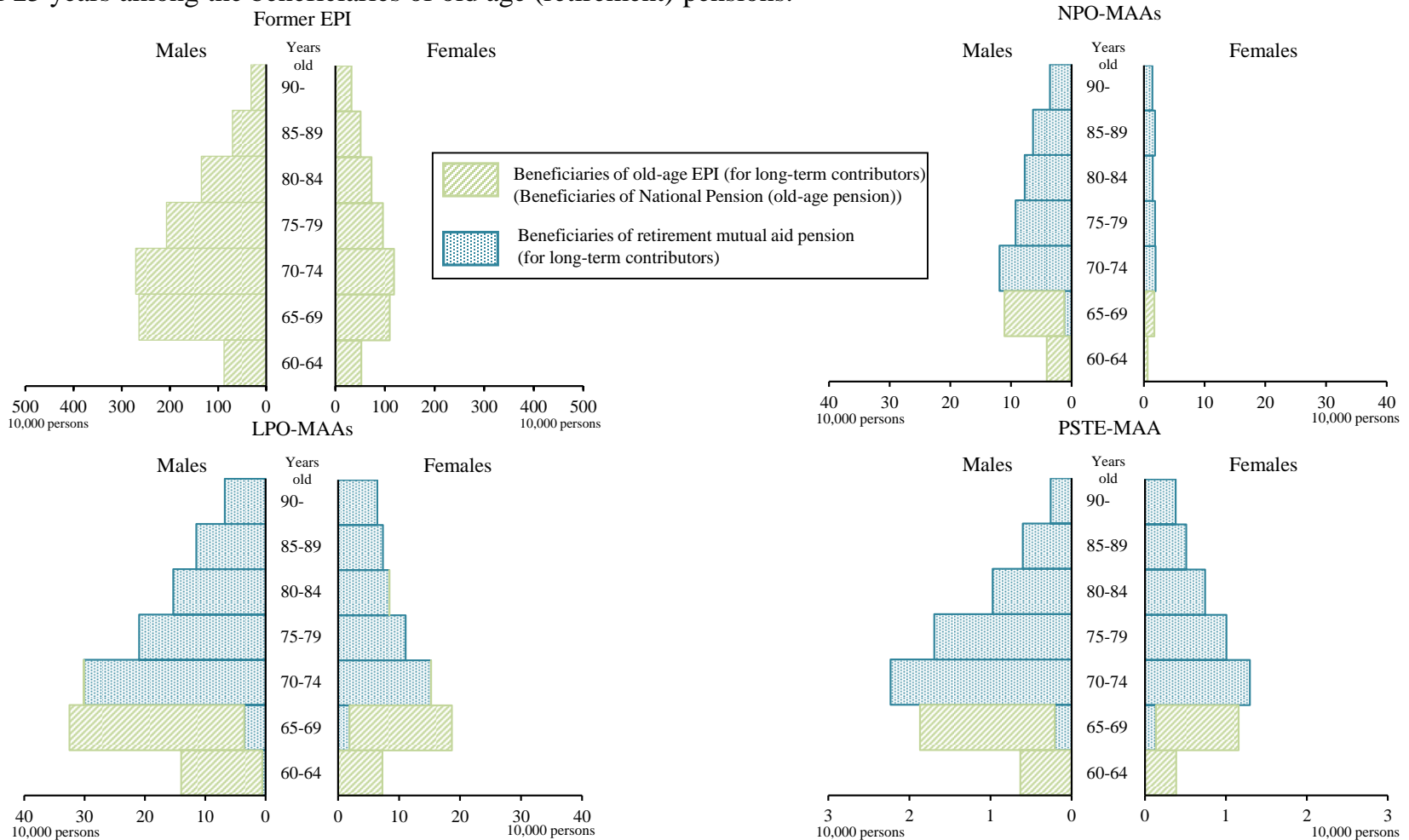


Note: NPO-MAAs, LPO-MAAs, and PSTE-MAA of FY2015 and subsequent years are the total amounts of the total pensions provided to the beneficiaries of MAA pensions and the total pensions provided to the beneficiaries of EPI before the integration of the employee's pension schemes. (at the end of FY)

10. Age distribution of beneficiaries of old-age pension for long-term contributors

- The former EPI, NPO-MAAs, and PSTE-MAA have the largest number of beneficiaries in the 70-74 age group. LPO-MAAs have the largest number of beneficiaries in the 65-69 age group.
- The NPO-MAAs are characterized by the paucity of female beneficiaries and the number of female beneficiaries in each age group of between 65 and 89 remains relatively unchanged.

*“Beneficiaries of old age pension for long-term contributors” mean, as a general rule, those having met the eligibility criteria of 25 years among the beneficiaries of old age (retirement) pensions.



11. Average monthly old-age pension for long-term contributors excluding occupational additions of MAAs, etc. (estimates)

Since mutual aid pensions, such as the pensions provided by MAAs, include occupational additions, pension actuarial subcommittee estimated the pension amount of the portion equivalent to EPI pension excluding these additions. The average monthly whole EPI was JPY 149 thousand; JPY 167 thousand and 112 thousand for male and female beneficiaries respectively.

The reason for the difference in the monthly pension amounts among the implementing organizations is that, despite the fact the average contribution period in the former EPI exceeds that of NPO-MAAs and PSTE-MAA, the standard remuneration amount, the benchmark for calculating the pension, is deemed to be higher in MAAs, etc. and the age of beneficiaries in MAAs, etc., is higher than that of the former EPI.

Classification	Former EPI	NPO-MAAs	LPO-MAAs	PSTE-MAA	Whole EPI
Average monthly amount of pension (including the amount of the Old-Age Basic Pension)	JPY	JPY	JPY	JPY	JPY
Total	144,268	172,868	175,943	175,968	148,942
Males	164,770	176,373	182,830	192,035	167,326
Females	103,159	155,370	163,801	151,747	111,739
Female-to-male ratio ("males"=100)	62.6	88.1	89.6	79.0	66.8

Note 1: The amounts of retirement mutual aid pension for long-term contributors for NPO-MAAs, LPO-MAAs and PSTE-MAA excluding the occupational addition are estimates.
 Note 2: For NPO-MAAs, LPO-MAAs and PSTE-MAA, the average for beneficiaries of retirement mutual aid pension for long-term contributors and beneficiaries of old-age EPI for long-term contributors.

With regard to women, the difference in the standard remuneration amount (the basis for calculating the pension), the average membership in MAAs etc., which is considerably longer than that of the former EPI and the age of beneficiaries in NPO-MAAs and PSTE-MAA, which exceeds that of the former EPI, seem to be having an impact.

12. Average monthly pension for beneficiaries of old-age pension by age group

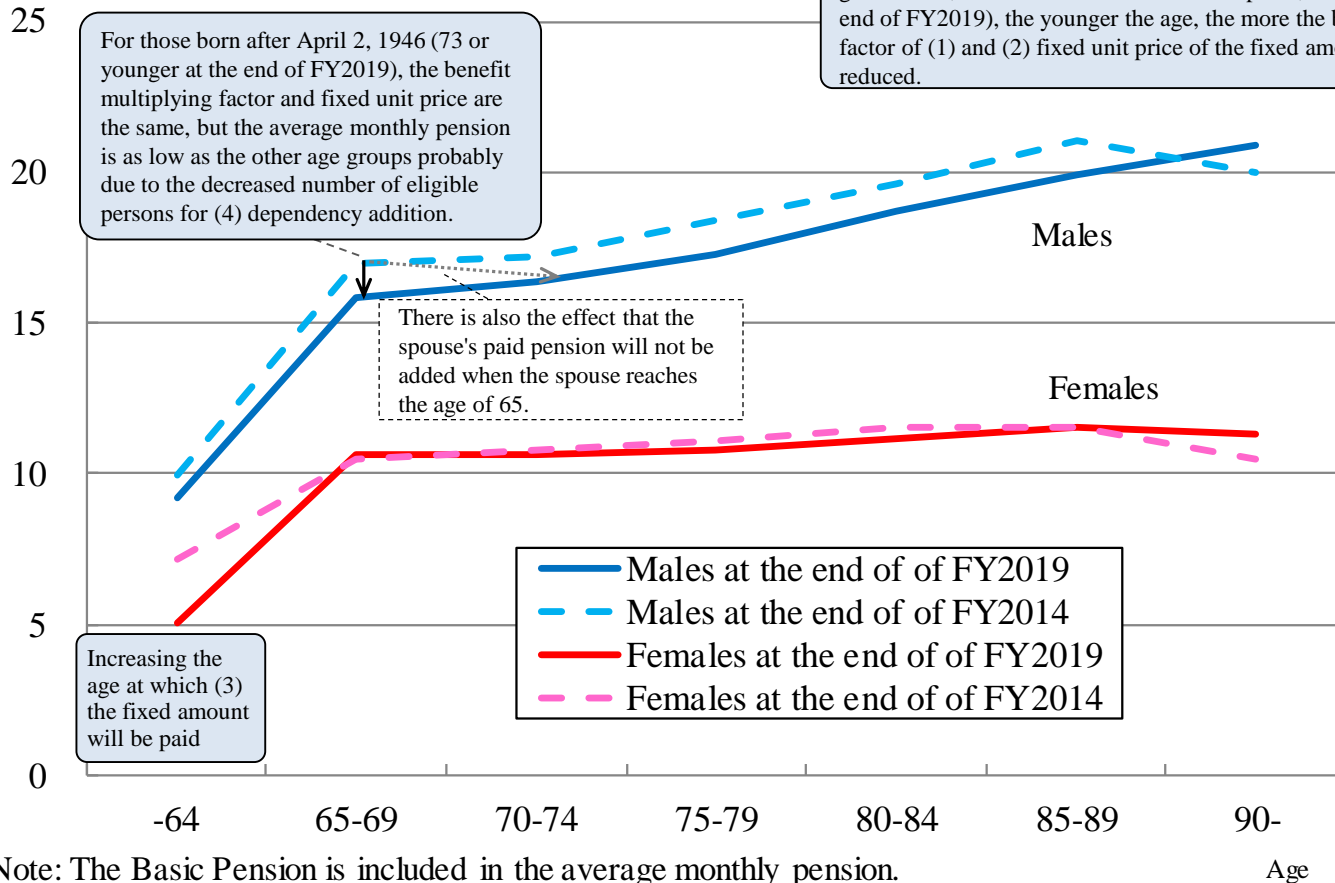
The average monthly pension amount for the former EPI has been declining as the average length of contribution has been prolonged for all beneficiaries. The main reasons are considered to be the following:

- (1) Decline in benefit multiplying factors of the earnings-related portion, (2) decline in unit price of fixed amount portion, (3) Increase in the pensionable age for the fixed amount portion, (4) decline in number of persons eligible for dependency addition, (5) price indexation, and (6) elimination of “exceptional level” overpayment (negative revision of pension amounts).

Average monthly amount of pension (JPY10,000)

Former EPI

The average pension enrollment period has been increasing for younger generations, while for those born before April 1, 1946 (74 or older at the end of FY2019), the younger the age, the more the benefit multiplying factor of (1) and (2) fixed unit price of the fixed amount part have been reduced.



For those born after April 2, 1946 (73 or younger at the end of FY2019), the benefit multiplying factor and fixed unit price are the same, but the average monthly pension is as low as the other age groups probably due to the decreased number of eligible persons for (4) dependency addition.

There is also the effect that the spouse's paid pension will not be added when the spouse reaches the age of 65.

Increasing the age at which (3) the fixed amount will be paid

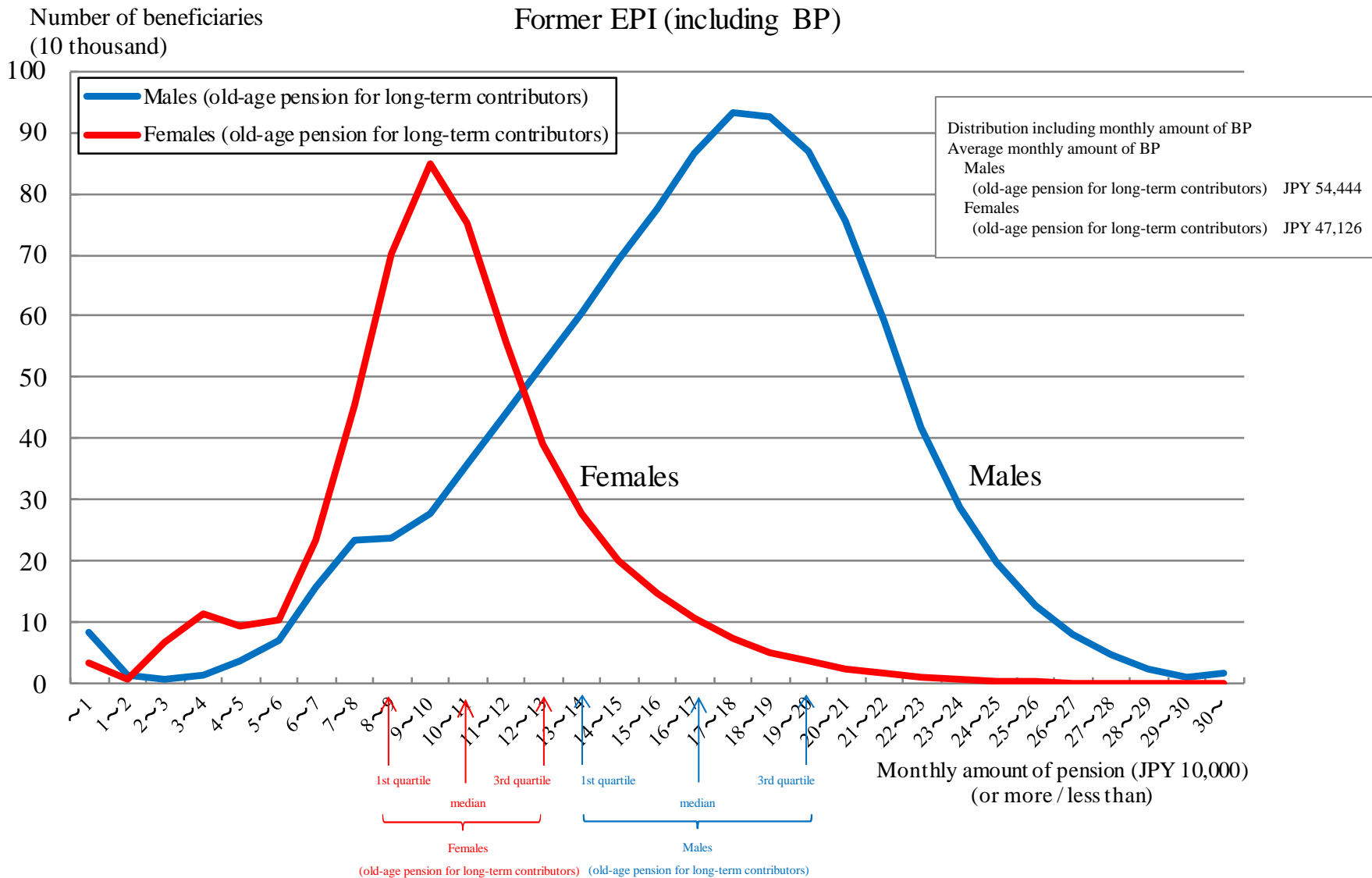
From the end of FY2014 to the end of FY2019 (in addition to (1) reduction of benefit multiplying factor and (2) fixed unit price), (6) there will also be the impact of the elimination of special levels.

Note: The Basic Pension is included in the average monthly pension.

13. Number of beneficiaries of old-age pension by class of monthly pension amount

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The amount includes the Basic Pension. The number of beneficiaries peaks at JPY 160-200 thousand for male beneficiaries and JPY 80-110 thousands for female beneficiaries.



**Current situation of fiscal revenue
(Excerpt from Chapter 2, Section 3)**

14. Annual balance of revenues and expenditures in FY2019

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in the annual
report

- The annual balance of revenues was analyzed for “Annual balance of revenues and expenditures excluding investment income” and “Investment income” separately.
- The revenue of the public pension plans as a whole was composed of JPY 39.1 trillion of the contribution income, JPY 13 trillion of the national and local government subsidies, etc., and so on. The total amount of revenues excluding investment income was JPY 52.9 trillion. The expenditure side was mainly composed of JPY 53.0 trillion of benefit disbursements, and the total amount of expenditures was JPY 53.3 trillion. As a result of these, the annual balance of revenues and expenditures excluding investment income was a negative JPY 0.4 trillion.
- The investment income was negative JPY 9.8 trillion on a market value basis. This was due to the impact of short-term fluctuations in financial markets in the fourth quarter, caused by concerns over the global economy following the COVID-19 pandemic.
- The amount of reserves of the public pension plans as a whole at the end of FY2019 was JPY 190.5 trillion on a market value basis which decreased by JPY10.1 trillion compared with the previous fiscal year.

Item	Whole Employees' Pension Insurance	National Pension		Public pension plans as a whole	
		National Pension Account	Basic Pension Account		
Reserves at the previous fiscal year end (a)	(on a market value basis) JPY 100 million 1,881,696	JPY 100 million 91,543	JPY 100 million 33,355	JPY 100 million 2,006,594	
Revenues (adjusted financial statement basis)	Total amount	503,376	34,168	245,758	529,149
	(of which) Contribution income	377,446	13,458	•	390,904
	(of which) National and local government subsidies etc.	112,019	17,684	•	129,703
	(of which) Subsidies from Basic Pension	5,521	2,971	•	•
	(of which) Revenue of the contribution to Basic Pension	•	•	245,662	•
Expenditures (adjusted financial statement basis)	Total amount	509,455	35,958	241,847	533,108
	(of which) Benefit disbursements	292,173	4,082	233,352	529,607
	(of which) Contribution to Basic Pension	214,892	30,769	•	•
	(of which) Benefits equivalent to Basic Pension (Subsidies from Basic Pension)	•	•	8,492	•
Annual balance of revenues and expenditures excluding investment income (b)	Δ 6,079	Δ 1,790	3,911	Δ 3,959	
Investment income (c)	(on a market value basis) Δ 93,115	Δ 4,595	15	Δ 97,696	
Others (d)	(on a market value basis) 184	74	-	259	
Reserves at the fiscal year end (a + b + c + d)	(on a market value basis) 1,782,686	85,232	37,281	1,905,199	
Change in reserves from the previous fiscal year end	(on a market value basis) Δ 99,010	Δ 6,311	3,926	Δ 101,396	

Note 1 To observe whole EPI and the fiscal revenue and expenditure situation for EPI as a whole, “give-and-take” exchanges between EPI implementing 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 managed by 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.

15. Factor analysis of change in contribution income for EPI

Trends in contribution income for EPI

FY	EPI Account	NPO-MAAs	LPO-MAAs	PSTE-MAA	Whole EPI
	JPY 100 million	JPY 100 million	JPY 100 million	JPY 100 million	JPY 100 million
2018	319,287	12,744	33,476	4,384	369,892
2019	326,197	12,901	33,771	4,578	377,446

Rate of change over previous FY (%)

2019	2.2	1.2	0.9	4.4	2.0
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Note: EPI Account and Whole EPI do not include the substitutional portion managed by EPFs.

The increase in the number of insured persons significantly boosted the contribution income.

Classification		EPI Account	NPO-MAAs	LPO-MAAs	PSTE-MAA
		%	%	%	%
Rate of change over previous FY (contribution income)		2.2	1.2	0.9	4.4
Contributions by factor	Number of insured persons	1.6	0.2	0.4	1.6
	Average amounts of standard remuneration	0.6	0.1	0.2	0.1
	Contribution rate	—	0.7	0.7	2.5
	Others	Δ0.0	0.1	Δ0.5	0.3

Note1: The contributions of each factor are estimates, being expressed in terms of the rate against contribution income in the previous fiscal year.

Note2: The fiscal year average is used for the number of insured persons.

In NPO-MAAs and LPO-MAAs, the contribution rate ultimately peaked at 18.3% in September 2018, while in FY2019, the rate was 18.3% for all months in the fiscal year, including April to August. This helped boost the overall contribution income.

The increase in contribution rates in FY2019 contributed to the increase in contribution income.

16. Analysis of the factors causing an increase or decrease in contribution income of the current year for National Pension Account of NP

The decline in the number of NP Category-1 insured persons contributed to the decline in contribution income.

The increase in the payment rate contributed to the increase in contribution income.

FY	Contribution income	Contributions for current FY	Contributions for preceding FY	Payment rate for current FY	Final payment rate	Contributions
	JPY 100 million	JPY 100 million	JPY 100 million	%	%	
2017	13,964	13,237	728	66.3	76.3	16,490
2018	13,904	13,153	751	68.1		16,340
2019	13,458	12,817	641	69.3		16,410
Rate of change over previous FY (%)		Difference from previous FY				
2017	Δ7.3	Δ7.3	Δ7.9	1.3	1.7	
2018	Δ0.4	Δ0.6	3.2	1.8		
2019	Δ3.2	Δ2.6	Δ14.6	1.1		

Note1: The payment rate of NP contributions is the ratio of the number of months actually paid to the number of months in which contributions should be paid. The number of months to be paid is the number of months to be paid as the concerned fiscal year's portion of contributions (not including the number of statutory exemption months, the number of full exemption months applied, number of special case months for students and number of suspension months for the youth), and the number of months paid is the number of months actually paid during that year (until the end of April of the following year). In addition, the number of months to be paid and the number of months actually paid are counted as one month even for those who paid partially the contributions.
Note2: Contributions can be paid for the preceding two years' portion. Final payment rate is the payment rate including contributions paid in the preceding fiscal years.

Classification		2017	2018	2019
		%	%	%
Rate of change over previous FY (Contributions for current FY)		Δ7.3	Δ0.6	Δ2.6
Contribution by factor	Number of insured persons	Δ5.5	Δ3.0	Δ2.0
	Proportion of number of contribution-exempted insured persons	Δ2.6	Δ0.4	Δ1.8
	Amount of contributions	1.6	Δ0.7	0.3
	Payment rate	2.0	2.7	1.7
	Others	Δ2.9	0.8	Δ0.7

Note1: Contributions by factor are estimates, being expressed as a ratio to contributions for the current year's portion in the previous fiscal year.
Note2: The fiscal year average is used for the number of insured persons.
Note3: The amount of contributions is the weighted average in consideration of the number of months received.

“Others” are the residual of factor analysis, which includes the impact of the two-year pre-payment plans of contributions established in April 2014.

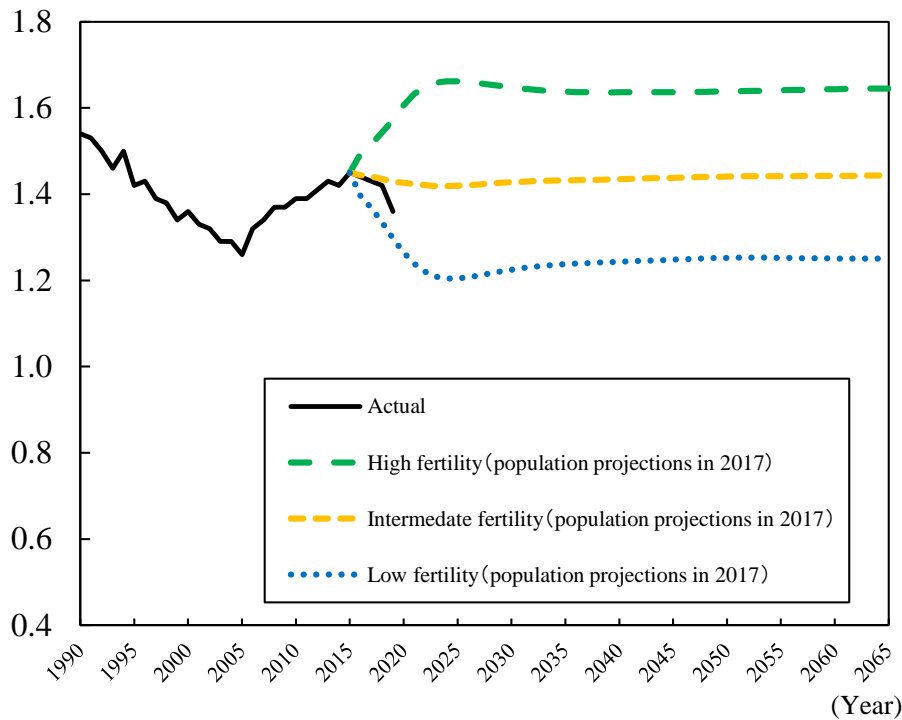
**Comparison of actual and
projected fiscal revenues and expenditures
(Excerpt from Chapter 3, Section 2)**

17. Comparison of actual results and assumptions for total fertility rate and average life expectancies at 65

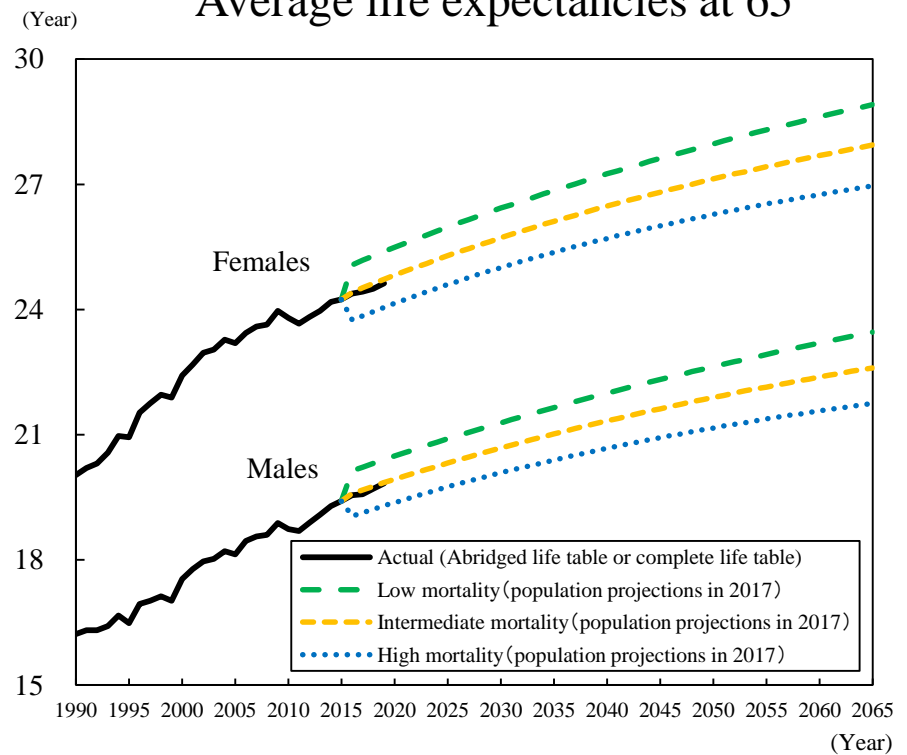
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- The actual fertility rate in 2019 is roughly in the middle of the assumed intermediate fertility rate and the assumed low fertility rate in the 2017 population projections, which underpinned the 2019 actuarial valuation.
- Comparison of the actual average life expectancies of Japanese nationals aged 65 with the corresponding assumptions for the year 2017 population projections shows that the actual life expectancy for both males and females is proceeding at equivalent to the assumed intermediate mortality.

Total fertility rate

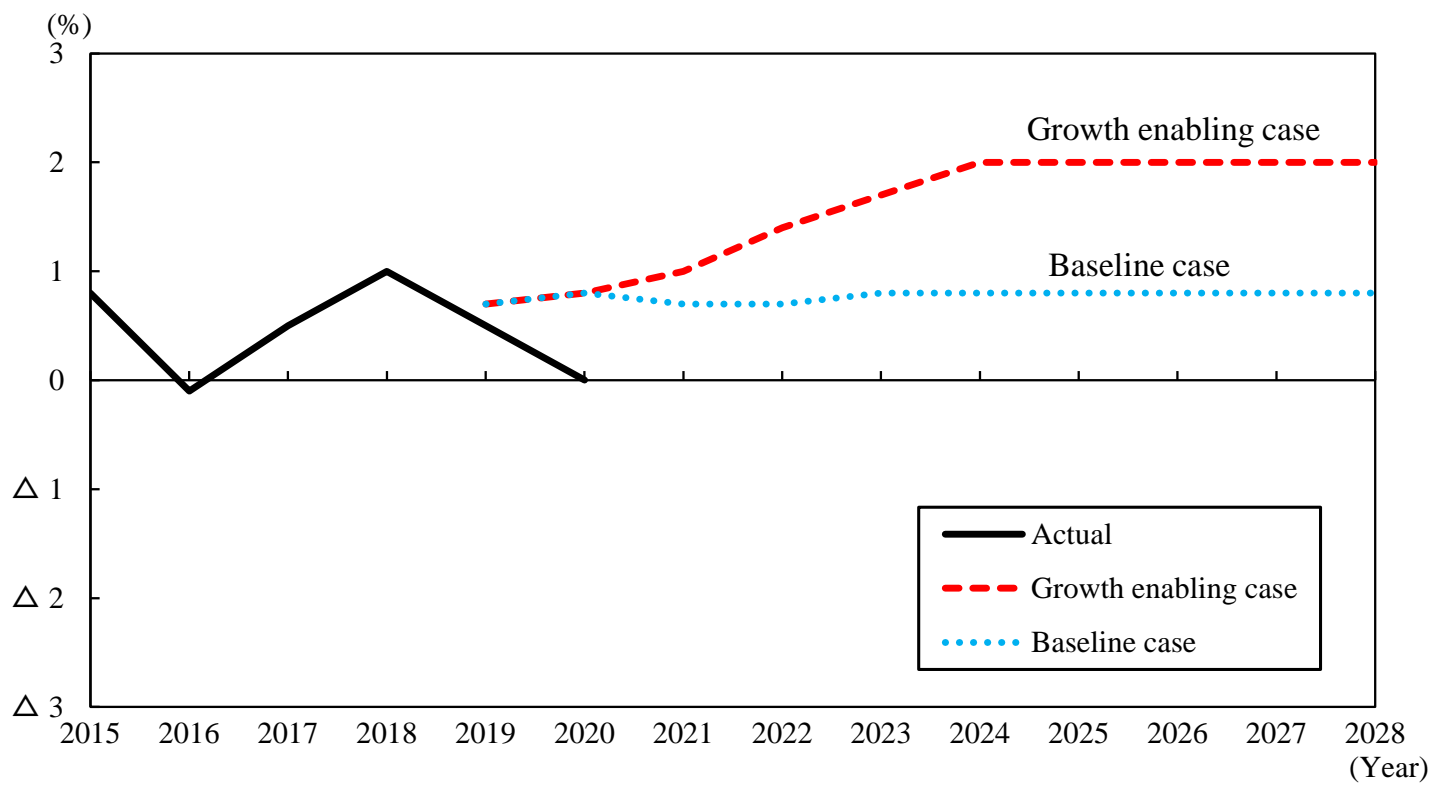


Average life expectancies at 65



18. Comparison of actual assumed inflation rates

The actual inflation rate for 2019 rose by 0.5% due to the consumption tax hike (from 8 to 10%) in October, a decline in kindergarten and nursery school fees after free early education and childcare was introduced from the same month onward and increased food prices (excluding fresh food), energy, etc. However, compared to the assumptions made in the 2019 actuarial valuation, the actual results are lower, both in growth enabling and baseline cases.

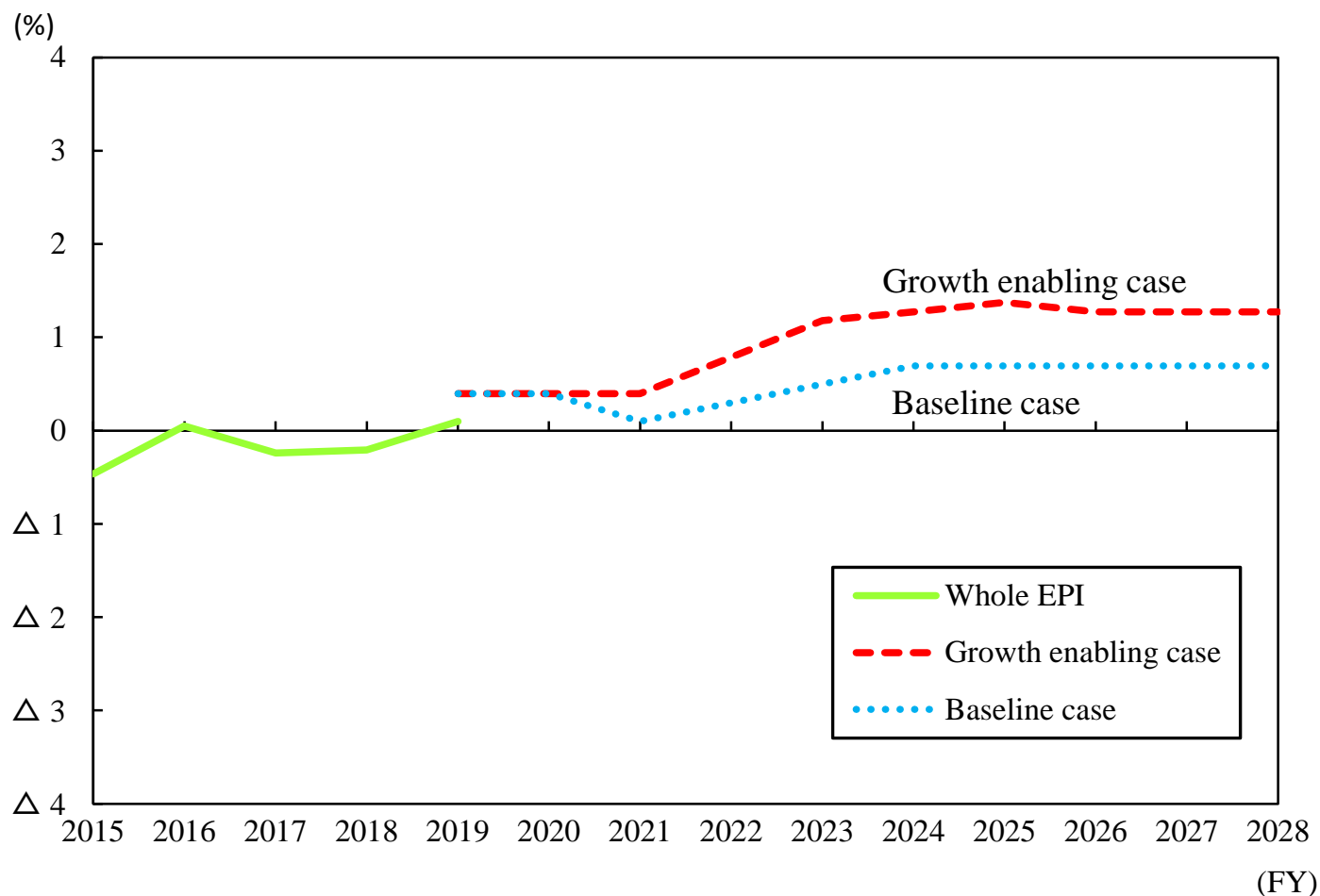


Note: The "Growth enabling case" is connected to Case I-III, and the "Baseline case" is connected to Case IV-VI of the actuarial valuation.

19. Comparison of actual rates of real wage increase and assumed rates

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The actual rate of real wage increase (adjusted for price inflation) in FY2019 is lower than the assumption in the actuarial valuation.

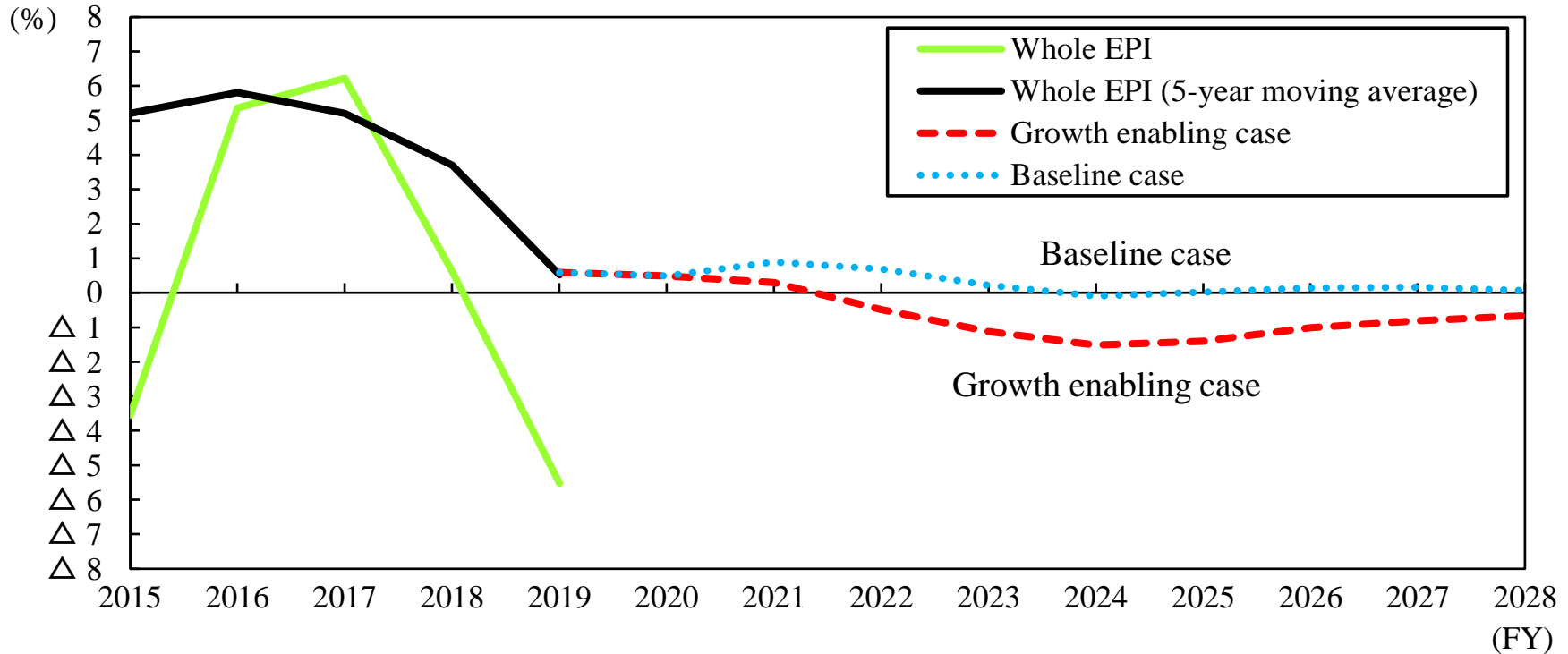


Note: The "Growth Enabling Case" is connected to Case I-III, and the "Baseline Case" is connected to Case IV-VI of the actuarial valuation.

20. Comparison of actual substantial investment returns and assumptions

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in the annual
report

The actual substantial investment return (adjusted for nominal wage increase) in FY2019 is lower than the assumption in the actuarial valuation. This was due to the impact of short-term fluctuations in financial markets in the fourth quarter, caused by concerns over the global economy following the COVID-19 pandemic.



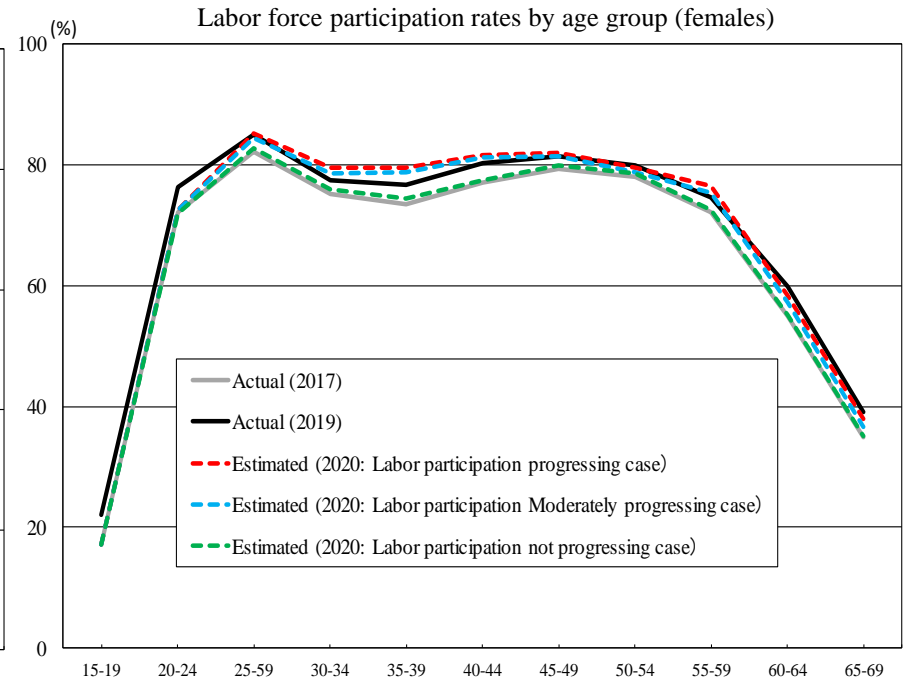
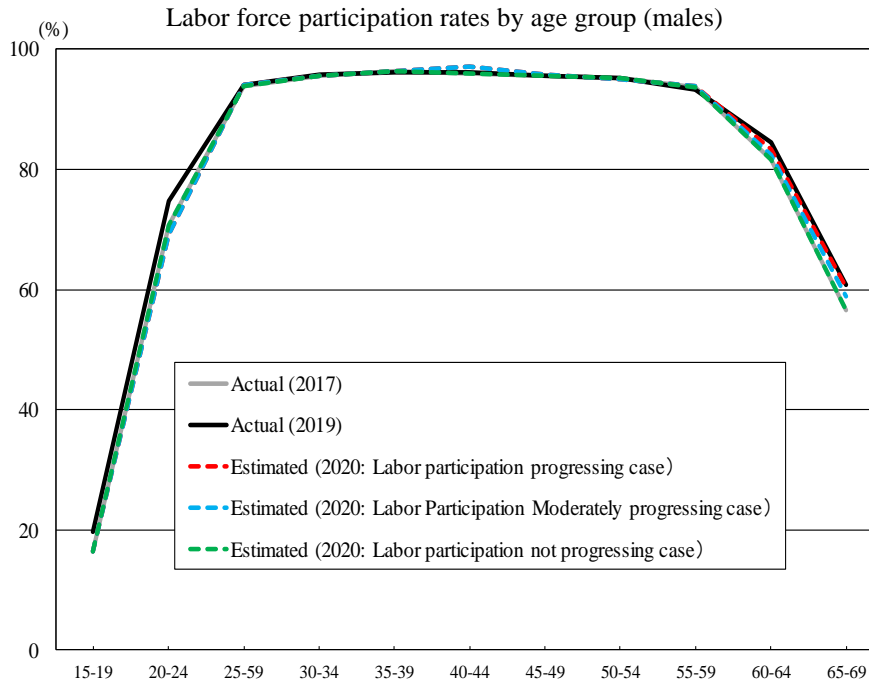
Note 1: The whole EPI (five-year moving average) is the average of the substantial investment returns (adjusted for nominal wage increase) for the five years prior to the fiscal year in question, for the whole EPI FY2015 and subsequent years, and for the former EPI for FY2014 and earlier.

Note 2: The "Growth enabling case" is connected to Case I-III, and the "Baseline case" is connected to Case IV-VI of the actuarial valuation.

As public pension plans contributions and newly awarded benefits vary in accordance with rates of nominal wage increase, the actual investment return and the assumption used for future projections are best compared from a long-term perspective by comparing the substantial investment return (adjusted for nominal wage increase).

21. Comparison of actual labor force participation rates and assumed rates

Comparing the actual results in 2019 with the Labor participation progressing case estimates (2020), the actual results exceeded the Labor participation progressing case estimates for both males and females aged 15-24.



Note: The “Labor participation progressing case” corresponds to Case I-III, the “Labor participation moderately progressing case” to Cases IV and V, and the “Labor participation not progressing case” corresponds to Case VI of the actuarial valuation.

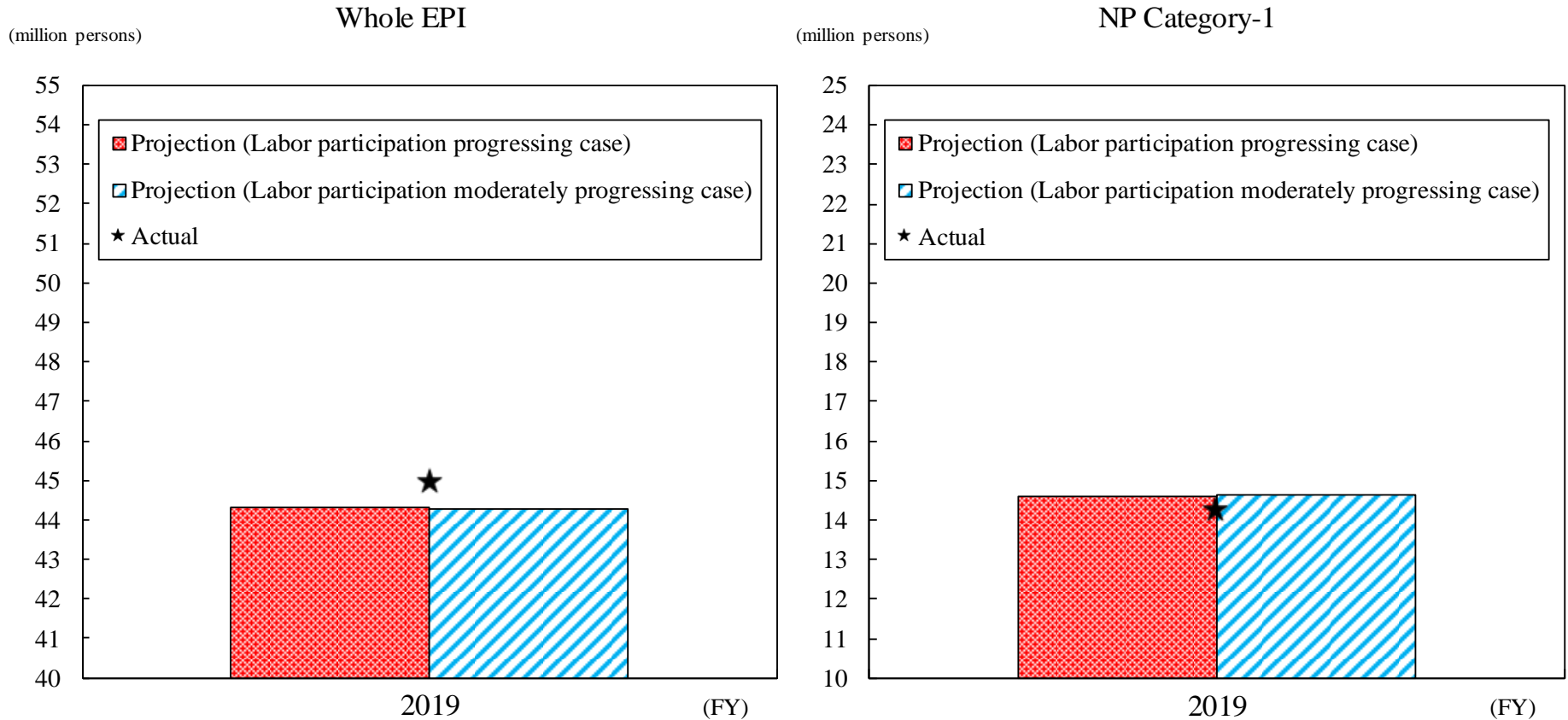
The above charts show the comparison of FY2020 projections (the numerical values made open in the future projections of labor force participation rate) and FY2019 actual performance.

Note, however, that the future projections being compared are one year ahead of the actual performance.

22. Comparison of actual number of insured persons and future projections

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In FY2019, the actual results (marked with “★” in the figure below) exceeded the future projections (bar graph) for the whole EPI, while the actual results are lower than the future projections for NP Category-1 insured persons.

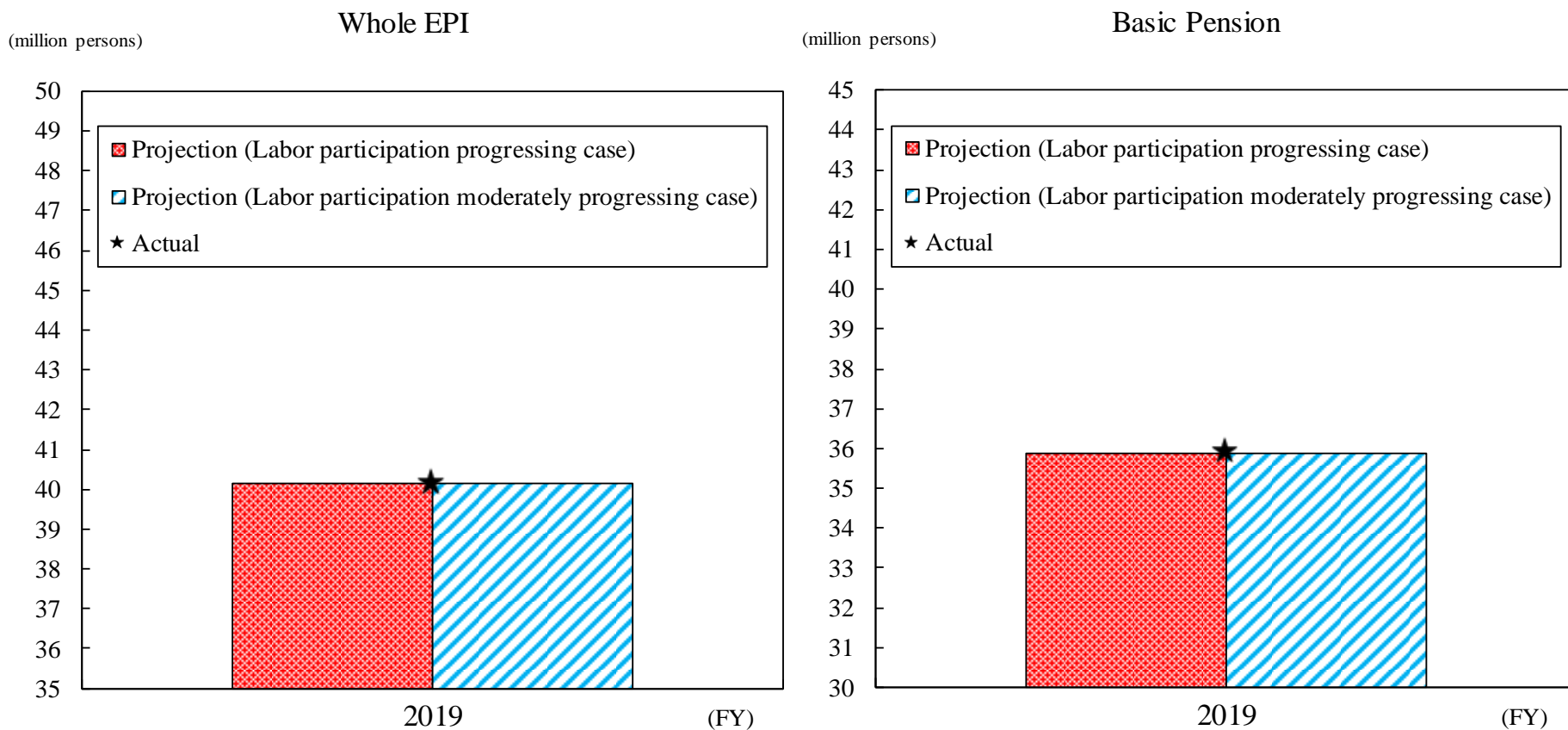


Note: The “Labor participation progressing case” corresponds to Case I-III, and the “Labor participation moderately progressing Case” corresponds to Case IV and V of the actuarial valuation.

23. Comparison of actual number of recipients and future projections

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In FY2019, the actual results (marked with “★” in the figure below) for both the whole EPI and the basic pension plan are almost equivalent to the future projections (bar graph).

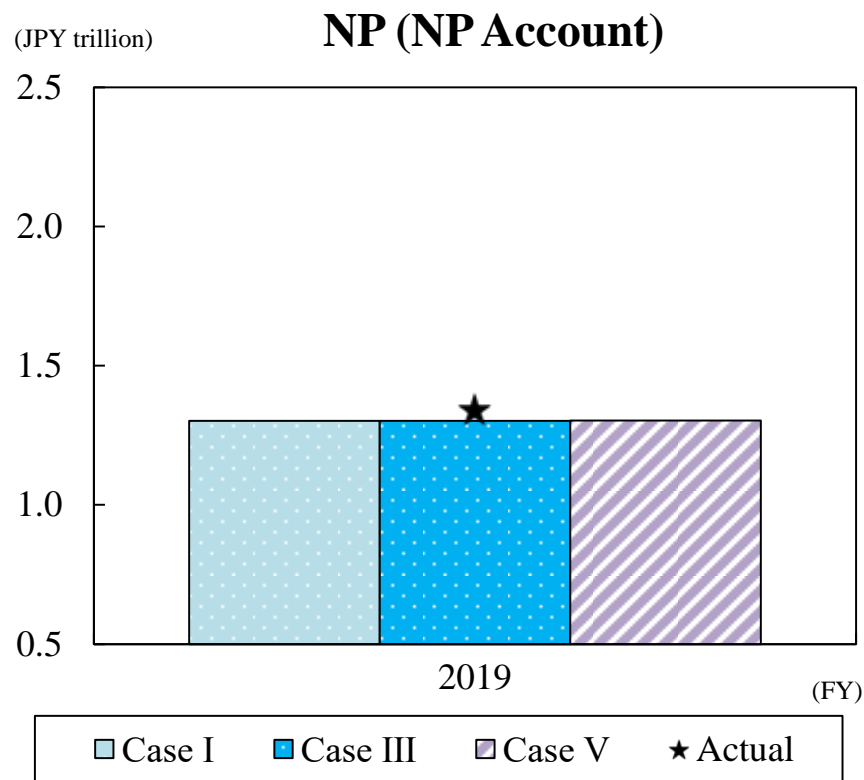
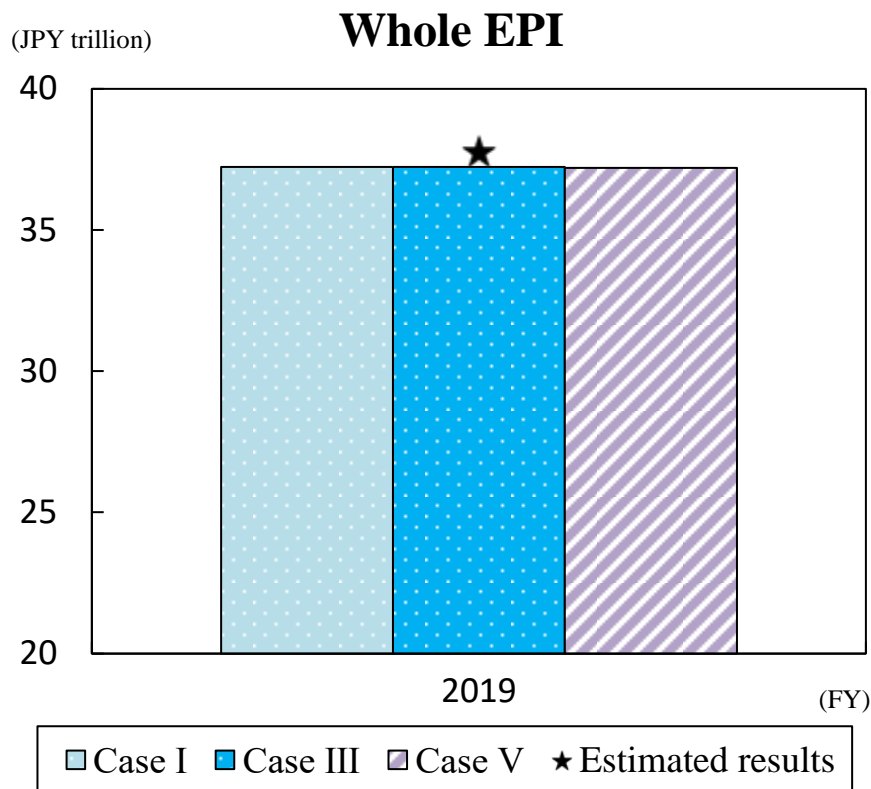


Note: The “Labor participation progressing case” corresponds to Case I-III, and the “Labor participation moderately progressing case” corresponds to Case IV and V of the actuarial valuation.

24. Comparison of actual contribution income and future projections

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- In FY2019, the actual results (marked with "★" in the figure below) exceeded the future projections (bar graph) for both the whole EPI and the National Pension Account of NP.
- The reason for the whole EPI is that the actual number of insured people exceeded the future projections. For the National Pension Account of NP, the reason is that the actual payment rate exceeded the payment rate set in the actuarial valuation.



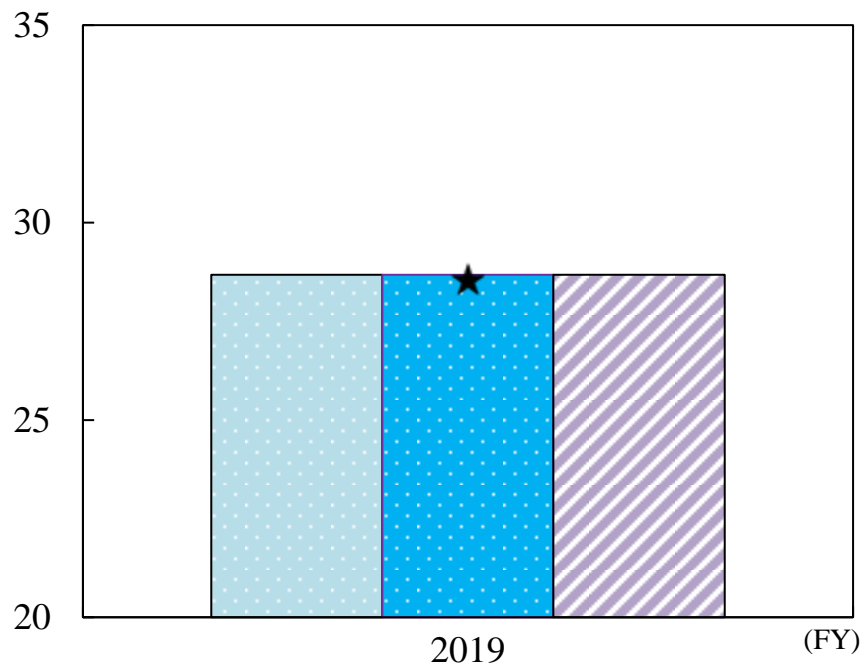
25. Comparison of actual benefit disbursement and future projections

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- In FY2019, there is no divergence between the actual pension revision rate and the future projections, and both the actual whole EPI and the actual National Pension Account of NP [Benefit disbursement of additional pension plan for NP category-1 insured persons and voluntary insured persons, etc.] (marked with "★" in the figure below) are almost equivalent to the future projections (bar graph).

Whole EPI

(JPY trillion)

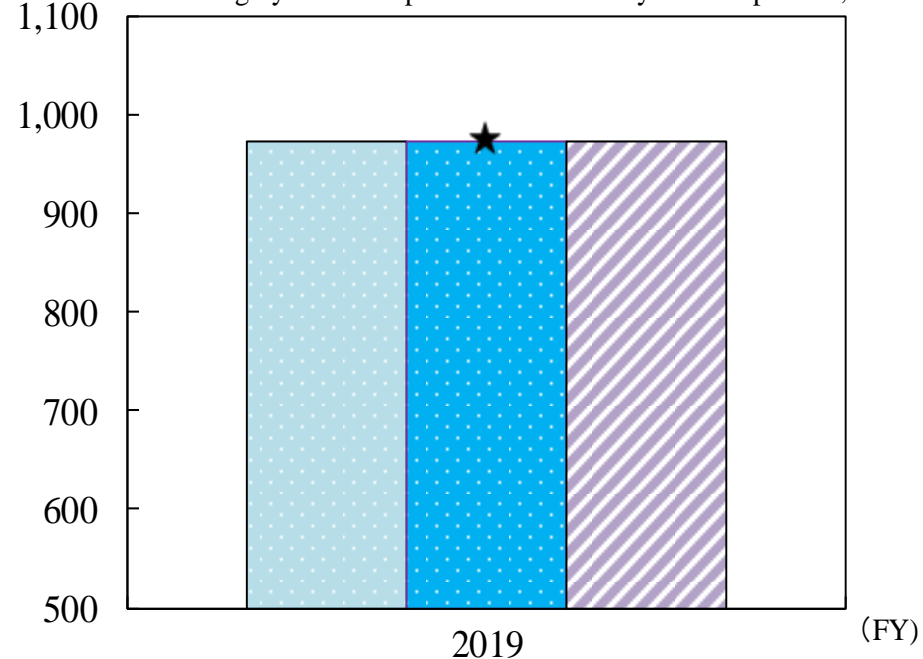


□ Case I □ Case III □ Case V ★ Estimated results

NP (NP Account)

(JPY 100
million)

[Benefit disbursement of additional pension plan for
NP category-1 insured persons and voluntary insured persons, etc.]



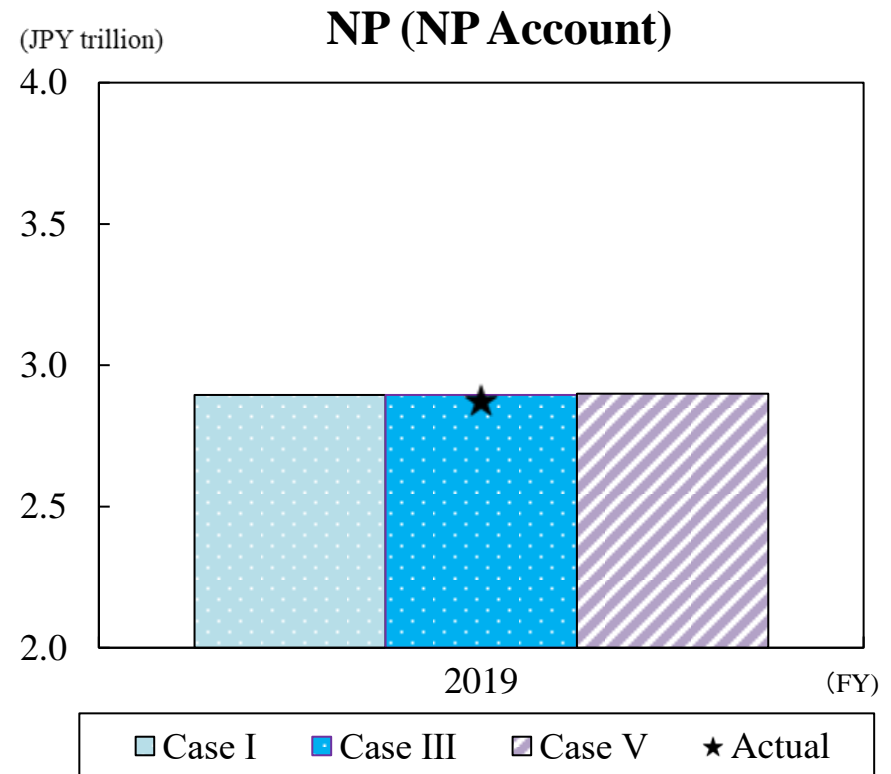
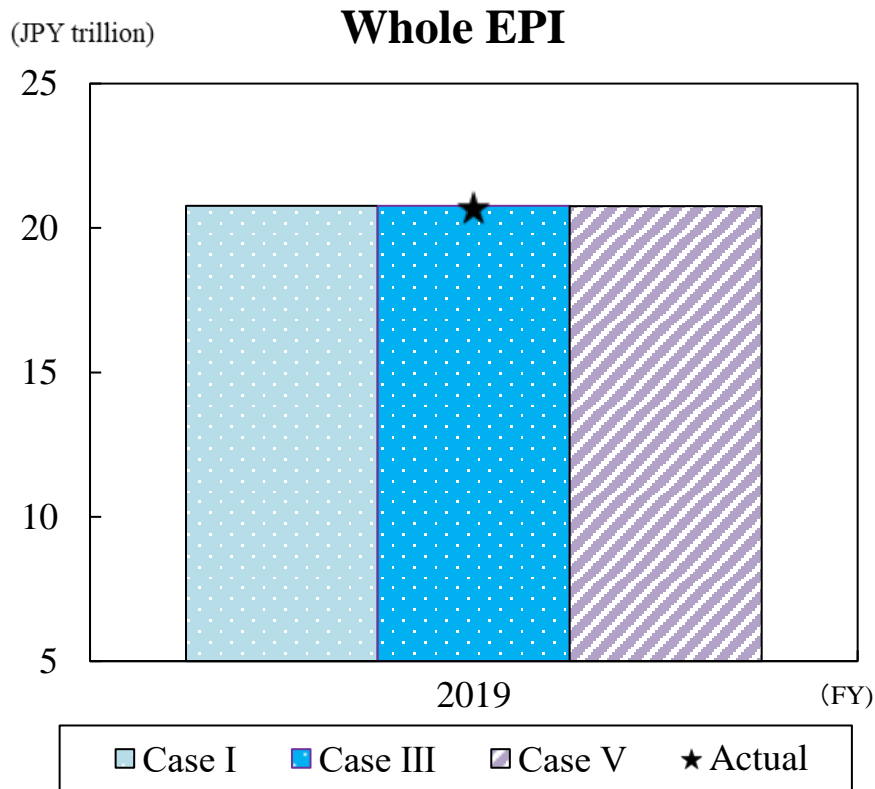
□ Case I □ Case III □ Case V ★ Actual

Note: Excludes benefit cost of Basic Pensions provided by the New Law and National Pensions equivalent to BP provided by the Old Law.

26. Comparison of actual contributions to Basic Pension and the future projections

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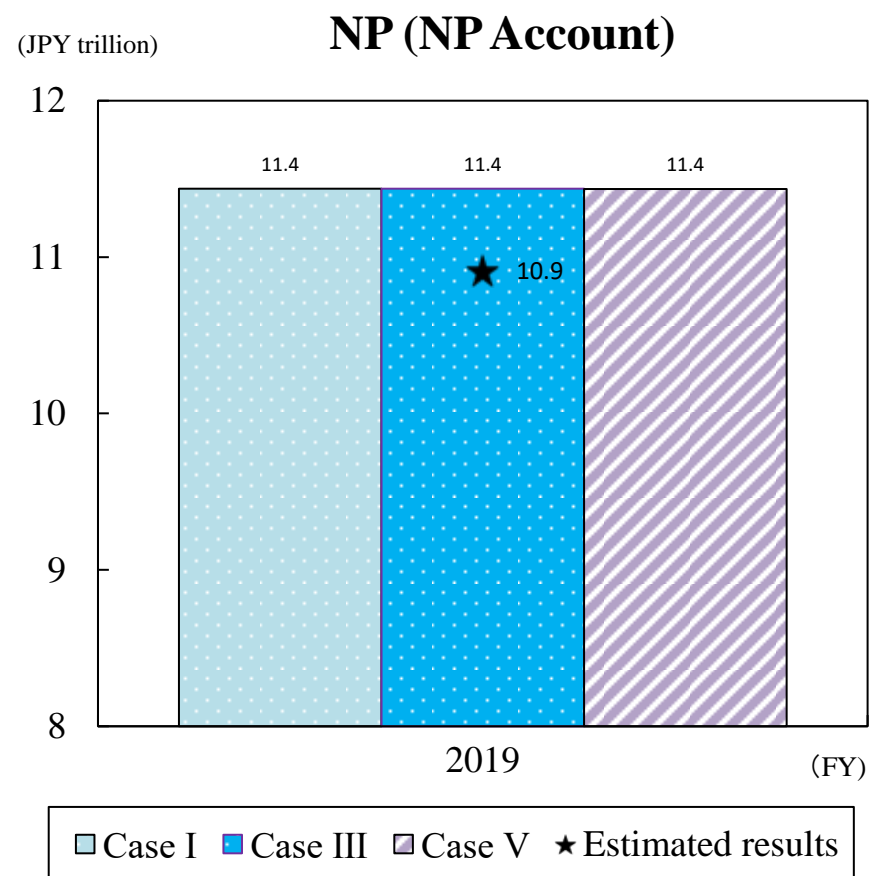
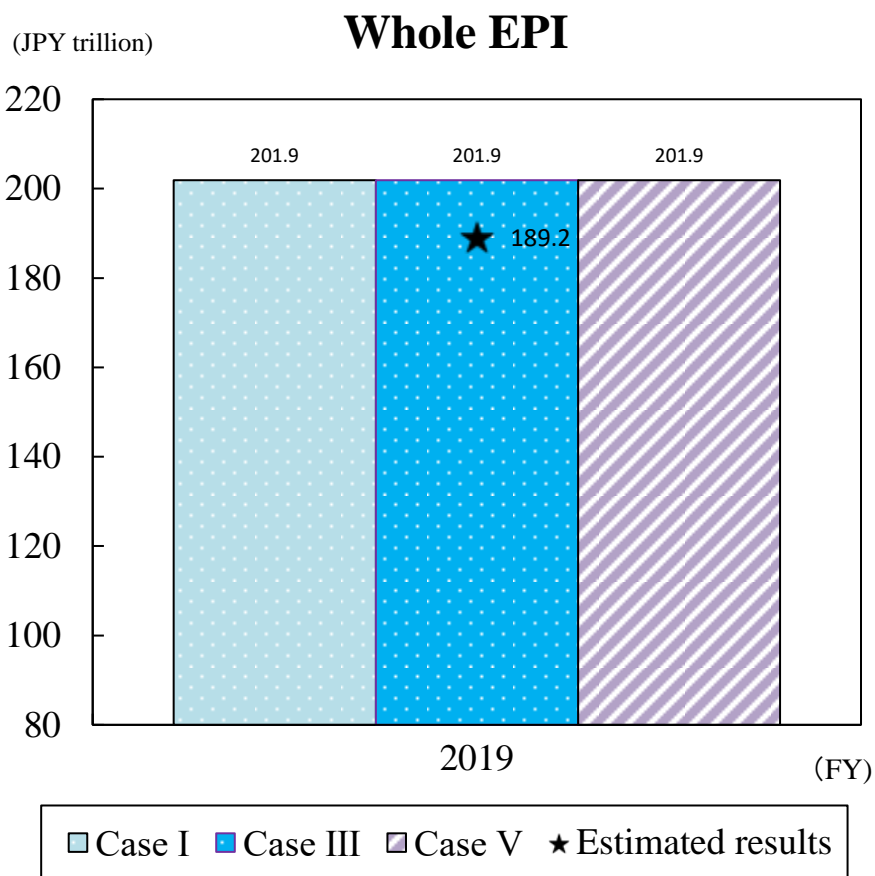
In FY2019, the whole EPI (marked with "★" in the figure below) is almost equivalent to the future projections (bar graph), while the actual results of the National Pension Account of NP are lower than the future projections.



27. Comparison of actual reserves and future projections

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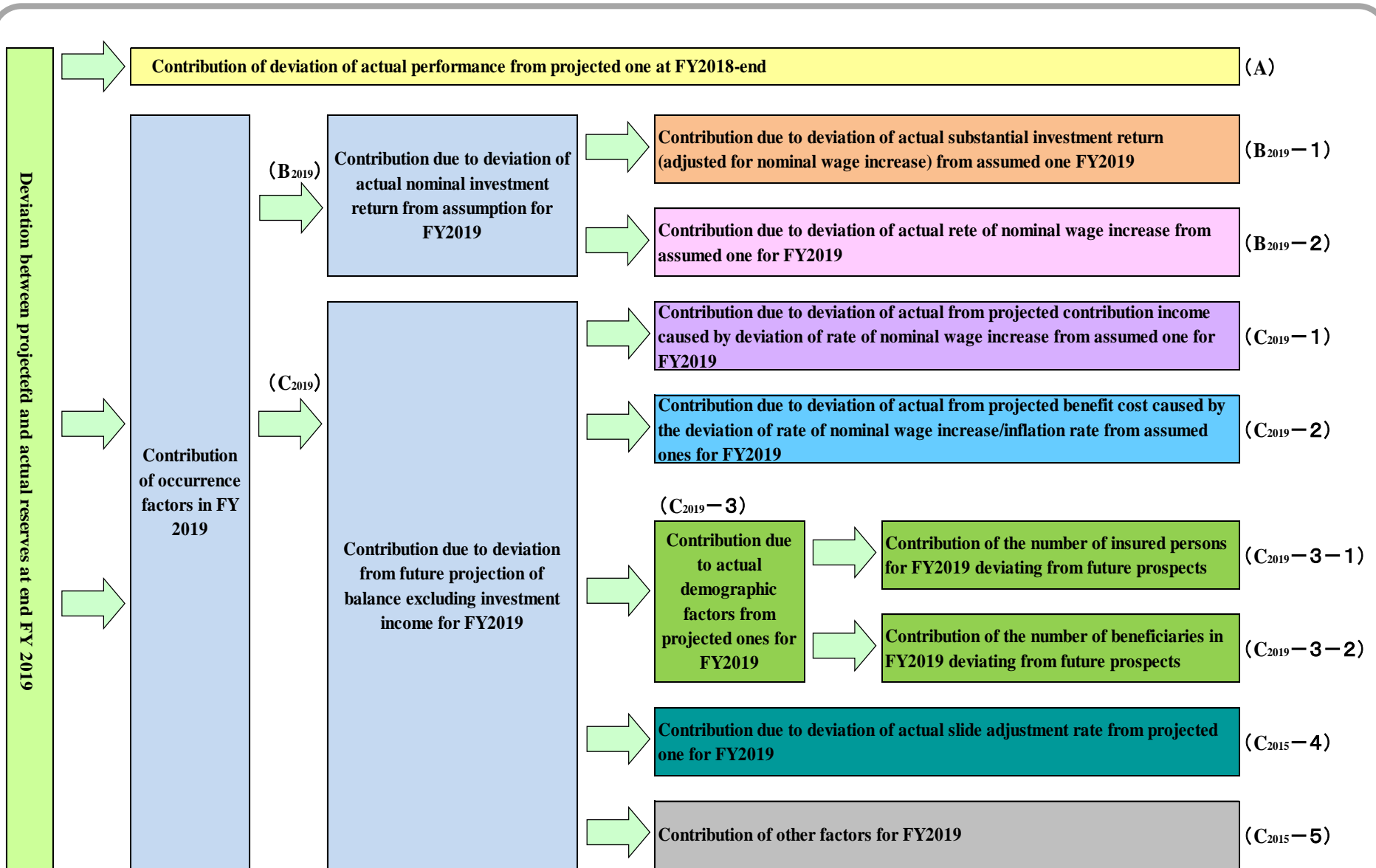
At the end of FY2019, the actual results for both the whole EPI and the National Pension Account of NP (marked with "★" in the figure below) are lower than the future projection (bar graph). This was due to the impact of short-term fluctuations in financial markets in the fourth quarter, caused by concerns over the global economy following the COVID-19 pandemic.



**Analysis of deviations in reserves &
assessment of financial status of EPI
(Excerpt from Chapter 3, Section 4 & 5)**

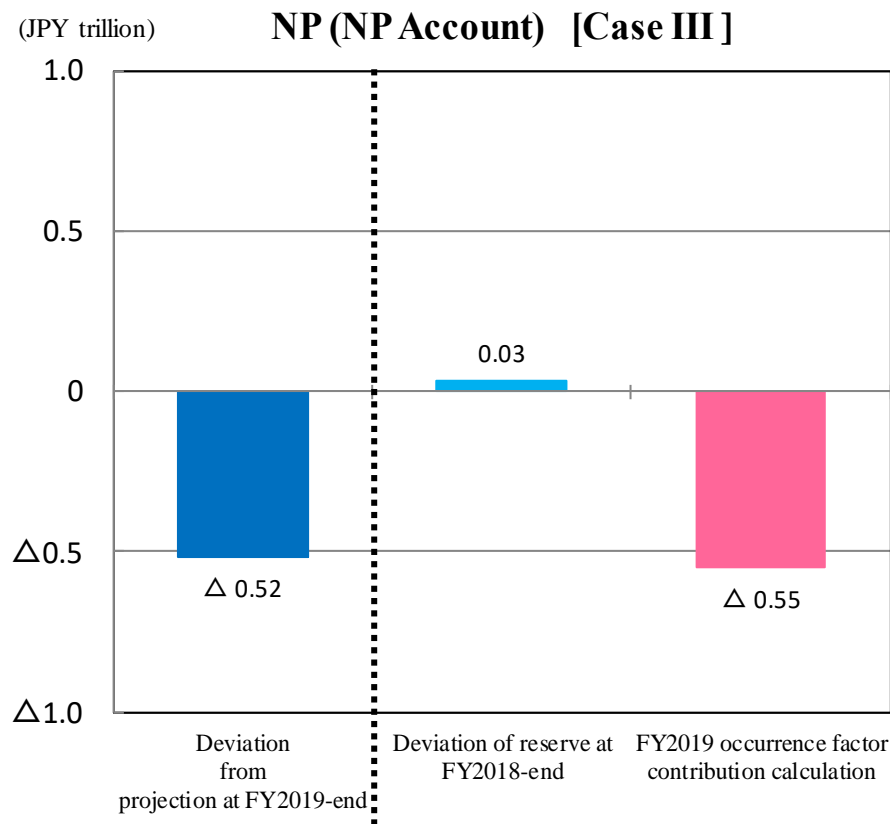
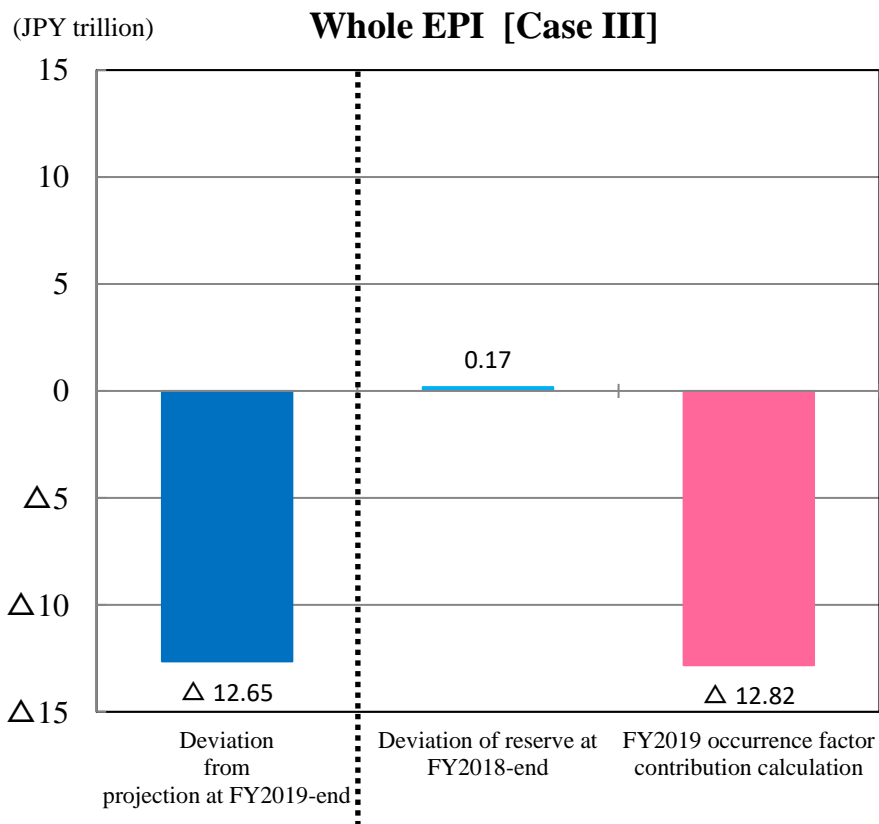
28. Flow of deviation analysis in actual reserves and future projections

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29. Deviation of actual reserves and future projections by generated year

Actual reserves for the whole EPI and National Pension Account of NP as of the end of FY2019 were lower than the future projections, due to the negative sum of contributions caused by generating factors pertaining to FY2019, when the actual nominal rate of return deviated from future projections. This was due to the impact of short-term fluctuations in financial markets in the fourth quarter, caused by concerns over the global economy following the COVID-19 pandemic.

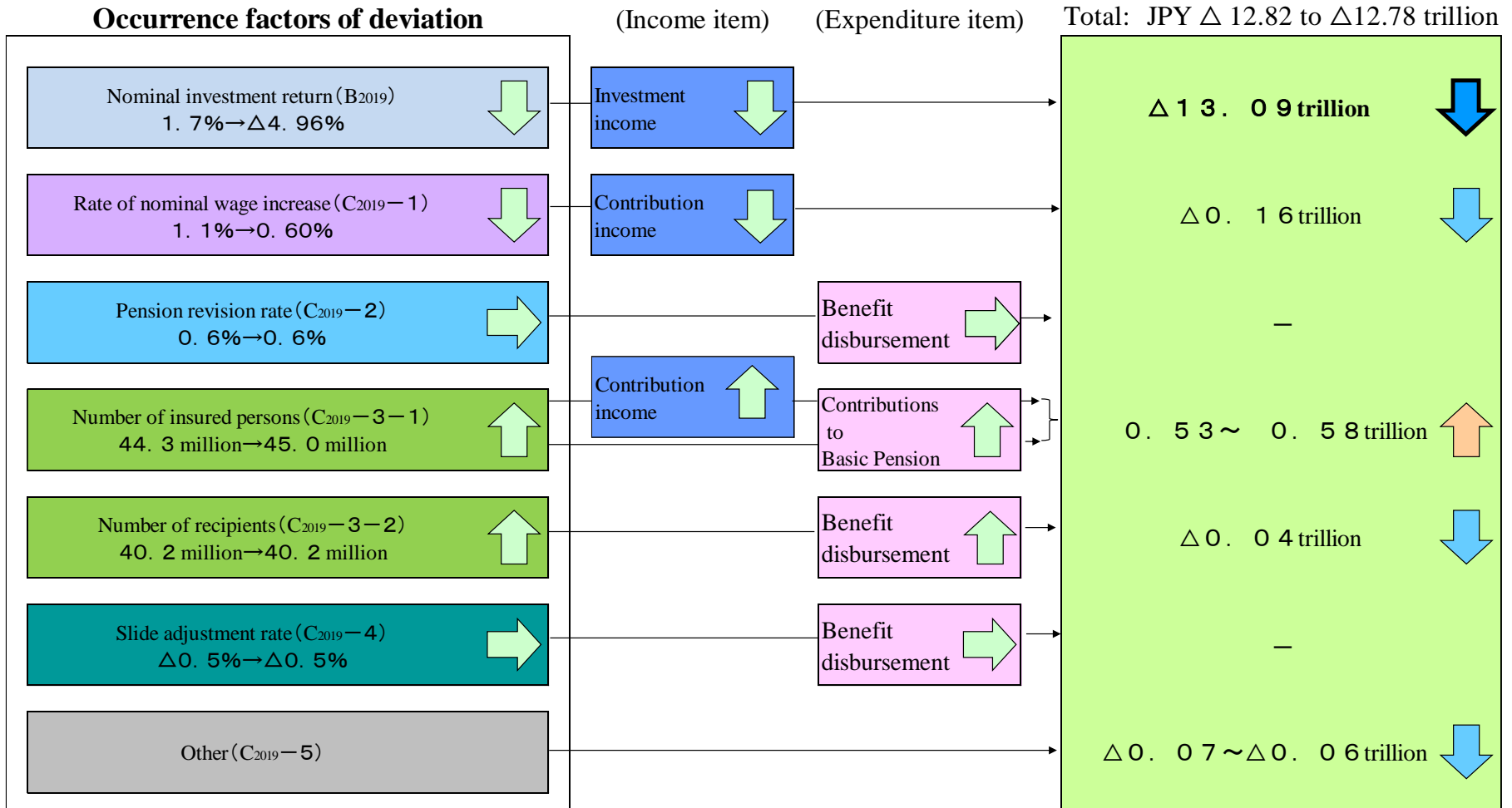


Note: The results are the same for Case I and II.

30. Results of deviation analysis in reserve (deviation that occurred in FY2019, whole EPI)

The divergence in the reserve for whole EPI in FY2019 (JPY -12.82 to -12.78 trillion) was mainly due to the divergence in the nominal investment return (JPY -13.09 trillion), caused by the impact of short-term fluctuations in financial markets in the fourth quarter, with concerns over the global economy following the COVID-19 pandemic.

Whole EPI

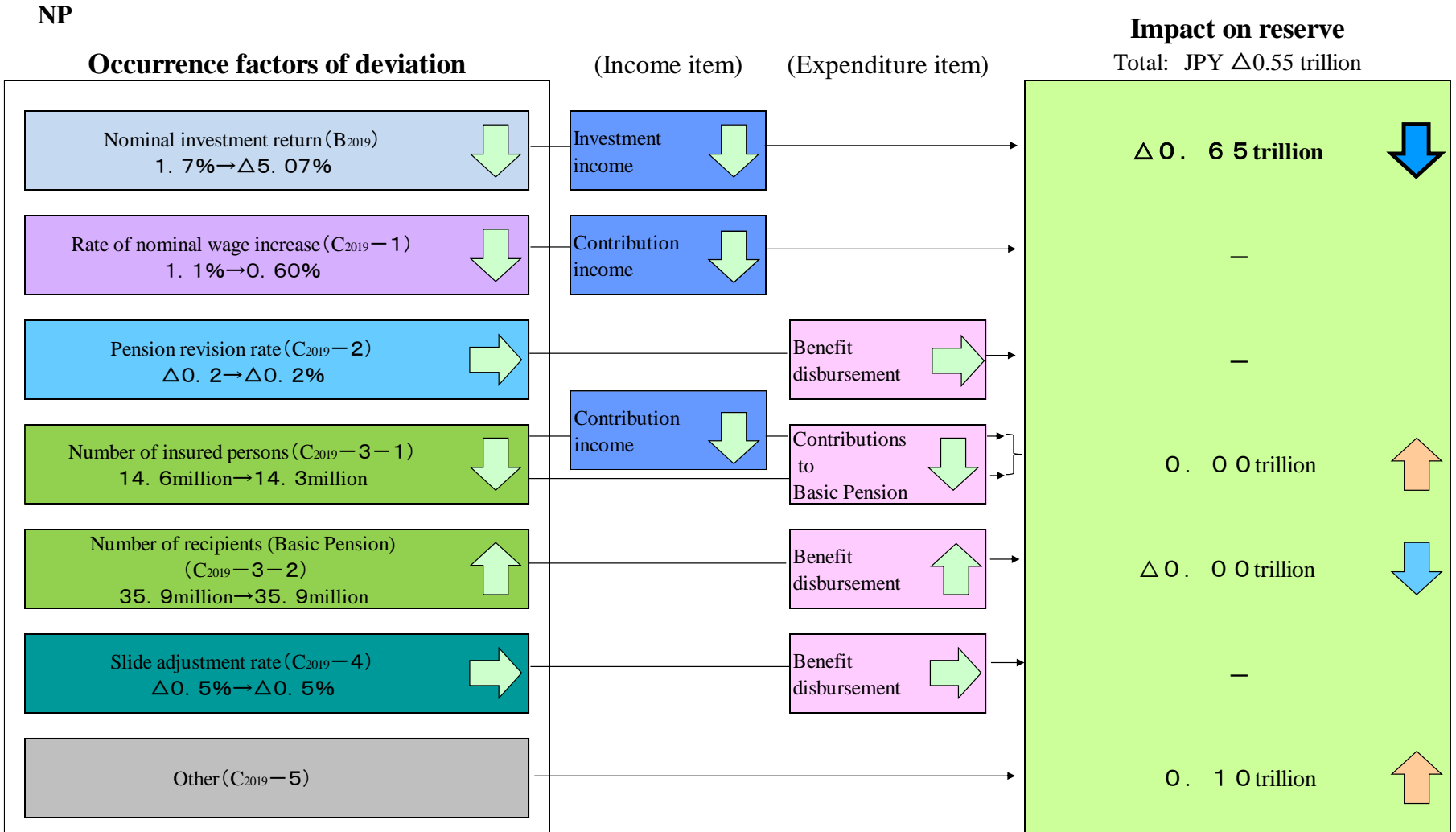


Note: Deviation in reserves is extracted by factor to be summarized, and the maximum and minimum values are indicated for Case I, III and V.

31. Results of deviation analysis in reserve (deviation that occurred in FY2019, NP)

The divergence in the reserve for the National Pension Account of NP in FY2019 (JPY -0.55 trillion) was mainly due to the divergence in nominal investment return (JPY -0.65 trillion), caused by the impact of short-term fluctuations in financial markets in the fourth quarter, with the concerns over the global economy following the COVID-19 pandemic.

NP



Note: Deviation in reserves is extracted by the factor to be summarized, and the maximum and minimum values are indicated for Cases I, III and V.

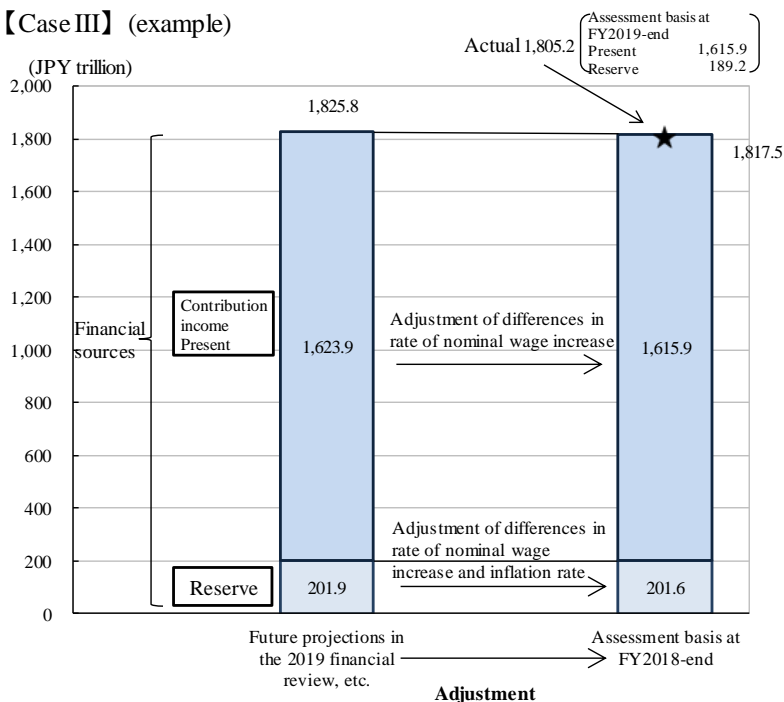
32. Evaluation of the actuarial status for EPI

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- An analysis of the financial situation of EPI at the end of FY2019 in Cases I, III and V reveals that a negative difference between actual reserves and “baseline reserves for evaluation (projection)” within the range of -0.7 to -0.6% against financial resources (reserves and future premium contribution income).
- In this report, the actual annual reserve amount is used to assess the financial status. As part of the peer review, however, the use of reserve amounts smoothed over a certain period may be considered to assess the financial status, as the market value of the reserve is susceptible to short-term fluctuations in financial markets, as stated in the suggestion regarding how best to set the initial reserve value. Further study is needed on this matter.
- 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.

	Case I	Case III	Case V
	JPY trillion	JPY trillion	JPY trillion
Actual reserve ①	189.2	189.2	189.2
Baseline reserve for assessment (estimate) ②	201.6	201.6	201.6
Difference between actual reserve and baseline reserve for assessment (estimate) ③= ①-②	Δ 12.4	Δ 12.4	Δ 12.3
Financial sources (reserve and future premium contribution income) ④	1,932.5	1,817.5	1,811.4
Ratio of the difference between actual reserve and baseline reserve for assessment (estimate) to financial resources (excluding national and local government subsidies, etc.) ③/④	% Δ 0.6	% Δ 0.7	% Δ 0.7

【Case III】 (example)



*Baseline reserve for assessment (projection) is the amount for which the future projections for the reserves is adjusted for the gap between the actual rate of nominal wage increase and inflation rate and those assumed in the actuarial valuation.

(Reference)

Pension Actuarial Subcommittee of the Social Security Council

Pension Actuarial Subcommittee of the Social Security Council

- The Pension Actuarial Subcommittee was established in the Social Security Council and is tasked by the cabinet decision to promote the integration of the public pension plans (2001) with reviewing the stability and fairness of employee pension plans when financial reviews and actuarial valuations are conducted and with obtaining reports on the financial status of each plan every fiscal year.
- Following the integration of employees' pension schemes in October 2015, the results of actuarial valuation and reports on the settlement of accounts for each fiscal year are requested and discussed from the perspective of ensuring plans stability.

Cabinet decision on “promotion of the integration of public pension plans (2001)”
 It is requested that the Social Security Council establish a subcommittee comprising persons with expertise and experience in the field of pension actuarial science and that the subcommittee be required to report annually on ensuring the stability and fairness of employees' pension schemes, in addition to verification at the time of actuarial valuation.

