

# **Overview of the Annual Actuarial Report on the Public Pension Plans in Japan Fiscal Year 2023**

March 27, 2025  
Pension Actuarial Subcommittee of the Social Security Council

## 0. The annual actuarial report on the public pension plans in Japan Fiscal Year 2023

- The “Annual Actuarial Report on the Public Pension Plans in Japan” is a compilation of the results of cross-plan analyses 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, compares it with actuarial valuation, and summarizes the financial status of entire Employees' Pension Insurance (EPI), including Mutual Aid Associations, etc.

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- Chapter 1 Outline of public pensions
- Chapter 2 Financial situation
  - Section 1 Current situation and trends of insured persons
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- Chapter 3 Comparison with the results of actuarial valuation
  - Section 1 Significance and methodology of comparison with actuarial valuation
  - Section 2 Comparison of actual and projected fiscal revenues, expenditures, etc. (demographic/economic factors, number of insured persons, revenues, expenditures, reserves, etc., )
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### Reports and hearings for FY2023 report

- **102<sup>nd</sup> Pension Actuarial Subcommittee**  
(Held on December 23, 2024)
  - Employees' Pension Insurance (Category-I)
  - National/Basic Pension Plans
- **103<sup>rd</sup> Pension Actuarial Subcommittee**  
(Held on January 14, 2025)
  - National Public Officers Mutual Aid Associations
  - Local Public Officers Mutual Aid Associations
  - Private School Teachers/Employees Mutual Aid Association

(\*) This overview contains excerpts from Chapters 2 and 3 of the annual report. In addition, at the beginning of the overview, it contains reference materials a to d as basic information when reading the report.

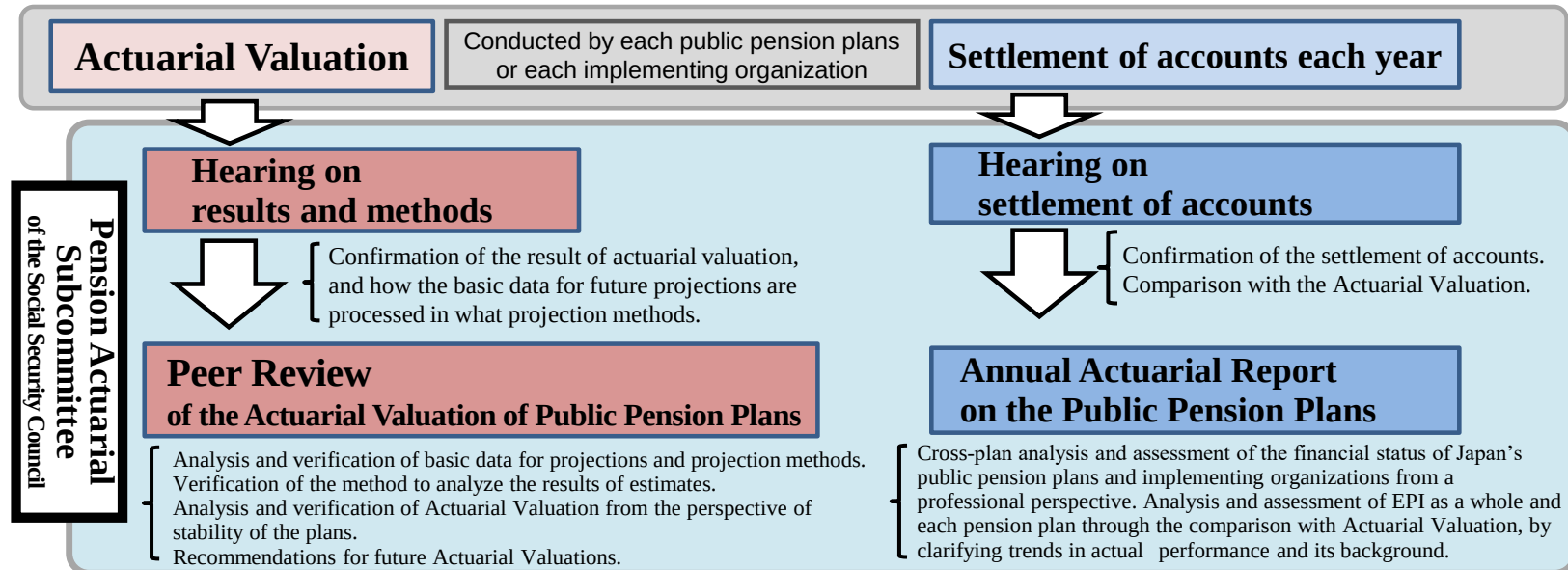
## a. Pension Actuarial Subcommittee of the Social Security Council

### Pension Actuarial Subcommittee of the Social Security Council

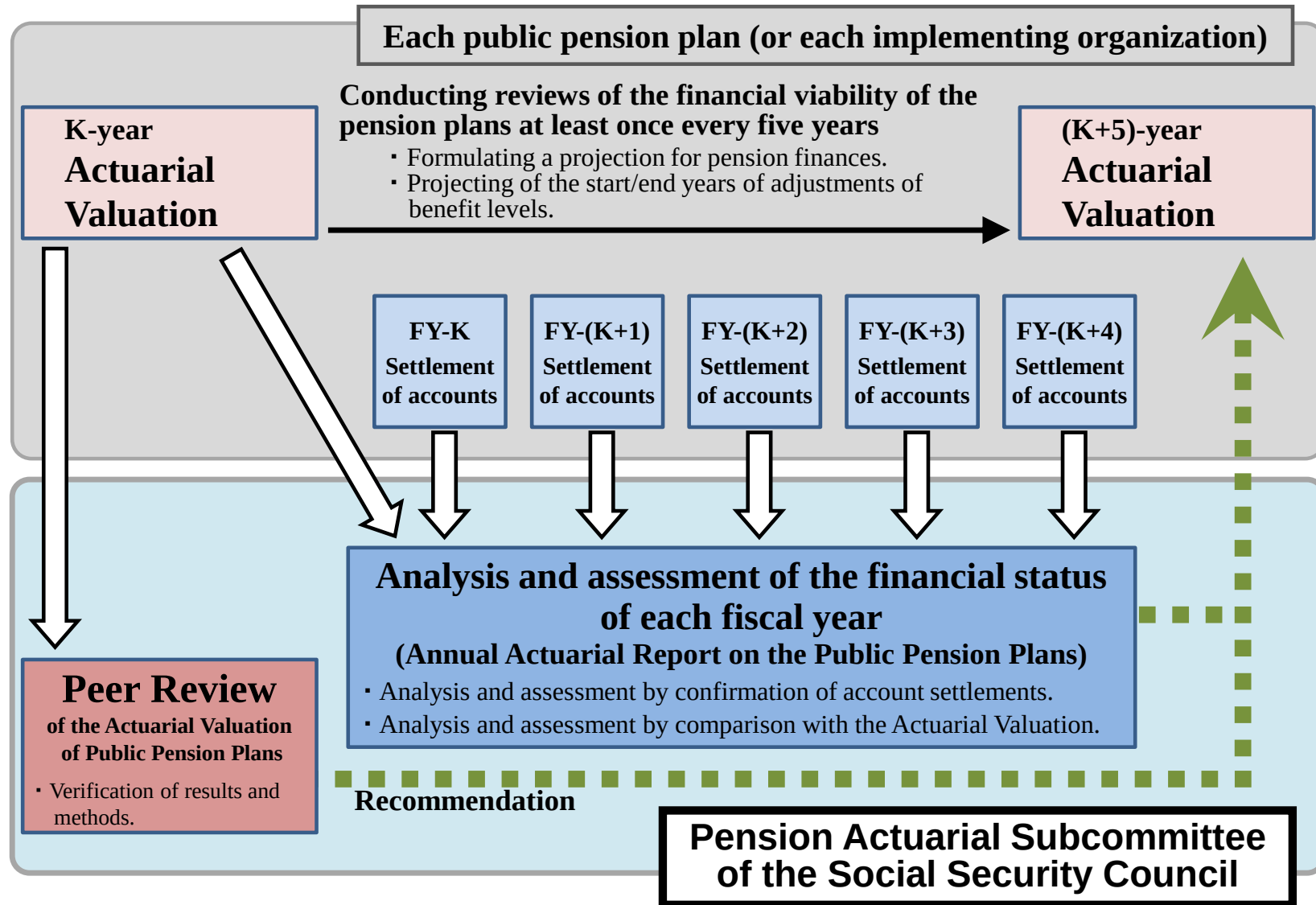
- The Pension Actuarial Subcommittee, established in the Social Security Council, is tasked by the cabinet decision to promote the integration of the public pension plans (2001) and review of the stability and fairness of employees' pension plans. This takes place when financial reviews and actuarial valuations are conducted in conjunction with the collection of reports on the financial status of each plan every fiscal year.
- Following the integration of employees' pension plans in October of 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 plan 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, who will be required to report annually to ensure the stability and fairness of employees' pension plans and provide verification at the time of actuarial valuation.

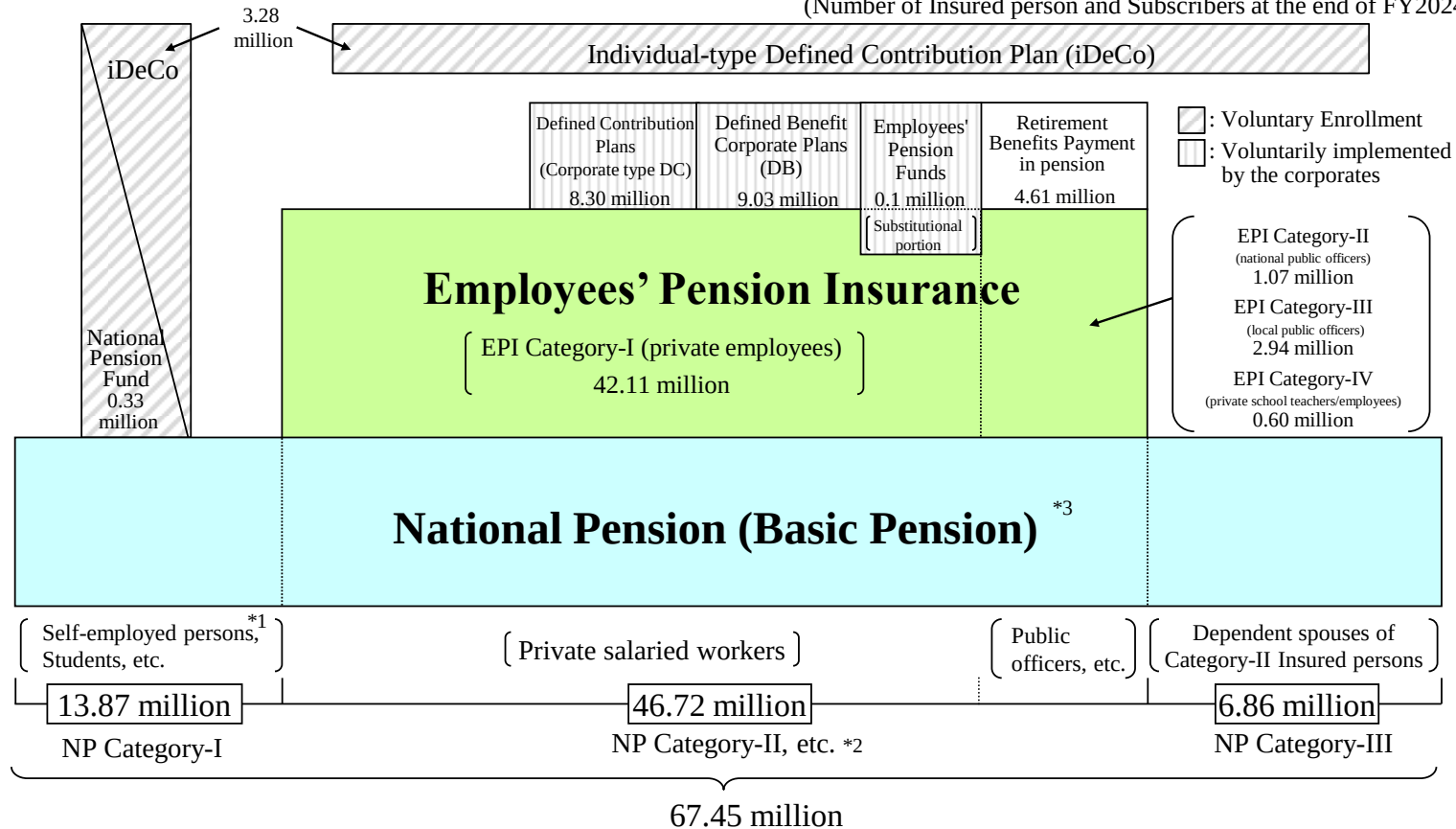


b. Role of the Pension Actuarial Subcommittee of the Social Security Council



## c. Scheme of Pension Plans

(Number of Insured person and Subscribers at the end of FY2024)



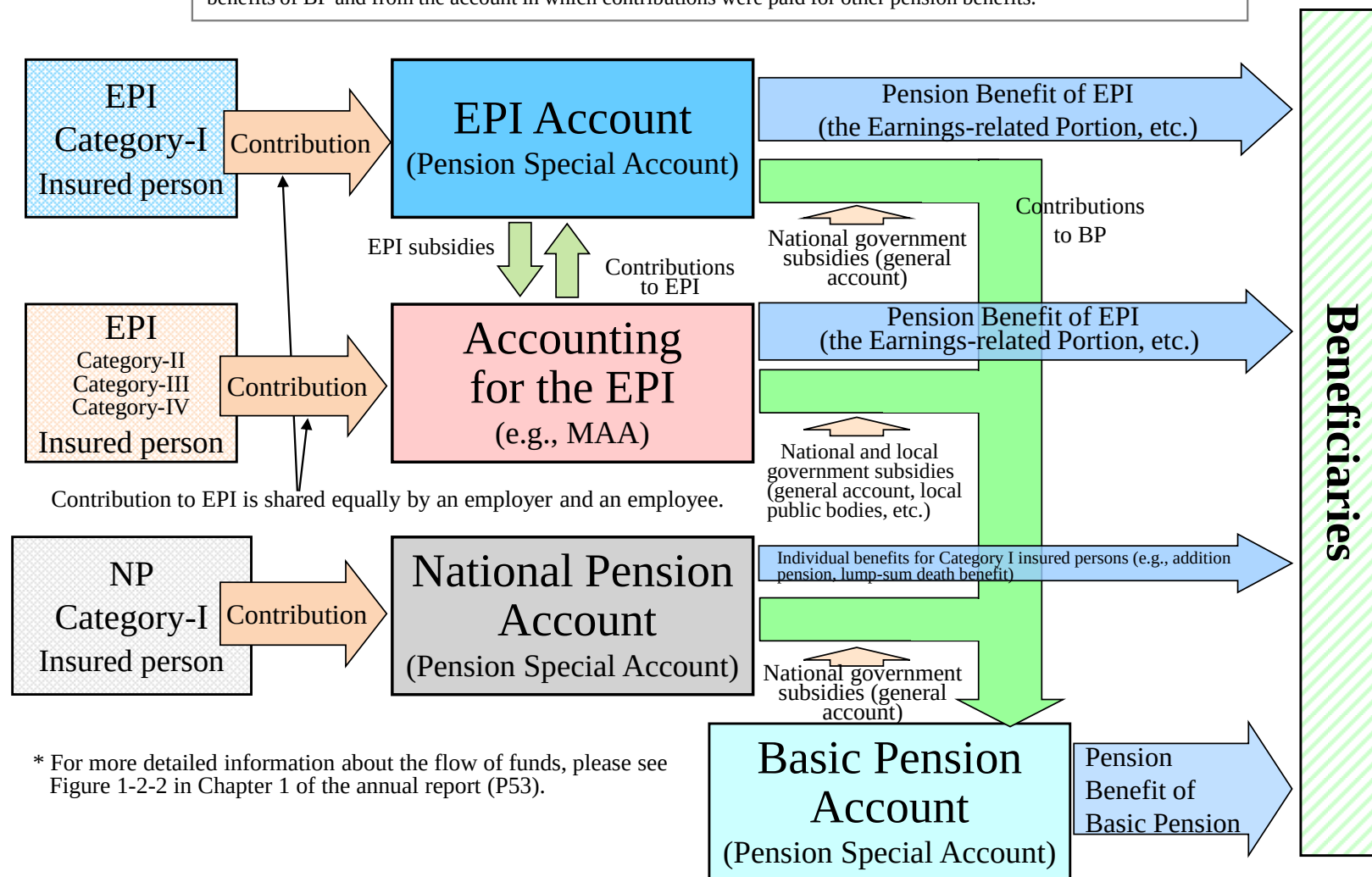
\*1 According to 'the Survey on the Insured of National Pension (2020),' among the NP Category-I insured persons as of March 31, 2020, 32.6% were in part-time or temporary employment, 31.2% were unemployed, 19.4% were self-employed, 7.5% were family employees, and 6.3% were in permanent employment. However, it should be noted that this survey is carried out before the expansion of the application of EPI to part-time workers, which is in effect in October 2022. According to the same survey, students accounted for 21.1% of the total number of the NP Category-I insured persons.

\*2 NP Category-II insured person, etc. refers to the insured persons of EPI (including beneficiaries aged 65 years or above of pension benefits for old-age or retirement in addition to NP Category-II insured person). (Refer to the Terminology: p359 (2) National Pension, National Pension Account of NP, Basic Pension Account of NP, National Pension Account, Basic Pension Account. )

\*3 The insured persons of NP meeting certain requirements can receive the Basic Pension.

## d. Flow of funds under the entire Public Pension System

The insured person, depending on his or her insured category, pays contributions to the NP Account, the EPI Account, or the EPI accounting of the MAA and other. Beneficiaries receive pension payments from the BP Account for pension benefits of BP and from the account in which contributions were paid for other pension benefits.



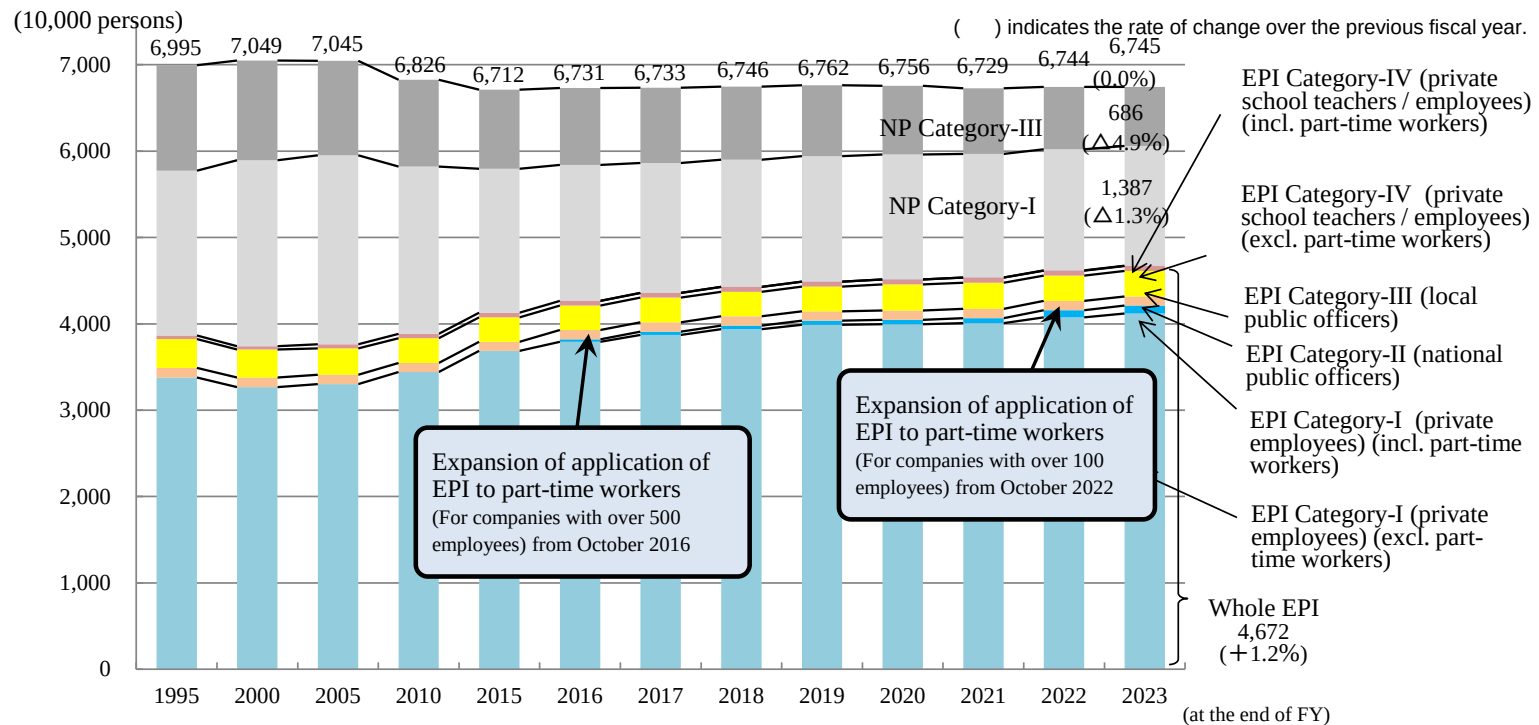
## **Current situation and trends of insured persons (Excerpt from Chapter 2, Section 1)**

1. Trends in the number of insured persons with public pensions
2. Age distribution of insured persons
3. Change in age distribution of insured persons (whole EPI)
4. Change in age distribution of insured persons (part-time workers)
5. Change in age distribution of insured persons (NP Category-I)
6. Change in age distribution of insured persons (NP Category-III)
7. Distribution of EPI insured persons by standard monthly remuneration

## 1. Trends in the number of insured persons with public pensions

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report

- In FY2023, the total number of persons insured under the public pension plans remained at the same level. While the number of the national pension (NP) Category-I and Category-III insured persons decreased, the number of EPI insured persons increased.
- The rate of change in the number of EPI insured persons is 1.2% over the previous fiscal year, in which the rate excluding part-time workers is 1.0%, and the rate for part-time workers is 11.7% (males: 8.9%, females: 12.7%).

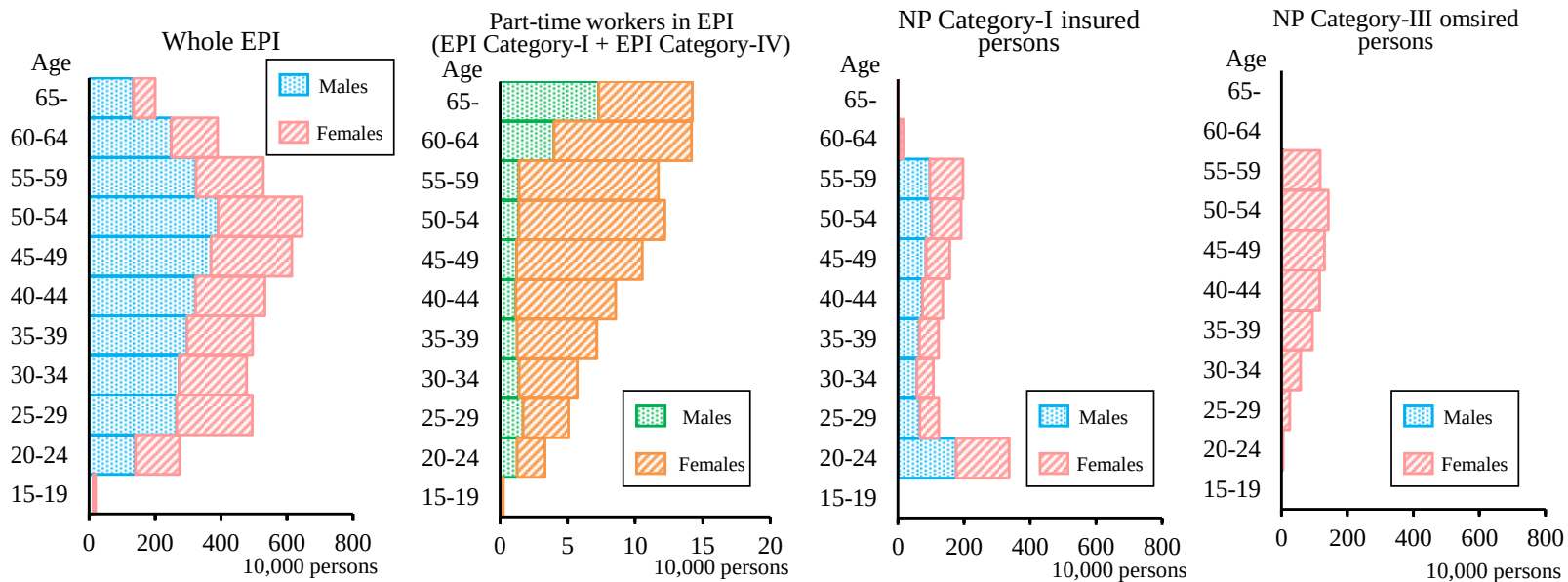




## 2. Age distribution of insured persons

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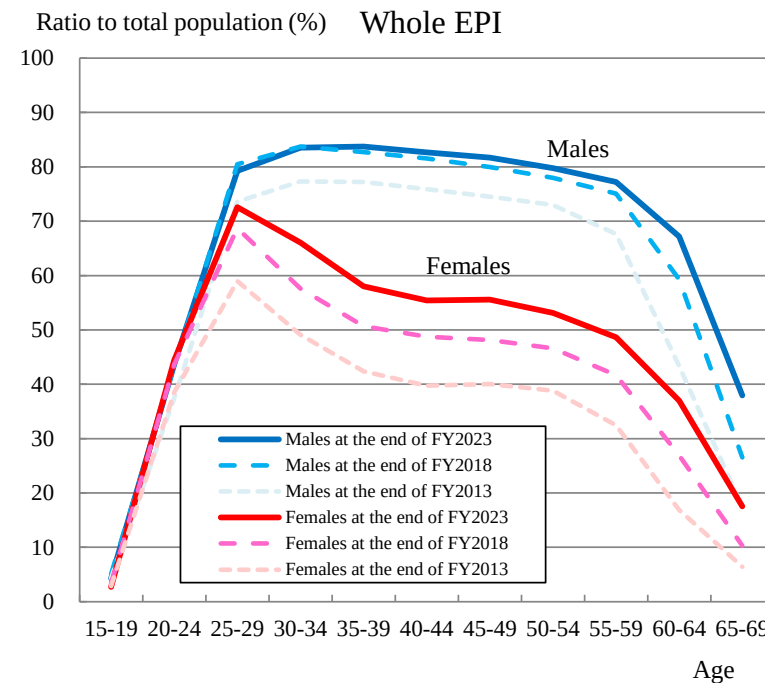
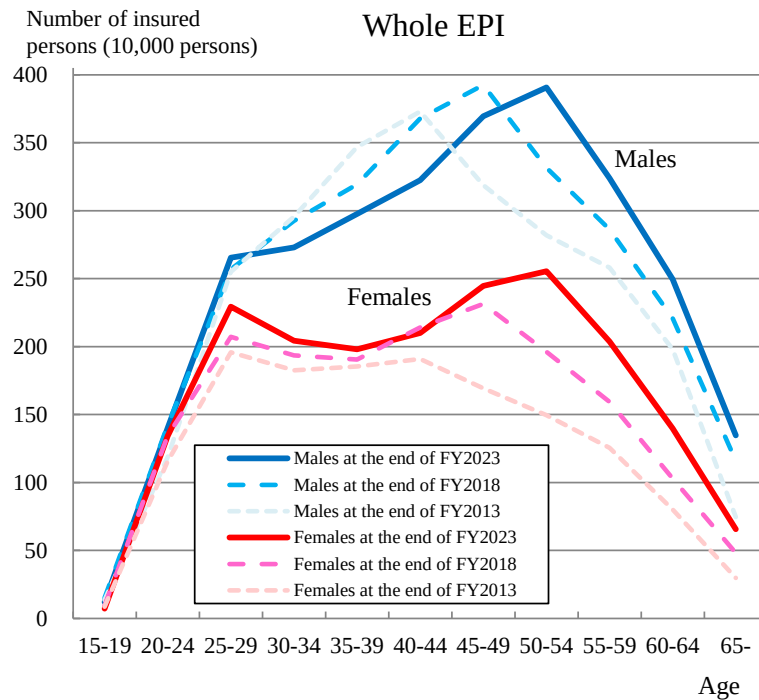
- The age distribution of the insured persons as of the end of FY2023 shows that the largest proportion of insured persons for the whole EPI is in the 50-54 age group. For NP Category-I insured persons, the 20-24 age group comprises the largest proportion. For NP Category-III insured persons, the 50-54 age group is the largest.
- Among part-time workers of EPI insured persons (comprising 2.0% of all EPI insured persons), most males are over 60, while most females are between 45 and 64.



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

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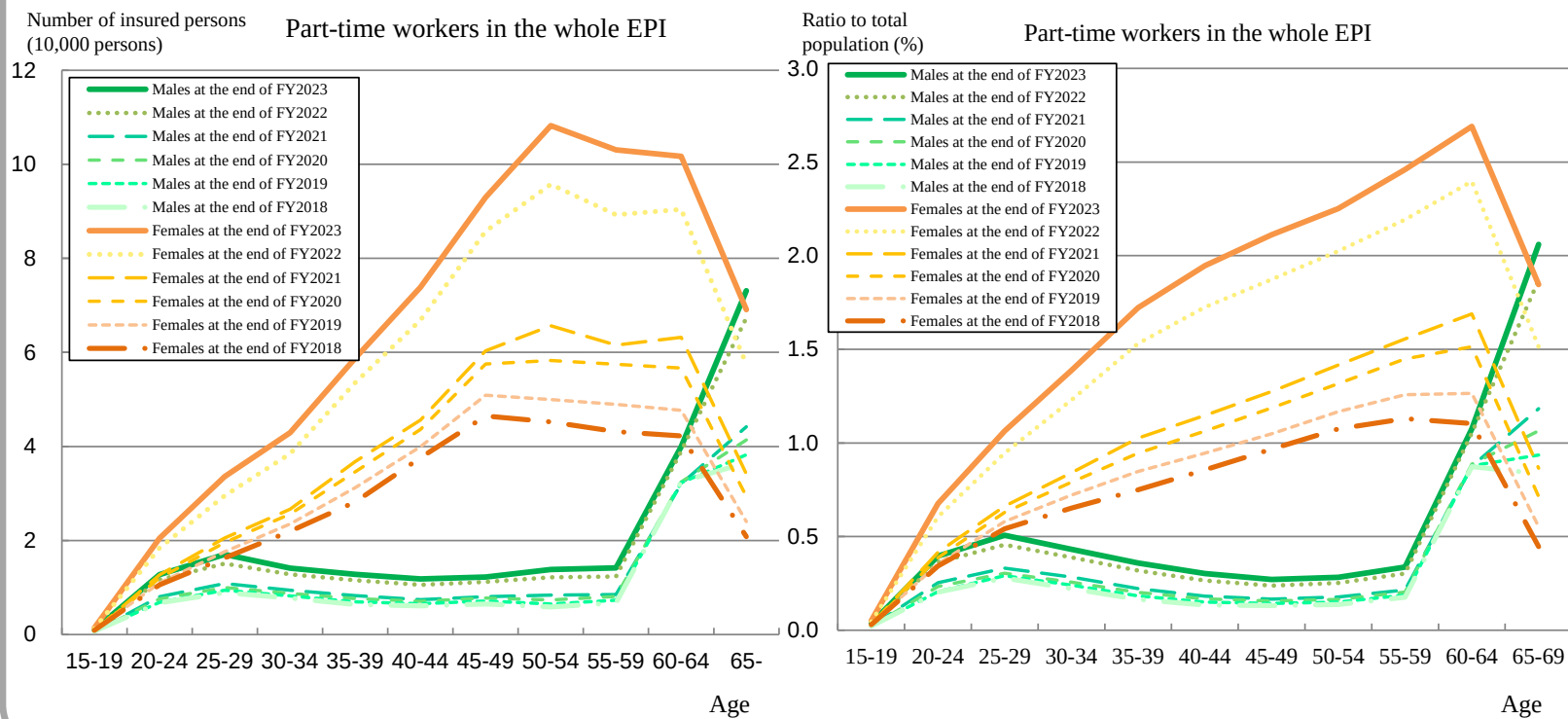
- For the whole EPI male insured persons, the age group accounting for the largest proportion shifted from 40-44 a decade ago to 45-49 five years ago, followed by 50-54 at the end of FY2023 (as the junior baby-boomer generation aged). For the whole EPI female insured persons, the number increased except for the 15-24 and 40-44 age groups.
- Viewing insured persons as a percentage of the population, the ratio increased except for the young (15-19 and 25-34 age groups for males and the 15-19 age group for females) generation compared with five years ago. In these five years, the percentage of insured persons aged 65-69 increased from 26.5 to 37.9% for males and from 10.3 to 17.5% for females, resulting from a progress of the employment of those aged 65 and over.



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

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report

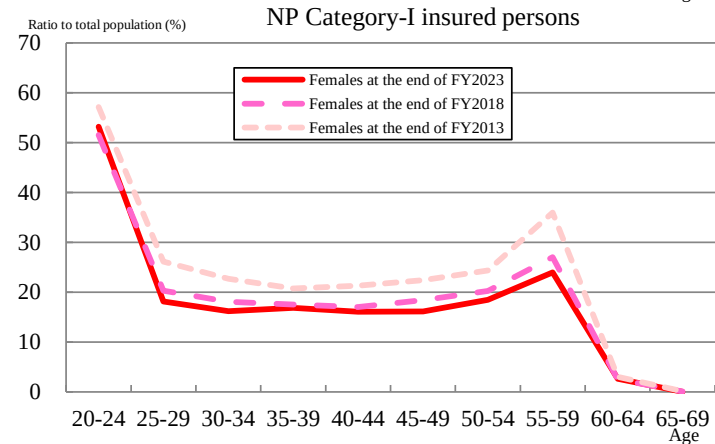
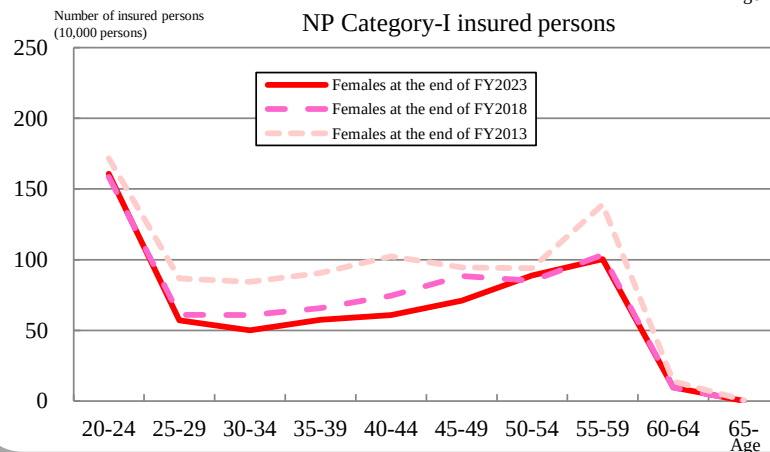
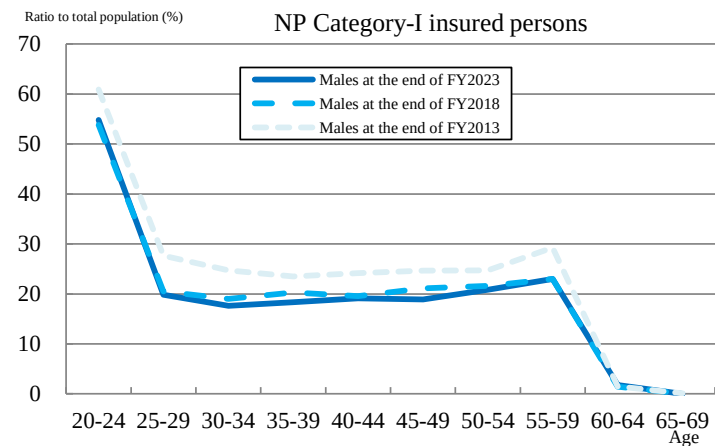
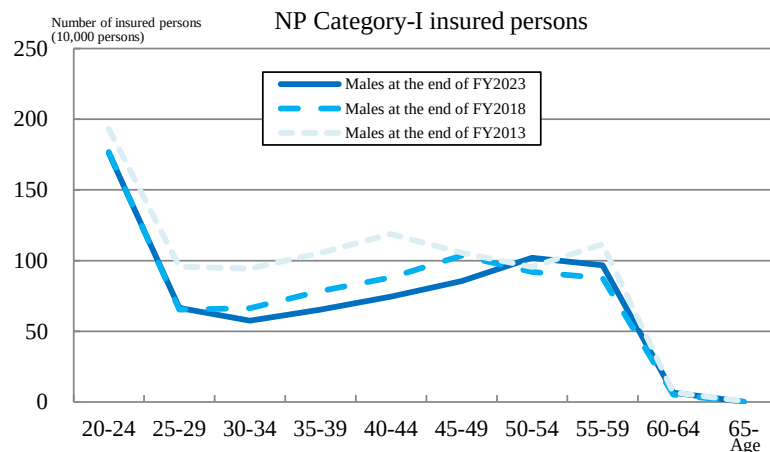
- For part-time workers (2.0% of the whole EPI), the number of insured persons increased significantly in all age groups for both genders compared with five years ago due to the expansion of the application of EPI to part-time workers (in effect since October 2022).
- The number of insured persons as a percentage of the population rose in all age groups of both genders compared with five years ago.



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

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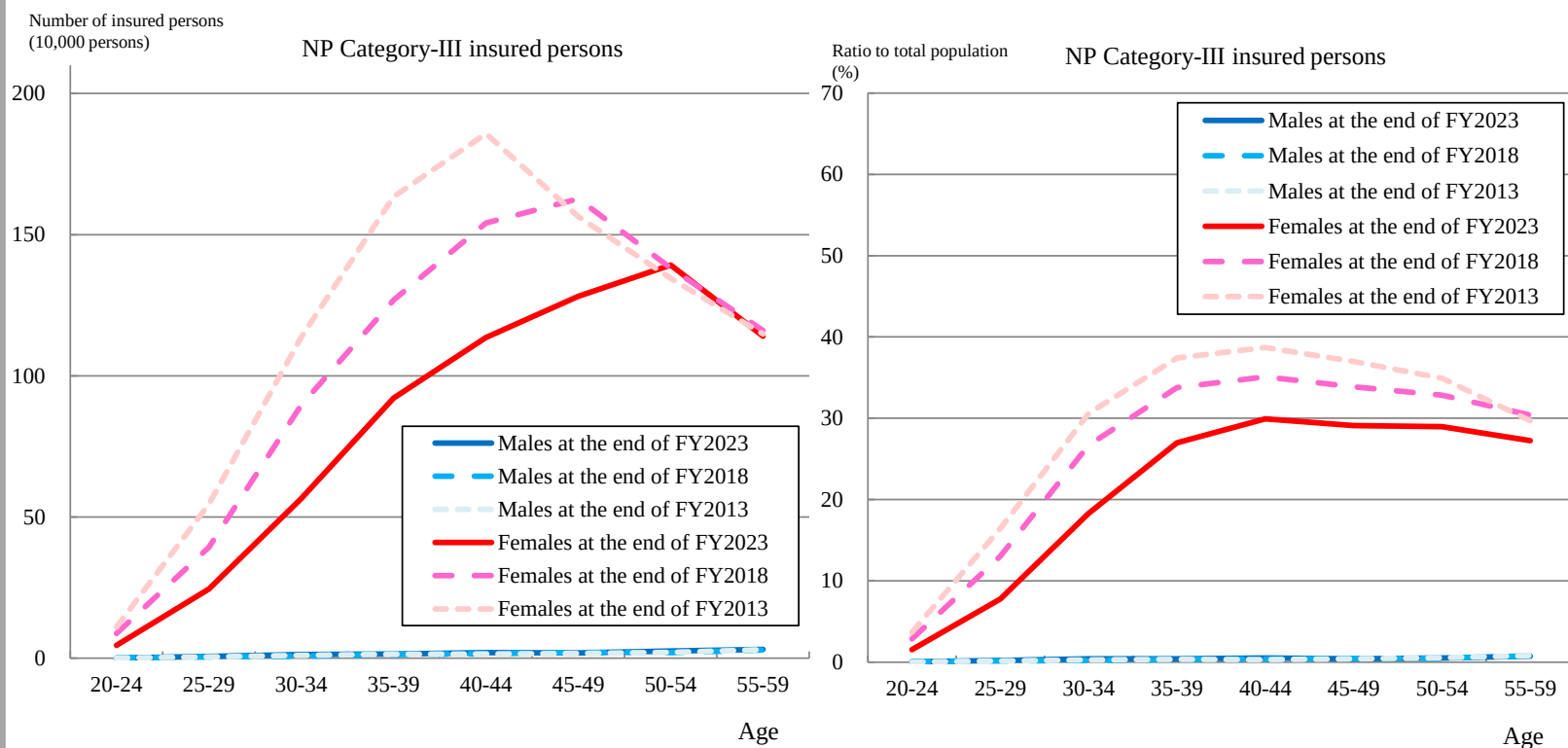
- For NP Category-I insured persons, the total number of insured persons declined for both genders, except for the shift in the junior baby boomer generation.
- The number of insured persons as a percentage of the population fell compared with five years ago, except for the 20-24 and 55-64 age groups for men, and the 20-24 and 60-64 age groups for women.



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

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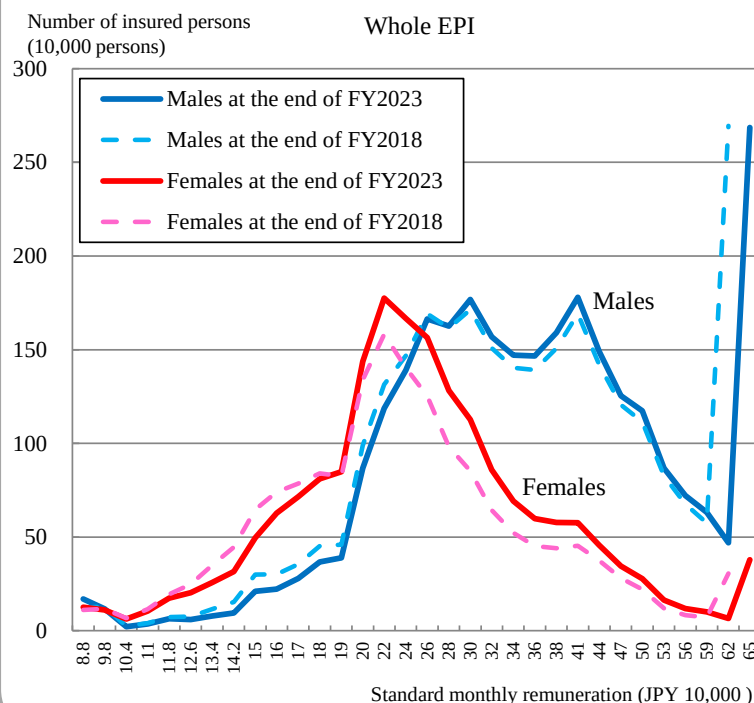
- The number of NP Category-III female insured persons under-49-year-old group has declined significantly.
- In view of the number of insured persons as a percentage of the population reveals no significant change in the number of males from five years ago, while the number of females declined in all age groups.



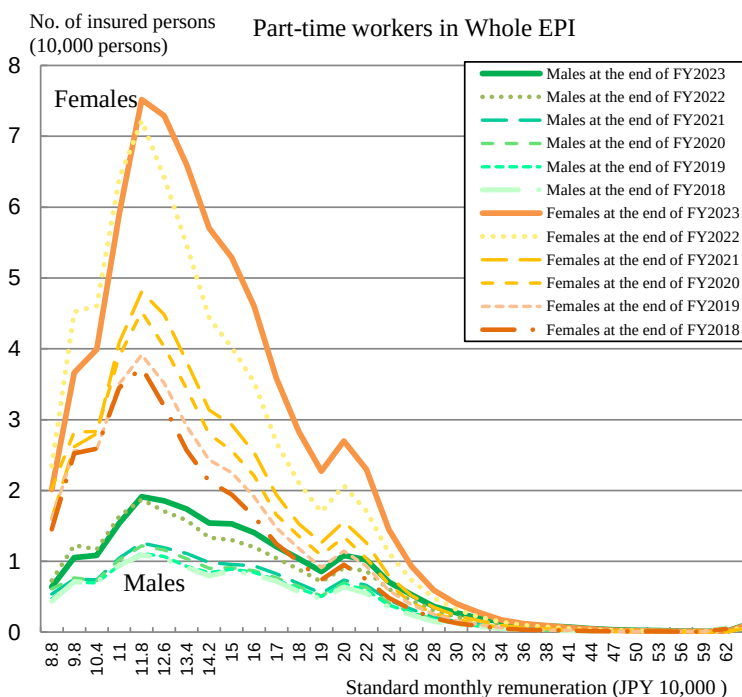
## 7. Distribution of EPI insured persons by standard monthly remuneration

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- The largest standard monthly remuneration of whole EPI received by male insured persons is JPY 650 thousand and the distribution also peaks at JPY 260-300 thousand and JPY 410 thousand. The distribution peaks at JPY 220 thousand for whole EPI female insured persons. Compared to the distribution five years ago, the number of insured persons increased for male insured persons, except in the JPY 98-260 thousand categories. The number of insured persons increased for female insured persons, except in the JPY 98-180 thousand categories.
- The distribution of part-time workers in the whole EPI insured persons peaks at JPY 118 thousand for both genders. Compared to the distribution five years ago, the number of insured persons increased in all categories for both genders due to the significant rise of the total number of the insured persons due to the expansion of the application of EPI to part-time workers, which went into effect in October 2022.



Note : The grade classification of the standardized monthly remuneration was revised to add an additional grade (JPY 650,000) above the highest grade (JPY 620,000) in September 2020.



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

8. Trends in the total pension amount for beneficiaries
9. Age distribution of old-age/retirement pension beneficiaries for long-term contributors
10. Average monthly old-age pension for long-term contributors excluding occupantional additions of MAAs, etc. (estimated)
11. Average monthly amount of pension for old-age pension beneficiaries by age group
12. Number of old-age pension beneficiaries by class of monthly amount of pension

## 8. Trends in the total pension amount for beneficiaries

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The pension amounts at the end of FY2023 totaled JPY 58.1 trillion for all public pension plans (increase in 1.9% from the previous fiscal year). Compared to the end of the previous fiscal year, all systems have increased due to a positive pension amount revision rate\*.

\* In FY2023, the increase is 2.2% for newly awarded beneficiaries (age 67 or younger) and 1.9% for already awarded beneficiaries (age 68 or older).

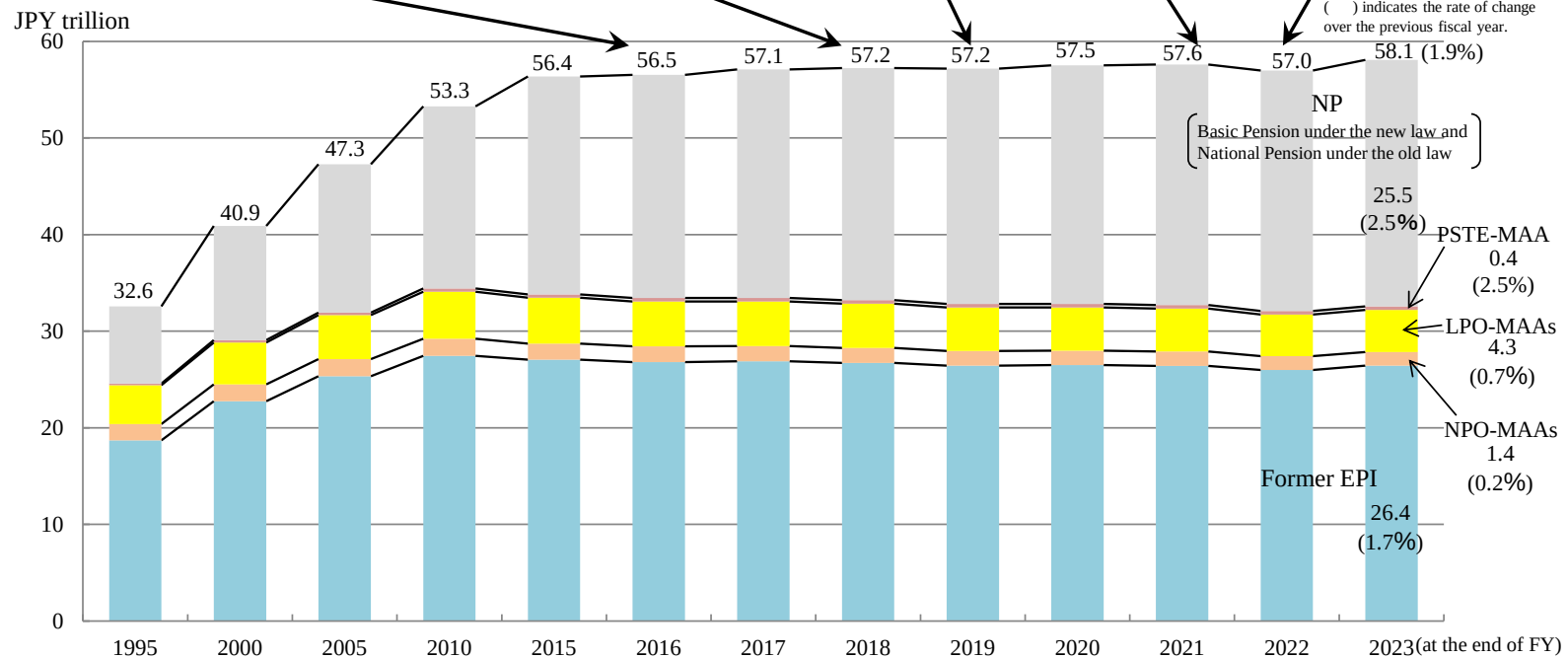
Pensionable age for the earnings-related portion was raised to 62 years old for male insured persons and MAAs (and other) female insured persons.

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

Pensionable age for the earnings-related portion was raised to 62 years old for female insured persons of the former EPI.

Pensionable age for the earnings-related portion was raised to 64 years old for male insured persons and MAAs (and other) female insured persons.



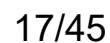
Note: NPO-MAAs, LPO-MAAs, and PSTE-MAA of FY2015 and subsequent years are the total amounts of the total pensions provided to the beneficiaries of MAA pensions and the total pensions provided to the beneficiaries of EPI before the integration of the employee's pension schemes.



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

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



# 10. Average monthly amount of pension for old-age pension for long-term contributors excluding occupational addition of MAAs, etc. (estimated)

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Since mutual aid pensions, such as the pensions provided by MAAs, include occupational additions, the pension amount for EPI excluding these additions is estimated.

The average monthly whole EPI was JPY 151 thousand with JPY 169 thousand for male beneficiaries and 116 thousand for female beneficiaries.

| Classification                                                                                              | Former EPI | NPO-MAAs | LPO-MAAs | PSTE-MAA | Whole EPI |
|-------------------------------------------------------------------------------------------------------------|------------|----------|----------|----------|-----------|
| Average monthly amount of pension (at the end of FY2023)<br>(Incl. the amount of the Old-Age Basic Pension) | JPY        | JPY      | JPY      | JPY      | JPY       |
| Total                                                                                                       | 146,429    | 176,206  | 180,086  | 180,241  | 151,294   |
| Males                                                                                                       | 166,606    | 179,524  | 186,342  | 195,897  | 169,356   |
| Females                                                                                                     | 107,200    | 159,357  | 169,588  | 156,868  | 115,924   |
| Female-to-male ratio ("males"=100)                                                                          | 64.3       | 88.8     | 91.0     | 80.1     | 68.4      |

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 is taken.

Regarding males, differences in the average monthly pension amount may be caused by the possibly higher standard remuneration amount which serves as the basis for calculating the pension amount in NPO-MAAs and PSTE-MAA compared to the former EPI though the average contribution period is longer in the former EPI compared to MAAs, etc., and the older age of beneficiaries in MAAs, etc. than in the former EPI.

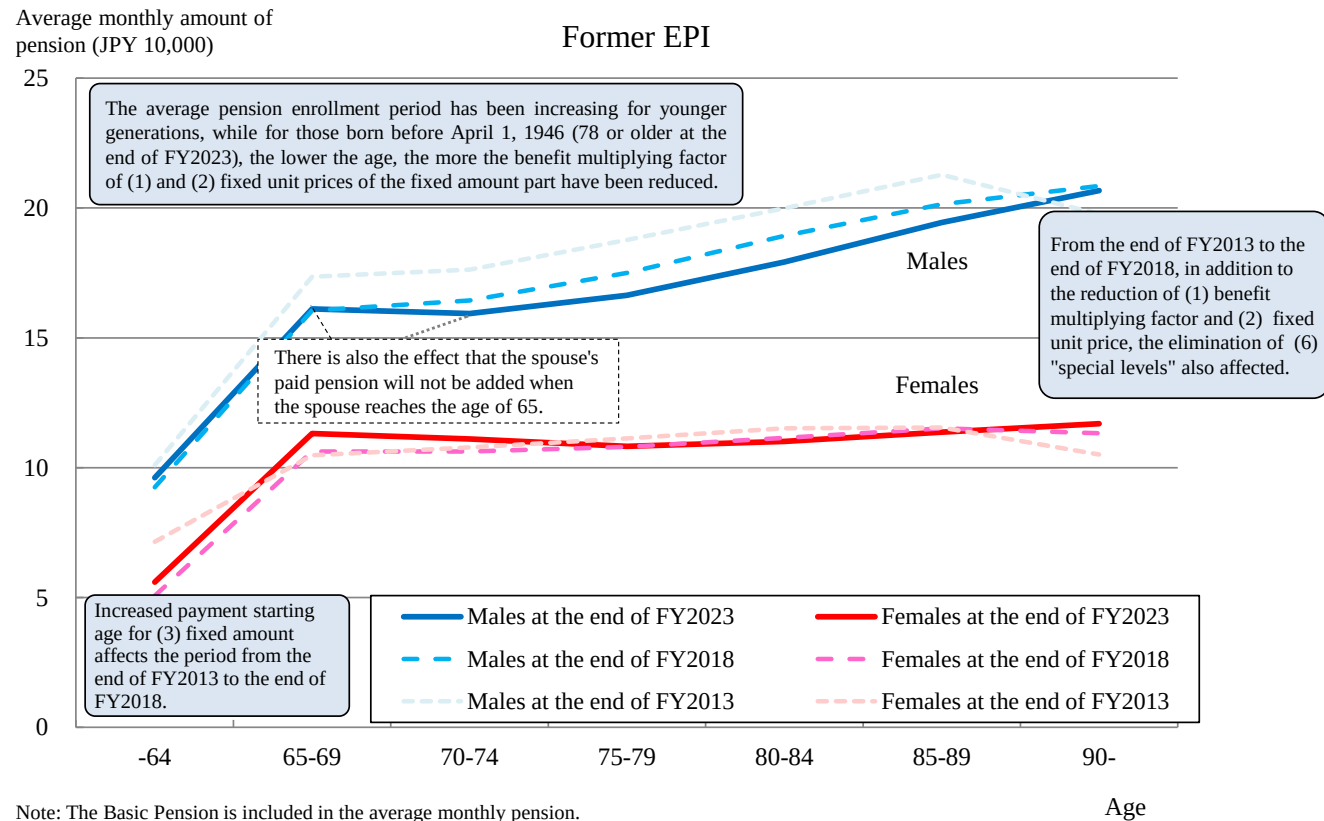
Regarding females, differences in the average monthly amount of pension may result from possible differences in the standard remuneration amount which serves as the basis for calculating the pension amount, a considerably longer average contribution period in MAAs, etc. compared to the former EPI, and the older age of beneficiaries in NPO-MAAs and PSTE-MAA than in the former EPI.

## 11. Average monthly pension for old-age pension beneficiaries by age group

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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 the following:

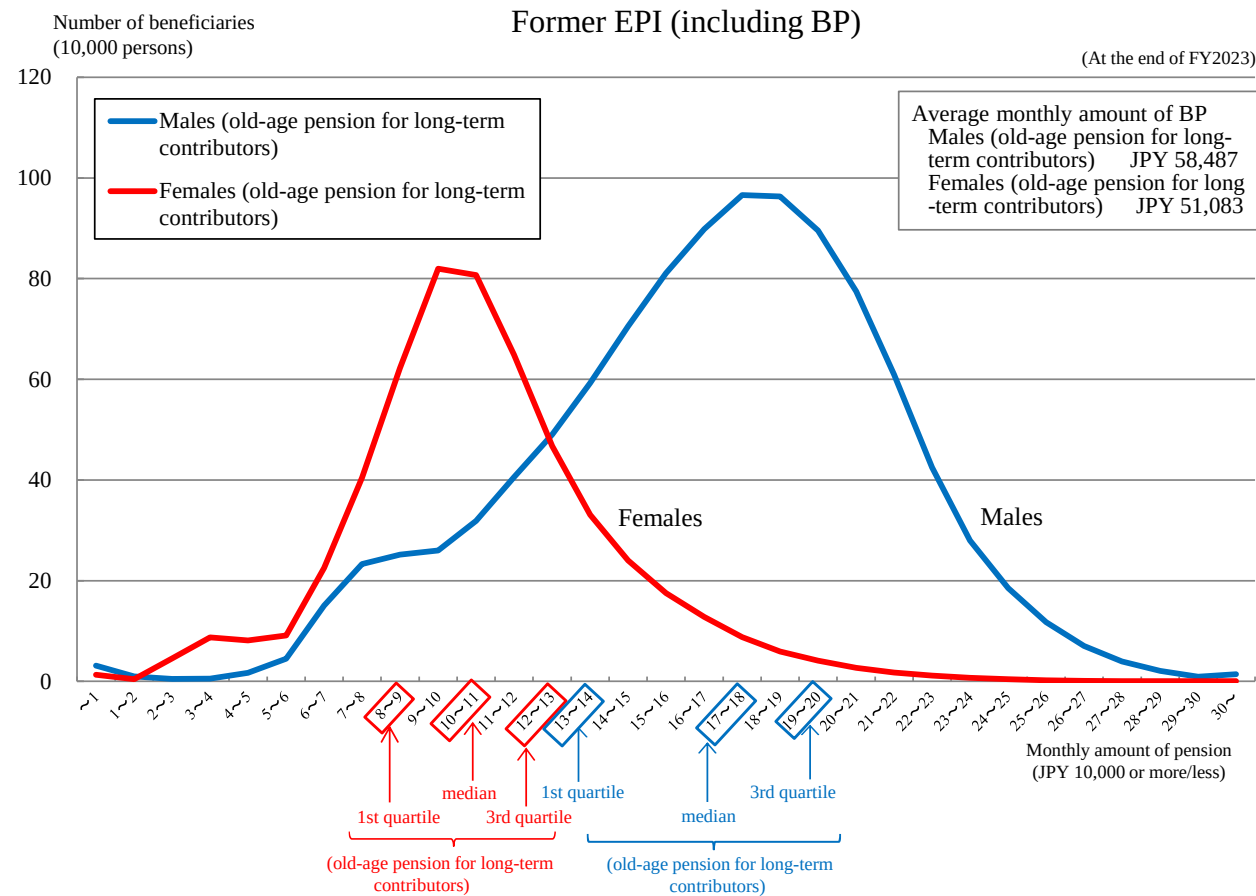
(1) Decline in benefit multiplying factors of the earnings-related portion, (2) decline in unit price of fixed amount portion, (3) increase in the pensionable age for the fixed amount portion, (4) decline in number of persons eligible for dependency addition, (5) pension amount revision rate\*, and (6) elimination of “special level” overpayment (negative revision of pension amounts). \* Since FY 2013, the revision rates were negative in FY 2017, FY 2021 and FY 2022, in addition to (6).



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

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The amount includes the Basic Pension. The amount peaks at JPY 170-190 thousand for male beneficiaries and JPY 90-110 thousand for female beneficiaries.



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

- 13. Annual balance of revenues and expenditures in FY2023
- 14. Factor analysis of change in contribution income for EPI
- 15. Analysis of the factors causing an increase or decrease in contribution income for the current fiscal year for National Pension Account of NP

## 13. Annual balance of revenues and expenditures in FY2023

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- The annual balance of revenues was analyzed for “Annual balance of revenues and expenditures excluding investment profit/loss” and “Investment profit/loss” separately.
- The revenue of "the public pension plans as a whole" was composed of JPY 41.8 trillion of the contribution income, JPY 12.1 trillion of the national and local government subsidies, etc. The total amount of revenues excluding investment profit/loss was JPY 54.4 trillion. The expenditures were mainly composed of JPY 54.1 trillion of benefit disbursements, and the total amount of expenditures was JPY 54.5 trillion. As a result, the annual balance of revenues and expenditures excluding investment profit/loss was negative JPY 0.1 trillion.
- The investment profit/loss was positive JPY 53.6 trillion on a market value basis.
- The reserve of "the public pension plans as a whole" at the end of FY2023 was JPY 304 trillion on a market value basis, an increase by JPY 53.5 trillion compared with the previous fiscal year.

| Classification                                                              |                                                                                | 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)                                |                                                                                | 2,341,567                          | 104,518                  | 58,717                | 2,504,802                       |
| Revenues<br>(adjusted financial status basis)                               | Total amount                                                                   | 514,461                            | 32,989                   | 230,717               | 543,904                         |
|                                                                             | (of which) Contribution income                                                 | 404,157                            | 13,352                   | •                     | 417,509                         |
|                                                                             | (of which) National and local government subsidies etc.                        | 102,762                            | 18,272                   | •                     | 121,034                         |
|                                                                             | (of which) Subsidies from Basic Pension                                        | 2,351                              | 1,335                    | •                     | ①                               |
|                                                                             | (of which) Revenue of the contribution to Basic Pension                        | •                                  | •                        | 230,578               | ②                               |
| Expenditures<br>(adjusted financial status basis)                           | Total amount                                                                   | 493,322                            | 35,011                   | 250,633               | 544,703                         |
|                                                                             | (of which) Benefit disbursements                                               | 291,972                            | 2,075                    | 246,945               | 540,991                         |
|                                                                             | (of which) Contribution to Basic Pension                                       | 198,808                            | 31,769                   | •                     | ②                               |
|                                                                             | (of which) Benefits equivalent to Basic Pension (Subsidies from Basic Pension) | •                                  | •                        | 3,686                 | ①                               |
| Annual balance of revenues and expenditures excluding investment income (b) |                                                                                | 21,139                             | △2,022                   | △19,916               | △799                            |
| Investment profit/loss (c)                                                  |                                                                                | 512,996                            | 22,567                   | 3                     | 535,566                         |
| Others (d)                                                                  |                                                                                | 440                                | 110                      | -                     | 550                             |
| Reserves at the fiscal year end (a + b + c + d)                             |                                                                                | 2,876,142                          | 125,173                  | 38,804                | 3,040,119                       |
| Change in reserves from the previous fiscal year end                        |                                                                                | 534,575                            | 20,654                   | △ 19,913              | 535,317                         |

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 ((\*)1 and (\*)2)) 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.

## 14. Factor analysis of change in contribution income for EPI

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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 |
| 2022 | 340,583         | 12,814          | 34,197          | 5,144           | 392,737         |
| 2023 | 351,702         | 12,947          | 34,174          | 5,334           | 404,157         |

Rate of change over previous FY (%)

|      |     |     |      |     |     |
|------|-----|-----|------|-----|-----|
| 2023 | 3.3 | 1.0 | Δ0.1 | 3.7 | 2.9 |
|------|-----|-----|------|-----|-----|

Note: EPI Account and Whole EPI do not include the substitutional portion managed by EPFs.

| Classification                                           |                                          | EPI Account | NPO-MAAs | LPO-MAAs | PSTE-MAA |
|----------------------------------------------------------|------------------------------------------|-------------|----------|----------|----------|
| Rate of change over previous FY<br>(contribution income) |                                          | %           | %        | %        | %        |
| Contributions<br>by factor                               | Number of insured persons                | 1.8         | Δ0.7     | Δ1.6     | 1.1      |
|                                                          | Average amounts of standard remuneration | 1.4         | 1.9      | 1.6      | 0.3      |
|                                                          | Contribution rate                        | —           | —        | —        | 2.2      |
|                                                          | Others                                   | 0.0         | Δ0.2     | Δ0.0     | 0.1      |

Note 1: The contributions of each factor are estimates, being expressed in terms of the rate against contribution income in the previous fiscal year.

Note 2: The fiscal year average is used for the number of insured persons.

The decrease in the average amounts of standard remuneration contributed to the decrease in contribution income.

The increase in contribution rates in FY2023 contributed to the increase in contribution income.

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

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in the annual  
report

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

The increase of proportion of number of contribution-exempted insured persons contributed to the decline in contribution income.

Fall in the nominal amount of NP contributions contributed to the decline 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                | %                           | %                  | JPY           |
| 2021                                | 13,496              | 12,836                       | 660                            | 73.9                        | 83.1               | 16,610        |
| 2022                                | 13,802              | 13,135                       | 667                            | 76.1                        |                    | 16,590        |
| 2023                                | 13,352              | 12,765                       | 587                            | 77.6                        |                    | 16,520        |
| Rate of change over previous FY (%) |                     |                              |                                | Difference from previous FY |                    |               |
| 2021                                | 1.0                 | 0.7                          | 7.1                            | 2.4                         | 2.4                |               |
| 2022                                | 2.3                 | 2.3                          | 1.1                            | 2.2                         |                    |               |
| 2023                                | △3.3                | △2.8                         | △12.0                          | 1.6                         |                    |               |

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                                                 |                                                               | 2021 | 2022 | 2023 |
|----------------------------------------------------------------|---------------------------------------------------------------|------|------|------|
|                                                                |                                                               | %    | %    | %    |
| Rate of change over previous FY (Contributions for current FY) |                                                               | 0.7  | 2.3  | △2.8 |
| Contribution by factor                                         | Number of insured persons                                     | △1.1 | △1.4 | △1.8 |
|                                                                | Proportion of number of contribution-exempted insured persons | △3.1 | △0.7 | △0.8 |
|                                                                | Amount of contributions                                       | 0.5  | △0.1 | △0.4 |
|                                                                | Payment rate                                                  | 3.3  | 3.0  | 2.0  |
|                                                                | Others                                                        | 1.1  | 1.5  | △1.8 |

Note 1: Contributions by factor are estimates, being expressed as a ratio to contributions for the current year's portion in the previous fiscal year.

Note 2: The fiscal year average is used for the number of insured persons and contribution-exempted insured persons.

Note 3: The amount of contributions is the weighted average in consideration of the number of months received.

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



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

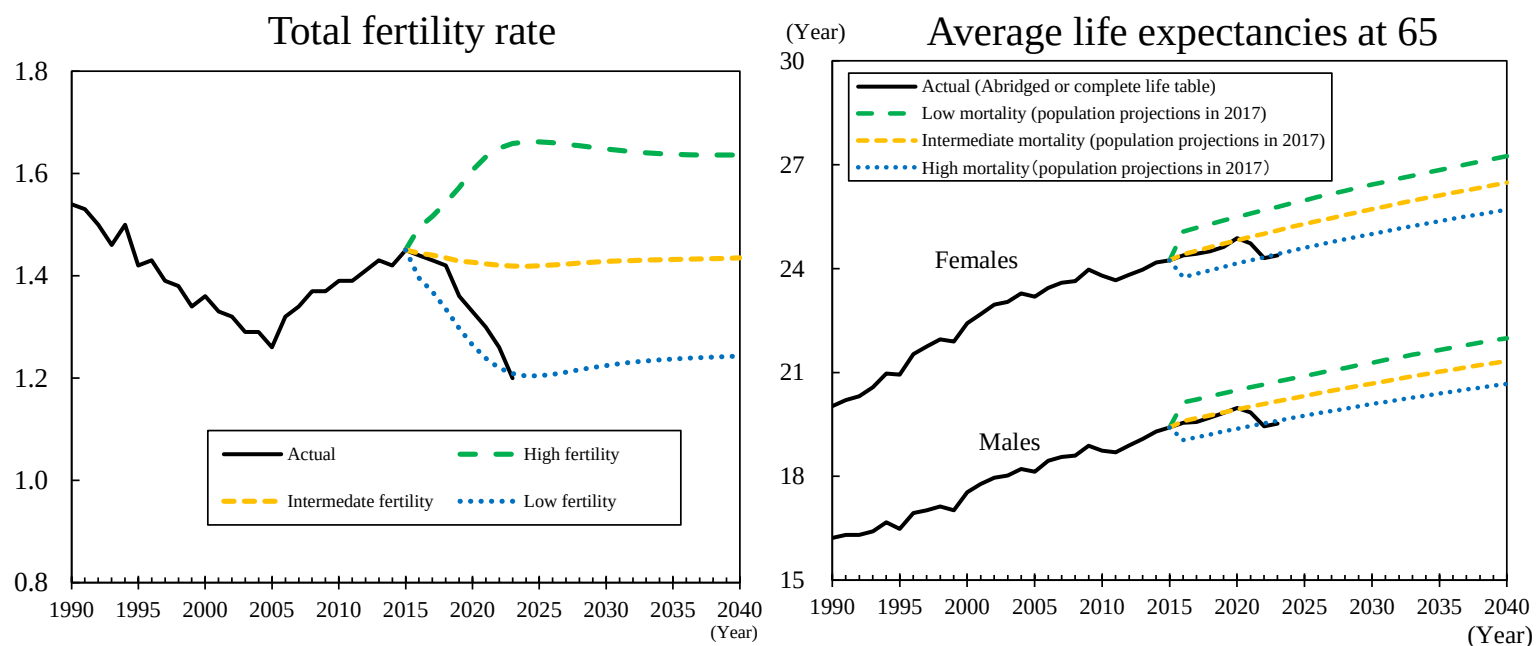
16. Comparison of actual results and assumptions for total fertility rate and average life expectancies at 65
17. Comparison of actual and assumed inflation rates
18. Comparison of actual rates of real wage increase and assumed rates
19. Comparison of actual substantial investment returns and assumptions
20. Comparison of actual labor force participation rates and assumed rates
21. Comparison of actual number of insured persons and future projections
22. Comparison of actual number of recipients and future projections
23. Comparison of actual contribution income and future projections
24. Comparison of actual benefit disbursement and future projections
25. Comparison of actual contributions to Basic Pension and the future projections
26. Comparison of actual reserves and future projections
27. Comparison of actual actuarial indices and future projections

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

P235-237  
in the annual  
report

- The actual total fertility rate in 2023 was 0.06 lower than the previous year and is below the assumed low fertility rate in the future population projections (2017 estimates)\*
- Compared with the previous year, the actual average life expectancies of Japanese nationals aged 65 in 2023 increased by 0.08 years for both males and females, but is below the assumed high mortality rate in the future population projections (2017 estimates)\* for both males and females.

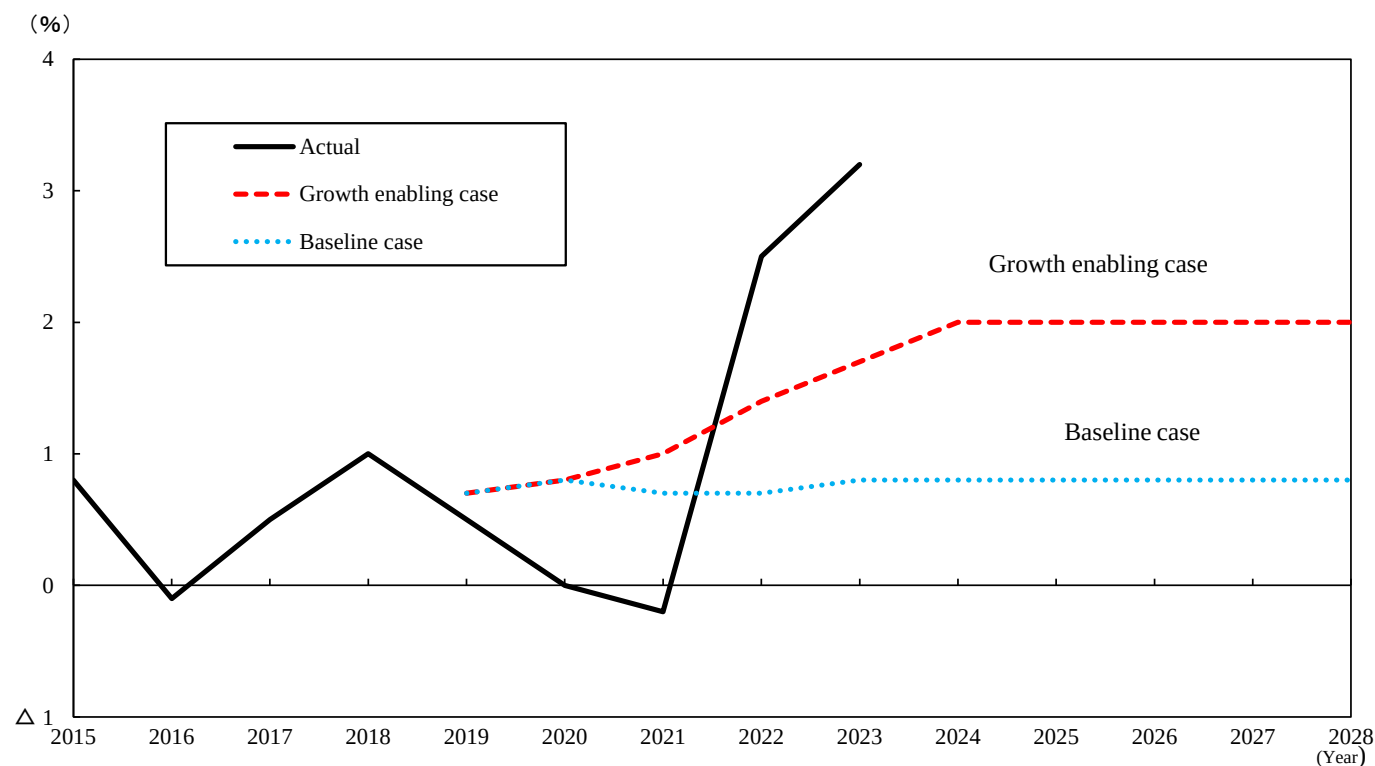
\* Although a new population projection (estimated in April 2023) has already been published, we compared the actual fertility rate with the assumptions in the 2017 population projection (one of the bases of the 2019 actuarial valuation).



## 17. Comparison of actual and assumed inflation rates

P240, 241  
in the annual  
report

The actual inflation rate in 2023 was 3.2%, exceeding the assumptions made in the actuarial valuation, both in growth enabling and baseline cases.

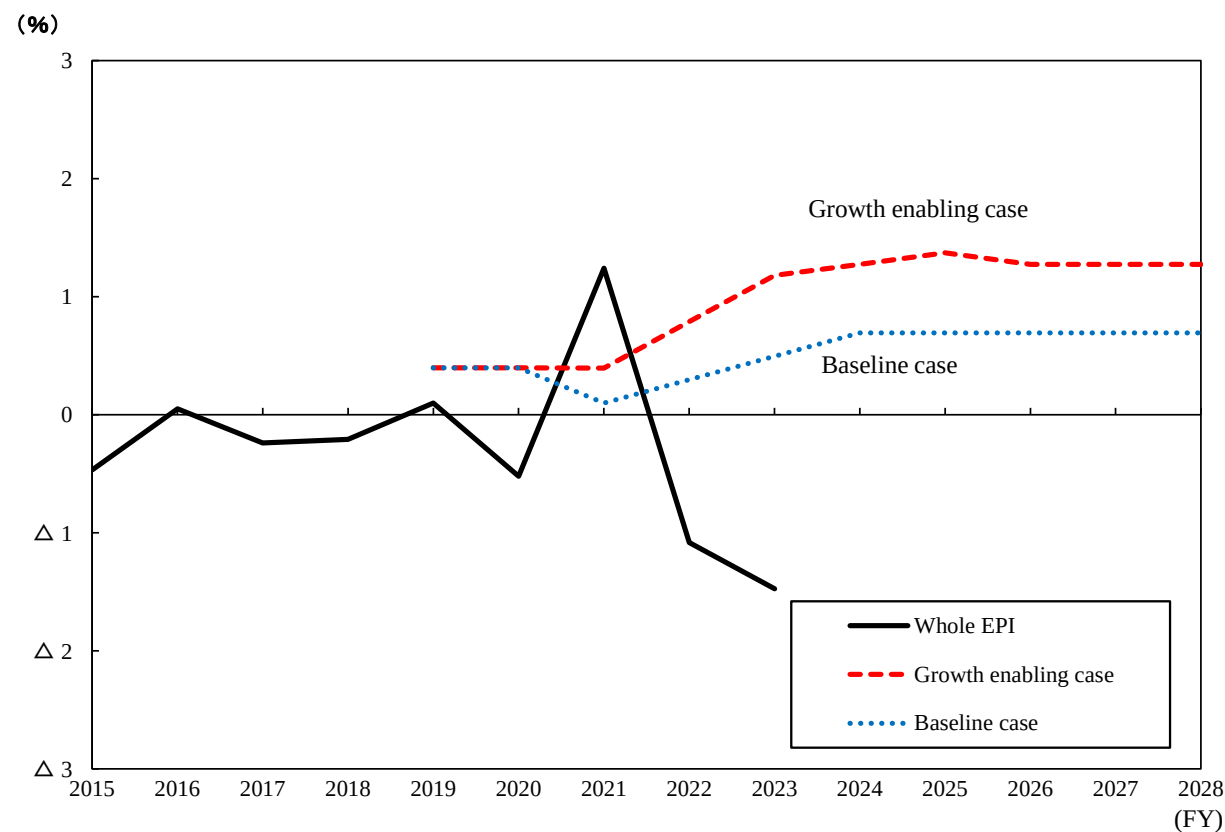


Note: The "Growth enabling case" is connected to Cases I-III, and the "Baseline case" is connected to Cases IV-VI of the actuarial valuation.

## 18. Comparison of actual rates of real wage increase and assumed rates

P242, 243  
in the annual  
report

The actual rate of real wage increase (adjusted for price inflation) in FY2023 was lower than the assumptions in both cases in the actuarial valuation due to inflation.

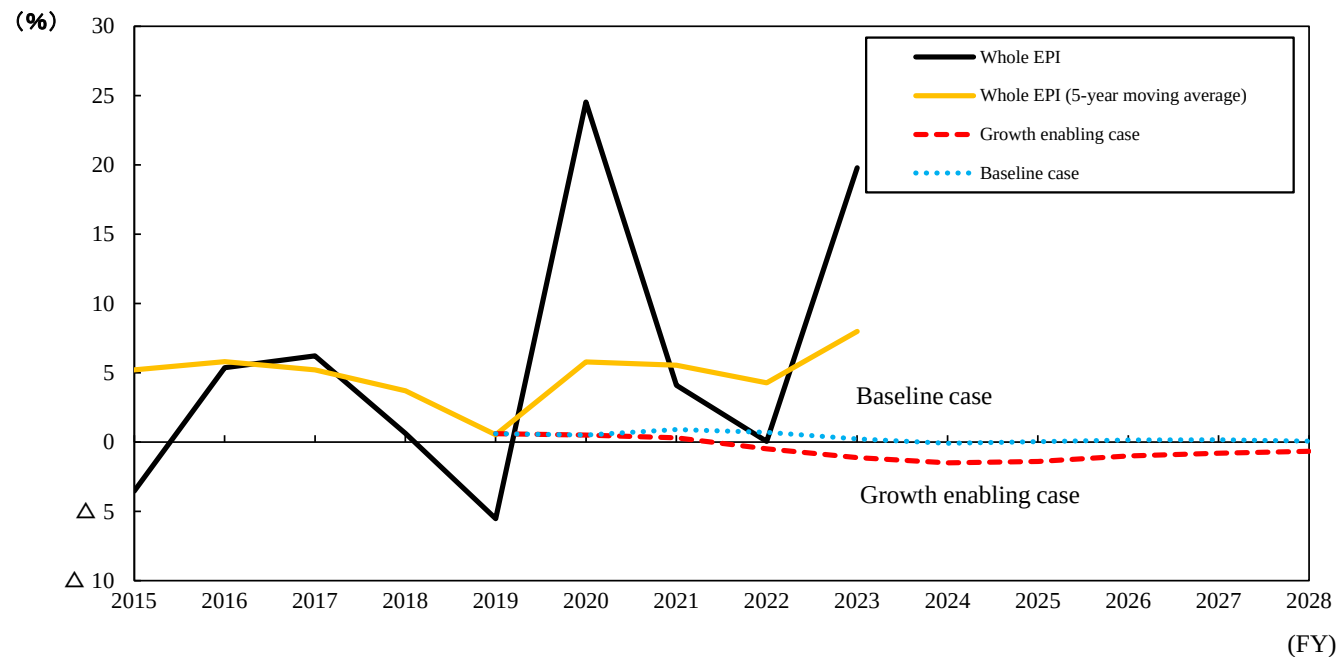


Note: The "Growth enabling case" is connected to Case I-III, and the "Baseline case" is connected to Case IV-VI of the actuarial valuation.

## 19. Comparison of actual substantial investment returns and assumptions

P245-247  
in the annual  
report

The actual substantial investment return (adjusted for nominal wage increase) in FY2023 exceeded the assumption in both cases in the actuarial valuation due to rising stock prices at home and abroad and the weak yen.



Note 1: The whole EPI (five-year moving average) is calculated by averaging the substantial investment returns 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 Cases I-III, and the "Baseline case" is connected to Cases IV-VI of the actuarial valuation.

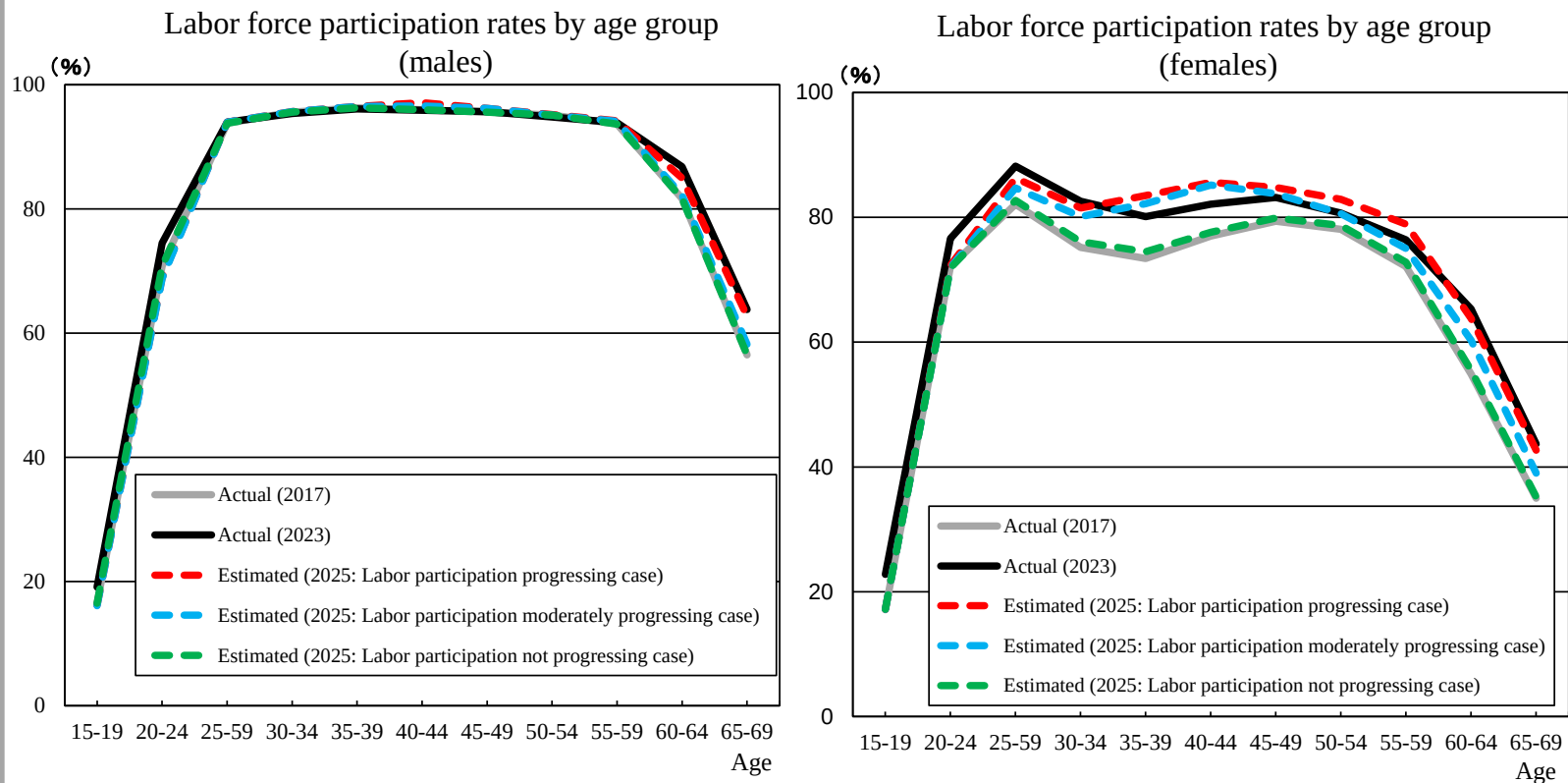
As public pension plan contributions and newly awarded benefits vary in accordance with rates of nominal wage increase, the actual investment return and the assumption used for future projections are best compared from a long-term perspective **by comparing the substantial investment return** (adjusted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

## 20. Comparison of actual labor force participation rates and assumed rates

P248-250  
in the annual  
report

Comparing the actual results in 2023 with the estimates in the labor participation progressing case for 2025,\* the actual results exceeded the estimates for males aged 15-24 and over 60, and for females aged 15-34 and over 60.

\* Note that the future projections being compared are two year ahead of the actual performance.

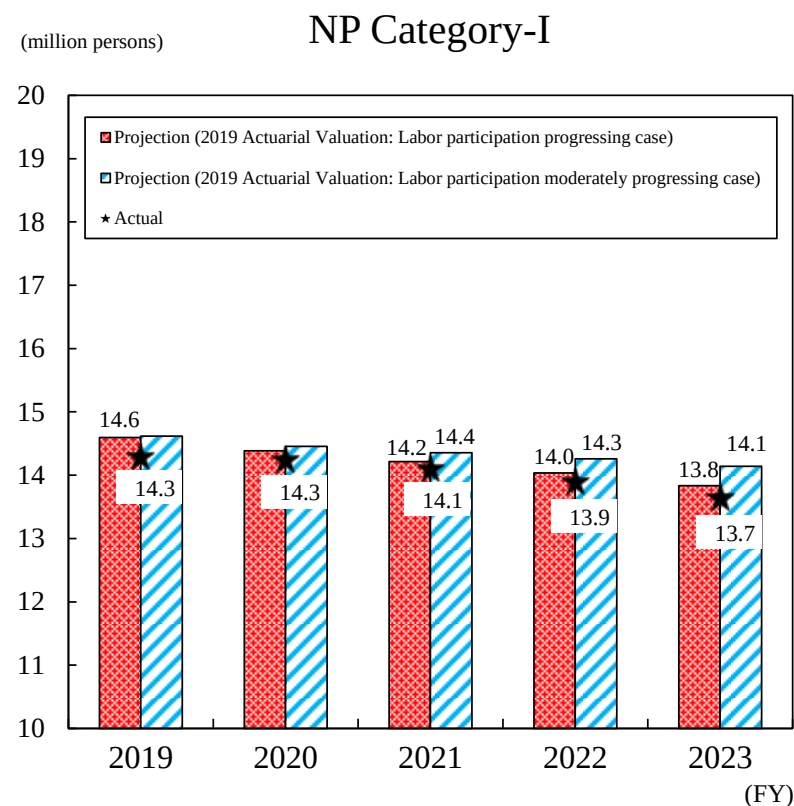
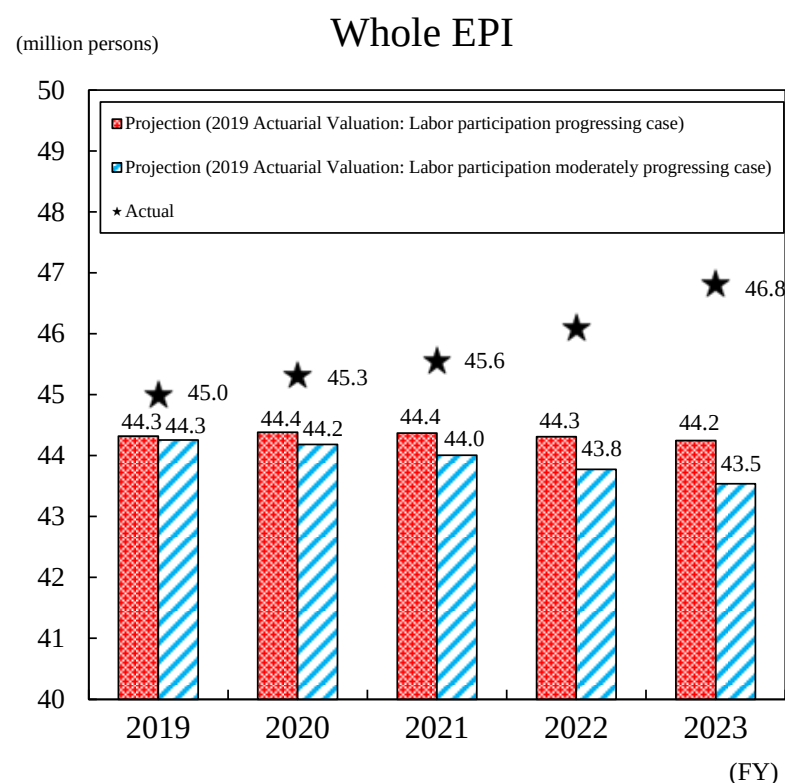


Note: The “Labor participation progressing case” corresponds to Cases I-III, the “Labor participation moderately progressing case” to Cases IV and V, and the “Labor participation not progressing case” corresponds to Case VI of the actuarial valuation.

## 21. Comparison of actual number of insured persons and future projections

P253, 254  
in the annual  
report

In FY2023, the actual result (marked with “★” in the figure below) exceeds the future projections (bar graph) in all cases for the whole EPI, while the actual result is lower than the future projections in all cases for NP Category-I insured persons.

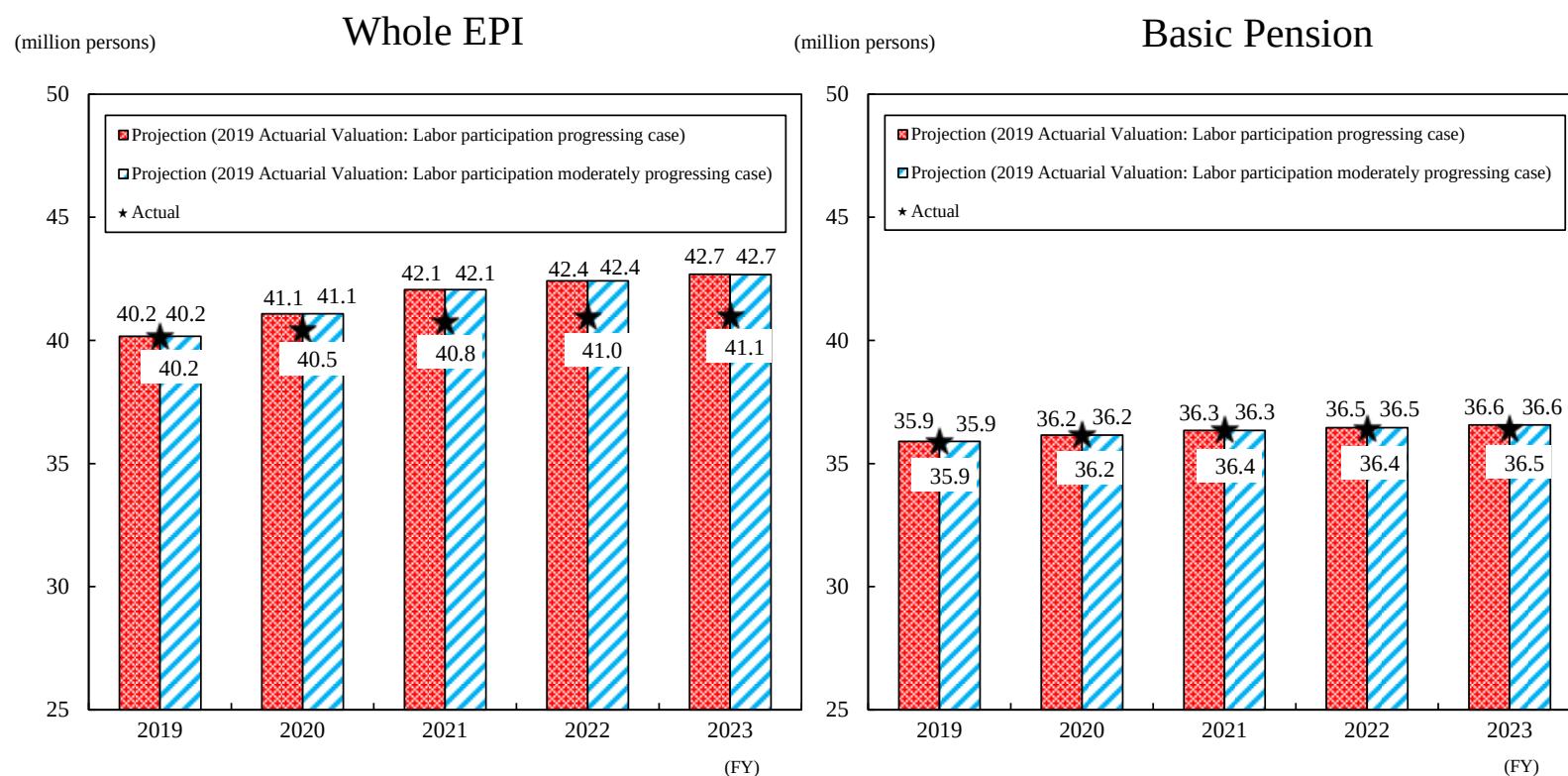


Note: The “Labor participation progressing case” corresponds to Cases I-III, and the “Labor participation moderately progressing Case” corresponds to Cases IV and V of the actuarial valuation.

## 22. Comparison of actual number of beneficiaries and future projections

P256, 257  
in the annual  
report

In FY2023, the actual result (marked with “★” in the figure below) is lower than the future projections (bar graph) in all cases for the whole EPI, while the actual result is almost equivalent to the future projection in all cases for the Basic Pension.



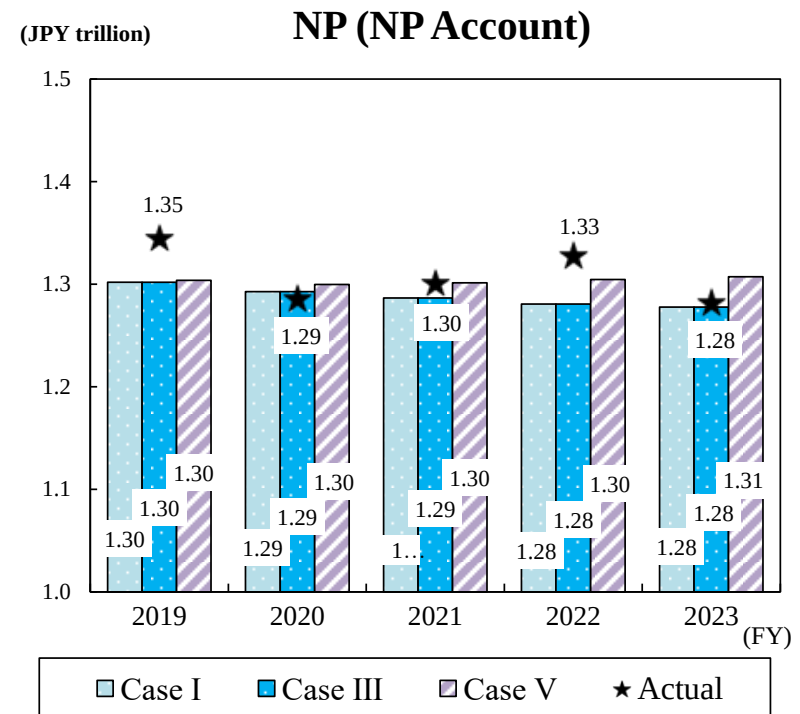
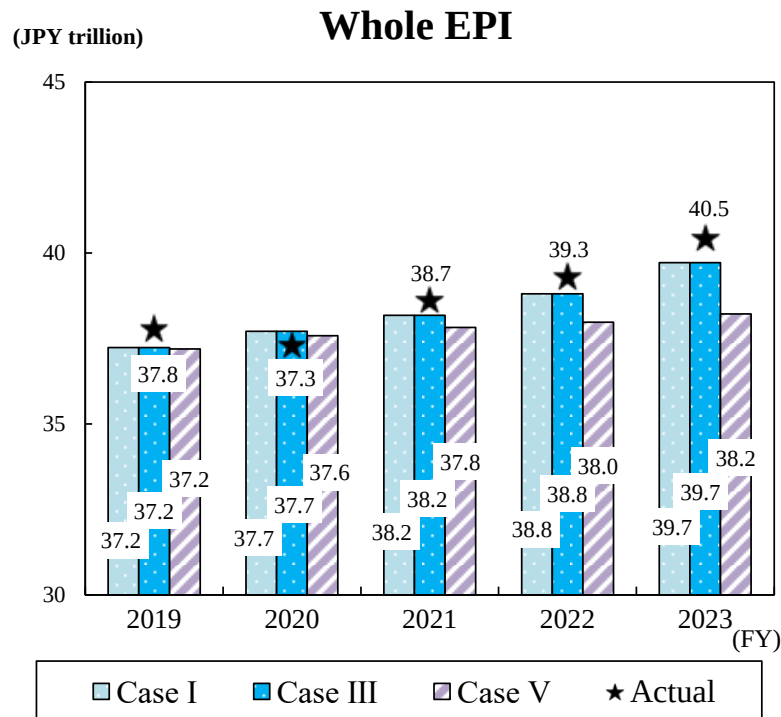
Note: The “Labor participation progressing case” corresponds to Cases I-III, and the “Labor participation moderately progressing case” corresponds to Cases IV and V of the actuarial valuation.



## 23. Comparison of actual contribution income and future projections

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in the annual  
report

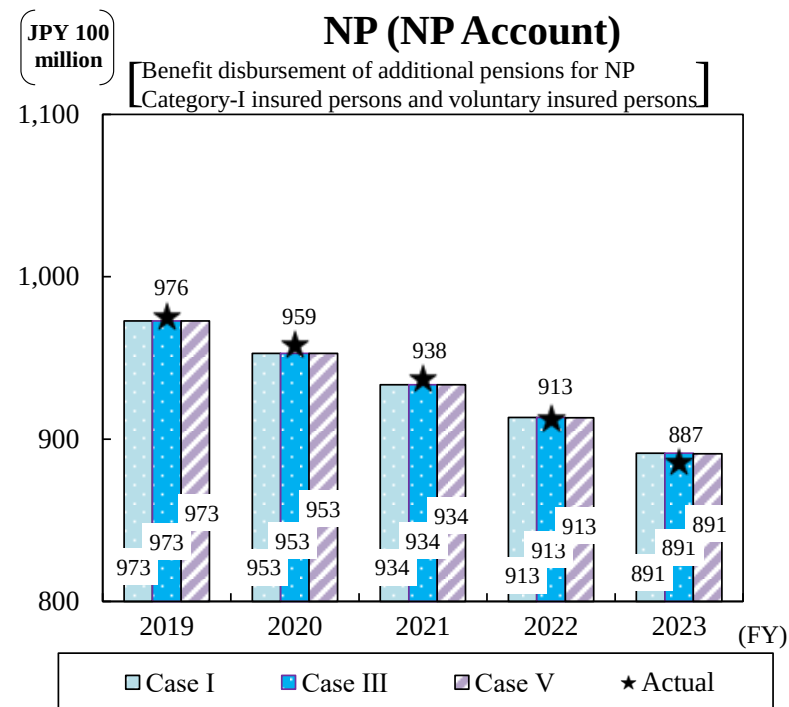
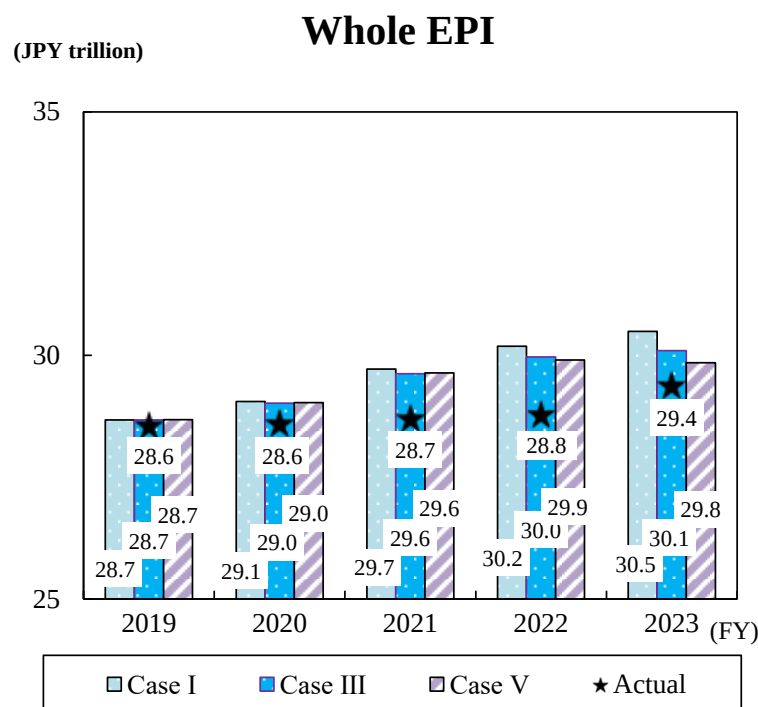
In FY2023, the actual result (marked with “★” in the figure below) exceeds the future projections (bar graph) in all cases for the whole EPI, while the actual result exceeds the future projections in Cases I and III, and is lower than the future projections in Case V for NP (NP Account).



## 24. Comparison of actual benefit disbursement and future projections

P261  
in the annual  
report

In FY2023, the actual result (marked with “★” in the figure below) is lower than the future projections (bar graph) for both the whole EPI and the National Pension (NP Account) [benefit disbursement specific to the NP such as additional pensions for NP Category-I insured persons and voluntary insured persons].

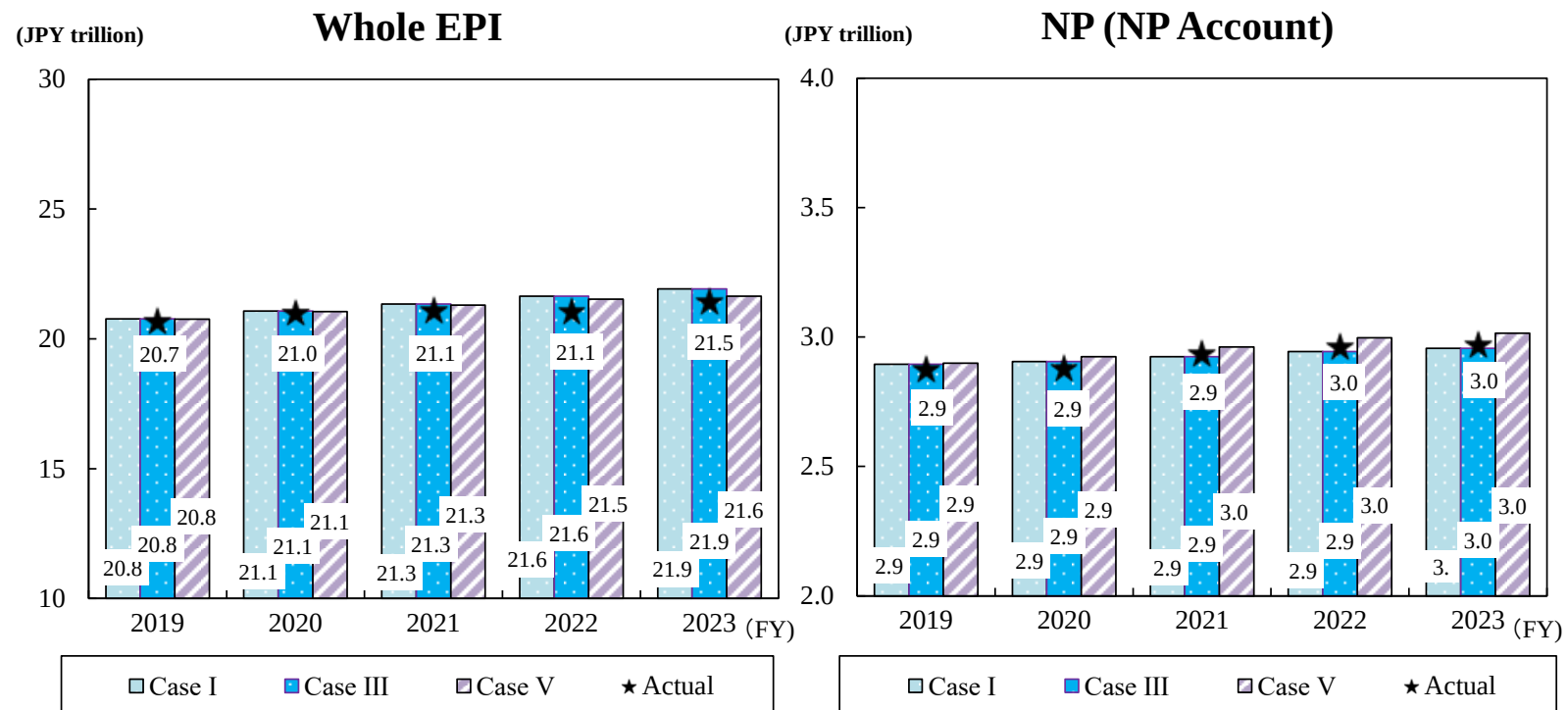


Note: Excludes benefit cost of Basic Pensions provided by the New Law and National Pensions equivalent to BP provided by the Old Law.

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

P262-264  
in the annual  
report

In FY2023, the whole EPI (marked with “★” in the figure below) is lower than the future projections (bar graph), while the actual result of the National Pension Account of NP is equivalent to the future projections.

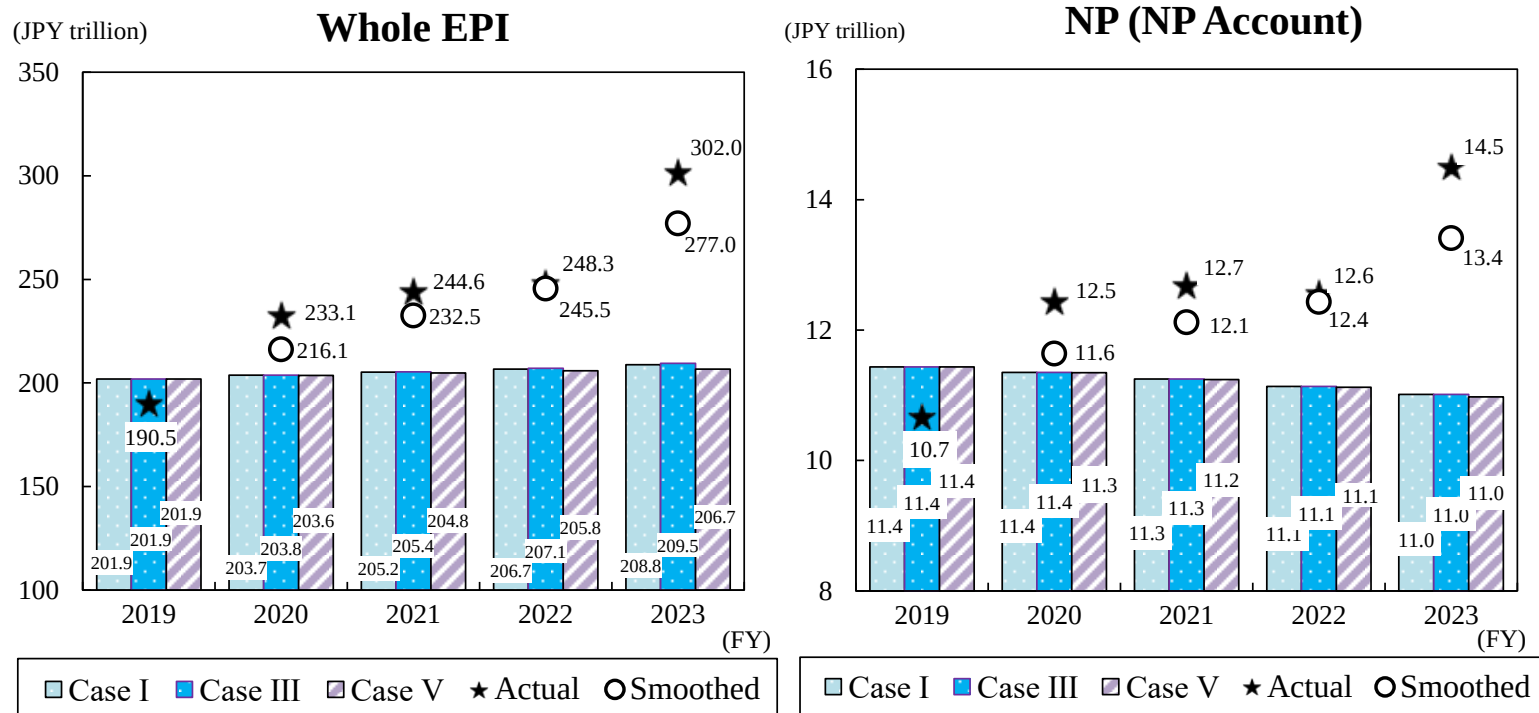


## 26. Comparison of actual reserves and future projections

P266  
in the annual  
report

- At the end of FY2023, the actual results for both the whole EPI and the National Pension Account of NP (marked with “★” in the figure below) exceeded the future projection (bar graph).
- The reserve amounts smoothed for changes in market valuation\* (marked with “○” in the figure below, calculated from FY2020) also exceeded the future projection at the end of FY2023.

\* The difference between investment income on a market value basis and historical average income is smoothed out for the past five fiscal years and reflected in the reserve valuation.

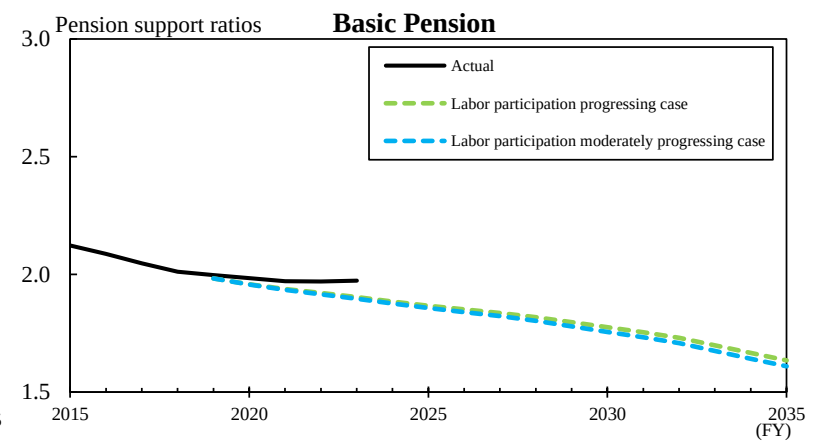
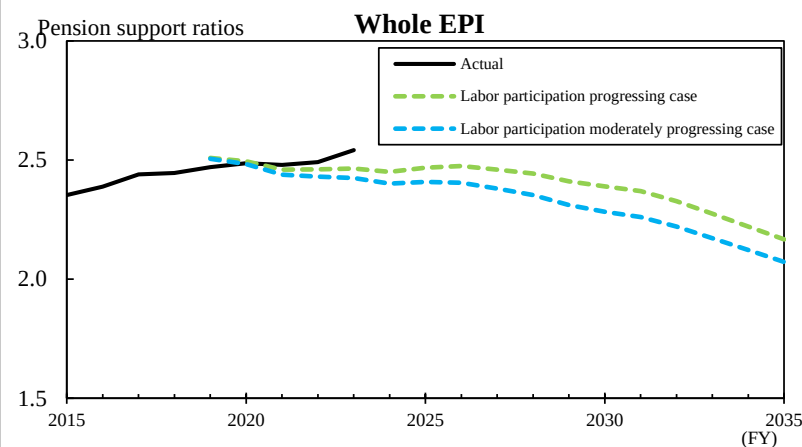


## 27. Comparison of actual actuarial indices and future projections

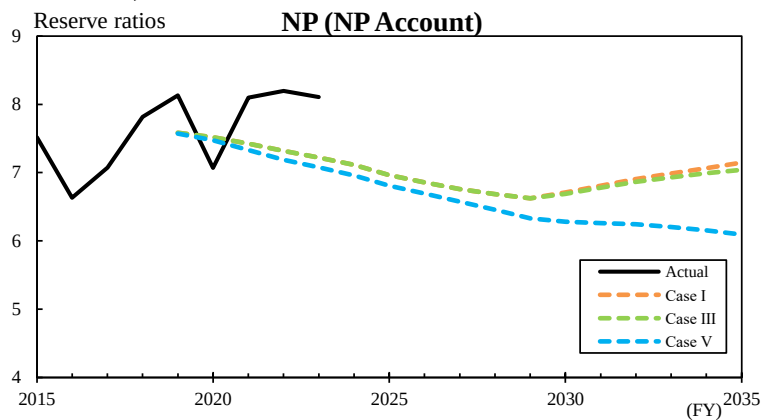
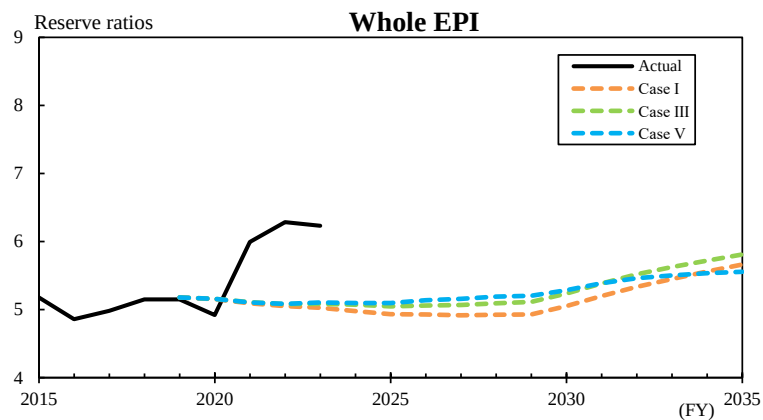
P267, 268, 273, 274  
in the annual  
report

- At the end of FY2023, the actual results of pension support ratios for both the whole EPI and the Basic Pension exceeded the future projections.
- In FY2023, the actual results of reserve ratios for both the whole EPI and the National Pension Account of NP exceeded the future projections.

**Pension support ratios (=Number of insured persons/Number of beneficiaries of old-age and retirement pensions)**



**Reserve ratios (=Reserve at the previous fiscal year end/ The comprehensive cost)** (The amount of the 'essential expenditures' in the year which the scheme must finance by itself).

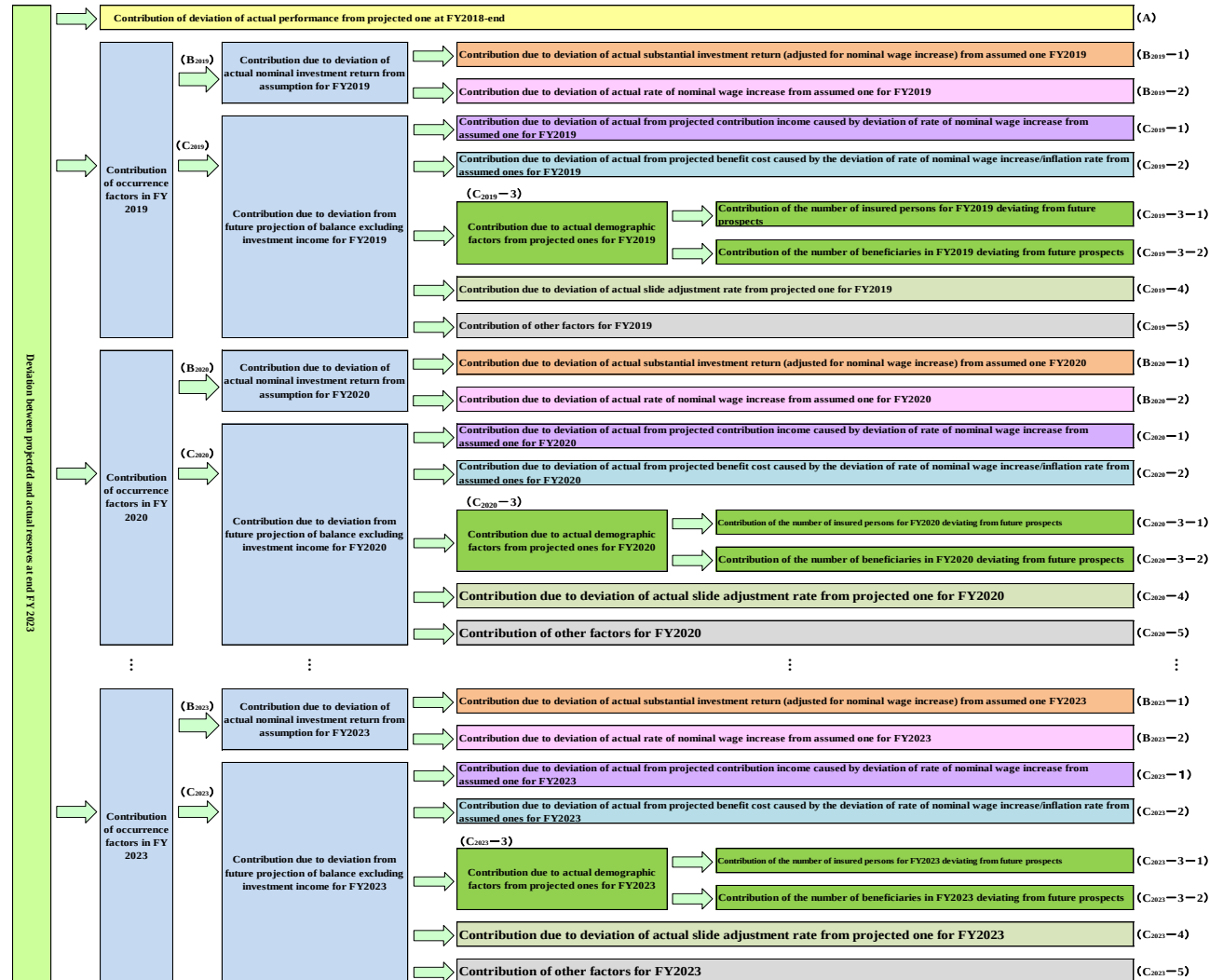


# **Analysis of deviations in reserves and evaluation of actuarial status of EPI and the Public Pension Plans (Excerpt from Chapter 3, Sections 4, 5 and 6)**

- 30. Flow of deviation analysis in actual reserves and future projections
- 31. Deviation of actual reserves and future projections by generated year
- 32. Results of deviation analysis in reserve (1) (deviation that occurred in FY2023)
- 33. Results of deviation analysis in reserve (2) (deviation that occurred between FY2019 and FY2023)
- 34. Evaluation of the actuarial status for EPI (1)
- 35. Evaluation of the actuarial status for EPI (2)
- 36. Evaluation of the actuarial status for the Public Pension Plans

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

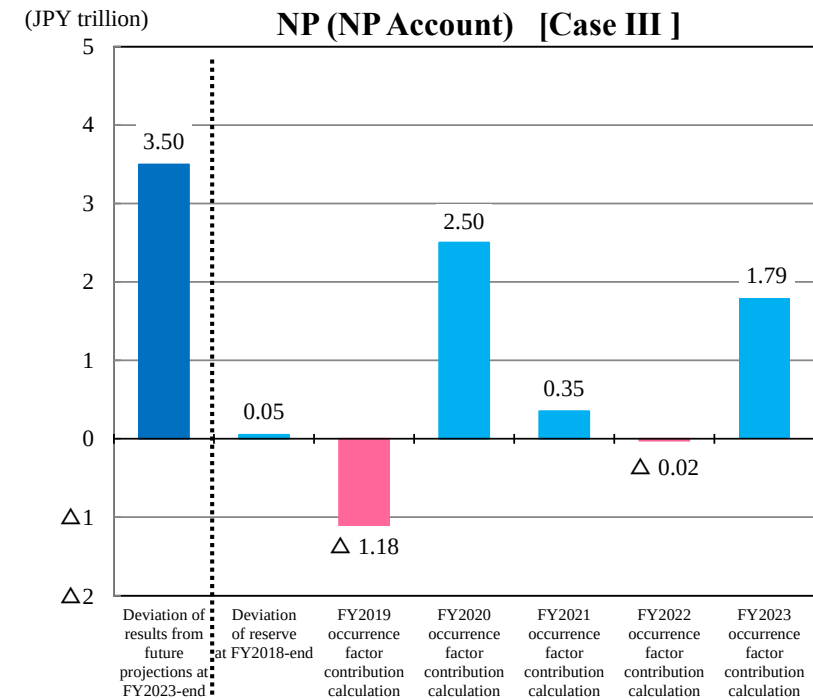
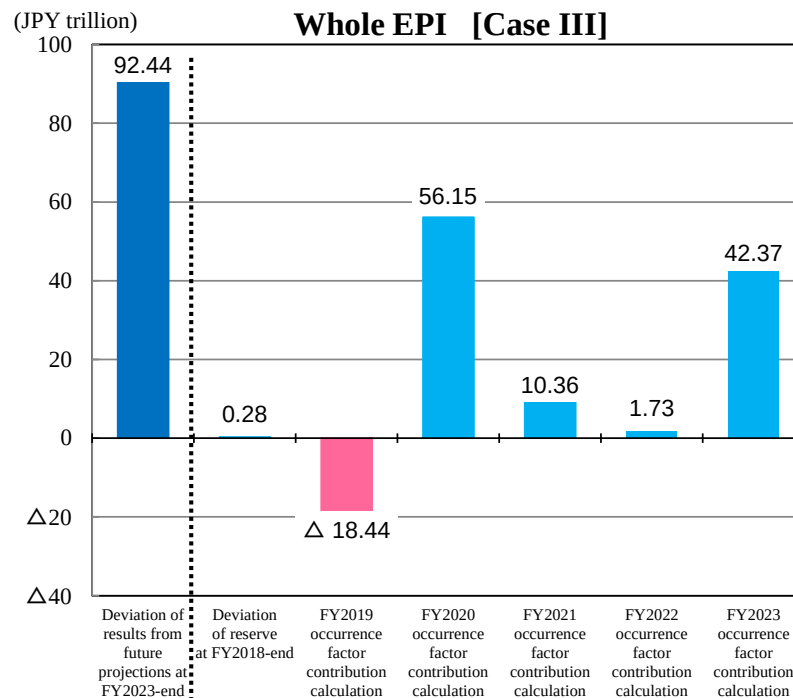
P275-277  
in the annual  
report



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

P278-283  
in the annual  
report

Actual reserves for the whole EPI and National Pension (NP Account) as of the end of FY2023 exceeded the future projections. This is mainly because the total contribution of occurrence factors in FY2020, FY2021 and FY2023 exceeded the negative total contribution of occurrence factors in FY2019, resulting in a net positive value.



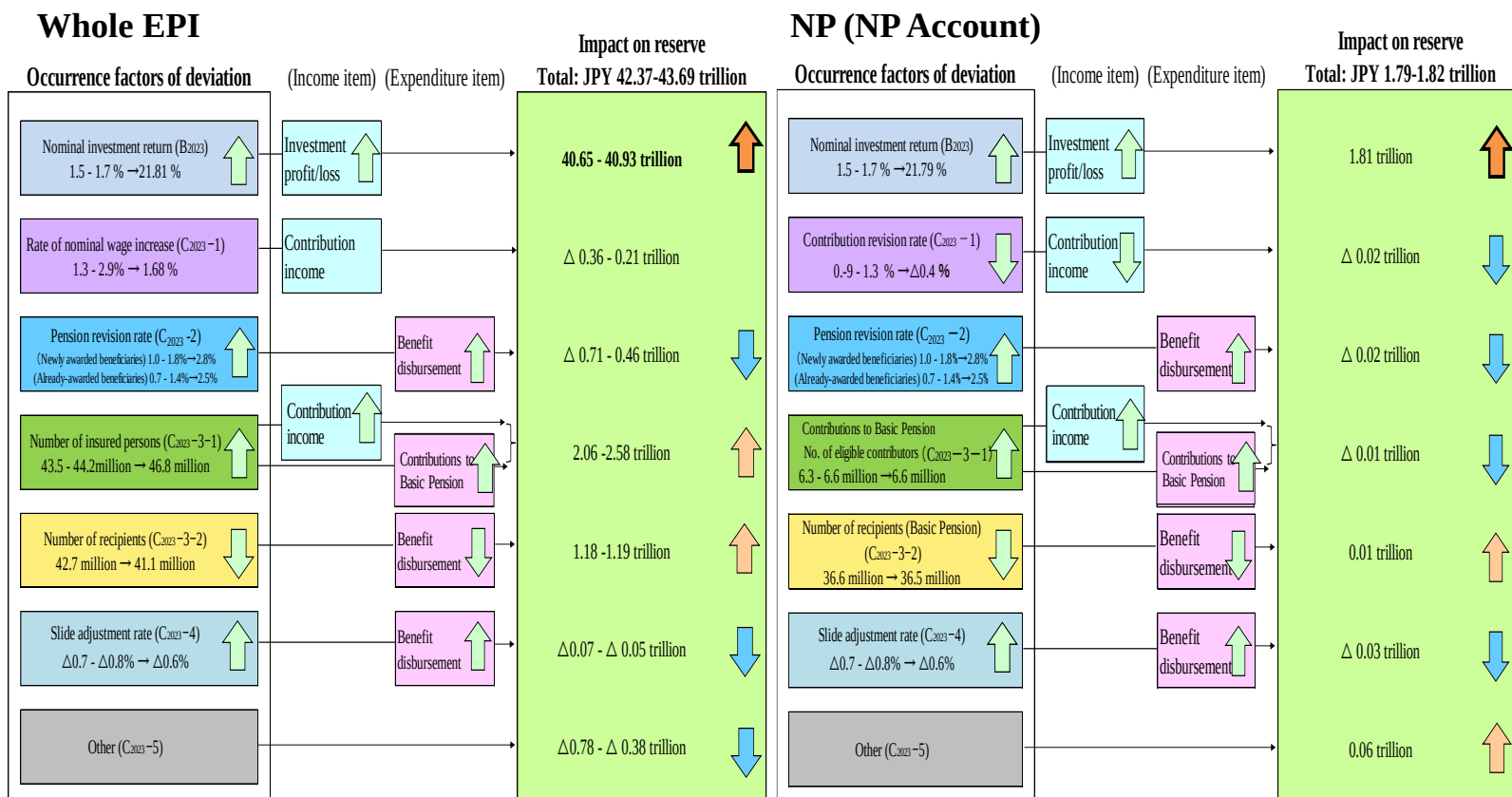
Note: The results are the same for Cases I and V.



### 30. Results of deviation analysis in reserve (1) (deviation that occurred in FY2023)

P279, 284  
in the annual  
report

The deviation in the reserve for the whole EPI in FY2023 (JPY 42.37 to 43.69 trillion) comes mainly from the deviation in the nominal return (JPY 40.65 to 40.93 trillion), while the deviation in the reserve for the National Pension (JPY 1.79 to 1.82 trillion) comes mainly from the deviation in the nominal investment return (JPY 1.81 trillion).



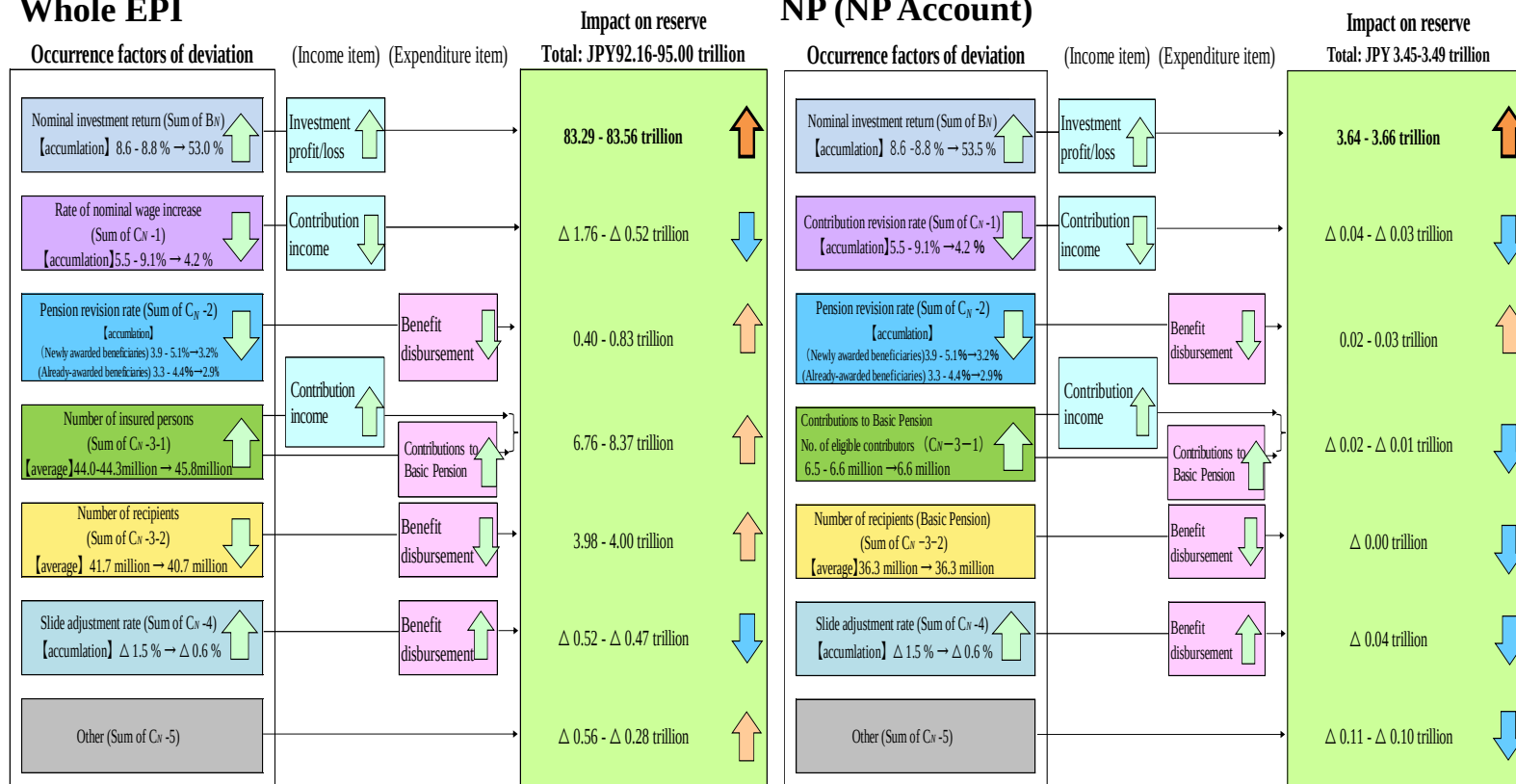
Note: Deviation in reserves is extracted by the factor to be summarized, and the maximum and minimum values are indicated for Cases I, III and V.

## 31. Results of deviation analysis in reserve (2) (deviation that occurred between FY2019 and FY2023)

P279, 285  
in the annual  
report

- From FY2019 to FY2023, the deviation in the reserve for the whole EPI and National Pension (whole EPI: JPY 92.16-95.00 trillion, NP: JPY 3.45-3.49 trillion) comes mostly from the deviation in the nominal investment return (whole EPI: JPY 83.29-83.56 trillion, NP: JPY 3.64-3.66 trillion).
- Regarding the reserve for the whole EPI, the deviation of the number of insured persons (JPY 6.76-8.37 trillion) also has a significant impact.

### Whole EPI



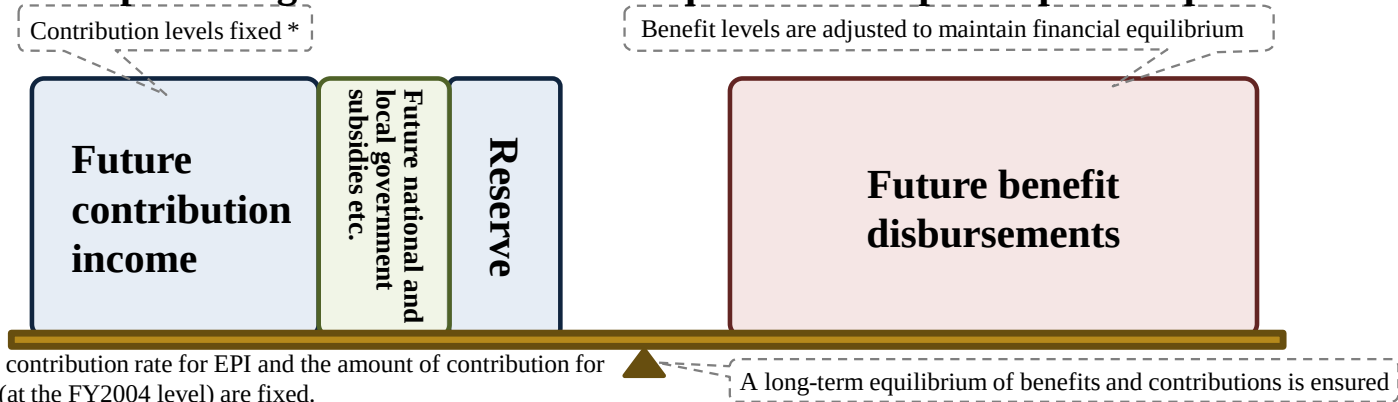
Note: Deviation in reserves is extracted by the factor to be summarized, and the maximum and minimum values are indicated for Cases I, III and V.

## 32. Evaluation of the actuarial status for EPI (1)

P286-293  
in the annual  
report

- The evaluation of the actuarial status for EPI is carried out by considering the difference between actual reserve and ‘baseline reserve for assessment (estimate).’  
Here, the ‘baseline reserve for assessment (estimate)’ is the amount for which the future projections for the reserves are adjusted for the gap between the actual rate of nominal wage increase and inflation rate and those assumed in the actuarial valuation.\*  
\* See P286 and P287 of the full text of the annual report.
- This consideration is based on the following:
  - The financial equilibrium of public pension plans is achieved by the total financial resources of future premium contribution income, future national and local government subsidies, etc. and current reserve, and future benefit disbursements.
  - The plan is designed to automatically adjust benefit levels so that future benefit disbursements are balanced by whole financial resources (such as future contribution income, and reserves), while contribution levels are fixed.
  - The actuarial status is evaluated by comparing with whole financial resources (future contribution income and reserve).

### Conceptual diagram of the financial equilibrium of public pension plans



### 33. Evaluation of the actuarial status for EPI (2)

P286-293  
in the annual  
report

An analysis of the financial situation of EPI at the end of FY2023 in Cases I, III and V, and Cases III and V\* reveals that the difference between actual reserves and “baseline reserves for evaluation (estimate)” is positive in the range of 5.0 to 5.3% (or 3.6 to 3.9% when the reserved amount smoothed for change in market valuation) against financial resources (reserves and future contribution income).

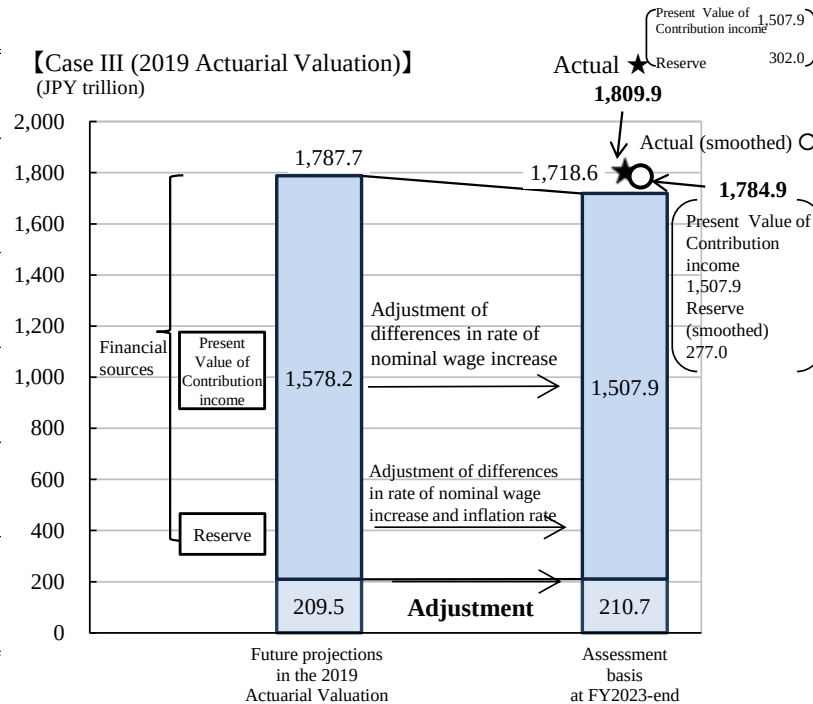
\*2020 Plan Revision was reflected in Cases III and V.

|                                                                                                                                                                               | Case I<br>(2019 Actuarial<br>Valuation) | Case III<br>(2019 Actuarial<br>Valuation) | Case V<br>(2019 Actuarial<br>Valuation) | Case III<br>(2020 Plan<br>Revision) | Case V<br>(2020 Plan<br>Revision) |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------|-------------------------------------------|-----------------------------------------|-------------------------------------|-----------------------------------|
|                                                                                                                                                                               | JPY trillion                            | JPY trillion                              | JPY trillion                            | JPY trillion                        | JPY trillion                      |
| Actual reserve ①                                                                                                                                                              | 302.0<br>[277.0]                        | 302.0<br>[277.0]                          | 302.0<br>[277.0]                        | 302.0<br>[277.0]                    | 302.0<br>[277.0]                  |
| Baseline reserve for<br>assessment (estimate) ②                                                                                                                               | 210.7                                   | 210.7                                     | 213.0                                   | 210.7                               | 213.0                             |
| Difference between actual<br>reserve and baseline<br>reserve for assessment<br>(estimate) ③=<br>①-②                                                                           | 91.2<br>[66.3]                          | 91.3<br>[66.3]                            | 89.0<br>[64.0]                          | 91.3<br>[66.3]                      | 89.0<br>[64.0]                    |
| Financial sources<br>(reserve and future<br>contribution income) ④                                                                                                            | 1,836.7                                 | 1,718.6                                   | 1,765.1                                 | 1,730.8                             | 1,775.6                           |
| Ratio of the difference between<br>actual reserve and baseline reserve<br>for assessment (estimate) to<br>financial resources (reserve and<br>future contribution income) ③/④ | 5.0<br>[3.6]                            | 5.3<br>[3.9]                              | 5.0<br>[3.6]                            | 5.3<br>[3.8]                        | 5.0<br>[3.6]                      |

Note : [ ] indicates the value when the reserved amount smoothed for change in market valuation is used.

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

【Case III (2019 Actuarial Valuation)】  
(JPY trillion)



## 34. Evaluation of the actuarial status for the Public Pension Plans

P294, 295  
in the annual  
report

- The following matters were confirmed: the number of NP Category-1 insured persons continued to be lower than the future projections of the actuarial valuations; the number of insured persons for the whole EPI continued to exceed future projections; the performance of reserves exceeded the future projections in FY2023 because of high investment income; and the average life expectancy at the age of 65 in 2023 was lower than the high mortality assumptions in the 2017 estimates.\* In FY2023, the adjustment of benefit levels through modified indexation had a positive effect on pension financing, and it was confirmed that growth in real wages exceeded the growth of already awarded pensions for the first time since price indexation for already awarded pensions was introduced in the 2000 revision.
- However, it was confirmed that the total fertility rate from 2019 onward remained below the assumed medium fertility rate in the 2017 estimates, and in 2023, it fell below the assumed low fertility rate, and the real wage growth rate (relative to prices) was below the assumptions in both cases in the 2019 actuarial valuations.
- Should these deviations from future projections continue over the medium to long term, instead of temporarily, the financial impact on public pensions would be significant. For example, if the trend of the total fertility rate continues falling below the assumed medium fertility rate for the population projections over a prolonged period, the operation of the pension system will be greatly affected in the future.
- From the financial perspective 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.

\* Although a new population projection (estimated in April 2023) has already been published, we compared the actual fertility rate with the assumptions in the 2017 population projection (one of the bases of the 2019 actuarial valuation).