ANNUAL REPORT
FISCAL YEAR 2020

Government Pension Investment Fund

Investment Principles

1. Our overarching goal is to contribute to the stability of the national pension system by securing the investment returns that it requires with minimal risk and from a long-term perspective, to the sole benefit of pension recipients.

2. Our primary investment strategy is diversification by asset class, region, and timeframe. While market prices may fluctuate in the short term, GPIF will take full advantage of our long-term investment horizon to achieve investment returns in a more stable and efficient manner, while simultaneously ensuring sufficient liquidity to pay pension benefits.

3. We formulate our overall policy asset mix and manage risks at the portfolio, asset class, and investment manager level. We utilize both passive and active management in order to achieve benchmark returns (i.e., average market returns) and seek untapped profitable investment opportunities.

4. We believe that sustainable growth of investee companies and the capital market as a whole are vital in enhancing long-term investment returns. In order to secure such returns for pension beneficiaries, therefore, we promote the incorporation of non-financial environmental, social, and governance (ESG) factors into the investment process in addition to financial factors.

5. In order to enhance long-term investment returns and fulfill our stewardship responsibilities, we shall advance various initiatives (including the consideration of ESG factors) that promote long-termism and the sustainable growth of investee companies and the capital market as a whole.

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- Investment results of Government Pension Investment Fund, including this annual report, are available on the Fund's website (https://www.gpif.go.jp/en/).
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Investment Result Summary in Fiscal 2020

For details, refer to page 21-29

Rate of return

	Fiscal 2020	Since Fiscal 2001
Rate of return	+25.15% [annual rate]	+3.61% [annual rate]
Returns	+¥37,798.6 billion [annual returns]	+¥95,336.3 billion [cumulative returns]
(Interest and dividend income)	(+¥3,012.8 billion) [annual returns]	(+¥40,154.0 billion) [cumulative returns]

The excess rate of return

(over the compound benchmark)

Fiscal 2020	Since Fiscal 2006
+0.32%	-0.03%

Asset size

As of the end of fiscal 2020

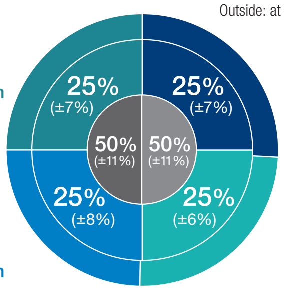
¥186,162.4 billion

Portfolio allocation (Pension reserves managed by GPIF and the Pension Special Account)

Inside: policy asset mix (figures in parentheses indicate deviation limits)
Outside: at the end of March 2021

Foreign equities
24.89%
¥47,818.0 billion

Domestic bonds
25.92%
¥49,807.8 billion



Domestic equities
24.58%
¥47,227.3 billion

Foreign bonds
24.61%
¥47,294.3 billion

Allocation changes for each asset class due to rebalancing

(Unit: ¥billion)

	Domestic bonds	Foreign bonds	Domestic equities	Foreign equities
Allocated/withdrawn	+3,716.0	+9,837.1	-3,002.4	-10,009.1

(Note) Each figure shows the net rebalancing amount.

Total fees

(The average fee rate on the total investment assets)

¥61.1 billion
(0.04%)

Topics in Fiscal 2020

1 Solid Investment Management Based on Policy Asset Mix

GPIF has adopted a new policy asset mix from fiscal 2020, and conducted its investment management including in-depth, timely and flexible reviews of capital allocation and risk management in response to the highly volatile market. As a result, the annual rate of return for fiscal 2020 came to +25.15%, and the excess rate of return over the compound benchmark recovered positive return (+0.32%) for the first time in virtually seven years.

2 Promoting ESG Activities

GPIF promotes ESG investments in order to reduce negative externalities such as environmental and social issues, and to improve the sustainable return from the whole assets. In fiscal 2020, GPIF partially revised its Investment Principles to clarify our underlying idea behind its ESG investments that sustainable growth of both investee companies and the overall capital market is critical in order to enhance long-term investment returns for the benefit of the pension beneficiaries. GPIF selected two ESG themed foreign equity indexes and began passive management based on the following two benchmarks.

- 【General ESG】MSCI ACWI ESG Universal Index
- 【Diversity】Morningstar Gender Diversity Index (“GenDi”)

For details, refer to page 68-74.

3 Alternative Investments to Gain Momentum

GPIF has steadily been increasing exposure to alternative investments (infrastructure, private equity, and real estate) in expectation of greater portfolio diversification, seeking to improve investment efficiency and further to ensure the stability of pension finance. In fiscal 2020, GPIF newly selected asset managers for the following two areas.

- Private equity (Global-Diversified Strategy)
- Real estate (Global-Core JV/Club Type Investments)

For details, refer to page 43-58.

The Board of Governors aims at making GPIF trustworthy organization for the Japanese public by fully utilizing the expertise of the Governors with a wide range of knowledge and experiences.

The mission of GPIF is to manage pension reserves stably and efficiently from a long-term perspective, solely for the benefit of the public, thereby contributing to the stability of pension finance.

The Board of Governors comprises ten members: the President of GPIF and nine outside experts with a broad range of pertinent knowledge and experience. The Board of Governors makes decisions on important policies related to the management and investment of pension reserves including the formulation of the policy asset mix, and the management of the organization. In addition, the Board of Governors supervises the Executive Office's business executions in cooperation with the Audit Committee.

I was inducted as the Chairperson of the Board of Governors on April 1, 2021. I am committed to achieving the mission of GPIF by fully utilizing my expertise in finance and the economy, and my organizational management experience that I acquired so far in my career.

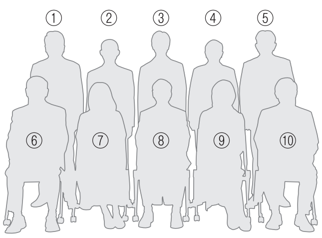
GPIF must always be a trustworthy organization for the Japanese public. To this end, it is the most important to ensure that the pension reserves are managed and invested in an appropriate manner in accordance with the mission of GPIF. After more than a year since the COVID-19 infection started to spread globally, the pandemic has yet to be ceased. Even in such a difficult socioeconomic environment, our mission remains unchanged. The Board of Governors is committed to devoting all of its energies for the benefit of the Japanese public by concentrating the wisdom of its members in close collaboration with the Executive Office under the leadership of the President.

I would sincerely appreciate your continuous understanding and support.

Chairperson of the Board of Governors

YAMAGUCHI Hirohide

Government Pension Investment Fund, Japan



① UCHIDA Takakazu
② HORIE Sadayuki
③ KATO Yasuyuki
④ KOGA Nobuaki
⑤ IWAMURA Shuji
⑥ ARAI Tomio
⑦ KOMIYAMA Sakae
⑧ YAMAGUCHI Hirohide
⑨ NEMOTO Naoko
⑩ MIYAZONO Masataka

We pledge to continue fulfilling our mission of contributing to the stability of the public pension finance and the stability of the lives of Japanese public, by exercising fiduciary responsibilities for the pension reserves.

The mandate of Government Pension Investment Fund is to contribute to the stability of the Employees' Pension Insurance and National Pension schemes by managing and investing the pension reserves entrusted to us by the Minister of Health, Labour and Welfare and by disbursing investment returns into the Pension Special Account.

The investment return for fiscal 2020 was positive due to the strong performance of equities in Japan and overseas.

In fiscal 2020, global stock markets rose significantly as major countries implemented large-scale fiscal spending to stimulate the economies and continued accommodative monetary policies with the COVID-19 sweeping the world. Long-term interest rates rose in the U.S. and to a lesser extent in other major countries due to concerns over the increased issuance of government bonds for the fiscal spending and expectations for the resumption of economic activities following the vaccination of the COVID-19. The yen depreciated against the U.S. dollar and euro.

As a result of these developments, the annual rate of return came to +25.15%. Bringing more than ¥95 trillion cumulative amount of returns since fiscal 2001, when GPIF started managing pension reserves. While, the returns constantly fluctuate, GPIF is resolved to continue to comply with the Investment Principles and the Code of Conduct and fulfill its fiduciary duty so that it can set aside the necessary amount of pension reserves for the public pension scheme by managing assets from a long-term perspective without being distracted by short-term market fluctuations. In this annual report for fiscal 2020, we aim to improve further transparency by adding new analysis and relevant information, as we did in the previous year, so that we can provide a clearer picture of our activities.

As is typified by a phrase "new normal", the global COVID-19 pandemic is drastically changing the socioeconomic landscape. Having said that, however, by exercising fiduciary responsibilities for the pension reserves, we pledge to fulfill our mission of contributing to the stability of the public pension finance and the stability of the lives of Japanese public, as an organization worthy of the public's trust.

I would sincerely appreciate your continued understanding and support.

President 宮園雅敬
MIYAZONO Masataka
Government Pension Investment Fund, Japan

1. About GPIF

Introduction

Public pension scheme is designed to support the future of Japan.

Here, we would like to explain the activities of GPIF which is managing and investing a part of the public pension funds, in simple and easy manners.

What is a public pension?

A public pension is a scheme in which all citizens pay premiums to support each other in order for each citizen to prepare for potential risks in our lives, such as “becoming unable to work due to age”, “living with disabilities resulting from illness or injury”, and “losing main income source of a family”. Particularly in Japan, the public pension scheme plays a very important role as life-long support for elderly people.

For details of GPIF’s roles in the public pension scheme, refer to page 83-84.

(Note) The information is partly simplified for easy understandings. All the images in this section are for illustrative purposes only.

Q1. Will I get my contributions back as pension benefits in the future?

A. The public pension scheme in Japan adapts the concept of “intergenerational dependency”, whereby pension benefits for elderly generations are paid from pension premiums collected from working generations contemporary with the elderly generations. Therefore, the scheme is not designed to cover your pension benefits by your own premiums accumulated in advance.

For details, refer to page 8.

Q2. How will the pension system work as the population ages and the birthrate declines?

A. The pension system reflects changes in the times, such as the growing number of employed elderly people and women, to improve its sustainability. In addition, the system is designed to stabilize pension finance by utilizing pension reserves.

For details, refer to page 9.

Q3. What does GPIF do?

A. GPIF is an organization managing and investing pension reserves to increase the source of pension benefits for future generations.

For details, refer to page 10.

Q4. Can the amount of benefits to be paid in the next year be affected by this year’s investment performance?

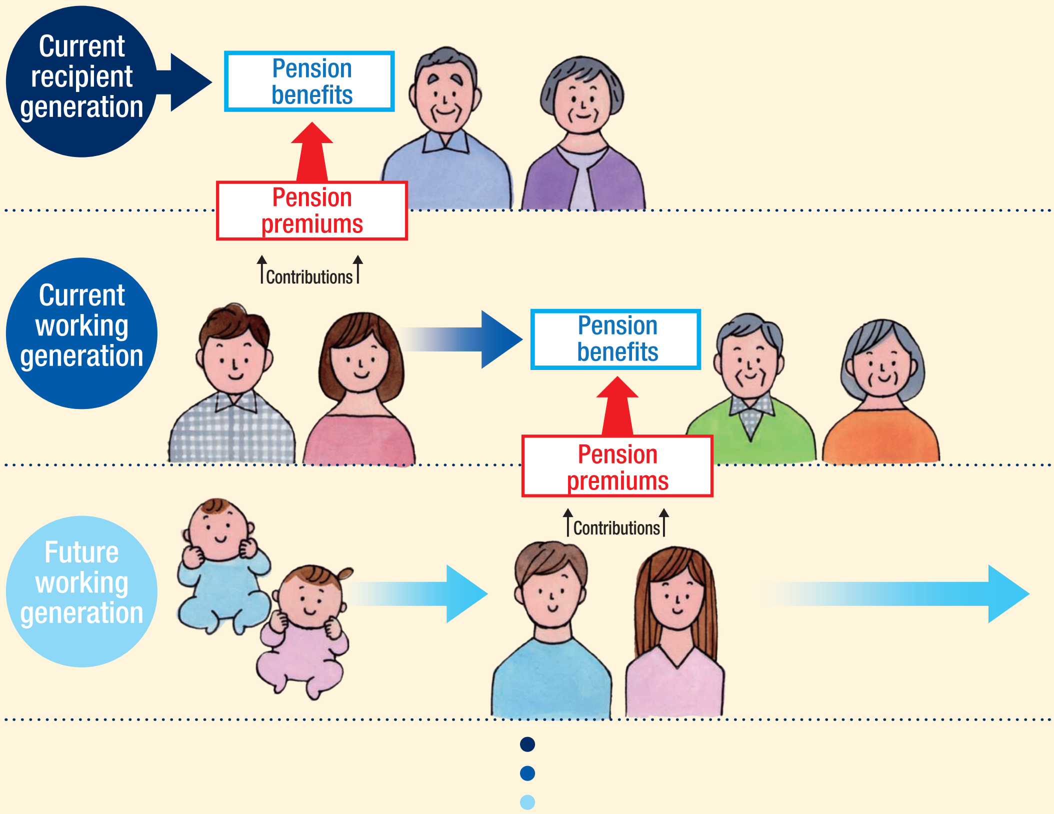
A. What GPIF invests is the funds “reserved for future generations”. Therefore, the amount of benefits to be received in the next year will not be affected regardless of whether the investment performance in this year is positive or not.

For details, refer to page 10.

POINT
1

First, let's walk through Japan's pension system.

Japan adopts a system where working generations support the lives of the elderly generations.



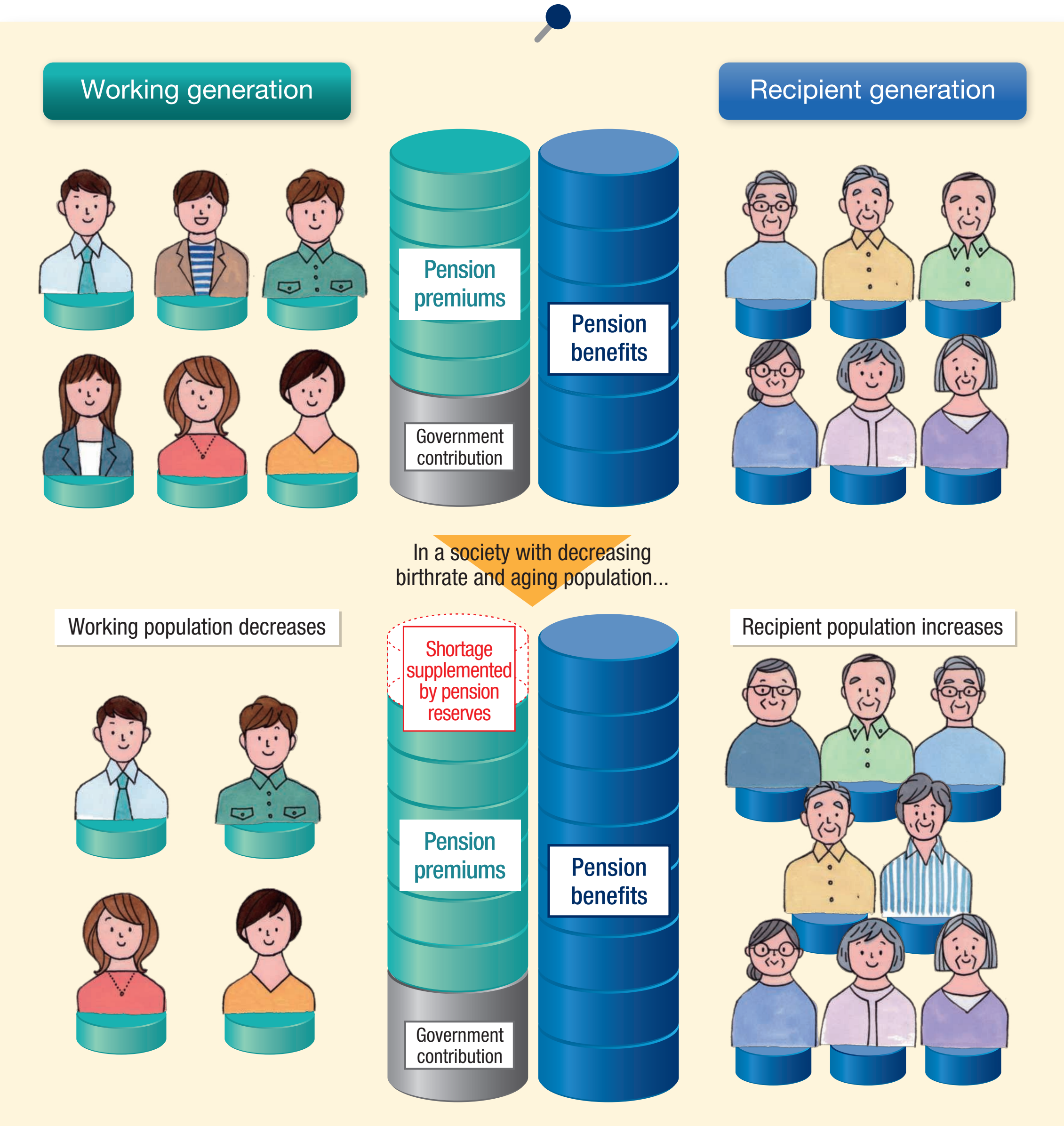
Under the public pension scheme in Japan, pension benefits for the elderly generations are paid by pension premiums collected from the contemporary working generations. In other words, pension benefits to be received in the future by the current working generations will be covered by the pension premiums paid in the future by generations of their children and grandchildren. The scheme is not designed to cover your pension benefits by your own premiums accumulated in advance.

What concerns do we have in the age of shrinking population in Japan?

POINT 2

What would happen to the pension scheme as the population of Japan decreases?

If the decreasing birthrate and aging population continue, the burden on future working generations would become too heavy.



In recent years, while the population of the original working generation has decreased, our society has shifted to allow people to work longer and in more diversified ways: e.g. the number of elderly employment increases as people's healthy lifespan becomes longer and the female employment rate is increasing. By reflecting these changes to the design of the scheme, the sustainability of the pension scheme has been improving. In addition, pension reserves are planned to be used to supplement the potential shortage of pension funds for future benefit payments when necessary, to ensure the stability of pension finance over a period of time in the future.

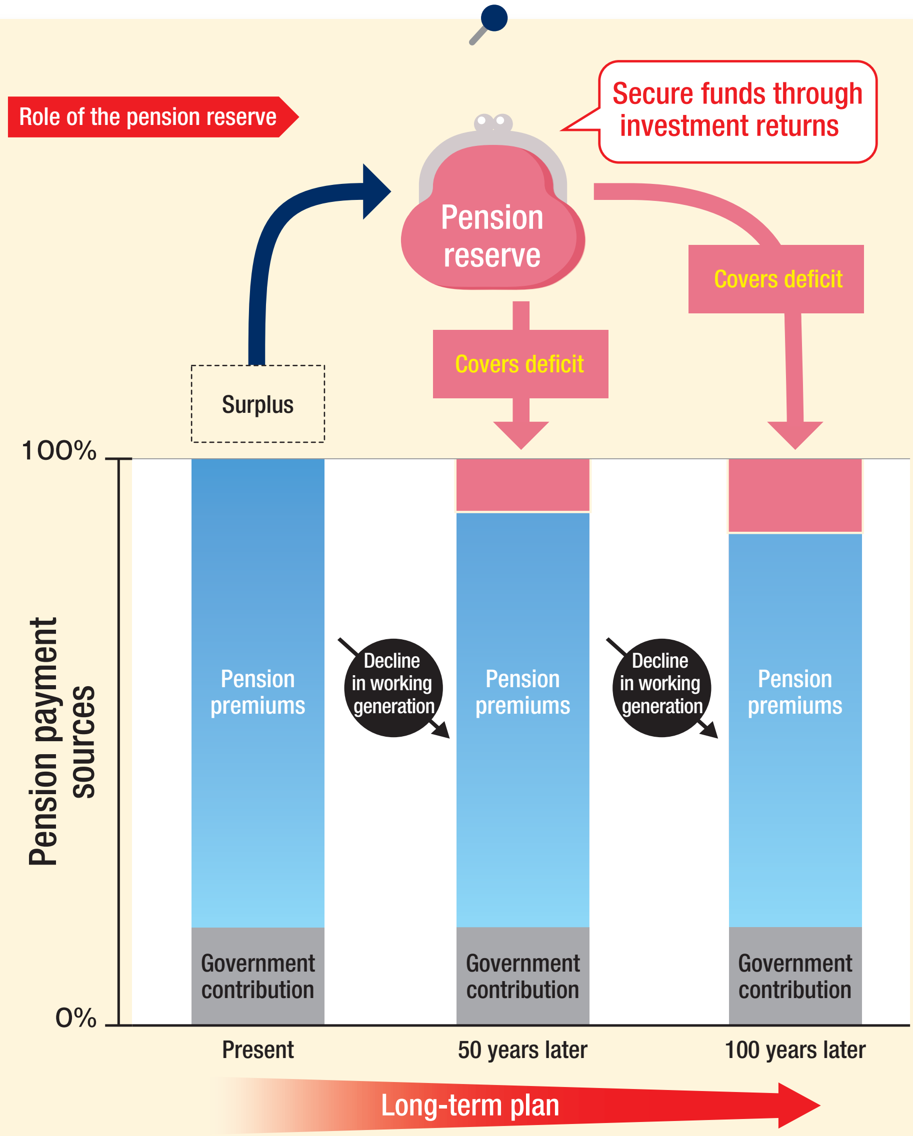
We will go into the role of pension reserves in detail.

POINT
3

GPIF manages pension reserves for future generations.

What are pension reserves?

Out of pension premiums contributed by the working generation, those unused for current pension payments shall be reserved for future generations as pension reserves. In the long run, about 10 percent of the total pension funds is estimated to come from the pension reserves.



Will the next year's pension payment be affected by the investment result of this year?

The pension reserve fund managed by GPIF is used to prevent the burden on future generations from becoming too heavy. Therefore, even if the investment result of this year is positive, the amount of pension benefit payment will not increase in the next year. Likewise, even if the investment result of this year is negative, the amount of pension benefit payment will not be reduced in the next year.

2. About investments of the pension reserves

To ensure stable earnings from its investments, what GPIF keeps in mind are as follows.

POINT 1

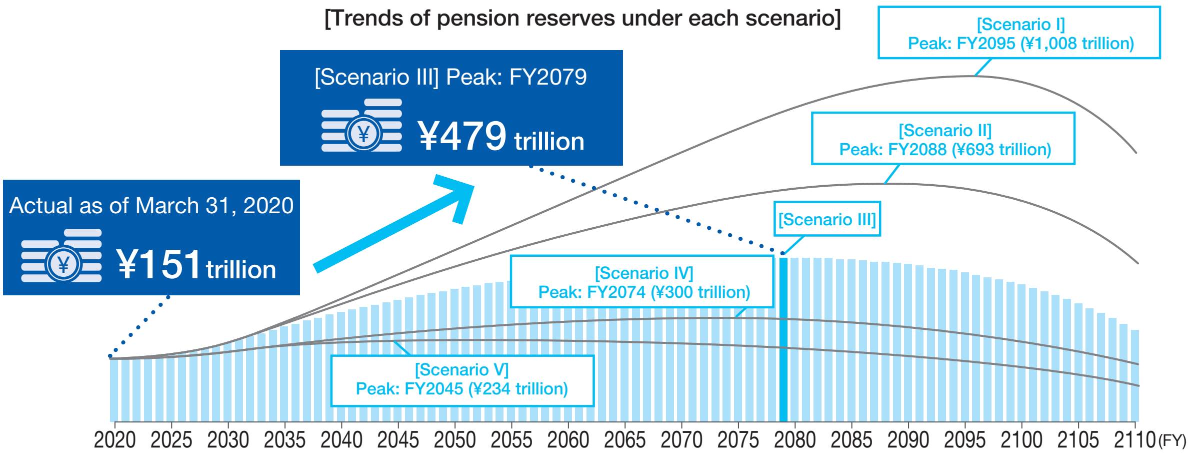
GPIF employs long-term investment and diversified investment as its principle investment strategies

(1) GPIF carries out long-term investment.

Although investment performance in the short term can fluctuate in a large scale in either positive or negative direction, as investment horizon becomes longer, the range of fluctuation is expected to be smaller, because positive results and negative results would be offset with each other in the long run.

The pension reserve fund managed by GPIF is projected not to be used for benefit payments for about the next 50 years or so. Therefore, GPIF adopts a long-term investment strategy that aims to gain stable returns by holding various types of assets over the long term without being too conscious about temporary market fluctuations.

Financial verification results (projections for pension reserves over approximately 100 years)

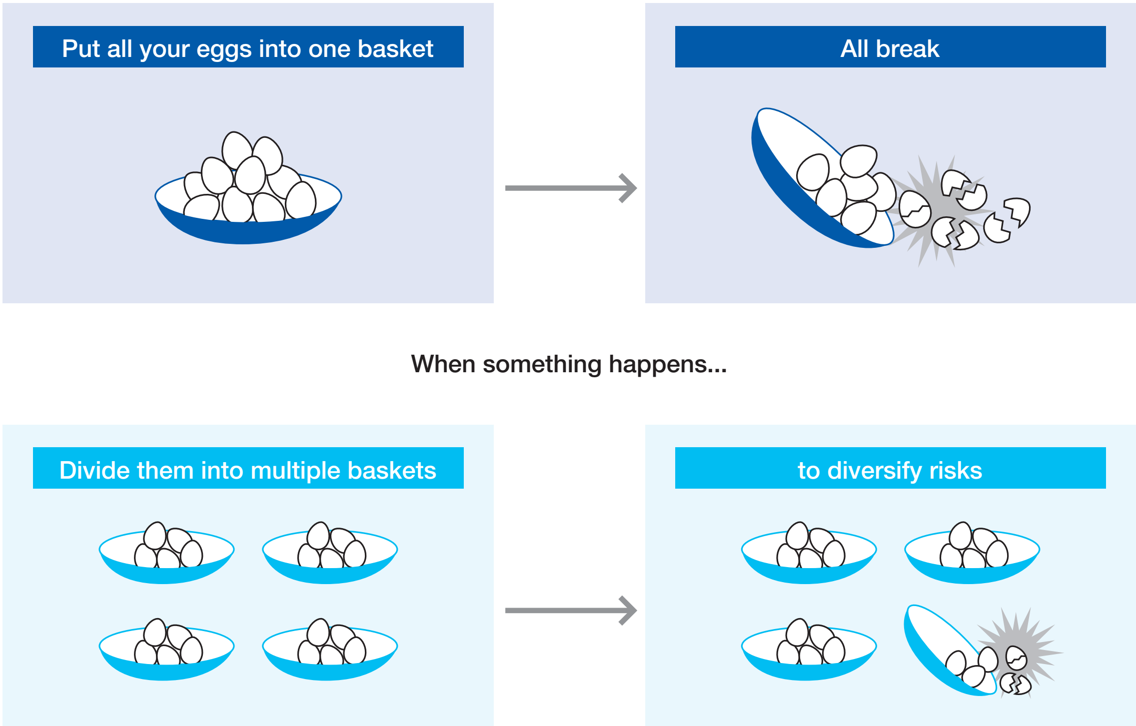


(Note) For details of Scenario I through Scenario V, refer to page 31.

(2) GPIF carries out diversified investment.

In the asset management industry, there is a saying “Don’t put all your eggs into one basket.” GPIF aims to achieve stable returns by diversifying its investments in multiple types of assets diversified in nature and price movements.

The amount of pension reserve fund managed by GPIF is huge, exceeding some ¥186 trillion. This allows us to invest in a wide range of domestic and foreign assets, carefully taking into account the potential market impacts of our investments.



We combine “long-term investment” and “diversified investment” to achieve stable returns.

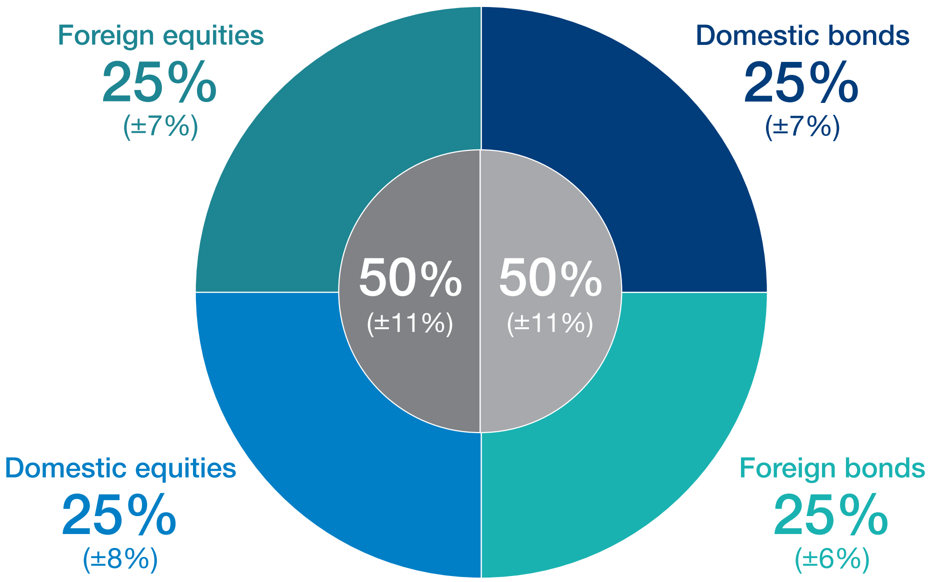
POINT
2

GPIF is making Investment based on the policy asset mix (the principle asset allocation policy)

It is commonly known that, in a long-term investment, maintaining portfolio (a policy asset mix) over the long term yields a better result effectively, rather than changing the portfolio in response to short-term market fluctuations.

At GPIF, pension reserves shall be managed in line with the principle asset allocation policy (the policy asset mix) from a long-term perspective.

【Current policy asset mix】
(Since April 2020)



(Note) figures in parentheses indicate deviation limits.

However, when it comes to actual investment management, because the market conditions constantly change, it is essential to establish a framework that enables timely and flexible allocation adjustments within reasonably appropriate ranges, while principally following the policy asset mix.

Therefore, GPIF defines the ranges of allowable deviations from the policy asset mix (deviation limits).

Since long-term investment results shall be mostly attributable to a policy asset mix, we believe that the policy asset mix is the core of our pension reserve fund management and investment. When the asset allocation ratios of actual investments deviate from that of the policy asset mix, GPIF timely and flexibly executes rebalances in order to assure the actual allocations are within the deviation limits.

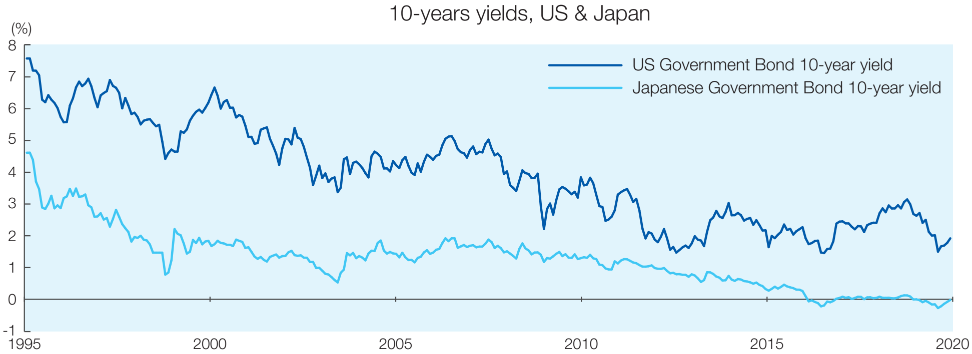
POINT 3

GPIF allocates its investments appropriately, not only to bonds but also to equities

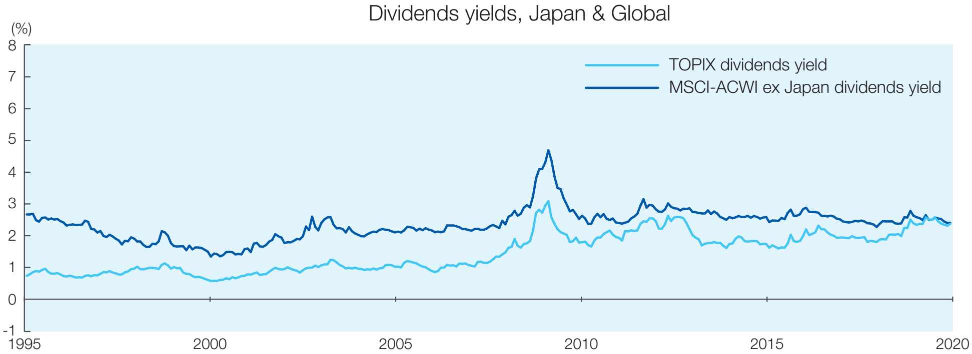
In recent years, the interest rate of 10-year Japanese government bonds has been around 0%. Under the condition that the consumer price and wages are expected to rise as the economic and investment environment change in the long run, it is difficult to secure the yields necessary for pension finance by investing mainly in domestic bonds.

Equities are exposed to greater price fluctuation risks than bonds in the short term, but could yield a higher return from a longer perspective. At GPIF, we aim to secure the fruits of Japanese and foreign corporation's activities and the resulting economic growths in the form of "dividends" and "capital gains" by appropriately incorporating equities in our portfolio in order to secure the necessary level of yield for pension finance at the minimal risks.

10-years yields, US & Japan



Dividends yields, Japan & Global



Would future withdrawals from the pension reserves (which leads to dispositions of its equity holdings in the portfolio) negatively affect stock prices, given the vast amount of GPIF's equity holdings?

The pension reserves managed by GPIF is projected not to be withdrawn for the next 50 years or so. (However, a part of the investment gains may be used for the payments of pension benefits).

Even after the withdrawals start in the future, the pension reserves shall be withdrawn gradually over several decades, rather than at one time. GPIF shall pay necessary attention to minimize the potential market impacts of these dispositions associated with the withdrawals, while carefully assessing market trends and conditions in Japan and foreign countries.

POINT
4

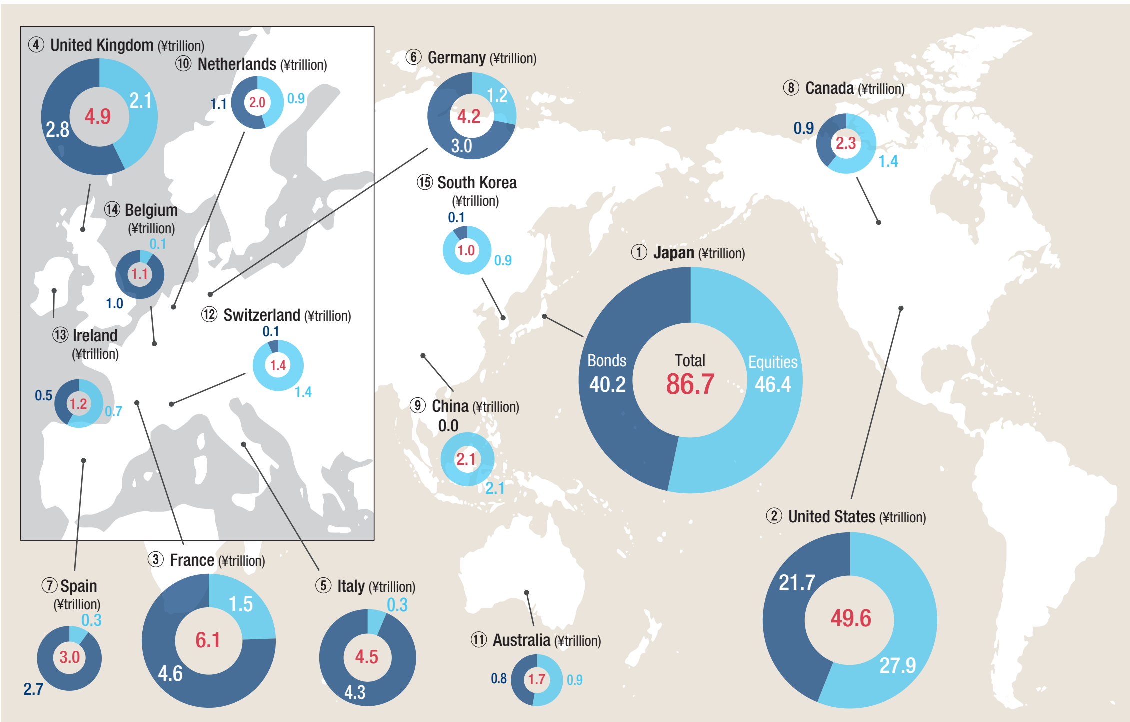
GPIF invests in various types of assets not only in Japan but also in foreign countries.

For instance, a temporary fall in asset prices due to market fluctuations could be offset by a subsequent rebound, leaving the value of a portfolio unaffected in the long run. However, in some cases, a downward trend of asset prices could continue longer than had been initially assumed. In other cases, on the contrary, if the portfolio does not hold a specific asset whose price is on the rise, the portfolio would miss an opportunity of taking profit.

By investing in various types of assets not only in Japan but also in foreign countries, GPIF has conducted its investment management with an aim to increase opportunities for profits generated from global economic activities, and simultaneously to mitigate the risk of material losses thanks to the diversification effects.

Investment amount by country

Top 15 countries by amount invested as of the end of March 2021 are as follows.



Is there any risk in investing in assets in foreign countries?

When it comes to investing in assets in a foreign country, as a result of interest rate and currency exchange rate fluctuations, the value of a foreign currency-denominated asset can either increase or decrease when the asset invested is evaluated in JPY. An asset price may also fluctuate due to other factors such as the currency situations, and political and economic conditions of the country invested in.

GPIF diversifies its investment into various regions and currencies in order to mitigate price fluctuations on the overall investment asset basis. GPIF has also taken appropriate measures by monitoring domestic and foreign economic trends and conditions, etc. in a timely way.

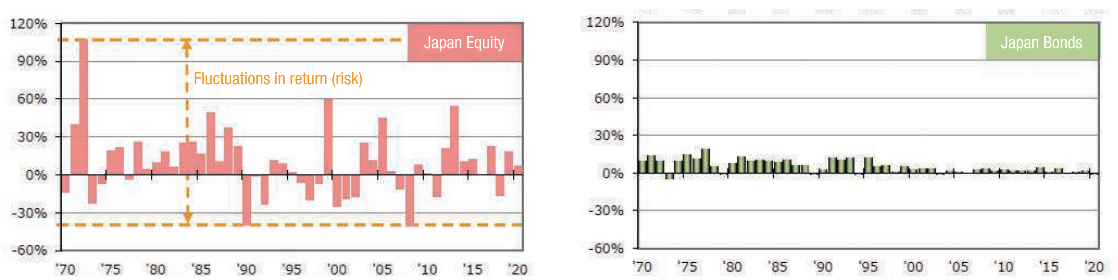
POINT
5

Risks are controlled appropriately to ensure long-term profitability.

The word “risk” is used in the sense of “danger” or “probability that an unfavorable situation will occur” in the Japanese language. However, in the field of investment management, the word “risk” generally means “fluctuations in return,” or the “range of change in return.”

Future return on equities and bonds is not fixed and certain. The following diagram shows fluctuations in the return of both assets, suggesting that the greater the fluctuation, the higher the risk.

Annual return on Japan Equity and Japan Bonds from 1970 to 2020

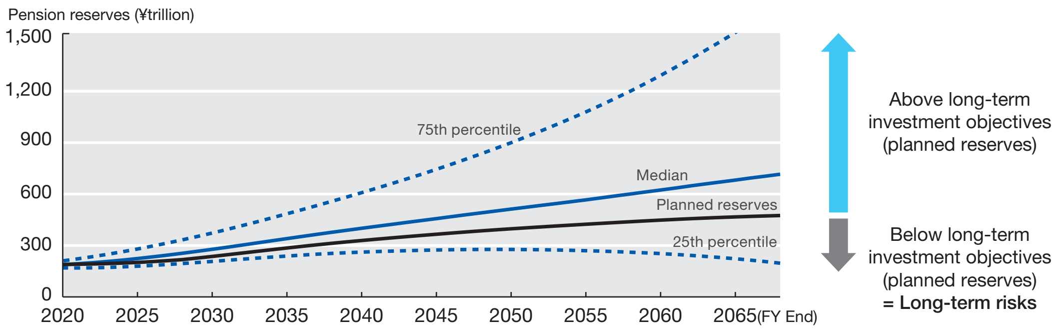


*The average fee rates against externally managed assets (annual rates) for each asset class are assumed to have been charged throughout the entire simulation period.
Japan Equity: 0.02%,Japan Bonds: 0.01%, Foreign Equity: 0.04%, Foreign Bonds: 0.02%
*No transaction costs in rebalancing nor taxes are assumed. Assumes reinvestments of interest income and dividend.
*Past performance is not a guarantee of future results.

<Source> Japan Equity: Tokyo Stock Exchange 1st section weighted average return of market capitalization, Foreign Equity: MSCI Kokusai(Gross, Yen-base)
Japan Bonds: Nomura-BPI Overall, Foreign Bonds: Foreign Bond Portfolio constructed by Ibbotson Associates Japan before December 1984 and FTSE WGBI(ex-Japan, Yen-base) after January 1985.

It is legally prescribed that the purpose of investing the reserve funds is to contribute to the future stability of the public pension scheme through stable and efficient management from a long-term perspective. The Medium-term Objectives prescribed by the Minister of Health Labour and Welfare (“MHLW”) stipulate that a pension reserve fund must achieve a long–term real return (net investment yield on the pension reserve fund less the nominal wage growth rate) of 1.7% with minimal risks.

A risk emphasized by GPIF is not “short-term fluctuations in returns due to temporary market fluctuations.” but “a risk of failing to achieve a long-term investment return required for the pension finance”. GPIF is conducting its investment management with an aim to mitigate the risk of failing to achieve the long-term investment return, while professionally analyzing various indicators and taking into consideration short-term fluctuations in returns due to temporary market fluctuations.



Overview of Fiscal 2020

Investment Results

For details, refer to page 21-22.

Rate of return (Returns)	Fiscal 2020	Since Fiscal 2001
	+25.15% [annual rate]	+3.61% [annual rate]
	(+¥37,798.6 billion) [annual returns]	(+¥95,336.3 billion) [cumulative returns]

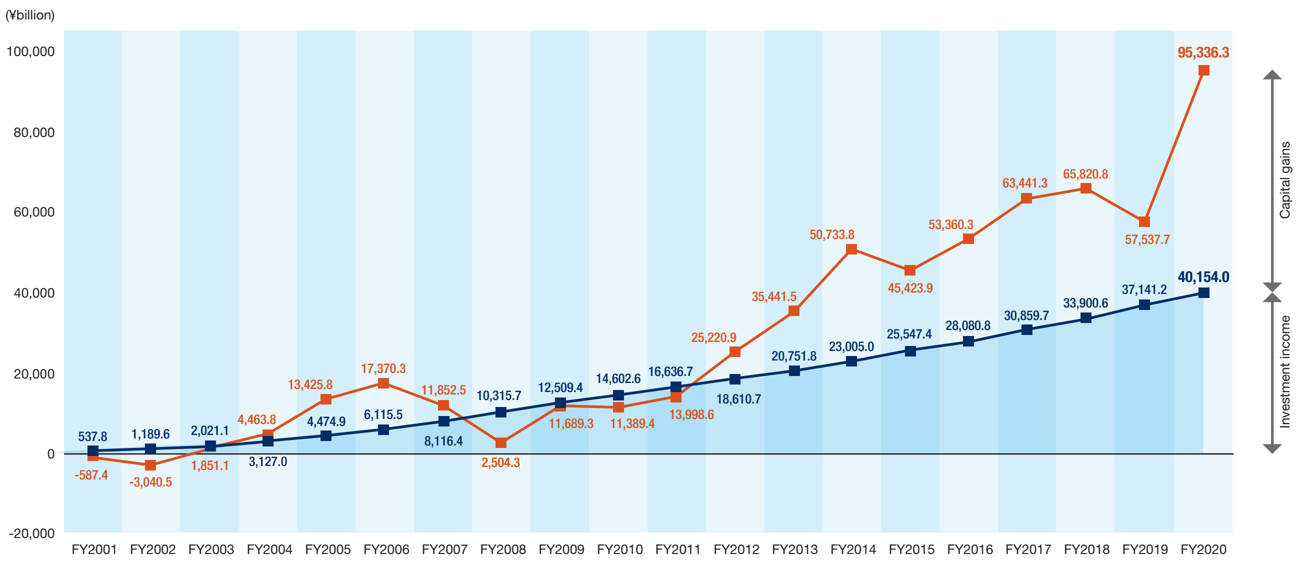
Asset size	As of the end of fiscal 2020
	¥186,162.4 billion

(Note) Rate of return and returns are marked to market as of the end of fiscal 2020, and include unrealized gains and losses.

GPIF manages pension reserve fund with long-term perspective. While short-term portfolio returns are influenced by the current market trends, investment results should be monitored with long-term horizon.

Regarding investment of pension reserves, while market fluctuations may cause capital losses (realized and unrealized losses due to price fluctuations) in the short term, investment income (interest and dividend income) is relatively immune to such volatility and has increased steadily since fiscal 2001.

Cumulative returns since fiscal 2001



Contribution to Public Pension Finance

For details, refer to page 23.

Real return on investment for the whole pension reserves

(cumulative)

3.78% [annual rate]

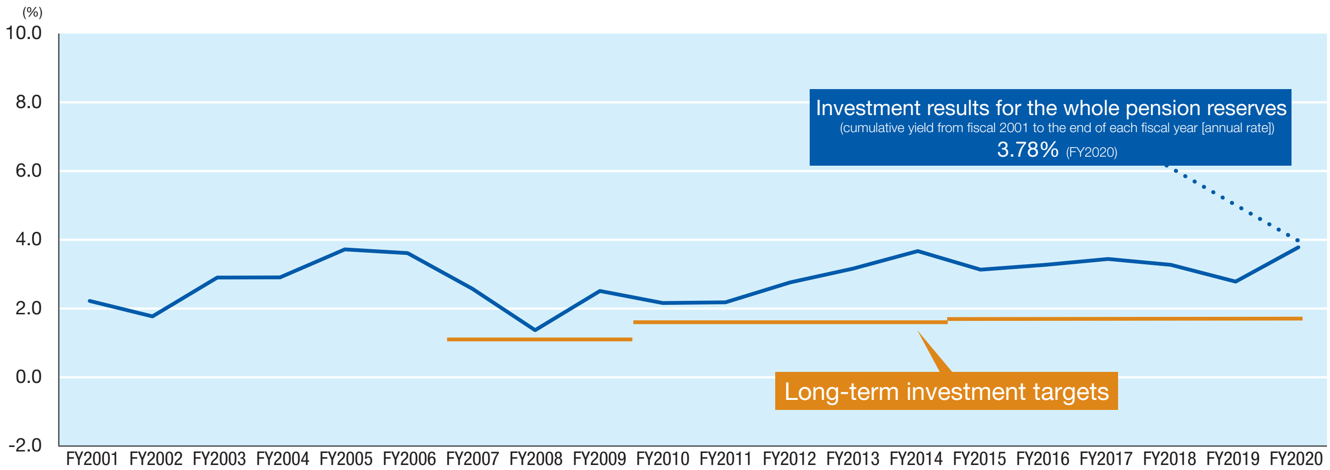
Under the Medium-term Objectives established by the Minister of Health, Labour and Welfare (MHLW), the investment target for the whole pension reserves (Note1) is to secure a long-term real return (net investment yield on the pension reserve fund less the nominal wage growth rate) of 1.7% with minimal risks. (Please note that this investment target is on long-term basis, so not required to be achieved each year in the period.)

(Note 1) The whole pension reserves include pension reserve fund managed by GPIF and fund managed by the Pension Special Account.

(Note 2) The amount of public pension benefits is designed to increase roughly in tandem with the nominal wage growth rate in the long run. Therefore, investment return for the whole pension reserves that exceeds the contribution from the nominal wage growth rate is the real investment return in the sense that it contributes positively to pension finance. Accordingly, an evaluation of the impact of investment results on pension finance shall be carried out on the basis of "the actual rate of investment return," which is the rate of investment return (nominal investment return) for the whole pension reserves minus the nominal wage growth rate.

For the roles of pension reserve fund in pension finance, refer to page 83-84.

Real return for the whole pension reserves on investment (cumulative) since fiscal 2001



(Note 1) Real investment return is calculated as {(1 + nominal investment return / 100) / (1 + nominal wage growth rate / 100)} × 100 - 100.

(Note 2) Nominal investment return is the rate of return after investment management fees, etc. (the figures include interest expenses on borrowings in the succeeded fund investment account up to fiscal 2010), calculated by the following formula: the amount of return for the whole pension reserves divided by the average balance of investment principals for the whole pension reserves "{Assets at the end of the previous fiscal year + (Assets minus return at the end of the current fiscal year)}/2".

(Note 3) Long-term investment targets are +1.1% from fiscal 2006 to fiscal 2009, +1.6% from fiscal 2010 to fiscal 2014, and +1.7% after fiscal 2015, above the nominal wage growth rate, respectively.

(Note 4) Figures represent the geometric mean of cumulative yield from fiscal 2001 to the end of each fiscal year (annualized).

Review on Fiscal 2020 Investment Activities

In fiscal 2020, as the opportunities to review the asset allocation increased amid dramatic market fluctuations, GPIF gained a lot of positive experience that may be beneficial to the investment in line with the policy asset mix.

GPIF entered into the first year of its fourth Medium-term Plan under the market conditions where the volatilities of all asset types remained high (price fluctuations were quite large), reflected by a huge drop in the Nikkei Stock Average by almost 20% in the two months from February to March 2020 due to the COVID-19 pandemic. GPIF simultaneously adopted its new policy asset mix which increased the foreign bond allocation in the portfolio of the overall assets by 10% (from 15% to 25%).

In addition, at the beginning of the fiscal year, we were required to manage a part of pension reserves repayment request to the Special Pension Account.

Accordingly, in the first half of the fiscal year, the investment of our portfolio placed an emphasis on (1) fund allocation to devalued risk assets, (2) fund allocation to foreign bonds in association with the change in the policy asset mix, (3) assessment of the amount of necessary liquidity for the purpose of the repayment of a part of pension reserves to Special Pension Account, the payment to the national treasury, and the security of rebalancing funds needed to respond to dramatic market movements, etc., and (4) fund management in line with the policy asset mix under highly volatile market conditions.

For this reason, we raised the ratio of equities in the portfolio that had deteriorated due to worsened market conditions to nearly 50%, and then purchased foreign corporate bonds to increase risk assets by allocating an additional ¥1.6 trillion to active funds of foreign bonds. In terms of liquidity, after recalculating the necessary liquidity based on past stress test results, etc., we decided to abolish the fund that supports cash outflows (about ¥8.7 trillion in balance), cut short-term assets drastically (decrease of about ¥2.8 trillion), and redeemed bailed funds in the amount of about ¥1 trillion. This allowed us to realize full investment of the portfolio (to reduce non-invested excess cash to the lowest possible level).

Later, although the stock markets clearly saw a recovery trend, the market volatility remained at a relatively high level, with an estimated tracking error of about 100 bp (the value of the variability of deviation of the excess rate of return one year later at certain point of time is 100 bp under one deviation, meaning that the excess rate of return is expected to be within the variability of ±1% with a probability of about 68%. 1 bp (basis point) stands for 0.01%). Therefore, in order to make the rate of investment return of GPIF's portfolio close to the compound benchmark return of the policy asset mix, we worked to reduce risks within all four types of assets, in addition to revising asset allocation to foreign bonds as a result of adopting a new policy mix. As for foreign bonds, we massively adjusted the ratios of U.S. dollar-denominated bonds, euro-denominated bonds, and UK pound-denominated bonds worth some trillion yen. For domestic equities, we cancelled four smart beta funds (worth about ¥2.9 trillion in total) to reduce investment style risk.

Later in fiscal 2020, a sharp recovery in the prices of risk assets including equities looked more likely, and the Nikkei Stock Average, which temporarily fell below ¥17,000 in March 2020, rose by more than ¥10,000 at the end of December in the same year. As GPIF's portfolio

allocation on equities also increased along with the rising market, we sold domestic and foreign equities from a risk management point of view. As a result of the above, the rate of investment return in fiscal 2020 exceeded +25% (gross profit after deducting expenses was about ¥37.7 trillion), after recording -5.2% in fiscal 2019 due to the COVID-19 pandemic. In addition, for the first time in seven years the excess returns were more than ¥400 billion (+32 bp) compared with the policy asset mix. More than ¥13 trillion of domestic and foreign equities in total was sold in fiscal 2020 to reduce risk, and the maximum variability of the excess rate of return per day declined to one-fourth of that of the first quarter, improving the risk and return of the portfolio dramatically.

The cumulative rate of investment return over 20 years from fiscal 2001 to fiscal 2020 was +3.61% (a cumulative return of approximately ¥95 trillion). The cumulative return for the period from October 2014, when the equity allocation ratio of the policy asset mix was revised to 50%, to fiscal 2020 was about ¥54 trillion.

Based on the above, although the portfolio held by GPIF is affected by market events in the short term, it is highly likely that the portfolio will achieve the target wage growth rate of +1.7% in the long term.

As for ESG investment, GPIF newly adopted two ESG indexes for foreign equity in fiscal 2020 to promote investing in green bonds and COVID-19 bonds. As a result, the amount of ESG investment in a narrow sense, the sum of ESG indexes-based equity passive investment and bond investment (including green bonds), was about ¥11.8 trillion in total.

In addition, GPIF decided to cancel eight low-performing active funds with an asset size of about ¥2.7 trillion, whereas it newly selected five active funds of domestic equities for the first time in six years, and also implemented a procedure to select new active funds of domestic bonds for the first time in eight years. The market capitalization of alternative assets increased by about ¥400 billion. Although the COVID-19 pandemic affected certain sectors, the impact on the return of the overall alternative assets was immaterial throughout the fiscal year thanks to an investment diversification effect and a subsequent market recovery. In recent years, as the investor base has been expanding and the size of funds raised has been at high levels, competition to seek quality projects that meet investors' expectations has intensified. It will become even more essential to select a fund (manager) that can acquire quality projects and provide high returns even under such conditions.

In terms of fees, GPIF made adjustment to asset management fees (including certain fees that are deducted from the entrusted assets, such as custody fees and attorney fees) related to foreign assets, and succeeded in substantially reducing the asset management fees from fiscal 2021.

Regarding investment and management of pension reserve fund, GPIF will strive continually to implement highly transparent risk management and achieve the targets of the fourth Medium-term Plan. I would sincerely appreciate the continued understanding and support of the public including the pension beneficiaries.

Executive Managing Director (Management and Investment Operations)/CIO

UEDA Eiji

Chapter 1 Investment Results in Fiscal 2020

1 | Investment Results

[1] Rate of investment return / Amount of investment returns, etc.

① Rate of investment return / Amount of investment returns

The rate of investment return for fiscal 2020 is **+25.15%.**

The amount of investment returns for fiscal 2020 is **+¥37,798.6 billion.**

		1Q	2Q	3Q	4Q	Total
Total		8.29%	3.03%	6.18%	5.65%	25.15%
		¥12,486.8 billion	¥4,923.7 billion	¥10,352.8 billion	¥10,035.2 billion	¥37,798.6 billion
	Domestic bonds	-0.45%	0.18%	0.02%	-0.44%	-0.68%
		-¥183.0 billion	¥79.6 billion	¥11.5 billion	-¥147.9 billion	-¥239.8 billion
	Foreign bonds	3.45%	0.64%	1.21%	1.60%	7.06%
		¥1,186.5 billion	¥208.0 billion	¥524.0 billion	¥755.3 billion	¥2,673.8 billion
	Domestic equities	10.95%	4.93%	11.27%	9.26%	41.55%
		¥3,968.9 billion	¥1,959.9 billion	¥4,651.7 billion	¥4,118.4 billion	¥14,698.9 billion
	Foreign equities	19.99%	5.99%	11.88%	12.04%	59.42%
		¥7,514.4 billion	¥2,676.3 billion	¥5,165.6 billion	¥5,309.5 billion	¥20,665.8 billion

(Note 1) Calculating the rate of investment return
① The rate of return within total assets and each asset class is time-weighted, and is gross of fees (the same shall apply hereinafter).

(Note 2) Classification of FILP bonds
① FILP bonds are government bonds issued to finance the Fiscal Investment and Loan Program (FILP).
② Total and Domestic bonds include FILP bonds. JPY hedged foreign bonds and yen-denominated short-term assets are classified as Domestic bonds, and foreign currency-denominated short-term assets are classified as Foreign bonds.
③ FILP bonds were reclassified as trading securities from held-to-maturity securities as of the end of January 2021. However, the rate of investment return on FILP bonds has been calculated as time-weighted on a market value basis since April 2020, as is the case with other asset classes.
④ The amount of investment returns was evaluated, pursuant to the accounting standards for incorporated administrative agencies, on a purchase price basis (or a price calculated using an amortized cost method when there is a gap between the subscription price and the face value) until the end of January 2021, by which FILP bonds had been classified as held-to-maturity securities. Since the reclassification to trading securities in February 2021, it has been evaluated on a market value basis until disposal.

(Note 3) Calculating investment returns
① Investment returns are gross of fees.

(Note 4) Alternative assets
① Alternative asset funds contain a mixture of asset classes, and the investment returns of such funds are allocated to each asset on a pro-rata basis according to the targeted asset composition ratio in the investment plan at the start of investment of such funds (the same shall apply hereinafter).
② The rate of time-weighted investment return on total alternative assets for fiscal 2020 is 6.55% (infrastructure at 5.71%, private equity at 4.44%, and real estate at 7.95%).

(Note 5) Other
① Due to rounding off, the sum of each item in individual quarters does not necessarily match the total number for the fiscal year.
② Fiscal 2020 runs from April 1, 2020 to March 31, 2021.

② Cumulative returns and asset size since fiscal 2001

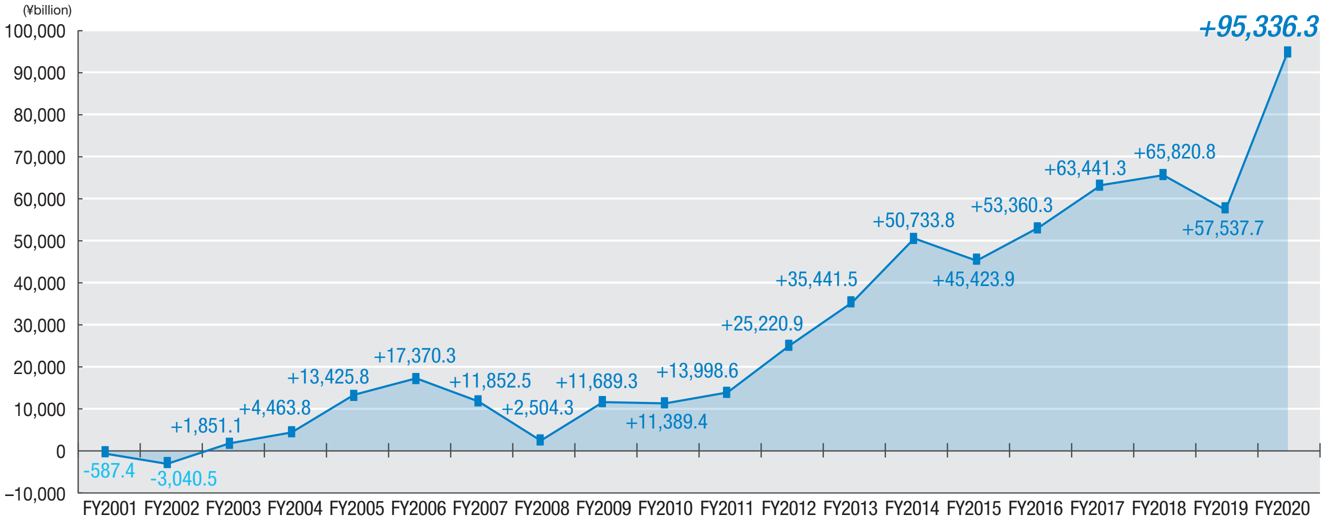
Cumulative returns from fiscal 2001 to fiscal 2020 are

+¥95,336.3 billion

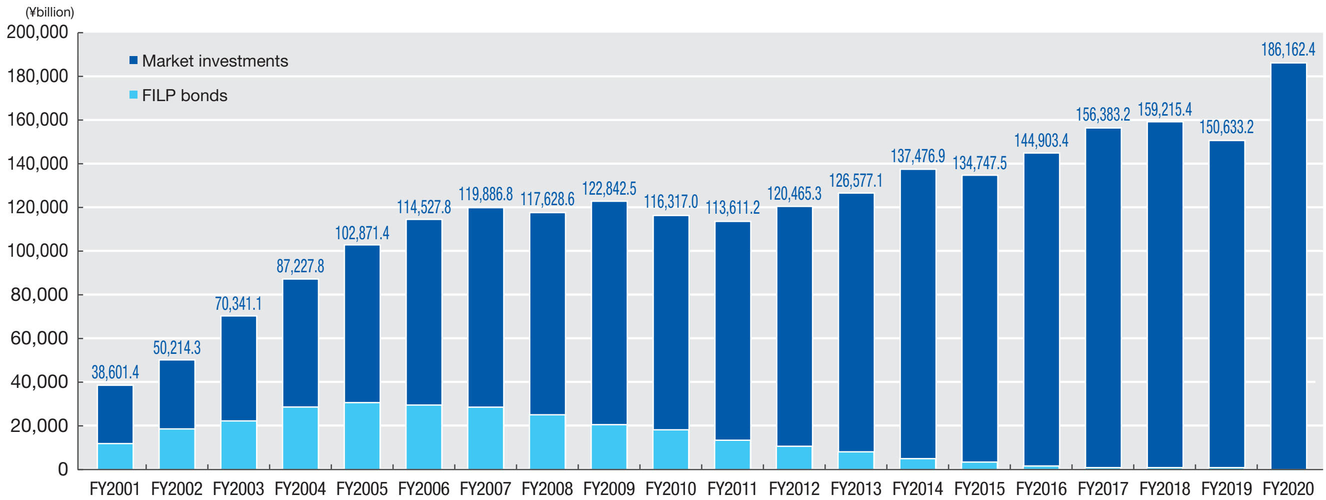
and the value of investment assets at the end of fiscal 2020 is

¥186,162.4 billion.

Cumulative return



Asset size



(Note) The balance of FILP bonds increased from fiscal 2001 to fiscal 2007 due to underwriting. There were no outstanding FILP bonds as of the end of fiscal 2020 due to redemption on maturity since fiscal 2008.

③ Comparison to long-term investment targets

"The average real investment return (Note2)" for the whole pension reserves (Note1) is

3.78%

for the 20 years since fiscal 2001.

Long-term investment targets after fiscal 2015 are

+1.7%

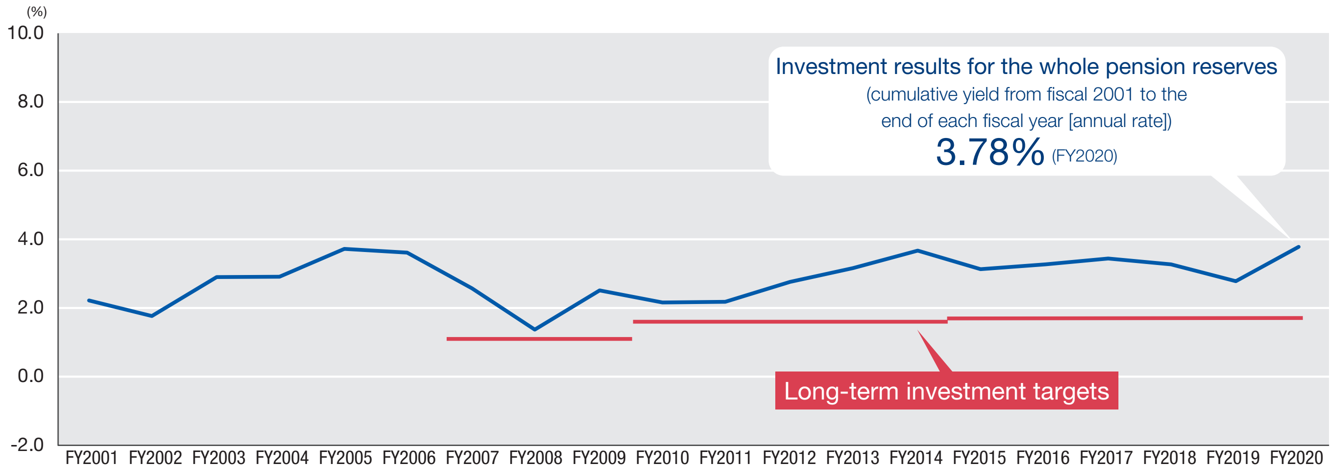
above the nominal wage growth rate.

The average real investment return is higher than the long-term investment targets.
For the roles of pension reserve fund in pension finance, refer to page 83-84.

(Note 1) The whole pension reserves include pension reserve fund managed by GPIF and fund managed by the Pension Special Account.

(Note 2) The amount of public pension benefits is designed to increase roughly in tandem with the nominal wage growth rate in the long run. Therefore, investment return for the whole pension reserves that exceeds the contribution from the nominal wage growth rate is the real investment return in the sense that it contributes positively to pension finance. The long-term investment objectives are +1.1% from fiscal 2006 to fiscal 2009, +1.6% from fiscal 2010 to fiscal 2014, and +1.7% after fiscal 2015, above the nominal wage growth rate, respectively. Note that these are required as long-term investment targets, and are not necessarily required to be fulfilled on an annual or during a specified time period (such as five years for the Medium-term Plan).

Real return for the whole pension reserves on investment (cumulative) since fiscal 2001



(Note 1) Real investment return is calculated as {(1 + nominal investment return / 100) / (1 + nominal wage growth rate / 100)} × 100 - 100.

(Note 2) Nominal investment return is the rate of return after investment management fees, etc. (the figures include interest expenses on borrowings in the succeeded fund investment account up to fiscal 2010), calculated by the following formula: the amount of return for the whole pension reserves divided by the average balance of investment principals for the whole pension reserves "{Assets at the end of the previous fiscal year + (Assets minus return at the end of the current fiscal year)}/2".

(Note 3) Long-term investment targets are +1.1% from fiscal 2006 to fiscal 2009, +1.6% from fiscal 2010 to fiscal 2014, and +1.7% after fiscal 2015, above the nominal wage growth rate, respectively.

(Note 4) Figures represent the geometric mean of cumulative yield from fiscal 2001 to the end of each fiscal year (annualized).

Investment performance for the whole pension reserves

(Unit:%)

		FY2001	FY2002	FY2003	FY2004	FY2005	FY2006	FY2007	FY2008	FY2009	FY2010	FY2011	FY2012	FY2013	FY2014	FY2015	FY2016	FY2017	FY2018	FY2019	FY2020	Last 20 years (annualized)
Performance	Nominal investment return	1.94	0.17	4.90	2.73	6.83	3.10	–3.53	–6.86	7.54	–0.26	2.17	9.56	8.23	11.62	–3.64	5.48	6.52	1.43	–5.00	23.98	3.64
	Nominal wage growth rate	–0.27	–1.15	–0.27	–0.20	–0.17	0.01	–0.07	–0.26	–4.06	0.68	–0.21	0.21	0.13	0.99	0.50	0.03	0.41	0.95	0.70	–0.51	–0.13
	Real investment return	2.22	1.34	5.18	2.94	7.01	3.09	–3.46	–6.62	12.09	–0.93	2.39	9.33	8.09	10.53	–4.12	5.45	6.09	0.48	–5.66	24.62	3.78

④ Investment income

Returns on investment assets are valued at market prices and can be classified into investment income (interest and dividend income) and capital gains and losses (realized and unrealized gains or losses due to price fluctuations).

The breakdown of investment income shows that investment income from domestic and foreign equities has been increasing while that from domestic bonds has been decreasing in recent years. Immediately after the start of managing the pension reserves, domestic bonds accounted for 60% to 70% of investment income, although those have recently declined to below 20%, while domestic and foreign equities account for about 60%. This is due to the fact in recent years that (i) the bond yields have fallen significantly, falling well below the equity dividend yields; and (ii) GPIF has lowered the allocation of bonds and raised the allocation of equities in the policy asset mix since fiscal 2014.

Because long-term investors are allowed to enjoy greater compounding effects over time by reinvesting investment income, GPIF reinvests investment income from the assets held, instead of holding them in cash.

In fiscal 2020, the total amount of investment income is

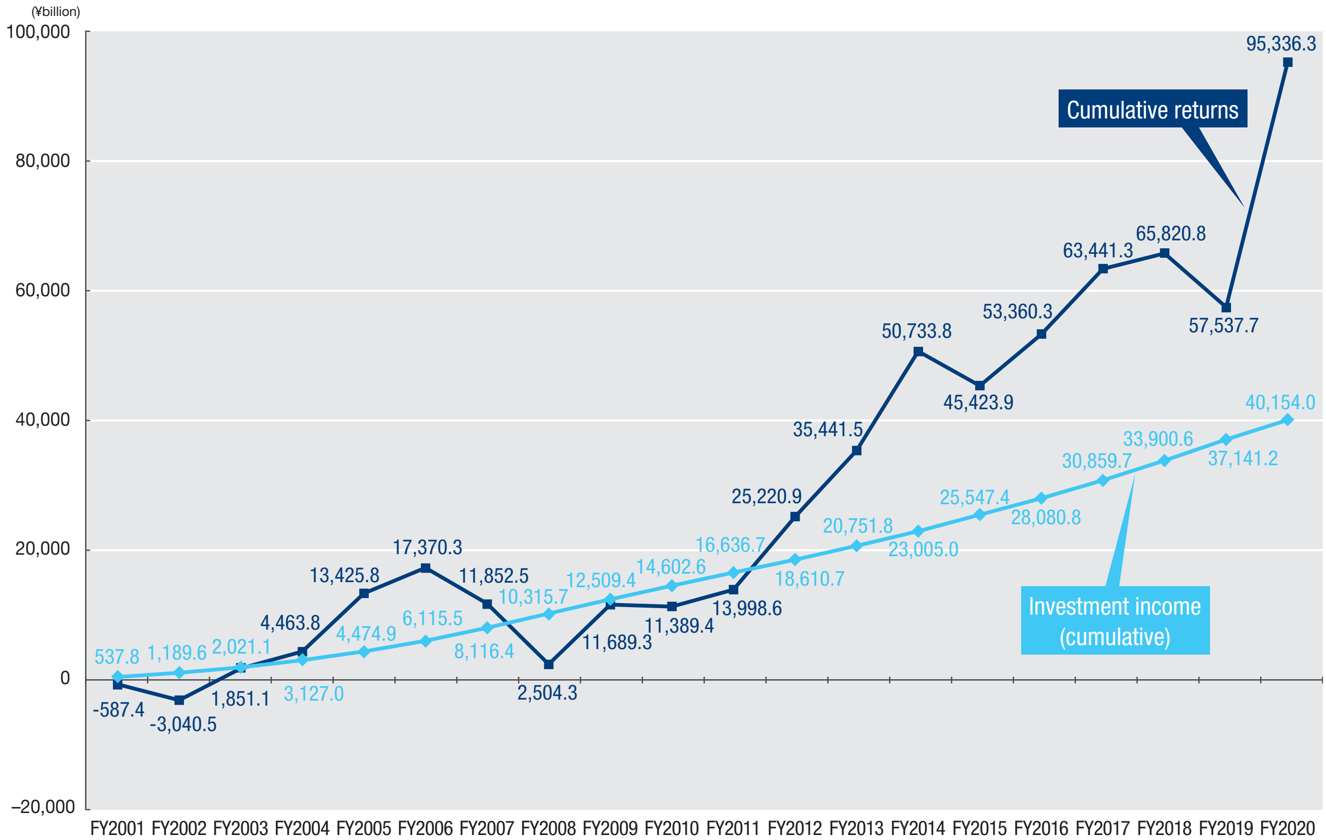
¥3,012.8 billion (rate of return: +1.62%),

and the cumulative amount of investment income for the 20 years since fiscal 2001, when GPIF started managing pension reserves, is

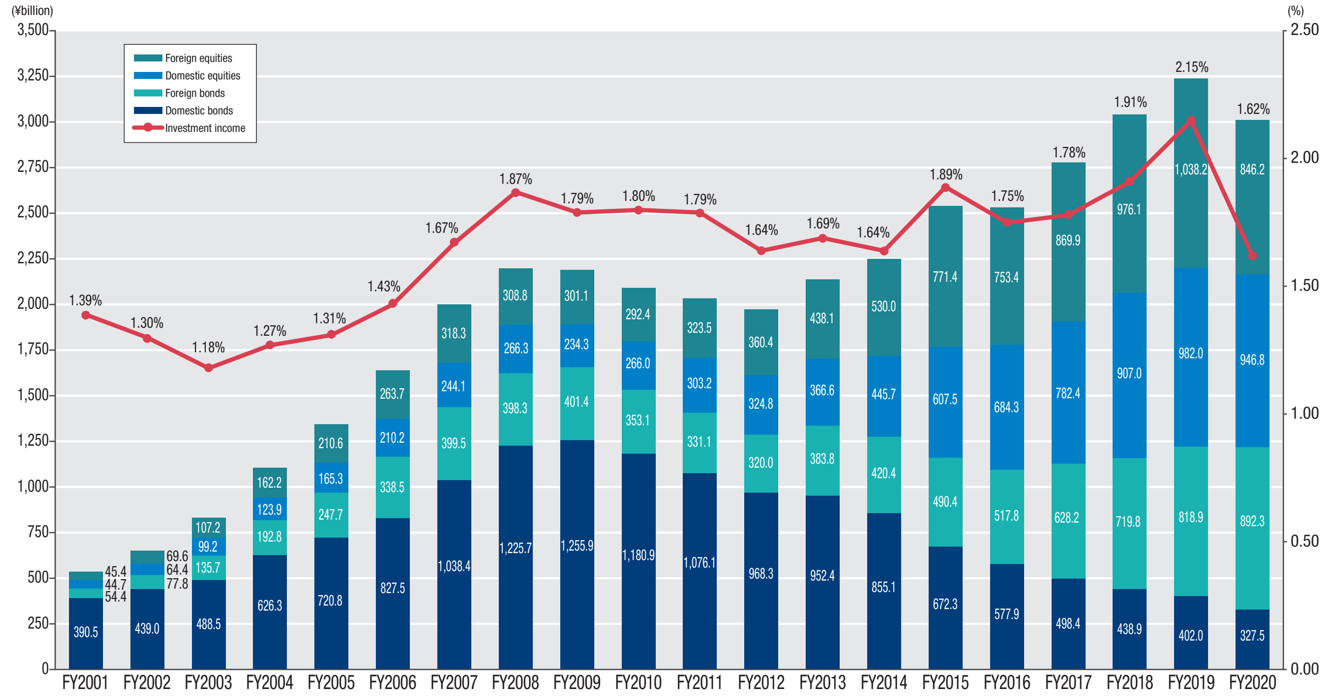
¥40,154.0 billion (rate of return: +1.64% [annual rate])

accounting more than 40% of the cumulative returns.

Cumulative returns and investment income since fiscal 2001



Investment income



(Unit: ¥billion)

	Cumulative	FY2001	FY2002	FY2003	FY2004	FY2005	FY2006	FY2007	FY2008	FY2009	FY2010
Domestic bonds	14,962.4 (1.24%)	390.5 (1.49%)	439.0 (1.26%)	488.5 (1.03%)	626.3 (1.03%)	720.8 (1.10%)	827.5 (1.12%)	1,038.4 (1.21%)	1,225.7 (1.41%)	1,255.9 (1.51%)	1,180.9 (1.52%)
Foreign bonds	8,122.0 (3.12%)	54.4 (4.04%)	77.8 (3.06%)	135.7 (3.43%)	192.8 (3.33%)	247.7 (3.28%)	338.5 (3.73%)	399.5 (4.13%)	398.3 (3.98%)	401.4 (3.96%)	353.1 (3.75%)
Domestic equities	8,068.8 (1.66%)	44.7 (0.65%)	64.4 (0.87%)	99.2 (0.83%)	123.9 (1.00%)	165.3 (0.87%)	210.2 (1.10%)	244.1 (1.77%)	266.3 (2.34%)	234.3 (1.59%)	266.0 (1.98%)
Foreign equities	8,986.3 (2.20%)	45.4 (1.19%)	69.6 (1.56%)	107.2 (1.81%)	162.2 (1.99%)	210.6 (1.96%)	263.7 (2.09%)	318.3 (2.92%)	308.8 (3.40%)	301.1 (2.27%)	292.4 (2.23%)
Total	40,154.0 (1.64%)	537.8 (1.39%)	651.8 (1.30%)	831.4 (1.18%)	1,106.0 (1.27%)	1,347.9 (1.31%)	1,640.7 (1.43%)	2,000.8 (1.67%)	2,199.4 (1.87%)	2,193.7 (1.79%)	2,093.2 (1.80%)

	FY2011	FY2012	FY2013	FY2014	FY2015	FY2016	FY2017	FY2018	FY2019	FY2020
Domestic bonds	1,076.1 (1.50%)	968.3 (1.30%)	952.4 (1.36%)	855.1 (1.51%)	672.3 (1.27%)	577.9 (1.21%)	498.4 (1.12%)	438.9 (1.02%)	402.0 (1.08%)	327.5 (0.75%)
Foreign bonds	331.1 (3.33%)	320.0 (2.71%)	383.8 (2.74%)	420.4 (2.31%)	490.4 (2.59%)	517.8 (2.63%)	628.2 (2.63%)	719.8 (2.59%)	818.9 (2.25%)	892.3 (1.89%)
Domestic equities	303.2 (2.14%)	324.8 (1.85%)	366.6 (1.76%)	445.7 (1.41%)	607.5 (1.99%)	684.3 (1.95%)	782.4 (1.92%)	907.0 (2.35%)	982.0 (2.76%)	946.8 (2.00%)
Foreign equities	323.5 (2.48%)	360.4 (2.42%)	438.1 (2.22%)	530.0 (1.76%)	771.4 (2.48%)	753.4 (2.16%)	869.9 (2.25%)	976.1 (2.33%)	1,038.2 (2.79%)	846.2 (1.77%)
Total	2,034.1 (1.79%)	1,973.9 (1.64%)	2,141.1 (1.69%)	2,253.2 (1.64%)	2,542.4 (1.89%)	2,533.4 (1.75%)	2,778.9 (1.78%)	3,040.9 (1.91%)	3,240.6 (2.15%)	3,012.8 (1.62%)

(Note 1) Due to rounding off, the sum of the figures for each individual fiscal year does not necessarily match the cumulative amount of investment income.

(Note 2) The figures for domestic bonds include investment income from FILP bonds (including convertible corporate bonds in fiscal 2001), while the total includes investment income from short-term assets.

(Note 3) For fiscal 2020, the investment income of domestic bonds includes investment income from FILP bonds, as well as investment income from JPY hedged foreign bonds and yen-denominated short-term assets, and the figures of foreign bonds include investment income from foreign currency-denominated short-term assets.

(Note 4) The annual rate of return (cumulative) represents the geometric mean of the rates of return for individual fiscal years (annualized).

⑤ Factor analysis of difference from compound benchmark return

In fiscal 2020, the total rate of return on all investment assets came to

25.15%

against a compound benchmark return of

24.83%

representing an excess rate of return amounting to

+0.32%

returned to positive for the first time in virtually seven years.

The average of the annual rate of return for the 15 years since the GPIF's establishment in fiscal 2006 on all investment assets was

3.86%

while the compound benchmark rate of return was

3.89%

The excess rate of return was

–0.03%.

The "compound benchmark return", representing the benchmark return rate for the overall assets (including domestic bonds, foreign bonds, domestic equities, and foreign equities), is used as a standard to evaluate the investment performance of the overall assets managed by GPIF. The "compound benchmark return" is expressed in terms of an annualized rate calculated on the basis of the "compound benchmark rate return (monthly basis)", which was obtained by weight-averaging the benchmark rates of return on individual assets according to the shares in the policy asset mix (domestic bonds: 25%; foreign bonds: 25%; domestic equities: 25%; foreign equities: 25%).

Factor analysis of the difference from the compound benchmark return in fiscal 2020

(Unit: %)

	Rate of return			Factor analysis of excess rate of return				
	Return of GPIF ❶	Benchmark return ❷	Excess rate of return ❶–❷	Asset allocation factor ①	Benchmark factor ②	Fund factor ③	Other factors (including error) ④	①+②+③+④
Total	+25.15	+24.83	+0.32	+0.15	-0.17	+0.37	-0.03	+0.32
Domestic bonds	-0.68	-0.70	+0.02	-0.10	-0.02	+0.02	+0.00	-0.10
Foreign bonds	+7.06	+5.43	+1.63	+0.13	+0.06	+0.42	-0.02	+0.58
Domestic equities	+41.55	+42.13	-0.59	-0.14	-0.17	+0.04	+0.00	-0.26
Foreign equities	+59.42	+60.21	-0.79	+0.26	-0.05	-0.11	-0.01	+0.10

(Note 1) Domestic bonds include FILP bonds. JPY hedged foreign bonds and yen-denominated short-term assets are classified as Domestic bonds, and foreign currency-denominated short-term assets are classified as Foreign bonds.

(Note 2) "Asset allocation factor" refers to a factor resulting from differences between the actual asset mix and the policy asset mix. "Benchmark factor" refers to a factor resulting from differences in rates of return between the policy benchmark and the manager benchmarks, for each asset class. "Fund factor" refers to a factor resulting from differences in rates of return between individual funds and manager benchmarks. For the policy benchmark on each asset class, refer to page 32.

(Note 3) The contribution to the excess rate of return by the overall alternative investments is -0.12%. For details of investment in alternative assets, refer to page 43-58.

(Note 4) While the rate of investment return of GPIF is after taxes on both interest payments on foreign bonds and dividends on foreign equities, the benchmark return is before taxes. Therefore, the excess rates of return are negatively affected by differences in taxes treatments in these two calculations.

Excess rate of return on overall assets

【FY2006–FY2020 (the average of the annual rate of return since the GPIF's establishment)】

(Unit: %)

	Rate of return		
	Return of GPIF ❶	Benchmark return ❷	Excess rate of return ❶–❷
FY2006–FY2020	3.86	3.89	-0.03

【FY2011–FY2020】

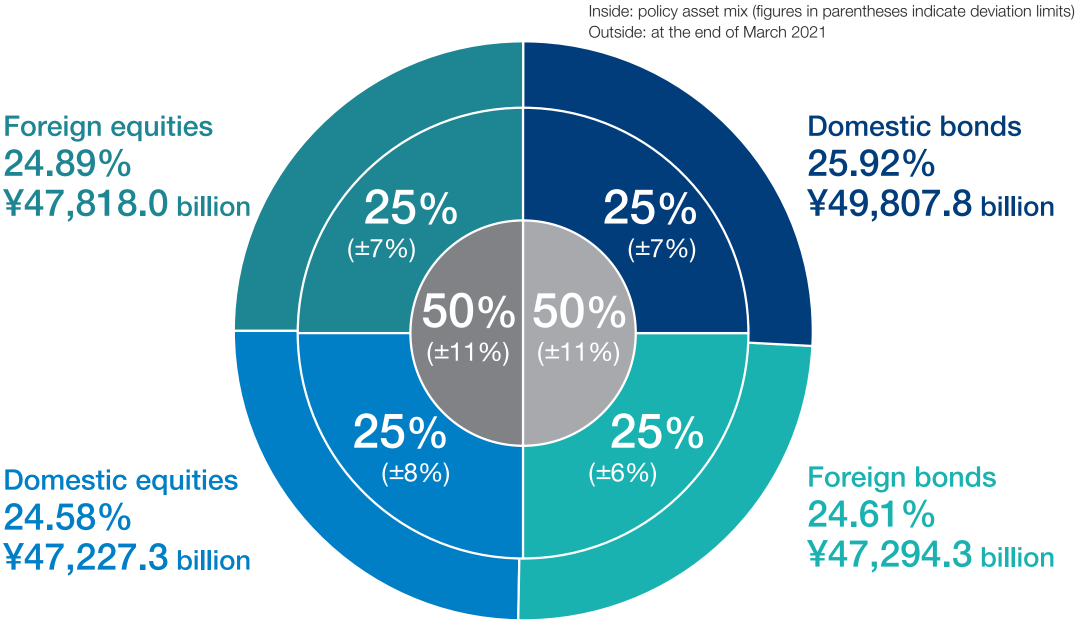
(Unit: %)

	Rate of return		
	Return of GPIF ❶	Benchmark return ❷	Excess rate of return ❶-❷
FY2011	2.32	2.59	-0.27
FY2012	10.23	9.00	+1.24
FY2013	8.64	7.74	+0.90
FY2014	12.27	13.83	-1.56
FY2015	-3.81	-3.81	+0.00
FY2016	5.86	6.22	-0.37
FY2017	6.90	7.26	-0.37
FY2018	1.52	1.92	-0.40
FY2019	-5.20	-4.94	-0.25
FY2020	25.15	24.83	+0.32

(Note 1) The annual rate of return of GPIF's investment and benchmark rate of return represent the geometric mean of the rates of return in individual fiscal years (an annualize rate).

(Note 2) From fiscal 2006 to fiscal 2007, an analysis was conducted on the difference between the rate of return (time-weighted rate of return) on the funds invested in the markets (hereinafter "market investment") and the compound benchmark return rate. From fiscal 2008 to fiscal 2019, an analysis has been conducted on the difference between the rate of return on overall invested assets (market investment and investments in Fiscal Investment and Loan Program (FILP) Bonds) (modified total return rate) and the compound benchmark return rate. For fiscal 2020, an analysis has been conducted on the difference between the rate of return on overall invested assets (market investment and investments in FILP bonds) (time-weighted rate of return) and the compound benchmark return rate.

⑥ Investment assets and portfolio allocation (Pension reserves managed by GPIF and the Pension Special Account)



	Market value (¥billion)	Allocation of Pension Reserve (1)	Allocation of Pension Reserve (2)
Domestic bonds	49,807.8	25.92%	50.54%
Foreign bonds	47,294.3	24.61%	
Domestic equities	47,227.3	24.58%	49.46%
Foreign equities	47,818.0	24.89%	
Total	192,147.3	100.00%	100.00%

(Note 1) The figures above are rounded off, so the sum of each item does not necessarily match the total number.

(Note 2) The amounts in the Market value column include accrued income and accrued expenses.

(Note 3) While the pension reserve as a whole includes reserves managed under the pension special account as of the end of fiscal 2020 (about ¥6.0 trillion), this amount is prior to the adjustment for revenues and expenditures and differs from the amount in the final settlement of accounts.

(Note 4) JPY hedged foreign bonds and yen-denominated short-term assets are classified as Domestic bonds, and foreign currency-denominated short-term assets are classified as Foreign bonds.

(Note 5) The percentage of the alternative investments: 0.70% (within maximum 5% of total portfolio)

⑦ Allocation changes for each asset class due to rebalancing

(Unit: ¥billion)

	Domestic bonds	Foreign bonds	Domestic equities	Foreign equities
Allocated/ withdrawn	+3,716.0	+9,837.1	-3,002.4	-10,009.1

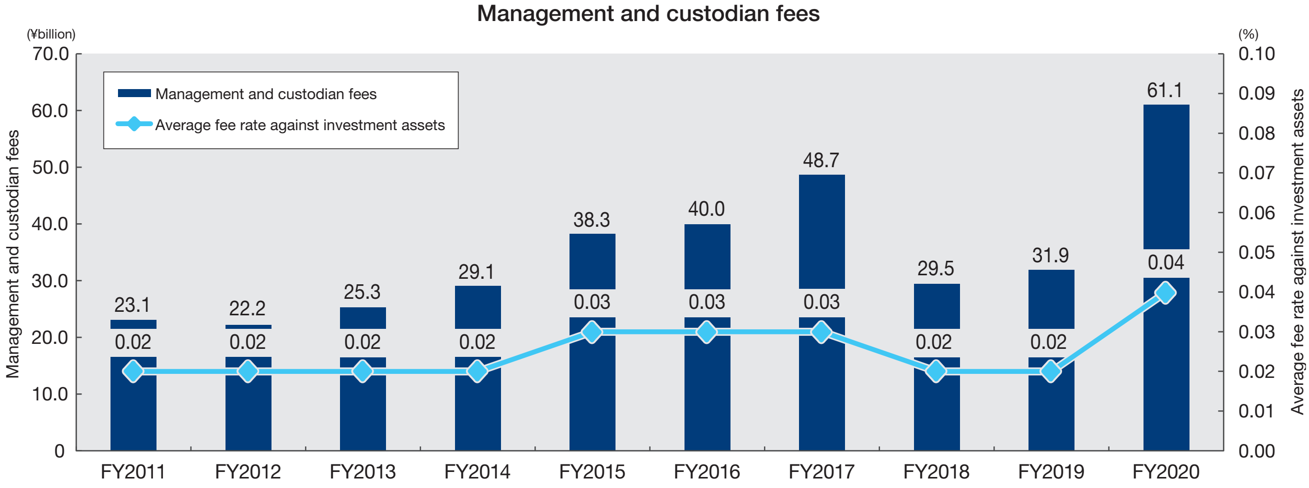
(Note) Each figure shows the net rebalancing amount.

⑧ Management and custodian fees

In fiscal 2020, total fees were **¥61.1 billion.**

The average fee rate on the total investment assets for fiscal 2020 was **0.04%.**

Total fees increased by ¥29.2 billion from the previous fiscal year. The increase was attributable to many active asset managers who earned an excess return.



Management and custodian fees by asset class

(Unit: ¥billion)

	FY2011	FY2012	FY2013	FY2014	FY2015	FY2016	FY2017	FY2018	FY2019	FY2020
Total	23.1	22.2	25.3	29.1	38.3	40.0	48.7	29.5	31.9	61.1
Domestic bonds	6.4	4.7	3.6	3.8	3.8	3.9	4.0	1.6	2.0	3.0
Foreign bonds	5.2	5.7	6.8	8.5	9.1	12.5	17.2	9.2	7.1	25.4
Domestic equities	6.2	5.9	7.8	5.7	8.3	8.8	10.6	7.5	6.5	12.7
Foreign equities	5.3	6.0	7.2	11.2	17.0	14.9	16.9	10.7	15.5	18.8
Alternative assets	—	—	—	—	—	0.0	0.0	0.3	0.7	1.0

(Note 1) Management and custodian fees are rounded off to the nearest ¥100 million.
(Note 2) The total includes fees related to short-term assets and index licensing fees.
(Note 3) Fees paid to custodians exclude certain fees that are deducted from the entrusted assets, such as custody fees and attorney fees.
(Note 4) Foreign bonds include JPY hedged foreign bonds.

Average fee rate against externally managed assets

(Unit: %)

	FY2011	FY2012	FY2013	FY2014	FY2015	FY2016	FY2017	FY2018	FY2019	FY2020
Total	0.02	0.02	0.02	0.02	0.03	0.03	0.03	0.02	0.02	0.04
Domestic bonds	0.01	0.01	0.01	0.01	0.02	0.03	0.03	0.01	0.01	0.02
Foreign bonds	0.06	0.06	0.05	0.05	0.05	0.07	0.08	0.04	0.02	0.06
Domestic equities	0.05	0.04	0.04	0.02	0.03	0.03	0.03	0.02	0.02	0.03
Foreign equities	0.04	0.04	0.04	0.05	0.05	0.05	0.04	0.03	0.04	0.04
Alternative assets	—	—	—	—	—	—	0.14	0.23	0.14	0.11
Average balance (¥trillion)	112.0	111.5	123.9	131.9	139.0	137.3	155.7	158.9	161.4	170.2

(Note 1) Total includes in-house investment assets and index licensing fees.
(Note 2) The average balance includes in-house investment assets. For FILP funds managed in-house investment, average monthly book values calculated by the amortized cost method are used.
(Note 3) Foreign bonds include JPY hedged foreign bonds.

2 | Overview of the Policy Asset Mix

[1] Current policy asset mix

GPIF establishes the policy asset mix formed by the target allocation to each asset class, and manages portfolio within deviation limits.

The current policy asset mix, which started in April 2020, shall meet the investment objectives, a real investment return (net investment yields on the pension reserve fund less the nominal wage growth rate) of 1.7% with minimal risks. In addition to the four deviation limits set for each asset class, new deviation limits for total bonds and total equities have been established in order to strengthen risk management on the equities.

(Note) For details of the current policy asset mix and previous policy asset mix, refer to GPIF's website at https://www.gpif.go.jp/gpif/portfolio.html.

【Current policy asset mix】

(From April 2020)

(Unit: %)

		Domestic bonds	Foreign bonds	Domestic equities	Foreign equities
Target allocation		25	25	25	25
Deviation limits	Asset class	±7	±6	±8	±7
	Bonds/Equities	±11		±11	

(Note 1) Alternative assets (infrastructures, private equities, real estates, and other assets determined through resolutions at the Board of Governors) will be classified into domestic bonds, domestic equities, foreign bonds, and foreign equities based on their risk and return profiles, and will be capped to 5% of total assets. However, if economic and market conditions prevent compliance with the 5% ceiling rule, this limit may be raised after deliberation and resolution by the Board of Governors.

(Note 2) JPY hedged foreign bonds and yen-denominated short-term assets are classified as domestic bonds, while foreign currency-denominated short-term assets are classified as foreign bonds.

(Note 3) In light of recent extreme economic and market volatility, GPIF may be allowed to flexibly manage investments based on an appropriate, reasonably grounded outlook for the market environments and subject to the deviation limits for the policy asset mix.

【Previous policy asset mix】

(April 2006–June 2013)

(Unit: %)

	Domestic bonds	Domestic equities	Foreign bonds	Foreign equities	Short-term assets
Target allocation	67	11	8	9	5
Deviation limits	±8	±6	±5	±5	—

(June 2013–October 2014)

(Unit: %)

	Domestic bonds	Domestic equities	Foreign bonds	Foreign equities	Short-term assets
Target allocation	60	12	11	12	5
Deviation limits	±8	±6	±5	±5	—

(October 2014–March 2020)

(Unit: %)

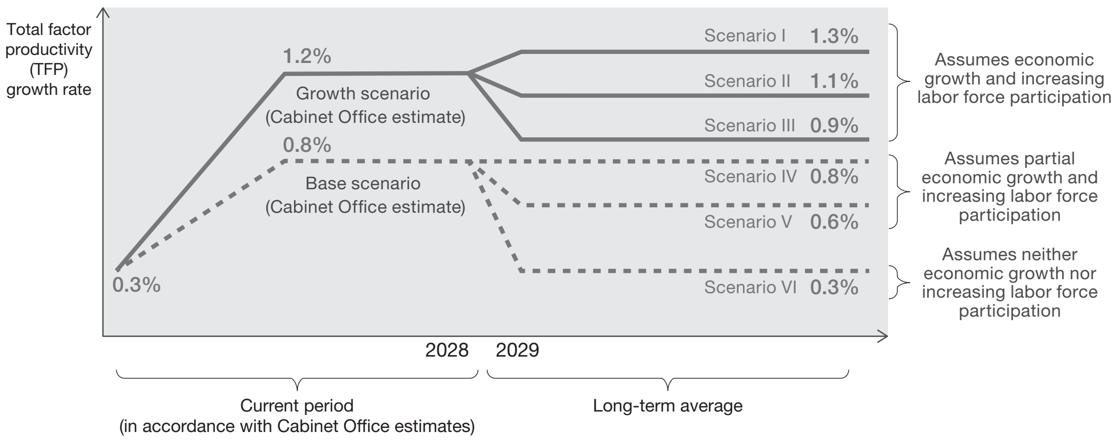
	Domestic bonds	Domestic equities	Foreign bonds	Foreign equities
Target allocation	35	25	15	25
Deviation limits	±10	±9	±4	±8

[2] Background of the formulation of the policy asset mix

Japanese public pension scheme (Employees' Pension Insurance and National Pension) is a pay-as-you-go system in which pension premiums collected from working generations support elderly generations. Given the decreasing birthrates and aging populations in Japan, funding pension benefits solely by contribution from working generations would place an unduly excessive burden on this group. The pension reserve fund managed by GPIF will therefore be used to supplement payouts for future generations.

Under this framework, the Ministry of Health, Labour and Welfare carries out a financial verification at least every five years based on the outlook for population and economic trends. The most recent verification conducted in 2019 included an analysis of six broad scenarios. The verification focused particularly on Total Factor Productivity (e.g. technological advances or productivity improvements), which is a critical factor in making long-term economic assumptions. The result was used as a basis of the target return on investments of the reserve fund, etc.

Economic assumptions in the financial verification



		Assumed future state of the economy		Economic assumptions				(Reference)
		Labor force participation rate	Total factor productivity (TFP) growth rate	CPI increase rate	Real wage growth rate (adjusted for CPI)	Rate of return on investment: Real (adjusted for CPI)	Rate of return on investment: Spread (adjusted for wages)	Real economic growth rate from FY2029 20–30 years
Scenario I	Cabinet Office estimate for the growth scenario	Economic growth and increasing labor force participation scenario	1.3%	2.0%	1.6%	3.0%	1.4%	0.9%
Scenario II			1.1%	1.6%	1.4%	2.9%	1.5%	0.6%
Scenario III			0.9%	1.2%	1.1%	2.8%	**1.7%**	0.4%
Scenario IV	Cabinet Office estimate for the base scenario	Partial economic growth and increasing labor force participation scenario	0.8%	1.1%	1.0%	2.1%	1.1%	0.2%
Scenario V			0.6%	0.8%	0.8%	2.0%	1.2%	0.0%
Scenario VI		Neither economic growth nor increasing labor force participation	0.3%	0.5%	0.4%	0.8%	0.4%	–0.5%

(Note) Details of 2019 financial verification are posted on the MHLW website:
https://www.mhlw.go.jp/stf/seisakunitsuite/bunya/nenkin/nenkin/zaisei-kensyo/index.html.

[3] Details of policy asset mix formulation

① Considerations in the Medium-term Objectives

It is commonly known that, in a long-term investment, maintaining a basic asset composition (a policy asset mix) over the long term yields a better result effectively, rather than changing the asset composition in response to short-term market developments. Accordingly, public pensions' funds shall be managed with consideration to an expected rate of return and risks of individual asset classes, based on an asset allocation theory (policy asset mix) that forms the basis of reserves managements.

The fourth Medium-term Objectives for the five-year period from fiscal 2020 to fiscal 2024 established by the MHLW include the following investment objectives of reserve fund:

A. Based on the results of the financial verification, GPIF would formulate and manage the policy asset mix with the objective of achieving a long-term real return of 1.7% (net investment yield on the pension reserve fund less the nominal wage growth rate) on reserve assets with the minimal risks.
B. The policy asset mix must be formulated from a long-term perspective and it should incorporate generally recognized asset management expertise, domestic and overseas economic trends, and forward-looking risk analysis.
C. The downside risks of underperforming the nominal wage growth rate cannot exceed the portfolio comprised solely of domestic bonds, and appropriate consideration should be given to the fact that the downside risks for equities may be larger than expected. The probability that planned reserves may become smaller than originally anticipated should be properly accounted for and a thorough analysis of multiple risk scenarios should be conducted.

② Policy asset mix formulation process

Based on the results of the financial verification, the Medium-term Objectives, and recent economic conditions, GPIF decided on the following policies when formulating the policy asset mix.

A. GPIF used multiple methods to estimate expected returns rather than a single method in order to enhance estimate precision. In addition to the previous method, GPIF has also taken into accounts the equilibrium return deemed intrinsic to market capitalization.
B. Current policy benchmarks (Note) were used to estimate expected returns, as well as correlations between risks and returns. Since GPIF refers to the assumptions made within the financial verification during the portfolio optimization process, the estimation period for expected returns was set at 25 years, considering the models used within the financial verification to formulate long-term economic assumptions generally use a period of 25 years.
C. Given that the return target set within the Medium-term Objectives is a real return of 1.7%, that is, the return target set under Scenario III, GPIF used Scenario III as the economic scenario for the basis for wage increase assumptions when setting wage-adjusted expected returns.
D. The improved estimation method for expected returns enhances the accuracy of the optimization and is likely to result in a better target allocation, therefore, GPIF decided to eliminate constraints (such as relative asset class size, etc.), except for return requirements.
E. As the same before, the risk constraint used in the optimization included the requirement that the risks of the policy asset mix falling below the nominal wage growth rate (lower partial probability) does not exceed those of a portfolio comprised solely of domestic bonds. GPIF also used the average nominal wage increase shortfall rate (conditional average shortfall rate) to measure the risks when optimizing the portfolio.
F. Looking at the reserves assets' nominal accumulation trends within the financial verification, while asset sizes will peak out at different points in different scenarios, GPIF expects that the investment policy can be maintained without reducing the reserves principals for the next 50 years or so. The peak of the size of nominal reserve assets is a critical point in investment operations, as it means that investment returns alone will not be able to cover cash payouts. Given that, GPIF analyzed reserves assets trends based on the policy asset mix over the next 50 years, and compared them with planned reserve assets within the financial verification.
G. Furthermore, in light of the current low interest rates environments, yen-denominated short-term assets and JPY hedged foreign bonds are all classified as domestic bonds throughout the policy asset mix formulation process, as these assets are considered to have similar risk and return profiles to that of domestic bonds. In addition, foreign currency-denominated short-term assets are counted as foreign bonds.

(Note) GPIF refers to a benchmark used for the policy asset mix formulation as a policy benchmark. The policy benchmarks used for each asset class are as follows:

Asset class	Policy benchmark
Domestic bonds	NOMURA-BPI (excluding ABS)
Foreign bonds	FTSE World Government Bond Index (not incl. JPY, no hedge/JPY basis)
Domestic equities	TOPIX (incl. dividends)
Foreign equities	MSCI ACWI (not incl. JPY, JPY basis, incl. dividends)

③ Expected return of each asset class and assumption for the wage growth rate

GPIF projected expected return of domestic bonds by taking the average return rate calculated within the bonds investments simulation (which assumes different future long-term interest rates scenarios), and combined this with the equilibrium return rate (Note1) deemed intrinsic to market capitalization. To estimate expected rates of returns on domestic equities, foreign bonds, and foreign equities, GPIF used a building block method (Note2) for each asset that adds a risk premium to short-term interest rates, and combined this with the equilibrium return rate deemed intrinsic to market capitalization. The expected return for short-term interest rates which forms the basis for calculations is estimated using the market yield curve.

The nominal wage growth rate used to convert nominal expected return to wage-adjusted real return was 2.3%, which is the average future nominal wage increase used in the economic assumptions within the financial verification (in Scenario III).

(Note 1) The equilibrium return rate is the implied market return derived by observing current indicators such as global market capitalization and risk and correlations for each asset class.

(Note 2) The building block method estimates expected return for each asset class by adding together estimates for expected short-term interest rates and the risk premium (i.e. compensation for taking risk) for each individual asset class. Historical data for policy benchmarks were used to estimate risk premiums.

【Expected return for each asset class and the wage growth rate】

(Unit: %)

Short-term interest rate	Domestic bonds	Foreign bonds	Domestic equities	Foreign equities	Wage growth rate
–1.7	–1.6	0.3	3.3	4.9	(2.3)
(0.6)	(0.7)	(2.6)	(5.6)	(7.2)	

(Note) The numbers in the upper line indicate real returns, those in brackets in the lower line indicate nominal returns with wage growth rate.

④ Standard deviation and correlation of each asset class

GPIF estimated risks and correlations of each asset class by using the annual data of the policy benchmarks for the past 25 years after the bubble economy collapsed in Japan.

[Risk (Standard deviation)]

(Unit: %)

	Domestic bonds	Foreign bonds	Domestic equities	Foreign equities	Wage growth rate
Standard deviation	2.56	11.87	23.14	24.85	1.62

[Correlation]

	Domestic bonds	Foreign bonds	Domestic equities	Foreign equities	Wage growth rate
Domestic bonds	1.00				
Foreign bonds	0.290	1.00			
Domestic equities	–0.158	0.060	1.00		
Foreign equities	0.105	0.585	0.643	1.00	
Wage growth rate	0.042	–0.010	0.113	0.099	1.00

(Note) The expected return of a portfolio including several different assets with different risk-return profiles is the weighted average of the expected returns of individual assets, while risk (standard deviation) of the portfolio can be lower than the weighted average of those of the individual assets. This is called the “diversified effect”. GPIF aims to achieve a stable investment result by diversifying the investments into multiple types of assets having different characteristics and price movements. For details, refer to GPIF’s website at https://www.gpif.go.jp/gpif/.

⑤ Selection of policy asset mix

We selected the policy asset mix from the following perspectives.

A. Based on the returns, risks, and other factors of the four asset classes, GPIF identified a variety of portfolios and estimated its projected returns, risks (standard deviations), probability in which portfolio return will short of nominal wage growth rate ("lower partial probability") and the average rate of shortages when return cannot meet the nominal wage growth rate("conditional average shortfall rate").

B. Among a variety of portfolios simulated, we selected a portfolio which meets the investment objectives (nominal wage growth rate plus 1.7%) with 'the lower partial probability' smaller than that of the reference portfolio where all are invested in domestic bonds, and the smallest "conditional average shortfall rate".

We continued to apply the currently used 5% interval to compose the policy asset mix. GPIF has also confirmed that the policy asset mix should fall within the range of the reference asset mix.

[Current policy asset mix profile]

(Unit: %)

Real return	Nominal return	Standard deviation	Lower partial probability	Conditional average shortfall rate	
				Normal distribution	Empirical distribution (Note)
1.7	4.0	12.32	44.4	9.2	10.9

(Reference) Profiles of all-domestic-bond portfolio

(Unit: %)

–1.6	0.7	2.56	70.7	3.0	3.0

(Note) We also conducted a simulation for the conditional average shortfall rate by using the empirical distribution, in addition to the normal distribution, with consideration that equities may have a larger downside probability (tail risk). The empirical distribution is a projection based on real returns over the past 25 years.

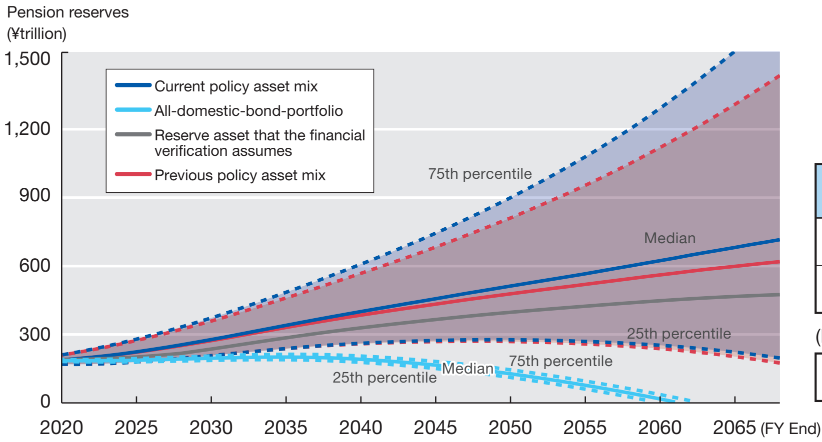
⑥ Risk verification for formulating the current policy asset mix

In order to verify the magnitude of the risk where reserve assets fall below the size of planned reserves under pension finance, we conducted a Monte-Carlo simulation over one million times using the expected returns, standard deviations, and correlations for each asset to generate a distribution of such trends, and examined results compared to planned reserves on the financial verification (Scenario III), in a bid to test and verify the current policy asset mix.

Results indicate that the probability (risk) where fund size fall below the planned level has declined compared to the former policy asset mix. Meanwhile, a simulation conducted with an all-domestic-bond portfolio resulted in always smaller compared to the planned reserve assets.

From the above-mentioned overall perspectives with the aspects of lower partial probability and conditional average shortfall rate, the policy asset mix is the most efficient portfolio to meet the investment objectives while minimizing downside risk.

Comparison with planned reserve



Probability (risk) of falling below planned reserves

(Unit: %)

	In 25 years (As of the end of FY2043)	In 50 years (As of the end of FY2068)
Current policy asset mix	38.1	39.8
All-domestic-bond-portfolio	100.0	100.0

(Reference) (Unit: %)

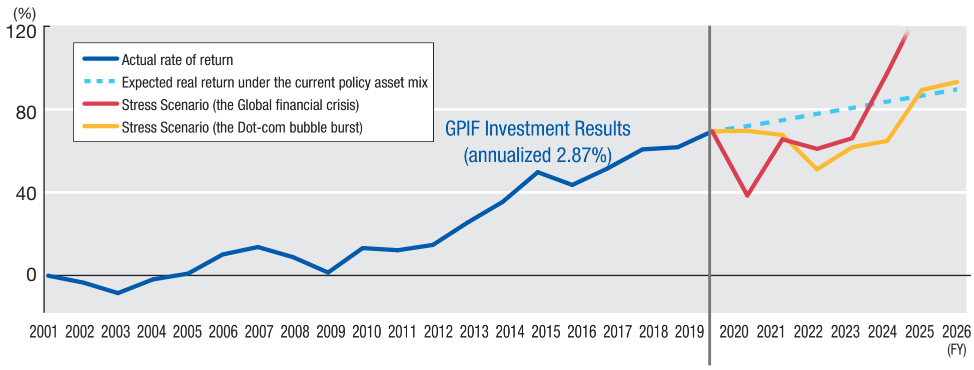
Previous policy asset mix	40.0	43.0

⑦ Implementation of stress tests in fiscal 2019 for formulating the current policy asset mix.

GPIF conducted multiple stress tests under the assumption of the occurrence of a financial crisis. The stress tests were conducted based on the respective scenarios using actual market data in the aftermath of the global financial crisis in 2008 and the dot-com bubble burst in 2000.

Results in both scenarios indicate that the cumulative value of real return temporarily falls, but turns upward to the level of expected return following a subsequent market rebound several years later.

[Actual and estimated real return (cumulative)]



- The negative returns with the largest annual loss over the test periods were -19.4% in the scenario of the global financial crisis and -11.4% in the scenario of the dot-com bubble burst.
- We also observed the probability of the occurrence through the empirical distribution in the stress scenario. We assessed that a loss equivalent to the aftermath of the global financial crisis would occur once every 70 years, while that similar to the aftermath of the dot-com bubble burst would be observed once every seven years.

(Note 1) GPIF's investment results (annualized return of 2.87%) are based on the figures as of the end of fiscal 2018.
(Note 2) The figure for fiscal 2019 represents the result as of December 31, 2019.

(Column) Reference asset mix

Since the unification of the Employee's Pension Schemes in October 2015, four asset management entities-GPIF, the Federation of National Public Service Personnel Mutual Aid Associations, the Pension Fund Association for Local Government Officials, and the Promotion and Mutual Aid Corporation for Private Schools of Japan-are assumed to jointly formulate a reference asset mix. When formulating the policy asset mix, each of the four entities shall take into consideration the reference asset mix.

The reference asset mix shall be reviewed upon a financial verification by the government and revised accordingly. After the 2019 financial verification was disclosed, the four entities discussed and formulated a new reference asset mix as follows:

(Unit: %)

Asset class	Domestic bonds	Domestic equities	Foreign bonds	Foreign equities
Reference asset mix	25	25	25	25
The range of median	±4	±4	±4	±4

3 | Basic Policy of Portfolio Risk Management

[1] Basic policy

The purpose of investing the pension reserves is to contribute to the future stability of the management of the public pension scheme through stable and efficient management from a long-term perspective solely for the beneficiaries. The Medium-term Objectives approved by the Minister of Health, Labour and Welfare (MHLW) stipulate that GPIF is required to achieve a long-term real return (net investment yield on the pension reserve fund less the nominal wage growth rate) of 1.7% with minimal risks.

Amid heightened uncertainties about the recent market and economic environment, the risk GPIF focuses on refers not to “a risk caused by short-term fluctuations in market prices” but to “a risk of failing to achieve a long-term investment return required for the pension finance.”

It is commonly known that, in a long-term investment, maintaining portfolio (a policy asset mix) over the long term yields a better result effectively, rather than changing the portfolio in response to short-term market fluctuations. GPIF adopted the new policy asset mix in fiscal 2020. Since long-term investment results shall be mostly attributable to a policy asset mix, we believe that the policy asset mix is the core of portfolio risk management.

GPIF manages the policy asset mix in an appropriate manner, invests in diversified assets, and carries out risk management at the level of assets as a whole, individual asset classes, and individual asset managers, respectively. At the same time, it ensures the achievements of the benchmark rates of return of both assets as a whole and individual asset classes by monitoring various indexes from multilateral perspectives. In cases when it is considered necessary to take a certain measure, GPIF carries out an appropriate measure in line with a predetermined rule.

The basic policy of the above-mentioned portfolio risk management is expressly described in the “Basic Policy” of the “Portfolio Risk Management Policy” established by the Board of Governors. In accordance with this Basic Policy, GPIF manages market risks, liquidity risks, credit risks, and country risks in an appropriate manner. We also perform risk monitoring based on domestic and overseas macroeconomic trends and geopolitical risks, as well as various risk management indicators including tracking errors, Value at Risk (VaR) and stress tests. GPIF does so in a timely manner, so that risks can be discussed at the Investment Committee and the Portfolio Risk Management Committee and periodically reports to the Board of Governors. As such, we implement appropriate measures taking into account long-term risk-return profiles.

<“Basic Policy” of GPIF’s portfolio risk management>

(1) GPIF formulates a policy asset mix and appropriately manages it to ensure the achievement of the investment return required for the pension finance with the minimum risk.

(2) GPIF adopts a basic principle for risk management of diversifying investment portfolios across multiple asset classes having different risk-return profiles, etc.

(3) GPIF performs risk management at each level of the overall asset portfolio, asset classes, and external asset managers, etc., while ensuring the achievement of the benchmark rate of returns for the entire portfolio as well as for each asset class.

(4) GPIF carries out flexible investment based on a proper outlook for the market environments, within a deviation limit for the policy asset mix, upon thorough analysis on the current trends marked by the fast-changing economic and market environments; provided, however, that the outlook must indicate reasonable grounds.

(5) Although there are short-term fluctuations in market prices, GPIF aims to earn investment returns more stably and efficiently by taking advantage of its long-term investment horizon and maintain the liquidity necessary for a pension payout. In order to assure liquidity, GPIF takes appropriate measures including selling assets in a smooth manner, while giving consideration to market price formation as well as securing assets without shortages.

(6) Regarding investment and management of the pension reserves, GPIF constantly strives to enhance its expertise, clarify the system of accountability, and implement thorough compliance with the duty of care and fiduciary duty of a prudent expert.

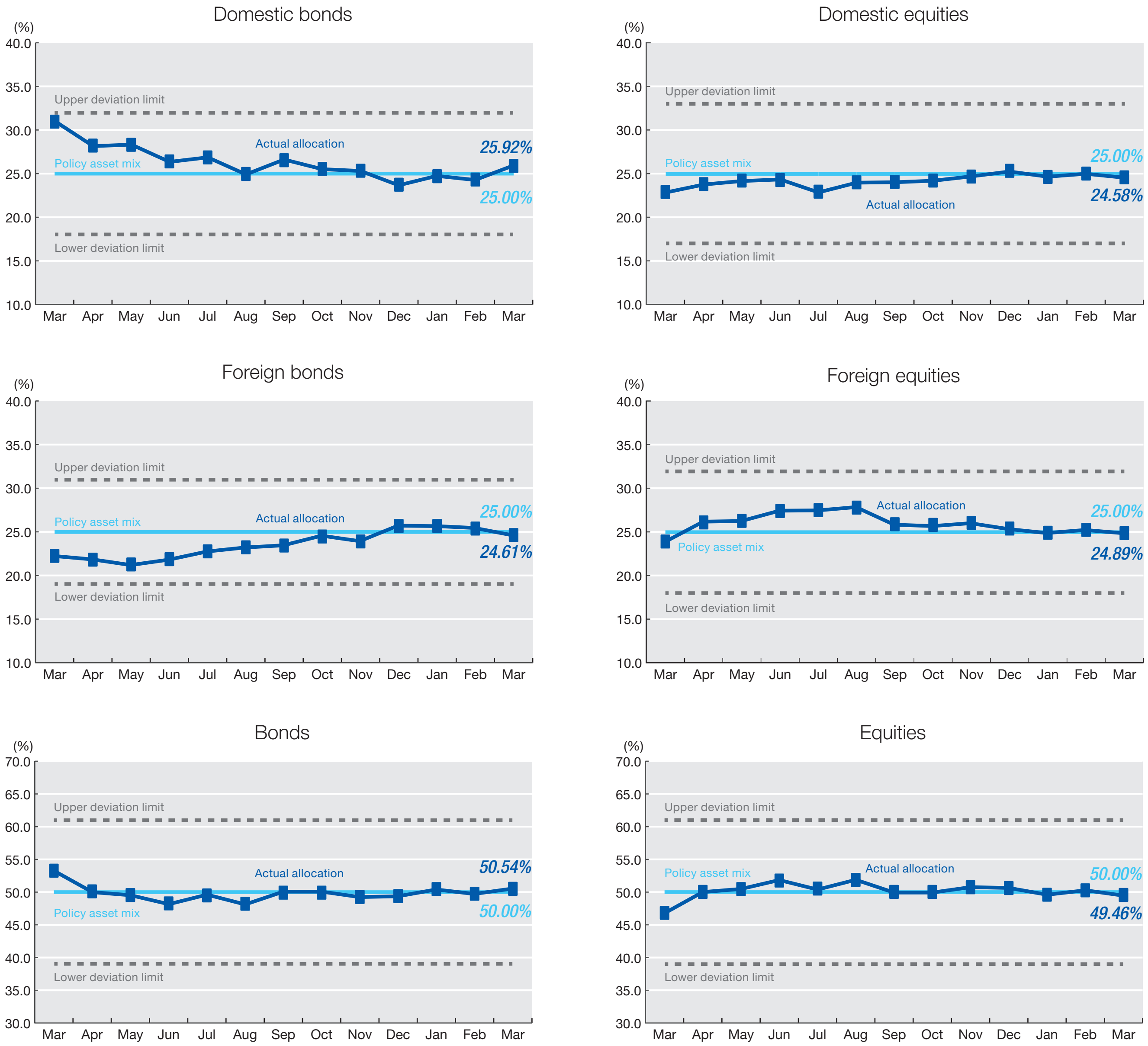
[Types of portfolio risk]

Market risk	The risk of changes in the value of portfolio assets, including derivatives, due to fluctuations in various market risk factors such as interest rates, foreign exchange rates, equities, and alternative assets
Liquidity risk	The risk of facing a difficulty in securing the necessary funds or incurring losses due to being forced to raise funds at an interest rate significantly higher than normal, resulting from reasons such as an unexpected increase in cash outflow (cash management risk) and the risk of incurring losses resulting from the inability to conduct market transactions due to confusion in the market or being forced to conduct market transactions at prices significantly more disadvantageous than normal (market liquidity risk)
Credit risk	The risk of incurring losses due to reduction or elimination of the value of assets, including derivatives, due to factors such as deterioration in the financial position of issuers of the portfolio assets, institutions entrusted with asset management, etc. or counterparties of derivatives transactions
Country risk	The risk of incurring losses in foreign assets due to foreign currency situations or political and economic conditions of countries relevant to the said assets

[2] Risk management based on a policy asset mix

As mentioned above, GPIF believes that the most important aspect of portfolio risk managements is a proper management of asset allocation based on a policy asset mix. Since the markets constantly change, it is essential to establish a framework that enables GPIF to manage investments flexibly within a reasonable range, while actual investments shall be carried out based on the policy asset mix. Accordingly, GPIF flexibly manages the policy asset mix within deviation limits defined for each of four types of assets—domestic bonds, foreign bonds, domestic equities, and foreign equities—as well as overall bonds and overall equities. At the same time, GPIF establishes alarm points within these limits in order to smoothly and appropriately manage its asset allocations within the deviation limits, and sets a policy to clarify a responsive process in the event of exceeding these two limits. In fiscal 2020, there were no assets that exceeded the deviation limits or alarm points. While the upper limit for alternative assets is set as 5% of the total assets, we have also established alarm points for the assets and expressly states a responsive process in the event of the exceeding of these two limits. GPIF managed investment of alternative assets within the upper limit and the alarm point in fiscal 2020.

【Management of deviation limits】



(Note 1) Asset allocation is calculated including reserves managed in the Pension Special Account.

(Note 2) The deviation limits under the four Medium-term Plan are ±7% for domestic bonds, ±6% for foreign bonds, ±8% for domestic equities, ±7% for foreign equities. ±11% for bonds, and ±11% for equities.

In addition to risk management with the above-mentioned deviation limits and upper limit established for alternative investment, estimated tracking errors (Note1) of the overall assets and VaR ratio continue to be our monitoring indicators from a multitiered risk management perspective.

In fiscal 2020, the estimated tracking errors of the overall assets reached 108 bp (1 bp is equivalent to 0.01%) in June due in part to the stock price recovery. However, it went down to 51 bp at the end of fiscal 2020 after various measures were taken to match the rate of investment return of the portfolio with the level of compound benchmark return of the policy asset mix and market volatility calmed down. As a result, the risk amount declined significantly.

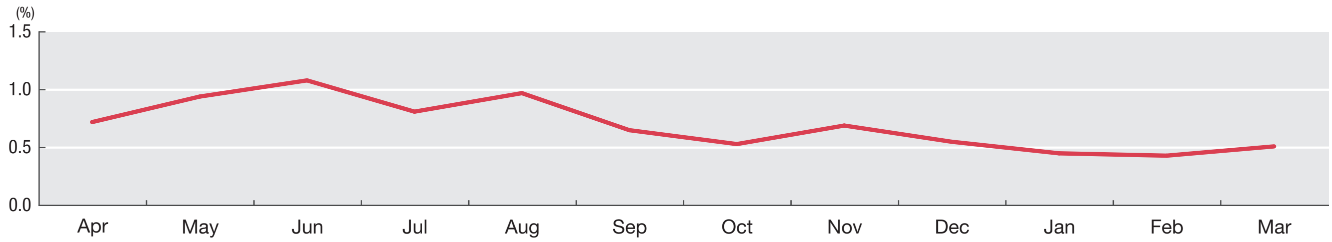
VaR ratio is obtained by dividing VaR (Note2) for the actual asset mix by VaR for the policy asset mix, an indicator for monitoring as to what extent the risk amount of the actual portfolio deviates from that of the policy asset mix.

In fiscal 2020, the ratio remained at around 1. During fiscal 2020, the deviation of the equity risk due to the stock price recovery, and the one of the spread risk incurred mainly by purchases of foreign corporate bonds, from corresponding respective risk amounts of the policy asset mix, grew relatively larger. As a result, the divergence from the amount of risk in the policy asset mix reached 1.05 in June and August. But it narrowed down to 1.04 at the end of the fiscal year because domestic equities and foreign equities were reduced by disposals and volatility were stabilized.

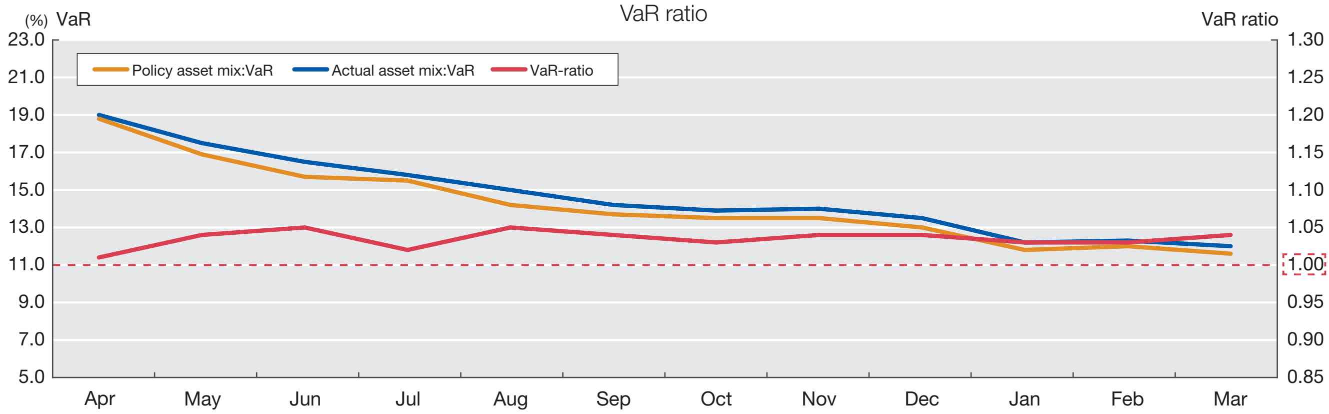
(Note 1) The estimated tracking errors are the ranges of returns that could be earned in the future at a given probability. These ranges are calculated with analysis tools, etc. estimated by using statistically estimated mutual dependencies between securities in the portfolio.

(Note 2) VaR indicates the largest loss likely to be suffered for individual assets assuming a certain holding period with a given probability (confidence level).

【Estimated tracking error of the overall assets】

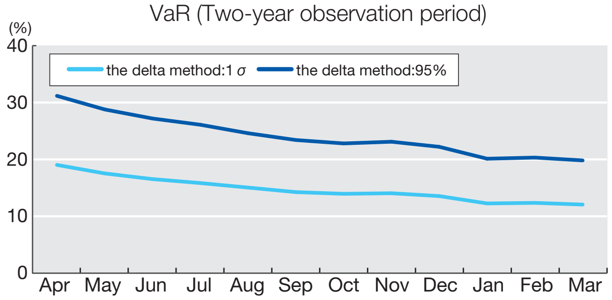


【VaR ratio and VaR】

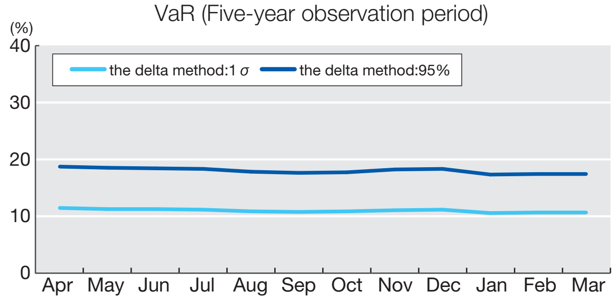


(Note) VaR is calculated using the delta method based on the 1σ confidence level over a one-year holding period and two-year observation period.

VaR (Two-year observation period)



VaR (Five-year observation period)



(Note) VaR is calculated using the delta method based on the 1σ and 95% confidence level over a one-year holding period and two-year and five-year observation period (ratios are calculated on an actual asset mix basis for both periods).

[3] Diversification effect and risk management of alternative assets

Alternative assets (including infrastructure, private equity and real estate) have different risk-return profiles from traditional assets such as listed equities and bonds. Considering these profiles, the inclusion of alternative assets in GPIF's portfolio is expected to generate diversification effects and improve the investment efficiency. Accordingly, GPIF has increased investments in alternative assets since fiscal 2017. To fulfill the need for target asset-specific expertise, risk management of investment in alternative assets covers assessment items specifically required for in alternative investments, as well as those common to traditional assets.

Enabling more elaborate risk management, GPIF will continue the efforts to ensure comprehensive, elaborate risk management.

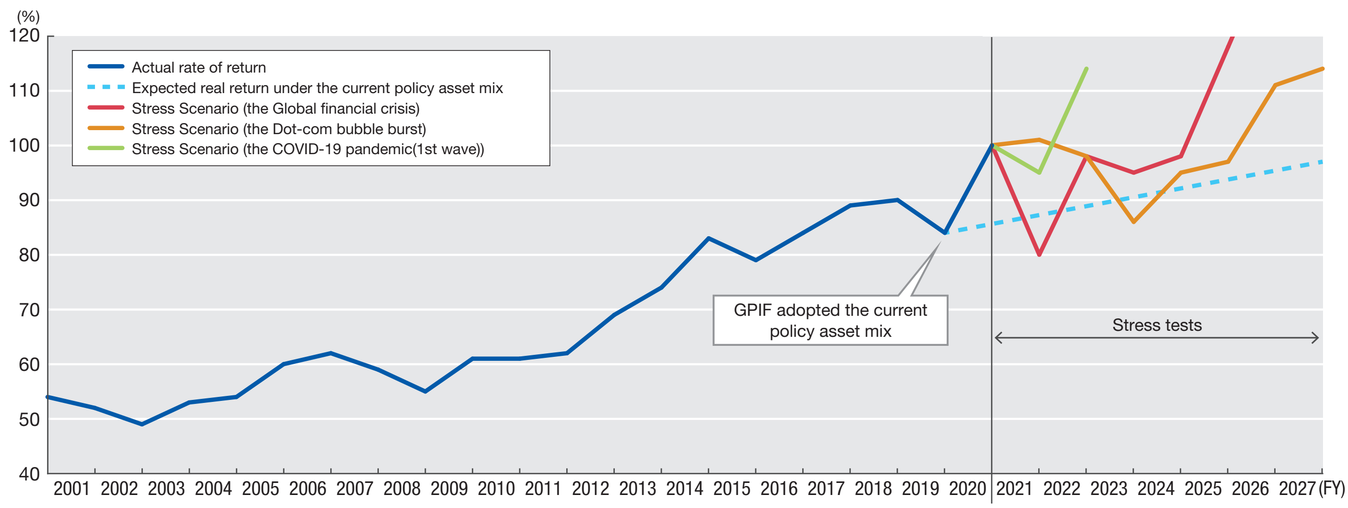
(Note) For details of risk management of alternative assets, refer to page 57.

[4] Risk management from a long-term perspective

① Stress tests

Stress tests are used as one of the approaches for measuring the impact on returns and capital in the event of a significant market movement, and determining a method to implement a proper measure accordingly. In general, stress tests are considered as a way to assess a short-term impact suffered due to market fluctuations.

However, considering that a long-term perspective is crucial to carry out investment management of the pension reserves stably and efficiently, medium-to long-term risk management takes a higher priority for GPIF. GPIF's stress tests are carried out, therefore, in reference to overseas pension funds, by focusing on not only the assessment of how much the risks will affect our portfolios in the short terms but also the analysis of what impact will be generated in the medium to long term. More specifically, in order to secure objectivity in an analysis, GPIF conducts stress tests by using scenarios stemming from past actual events. In fiscal 2020, GPIF added the market drop scenario caused by the COVID-19 pandemic (1st wave) to the scenarios used in its fiscal 2019 analysis: i.e. the Global financial crisis of 2008–2009 when a massive fall in stock prices was seen, and the Dot-com bubble burst of 2001 followed by a slow market recovery. The result shows that, in these scenarios, although actual accumulated returns on investments since 2001 (when GPIF started management of the pension reserves) are temporarily affected, they resume an expected level in a few years following the recovery of the markets.



(Note 1) The investment results in the figure show a cumulative rate of investment return since 2001 {real return (net investment yield on the pension reserve fund less the nominal wage growth rate)}.

(Note 2) The figure for fiscal 2020 represents the result as of Dec. 31, 2020.

(Note 3) The vertical axis represents indexed numbers of a cumulative rate of return based on the starting point of the stress test (the actual rate of investment return as of Dec. 31, 2020) as 100.

② ESG investment expected to reduce risks from a long-term perspective

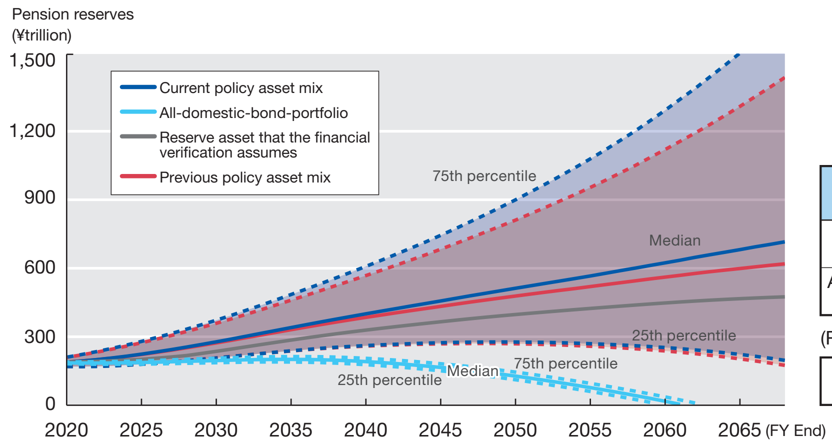
Given the fact that the law requires pension reserve fund investments to be conducted safely and efficiently from the long-term perspective, risk management based on the long-term perspective is further important for GPIF. GPIF's investment approach takes ESG factors into account in order to improve long-term returns from the whole assets by reducing negative externalities such as environmental and social issues. Because ESG related risks, as symbolized by climate change risks, etc., are expected to be more likely materialized as investment horizon becomes longer, we recognize that it is meaningful for GPIF to reduce these long-term risks through making ESG investments. In fiscal 2020 like before, we continued to conduct investment activities with consideration to ESG factors.

③ Securing the amount of planned reserves

Another important issue is how to control risks that the amount of pension reserves falls below the amount of planned reserves in the long run. The current policy asset mix was formulated in fiscal 2019 through a process of simulation with a stochastic calculation using random numbers to confirm the risks of an inability to attain the amount of planned reserves on the financial verification. Thus, we managed to select the most efficient portfolio that seeks to minimize downside risks, while meeting investment objectives.

(Note) For details of the current policy asset mix, refer to page 30-35.

Comparison with planned reserve



Probability (risk) of falling below planned reserves

(Unit: %)

	In 25 years (As of the end of FY2043)	In 50 years (As of the end of FY2068)
Current policy asset mix	38.1	39.8
All-domestic-bond-portfolio	100.0	100.0

(Reference)

(Unit: %)

Previous policy asset mix	40.0	43.0

4 | Status of Investment in Each Asset Class

[1] Domestic bonds

① Excess rate of return

Concerning domestic bond investment, the excess rate of return over the benchmark (Note1) was +0.02%. The breakdown of the excess rate of return on domestic bond investment by factor is as follows: benchmark factors (Note2): -0.05%; fund factors (Note3): +0.06%; other factors (Note4): +0.01%.

(Unit: %)

Time-weighted rate of return ①	Benchmark ②	Excess rate of return ①−②	Benchmark factors	Fund factors	Other factors
–0.68	–0.70	+0.02	–0.05	+0.06	+0.01

(Note 1) The benchmark of domestic bonds is NOMURA–BPI [excluding ABS].

(Note 2) Benchmark factors refer to those resulting from differences in the rates of return between manager benchmarks and the benchmark (NOMURA–BPI [excluding ABS]). They are calculated taking into consideration the market total average balance of each fund.

(Note 3) Fund factors refer to those resulting from differences in rates of return between individual funds and manager benchmarks. They are calculated taking into consideration the market total average balance of each fund.

(Note 4) Other factors refer to calculation errors and such.

[2] Foreign bonds

① Excess rate of return

Concerning foreign bond investment, the excess rate of return over the benchmark (Note1) was +1.63%. The breakdown of the excess rate of return on foreign bond investment by factor is as follows: benchmark factors (Note2): +0.21%; fund factors (Note3): +1.44%; other factors (Note4): -0.02%.

(Unit: %)

Time-weighted rate of return ①	Benchmark ②	Excess rate of return ①−②	Benchmark factors	Fund factors	Other factors
7.06	5.43	+1.63	+0.21	+1.44	–0.02

(Note 1) The benchmark of foreign bonds is FTSE World Government Bond Index [not incl. JPY, no hedge/JPY basis].

(Note 2) Benchmark factors refer to those resulting from differences in rates of return between manager benchmarks and the benchmark (FTSE World Government Bond Index [not incl. JPY, no hedge/JPY basis]). They are calculated taking into consideration the balance of the average market capitalization of each fund.

(Note 3) Fund factors refer to those resulting from differences in rates of return between individual funds and manager benchmarks. They are calculated taking into consideration the market total average balance of each fund.

(Note 4) Other factors refer to calculation errors and such.

[3] Domestic equities

① Excess rate of return

Concerning domestic equity investment, the excess rate of return over the benchmark (Note1) was -0.59%. The breakdown of the excess rate of return on domestic equity investment by factor is as follows: benchmark factors (Note2): -0.79%; fund factors (Note3): +0.21%; other factors (Note4): -0.01%.

(Unit: %)

Time-weighted rate of return ①	Benchmark ②	Excess rate of return ①−②	Benchmark factors	Fund factors	Other factors
41.55	42.13	−0.59	−0.79	+0.21	−0.01

(Note 1) The benchmark of domestic equities is TOPIX [incl. dividends].

(Note 2) Benchmark factors refer to those resulting from differences in rates of return between manager benchmarks and the benchmark (TOPIX [incl. dividends]). They are calculated taking into consideration the market total average balance of each fund.

(Note 3) Fund factors refer to those resulting from differences in rates of return between individual funds and manager benchmarks. They are calculated taking into consideration the market total average balance of each fund.

(Note 4) Other factors refer to calculation errors and such.

[4] Foreign equities

① Excess rate of return

Concerning foreign equity investment, the excess rate of return over the benchmark (Note1) was -0.79%. The breakdown of the excess rate of return on foreign equity investment by factor is as follows: benchmark factors (Note2): -0.26%; fund factors (Note3): -0.53%; other factors (Note4): +0.00%.

(Unit: %)

Time-weighted rate of return ①	Benchmark ②	Excess rate of return ①−②	Benchmark factors	Fund factors	Other factors
59.42	60.21	−0.79	−0.26	−0.53	+0.00

(Note 1) The benchmark of foreign equities is MSCI ACWI [not incl. JPY, JPY basis, incl. dividends, after taking into account GPIF dividend tax factors].

(Note 2) Benchmark factors refer to those resulting from differences in rates of return between manager benchmarks and the benchmark (MSCI ACWI [not incl. JPY, JPY basis, incl. dividends, after taking into account GPIF dividend tax factors]). They are calculated taking into consideration the market total average balance of each fund.

(Note 3) Fund factors refer to those resulting from differences in rates of return between individual funds and manager benchmarks. They are calculated taking into consideration the market total average balance of each fund.

(Note 4) Other factors refer to calculation errors and such.

5 | Investment in Alternative Assets

[1] Overview

Alternative assets are the generic term for investment assets that are “alternative” to traditional assets including listed equities and bonds. Among a variety of alternative assets, GPIF invests in infrastructure, private equity, and real estate. The fourth Medium-term Plan (from fiscal 2020 to fiscal 2024) stipulates alternative assets to be categorized into domestic bonds, foreign bonds, domestic equities, and foreign equities in accordance with risk-return profiles, and invested up to a cap of 5% of the total portfolio.

① Investment purpose

Alternative assets have different risk-return profiles from traditional assets such as listed equities and bonds. Considering these profiles, the inclusion of alternative assets in GPIF’s portfolio is expected to improve the investment efficiency and contribute to the stability of overall pension finance. Also, alternative assets have lower liquidity while they produce higher investment return compared to traditional assets. As a long-term investor managing significant liquid assets, GPIF aims to earn excess return while improving the investment efficiency of GPIF’s portfolio by strategically holding alternative assets with lower liquidity in the portfolio.

Pension funds in other countries have been promoting diversification by investing in alternative assets for the aforementioned characteristics and effects. Prior to starting investment in alternative assets, GPIF carried out careful examinations in commissioned research projects. In particular, the research conducted in fiscal 2012 reported that the inclusion of alternative investments is expected to realize investment premium for illiquidity and improve the efficiency of investment through diversification. By taking into account the results of such research projects, GPIF has increased investments in alternative assets since fiscal 2017.

Alternative Assets

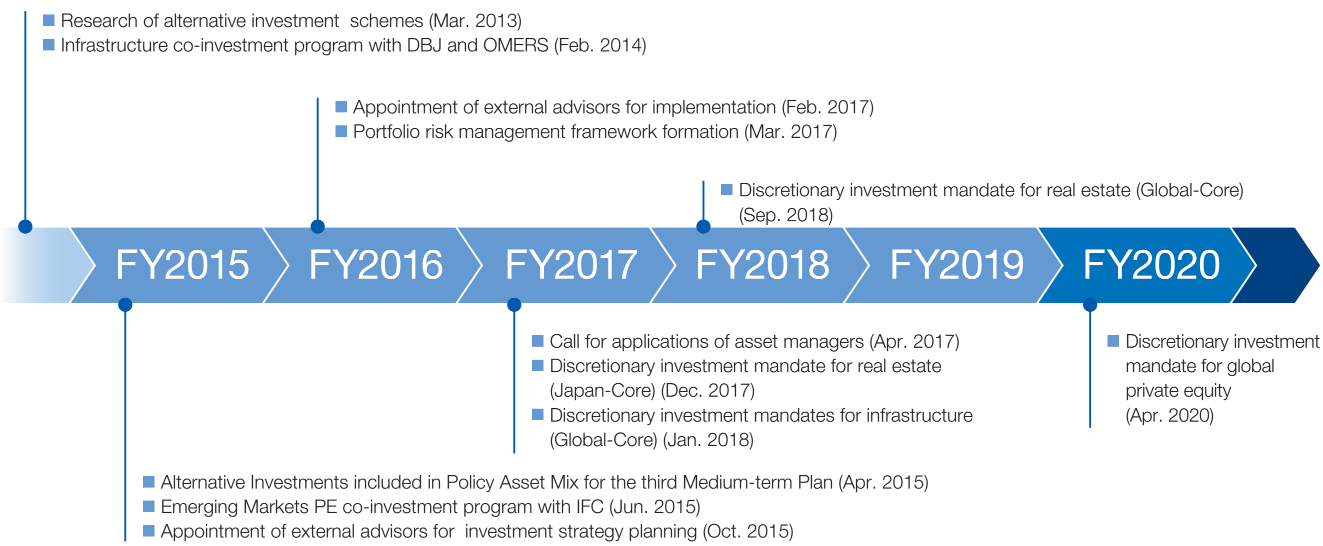
② Investment history

Based on the results of the above-mentioned commissioned research projects, GPIF has been investing in alternative assets through a co-investment platform with institutional investors since 2013 (in infrastructure since fiscal 2013 and in private equity since fiscal 2015).

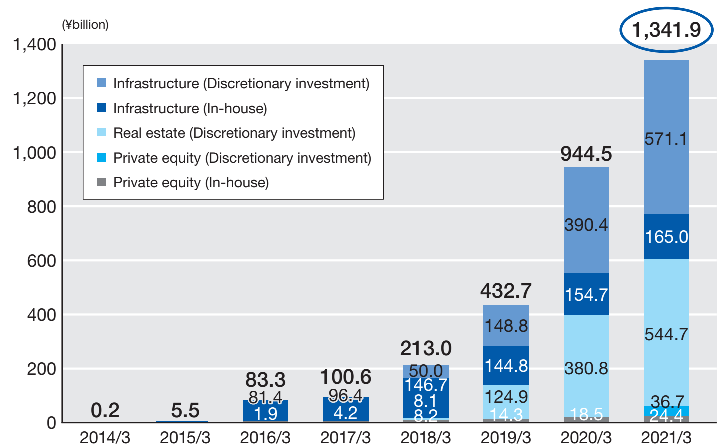
In fiscal 2017, GPIF started calling for applications from asset managers for alternative assets through the Asset Manager Registration System and went through the screening process for external asset managers for executing customized multimanager strategies* for GPIF.

GPIF has worked continuously to develop the organization for investing in alternative assets by various measures, such as by establishing a specialized unit (Private Market Investment Department), employing experts, examining investment strategy by external advisors (since fiscal 2015), and developing a risk management framework. Considering the individuality of the investment performance and the low liquidity of alternative assets, risk management at the time of investment evaluation and after execution of investment is an important issue. GPIF will strive continually to enhance the framework for investing in alternative assets, including risk management.

※A multi-manager strategy is an investment approach to diversify the investment into multiple funds. A multi-manager strategy also called as a fund-of-funds, an investment vehicle where a fund invests in a portfolio composed of multiple other funds. GPIF selects external asset managers that execute multi-manager strategies for each investment style of alternative assets of GPIF, and gives discretion to the appointed external asset managers to make individual investment decisions.



Total value of alternative assets up until fiscal 2020



The amount of alternative assets under management of GPIF has been steadily accumulated in recent years, while it has been developing investment capabilities. The total value of GPIF's investment in alternative assets as of the end of March 2021 is ¥1,341.9 billion (0.70% of the total value of the pension reserve fund).

The current fourth Medium-term Plan stipulates alternative assets to be invested up to a cap of 5% of the total portfolio. We will continue improving investment efficiency by steadily adding quality alternative assets, while paying due attention to the market circumstances and investment risks.

③ Activities in fiscal 2020

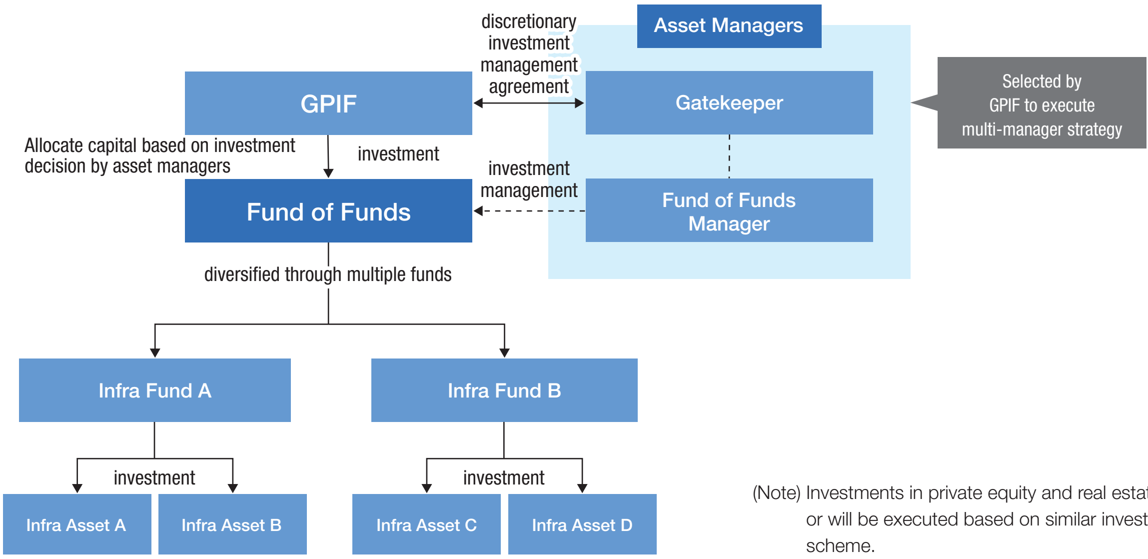
A. Call for application, selection of Gatekeepers and Fund of Funds managers

Following on from last year, GPIF called for applications from external asset managers in alternative assets by utilizing the Asset Manager Registration System and went through the screening process to select external asset managers that execute customized multi-manager strategies for GPIF.

With an addition of external asset managers for private equity investments, multi-manager strategies are set to be executed for all of the three alternative asset types.

To select asset managers, a GPIF team conducts several rounds of screening, including application documents check, interviews, and on-site visits with external advisors to carefully examine the capabilities, investment strategies, investment track record, and risk management system, etc. of the prospective managers.

(Example) Infrastructure investment scheme



(Note) Investments in private equity and real estate are or will be executed based on similar investment scheme.

Investments are conducted based on a discretionary investment management agreement. Appointed asset managers set up a fund-of-funds solely for GPIF and invest in funds in accordance with the pre-agreed guidelines that define investment objectives, strategies, and certain restrictions, etc.

Each fund will then invest in individual alternative assets. However, it takes a certain amount of time from identifying investment opportunities to the completion of various investigations (due diligence). It is also important to diversify the timing of investment over multiple years for optimal portfolio time diversification. Therefore, it takes a long time to invest in alternative assets.

GPIF receives a periodic report on the status of portfolio assets and monitors the performance and risks. In addition, GPIF conducts annual comprehensive evaluation of external asset managers, and properly manages investment by confirming that their fund management team composition has not changed and by monitoring the progress of their investment plans.

B. Development in preparation for investment in limited partnerships (LPs)

By revising Ordinance for Enforcement of the GPIF Act in September 2017, interests in limited partnerships (LPs) as limited partners were added to the securities in which GPIF may invest directly. The expected benefits of directly investing in LPs include faster access to information on investees, improvement of net returns and enhancing risk management through simplified investment scheme with fewer intermediaries involved between investors and investees. Therefore, such investments in LPs have been generally adopted by institutional investors including pension funds in other countries to invest in alternative assets.

Following the revision of the Ordinance, GPIF started preparation for such investments including developing a risk management framework, etc. from fiscal 2017. In fiscal 2020, GPIF conducted such preparation including an in-depth assessment of alternative investment performance. It also examines the means and strategies required for GPIF to fulfill its stewardship responsibilities in future investment in LPs.

C. Investment status of alternative assets

Investment status as of the end of March 2021

	Total of alternative assets	Infrastructure	Real estate	Private equity
Capital commitment (¥billion) (Note1)	2,981.0	1,138.9	1,134.0	708.1
Total value (¥billion)	1,341.9	736.2	544.7	61.0
Internal rate of return (IRR) up until fiscal 2020 (in JPY terms)	4.89%	3.86%	7.23%	6.25%
Domestic assets (in JPY terms)	5.29%	3.57%	5.70%	–
Foreign assets (in USD terms) (Note2)	4.32%	3.69%	6.74%	3.83%
Foreign assets (in JPY terms) (Note3)	4.83%	3.87%	8.23%	6.25%

(Note 1) The capital commitment refers to the sum of the amounts agreed on as the maximum amount of capital to be contributed by GPIF to individual external asset managers at the start of investment.

(Note 2) The rates are based on the sum of the assets invested in foreign assets (currency: USD).

(Note 3) The amount of foreign currency-denominated assets is calculated by converting the amount into JPY.

(Column) Analysis on changes in market value in fiscal 2020

During the year beginning from the end of March 2020, the market value of GPIF's alternative assets increased by ¥397.5 billion. The increase can be mainly divided into five factors:

① Capital contribution to new investments (+¥350.0 billion):

A fund makes a capital call (request making capital contribution) to investors for executing a new investment. An investor makes a capital contribution to the fund, which increases the market value of alternative assets of the investor. In fiscal 2020, investments have been executed in all three asset categories of alternative assets, by starting discretionary investment in private equity in addition to infrastructure and real estate.

② Distributions received (-¥37.7 billion):

When a fund receives the returns from investees and paid out the income and capital realized to an investor, this decreases the market value of alternative assets of the investor. In fiscal 2020, GPIF received distributions, mainly dividends from its investees in infrastructure and real estate.

③ Fees and expenses (-¥3.8 billion):

The amount includes fees and expenses for acquisition and disposition incurred by fund-of-funds and investment trusts (equivalent to 0.35% of the average of outstanding amount of alternative assets in fiscal 2020).

(Note) The amount paid by investee funds-of-funds and investment trusts is added up by GPIF. The amount of investment trusts is a rough estimate.

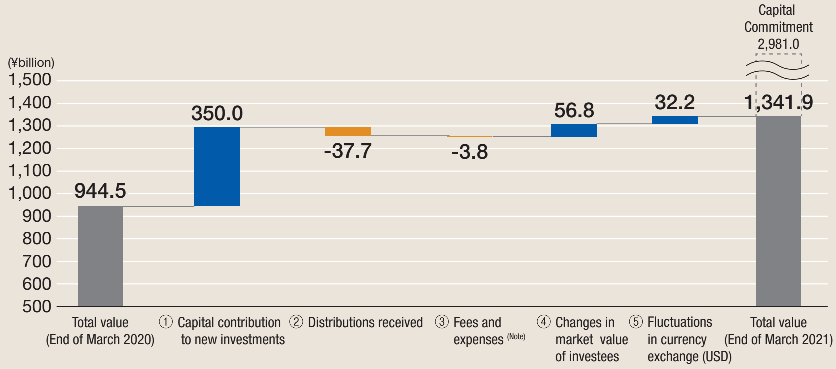
④ Changes in market value of investees (+¥56.8 billion):

After a fund invested in alternative assets, the market value increases/decreases in accordance with unrealized gains or losses based on the valuation of the investee and realized gains or losses from the disposition of investees. In fiscal 2020, the market value of the overall alternative assets increased, although some investees' market value decreased in sectors heavily affected by the COVID-19 pandemic.

⑤ Fluctuations in currency exchange (USD) (+¥32.2 billion):

In the event of foreign investment (currency: USD), the yen-equivalent market value may appreciate/depreciate due to a currency fluctuation between USD and JPY. It increased due to the depreciation of JPY in the second half of fiscal 2020.

Analysis on changes in market value of alternative investments (from April 2020 to March 2021)



(Column) Method of measuring the rate of investment return on alternative assets

While the investment performance of listed assets such as equities and bonds instruments is often measured in the form of time-weighted rate of return, the investment performance of alternative assets is generally measured in the form of internal rate of return (IRR) since inception. The internal rate of return (IRR), also known as money-weighted rate of return, is a rate of investment return calculated with consideration to the timing and size of cash flow (including capital contribution and distributions) between investors and funds.

While traditional asset investment allows investors to specify the allocation of capital and the timing of withdrawals, alternative asset investment allows asset managers of the funds to specify the timing of acquisition and disposition of assets, request investors to contribute capital accordingly, and distribute the realized capital and income. Therefore, internal rate of return (IRR) is used based on the understanding that decision-making on the timing and the size of cash flows is part of the asset managers' investment capabilities. In GPIF's Review of Operations, investment results of GPIF's overall assets including alternative assets are presented as time-weighted rate of return, while investment results of alternative assets are also presented as internal rate of return (IRR).

[2] Infrastructure

① Overview

Infrastructure investment is defined as investment in infrastructure such as power generation facilities, electricity transmission systems, renewable energy, railways, or telecommunications. Infrastructure investment is expected to generate stable revenue over the long term, for example, from usage fee. Therefore, investing in infrastructure funds has become an important strategy for pension funds in other countries.

Currently, GPIF mainly focuses on core infrastructure, which is essential for social and economic activities under a well-established regulatory environment by the authorities and that can be expected to generate stable usage fees, etc. based on long-term contracts. Investments in infrastructure assets will be generally held for a long time, that is, for more than 10 years. The investments in infrastructure assets will be recovered in the form of dividends funded by stable revenue and eventually through the sale of infrastructure assets to other investors and other means.

② GPIF's investment

A. Investment approach

GPIF aims to achieve stable returns mainly from investment income in a timely and efficient manner, in consideration of various market conditions with the focus on diversified core infrastructure assets.

B. Investment objectives and schemes

GPIF will mainly invest in equity stakes of operational infrastructure assets and infrastructure debt backed by the income stream from operating infrastructure assets.

(i) In-house investment in a unit trust

Based on the co-investment agreement with the Ontario Municipal Employees Retirement System (OMERS), a Canadian public pension fund with an extensive track record in infrastructure investment, and the Development Bank of Japan Inc. (DBJ), GPIF has invested in a unit trust that targets operational core infrastructure assets in developed countries since February 2014.

(ii) Discretionary investment

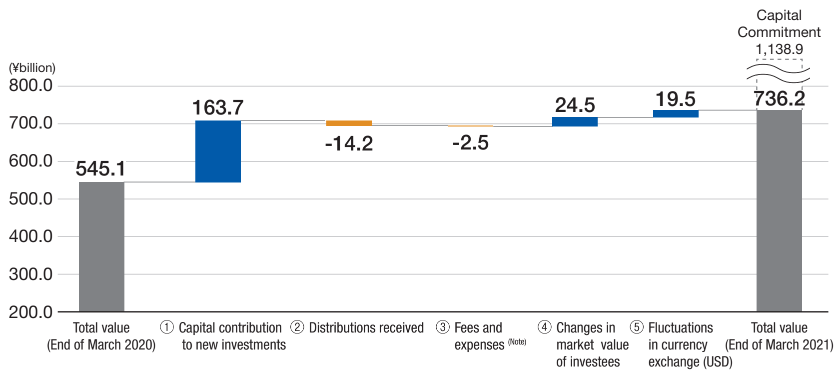
In fiscal 2020, GPIF continued to commit to the following funds, and the funds constructed diversified investment portfolios focused on core infrastructure assets.

Asset manager name	Investment style	Start of investment
Gatekeeper: Sumitomo Mitsui DS Asset Management Company, Limited Fund of Funds Manager: StepStone Infrastructure & Real Assets	Global-Core	January 2018
Gatekeeper: Nomura Asset Management Co., Ltd. Fund of Funds Manager: Pantheon	Global-Core	February 2018
Gatekeeper and Fund of Funds Manager: DBJ Asset Management Co., Ltd.	Global infrastructure mandate focusing mainly on opportunities in Japan	March 2018

C. Investment status

The total value of GPIF's infrastructure investment as of the end of March 2021 was ¥736.2 billion, which increased by ¥191.0 billion from the end of March 2020. Although the market value of a part of the transportation sector, such as airports, was negatively affected by the COVID-19 pandemic, the market value of the overall infrastructure assets increased thanks to a rise in the market value of the other sectors and currency fluctuations.

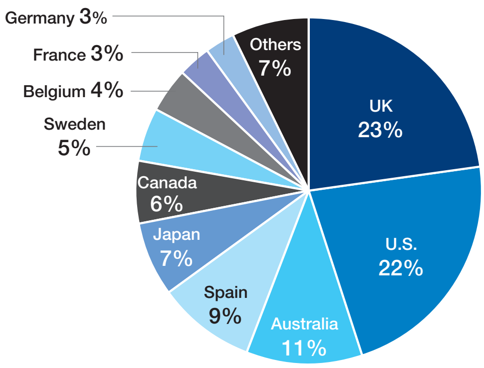
Analysis on changes in market value of infrastructure (From April 2020 to March 2021)



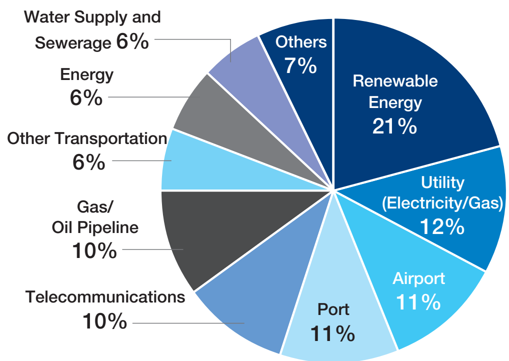
(Note) The amount paid by investee funds-of-funds and investment trusts is added up by GPIF. The amount of investment trusts is a rough estimate.

The breakdown of portfolio by country shows the UK with the largest share at 23%, followed by the U.S. at 22% and Australia at 11%. As for the breakdown of the portfolio by infrastructure sector, the largest share went to renewable energy at 21%, followed by utility (electricity/gas) at 12% and airport at 11%. GPIF expects stable revenue to be generated mainly from its diversified core infrastructure portfolio. Internal rate of return (IRR) from the foreign infrastructure investment stood at 3.69% in USD terms, and IRR from the domestic infrastructure investment stood at 3.57% in JPY terms since its inception in February 2014. The total dividend (excluding repayment of principal) received from a unit trust and fund of funds during the previous fiscal year was ¥10.1 billion.

Value by country



Value by sector



【Infrastructure investment case 1】

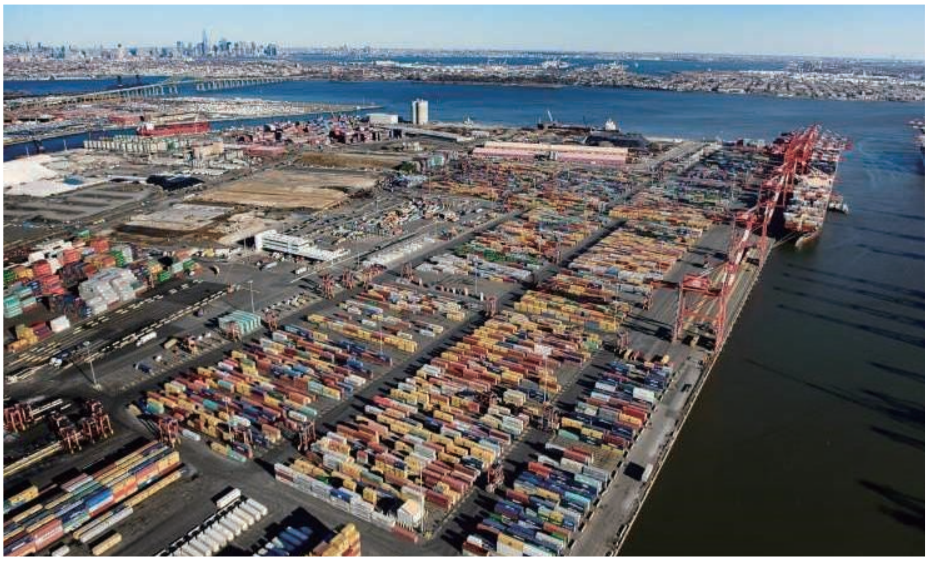
Renewable energy facility —U.S.—

GPIF has participated in a co-investment for renewable energy assets in the U.S. with a utility company in the U.S. and an institutional investor in North America. The facility is equipped with a solar power generation facility with a capacity of up to 1.2 GW and a wind power generation facility with a capacity of up to 140 MW. The generated power is sold based on a feed-in tariff scheme, and the assets earn stable revenue over the long term.

【Infrastructure investment case 2】

Port operator company —U.S.—

GPIF has invested in the largest port operator in North America through an infrastructure fund. The company operates more than 30 ports and 70 terminals, facilitating the transportation and operation of container cargo, bulk cargo, automobile shipment and cruise ships. The ports operated by the company are located at the eastern and western end of the continent and constitute a portfolio well-diversified geographically.



【Infrastructure investment case 3】

On-shore wind farm facility —Japan—

GPIF has invested in a wind farm in operation through a fund that invests in renewable energy assets in Japan. The electricity generated is sold under a Japanese feed-in tariff scheme, promising stable revenue over the long term. Part of the power plant with a panoramic view of the surrounding landscape has become a popular tourist attraction among local residents.

[3] Private equity

① Overview

In private equity, GPIF invests primarily in funds with focus on equities of private companies (private equity, or "PE" funds). PE funds generally seek investment opportunities in companies at various development stages while diversifying investment timing. Types of PE funds include Buyout funds (seeking to create enterprise value of investee companies by improving post-investment management practices and corporate governance), Growth equity funds (providing capital for growth and expansion of companies), Venture capital funds (investing in start-up and early stage companies, etc. for growth potential), Turnaround funds (seeking opportunities to turn around companies facing financial challenges through balance sheet restructuring, etc.), and Private debt funds (investing in debt instruments of private companies). GPIF makes diversified investments in PE funds of these types.

② GPIF's investments

A. Investment approach

GPIF makes diversified investment in PE funds that primarily invest in equities of private companies at various stages of corporate development, such as start-up, growth, expansion, and turnaround, with the aim of acquiring relatively higher investment returns driven mainly by enterprise value creation, and contributing to the improvement of GPIF's overall portfolio returns.

B. Investment objectives and schemes

GPIF will invest in PE funds that invest in equities (private equity) and debts (private debts) of private companies.

(i) In–house investment in a unit trust

Based on the co-investment agreement with DBJ and the International Finance Corporation (IFC), a member of the World Bank Group, GPIF has held a unit trust that invests in PE of consumer-related companies, etc. in emerging markets since June 2015. The objective is to gain investment returns from the growth of the global economy in a well-balanced manner by adjusting the bias toward particular sectors in emerging markets public equity and investing in the strong potential for growth from favorable demographic shifts and economic developments down the road, such as consumer-related companies.

(ii) Discretionary investment

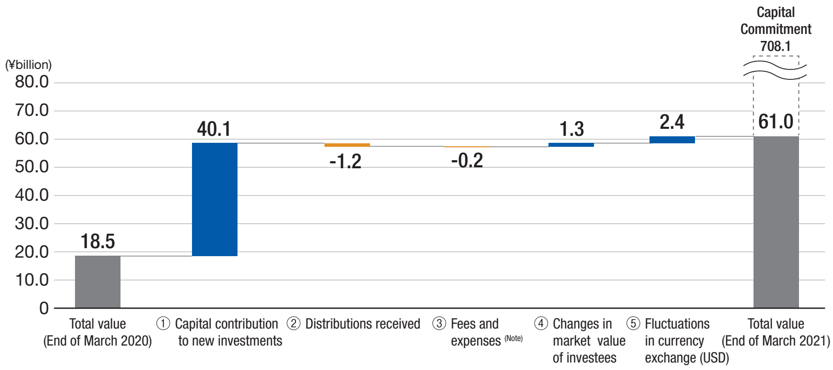
In fiscal 2020, GPIF selected an additional external asset manager focusing on Global-Diversified Strategy. The strategy, which seeks diversification mainly in PE funds in developed countries, is executed through the following two funds.

Asset manager name	Investment style	Start of investment
Gatekeeper: Neuberger Berman East Asia Limited Fund of Funds Manager: NB Alternatives Advisers LLC	Global-Diversified Strategy	April 2020
Gatekeeper: Mitsubishi UFJ Trust and Banking Corporation Fund of Funds Manager: Hamilton Lane Advisors, L.L.C.	Global-Diversified Strategy	January 2021

C. Investment status

The total value of GPIF's private equity investment as of the end of March 2021 was ¥61.0 billion. Those increased by ¥42.5 billion from the end of March 2020. The assets under management increased, attributable mainly to investments made by newly selected discretionary asset managers. In fiscal 2020, despite fees and expenses incurred due mainly to organize a new discretionary fund-of-funds, market value appreciation of investment trusts and currency exchange fluctuations largely contributed to an increase in the market value of the overall PE assets.

Analysis on changes in market value of private equity (From April 2020 to March 2021)



(Note) The amount paid by investee funds-of-funds and investment trusts is added up by GPIF. The amount of investment trusts is a rough estimate.

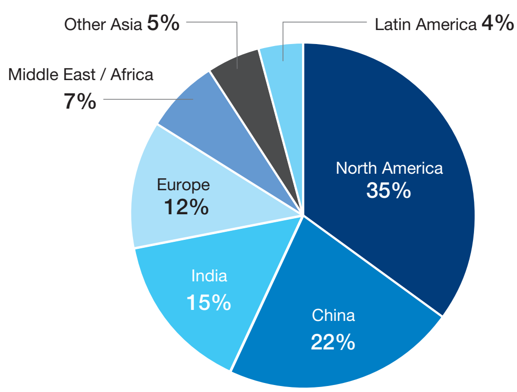
(Column) J-Curve effect of private equity investment

In general, private equity (PE) fund investments involve payment of fees and deliver negative returns in the early years, and later record an unrealized profit gradually as the portfolio companies increase in value. At the exit, the unrealized gain will be realized and PE fund earns a high profit. Since the progression of cumulative investment earnings of a PE fund appears as a “J” shape on a time-series graph, the phenomenon is called the “J-Curve effect.”

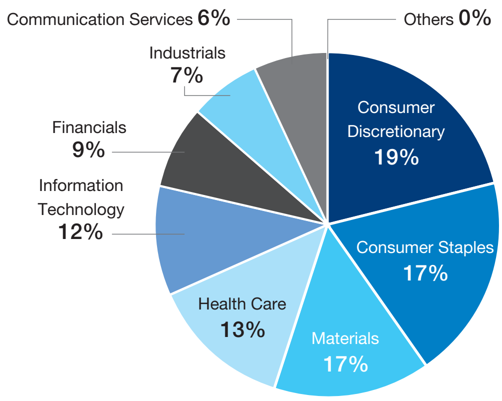
One of the fees and costs incurred by PE fund investment is organizational costs which affect performance in the early years. Since PE funds invest in companies in various industries, jurisdictions, and taxation systems, fees paid to legal, accounting, and taxation professionals tend to be costly. In addition, the level of management fees paid to asset managers is also higher in general than those paid to traditional asset managers. As a long-term investment, it generally takes several years from when the fund starts management, identifies investee companies, makes capital contributions, and delivers investment gains as the portfolio companies eventually mature and are exited. In the meantime, GPIF endeavors to ascertain the fees and expenses charged to the fund-of-funds and the investment trust, and monitors the performance of the investee fund after deducting the fees and expenses of funds in which it invests.

The breakdown of portfolio by country shows North America with the largest share at 35%, followed by emerging countries mainly in Asia. Investments in emerging countries have been relatively large because an initial investment was made through in-house investment trusts. However, GPIF’s PE investment in developed countries will expand as investments through discretionary investment agreements with external managers for the multi-manager strategy (fund-of-funds) proceed. By sector, investments are diversified into a wide range of industries, including the consumer-related sectors such as consumer discretionary and consumer staples, and materials. The internal rate of return (IRR) from the entire PE investment stood at 3.83% in USD terms (as of the end of March 2021) since its inception of in-house investment in investment trusts in June 2015.

Value by country/region



Value by sector



[4] Real estate

① Overview

GPIF's real estate investment focuses on real estate funds that hold properties such as logistics, offices, residential properties and retails.

GPIF implements "core-style" investment strategy, which is expected to generate stable rental income from tenants, and this strategy has been adopted as the major investment strategy by pension funds in other countries as well. In the meantime, it is important to diversify the timing of investment and the type of investment products, considering the fact that the real estate market has cycles (prices fluctuate according to supply and demand and the financial market, etc.) and each investment amount/units tends to be relatively large. At the same time, it is necessary to engage asset managers and/or property managers, etc. to sustain asset value over the long term. GPIF promotes investments in a careful and strategic manner, taking into account the above-mentioned profiles of real estate investment.

② GPIF's investments

A. Investment approach

GPIF targets stable returns in a timely and efficient manner, in consideration of various market conditions with the focus on diversified core real estate funds.

B. Investment objectives and scheme

GPIF will mainly invest in private real estate equities and debt backed by the income stream from invested real estate assets.

(i) Discretionary investment

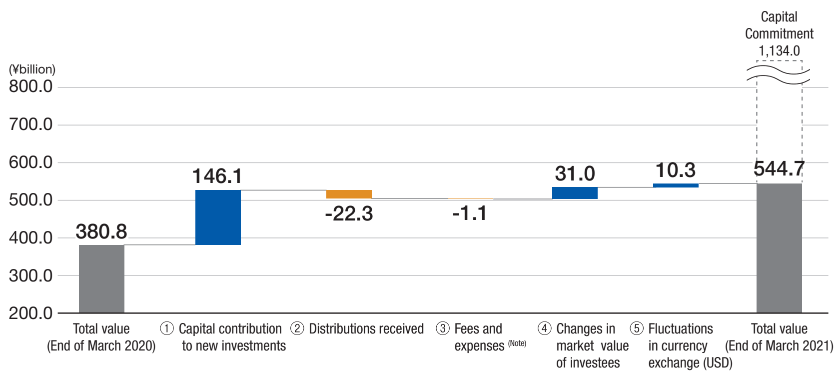
Throuout the fiscal year of 2020, GPIF has been building a global and diversified investment portfolio focused on its core-style investment strategy, with an investment manager for domestic and foreign markets appointed in 2017 and 2018 subsequently. In February 2021, a new external asset manager for global JV/Club investments was hired for further diversification of our portfolio.

Asset manager name	Investment style	Start of investment
Gatekeeper and Fund of Funds Manager: Mitsubishi UFJ Trust and Banking Corporation	Japan-Core	December 2017
Gatekeeper: Asset Management One Co., Ltd. Fund of Funds Manager: CBRE Global Investment Partners Limited	Global-Core Commingled Fund Investments	September 2018
Gatekeeper: Asset Management One Co., Ltd. Fund of Funds Manager: CBRE Global Investment Partners Limited	Global-Core JV/Club Type Investments	February 2021

C. Investment status

The total value of real estate investment as of the end of March 2021 was ¥544.7 billion. Those increased by 163.9 billion from the end of March 2020. The market value of certain sectors such as retail properties was negatively affected by the COVID-19 pandemic, but the market value of overall real estate assets increased.

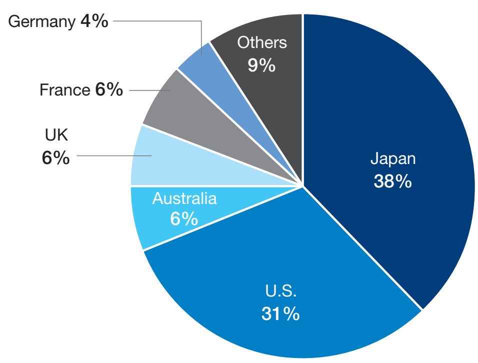
Analysis on changes in market value of real estate (From April 2020 to March 2021)



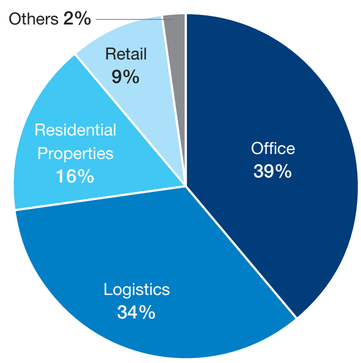
(Note) The amount paid by investee funds-of-funds and investment trusts is added up by GPIF. The amount of investment trusts is a rough estimate.

The breakdown of portfolio by country shows Japan, in which GPIF started investment in 2017 ahead of other countries, with the largest share at 38%. This was followed by foreign real estate investment including the U.S. (31%), Australia (6%), and UK (6%), which GPIF started managing through newly selected foreign asset managers since 2018. As for the breakdown by property sector, office sector comprised the largest share at 39% of the total portfolio, followed by logistics at 34%, residential properties at 16%, and retail at 9%. The investment is diversified and focused on core-style real estate funds in advanced countries. Internal Rate of Return (IRR) of domestic real estate investment since December 2017 inception is 5.70% (yen-denominated), while that of foreign real estate investment since September 2018 inception is 6.74% (USD-denominated). Dividend received from the Fund of Funds in fiscal 2020 (excluding repayment of principal) was ¥13.3 billion in total. We will continue investing in real estate funds, while paying attention to the market circumstances, advised by external consultants.

Value by country



Value by property sector



【Real estate investment case 1】

Office —U.S.—

GPIF has invested in a real estate fund that owns offices and R&D facilities in major cities in the U.S. and Europe where life science research institutes and companies are concentrated.

For the growing life science industry, locations adjacent to well-known university laboratories attract exceptionally strong demand from major pharmaceutical companies and venture entities. Despite the spread of COVID-19, GPIF enjoys stable rental income through a long-term leasing contract with tenants.

(Note) Property owned by the fund in California, the U.S.

【Real estate investment case 2】

Logistics —Australia—

GPIF has invested in a fund that mainly owns logistics facilities in the suburbs of major cities in Australia.

Even in Australia where e-commerce penetration had been lagged, net sales of the e-commerce business in the previous years increased significantly. With retailers of daily necessities such as groceries as the main tenant group, the property's tenants are well-diversified across transporters and manufacturers.

(Note) Property owned by the fund in Victoria, Australia.

【Real estate investment case 3】

Logistics —Japan—

GPIF has invested in a fund that owns large-scale logistics facilities located in the Tokyo metropolitan area, Kansai area, and Kyushu area that are tied to a long-term leasing contract with a major transportation company.

The properties, equipped with a refrigerator system and used as a hub for a distribution network of pharmaceutical products, are hard to access, large-scale new logistics facilities adjacent, i.e., "Last Mile" to the center of huge consumer areas.

【Real estate investment case 4】

Private REITs

Since the start of domestic real estate investment in January 2018, GPIF has invested in nine private REITs with diversified portfolios, and their total market value as of the end of March 2021 was ¥50.7 billion.

Portfolio holdings of private REIT as of the end of March 2021

Private REIT name	Asset manager name	Market value (¥billion)
SG ASSETMAX-REIT	SG ASSETMAX CO., LTD.	3.3
DAIWA RESIDENTIAL PRIVATE INVESTMENT CORPORATION	DAIWA REAL ESTATE ASSET MANAGEMENT CO. LTD.	0.9
DBJ PRIVATE REIT INC.	DBJ ASSET MANAGEMENT CO., LTD.	5.1
DREAM PRIVATE REIT INC.	DIAMOND REALTY MANAGEMENT INC.	8.6
NIPPON OPEN ENDED REAL ESTATE INVESTMENT CORPORATION	MITSUBISHI JISHO INVESTMENT ADVISORS, INC.	8.7
NIPPON TOCHI-TATEMONO PRIVATE REIT INC.	NITTOCHI ASSET MANAGEMENT CO., Ltd.	2.0
NOMURA REAL ESTATE PRIVATE REIT, INC.	NOMURA REAL ESTATE ASSET MANAGEMENT CO., LTD.	9.2
BROADIA PRIVATE REIT, INC.	TLC REIT MANAGEMENT INC.	5.7
MITSUI FUDOSAN PRIVATE REIT INC.	MITSUI FUDOSAN INVESTMENT ADVISORS, INC.	7.1
Total		50.7

(Note 1) Funds are listed in the order of the Japanese syllabary.

(Note 2) The names of funds are as of the end of March 2021.

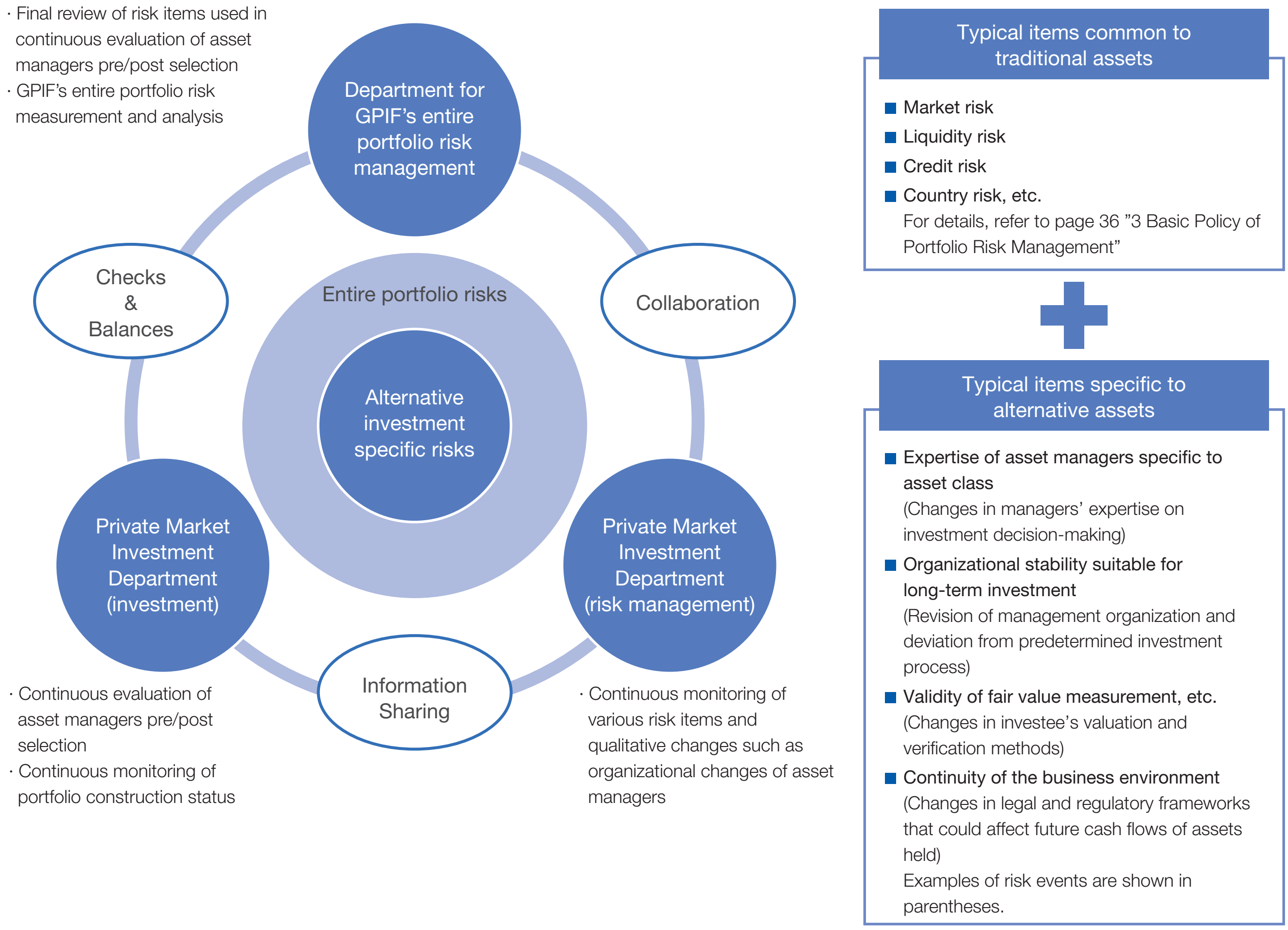
(Note 3) The figures above are rounded off, so the sum of each item does not necessarily match the total number.

[5] Portfolio risk management of alternative assets

In fiscal 2020, GPIF further introduced intro risk management measures for alternative assets, in addition to the ongoing development and enhancement of the risk management system. GPIF uses quantitative indexes to identify investees whose performance could become worse in the future, and assesses and analyzes their valuation and background factors including the external environment that may affect market prices in more detail, then reports the outcome to the Portfolio Risk Management Committee, etc. for verification. Going through such internal steps, GPIF engages an external asset manager to discuss appropriate measures for improvement.

GPIF has put in place a scheme like the above to address deteriorating performance at an early stage.

<Portfolio risk management system for alternative investments>



(Note) Above items are especially critical for alternative investments with lower liquidity.

(Note) With respect to the basic policy of GPIF's entire portfolio risk managements including alternative assets, refer to page 36-40.

(Column) Impacts of COVID-19 on alternative investment

The global pandemic of COVID-19 since the beginning of 2020 has affected alternative investments in different ways. The following refers to how the three asset classes in which GPIF invests have been affected. Looking at the trends by sector, it has been commonly seen that restrictions on people's movement have heavily affected the traffic, tourism, and commercial industries, while a positive contribution has been observed in the sophistication and growth of the logistics industries driven by e-commerce expansion, as well as in the growth of telecommunication-related businesses on the back of increasing demand for data communication. Yet, the overall impact has been limited by the effect of diversifying alternative investment portfolio in terms of geographic regions and sectors in each asset class. However, the pace of recovery of market prices is still moderate in alternative assets, compared with the developments in the financial markets, including a sharp rise in stock markets on the back of the fiscal measures taken by various countries to mitigate a negative impact of the pandemic on business and employment and of the monetary policies taken by central banks.

As is described in "④ Changes in market value of investees" of "(Column) Analysis on changes in market value in fiscal 2020" on page 46, the overall market value of investees in the alternative assets increased during the year from April 2020 to March 2021. GPIF will strive continually to diversify the portfolio and devote its attention to identifying risks in the portfolio, while assessing their impact carefully.

Infrastructure

Due to the restrictions on people's movement, the number of passengers has sharply decreased in some transportation sectors including airports. However, logistics demand is showing a sign of recovery, following its temporary drops at the beginning of the pandemic. Among the companies in the transportation sector, earnings of port facilities that are essential and irreplaceable for large-scale mass logistics are improving. On the other hand, the spread of remote work and restrictions on going out resulted in an increase in telecommunication demand, leading to a rise in the value of data centers and other companies in the telecommunication sector. Demand is also robust in sectors essential to daily life, such as electricity, gas and water distribution business. Earnings in the renewable energy sector which is expected to enjoy stable revenue based on long-term contracts continued has to be steady, without being affected by COVID-19.

GPIF's portfolio is diversified across a wide range of sectors, and the overall value of the portfolio including dividends is maintained at a level exceeding the amount invested.

Private equity

The retail trade sector and tourism sector were heavily affected by the lockdowns imposed in urban areas. In contrast, plenty of favorable opportunities were generated by companies in the technology sector, such as software companies and online service providers, due to the advancement of digitalization. As a result, investment strategies such as venture capital and growth equity that are heavily exposed to the technology sector were relatively less affected by the COVID-19 pandemic and enjoyed favorable investment performance toward the latter half of fiscal 2020.

The portfolio of GPIF's PE investment, especially in emerging countries in which GPIF started investing ahead of other countries, also saw a temporary decline in the investment performance in the beginning of fiscal 2020, but later turned on a recovery trend smoothly.

Real estate

Heavily affected were retail properties including those targeting inbound demand. Tenants who were temporarily forced to shut down their business or shorten working hours due to lockdowns, etc. called for a reduction or postponement of their rent payments. But in some areas where lockdowns were lifted, business has been gradually turning to a recovery trend with sales picking up. On the other hand, major progress was made by e-commerce, represented by online shopping, with stronger demand for a supportive infrastructure to be provided by new logistics facilities.

GPIF has built a portfolio diversified over regions and the real estate sector. Although the portfolio's return temporarily declined due to the slowdown of the rate of operation in the first half of fiscal 2020, the market value of the overall portfolio including dividends is maintained at a level above the amount of capital invested.

6 | Stewardship Responsibilities

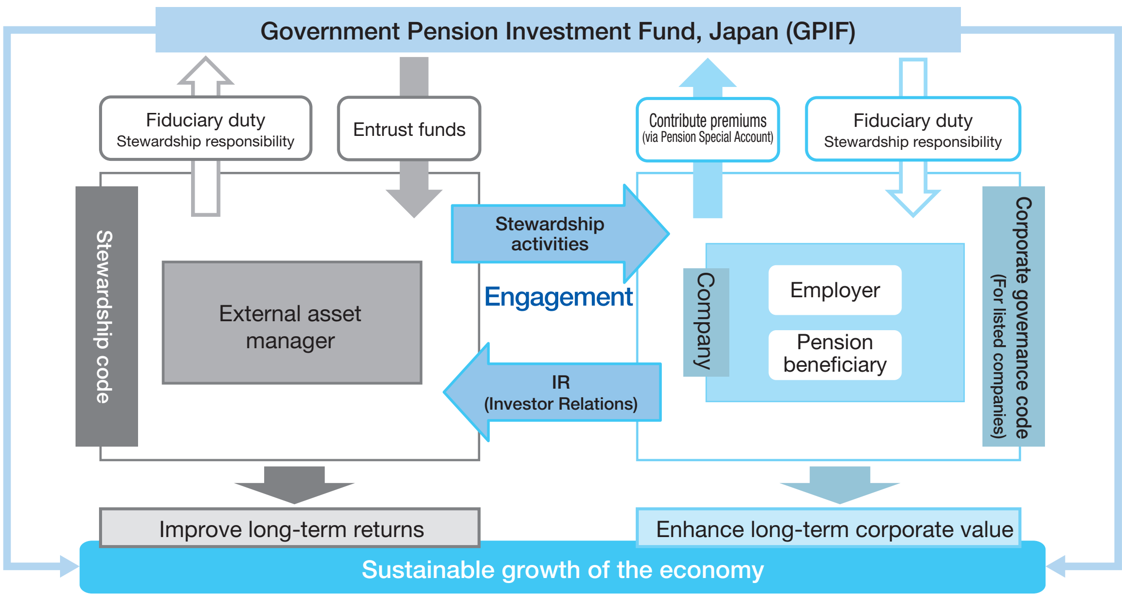
[1] Objectives and significance of stewardship activities

In its Investment Principles and the Code of Conduct, GPIF stipulates that we promote activities to fulfill our stewardship responsibilities(Note) (hereinafter "stewardship activities") with the objectives of appropriately fulfilling our responsibilities to pension beneficiaries, as their fiduciary, and increasing investment returns over the long term. The Investment Principles were partially amended in October 2017 to stipulate that ESG (environmental, social and governance) factors should be taken into consideration in stewardship activities.

As illustrated below, GPIF assumes stewardship responsibilities to pension beneficiaries, while external asset managers entrusted with investment by GPIF assume stewardship responsibilities to GPIF.

"Universal owner" and "cross-generational investor" are the key terms for GPIF to fulfill our stewardship responsibilities appropriately. As a "universal owner" (an investor with a very large fund size and a widely diversified portfolio) and a "cross-generational investor" (responsible for supporting pension finance with an investment horizon of as long as 100 years) to bridge the intergenerational gap of contribution, it is essential for GPIF to minimize negative externalities of corporate and government activities (environmental and social issues, etc.) and to promote steady and sustainable growth of the overall capital market as well as its underlying society. Except for some investment products, GPIF makes daily transactions and investments, and exercises voting rights, via external asset managers. Therefore, GPIF, as a universal owner and a cross-generational investor, contributes to the sustainable growth of the overall capital markets and promotes constructive dialogues (engagement) in consideration of ESG factors that contribute to sustainable growth between external asset managers and investee companies/issuers. Improvement of long-term corporate value would lead to the growth of the overall economy, which will eventually enhance our investment returns. GPIF shall fulfill our stewardship responsibilities by promoting engagement and building a win-win environment in the investment chain.

(Note) Institutional investors have stewardship responsibilities to enhance the medium- to long-term return on investments for their clients and beneficiaries by improving and fostering investee companies' corporate value and sustainable growth. They can do this through constructive engagement, or purposeful dialogue, based on in-depth knowledge of the companies and their business environment and consideration of sustainability (medium- to long-term sustainability including ESG factors) consistent with their investment management strategies.



[2] Stewardship activities fundamentals and progress

GPIF implemented stewardship activities on a full-scale basis following the adoption of Japan's Stewardship Code in May 2014. In March 2015, GPIF formulated the Investment Principles, which lay down its guiding principle that GPIF is committed to increasing investment returns over the long term for pension beneficiaries by conducting various activities to fulfill its stewardship responsibilities in equity investment. In September 2015, GPIF signed the Principles for Responsible Investment (PRI) introduced by the United Nations, as part of GPIF's efforts to enhance ESG implementation. In October 2017, GPIF revised the Investment Principles to expand the scope of stewardship activities to cover all asset classes, as it had been focused on equity investment, and made it clear that ESG factors should be considered in conducting stewardship activities. Following the revision of "the basic policy that is meant to ensure that the reserves are managed and invested safely and efficiently from a long-term perspective" ("Basic Policy of Reserves") and the fourth Medium-term Plan, the Investment Principles were revised again in April 2020. GPIF's stewardship activities are conducted in line with the Investment Principles and the Policy to Fulfill Stewardship Responsibilities, and they require external asset managers to comply with Stewardship Principles and Proxy Voting Principles.

2014–15

May 2014
Accepted Japan's Stewardship Code.
Established "Policy to Fulfill Stewardship Responsibilities."

March 2015
Established "Investment Principles."
▶ Stewardship activities in equity investment.

September 2015
Signed "Principles for Responsible Investment (PRI)."
▶ Enhanced initiatives for ESG.

2016–17

July 2016
Established "Business and Asset Owners' Forum" and "Global Asset Owners' Forum."
▶ Exchange of opinions on stewardship, ESG, etc.

June 2017
Established "Stewardship Principles" and "Proxy Voting Principles."
▶ Requested compliance from asset managers for equity investment.

August 2017
Agreed to the revised Japan's Stewardship Code

October 2017
Partial revision to "Investment Principles."
▶ Stewardship activities including ESG-oriented initiatives were expanded to all assets.

2018–19

November 2019
Partial revision to "Policy to Fulfill Stewardship Responsibilities."
▶ Focused on prevention of activities that impede long-term corporate growth to achieve sustainable growth of the overall markets.
▶ Contribute to sustainable growth of markets.

2020–21

February 2020
Partial revisions to "Stewardship Principles" and "Proxy Voting Principles"
▶ Requested compliance from managers of all domestic and foreign assets.

April 2020
Partial revisions to "Investment Principles"
▶ Following the revision of Basic Policy of Reserves, stipulate sustainability of investee companies and the overall markets and considerations of ESG investment

June 2020
Agreed to re-revised Japan's Stewardship Code
Partial revision to "Policy to Fulfill Stewardship Responsibilities."
▶ Expanded the scope of investment target from equity to all types of assets
▶ Clarified ESG considerations

① Approval for the re-revised Japan's Stewardship Code and Policy to Fulfill Stewardship Responsibilities

On March 24, 2020, Japan's Stewardship Code was re-revised (hereinafter referred to as "re-revised Code"). The revision includes adding consideration to sustainability issues (including medium- to long-term sustainability ESG factors) in accordance with investment strategies to the definitions of stewardship responsibilities, while allowing application to a wider range of assets in addition to domestic listed equities. Following the revision, GPIF expressed its support for the re-revised Code, and partially revised the Policy to Fulfill Stewardship Responsibilities in June 2020. As a major change in the Policy in line with the Investment Principles, etc., GPIF expanded the scope of investment target from equity to all types of assets. In addition, as a response to individual principles of the re-revised Code, GPIF clarified ESG considerations and required external asset managers to disclose the reason for exercising voting rights if important or necessary. GPIF will continue to fulfill responsibilities as an asset owner in line with the Stewardship Code.

② Stewardship Principles and the Proxy Voting Principles

In June 2017, GPIF established the Stewardship Principles and the Proxy Voting Principles. The objective of these two principles is, as a responsibility of a super long-term asset owner, to clarify the requirements and principles that external asset managers should observe in conducting stewardship activities, including the exercising of voting rights. GPIF requires external asset managers to comply with these principles, and if an asset manager should decide not to comply with any of them due to circumstances of their own, the said manager is required to explain to GPIF the rationale behind the non-compliance. In order to fulfill our own stewardship responsibilities, GPIF appropriately monitors the stewardship activities of external asset managers, including the exercise of voting rights, and proactively conducts dialogue (engagement) with them.
The Stewardship Principles are comprised of the following five items.

<Stewardship Principles>

1 Corporate Governance Structure of Asset Managers
2 Management of Conflicts of Interest by Asset Managers
3 Policy for Stewardship Activities, including Engagement
4 ESG Integration into the Investment Process
5 Exercise of Voting Rights

In February 2020, GPIF revised the Stewardship Principles for the first time to expand the scope of stewardship activities to cover all asset classes, as it had been focused on equity investment, and newly call for a collaboration of stewardship division and investment division at asset managers, a constructive dialogue (engagement) with a wide range of stakeholders such as index providers, and active participation various ESG initiatives. Meanwhile, the Proxy Voting Principles made a reminder that an exercise of voting rights shall be made as a part of a constructive dialogue throughout the year.

GPIF is founded on the Investment Principles, the Policy to Fulfill Stewardship Responsibilities, the abovementioned Stewardship Principles, and Proxy Voting Principles. We will continuously examine appropriate stewardship responsibilities as a public pension fund and promote activities to fulfill our stewardship responsibilities.

③ Participation in global initiatives

Starting with the signing up of PRI in September 2015, GPIF has been participating in multiple global initiatives as follows. Through joining the activities of these initiatives, we broaden our knowledge on ESG issues and utilize such expertise for evaluating the stewardship activities of external asset managers.

Climate Action 100+

Joined in October 2018
A five-year initiative led by investors, established in September 2017. Via dialogues with companies that are significantly influential in formulating possible solutions to global environmental issues, it focuses on the improvement of climate change-related governance, initiatives for the reduction of greenhouse gas emissions, the enhancement of information disclosure, etc.
GPIF, as an asset owner, has also joined its Asia Advisory Group, which provides the steering committee with advice on the characteristics of the Asian region.

Signatory of:
PRI Principles for Responsible Investment

Signed in September 2015
Six principles advocated in 2006 by the late Mr. Annan, then Secretary-General of the United Nations. It demands institutional investors to include ESG in the investment process.
GPIF has joined the Asset Owner Advisory Committee, the SDGs Advisory Committee, the Japan Network Advisory Committee, etc. GPIF acquired A+, the highest score in Strategy and Governance module in 2020 assessment.

30% Club GROWTH THROUGH DIVERSITY / THIRTY PERCENT COALITION

Joined the 30% Club in the UK, and the Thirty Percent Coalition of the U.S. in November 2016. Joined the 30% Club in Japan in December 2019.
Established to seek diversity in boards of directors, with the aim of achieving 30% female directors.

ICGN International Corporate Governance Network

Joined in August 2019
An industry association established by institutional investors, focusing on improvement of corporate governance and encouragement of stewardship activities with the aim of promoting efficient markets and sustainable economy.

Council of Institutional Investors® The voice of corporate governance

Joined August 2019
Established by a U.S. public pension fund with the aim of promoting shareholders' rights and corporate governance and collaborating in the U.S.

TCFD TASK FORCE ON CLIMATE-RELATED FINANCIAL DISCLOSURES

Supported in December 2018
Established by the FSB (Financial Stability Board) at the request of the G20 Finance Ministers and Central Bank Governors Meeting. In June 2017, the TCFD published voluntary recommendations to encourage information disclosure on the financial impact of climate-related risks and opportunities to enable appropriate investment decisions by investors.

[3] Promotion of activities aimed at fulfilling stewardship responsibilities

① Initiatives for the sustainable growth of the whole capital markets

A. Participation in JPX ESG Knowledge Hub

Sustainable growth of the overall capital market is essential for GPIF, as a “universal owner” and a “cross-generational investor” to secure its long-term investment returns. Since GPIF is not allowed to conduct in-house investment in equities by law, it screens investee companies and exercises voting rights via external asset managers. Therefore, it encourages to engage in constructive dialogue between external asset managers and investee companies. To conduct efficient dialogue, disclosure is considered important for both parties. The higher the importance of non-financial information becomes, the more important the disclosure of ESG information will be.

JPX ESG Knowledge Hub is a platform established by JPX in November 2020 with the objective of supporting listed companies’ ESG disclosure, and providing listed companies with access to a variety of ESG investment-related information that can deepen their understanding of ESG investment in one place. JPX plans to build the ESG Knowledge Hub into a platform connecting investors and companies. The purpose of the ESG Knowledge Hub is consistent with the significance of GPIF’s stewardship activities that aim to promote engagement between external asset managers and investee companies in consideration of ESG factors that may contribute to sustainable growth. GPIF believes that further ESG disclosure by listed companies in Japan would also contribute to raising the level of Japan’s stock market, and has been an “ESG Knowledge Hub Supporter,” as one of qualified institutional investors and related parties since the platform was established. (Initially, the Hub was participated in by 28 institutional investors and related parties from both inside Japan and overseas, including Japan’s national ministries).

GPIF will also utilize JPX ESG Knowledge Hub as another means to transmit information with further transparency and understanding of stewardship activities and the ESG initiatives it conducts.

B. Passive management with stronger commitment to engagement

About 90% of GPIF’s equity investments are passive investments in a wide range of listed companies. Therefore, since long-term growth of the overall capital market is essential for GPIF to secure further investment returns, we believe that, in passive management, it is important to increase long-term corporate value of investee companies and, in particular, conduct engagement activities to promote sustainable growth of the overall capital market from a long-term perspective. GPIF itself is not allowed to engage with companies, and needs equity passive investment managers to continue to do so, taking the above the viewpoint into account. Moreover, the Stewardship Code stipulates that both institutional investors and clients/beneficiaries should recognize that an appropriate amount of costs associated with stewardship activities is an indispensable element in asset management.

GPIF has come to the conclusion that domestic equity passive managers need to have an environment that allows them to continue conducting stewardship activities and continue promoting engagement with companies in a deeper, and more sophisticated way. For this reason, when appointing domestic equity passive managers, GPIF has decided to assess and select a passive management model that attaches importance to stewardship, in specific terms, a business model that unifies the investment process and a policy of stewardship activities, together with an organizational structure and fee levels employed to put them into practice.

As a result, as an example of passive management models that attach importance to stewardship, Asset Management One Co., Ltd. and FIL Investments (Japan) Limited were newly selected as a “passive investment manager with stronger commitment to engagement” in 2018. Since the fee level employed by these two asset managers is different from that of a general passive investment manager, GPIF checks the status of achievement of KPIs to measure the success of engagement plans and verify and evaluate the milestones for the next year to determine whether to renew the asset management contract on an annual basis. Many of the engagement issues that reached a solution were governance-related issues until 2020, but especially during the past year, progress was made in some business strategy-related issues, and solutions were found in more types of issues, such as ESG issues including CSR/ESG management and CSR procurement.

Selection focuses on the following points:

Appropriate KPIs are set
- Goals for medium- to long-term engagement activities are set
- Annual plan for achievement (milestone) is set

Engagement structure and approach
- Organizational structure and a person responsible for stewardship activities
- Engagement approach

Engagement is progressing steadily thanks to the commitment of external asset managers, and continuous engagement has been mutually promoted by a company and an external asset manager in some cases, creating a virtuous cycle. An expert review meeting held on the revision of the Stewardship Code in 2020 pointed out in the discussion that the method of enriching engagement must be examined amid the spread of passive investment. We expect that external asset managers will continue to propose a model that helps raise the level of the overall capital market through stewardship activities and that diversifies and strengthens the approaches to stewardship activities.

② Other activities for enhancing investment chain

In order to build the investment chain so that the return for pension beneficiaries can be increased over the long term, GPIF has held two forums since 2016: the Business and Asset Owners' Forum and Global Asset Owners' Forum. In the former, opinions from companies can be collected on a regular basis, whereby in the latter, opinions can be exchanged with asset owners from abroad. In the same year, GPIF also started conducting a survey of listed companies on institutional investors' stewardship activities for the purpose of confirming how their stewardship activities including constructive dialogue (engagement) are being received by investee companies.

A. Business and Asset Owners' Forum and Global Asset Owners' Forum

In a questionnaire survey conducted with listed companies in January 2016, many companies requested meetings with asset owners. As a result, GPIF has been holding meetings with those companies on a regular basis. Furthermore, several companies proposed the establishment of a regular platform for the constructive exchange of opinions between companies and GPIF, as an asset owner. In response, the first Business and Asset Owners' Forum was held on September 1, 2016 by three co-organizers. The forum was held again from April 2019, with the participation of 10 companies in total, including the three co-organizers.

The forum for fiscal 2020 was postponed due to the COVID-19 pandemic. However, GPIF continues to hold the Business and Asset Owners' Forum, as we believe the opportunity to listen to companies' voices is very useful for GPIF to fulfill our stewardship responsibilities. GPIF feeds back companies' opinions to asset managers and overseas asset owners as well so that we can contribute to improve and optimize the whole investment chain.

The Global Asset Owners' Forum was established as a platform for the continual exchange of opinions, aiming to mutually share insight with overseas public pension funds, etc. for further fulfillment of stewardship responsibilities. The first meeting was held in Tokyo in November 2016. The forum has been held five times so far, co-organized by GPIF, CalPERS, and CalSTRS. However, the 2020 meeting has also been postponed due to the COVID-19 pandemic and will hopefully be held during fiscal 2021.

B. Conducting a Survey of Listed Companies regarding Institutional Investors' stewardship activities

<Objective of the survey>

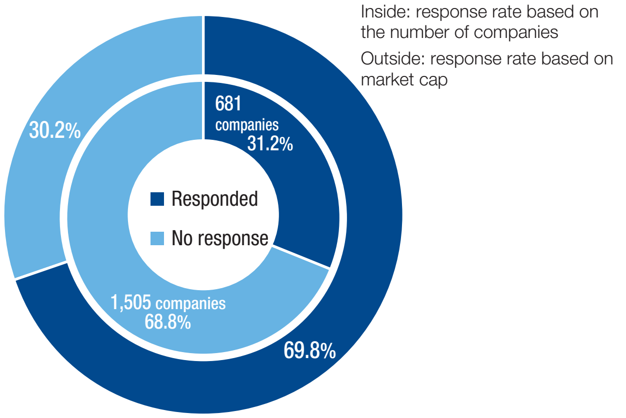
As GPIF entrusts domestic equity investment of the pension reserves to external asset managers, it requests them to enhance their stewardship activities. To ascertain how investee companies receive asset managers' stewardship activities, including engagement, GPIF conducted the first "Survey of Listed Companies regarding Institutional Investors' Stewardship Activities" in 2016, of JPX Nikkei Index 400 companies. The purpose of this survey to listed companies is to examine the validity of the stewardship activities of asset managers. In fiscal 2020, GPIF conducted the sixth survey, by sending questionnaires to the First Section of the TSE-listed 2,186 companies* for the purpose of assessing stewardship activities and "constructive dialogue (engagement)" of asset managers as well as understanding any changes during the year since the previous survey. 681 companies responded (accounting for 31.2%).

* The number of companies is as of December 30, 2020.

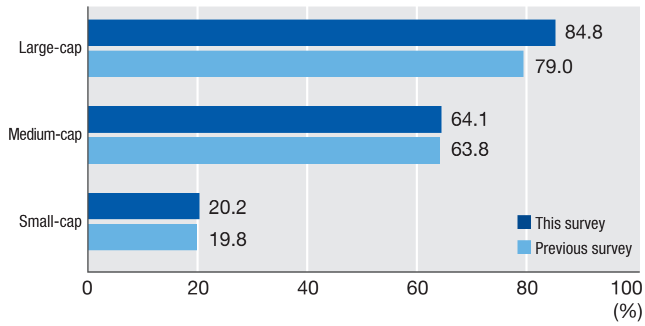
<Summary of the results of the survey>

Of the survey respondents, nearly 50 percent answered that there had been positive changes to the attitudes of institutional investors at IR meetings, etc. over the past year. The results of the questionnaire show the enhancement of companies' non-financial information disclosure including ESG information, new disclosure initiatives such as TCFD, and SDGs recognized by all the respondent companies. The results have also shown that companies have perceived positive changes in investors' interest in and utilization of non-financial information. And "corporate governance" continues to be listed as the most important theme of corporate ESG activities, carrying on from the previous survey, being pointed out by 71.7% of the respondent companies. The theme with the largest increase in response rate from the previous survey was "climate change" (up 9.7%), unchanged from the previous survey, followed by "health and safety" (up 8.0% from the previous survey). In addition to governance (G), there is growing interest in a wide range of ESG themes, from the environment (E), which is typically associated with climate change, to society (S), which seems to reflect the impact of new coronavirus infections. Many companies expect GPIF to: (i) promote constructive dialogue from a medium- to long-term perspective; (ii) promote ESG investment; (iii) increase the opportunities for dialogue that will involve small cap companies; and (iv) continue disclosure.

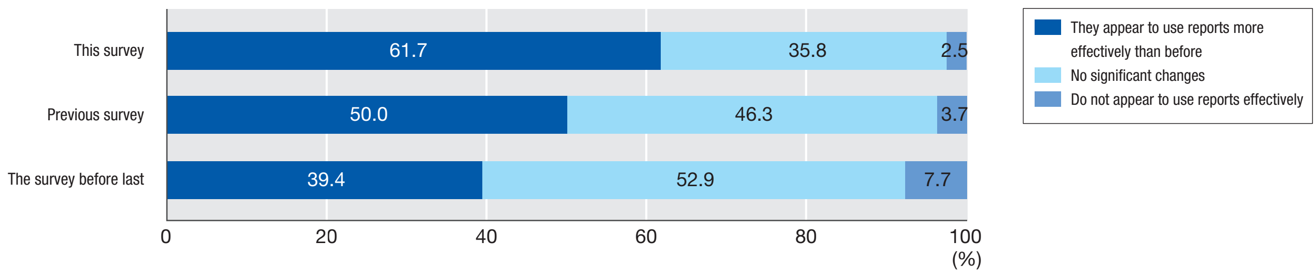
Respondents' coverage



Response rate by company size



Institutional investors utilization of integrated reports



[4] Material ESG issues recognized by external asset managers

Material ESG issues recognized by external equity managers are as follows. GPIF found that all passive managers that keep holding investees' stocks recognize "Disclosure", "Climate Change", "Diversity", and "Supply Chain" as material ESG issues and tend to regard long-term issues including "E" (environmental) and "S" (social) as particularly critical. The change from the previous year was outstanding in "Supply chain". The percentage of both domestic and passive foreign equity managers who pointed out supply chain as a materiality issue increased, and all passive equities listed this as a serious issue. This indicates that, amid the global COVID-19 pandemic, supply chains have been recognized as a critical issue. Regarding active managers with a primary holding period of approximately several months to a few years, different ESG issues were recognized as material depending on whether they are managers for domestic equities or foreign equities. GPIF found that material issues recognized by active managers for domestic equities has expanded to include "E" (environmental) and "S" (social), in addition to "G" (governance), but all active managers for domestic equities see "Board Structure, Self-evaluation", "Minority Shareholder Rights", and other "G" (governance) issues as more critical. In the survey of listed companies, corporate governance was the most common theme of ESG activities of Japanese companies. Taking TCFD recommendations, which GPIF supports, for example, companies are required to disclose information on their recognition and analysis on, climate change-related risks and opportunities, as well as strategies for this issue, and management framework (governance) for its implementation. It shows that a common awareness has been formed among both investors and companies that "G" (governance) is a necessary framework to ensure the resolution of long-term issues including "E" (environmental) and "S" (social) such as climate change, and to improve companies' sustainable growth and corporate value over the long term. GPIF's Stewardship Principles require proactive engagement in material ESG issues to external asset managers.

The survey was also answered by external bond managers for the first time. What they consider to be a significant ESG issue from a corporate bond investor perspective are as follows:

<Passive domestic equity>	
Climate Change	100%
Misconduct	100%
Disclosure	100%
Supply Chain	100%
Diversity	100%
Board Structure, Self-evaluation	83%
Minority Shareholder Rights	83%
Capital Efficiency	83%
Corporate Governance	83%
Environmental Opportunities	67%
Health and Safety	67%
Human Rights & Community	67%
Other (Social)	67%
Water Stress, Water Security	67%
Biodiversity	67%
Anti-Corruption	67%
Deforestation	67%

<Active domestic equity>	
Board Structure, Self-evaluation	100%
Minority Shareholder Rights	100%
Capital Efficiency	89%
Misconduct	89%
Disclosure	89%
Supply Chain	89%
Diversity	78%
Environmental Opportunities	78%
Climate Change	67%
Corporate Governance	67%
Health and Safety	67%
Human Rights & Community	67%
Pollution & Resources	67%
Product Liability	67%
Waste Management	67%
Labor Standards	67%
Other (Social)	56%
Other (Governance)	56%
Other (Environmental)	56%
Social Opportunities	56%

<Passive foreign equity>	
Climate Change	100%
Disclosure	100%
Supply Chain	100%
Diversity	100%
Corporate Governance	75%
Other (Social)	75%
Health and Safety	75%
Board Structure, Self-evaluation	75%
Other (Governance)	75%
Water Stress, Water Security	75%
Risk Management	75%
Deforestation	75%

<Active foreign equity>	
Climate Change	100%
Other (Social)	86%
Health and Safety	86%
Human Rights & Community	86%
Corporate Governance	86%
Disclosure	86%
Diversity	71%
Social Opportunities	71%
Labor Standards	71%
Board Structure, Self-evaluation	71%
Minority Shareholder Rights	71%
Supply Chain	71%
Environmental Opportunities	71%
Product Liability	57%
Other (Governance)	57%
Capital Efficiency	57%
Anti-Corruption	57%
Other (ESG)	57%
Water Stress, Water Security	57%
Pollution & Resources	57%

<Domestic bond>	
Disclosure	100%
Climate Change	89%
Corporate Governance	67%
Board Structure, Self-evaluation	56%
Health and Safety	56%

<Foreign bond>	
Climate Change	95%
Health and Safety	67%
Board Structure, Self-evaluation	57%
Human Rights & Community	57%
Corporate Governance	52%
Supply Chain	52%
Diversity	52%
Pollution & Resources	52%
Disclosure	52%
Product Liability	52%
Waste Management	52%
Labor Standards	52%

…E (Environmental)
…S (Social)
…G (Governance)
…Duplicated ESG themes

(Note 1) A survey on external asset managers for equities and bonds was conducted in December 2020.

(Note 2) The ratios in the list above were obtained by dividing the number of external asset managers that selected the relevant issue as numerator by the number of external asset managers of each mandate (passive/active, domestic/foreign) as denominator.

(Note 3) "Material ESG issues" as pointed by more than 50% of the respondents are listed above. Items in red are issues pointed out by all of the respondents. When an asset manager is entrusted to both active and passive mandates, its answer is counted as the one with larger amount of mandate by GPIF.

[5] Exercise of voting rights

① Concept of exercise of voting rights

The Medium-term Objectives established by the Minister of Health, Labour and Welfare stipulate that GPIF "should take appropriate measures including exercise of voting rights while giving due consideration to influence on corporate management". In this regard, GPIF in its Medium-term Plan states, "GPIF itself does not exercise voting rights and instead entrusts the external asset managers with the exercise of voting rights so as to avoid giving a direct influence on corporate management. However, from the viewpoint of further promoting its stewardship activities, GPIF shall conduct efficient engagement when entrusting an external asset manager, with an awareness of ESG (environmental, social and governance) materiality that leads to long-term investment returns. When doing so, GPIF shall clarify that stewardship activities including the exercise of voting rights by our external asset managers aim to improve long-term investment returns solely for the pension beneficiaries".

External asset managers submit the guideline for voting and annually report voting results to GPIF. GPIF holds meetings with the managers on the results, and evaluates the way in which a manager exercises voting rights in the annual assessment meeting, considering their exercise as an item of initiatives for fulfilling stewardship activities.

② Exercise of voting rights in fiscal 2020

GPIF held meetings based on the reports on the status of exercise of voting rights from April to June 2020. Then, we evaluated asset managers based on the reports and the meetings from the viewpoints of "establishing of guidelines for the exercise of voting rights", "organizational framework", and "the status of exercise of voting rights". As a result, we confirmed that voting rights were appropriately exercised.

The status of exercise of voting rights by external asset managers for domestic equities (from April 2020 to March 2021)

Number of external asset managers who exercised voting rights: 36 funds

Number of external asset managers who did not exercise voting rights: none

(Unit: No. of proposals, percentage)

Proposal		Proposals pertaining to company organization					Proposals pertaining to director remuneration, etc.				Proposals pertaining to capital management (excluding items pertaining to amendment of the articles of incorporation)			Proposals pertaining to amendment of the articles of incorporation	Poison Pills (Rights plan)		Other proposals	Total
		Appointment of directors	External directors	Appointment of auditors	External auditors	Appointment of accounting auditors	Director remuneration	Director bonuses	Director retirement benefits	Granting of stock options	Dividends	Acquisition of treasury stock	Mergers, acquisition, etc.		Warning type	Trust-type		
Number of voting rights exercised		182,213	63,022	24,182	16,268	535	5,972	1,496	1,279	994	15,268	43	691	6,403	739	0	304	240,119
Management proposals	Total	181,229	62,539	24,155	16,250	535	5,955	1,496	1,279	994	15,196	0	691	4,795	739	0	250	237,314
		(100.0%)	(100.0%)	(100.0%)	(100.0%)	(100.0%)	(100.0%)	(100.0%)	(100.0%)	(100.0%)	(100.0%)	(0.0%)	(100.0%)	(100.0%)	(100.0%)	(0.0%)	(100.0%)	(100.0%)
	Approved	158,013	54,481	20,860	13,068	529	5,558	1,294	262	744	14,985	0	678	4,633	27	0	211	207,794
		(87.2%)	(87.1%)	(86.4%)	(80.4%)	(98.9%)	(93.3%)	(86.5%)	(20.5%)	(74.8%)	(98.6%)	(0.0%)	(98.1%)	(96.6%)	(3.7%)	(0.0%)	(84.4%)	(87.6%)
	Opposed	23,216	8,058	3,295	3,182	6	397	202	1,017	250	211	0	13	162	712	0	39	29,520
		(12.8%)	(12.9%)	(13.6%)	(19.6%)	(1.1%)	(6.7%)	(13.5%)	(79.5%)	(25.2%)	(1.4%)	(0.0%)	(1.9%)	(3.4%)	(96.3%)	(0.0%)	(15.6%)	(12.4%)
Shareholder proposals	Total	984	483	27	18	0	17	0	0	0	72	43	0	1,608	0	0	54	2,805
		(100.0%)	(100.0%)	(100.0%)	(100.0%)	(0.0%)	(100.0%)	(0.0%)	(0.0%)	(0.0%)	(100.0%)	(100.0%)	(0.0%)	(100.0%)	(0.0%)	(0.0%)	(100.0%)	(100.0%)
	Approved	161	82	0	0	0	0	0	0	0	10	10	0	155	0	0	24	360
		(16.4%)	(17.0%)	(0.0%)	(0.0%)	(0.0%)	(0.0%)	(0.0%)	(0.0%)	(0.0%)	(13.9%)	(23.3%)	(0.0%)	(9.6%)	(0.0%)	(0.0%)	(44.4%)	(12.8%)
	Opposed	823	401	27	18	0	17	0	0	0	62	33	0	1,453	0	0	30	2,445
		(83.6%)	(83.0%)	(100.0%)	(100.0%)	(0.0%)	(100.0%)	(0.0%)	(0.0%)	(0.0%)	(86.1%)	(76.7%)	(0.0%)	(90.4%)	(0.0%)	(0.0%)	(55.6%)	(87.2%)

(Note 1) If a proposal has multiple items to exercise, the number of votes exercised for each item is shown.
(Note 2) The figures in parentheses are percentages to the total number of votes exercised for each proposal.
(Note 3) The negative votes include 37 abstentions.

The status of exercise of voting rights by external asset managers for foreign equities (from April 2020 to March 2021)

Number of external asset managers who exercised voting rights: 19 funds

Number of external asset managers who did not exercise voting rights: none

(Unit: No. of proposals, percentage)

Proposal		Proposals pertaining to company organization			Proposals pertaining to director remuneration, etc.				Proposals pertaining to capital management (excluding items pertaining to amendment of the articles of incorporation)			Proposals pertaining to amendment of the articles of incorporation	Poison Pills for warning type	Other proposals		Total
		Appointment of directors	Appointment of auditors	Appointment of accounting auditors	Director remuneration	Director bonuses	Director retirement benefits	Granting of stock options	Dividends	Acquisition of treasury stock	Mergers, acquisition, etc.			Approval of financial statement, etc.	Other proposals	
Number of voting rights exercised		90,700	4,596	10,678	21,598	202	203	4,923	8,448	4,552	11,327	10,638	238	11,182	40,369	219,654
Management proposals	Total	89,481	4,018	10,595	21,305	201	202	4,894	8,428	4,552	11,304	10,067	236	11,182	37,005	213,470
		(100.0%)	(100.0%)	(100.0%)	(100.0%)	(100.0%)	(100.0%)	(100.0%)	(100.0%)	(100.0%)	(100.0%)	(100.0%)	(100.0%)	(100.0%)	(100.0%)	(100.0%)
	Approved	75,649	3,411	9,922	17,996	170	154	3,371	8,177	4,360	9,419	9,026	200	10,706	31,289	183,850
		(84.5%)	(84.9%)	(93.6%)	(84.5%)	(84.6%)	(76.2%)	(68.9%)	(97.0%)	(95.8%)	(83.3%)	(89.7%)	(84.7%)	(95.7%)	(84.6%)	(86.1%)
	Opposed	13,832	607	673	3,309	31	48	1,523	251	192	1,885	1,041	36	476	5,716	29,620
		(15.5%)	(15.1%)	(6.4%)	(15.5%)	(15.4%)	(23.8%)	(31.1%)	(3.0%)	(4.2%)	(16.7%)	(10.3%)	(15.3%)	(4.3%)	(15.4%)	(13.9%)
Shareholder proposals	Total	1,219	578	83	293	1	1	29	20	0	23	571	2	0	3,364	6,184
		(100.0%)	(100.0%)	(100.0%)	(100.0%)	(100.0%)	(100.0%)	(100.0%)	(100.0%)	(0.0%)	(100.0%)	(100.0%)	(100.0%)	(0.0%)	(100.0%)	(100.0%)
	Approved	788	445	69	93	1	0	10	8	0	16	126	2	0	1,358	2,916
		(64.6%)	(77.0%)	(83.1%)	(31.7%)	(100.0%)	(0.0%)	(34.5%)	(40.0%)	(0.0%)	(69.6%)	(22.1%)	(100.0%)	(0.0%)	(40.4%)	(47.2%)
	Opposed	431	133	14	200	0	1	19	12	0	7	445	0	0	2,006	3,268
		(35.4%)	(23.0%)	(16.9%)	(68.3%)	(0.0%)	(100.0%)	(65.5%)	(60.0%)	(0.0%)	(30.4%)	(77.9%)	(0.0%)	(0.0%)	(59.6%)	(52.8%)

(Note 1) Total number of votes exercised does not include the number of voting rights that were not exercised.

(Note 2) If a proposal has multiple items to exercise, the number of votes exercised for each item is shown.

(Note 3) The figures in parentheses are percentages to the total number of votes exercised for each proposal.

(Note 4) The negative votes include 2,329 abstentions.

7 | ESG Activities

[1] Basic approach

Universal owner

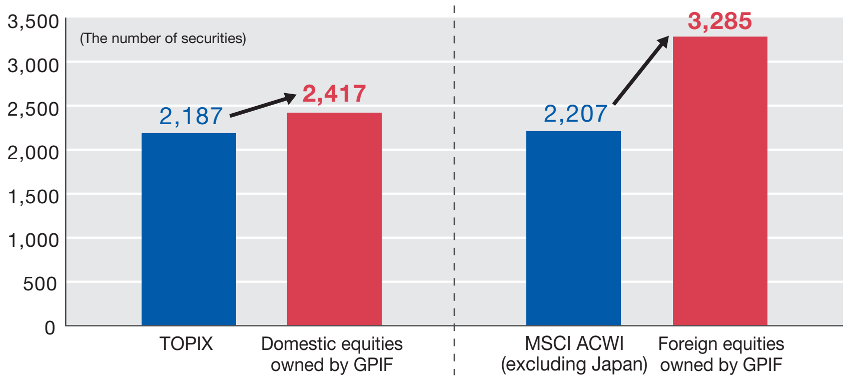
- GPIF is an investor with a very large fund size and a widely diversified portfolio.

Cross-generational investor

- GPIF is responsible for supporting pension finance with an investment horizon of as long as 100 years, over several generations.

GPIF promotes ESG investments in order to reduce negative externalities such as environmental and social issues, and to improve the sustainable return from the whole assets, as GPIF is a “Universal owner” and “Cross-generational investor”. “Universal owner” is a term often used in relation to pension management and ESG investment, referring to an investor with a well-diversified portfolio that largely represents the world’s capital market. GPIF is a typical “universal owner” with a broadly diversified portfolio comprised of equities and bonds of the majorities of Japanese listed companies and major foreign companies.

The number of securities owned by GPIF (as of the end of March 2021)



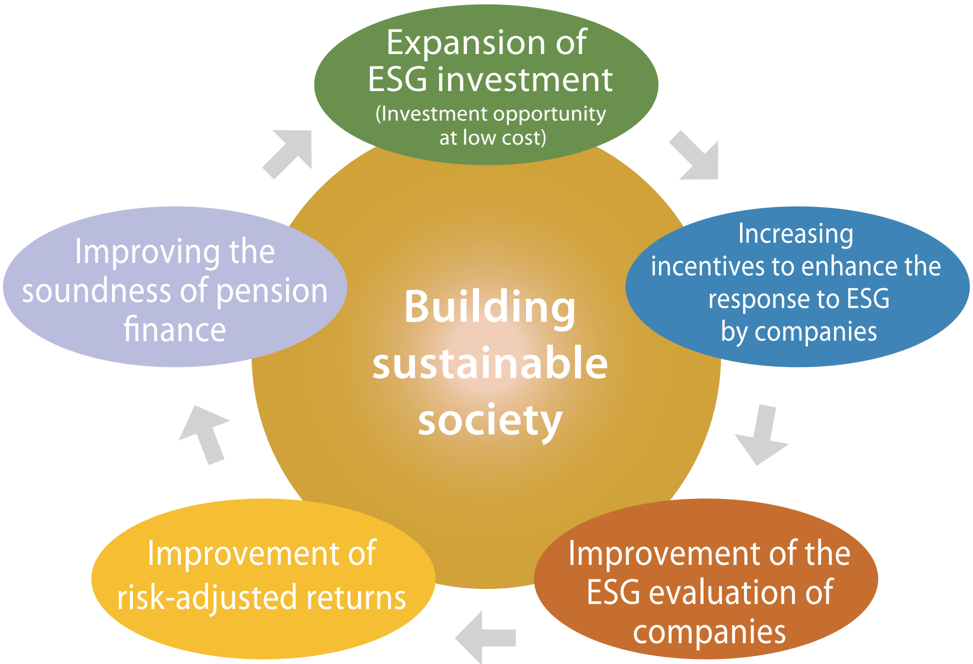
For instance, if the share prices of some portfolio companies increase as a result of conducting business activities without paying attention to their large impacts on the environment and society for the sake of short-term revenue expansion, and society and the economy as a whole, including other companies, are negatively affected by such activities, the overall portfolio of a universal owner will be significantly impaired. In other words, the sustainability of the capital market and society is a prerequisite for the sustainability of universal owners’ portfolios. The “universal ownership”, the concept that universal owners conduct ESG activities proactively to control and minimize such negative externalities—lies at the core of GPIF’s ESG investment. In addition, the longer the ESG risks persist, the more likely it is that they will materialize. Therefore, we consider that it has great benefits for GPIF to integrate ESG factors into its investment process as a cross-generational investor responsible for supporting pension finance designed with time horizon of as long as 100 years. That is to say, conducting ESG activities in order to reduce negative externalities such as environmental and social issues, and to improve the sustainable return from the whole assets is consistent with the objective of the Employees’ Pension Insurance Act and the National Pension Act to “manage pension reserves safely and efficiently from a long-term perspective solely for the pension beneficiaries”, and GPIF continues promoting ESG activities proactively.

GPIF conducts ESG activities not only for equities but also for other asset classes, including bonds and alternative assets.

GPIF shall manage pension reserves in line with the basic policy that is meant to ensure that the reserves are managed and invested safely and efficiently from a long-term perspective (hereinafter referred to as the "Basic Policy of Reserves") announced in accordance with the Employees' Pension Insurance Act. The Basic Policy of Reserves was revised in February 2020, stipulating that the sustainability of investee companies and the overall markets will be critical for the improvement of long-term investment returns in the management of pension reserves. It also stipulates that the reserve funds shall implement the necessary initiatives by individually examining the promotion of investments that consider ESG (environmental, social and governance) as non-financial factors in addition to financial factors, from the viewpoint of securing long-term investment returns for the interest of pension beneficiaries, adding provisions on specific ESG considerations (applicable from April 2020).

Evaluation of ESG promotion activities requires the following perspectives: 1) it takes a long period of time for the effects of ESG investment to materialize; and 2) ESG investment is also aimed at improving the sustainability of the entire capital market. These perspectives are different from general investment evaluation of how much investment returns are generated over a certain period. In order to evaluate these ESG initiatives to confirm the effect of investment while ensuring the transparency, GPIF has published the ESG Report since 2018. In 2020, we published ESG Report 2019, the third issue. GPIF expressed its support for the declaration of the Task Force on Climate-related Financial Disclosures (TCFD) in 2018, and has published the ESG Report including a disclosure in line with the TCFD recommendations, starting from ESG Report 2018. In ESG Report 2019, GPIF's TCFD disclosure was enriched further(Note). GPIF will continue verifying the effect of its ESG initiatives to improve its ESG-related activities.

(Note) For details, refer to "(Column) Disclosure related to climate change".

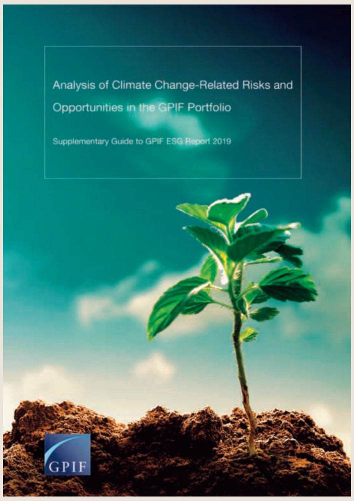


(Column) Disclosure related to climate change

On the back of growing interest in climate change issues, the G20 Summit held in 2015 asked the Financial Stability Board (FSB) to examine how the financial sector should take climate change risks into consideration. In response, the TCFD, established by the FSB in the same year, revealed its recommendations to promote companies' better disclosure of climate-related risks and opportunities in 2017. As of the end of March 2021, more than 1,900 financial institutions and companies in over 78 countries expressed their support for the recommendations.

We have also reported disclosure based on the TCFD recommendations since 2019. In fiscal 2018, in connection with our portfolio, we analyzed transition risk (including policy risk) arising from the implementation of climate change measures. In fiscal 2019, in addition to transition risk, we also analyzed physical risk associated with the increase in extreme weather caused by climate change, as well as new business opportunities associated with climate change. The summary of the analysis was presented in ESG Report 2019 and details were released as Analysis of Climate Change-Related Risks and Opportunities in the GPIF Portfolio published as a supplementary guide to the report. The analysis suggested that, if measures to achieve the Paris Agreement target adopted by COP21 in 2015, to keep the temperature rise below 2 degrees Celsius above preindustrial levels until the end of this century, were implemented, the corporate value of domestic equities could particularly exceed the implementation cost.

(Note) "ESG Report 2019" and "Analysis of Climate Change-Related Risks and Opportunities in the GPIF Portfolio", refer to GPIF's website at https://www.gpif.go.jp/en/investment/esg/.



[2] Passive investment based on ESG indexes

In fiscal 2017, GPIF selected two integrated indexes and one thematic index focused on gender diversity for domestic equities, and commenced passive investment tracking those indexes. The selection criteria for the ESG indexes included economic rationality based on the risk-return profile of each index and the possibility of these indexes to boost the equity market in Japan through improvement of ESG evaluation.

In fiscal 2018, with climate change increasingly becoming serious, GPIF selected the S&P/JPX Carbon Efficient Index for Japanese equities and the S&P Global Ex-Japan Large Midcap Carbon Efficient Index for foreign equities. These are stock indexes designed to measure the carbon efficiency of companies (greenhouse gas emissions divided by revenues) in the indexes and GPIF commenced passive investment tracking those indexes.

Moreover, in fiscal 2019, GPIF announced the launch of the “Index Posting System” (IPS)–a new framework for collecting index information on a continuous basis–in order to efficiently gather various index information for the purpose of enhancing our overall fund management. IPS has started collecting information.

In fiscal 2020, the Board of Governors deliberated and passed a resolution concerning the "Practical Guidelines for the Selection of ESG Indexes" which provides the basic policy for selecting ESG indexes.

Among the indexes posted, we examined in fiscal 2020 the ESG composite indexes and diversity indexes based on the "Practical Guidelines for the Selection of ESG Indexes" and conducted due diligence on the index companies. As a result, we selected the following two indexes, based on which we started passive management of foreign equities. The size of assets managed based on the ESG indexes as of the end of fiscal 2020 was approximately ¥10.6 trillion.

Theme	Index name
General ESG	MSCI ACWI ESG Universal Index [Note1]
Diversity	Morningstar Gender Diversity Index (“GenDi”) [Note2]

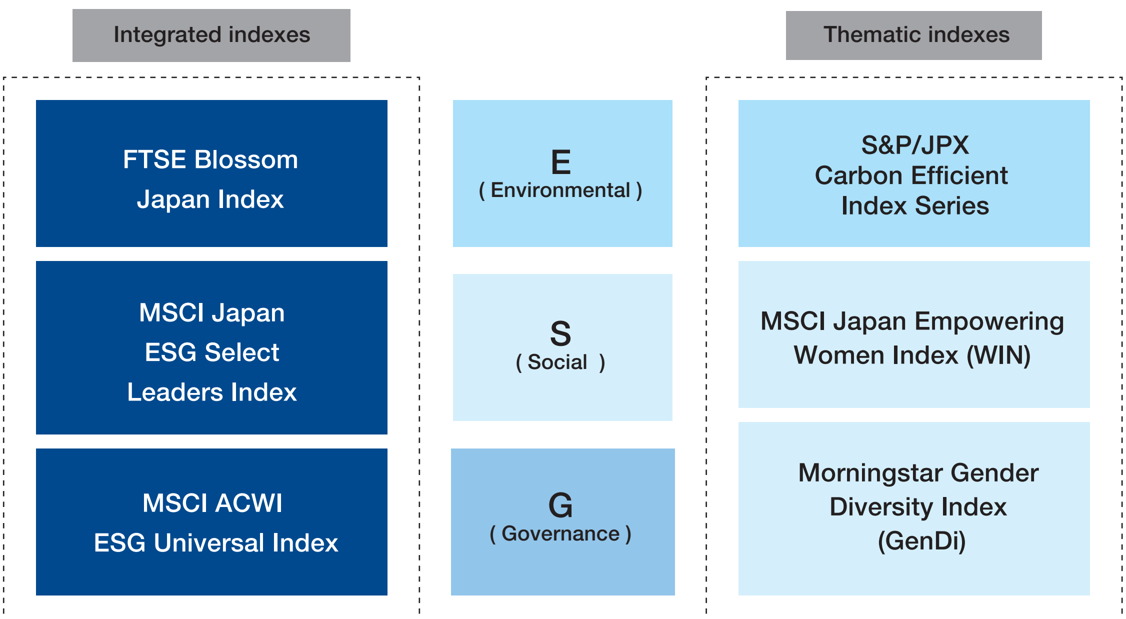
(Note1) Official name: MSCI ACWI ex Japan ex China A ESG Universal with Special Taxes Index
(Note2) Official name: Morningstar Developed Markets (ex Japan) Gender Diversity Index

(Primary evaluation criteria)

① ESG ratings play a central role in the constituent selection/weighting process
② The index encourages ESG disclosure (i.e. ratings are based on public information)
③ The ratings methodology is clearly disclosed and the index provider/ESG ratings agency actively engages in dialogue with issuers
④ The scope of issuers rated is sufficiently broad
⑤ The governance and conflict of interest management structures of the ESG ratings agency and index provider are adequate

We hope that these ESG indexes will serve as an incentive for various companies to introduce ESG into corporate management, and eventually improve corporate value in the long run.

List of selected ESG indexes



ESG indexes for domestic equities

	FTSE Blossom Japan Index	MSCI Japan ESG Select Leaders Index	MSCI Japan Empowering Women Index (WIN)	S&P/JPX Carbon Efficient Index
Index concept	· The index uses the ESG assessment scheme that is applied to the FTSE4Good Japan Index Series which has one of the longest track records globally for ESG indexes. · The index is a broad ESG index that selects stocks with high absolute ESG scores and adjusts industry weights to neutral.	· The MSCI Japan ESG Select Leaders Index is a broad ESG index that integrates various ESG risks into today's portfolio. The index is based on MSCI ESG Research that more than 1,000 clients use globally. · The index incorporates stocks with relatively high ESG scores in each industry.	· MSCI calculates the gender-diversity scores based on various pieces of information disclosed under "the Act on Promotion of Women's Participation and Advancement in the Workplace" and selects companies with higher gender diversity scores from each sector. · The first index designed to cover a broad range of factors related to gender diversity.	· Based on carbon data provided by Trucost, one of the pioneers of environmental research companies, S&P Dow Jones Indexes, a leading independent provider, develops the index methodologies. · The indexes are designed to increase index weights of the companies which have low Carbon to Revenue Footprints (annual greenhouse gas (GHG) emissions divided by annual revenues) and actively disclose information of carbon emissions.
Index construction	Best in class	Best in class	Best in class	Tilted (weight-adjusted)
Constituent universe (parent index)	FTSE JAPAN ALL CAP INDEX [1,391 stocks]	MSCI JAPAN IMI TOP 700 [694 stocks]	MSCI JAPAN IMI TOP 700 [694 stocks]	TOPIX [2,187 stocks]
Number of index constituents	200	231	298	1,844
Assets under management	¥1,490.6 billion	¥2,026.8 billion	¥1,236.2 billion	¥1,536.5 billion

ESG indexes for foreign equities

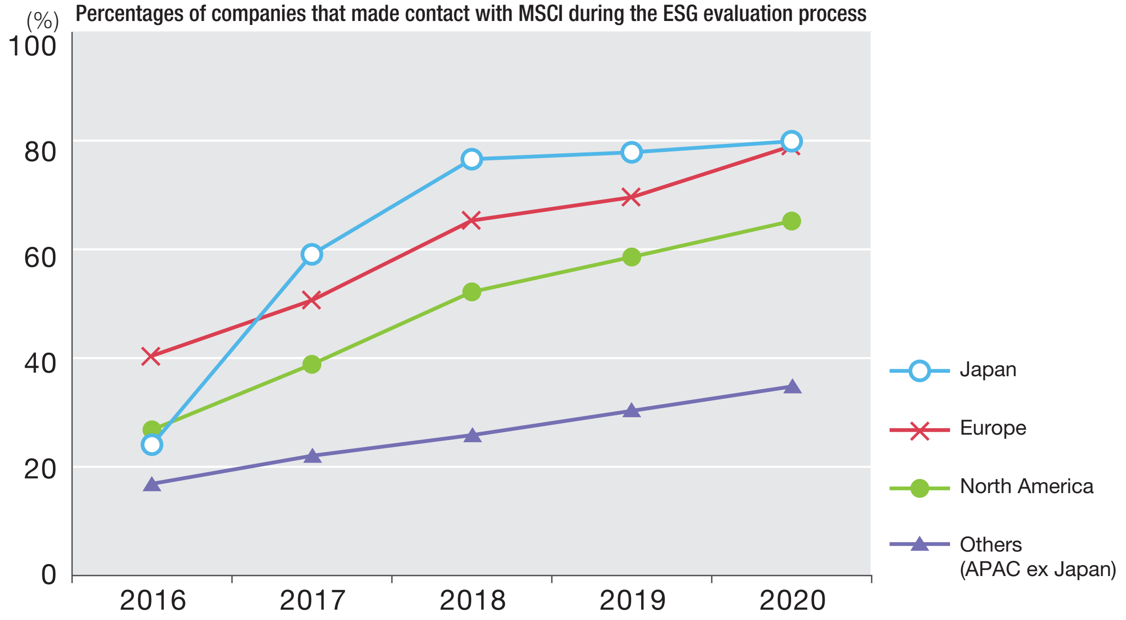
	MSCI ACWI ESG Universal Index	Morningstar Gender Diversity Index ("GenDi")	S&P Global Ex-Japan LargeMidCap Carbon Efficient Index
Index concept	• One of MSCI's flagship ESG indexes, the MSCI ACWI ESG Universal Index adjusts the weight of constituents based on each issuer's current ESG rating and rating trend to elevate the ESG metrics of the index overall. • The MSCI ACWI ESG Universal Index was developed for large institutional investors seeking to enhance ESG integration while achieving the same level of investment opportunity and risk exposure as the parent index.	• The Morningstar Gender Diversity Index ("GenDi") determines investment weights primarily based on the Equileap Gender Scorecard, which rates issuers' efforts in gender equality. • The Gender Scorecard rates companies across four broad categories: ①Gender Balance in Leadership & Workforce, ②Equal Compensation & Work-Life Balance, ③Politics Promoting Gender Equality and ④Commitment, Transparency & Accountability.	• Based on carbon data provided by Trucost, one of the pioneers of environmental research companies, S&P Dow Jones Indexes, a leading independent provider, develops the index methodologies. • The indexes are designed to increase index weights of the companies which have low Carbon to Revenue Footprints (annual greenhouse gas (GHG) emissions divided by annual revenues) and actively disclose information of carbon emissions.
Index construction	Tilted (weight-adjusted)	Tilted (weight-adjusted)	Tilted (weight-adjusted)
Constituent universe (parent index)	MSCI ACWI (not incl. JPY, China A) [2,207 stocks]	Morningstar Developed Markets (ex JP) Large-Mid [1,937 stocks]	S&P Global Large Mid Index (ex JP) [3,003 stocks]
Number of index constituents	2,106	1,909	2,303
Assets under management	¥1,178.4 billion	¥343.8 billion	¥2,823.9 billion

(Source) Prepared by GPIF based on FactSet, etc.

(Note) Number of index constituents and assets under management are as of March 31, 2021.

GPIF believes that in order to encourage companies to address ESG issues and disclose information proactively, it is important to help them deepen their understanding of the principles of ESG evaluation and index construction. To promote such understanding, GPIF requests for index providers to publicly disclose how they conduct ESG evaluation and how they construct indexes, and to proactively engage with companies. As a result, dialogue between index providers and companies is increasing rapidly, which we hope to lead to an improvement in responses to ESG issues and information disclosure by Japanese companies.

Percentages of companies that made contact with MSCI during the ESG evaluation process



(Note) Universe is MSCI ACWI constituent companies. The above graph extracts major countries with 40 or more MSCI ACWI constituent companies.

[3] ESG integration in fixed income investment

GPIF has established an investment platform which provides asset managers with an opportunity to invest in green, social and sustainability bonds issued by multilateral development banks including the World Bank Group and government finance agencies of individual countries, which provide external asset managers with an opportunity for ESG integration in fixed income investment and obtaining excess returns against government bonds. Behind this, (i) demand for green bonds often exceeds supply in the primary market, and it is difficult to purchase them in the secondary market because many of the investors tend to hold them until maturity; and (ii) GPIF has sought a way to secure investment returns because it holds bonds worth, most of which are government bonds issued by developed countries including Japan and Europe where government bonds with negative yield have become more common. This initiative started with entering into a partnership with the International Bank for Reconstruction and Development (IBRD) and the International Finance Corporation (IFC) in April 2019, both members of the World Bank Group, and then expanded to major multilateral development banks including the European Investment Bank (EIB) and the Asian Development Bank (ADB). In addition to this, in 2019, GPIF also established partnerships with government finance agencies. In fiscal 2020, while maintaining these existing partnerships, we have entered into new partnerships with three government finance agencies, the NWB Bank (Nederlandse Waterschapsbank) in the Netherlands, KBN (Kommunalbanken Norway KBN) in Norway, and Export Development Canada (EDC) in Canada. As of March 31, 2021, we have built investment platforms with ten multilateral development banks and six government finance agencies. The investment in green bonds, social bonds (including COVID-19 bonds issued to finance solutions to the challenges from COVID) and sustainability bonds through these platforms reached ¥1.1 trillion as of the end of March 2021 (calculated by GPIF based on Bloomberg data for bonds in compliance with principles, etc. of International Capital Market Association (ICMA)).

GPIF promotes ESG integration not only in equity investment but also fixed income and other asset classes in order to reduce the negative impacts of environmental and social issues and improve long-term returns on its entire investment assets.

8 | Other Major Initiatives

[1] Call for applications from external asset managers

① Call for applications through the Asset Manager Registration System

A. Status of the introduction of the Asset Manager Registration System

GPIF expanded the scope of the Asset Manager Registration System to all four traditional asset classes in February 2018. The status of registration of external asset managers as of the end of fiscal 2020 is as listed in the right table.

Asset class	The number of entries	The number of information provided
Domestic bonds	11	0
Foreign bonds	272	55
Domestic equities	64	12
Foreign equities	514	150

B. Selection for four traditional asset classes

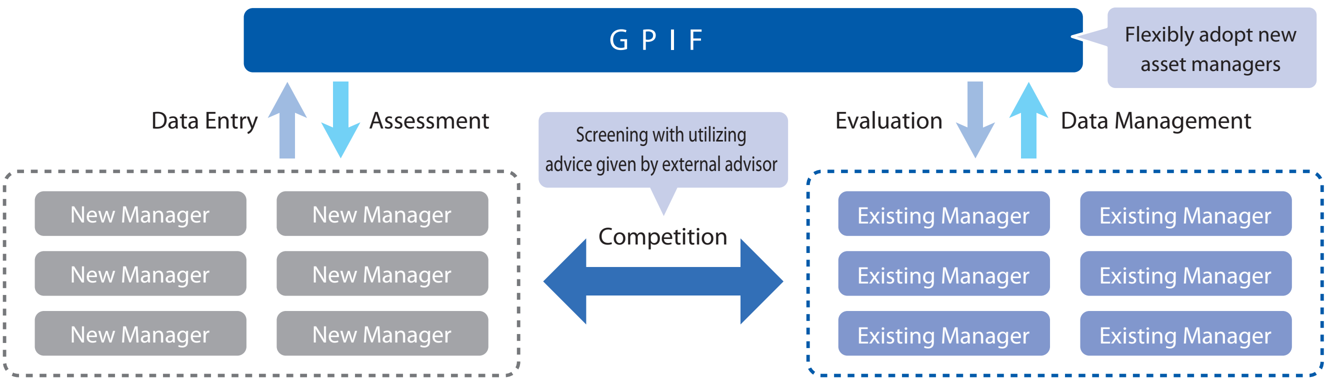
With the aim of improving the long-term return from the overall assets under management, we hired the following funds. For domestic equity passive investment, we added two funds pegged with J-REIT index. As for domestic equity active investment, we hired five funds out of the candidates which had passed the second screening in fiscal 2019. In addition, we selected two passive funds for foreign bonds.

C. Screening process for active managers of domestic bonds

In order to achieve a stable excess rate of return, GPIF started a search of active managers for domestic bonds and completed due diligence of the final candidates.

D. Call for applications for managers of alternative assets

GPIF has been calling for applications for asset managers who will implement multi-manager investment strategies for alternative assets (infrastructure, private equity, and real estate) since April 2017, with the aim of improving efficiency through investment diversification. Following the selection of one external asset manager for a domestic real asset mandate and three external asset managers for an infrastructure mandate in fiscal 2017, GPIF selected one external asset manager for a foreign real estate mandate in fiscal 2018, one external asset manager for a global private equity mandate in fiscal 2019, one external asset manager for a global private equity mandate and one external asset manager for a foreign real estate mandate in fiscal 2020, and we have started investing in those assets.



② The selection process and screening criteria for external asset managers

A. In order to conduct the selection more flexibly, GPIF shall clarify the necessary profiles and investment capabilities of products and managers prior to starting a selection process, and go on to the second screening process focused on the availability of these attributes, to narrow down candidates for more detailed screening in the third screening process. We used to finalize comprehensive assessment and adoption simultaneously, but has started to finalize only an assessment in the third screening process, and then make a final decision by taking into account the composition of external asset managers, so that we could improve the consistency of assessment.

B. In accordance with Stewardship Principles with a provision of "ESG Integration into Investment Process" requesting ESG integration to external asset managers, GPIF shall assess if they include ESG issues in investment analysis and investment decisions explicitly and systematically on "Investment process", which is one of assessment criteria.

Selection process for asset managers

Calling for applications through the Asset Manager Registration System

↓

Decision on selection criteria

- Investment Committee decides on the profiles and investment capabilities required for products and managers.

↓

First screening

- Based on the documents submitted by asset managers that applied for the Assert Management Registration System, asset managers subject to the second screening will be selected.
  - Requirements for public invitation, such as approval under relevant laws and regulations
  - Investment performance, etc.

↓

Second screening

- Based on carefully examined documents submitted by asset managers and information from an external database, as well as the results of interviews, if necessary, and screening to check if the profiles and investment capabilities meet the requirements, asset managers subject to the third screening will be selected.

↓

Third screening

- Interview will be conducted at the applicants' office to assess their investment system, capabilities, and the adequacy of their investment management fees to finalize the comprehensive score.

↓

Assignment of asset manager

- Based on the composition of external asset managers from the perspective of appropriate investment size and diversification of risk styles, asset managers will be assigned.
- The results of selection will be reported to the Board of Governors.

Assessment criteria

Qualitative assessment that takes into account quantitative performance

- Investment policies
- Investment process (including ESG integration)
- Organization and human resources
- Internal control
- Stewardship activities (for equities and alternative assets)
- Administrative operation system
- Information security measures
- Information provision, etc.
- Investment management fees

③ Outline of a new performance-based fee structure

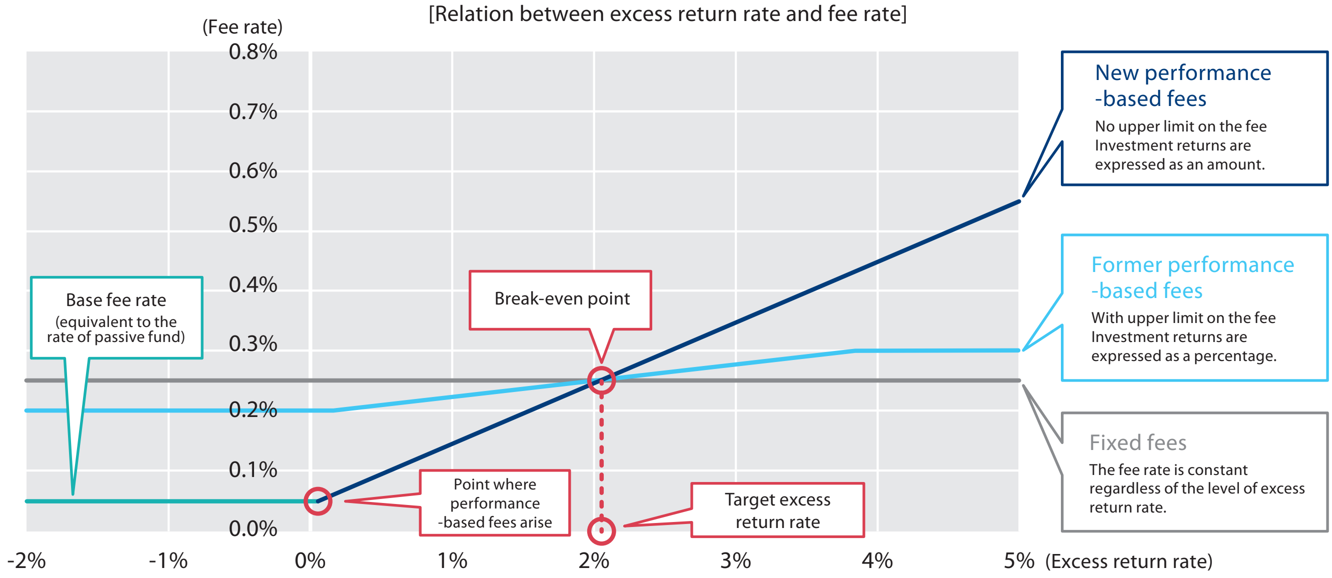
In April 2018, GPIF introduced a full-scale performance-based fee structure with the aim of strengthening the alignment of interest between GPIF and external active managers (encouraging them to achieve an excess rate of return over the benchmark and improving the quality of excess returns over the long term) and enhancing self-governance (more efficient management of investment capacity) of active managers. The outline of the new performance-based fee structure is as follows.

Outline of the new performance-based fee structure

- Investment fees should be linked to excess returns (i.e., performance-based fees), while active managers that do not deliver excess returns will only receive fees on a par with those paid to passive managers (i.e., basic fees).
- The fee scheme is structured so that the fee rate applied to funds that achieved target excess return rate is assumed to be the same level as former performance-based fee structure.
- In exchange for applying fees linked to long-term investment results to some external asset managers, a multi-year contract is concluded with some external asset managers based on market cycles.

New performance-based fee structure

[Relation between excess return rate and fee rate]



④ Management and assessment of external asset managers, etc.

A. Management and assessment of external asset managers

To better manage external asset managers, GPIF has requested that monthly reports be submitted on investment performance and risk status to ascertain the status of compliance with investment guidelines, and we receive further explanations in regular meetings and other activities.

In fiscal 2020 annual assessment process, GPIF focused on those funds with investment concerns and decided to cancel two domestic equity active funds, and delivered a warning to one domestic equity active fund.

In addition, GPIF decided to cancel one domestic equity active fund managed by a company which was found to have committed significantly improper action.

To better manage external asset managers who specialize in transition management, GPIF requested reports on the transactions in transition deals, ascertained the status of compliance with investment guidelines, and received explanations in regular meetings and other activities.

B. Management and assessment of custodians

To manage custodians, we requested data on asset management, ascertaining the status of compliance with asset management guidelines, and received explanations in regular meetings, including web meetings, and other activities. We assessed custodians based on the following criteria in accordance with our operational policy: “organization and human resources”, “operational structure”, “internal controls”, “asset management system”, “global custody”, “reporting and information sharing”, and “information security measures”. The results of this comprehensive assessment showed that there were no particular problems identified with any custodian, which led us to conclude that it would be appropriate to continue the existing contracts with them.

C. Reviewing our approach to custodians

GPIF previously adopted approach of selecting one custodian for each asset class to entrust administrative operations. However, it is widely known that such approach involves the risk of interfering with the diversification of investment management and concerns over the business continuity plan (BCP). Accordingly, GPIF is reviewing our approach to asset management to enable the adoption of multiple custodians for managing a single asset class.

It is necessary for GPIF to gather investment data more quickly than before and use them for risk analysis and other matters, in order to appropriately carry out risk management associated with investment diversification and increase the effectiveness of engagement with external asset managers. Therefore, we have implemented a system for gathering and using data for investment decisions, separately from conventional data for accounting purposes.

Regarding the adoption of multiple custodians for managing a single asset class, GPIF has switched to a multiple- custodian framework for asset classes for which the development of the necessary systems has been completed. In fiscal 2020, we adopted multiple custodians for managing foreign equities.

(Note) For the list of external asset managers, etc., refer to page 94-95.

[2] Promoting research and study

① GPIF Finance Awards

Today, investment techniques are becoming increasingly sophisticated and financial products are growing their diversities. In light of this, GPIF believes it is essential to foster an environment that encourages academic research in investment fields, so that the pension reserves are invested safely and efficiently.

In 2020, the ceremony for the fourth GPIF Finance Awards was held. The award winner was determined as follows, after going through a screening process by the selection committee comprised of renowned researchers in the field of finance including Dr. Robert Merton, Professor of MIT (Nobel laureate in economics in 1997).

Award winner : Dr. TODA Alexis Akira, Associate Professor at the University of California San Diego

Profile : Dr. Toda graduated from the School of Medicine, the University of Tokyo, earned his Master of Economics from the Graduate School of Economics, the University of Tokyo and earned his Ph.D. from the Department of Economics, Yale University. He served as an Assistant Professor of Economics at the University of California San Diego prior to the current position from 2019.

Selection Reason : Dr. Toda has made a distinguished contribution in mathematical economics and finance. Especially he has written many papers on power law, which naturally emerges in dynamic general equilibrium models with heterogenous agents. His central research interests lie in general equilibrium theory and its applications especially in finance and macroeconomics. We expect his further achievements in the future.

Judges' comments (excerpt) : Dr. Toda is specialized in the general equilibrium theory and its application to finance and macroeconomics, with splendid achievements across a wide range of fields including mathematical economics, finance and macroeconomics. In particular, we highly evaluated that, in the general equilibrium theory with the presence of disparate individuals, he has outstanding achievements in the application to both the theory of power-law distribution as an natural result and finance theory, and presents a new phase of the general equilibrium theory in the field of important themes in finance, which is thought-provoking to not only researchers but also practitioners.

We, as selection committee members of GPIF Finance Awards, expect Japanese researchers, like Dr. Toda, to conduct many researches that have a high academic rating and high potential of application to the finance practices, and also hope that finance research in Japan will become even more active.

Selection committee members

Robert C. Merton	Nobel Laureate in Economic Sciences, The School of Management Distinguished Professor of Finance at MIT Sloan and University Professor Emeritus at Harvard University
Josh Lerner	The Jacob H. Schiff Professor of Investment Banking at Harvard Business School
David Chambers	Reader in Finance, Cambridge Judge Business School, University of Cambridge
UEDA Kazuo	Professor, Faculty of International Studies, Kyoritsu Women's University and Director, Center for Advanced Research in Finance (Former chair of Investment Advisory Committee)
OKINA Yuri	Chairperson of the Institute, The Japan Research Institute, Ltd. (Member of Financial System Council)
OKIMOTO Tatsuyoshi	Associate Professor, Crawford School of Public Policy, Australian National University
FUKUDA Shinichi	Professor, Graduate school of Economics, The University of Tokyo (Member of Financial System Council)
YONEZAWA Yasuhiro	Professor, Graduate School of Business and Finance, Waseda University (Former chair of Investment Advisory Committee)

(Note) For the details of "GPIF Finance Awards", refer to GPIF's website at https://www.gpif.go.jp/en/investment/research/awards/ .

② Research and study

GPIF considers that it is necessary to conduct research studies and joint research projects with universities, and accumulate knowledge acquired through such research activities in order to continue investments of pension reserves safely and efficiently. In fiscal 2020, we carried out the following five research studies and joint research projects.

(Note) For the details of “Research and study”, refer to GPIF’s website at https://www.gpif.go.jp/en/investment/research/commission.html .

A. Research on the use of artificial intelligence (AI) to study trading behaviors of fund managers

Purpose of research: In “A study on the Use of Artificial Intelligence within Government Pension Investment Fund’s Investment Management Practices,” since fiscal 2017, the trading data of GPIF’s active managers for domestic equities and foreign equities was analyzed, using machine learning, and showed the possibility of classifying investment styles into patterns and identifying style drifting. From fiscal 2019 to fiscal 2020, the study was further developed to attempt to quantify information which is difficult to assess quantitatively, such as uniqueness or habits, in order to capture the consistency of investment behaviors taken by an active asset manager in the past and recent times. In addition, the study to capture the degrees of similarities among asset managers was also conducted.

The result showed the potential to identify changes in managers’ investment behavior and differences between asset managers, that have been not able to be achievable solely by conventional indicators such as the investment style of asset managers.

Commissioned to: Sony Computer Science Laboratories, Inc.

B. Research and study on private debt

Purpose of research: GPIF intends to diversify our investment targets for the interests of the pension beneficiaries. Its past initiatives include an investment in alternative assets having different risk-return profiles from traditional assets. The study was conducted for the purpose of diversifying investments by examining whether private debt (private placements, bank loans, direct lending, real estate nonrecourse loans, infrastructure debt, etc.) can become another target of investment.

As a result, it was confirmed that various investment strategies can be adopted for private debt assets and that the private debt market has grown to one of the major asset classes in size.

Commissioned to: SAPIAT

C. Research regarding a method to duplicate the performance of alternative assets

Purpose of research: Since alternative assets tend to have lower liquidity and higher fees compared to traditional assets, GPIF understands that it must ensure sufficient liquidity to pay pension benefits and evaluate investment fees and performance appropriately.

For this purpose, GPIF collects information regarding (i) basic matters of performance data and indexes of alternative assets; (ii) a method to duplicate the performance of alternative assets using traditional assets and listed assets; and (iii) a method to evaluate investment fees and performance, in order to organize matters to be resolved upon the adoption of the above-mentioned duplication method and assessment method.

The survey result supports the concept that the market average performance of private equity is reproducible to a certain degree. This shows that this reproduction technique would enable investors to promptly get exposures to private equity assets, among other benefits, without any concern for liquidity constraint. On the other hand, we reaffirmed the benefit of holding real assets because the reproduced performance is unstable and it is still difficult to reproduce the performance of a high-return fund. Moreover, the investment management fee level for private equity asset managers looks expensive but the analysis found that, given the return level, it is at an appropriate level in comparison with fees for traditional assets. On the other hand, however, some fee structure issues were pointed out by institutional investors in the interviews conducted as a part of this survey.

Based on this research result, we would like to continue to take initiatives to further improve the accuracy of reproduction techniques etc., while continuously expanding our investments in real assets.

Commissioned to: Nomura Research Institute

D. Survey for corporate values in the post-COVID-19 world

Purpose of research: Following the trends in Europe and the United States, Japanese corporations are increasing their business activities that focus on contributions to social values (non-economic values), such as ESG and SDGs activities. However, corporate earnings are worsening in the short term due to the COVID-19 pandemic, and this may cause a loss of momentum for these corporate activities.

Considering these circumstances, we have started a survey for corporate values in the post-COVID-19 world, such as exploring for a development of a method to measure the social value for various stakeholders in the COVID-19 era, and forecasting the figure of future society which puts higher priority on social value, through questionnaire to various stakeholders, data analysis, and AI-driven future simulations.

Jointly research entity: Kyoto University

E. Joint research on diversification effects and portfolio efficiency obtained through ESG investment

Purpose of research: GPIF, as a universal owner and a cross-generational investor, promotes the integration of ESG into our investment s for reducing negative effects on environmental and social issues and improving long-term investment returns of the overall portfolio asset. In pursuing these initiatives, examination of diversification effects and portfolio efficiency obtained through ESG investments allows for more appropriate and efficient ESG initiatives, while the effectiveness must be assessed from an objective point of view.

Specifically, it requires a chronological analysis method or a country-specific comparative analysis method based on a quantitative analysis taking historical changes and a difference between countries into account. This study especially utilizes a sophisticated method using a regime-switching model, etc. aiming to obtain an advanced and unique outcome through the detection of regime variances and condition analysis.

Jointly research entity: Crawford School of Public Policy, Australian National University

(Note) ”Joint research of risk management indicators for a flexible investment” was canceled in December 2020 due to difficulties in developing useful management indicators.

Chapter 2 Roles and Organizational Operation of Government Pension Investment Fund

1 | GPIF's Roles in the Public Pension Scheme

[1] GPIF's position

① The pension finance system and GPIF

Japan's public pension scheme is fundamentally managed as a pay-as-you-go system that incorporates the concept of intergenerational dependency, whereby pension premiums collected from working generations support elderly generations, instead of the advance funding method whereby funds required to cover pension benefits are accumulated in advance.

Under the pay-as-you-go pension system, it is not generally necessary to hold a large amount of reserve fund, aside from a payment reserve. However, to respond to changes in the population and economy appropriately, and to prepare for further decreasing birthrate and aging population expected in the future, GPIF still holds certain amount of reserve funds in the public pension scheme, while being managed under a pay-as-you-go system. It is stipulated that "the portion of pension premiums not allocated to benefits will be invested as reserve fund to stabilize pension finance."

Japan's decreasing birthrate and aging population are progressing faster than in any other country. Under the pension system revision implemented in 2004 (hereinafter the "revision of 2004"), the pension premium level will remain fixed into the future and the finite period of financial equilibrium is set to be approximately 100 years, covering the period until the current population would finish receiving the pension premium. This measure was implemented in order to balance the pension finance over 100 years (the finite financial equilibrium method). However, the fixing of a funding source for future pension benefits also makes the amount of fund fixed. Therefore, a mechanism to automatically adjust the pension benefit and premium contribution (Macro-Economic Slide Formula) was also adopted in the revision of 2004. Through these measures, the sustainability of the public pension system is designed to be improved (Note).

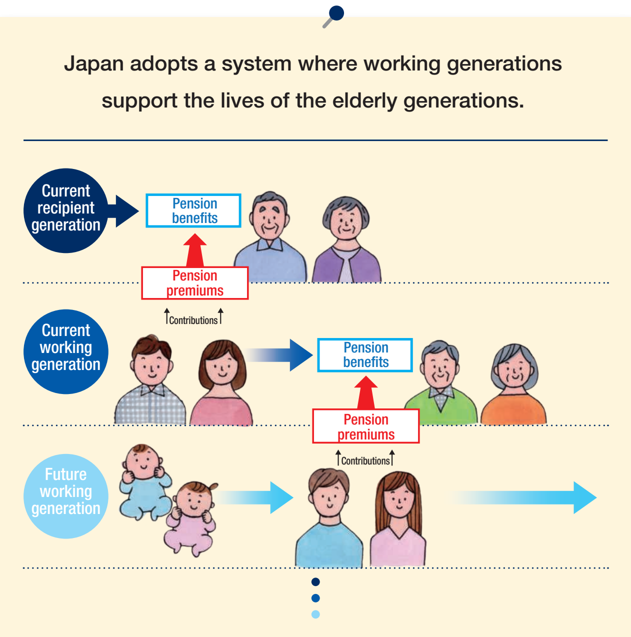
There are three laws relevant to investment of pension reserve: the Employees' Pension Insurance Act; the National Pension Act; and the Act on the Government Pension Investment Fund as an Incorporated Administrative Agency (hereinafter the "Act on the Government Pension Investment Fund") . These laws provide that "the pension reserve shall be managed safely and efficiently from a long-term perspective solely for the pension beneficiaries" (Employees' Pension Insurance Act and National Pension Act) and "the pension reserve shall be managed safely and efficiently" (Act on the Government Pension Investment Fund). Accordingly, the most fundamental legal requirement for management of the pension reserve is "safe and efficient management of pension reserve from a long-term perspective."

As is the case in other incorporated administrative agencies (Act on General Rules for Incorporated Administrative Agencies), the relevant minister lays out the objectives of GPIF for a set period of time. "Objectives to be achieved by GPIF" (hereinafter the "Medium-term Objectives"), established by the Minister of Health, Labour and Welfare, stipulates that "GPIF is required to achieve a long-term real return (net investment yield on the pension reserve fund less the nominal wage growth rate) of 1.7% with minimal risks based on the current status and outlook for pension finance." In light of these requirements, GPIF, in its Medium-term Plan, established the asset allocation (policy asset mix) from a long-term perspective, on the premise of portfolio diversification, and carries out investment and management of pension reserve based on the policy asset mix.

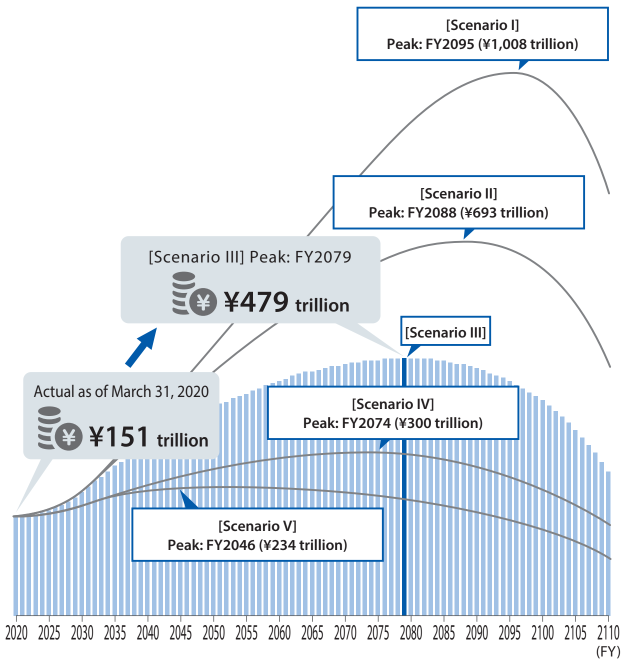
(Note) For the revision of 2004 and the details of public pension scheme, refer to the website of the Ministry of Health, Labour and Welfare (https://www.mhlw.go.jp/index.html).

② Roles of reserve fund in pension finance

The reserve fund is to be used to stabilize pension finance. In the current system that aims at balancing pension finance in about 100 years, as mentioned above, a fiscal plan is drawn up to use the pension reserve. Under this plan, investment returns on the reserve fund should be paid as a part of pension benefits initially. In addition to investment returns, the accumulated fund will be gradually withdrawn, after a set period of time. Ultimately, after 100 years or so, it is expected to maintain a reserve fund equivalent to one year of pension benefits. About 90 percent of the financial source of pension benefits (the average of approximately 100 years based on the assumption of financial verification) is funded by pension premiums and government contributions for the year, while the financial source obtained from the pension reserve (repayment of trust money or payment to national treasury) accounts for about 10 percent. The reserve fund may not be reduced for about the next 50 years or so. Moreover, GPIF owns a sufficient reserve fund necessary for the payment of pension benefits, and therefore short-term market fluctuations associated with the investment of pension reserve do not affect payments for beneficiaries. In other words, an unrealized gain or loss in a specific year may not be reflected in the amount of pension benefits in the following year.



Financial verification results
(projections for pension reserves over approximately 100 years)
[Trends of pension reserves under each scenario]



(Note 1) Population assumes medium fertility and medium mortality.
(Note 2) Asset size as of March 31, 2020 is only for the pension reserve fund and does not include Pension Special Account.
(Note 3) For details of Scenario I through Scenario V, refer to page 31.

Chapter 2

[2] Regulatory requirements for pension reserve management and outline of Medium-term Objectives and Medium-term Plans

① Basic Policy for Investment Management

The Employees' Pension Insurance Act stipulates that pension reserve funds, part of the premium collected from the pension beneficiaries, are a valuable source of funding for future pension benefits, and the purpose of investing the reserve funds is to contribute to the future stability of the public pension scheme through stable and efficient management from a long-term perspective solely for the beneficiaries. The Act on the Government Pension Investment Fund provides that GPIF must consider the impact of the management of the reserve funds on the markets and other private sector activities. The Medium-term Objectives of GPIF also stipulate that GPIF is not allowed to select individual stocks in equity investment.

◯ Article 79–2 of the Employees' Pension Insurance Act (the same philosophy is stipulated in Article 75 of the National Pension Act)

"... the pension reserve, a part of the premiums collected from the pension beneficiaries, is a valuable source of funding for future pension benefits and... the purpose of the fund is to contribute to the future stability of management of the Employees' Pension Insurance through stable and efficient management from a long-term perspective solely for the pension beneficiaries of the Employees' Pension Insurance."

◯ Article 20, Paragraph 2 of the Act on the Government Pension Investment Fund

"... GPIF must consider generally recognized expertise and domestic and overseas macroeconomic trends, as well as the impact of the pension reserve on the markets and other private sector activities, while avoiding concentration on any particular style of investment. GPIF's investment management should also satisfy the objectives under Article 79–2 of the Employees' Pension Insurance Act and Article 75 of the National Pension Act."

In light of these requirements, GPIF establishes the policy asset mix in the fourth Medium-term Plan for the five years from fiscal 2020 to fiscal 2024 from a long-term perspective, based on the philosophy of diversified investment. It is regarded that GPIF should take into consideration the reference portfolio jointly established by GPIF, the Federation of National Public Service Personnel Mutual Aid Associations, the Pension Fund Association for Local Government Officials, and the Promotion and Mutual Aid Corporation for Private Schools of Japan.

In addition to the formulation and publication of the Policy for Investment Management (Operation Policy), the Medium-term Plan requires GPIF to review the Operation Policy in a timely and proper manner in light of changes in the economic environment and revise it promptly as required.

② Investment objectives, risk management, ensuring transparency and others

In the fourth Medium-term Objectives for the period from fiscal 2020 to fiscal 2024 stipulate that a pension reserve must achieve a long-term real return (net investment yield on the pension reserve fund less the nominal wage growth rate) of 1.7% with minimal risks based on the financial verification. The fourth Medium-term Objectives also require GPIF to make efforts to pay close attention not to affect market pricing or investment activities by private sectors, and to achieve the benchmark rate of return (market average rate of return) for the total portfolio and each asset class during the period for the Medium-term Objectives.

Regarding risk management for the pension reserve, it stipulates that GPIF shall maintain the diversified portfolio, and manage and control risks of the overall portfolio, each asset class, each asset manager, and each custodian.

The fourth Medium-term Objectives stipulates that GPIF shall combine passive and active investments, implement active investment based on the strong conviction of the excess return, taking historical performance into account, and GPIF shall follow the concept that the sustainability of investee companies and the overall markets will be critical for the expansion of long-term investment returns in the management of pension reserves. Based on this, GPIF shall manage the pension reserve while paying attention to the Operation Policy mentioning that pension reserves shall be managed and invested for the purpose of securing long-term returns for the pension beneficiaries, and implement necessary initiatives by individually examining the promotion of investments that consider ESG (environmental, social and governance) as non-financial factors.

In addition, important matters regarding the introduction of new investment methods and investment targets, among others, shall be resolved upon the deliberation of the Board of Governors.

An outline of the deliberations at the Board of Governors is promptly published upon obtaining approval of the Board, by means of which we hope to help ensure the transparency of GPIF's organizational operation.

③ Other important matters for pension reserve management

The fourth Medium-term Objectives call for thorough compliance with the duty of care and fiduciary duty of prudent experts.

When managing the pension reserve, GPIF is required to consider the market size, pay close attention to prevent exposure to unfavorable market impact, and avoid the extreme concentration of investing and/or withdrawing at one time.

GPIF is also required to take appropriate measures regarding the exercise of voting rights, and not to select individual stocks by itself, in due consideration of the impact on corporate management and others.

It also sets forth that GPIF should secure the liquidity necessary for pension payouts by taking into consideration the outlook for the pension finance and the status of revenues and expenditures. At the same time, GPIF is expected to enhance the functions necessary for assuring liquidity without shortages, including selling assets in a smooth manner while giving consideration to market price formation and other factors.

④ Enhancement of investment capabilities, improvement of operational efficiency

In the fourth Medium-term Objectives, GPIF is expected to clarify the area of operations requiring highly skilled professionals, while developing an environment for attracting such talent, providing training by highly skilled professionals to improve the operational capabilities of our staff, and formulating a policy to secure and foster human resources strategically. It also stipulates that GPIF shall explain clearly to the public the appropriateness of the remuneration level applied to such highly skilled professionals by referring to comparable ones in the private sector.

Moreover, GPIF is expected to conduct more sophisticated risk management by performing a forward-looking risk analysis and a long-term analysis, and the Board of Governors shall monitor the management status of individual portfolio risks properly.

With regard to improvements in operational efficiency, the Objectives stipulate that the average cost savings during the Medium-term Objectives period should be at least 1.24% per annum based on the fiscal 2019 level. The cost-saving target includes general administrative expenses (excluding expenses related to computer systems and personnel expenses) and operational expenses (excluding expenses related to computer systems, fees for external asset managers, index fees, personnel expenses, and expenses related to short-term borrowing). Costs added or expanded pursuant to the December 2013 Cabinet Office decision and similar factors are excluded from the cost-saving target. Except for this additions or expansions, however, over 1.24% efficiency (annually by average) from the previous year is required, and the additions and expansions are ultimately included in the 1.24% cost-saving target from the following fiscal year onward.

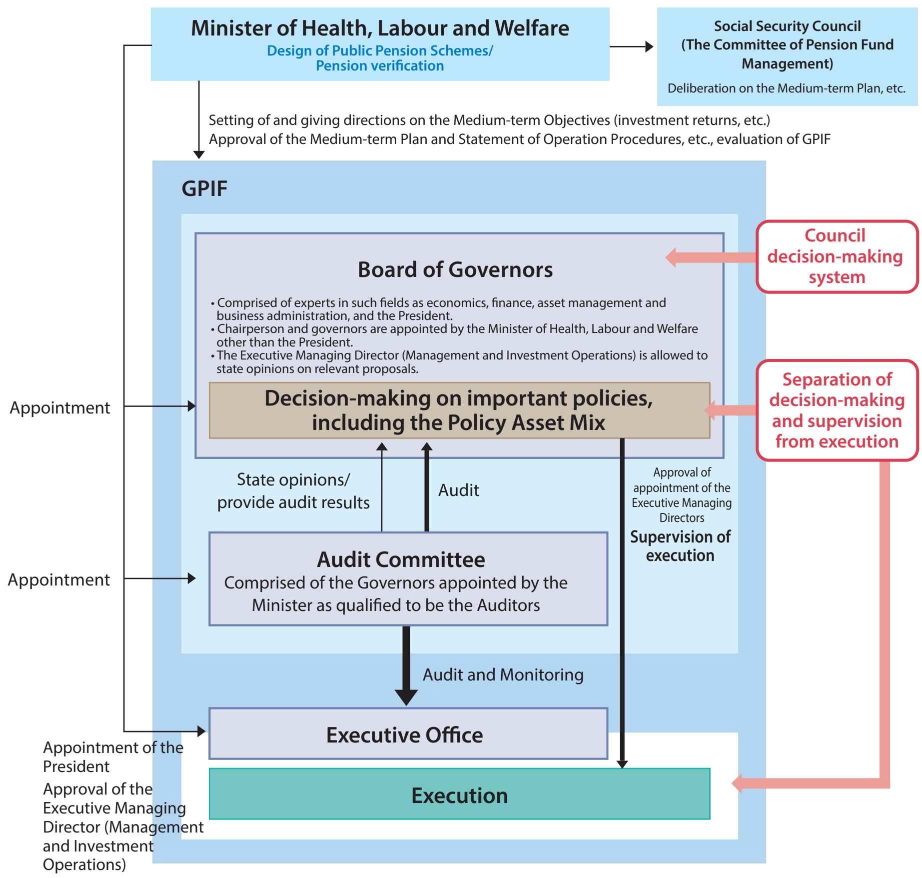
2 | Organization and Internal Control System

[1] Governance framework

GPIF has adopted a governance framework in which the Board of Governors, established in October 2017, operates on a majority vote decision-making system and has supervisory powers to determine whether decisions are properly executed. Three Governors concurrently serve as Auditors and form the Audit Committee, of which one is a full-time member. The Audit Committee carries out audits of GPIF's operations. In addition, the Audit Committee is entrusted by the Board of Governors with the authority to supervise the status of GPIF's operations executed by the President or Executive Managing Directors. The President presides over GPIF's operations in accordance with the provisions of Article 7, Paragraph 1 of the Act on the Government Pension Investment Fund. This governance system, including the majority vote decision-making system, ensures the separation of decision-making and supervision from the execution or implementation of said decisions.

The Board of Governors consists of 10 members: the President and nine professionals with an academic background or practical experience in economics, finance, asset management, business administration, and other fields relevant to GPIF's operations. Important decision-making carried out by the Board of Governors includes development of the policy asset mix and the Medium-term Plan, preparation of annual plans and annual reports, and decisions on important matters related to the organization such as staff size. It also includes the operation of GPIF, such as the formulation of basic policies for portfolio risk management and internal control, the establishment of organizational rules and other matters, approval of the appointment of the executive director.

It has been three years and a half since our governance system shifted from individual decision-making by the President to a majority voting at the Board. The root of the word "governance" is a Greek word meaning "steering." It is essential in the practice of governance to go beyond pro-forma development to promote substantive reforms of governance, and to carry out appropriate "steering" of the organization in an effort to make GPIF an organization worthy of greater trust from Japanese public.



[2] Board of Governors

At meetings of the Board of Governors, experts in various fields, such as economics, finance, asset management and business administration, discuss a broad range of agenda items related to GPIF's investment and operation management from a multidimensional perspective and make timely and appropriate decision-making. The Board of Governors held a total of 14 meetings in fiscal 2020. An outline of the meetings is as described in the following table.

In fiscal 2020, the Board of Governors passed a resolution to formulate practical guidelines for selecting ESG indexes, and establish the Legal Department following a discussion for improving and strengthening legal functions. The Board also received reports from the President or other members on the asset allocation ratio and the status of portfolio risk management for active discussion. The details of discussion by the Board of Governors are published later on the website of GPIF as a summary of agenda items.

Outline of meetings of the Board of Governors

(Fiscal 2020)

	Date of meeting	Main agenda items (only matters for resolution/deliberation are recorded)
40th meeting	April 1, 2020	(Resolution) (i) Consent to the appointment of the Executive Managing Director (Management and Investment Operations) and the Executive Managing Director (Planning and General Affairs), (ii) Important matters related to organization and staff size; (iii) Revision of the regulations of preparation and disclosure of the minutes of the Board of Governors
41st meeting	April 27, 2020	(Resolution) Assessment of pension reserve fund management (2)
42nd meeting	May 28, 2020	—
43rd meeting	June 11, 2020	(Deliberation) (i) Review of operations in fiscal 2019 (draft), (ii) Review of the achievement of the third Medium-term Objectives (draft), (iii) Annual Report fiscal year 2019 (draft), (iv) Preparation of the financial statements, business report, and financial report for fiscal 2019, appropriation of profit and loss and other important matters related to accounting (draft)
44th meeting	June 29, 2020	(Resolution) (i) Review of operations in fiscal 2019 (draft), (ii) Review of the achievement of the third Medium-term Objectives (draft), (iii) Annual Report fiscal year 2019 (draft), (iv) Disclosure of portfolio holdings by asset category as of the end of March 2020, (v) Preparation of the financial statements, business report, and financial report for fiscal 2019, appropriation of profit and loss and other important matters related to accounting (draft), (vi) Revision of the Policy to Fulfill Stewardship Responsibilities
45th meeting	July 22, 2020	(Resolution) Selection of ESG indexes
46th meeting	September 18, 2020	(Resolution) Selection of ESG indexes (2)
47th meeting	October 9, 2020	—
48th meeting	November 19, 2020	(Deliberation) Revision of the FILP bonds accounting classification
49th meeting	December 17, 2020	(Resolution) Revision of the procedural rules for the government's procurement of goods and provision of specific services concerning the government's procurement or other international agreements
50th meeting	January 14, 2021	(Resolution) (i)Revision of the FILP bonds accounting classification (2); (ii) Improvement and strengthening of legal system and functions (2)
51st meeting	February 5, 2021	—
52nd meeting	March 12, 2021	(Deliberation) Annual Plan for fiscal 2021 (draft)
53rd meeting	March 26, 2021	(Resolution) (i)Annual Plan for fiscal 2021 (draft), (ii) Matters for resolution at the Board of Governors, (iii)Revision of the organizational rules concerning the implementation of LPs investment

[3] Audit Committee

The Audit Committee executes its duties through staff members on the Secretariat for the Audit Committee, who assist the duties of the Audit Committee and are independent from the President and Executive Managing Directors. The Audit Committee also coordinates closely with the Internal Audit Department and the Account Auditor (Deloitte Touche Tohmatsu LLC).

The Audit Committee held 15 meetings in fiscal 2020. The Committee performed audits primarily from five perspectives: the status of achievement of the Medium-term Objectives; the status of execution of duties by the Board of Governors and Governors; the status of execution of duties by the President and other executives and staff members; the status of the internal control system; and the status of accounting.

The Audit Committee, as part of the monitoring operation entrusted by the Board of Governors, attends committee meetings organized by the Executive Office, including the Investment Committee, the Portfolio Risk Management Committee, the Management and Planning Committee, the Procurement Committee, etc. as needed. The Audit Committee also assesses and analyzes the status and appropriateness of GPIF's operations through interviews with the person in charge of each department, the President, and Executive Managing Directors as well as investigations at times. Then the Audit Committee reports and shares information obtained through these activities with the Board of Governors as appropriate, and gives opinions to the Board and the President on organizational management issues such as ways to further strengthen internal controls. In addition, in fiscal 2020, we also selected a candidate for Accounting Auditor for the fiscal years from 2020 to 2024, though general competitive bidding (comprehensive evaluation bidding method) process.

The results of these audits are published as the Audit Report on GPIF's website.

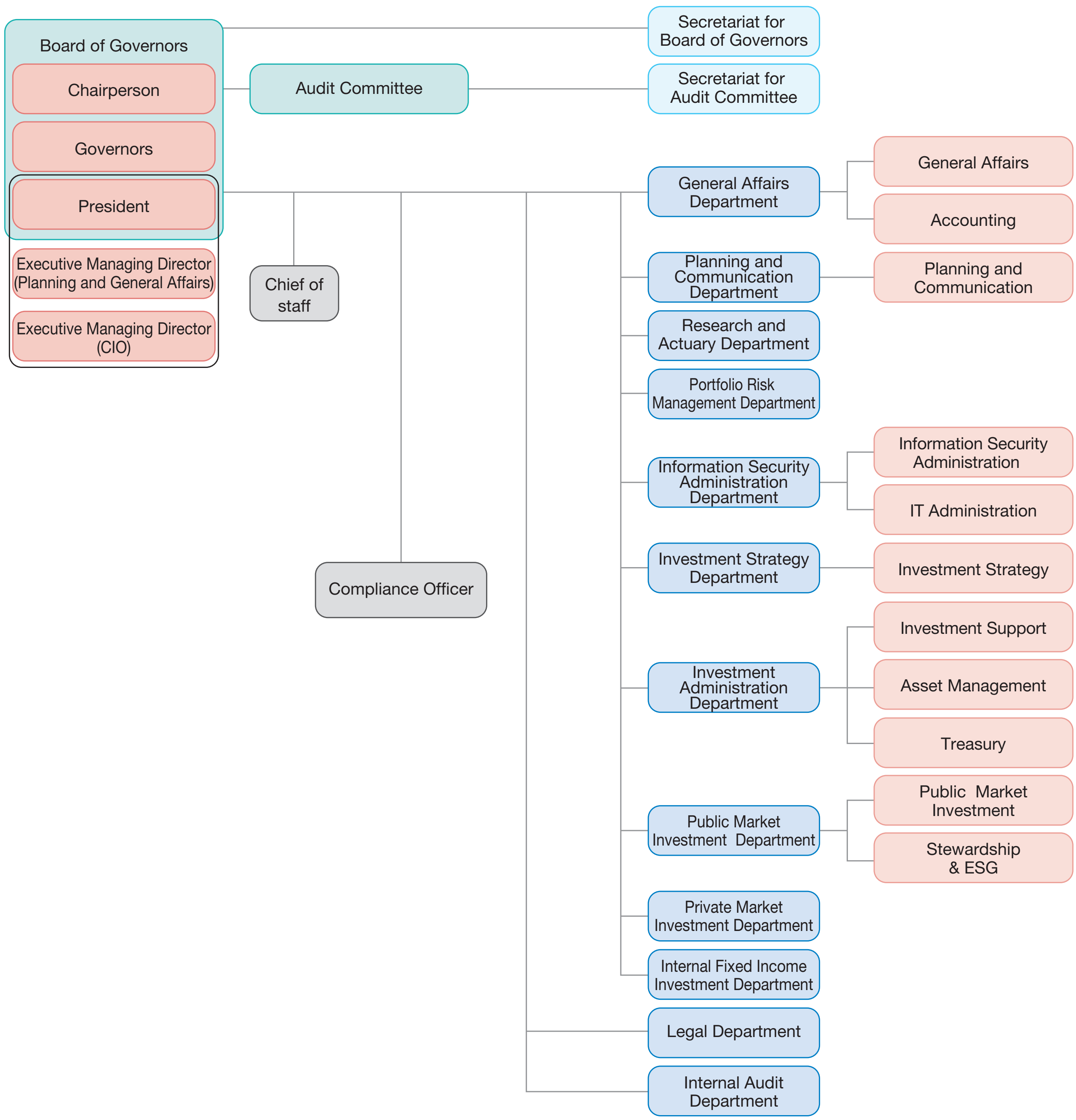
[4] Execution system

① Organization

As of April 1, 2021, GPIF has 12 executives, consisting of the Chairperson of the Board of Governors, eight Governors (including three Governors concurrently serving as Auditors), the President, and two Executive Managing Directors (one for Planning and General Affairs and the other for Management and Investment Operations who is serving as the CIO), as well as 147 staff members (excepting part-time staff).

The organization consists of the Secretariat for Board of Governors, the Secretariat for Audit Committee, the General Affairs Department (General Affairs Division, Accounting Division), the Planning and Communication Department (Planning and Communication Division), the Research and Actuary Department, the Portfolio Risk Management Department, the Information Security Administration Department (Information Security Administration Division, IT Administration Division), the Investment Strategy Department (Investment Strategy Division), the Investment Administration Department (Investment Support Division, Asset Management Division, Treasury Division), the Public Market Investment Department (Public Market Investment Division, Stewardship & ESG Division), the Private Market Investment Department, the Internal Fixed Income Investment Department, and the Legal Department and the Internal Audit Department (to report directly to the President).

Organization chart (as of April 1, 2021)



② Establishment of the Legal Department

GPIF established the Legal Department on March 1, 2021 to timely and appropriately meet unique legal needs with respect to each alternative investment, to strengthen internal controls, and to further ensure thorough compliance with laws and regulations.

③ Internal control system

GPIF has put an internal control system in place in accordance with the Basic Policies of Internal Control established by the Board of Governors.

Specifically, regarding the system to ensure that the execution of duties by the President, Executive Managing Directors, and staff members comply with laws and regulations, the Internal Control Committee is established to promote internal control. In addition, the Compliance Committee is established under the Internal Control Committee to ensure compliance with laws and regulations as well as fiduciary responsibility, etc., and the Compliance Officer is appointed. All executives and staff members are informed of the necessity to comply with the Investment Principles and the Code of Conduct and act as an organization worthy of the trust of the public. A whistle-blowing system is also in place, and corrective actions and preventive measures shall be taken according to our internal rules whenever an illegal or inappropriate activity is (or is expected to be) perpetrated by executives or staff members of GPIF. In addition, the Internal Audit Department is established to conduct internal auditing of GPIF’s operations and related responsibilities.

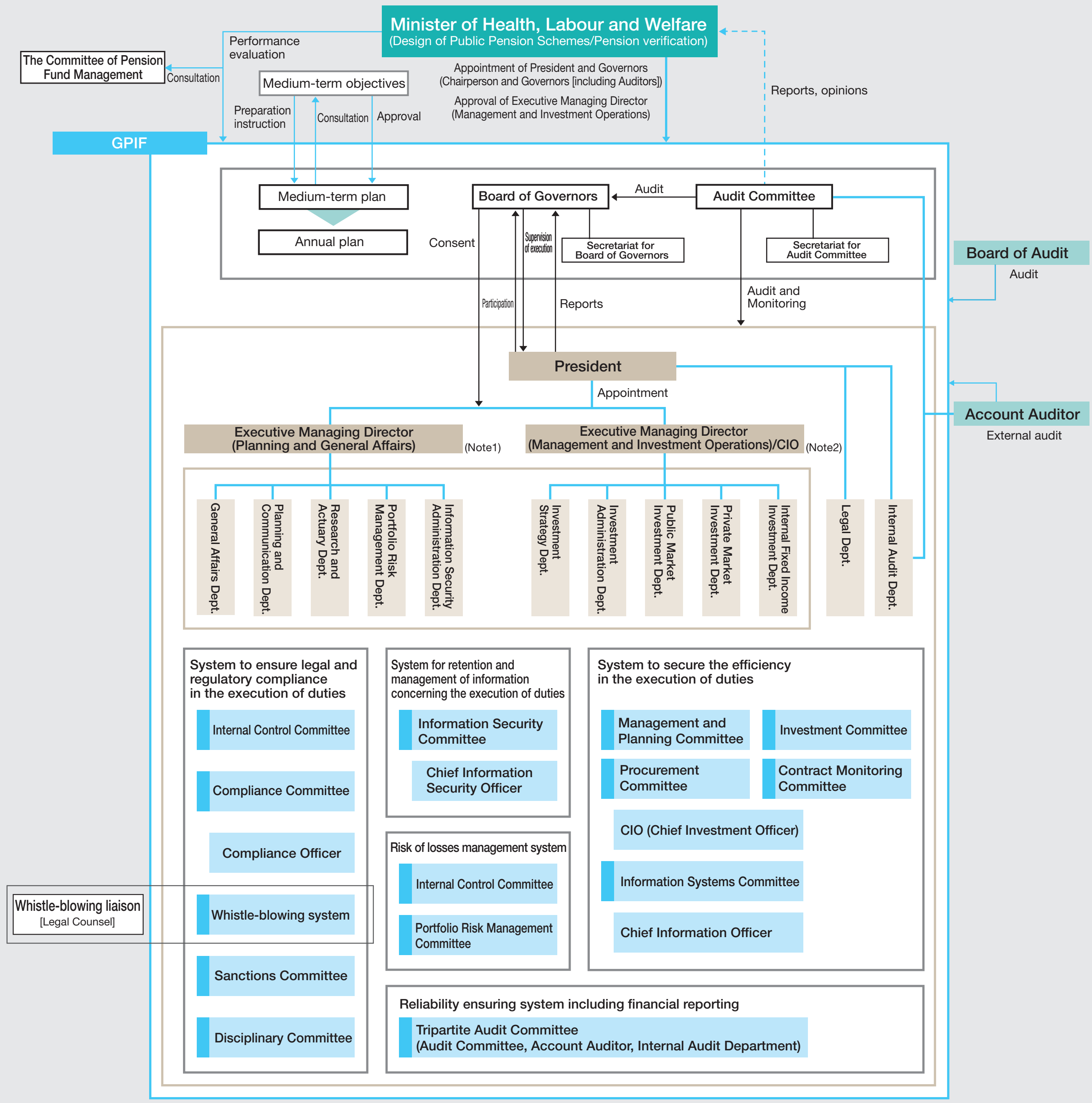
Regarding the management of the risk of losses of other related systems, the Portfolio Risk Management Committee has been established to appropriately monitor and handle various risks (portfolio risks) caused during the pension management. The Internal Control Committee has been established to identify, analyze, and assess operational risks (include reputation risks) that could impede GPIF’s day-to-day operations as well as to take measures against those risks. The Internal Control Committee also conducts risk management by drawing up and promoting measures necessary to be constantly aware of risk factors, prevent risks, and minimize losses in the event of risk occurrence.

With regard to operational and other risk, the new rules and regulations relating to operational and other risk management were established, including the rules for operational and other risk management established by the Board of Governors held in July 2019. Based on the new operational and other risk management process set forth by the above new rules and regulations, GPIF goes through a potential risk identification, analysis, and assessment process on an annual basis. In addition, these rules and regulations stipulate that each department or office is required to promptly take appropriate measures to deal with any risks that occur, and to report on an identified risk to the department responsible for supervising operational and other risk management and Internal Audit Department for each time of risk occurrence. The operational and other risk management execution status of GPIF is reported to the Board of Governors once a year. In addition, the occurrence of a significant operational and other risk is to be promptly reported to the Board of Governors.

Specifically, regarding the system to ensure the efficiency of the execution of duties, the Investment Committee has been established to carry out prior deliberation to make decisions on important matters related to the execution of management operations, and holds careful discussions from a multidimensional perspective under the supervision of the CIO.

In addition to the above, the Information Security Committee promotes GPIF’s information security measures, the Management and Planning Committee carries out prior deliberation to make decisions on important matters related to execution of GPIF’s operations, and the Procurement Committee ensures the proper state of procurement and subcontracting processes (excluding contracts with external asset managers), and the Contract Monitoring Committee including external experts conducts procurement-related inspections. By these committees, GPIF is committed to establish its internal control system.

Concept of internal control



(Note1) The Executive Managing Director (Planning and General Affairs) is responsible for matters related to the General Affairs Department, the Planning and Communication Department, the Research and Actuary Department, the Portfolio Risk Management Department, and the Information Security Administration Department.

(Note2) The Executive Managing Director (Management and Investment Operations)/CIO is responsible for matters related to the Investment Strategy Department, the Investment Administration Department, the Public Market Investment Department, the Private Market Investment Department, and the Internal Fixed Income Investment Department.

Chapter 3 Reference Data

1 | Investment Assets by Investment Method and by Manager, Etc.

[1] Investment assets by investment method and by asset class (market value at the end of fiscal 2020)

	Market value (¥billion)	Portfolio allocation (%)
Total (Investment assets)	186,162.4	100.00
Passive investments	153,944.5	82.69
Active investments	30,617.6	16.45
Others	1,600.3	0.86

		Market value (¥billion)	Portfolio allocation (%)
Total (Investment assets)		186,162.4	100.00
Domestic bonds	Total	43,822.9	23.54
	Passive investments	31,959.6	17.17
	Active investments	10,402.4	5.59
	Others	1,460.8	0.78
Foreign bonds	Total	47,294.3	25.40
	Passive investments	36,001.0	19.34
	Active investments	11,153.7	5.99
	Others	139.5	0.07
Domestic equities	Total	47,227.3	25.37
	Passive investments	43,907.9	23.59
	Active investments	3,319.4	1.78
Foreign equities	Total	47,818.0	25.69
	Passive investments	42,075.9	22.60
	Active investments	5,742.1	3.08

(Note 1) The figures above are rounded, so the sum of each item does not necessarily match the total number.
(Note 2) Domestic bonds (others) refers to yen-denominated short-term assets. Foreign bonds (others) refer to foreign currency-denominated short-term assets.

[2] Changes in the ratios of passive and active investment

(Unit:%)

		FY2011	FY2012	FY2013	FY2014	FY2015	FY2016	FY2017	FY2018	FY2019	FY2020
Domestic bonds	Passive	81.61	90.48	90.13	86.10	82.50	79.38	77.03	75.54	71.45	72.93
	Active	18.39	9.52	9.87	13.90	17.50	20.62	22.97	24.46	28.55	27.07
Foreign bonds	Passive	70.87	70.60	71.70	69.85	64.94	60.89	61.98	66.24	73.81	76.12
	Active	29.13	29.40	28.30	30.15	35.06	39.11	38.02	33.76	26.19	23.88
Domestic equities	Passive	76.23	78.78	87.69	86.71	81.52	90.62	90.44	90.58	90.93	92.97
	Active	23.77	21.22	12.31	13.29	18.48	9.38	9.56	9.42	9.07	7.03
Foreign equities	Passive	86.01	86.74	89.37	88.05	84.15	86.45	86.32	90.50	90.17	87.99
	Active	13.99	13.26	10.63	11.95	15.85	13.55	13.68	9.50	9.83	12.01
Total	Passive	76.65	84.50	86.00	83.91	79.28	77.31	76.28	77.87	79.21	82.69
	Active	23.35	15.50	14.00	16.09	20.72	22.69	23.72	22.13	20.79	17.31

(Note 1) The amount until the end of fiscal 2019 does not include short-term assets and FILP bonds. There are no FILP bonds outstanding as of the end of fiscal 2020.
(Note 2) The amount of domestic bonds (active) and total (active) as of the end of fiscal 2020 includes yen-denominated short-term assets. The amount of foreign bonds (active) and total (active) as of the end of fiscal 2020 includes foreign currency-denominated short-term assets.
(Note 3) JPY hedged foreign bonds are classified as foreign bonds (passive) until the end of fiscal 2019 and as domestic bonds (passive) as of the end of fiscal 2020.

[3] Investment assets by manager, etc. (market value at the end of fiscal 2020)

(Unit：¥billion)

Investment method	Asset manager name (Subcontractor, etc.)	Custodians	Manager benchmark	Market value
Domestic bonds passive investment	Asset Management One Co., Ltd. Ⅰ (former Mizuho Trust & Banking)	CBJ	BPI	1,148.2
	AllianceBernstein Japan Ltd. Ⅰ (AllianceBernstein L.P., etc.)	MTBJ	USMBS-H	616.9
	State Street Global Advisors (Japan) Co., Ltd. Ⅰ	CBJ	BPI	1,285.3
	BlackRock Japan Co., Ltd. Ⅰ	MTBJ	USGOV-H	1,050.8
	BlackRock Japan Co., Ltd. Ⅱ	MTBJ	EGBI-H	25.2
	BlackRock Japan Co., Ltd. Ⅲ (BlackRock Financial Management, Inc.)	MTBJ	USMBS-H	634.6
	Sumitomo Mitsui Trust Asset Management Co., Ltd. Ⅰ	CBJ	BPI	1,285.8
	Sumitomo Mitsui Trust Asset Management Co., Ltd. Ⅱ	CBJ	BPI-G	3,432.8
	Mitsubishi UFJ Trust and Banking Corporation Ⅰ	CBJ	BPI-G	3,387.1
	Resona Asset Management Co., Ltd. Ⅰ	SSTB	USGOV-H	1,053.6
	Resona Asset Management Co., Ltd. Ⅱ	SSTB	EGBI-H	24.1
	In-house investment Ⅰ	CBJ	BPI	9,938.6
	In-house investment Ⅱ	CBJ	BPI-G	8,076.5
Domestic bonds active investment	Asset Management One Co., Ltd. Ⅱ (former DIAM)	CBJ	BPI-TIPS	1,103.1
	Asset Management One Co., Ltd. Ⅲ (former Mizuho Trust & Banking)	CBJ	BPI-TIPS	950.1
	MU Investments Co., Ltd.	CBJ	BPI-TIPS	706.2
	Tokio Marine Asset Management Co., Ltd.	CBJ	BPI-TIPS	943.3
	PGIM Japan Co., Ltd. Ⅰ	CBJ	BPI-TIPS	638.7
	PIMCO Japan Ltd Ⅰ (Pacific Investment Management Company LLC (PIMCO), etc.)	CBJ	BPI-TIPS	548.3
	Manulife Investment Management (Japan) Limited Ⅰ	CBJ	BPI-TIPS	433.3
	Sumitomo Mitsui Trust Asset Management Co., Ltd. Ⅲ	CBJ	BPI-TIPS	953.0
	Mitsubishi UFJ Trust and Banking Corporation Ⅱ	CBJ	BPI-TIPS	948.6
	In-house investment Ⅲ	CBJ	—	2,962.3
Domestic bonds others	In-house investment Ⅳ	CBJ	—	1,460.8
Foreign bonds passive investment	Asset Management One Co., Ltd. Ⅳ (former Mizuho Trust & Banking)	SSTB	WGBI	2,919.8
	State Street Global Advisors (Japan) Co., Ltd. Ⅱ	SSTB	WGBI	1,988.9
	Nomura Asset Management Co., Ltd. Ⅰ	MTBJ	WGBI	2,841.1
	BlackRock Japan Co., Ltd. Ⅳ	MTBJ	WGBI	4,816.8
	BlackRock Japan Co., Ltd. Ⅴ	MTBJ	WGBI-O	1,286.9
	BlackRock Japan Co., Ltd. Ⅵ	MTBJ	USGOV	2,177.0
	BlackRock Japan Co., Ltd. Ⅶ	MTBJ	USGOV 1-3Y	0.1
	BlackRock Japan Co., Ltd. Ⅷ	MTBJ	EGBI	3,573.2
	BlackRock Japan Co., Ltd. Ⅸ (BlackRock Financial Management, Inc., etc.)	MTBJ	USHY2%	302.9
	BlackRock Japan Co., Ltd. Ⅹ (BlackRock Financial Management, Inc., etc.)	MTBJ	EUROHY 2%	91.9
	Sumitomo Mitsui Trust Asset Management Co., Ltd. Ⅳ	SSTB	WGBI	4,579.9
	Resona Asset Management Co., Ltd. Ⅲ	SSTB	WGBI	5,027.2
	Resona Asset Management Co., Ltd. Ⅳ	SSTB	WGBI-O	738.3
	Resona Asset Management Co., Ltd. Ⅴ	SSTB	USGOV	2,606.9
	Resona Asset Management Co., Ltd. Ⅵ	SSTB	EGBI	3,050.1
Foreign bonds active investment	Asset Management One Co., Ltd. Ⅴ (former Mizuho Asset Management) (Loomis, Sayles & Company, L.P.)	SSTB	G-AGG-EXC	892.5
	Ashmore Japan Co., Ltd (Ashmore Investment Management Limited)	SSTB	GBI-EMGD-EXC	233.9
	AllianceBernstein Japan Ltd. Ⅱ (AllianceBernstein L.P., etc.)	SSTB	EMBIGD	104.1

(Unit：¥billion)

Investment method	Asset manager name (Subcontractor, etc.)	Custodians	Manager benchmark	Market value
Foreign bonds active investment	Goldman Sachs Asset Management Co., Ltd. Ⅰ (Goldman Sachs Asset Management, L.P., etc.)	SSTB	G-AGG-EXC	316.2
	Schroder Investment Management (Japan) Limited Ⅰ (Schroder Investment Management Limited, etc.)	SSTB	G-AGG-EXC	602.6
	Sompo Asset Management Co., LTD. (Colchester Global Investors Limited)	SSTB	G-AGG-EXC	811.8
	T. Rowe Price Japan, Inc. (T. Rowe Price International Ltd.)	MTBJ	EUROHY2%	60.2
	PineBridge Investments Japan Co., Ltd. (PineBridge Investments LLC)	MTBJ	USHY2%	57.4
	BNY Mellon Investment Management Japan Limited Ⅰ (Insight Investment Management (Global) Limited)	SSTB	EUROAGG	928.8
	PGIM Japan Co., Ltd Ⅱ (PGIM, Inc. etc.)	SSTB	G-AGG-EXC	1,070.1
	PIMCO Japan Ltd Ⅱ (Pacific Investment Management Company LLC (PIMCO), etc.)	SSTB	G-AGG-EXC	1,269.1
	FIL Investments (Japan) Limited Ⅰ (Fidelity Institutional Asset Management (FIAM))	SSTB	USAGG	1,133.4
	BlackRock Japan Co., Ltd. Ⅺ (BlackRock Financial Management, Inc., etc.)	SSTB	G-AGG-EXC	731.7
	Barings Japan Limited (Barings LLC, etc.)	MTBJ	USHY2%	58.3
	Morgan Stanley Investment Management (Japan) Co., Ltd. Ⅰ (Morgan Stanley Investment Management Inc., etc.)	SSTB	G-AGG-EXC	1,209.9
	Morgan Stanley Investment Management (Japan) Co., Ltd. Ⅱ (Morgan Stanley Investment Management Inc.)	MTBJ	USHY2%	56.0
	UBS Asset Management (Japan) Ltd Ⅰ (UBS Asset Management (UK) Ltd)	SSTB	EUROHY2%	92.8
	Legg Mason Asset Management (Japan) Co., Ltd. (Brandywine Global Investment Management, LLC.)	SSTB	G-AGG-EXC	687.4
Foreign bonds others	In-house investment Ⅴ	SSTB	—	139.5
Domestic equities passive investment	Asset Management One Co., Ltd. Ⅵ (former DIAM)	CBJ	TOPIX	8,323.6
	Asset Management One Co., Ltd. Ⅶ (former Mizuho Trust & Banking)	CBJ	RN-P	2,037.1
	Asset Management One Co., Ltd. Ⅷ (former DIAM)	CBJ	FTSE-BL	938.4
	FIL Investments (Japan) Limited Ⅱ (Geode Capital Management, LLC)	MTBJ	TOPIX	126.4
	BlackRock Japan Co., Ltd. Ⅻ	CBJ	TOPIX	5,273.2
	BlackRock Japan Co., Ltd. XIII	CBJ	FTSE-BL	552.2
	Nomura Asset Management Co., Ltd. Ⅳ	CBJ	MSCI-IR	66.7
	Nomura Asset Management Co., Ltd. Ⅴ	CBJ	RAFI	1,354.5
	Sumitomo Mitsui Trust Asset Management Co., Ltd. Ⅴ	CBJ	TOPIX	7,384.8
	Sumitomo Mitsui Trust Asset Management Co., Ltd. Ⅵ	CBJ	SP-C	1,536.5
	Mitsubishi UFJ Trust and Banking Corporation Ⅲ	CBJ	TOPIX	6,626.4
	Mitsubishi UFJ Trust and Banking Corporation Ⅳ	CBJ	MSCI-ESG	2,026.8
	Mitsubishi UFJ Trust and Banking Corporation Ⅴ	CBJ	MSCI-WIN	1,236.2
	Resona Asset Management Co., Ltd. Ⅷ	MTBJ	TOPIX	6,425.0
Domestic equities active investment	Asset Management One Co., Ltd. Ⅸ	CBJ	TOPIX	95.4
	Asset Management One Co., Ltd. Ⅹ (former Mizuho Asset Management)	CBJ	RN-SG	127.9
	Invesco Asset Management (Japan) Limited Ⅰ	CBJ	TOPIX	288.4
	Invesco Asset Management (Japan) Limited Ⅱ	CBJ	TOPIX	89.7
	Capital International K.K. (Capital International Inc.)	CBJ	TOPIX	673.2
	Schroder Investment Management (Japan) Limited Ⅱ	CBJ	TOPIX	357.5

Chapter 3

(Unit:¥billion)

Investment method	Asset manager name (Subcontractor, etc.)	Custodians	Manager benchmark	Market value
Domestic equities active investment	Nikko Asset Management Co., Ltd. Ⅰ	CBJ	TOPIX	0.5
	Nikko Asset Management Co., Ltd. Ⅱ	CBJ	TOPIX	62.5
	Nomura Asset Management Co., Ltd. Ⅵ	CBJ	TOPIX	66.5
	Nomura Asset Management Co., Ltd. Ⅶ	CBJ	RN-S	71.8
	Nomura Asset Management Co., Ltd. Ⅷ (Dimensional Fund Advisors LP)	CBJ	MSCI-JS	297.1
	FIL Investments (Japan) Limited Ⅲ	CBJ	TOPIX	521.2
	Sumitomo Mitsui DS Asset Management Company, Limited Ⅰ	CBJ	RN-V	327.6
	Lazard Japan Asset Management K.K. Ⅰ	MTBJ	TOPIX	66.3
	Russell Investments Japan Co., Ltd. Ⅰ (Russell Investments Implementation Services, LLC)	CBJ	TOPIX	242.9
Foreign equities passive investment	State Street Global Advisors (Japan) Co., Ltd. Ⅲ	MTBJ	MSCI-A-EXC	18,230.9
	State Street Global Advisors (Japan) Co., Ltd. Ⅳ	MTBJ	MSCI-N	1,498.0
	State Street Global Advisors (Japan) Co., Ltd. Ⅴ	MTBJ	MSCI-EU	362.6
	State Street Global Advisors (Japan) Co., Ltd. Ⅵ	MTBJ	MSCI-P	84.9
	State Street Global Advisors (Japan) Co., Ltd. Ⅶ	MTBJ	MSCI-EXC	551.0
	State Street Global Advisors (Japan) Co., Ltd. Ⅷ	MTBJ	SP-GC	2,823.9
	BlackRock Japan Co., Ltd. XIV	MTBJ	MSCI-A-EXC	3,220.6
	Sumitomo Mitsui Trust Asset Management Co., Ltd. Ⅶ	MTBJ	MSCI-A-EXC	8,858.2
	Legal & General Investment Management Japan KK Ⅰ (Legal & General Investment Management Limited)	MTBJ	MSCI-A-EXC	4,922.9
	Legal & General Investment Management Japan KK Ⅱ (Legal & General Investment Management Limited)	MTBJ	MSCI-EXC	0.4
	Legal & General Investment Management Japan KK Ⅲ (Legal & General Investment Management Limited)	MTBJ	MSCI-A-ESG	1,178.4
	Legal & General Investment Management Japan KK Ⅳ (Legal & General Investment Management Limited)	CBJ	MO-GD	343.8
Foreign equities active investment	Asset Management One Co., Ltd. Ⅺ (former Mizuho Asset Management) (Wells Capital Management, Inc.)	MTBJ	MSCI-E	143.4
	MFS Investment Management K.K. (Massachusetts Financial Services Company)	MTBJ	MSCI-K	844.0
	Nikko Asset Management Co., Ltd. Ⅲ (INTECH Investment Management LLC)	MTBJ	MSCI-K	1,216.1
	BNY Mellon Investment Management Japan Limited Ⅱ (Walter Scott & Partners Limited)	MTBJ	MSCI-K	706.8
	Mitsubishi UFJ Trust and Banking Corporation Ⅵ (Baillie Gifford Overseas Limited)	MTBJ	MSCI-A	1,228.2
	UBS Asset Management (Japan) Ltd Ⅱ (UBS Asset Management (UK) Ltd)	MTBJ	MSCI-K	1,242.9
	Lazard Japan Asset Management K.K. Ⅱ (Lazard Asset Management LLC)	MTBJ	MSCI-E	85.6
Alternative infrastructure	DBJ Asset Management Co., Ltd.	SSTB	–	87.6
	Gatekeeper : Nomura Asset Management Co., Ltd. Ⅸ Fund of Funds Manager : Pantheon	SSTB	–	189.2
	Gatekeeper : Sumitomo Mitsui DS Asset Management Company, Limited Ⅱ Fund of Funds Manager : StepStone Infrastructure & Real Assets	SSTB	–	294.4
	In-house investment Ⅵ (Unit Trust Manager : Nissay Asset Management Corporation)	SSTB	–	165.0
Alternative private equity	Gatekeeper : Neuberger Berman East Asia Limited Fund of Funds Manager : NB Alternatives Advisers LLC	SSTB	–	31.5
	Gatekeeper :Mitsubishi UFJ Trust and Banking Corporation Ⅶ Fund of Funds Manager : Hamilton Lane Advisors, L.L.C.	SSTB	–	5.2
	In-house investment Ⅶ (Unit Trust Manager : Nissay Asset Management Corporation)	SSTB	–	24.4
Alternative real estate	Gatekeeper : Asset Management One Co., Ltd. Ⅻ Fund of Funds Manager : CBRE Global Investment Partners Limited	SSTB	–	352.9
	Mitsubishi UFJ Trust and Banking Corporation Ⅷ	SSTB	–	191.9
Total	35 asset managers, 115 Funds	–	–	186,144.9

(Unit:¥billion)

Investment method	Custodian, etc. name		Market value
Custody	State Street Trust and Banking Co., Ltd.	SSTB	33,571.4
	Custody Bank of Japan, Ltd.	CBJ	81,124.7
	The Master Trust Bank of Japan, Ltd.	MTBJ	71,465.5
Total			186,161.7

Transition management	BlackRock Japan Co., Ltd. XV (Foreign bonds) (BlackRock Asset Management North Asia Limited)	SSTB	16.7

(Note 1) While the 35 asset managers in the total column do not include in-house investment, the 115 funds in the total column include seven in-house investment funds.

(Note 2) The figure in the total market value column for funds managed by asset managers (115 funds managed by 35 asset managers) does not include accrued dividend income from closed funds (statutory trust accounts).

(Note 3) Figures in the market value column for custodians do not include accrued dividend income (foreign equities: ¥0.8 billion) from closed funds (statutory trust accounts).

(Note 4) Manager benchmarks are shown in the following table and the sources of those benchmarks are as listed in the right-hand column of the following table.

	Manager benchmark		Source of benchmark
Domestic bonds	BPI	NOMURA-BPI (excluding ABS)	Nomura Research Institute, Ltd.
	BPI-G	NOMURA-BPI Government Bonds	Nomura Research Institute, Ltd.
	BPI-TIPS	NOMURA-BPI plus Inflation-Linked Bonds	Nomura Research Institute, Ltd.
	USGOV-H	FTSE US Government Bond Index (JPY hedged/JPY basis)	FTSE Fixed Income LLC
	EGBI-H	FTSE EMU Government Bond Index (JPY hedged/JPY basis)	FTSE Fixed Income LLC
	USMBS-H	Bloomberg Barclays US MBS Fixed Rate Index (JPY hedged/JPY basis)	Bloomberg Index Services Limited
Foreign bonds	WGBI	FTSE World Government Bond Index (not incl. JPY, no hedge/JPY basis)	FTSE Fixed Income LLC
	WGBI-O	FTSE World Government Bond Index (not incl. JPY, USD, EMU Government Bond, no hedge/JPY basis)	FTSE Fixed Income LLC
	USGOV	FTSE US Government Bond Index (no hedge/JPY basis)	FTSE Fixed Income LLC
	USGOV 1-3Y	FTSE US Government Bond Index 1-3years (no hedge/JPY basis)	FTSE Fixed Income LLC
	EGBI	FTSE EMU Government Bond Index (no hedge/JPY basis)	FTSE Fixed Income LLC
	G-AGG-EXC	Bloomberg Barclays Global Aggregate Index (not incl. JPY, CNY, no hedge/JPY basis)	Bloomberg Index Services Limited
	USAGG	Bloomberg Barclays US Aggregate Index (no hedge/JPY basis)	Bloomberg Index Services Limited
	EUROAGG	Bloomberg Barclays EURO Aggregate Index (no hedge/JPY basis)	Bloomberg Index Services Limited
	USHY2%	Bloomberg Barclays US Corporate High Yield 2% Issuer Capped Bond Index (no hedge/JPY basis)	Bloomberg Index Services Limited
	EUROHY 2%	Bloomberg Barclays EURO Corporate High Yield 2% Issuer Capped Bond Index (no hedge/JPY basis)"	Bloomberg Index Services Limited
	EMBIGD	J.P. Morgan EMBI Global Diversified (no hedge/JPY basis)	J.P.Morgan Securities LLC
	GBI-EMGD-EXC	J.P. Morgan Government Bond Index-Emerging Markets Global Diversified Index (not incl. China, no hedge/JPY basis)	J.P.Morgan Securities LLC
Domestic equities	TOPIX	TOPIX (incl. dividends)	Tokyo Stock Exchange, Inc.
	RN-P	RUSSELL/NOMURA Prime Index (incl. dividends)	Nomura Research Institute, Ltd.
	RN-V	RUSSELL/NOMURA Large Cap Value Index (incl. dividends)	Nomura Research Institute, Ltd.
	RN-S	RUSSELL/NOMURA Small Cap Index (incl. dividends)	Nomura Research Institute, Ltd.
	RN-SG	RUSSELL/NOMURA Small Cap Growth Index (incl. dividends)	Nomura Research Institute, Ltd.
	MSCI-JS	MSCI Japan Small (incl. dividends)	MSCI G.K.
	MSCI-IR	MSCI Japan IMI Equity REITS Index (incl. dividends)	MSCI G.K.
	MSCI-ESG	MSCI Japan ESG Select Leaders Index	MSCI G.K.
	MSCI-WIN	MSCI Japan Empowering Women Index (WIN)	MSCI G.K.
	FTSE-BL	FTSE Blossom Japan Index	FTSE International Limited
	SP-C	S&P/JPX Carbon Efficient Index	S&P Opco, LLC
	RAFI	Nomura RAFI Index	Nomura Asset Management Co., Ltd.
Foreign equities	MSCI-A	MSCI ACWI (not incl. JPY, JPY basis, incl. dividends, after taking into account GPIF dividend tax factors)	MSCI G.K.
	MSCI-A-EXC	MSCI ACWI (not incl. JPY,China A, JPY basis, incl. dividends, after taking into account GPIF dividend tax factors)	MSCI G.K.
	MSCI-K	MSCI KOKUSAI (JPY basis, incl. dividends, after taking into account GPIF dividend tax factors)	MSCI G.K.
	MSCI-N	MSCI North America (JPY basis, incl. dividends, after taking into account GPIF dividend tax factors)	MSCI G.K.
	MSCI - EU	MSCI Europe & Middle East (JPY basis, incl. dividends, after taking into account GPIF dividend tax factors)	MSCI G.K.
	MSCI-P	MSCI Pacific (not incl. JPY, JPY basis, incl. dividends, after taking into account GPIF dividend tax factors)	MSCI G.K.
	MSCI-E	MSCI EMERGING MARKETS (JPY basis, incl. dividends, after deducting taxes)	MSCI G.K.
	MSCI-EXC	MSCI EMERGING MARKETS (not incl. China A, JPY basis, incl. dividends, after deducting taxes)	MSCI G.K.
	MSCI-A-ESG	MSCI ACWI ESG Universal (not incl. JPY, China A, JPY basis, incl. dividends, after taking into account GPIF dividend tax factors)	MSCI G.K.
	MO-GD	Morningstar Developed Markets ex-Japan Gender Diversity Index (JPY basis, incl. dividends, before deducting taxes)	Morningstar, Inc.
	SP-GC	S&P Global Ex-Japan LargeMidCap Carbon Efficient Index	S&P Opco, LLC

[4] Investment performance by manager, etc.

① Investment performance (over the last year) (from April 2020 to March 2021)

Investment method	Asset manager name	Time-weighted return (A)	Benchmark return (B)	Excess rate of return (C) = (A) − (B)	Remarks column
Domestic bonds passive investment	Asset Management One Co., Ltd. Ⅰ (former Mizuho Trust & Banking)	-0.70%	-0.70%	-0.00%	
	AllianceBernstein Japan Ltd. Ⅰ	-1.79%	-1.27%	-0.52%	○
	State Street Global Advisors (Japan) Co., Ltd. Ⅰ	-0.74%	-0.70%	-0.04%	
	BlackRock Japan Co., Ltd. Ⅰ	-10.42%	-5.08%	-5.34%	
	BlackRock Japan Co., Ltd. Ⅱ	2.47%	2.54%	-0.07%	
	BlackRock Japan Co., Ltd. Ⅲ	-1.19%	-1.27%	+0.09%	○
	Sumitomo Mitsui Trust Asset Management Co., Ltd. Ⅰ	-0.72%	-0.70%	-0.02%	
	Sumitomo Mitsui Trust Asset Management Co., Ltd. Ⅱ	-0.88%	-0.89%	+0.00%	
	Mitsubishi UFJ Trust and Banking Corporation Ⅰ	-0.83%	-0.89%	+0.06%	
	Resona Asset Management Co., Ltd. Ⅰ	-16.05%	-5.08%	-10.96%	
	Resona Asset Management Co., Ltd. Ⅱ	2.60%	2.54%	+0.06%	
	In-house investment Ⅰ	-0.74%	-0.70%	-0.03%	
	In-house investment Ⅱ	-0.89%	-0.89%	-0.00%	
Domestic bonds active investment	Asset Management One Co., Ltd. Ⅱ (former DIAM)	-0.26%	-0.69%	+0.43%	
	Asset Management One Co., Ltd. Ⅲ (former Mizuho Trust & Banking)	-0.20%	-0.69%	+0.49%	
	MU Investments Co., Ltd.	-0.66%	-0.69%	+0.03%	
	Tokio Marine Asset Management Co., Ltd.	-0.47%	-0.69%	+0.21%	
	PGIM Japan Co., Ltd. Ⅰ	0.03%	-0.69%	+0.72%	
	PIMCO Japan Ltd Ⅰ	-0.28%	-0.69%	+0.41%	
	Manulife Invetment Management (Japan) Limited Ⅰ	1.26%	-0.69%	+1.95%	
	Sumitomo Mitsui Trust Asset Management Co., Ltd. Ⅲ	-0.26%	-0.69%	+0.43%	
	Mitsubishi UFJ Trust and Banking Corporation Ⅱ	-0.08%	-0.69%	+0.61%	
	In-house investment Ⅲ	0.40%	—	—	
Foreign bonds passive investment	Asset Management One Co., Ltd. Ⅳ (former Mizuho Trust & Banking)	5.34%	5.43%	-0.09%	
	State Street Global Advisors (Japan) Co., Ltd. Ⅱ	5.27%	5.43%	-0.16%	
	Nomura Asset Management Co., Ltd. Ⅰ	5.36%	5.43%	-0.07%	
	BlackRock Japan Co., Ltd. Ⅳ	5.39%	5.43%	-0.04%	
	BlackRock Japan Co., Ltd. Ⅴ	8.59%	11.70%	-3.11%	
	BlackRock Japan Co., Ltd. Ⅵ	-2.33%	-2.16%	-0.18%	
	BlackRock Japan Co., Ltd. Ⅶ	-0.49%	-0.40%	-0.09%	
	BlackRock Japan Co., Ltd. Ⅷ	12.12%	12.15%	-0.03%	
	BlackRock Japan Co., Ltd. Ⅸ	2.08%	2.05%	+0.03%	○
	BlackRock Japan Co., Ltd. Ⅹ	0.30%	0.28%	+0.02%	○
	Sumitomo Mitsui Trust Asset Management Co., Ltd. Ⅳ	5.33%	5.43%	-0.11%	
	Resona Asset Management Co., Ltd. Ⅲ	5.18%	5.43%	-0.25%	
	Resona Asset Management Co., Ltd. Ⅳ	11.99%	11.70%	+0.29%	
	Resona Asset Management Co., Ltd. Ⅴ	-2.32%	-2.16%	-0.16%	
	Resona Asset Management Co., Ltd. Ⅵ	-0.47%	-0.38%	-0.09%	
	Resona Asset Management Co., Ltd. Ⅶ	12.05%	12.15%	-0.10%	
Foreign bonds active investment	Asset Management One Co., Ltd. Ⅴ (former Mizuho Asset Management)	14.02%	7.35%	+6.67%	
	Ashmore Japan Co., Ltd	26.61%	15.43%	+11.18%	
	AllianceBernstein Japan Ltd. Ⅱ	26.13%	18.74%	+7.39%	
	Goldman Sachs Asset Management Co., Ltd. Ⅰ	14.20%	8.20%	+6.00%	
	Schroder Investment Management (Japan) Limited Ⅰ	15.34%	8.20%	+7.14%	
	Sompo Asset Management Co., LTD.	10.46%	8.20%	+2.26%	
	T.Rowe Price Japan, Inc.	37.33%	33.93%	+3.40%	
	Nomura Asset Management Co., Ltd. Ⅱ	-1.49%	6.32%	-7.81%	
	Nomura Asset Management Co., Ltd. Ⅲ	23.86%	21.89%	+1.98%	
	PineBridge Investments Japan Co., Ltd.	27.06%	26.56%	+0.49%	
	BNY Mellon Investment Management Japan Limited Ⅰ	15.66%	13.19%	+2.47%	
	PGIM Japan Co., Ltd. Ⅱ	14.95%	8.20%	+6.75%	
	PIMCO Japan Ltd Ⅱ	9.58%	6.16%	+3.42%	
	FIL Investments (Japan) Limited Ⅰ	14.81%	3.08%	+11.72%	
	BlackRock Japan Co., Ltd. Ⅺ	11.96%	5.97%	+5.99%	
	Barings Japan Limited	26.19%	26.56%	-0.37%	
	Manulife Invetment Management (Japan) Limited Ⅱ	12.30%	6.32%	+5.98%	
	Morgan Stanley Investment Management (Japan) Co., Ltd. Ⅰ	12.43%	7.23%	+5.21%	
	Morgan Stanley Investment Management (Japan) Co., Ltd. Ⅱ	28.21%	26.56%	+1.65%	
	UBS Asset Management (Japan) Ltd Ⅰ	34.27%	32.98%	+1.30%	
	Legg Mason Asset Management (Japan) Co., Ltd.	22.06%	8.20%	+13.86%	
Domestic equities passive investment	Asset Management One Co., Ltd. Ⅵ (former DIAM)	42.22%	42.13%	+0.09%	
	Asset Management One Co., Ltd. Ⅶ (former Mizuho Trust & Banking)	43.39%	43.38%	+0.01%	
	Asset Management One Co., Ltd. Ⅷ	43.80%	43.93%	-0.13%	
	Nomura Asset Management Co., Ltd. Ⅳ	5.08%	7.88%	-2.81%	○
	Nomura Asset Management Co., Ltd. Ⅴ	41.86%	41.78%	+0.08%	
	FIL Investments (Japan) Limited Ⅱ	42.10%	42.13%	-0.03%	
	BlackRock Japan Co., Ltd. Ⅻ	42.07%	42.13%	-0.06%	
	BlackRock Japan Co., Ltd. ⅩⅢ	43.92%	43.93%	-0.01%	
	Sumitomo Mitsui Trust Asset Management Co., Ltd. Ⅴ	41.30%	42.13%	-0.83%	

Investment method	Asset manager name	Time-weighted return (A)	Benchmark return (B)	Excess rate of return (C)＝(A)－(B)	Remarks column
Domestic equities passive investment	Sumitomo Mitsui Trust Asset Management Co., Ltd. Ⅵ	41.77%	41.95%	-0.18%	
	Mitsubishi UFJ Trust and Banking Corporation Ⅲ	41.98%	42.13%	-0.15%	
	Mitsubishi UFJ Trust and Banking Corporation Ⅳ	38.79%	38.90%	-0.11%	
	Mitsubishi UFJ Trust and Banking Corporation Ⅴ	37.17%	37.49%	-0.32%	
	Resona Asset Management Co., Ltd. Ⅷ	41.84%	42.13%	-0.30%	
Domestic equities active investment	Asset Management One Co., Ltd. Ⅸ	26.44%	21.49%	+4.95%	○
	Asset Management One Co., Ltd. Ⅹ (former Mizuho Asset Management)	77.02%	43.55%	+33.47%	
	Invesco Asset Management (Japan) Limited Ⅰ	48.31%	42.13%	+6.18%	
	Invesco Asset Management (Japan) Limited Ⅱ	23.72%	25.02%	-1.31%	○
	Capital International K.K.	55.09%	42.13%	+12.96%	
	Schroder Investment Management (Japan) Limited Ⅱ	45.74%	42.13%	+3.60%	
	Nikko Asset Management Co., Ltd. Ⅰ	35.86%	38.30%	-2.43%	
	Nikko Asset Management Co., Ltd. Ⅱ	28.87%	25.02%	+3.85%	○
	Nomura Asset Management Co., Ltd. Ⅵ	33.67%	22.06%	+11.61%	○
	Nomura Asset Management Co., Ltd. Ⅶ	50.28%	38.90%	+11.38%	
	Nomura Asset Management Co., Ltd. Ⅷ	41.90%	41.69%	+0.21%	
	FIL Investments (Japan) Limited Ⅲ	54.54%	42.13%	+12.41%	
	Sumitomo Mitsui DS Asset Management Company, Limited Ⅰ	45.73%	41.71%	+4.02%	
	Lazard Japan Asset Management K.K. Ⅰ	31.66%	22.06%	+9.60%	○
	Russell Investments Japan Co., Ltd. Ⅰ	46.33%	42.13%	+4.20%	
Foreign equities passive investment	State Street Global Advisors (Japan) Co., Ltd. Ⅲ	59.88%	60.10%	-0.23%	
	State Street Global Advisors (Japan) Co., Ltd. Ⅳ	61.43%	63.11%	-1.68%	
	State Street Global Advisors (Japan) Co., Ltd. Ⅴ	48.45%	48.84%	-0.39%	
	State Street Global Advisors (Japan) Co., Ltd. Ⅵ	57.59%	57.68%	-0.09%	
	State Street Global Advisors (Japan) Co., Ltd. Ⅶ	60.85%	62.49%	-1.64%	
	State Street Global Advisors (Japan) Co., Ltd. Ⅷ	58.01%	58.22%	-0.21%	
	BlackRock Japan Co., Ltd. ⅩⅣ	59.94%	60.10%	-0.16%	
	Sumitomo Mitsui Trust Asset Management Co., Ltd. Ⅶ	59.96%	60.10%	-0.15%	
	Legal & General Investment Management Japan KK Ⅰ	60.31%	60.10%	+0.21%	
	Legal & General Investment Management Japan KK Ⅲ	16.34%	16.33%	+0.01%	○
	Legal & General Investment Management Japan KK Ⅳ	13.13%	13.14%	-0.01%	○
Foreign equities active investment	Asset Management One Co., Ltd. Ⅺ (former Mizuho Asset Management)	69.69%	62.12%	+7.56%	
	MFS Investment Management K.K.	56.01%	59.72%	-3.70%	
	Nikko Asset Management Co., Ltd. Ⅲ	60.00%	59.72%	+0.29%	
	BNY Mellon Invetment Management Japan Limited Ⅱ	51.55%	59.72%	-8.17%	
	Mitsubishi UFJ Trust and Banking Corporation Ⅵ	79.46%	60.07%	+19.39%	
	UBS Asset Management (Japan) Ltd Ⅱ	51.82%	59.72%	-7.89%	
	Lazard Japan Asset Management K.K. Ⅱ	74.93%	62.12%	+12.80%	

② Investment performance (alternative assets)

Alternative assets	Investment style	Asset manager name	IRR (local currency)	IRR (JPY)	Local currency	Start of investment	Remarks column
Infrastructure	Global infrastructure mandate focusing mainly on opportunities in Japan (Note 8)	DBJ Asset Management Co., Ltd.	3.57%	3.57%	JPY	March 2018	
			3.41%	4.00%	USD	April 2018	
	Global-Core	Nomura Asset Management Co., Ltd. Ⅸ	4.09%	5.86%	USD	February 2018	
	Global-Core	Sumitomo Mitsui DS Asset Management Company, Limited Ⅱ	2.30%	3.15%	USD	January 2018	
	Global-Core	In-house investment Ⅵ	4.47%	3.73%	USD	February 2014	
Private equity	Global-Diversified Strategy	Neuberger Berman East Asia Limited	—	—	USD	April 2020	○
	Global-Diversified Strategy	Mitsubishi UFJ Trust and Banking Corporation Ⅶ	—	—	USD	January 2021	○
	Emerging markets-Diversified	In-house investment Ⅶ	4.81%	5.01%	USD	June 2015	
Real estate	Global-Core Commingled Fund Investments	Asset Management One Co., Ltd. Ⅻ	6.74%	8.23%	USD	September 2018	
	Japan-Core	Mitsubishi UFJ Trust and Banking Corporation Ⅷ	5.70%	5.70%	JPY	December 2017	

(Note 1) Funds are listed in the order of the Japanese syllabary.

(Note 2) Asset managers entrusted with investment for more than one contract are indicated in Roman numerals.

(Note 3) The time-weighted returns and the benchmark returns are annualized rates that exclude the effect of the trade suspended period for asset transfer.

(Note 4) Excess returns may not equal the value calculated using the figures in the table because the figures are rounded off to two decimal places.

(Note 5) Time-weighted returns do not include returns from securities lending investment.

(Note 6) Internal rate of return (IRR) is a rate of return calculated by taking into account the effects of the size and timing of cash flows of investment target funds during the investment period. The calculation period of IRR is from the start of investment to the end of the current fiscal year.

(Note 7) Actual investments in alternative assets are denominated in major investment currencies. IRR (yen-denominated funds) is calculated by converting cash flows denominated in major investment currencies into yen at the going market exchange rate as of the occurrence of the cash flow and is subject to exchange rate fluctuations throughout the investment period.

(Note 8) Domestic assets (major investment currency: JPY) are managed separately from foreign assets (major investment currency: USD).

(Note 9) A circle in the remarks column indicates an external asset manager whose investment period is less than one year. The rates of investment return of each external asset manager whose investment period is less than one year are rates for the investment period. However, in the case of alternative assets, only the rates of investment return of portfolio assets that have been managed for more than one year are shown. (The "-" mark indicates portfolio assets that have been managed for less than one year).

[5] Investment fees (3 year cumulative)

(Unit:¥)

Investment method	Asset manager name	Custodians	Investment fees	Remarks column
Domestic bonds passive investment	Asset Management One Co., Ltd. Ⅰ (former Mizuho Trust & Banking)	CBJ	182,491,319	
	State Street Global Advisors (Japan) Co., Ltd. Ⅰ	CBJ	149,147,024	
	BlackRock Japan Co., Ltd. Ⅰ	MTBJ	27,572,569	
	BlackRock Japan Co., Ltd. Ⅱ	MTBJ	18,968,448	
	Sumitomo Mitsui Trust Asset Management Co., Ltd. Ⅰ	CBJ	259,221,312	
	Sumitomo Mitsui Trust Asset Management Co., Ltd. Ⅱ	CBJ	25,815,567	
	Mitsubishi UFJ Trust and Banking Corporation Ⅰ	CBJ	33,303,728	
	Resona Asset Management Co., Ltd. Ⅰ	SSTB	36,932,915	
	Resona Asset Management Co., Ltd. Ⅱ	SSTB	44,094,524	
Domestic bonds active investment	Asset Management One Co., Ltd. Ⅱ (former DIAM)	CBJ	856,227,763	
	Asset Management One Co., Ltd. Ⅲ (former Mizuho Trust & Banking)	CBJ	711,901,300	
	MU Investments Co., Ltd.	CBJ	460,874,126	
	Tokio Marine Asset Management Co., Ltd.	CBJ	461,643,024	
	PGIM Japan Co., Ltd. Ⅰ	CBJ	479,028,198	
	PIMCO Japan Ltd Ⅰ	CBJ	269,323,137	
	Manulife Investment Management (Japan) Limited Ⅰ	CBJ	874,614,999	
	Sumitomo Mitsui Trust Asset Management Co., Ltd. Ⅲ	CBJ	664,048,844	
	Mitsubishi UFJ Trust and Banking Corporation Ⅱ	CBJ	682,797,133	
Foreign bonds passive investment	Asset Management One Co., Ltd. Ⅳ (former Mizuho Trust & Banking)	SSTB	112,208,695	
	State Street Global Advisors (Japan) Co., Ltd. Ⅱ	SSTB	132,542,590	
	Nomura Asset Management Co., Ltd. Ⅰ	MTBJ	64,713,368	
	BlackRock Japan Co., Ltd. Ⅳ	MTBJ	234,991,310	
	BlackRock Japan Co., Ltd. Ⅴ	MTBJ	14,482,776	
	BlackRock Japan Co., Ltd. Ⅵ	MTBJ	124,289,785	
	BlackRock Japan Co., Ltd. Ⅶ	MTBJ	12,278,090	
	BlackRock Japan Co., Ltd. Ⅷ	MTBJ	92,864,661	
	Sumitomo Mitsui Trust Asset Management Co., Ltd. Ⅳ	SSTB	29,140,917	
	Resona Asset Management Co., Ltd. Ⅲ	SSTB	39,622,999	
	Resona Asset Management Co., Ltd. Ⅳ	SSTB	2,902,676	
	Resona Asset Management Co., Ltd. Ⅴ	SSTB	45,624,117	
	Resona Asset Management Co., Ltd. Ⅵ	SSTB	6,749,015	
	Resona Asset Management Co., Ltd. Ⅶ	SSTB	39,821,171	

(Unit:¥)

Investment method	Asset manager name	Custodians	Investment fees	Remarks column
Foreign bonds active investment	Asset Management One Co., Ltd. Ⅴ (former Mizuho Asset Management)	SSTB	2,346,236,807	
	Ashmore Japan Co., Ltd	SSTB	1,373,942,050	
	AllianceBernstein Japan Ltd. Ⅱ	SSTB	234,793,404	
	Goldman Sachs Asset Management Co., Ltd. Ⅰ	SSTB	1,228,293,822	
	Schroder Investment Management (Japan) Limited Ⅰ	SSTB	2,180,406,035	
	Sompo Asset Management Co., LTD.	SSTB	1,011,353,077	
	Nomura Asset Management Co., Ltd. Ⅱ	SSTB	1,224,546,568	
	Nomura Asset Management Co., Ltd. Ⅲ	SSTB	328,325,224	
	BNY Mellon Investment Management Japan Limited Ⅰ	SSTB	2,305,441,135	
	PGIM Japan Co., Ltd. Ⅱ	SSTB	3,117,545,261	
	PIMCO Japan Ltd Ⅱ	SSTB	3,357,483,653	
	FIL Investments (Japan) Limited Ⅰ	SSTB	8,240,316,459	
	BlackRock Japan Co., Ltd. Ⅺ	SSTB	1,251,096,797	
	Manulife Investment Management (Japan) Limited Ⅱ	SSTB	626,039,748	
	Morgan Stanley Investment Management (Japan) Co., Ltd. Ⅰ	SSTB	2,695,738,335	
	UBS Asset Management (Japan) Ltd Ⅰ	SSTB	658,383,066	
	Legg Mason Asset Management (Japan) Co., Ltd.	SSTB	2,472,900,026	
Domestic equities passive investment	Asset Management One Co., Ltd. Ⅵ (former DIAM)	CBJ	478,398,018	
	Asset Management One Co., Ltd. Ⅶ (former Mizuho Trust & Banking)	CBJ	26,821,473	
	Asset Management One Co., Ltd. Ⅷ	CBJ	85,148,126	
	Asset Management One Co., Ltd. XIII (former DIAM)	CBJ	95,644,414	○
	Goldman Sachs Asset Management Co., Ltd. Ⅱ	CBJ	2,066,588,700	○
	Nomura Asset Management Co., Ltd. Ⅴ	CBJ	4,422,995,470	
	FIL Investments (Japan) Limited Ⅱ	MTBJ	91,525,285	
	BlackRock Japan Co., Ltd. Ⅻ	CBJ	63,629,166	
	BlackRock Japan Co., Ltd. XIII	CBJ	90,121,080	
	Sumitomo Mitsui Trust Asset Management Co., Ltd. Ⅴ	CBJ	29,040,915	
	Sumitomo Mitsui Trust Asset Management Co., Ltd. Ⅵ	CBJ	173,359,915	
	Sumitomo Mitsui Trust Asset Management Co., Ltd. Ⅶ	CBJ	58,732,767	○
	Mitsubishi UFJ Trust and Banking Corporation Ⅲ	CBJ	149,871,935	
	Mitsubishi UFJ Trust and Banking Corporation Ⅳ	CBJ	347,655,277	
	Mitsubishi UFJ Trust and Banking Corporation Ⅴ	CBJ	257,015,362	
	Mitsubishi UFJ Trust and Banking Corporation Ⅸ	CBJ	73,011,462	○
	Resona Asset Management Co., Ltd. Ⅷ	MTBJ	15,617,309	

Chapter 3

(Unit:¥)

Investment method	Asset manager name	Custodians	Investment fees	Remarks column
Domestic equities active investment	Asset Management One Co., Ltd. Ⅹ (former Mizuho Asset Management)	CBJ	707,001,032	
	Asset Management One Co., Ltd. ⅩⅣ (former DIAM)	CBJ	511,542,733	○
	Eastspring Investments Limited	CBJ	427,073,833	○
	Invesco Asset Management (Japan) Limited Ⅰ	CBJ	1,865,340,747	
	Capital International K.K.	CBJ	5,611,448,963	
	JPMorgan Asset Management (Japan) Limited	CBJ	473,595,134	○
	Schroder Investment Management (Japan) Limited Ⅱ	CBJ	678,759,822	
	SEIRYU Asset Management Ltd.	CBJ	83,387,831	
	Nikko Asset Management Co., Ltd. Ⅰ	CBJ	221,176,991	
	Nomura Asset Management Co., Ltd. Ⅶ	CBJ	1,036,217,646	
	Nomura Asset Management Co., Ltd. Ⅷ	CBJ	903,430,540	
	FIL Investments (Japan) Limited Ⅲ	CBJ	2,398,146,288	
	Sumitomo Mitsui DS Asset Management Company, Limited Ⅰ	CBJ	359,469,600	
	Russell Investments Japan Co., Ltd. Ⅰ	CBJ	2,141,625,252	
Foreign equities passive investment	State Street Global Advisors (Japan) Co., Ltd. Ⅲ	MTBJ	548,815,990	
	State Street Global Advisors (Japan) Co., Ltd. Ⅳ	MTBJ	206,665,186	
	State Street Global Advisors (Japan) Co., Ltd. Ⅴ	MTBJ	49,823,927	
	State Street Global Advisors (Japan) Co., Ltd. Ⅵ	MTBJ	9,415,165	
	State Street Global Advisors (Japan) Co., Ltd. Ⅶ	MTBJ	13,789,342	
	State Street Global Advisors (Japan) Co., Ltd. Ⅷ	MTBJ	553,774,298	
	BlackRock Japan Co., Ltd. ⅩⅣ	MTBJ	459,487,878	
	Sumitomo Mitsui Trust Asset Management Co., Ltd. Ⅶ	MTBJ	381,378,519	
	Legal & General Investment Management Japan KK Ⅰ	MTBJ	577,131,866	

(Unit:¥)

Investment method	Asset manager name	Custodians	Investment fees	Remarks column
Foreign equities active investment	Asset Management One Co., Ltd. Ⅺ (former Mizuho Asset Management)	MTBJ	2,053,244,169	
	MFS Investment Management K.K.	MTBJ	1,078,106,542	
	Nikko Asset Management Co., Ltd. Ⅲ	MTBJ	1,676,458,546	
	Nomura Asset Management Co., Ltd. Ⅺ	MTBJ	291,674,830	○
	BNY Mellon Investment Management Japan Limited Ⅱ	MTBJ	6,638,782,792	
	Mitsubishi UFJ Trust and Banking Corporation Ⅵ	MTBJ	14,380,442,942	
	UBS Asset Management (Japan) Ltd Ⅱ	MTBJ	9,215,546,959	
	Lazard Japan Asset Management K.K. Ⅱ	MTBJ	609,460,020	
Alternative infrastructure	DBJ Asset Management Co., Ltd.	SSTB	15,171,226	
	Nomura Asset Management Co., Ltd. Ⅸ	SSTB	389,591,295	
	Sumitomo Mitsui DS Asset Management Company, Limited Ⅱ	SSTB	439,470,367	
Alternative real estate	Asset Management One Co., Ltd. Ⅻ	SSTB	595,576,136	
	Mitsubishi UFJ Trust and Banking Corporation Ⅷ	SSTB	339,375,130	

(Unit:¥)

Investment method	Custodian, etc. name	Custodians	Investment fees
Custody	State Street Trust and Banking Co., Ltd.	SSTB	9,951,529,739
	Custody Bank of Japan, Ltd.	CBJ	2,347,886,847
	The Master Trust Bank of Japan, Ltd.	MTBJ	26,049,080,835

Transition management	Nomura Asset Management Co., Ltd. Ⅹ (Domestic equities)	CBJ	3,280,000
	BlackRock Japan Co., Ltd. ⅩⅥ (Domestic equities)	CBJ	5,090,767
	Russell Investments Japan Co., Ltd. Ⅱ (Domestic equities)	CBJ	54,000
	BlackRock Japan Co., Ltd. ⅩⅦ (Foreign equities)	MTBJ	15,521,204
	Russell Investments Japan Co., Ltd. Ⅲ (Foreign equities)	MTBJ	54,000

(Note 1) Funds are listed in the order of the Japanese syllabary.

(Note 2) Asset managers entrusted with investment for more than one contract are indicated in Roman numerals.

(Note 3) Fees include consumption tax.

(Note 4) A circle in the remarks column indicates an external asset manager closed in fiscal 2020 with less than three years of investment period since April 2018. The lists do not include funds, etc. that have less than three years investment history after the contract for these mandates, or those that have three years or longer investment history after the contracts but to which there were no fee payment during the last three years.

(Note 5) Fees paid to custodians include certain fees that are deducted from the entrusted assets, such as custody fees and attorney fees.

(Note 6) The investment fees of State Street Trust and Banking Co., Ltd., related to alternative assets is ¥257,150,146.

Investment returns and fees by securities lending investment. (3 year cumulative)

(Unit:¥)

Asset class	Investment returns	Investment fees
Domestic bonds	5,077,289,320	453,950,198
Foreign bonds	58,491,695,988	14,482,626,196
Foreign equities	24,566,691,282	5,103,686,827

(Note 1) Returns in the table represent premium charges excluding fees.

(Note 2) Fees indicate management fees and agent fees.

2 | Factor Analysis of Excess Rate of Return

[1] Factor analysis of excess rate of return on the overall assets

(Unit:%)

	Rate of return			Factor analysis of excess rate of return				
	Return of GPIF ❶	Benchmark return ❷	Excess rate of return ❶-❷	Asset allocation factor ①	Benchmark factor ②	Fund factor ③	Other factors (including error) ④	①+②+③+④
FY2006~FY2020	3.86	3.89	-0.03	-0.03	+0.02		-0.01	-0.03
FY2006	4.56	4.64	-0.08	-0.06	-0.00		-0.02	-0.08
FY2007	-6.10	-6.23	+0.13	+0.17	-0.02		-0.02	+0.13
FY2008	-7.57	-8.45	+0.88	+0.90	-0.12		+0.11	+0.88
FY2009	7.91	8.54	-0.63	-0.70	+0.08		-0.01	-0.63
FY2010	-0.25	-0.02	-0.23	-0.26	+0.12		-0.09	-0.23
FY2011	2.32	2.59	-0.27	-0.19	-0.01		-0.07	-0.27
FY2012	10.23	9.00	+1.24	+1.40	+0.03		-0.19	+1.24
FY2013	8.64	7.74	+0.90	+0.92	-0.06		+0.04	+0.90
FY2014 from Apr. 1 to Oct. 30	3.97	3.50	+0.46	+0.47	-0.03		+0.02	+0.46
FY2014 from Oct. 31 to Mar. 31, 2015	8.19	9.98	-1.78	-1.99	+0.01		+0.19	-1.78
FY2015	-3.81	-3.81	+0.00	+0.21	-0.15		-0.06	+0.00
FY2016	5.86	6.22	-0.37	-0.66	+0.33		-0.04	-0.37
FY2017	6.90	7.26	-0.37	-0.36	+0.00		-0.01	-0.37
FY2018	1.52	1.92	-0.40	-0.38	+0.02		-0.04	-0.40
FY2019	-5.20	-4.94	-0.25	-0.20	-0.05		-0.00	-0.25
FY2020	25.15	24.83	+0.32	+0.15	-0.17	+0.37	-0.03	+0.32

(Note 1) The annual rate of return of GPIF's investment and benchmark rate of return represent the geometric mean of the rates of return in individual fiscal years (an annualize rate).

(Note 2) From fiscal 2006 to fiscal 2007, an analysis was conducted on the difference between the rate of return (time-weighted rate of return) on the funds invested in the markets (hereinafter "market investment") and the compound benchmark return rate. From fiscal 2008 to fiscal 2019, an analysis has been conducted on the difference between the rate of return on overall invested assets (market investment and investments in Fiscal Investment and Loan Program (FILP) Bonds) (modified total return rate) and the compound benchmark return rate. For fiscal 2020, an analysis has been conducted on the difference between the rate of return on overall invested assets (market investment and investments in FILP bonds) (time-weighted rate of return) and the compound benchmark return rate.

Chapter 3

[2] Factor analysis of excess rate of return on domestic bonds (by manager benchmark, etc.)

(Unit: %)

	NOMURA-BPI (excluding ABS) (passive)	NOMURA-BPI government bonds (passive)	NOMURA-BPI/ GPIF Customized (passive)	U.S. government JPY hedged (passive)	Europe government JPY hedged (passive)	U.S. MBS JPY hedged (passive)	NOMURA-BPI plus Inflation-Linked bonds (active)	Inflation-Linked bonds (active)	Alternative (active)	Short-term assets (others)	Total
Benchmark factors	0.00	-0.05	-0.07	-0.10	+0.05	-0.02	+0.00	+0.09	0.00	+0.03	-0.05
Fund factors	-0.01	+0.00	-0.00	-0.04	-0.00	-0.00	+0.09	-0.01	+0.03	+0.01	+0.06

(Note 1) The benchmark of domestic bonds is NOMURA–BPI [excluding ABS].

(Note 2) Benchmark factors refer to those resulting from differences in the rates of return between manager benchmarks and the benchmark (NOMURA–BPI [excluding ABS]). They are calculated taking into consideration the market total average balance of each fund.

(Note 3) Fund factors refer to those resulting from differences in rates of return between individual funds and manager benchmarks. They are calculated taking into consideration the market total average balance of each fund.

[3] Factor analysis of excess rate of return on foreign bonds (by manager benchmark, etc.)

(Unit: %)

	WGBI (passive)	WGBI others (passive)	U.S. government (passive)	U.S. government 1-3years (passive)	Europe government (passive)	U.S. high–yield (passive)	Europe high–yield (passive)
Benchmark factors	0.00	+0.07	-1.35	-0.04	+0.55	+0.01	+0.00
Fund factors	-0.01	-0.02	-0.02	-0.00	-0.00	+0.00	-0.00

(Unit: %)

	Global aggregate (active)	U.S. aggregate (active)	Europe aggregate (active)	U.S. high–yield (active)	Europe high–yield (active)	Emerging U.S. dollar (active)	Emerging local currency (active)	Alternative (active)	Short-term assets (others)	Total
Benchmark factors	+0.54	-0.08	+0.18	+0.14	+0.14	+0.03	+0.05	0.00	-0.02	+0.21
Fund factors	+1.04	+0.30	+0.05	+0.01	+0.01	+0.02	+0.06	+0.02	-0.00	+1.44

(Note 1) The benchmark of foreign bonds is FTSE World Government Bond Index [not incl. JPY, no hedge/JPY basis].

(Note 2) Benchmark factors refer to those resulting from differences in rates of return between manager benchmarks and the benchmark (FTSE World Government Bond Index [not incl. JPY, no hedge/JPY basis]). They are calculated taking into consideration the balance of the average market capitalization of each fund.

(Note 3) Fund factors refer to those resulting from differences in rates of return between individual funds and manager benchmarks. They are calculated taking into consideration the market total average balance of each fund.

[4] Factor analysis of excess rate of return on domestic equities (by manager benchmark, etc.)

(Unit: %)

	TOPIX (passive)	JPX Nikkei 400 (passive)	RUSSELL/ NOMURA Prime (passive)	MSCI JAPAN IMI REIT (passive)	MSCI Japan ESG Select Leaders (passive)	MSCI Japan Empowering Women (passive)	FTSE Blossom Japan (passive)	S&P/JPX Carbon Efficient (passive)	S&P GIVI Japan (passive)	NOMURA RAFI (passive)
Benchmark factors	0.00	+0.03	+0.05	+0.01	-0.13	-0.12	+0.06	-0.01	-0.50	-0.08
Fund factors	-0.15	-0.00	+0.00	-0.00	-0.00	-0.01	-0.00	-0.01	+0.03	+0.00

(Unit: %)

	TOPIX (active)	RUSSELL/ NOMURA Large Cap Value (active)	RUSSELL/ NOMURA Small Cap (active)	RUSSELL/ NOMURA Small Cap Growth (active)	MSCI Japan Small (active)	Alternative (active)	Total
Benchmark factors	0.00	-0.07	-0.01	-0.00	-0.00	0.00	-0.79
Fund factors	+0.28	+0.00	+0.02	+0.08	+0.00	-0.03	+0.21

(Note 1) The benchmark of domestic equities is TOPIX [incl. dividends].

(Note 2) Benchmark factors refer to those resulting from differences in rates of return between manager benchmarks and the benchmark (TOPIX [incl. dividends]). They are calculated taking into consideration the market total average balance of each fund.

(Note 3) Fund factors refer to those resulting from differences in rates of return between individual funds and manager benchmarks. They are calculated taking into consideration the market total average balance of each fund.

[5] Factor analysis of excess rate of return on foreign equities (by manager benchmark, etc.)

(Unit: %)

	ACWI (passive)	North America (passive)	Europe & Middle East (passive)	Pacific (passive)	Emerging (passive)	S&P Carbon (passive)	MSCI ACWI ESG Universal (passive)	Morningstar Gender Diversity (passive)
Benchmark factors	-0.09	+0.12	-0.10	-0.00	-0.09	-0.10	+0.00	-0.00
Fund factors	-0.10	-0.09	-0.00	-0.00	-0.00	-0.01	-0.00	-0.00

(Unit: %)

	ACWI (active)	Developed (active)	Emerging (active)	Alternative (active)	Total
Benchmark factors	-0.00	-0.03	+0.04	+0.00	-0.26
Fund factors	+0.34	-0.37	-0.01	-0.27	-0.53

(Note 1) The benchmark of foreign equities is MSCI ACWI [not incl. JPY, JPY basis, incl. dividends, after taking into account GPIF dividend tax factors].

(Note 2) Benchmark factors refer to those resulting from differences in rates of return between manager benchmarks and the benchmark (MSCI ACWI [not incl. JPY, JPY basis, incl. dividends, after taking into account GPIF dividend tax factors]). They are calculated taking into consideration the market total average balance of each fund.

(Note 3) Fund factors refer to those resulting from differences in rates of return between individual funds and manager benchmarks. They are calculated taking into consideration the market total average balance of each fund.

3 | Portfolio Holdings by Asset Category as of Mar. 31, 2021

These are lists to summarize the GPIF's top 10 portfolio holdings as of March 31, 2021 (as of the end of fiscal 2020), either indirectly through external asset managers or directly with the GPIF's in-house capacity for bonds, by name for bonds and equities.

These do not purport to represent GPIF's evaluation of individual companies.

◯ Domestic bonds holdings in order of market value

No.	Security name	Market value (¥100 million)
1	10-year Inflation-Indexed Bonds JGB #20	10,313
2	Fixed-rate Bonds JGB #360	7,105
3	10-year Inflation-Indexed Bonds JGB #21	6,189
4	Fixed-rate Bonds JGB #146	5,650
5	10-year Inflation-Indexed Bonds JGB #19	5,409
6	Treasury Discount Bills #976	4,726
7	Fixed-rate Bonds JGB #145	4,542
8	Fixed-rate Bonds JGB #361	4,169
9	Fixed-rate Bonds JGB #351	3,512
10	10-year Inflation-Indexed Bonds JGB #22	3,449
Total	4,983 securities	402,976

◯ Domestic equities holdings in order of market value

No.	Security name	Shares	Market value (¥100 million)
1	TOYOTA MOTOR CORP.	176,025,100	15,351
2	SONY CORP.	106,030,500	12,326
3	SOFTBANK GROUP CORP.	117,442,400	10,981
4	KEYENCE CORP.	16,285,600	8,203
5	RECRUIT HOLDINGS CO., LTD.	129,609,100	7,013
6	MITSUBISHI UFJ FINANCIAL GROUP, INC.	1,127,717,900	6,814
7	SHIN-ETSU CHEMICAL CO., LTD.	33,115,900	6,206
8	NIPPON TELEGRAPH & TELEPHONE CORP.	204,951,500	5,938
9	TOKYO ELECTRON LTD.	12,184,200	5,747
10	NINTENDO CO., LTD.	8,936,300	5,619
Total	2,417 securities		468,551

◯ Foreign bonds holdings in order of market value

No.	Security name	Market value (¥100 million)
1	US TREASURY N/B 0.875PCT 15NOV30	2,495
2	FIDELITY US BANK LOAN FUND	2,036
3	Fannie Mae or Freddie Mac 3PCT APR21	1,979
4	FRANCE (GOVT OF) FRTR 5 1/2 04/25/29	1,797
5	US TREASURY N/B 1.5PCT 15AUG26	1,658
6	FRANCE (GOVT OF) 2.5PCT 25MAY30	1,594
7	Fannie Mae or Freddie Mac 2PCT APR21	1,582
8	FRANCE (GOVT OF) FRTR 4 1/2 04/25/41	1,552
9	FRANCE (GOVT OF) FRTR 5 3/4 10/25/32	1,543
10	US TREASURY N/B 2.875PCT 15AUG28	1,539
Total	9,846 securities	492,649

◯ Foreign equities holdings in order of market value

No.	Security name	Shares	Market value (¥100 million)
1	APPLE INC	114,767,078	15,491
2	MICROSOFT CORP	54,511,254	14,202
3	AMAZON.COM INC	3,106,442	10,621
4	FACEBOOK INC-CLASS A	16,514,402	5,375
5	ALPHABET INC-CL C	2,200,792	5,031
6	ALPHABET INC-CL A	2,147,357	4,894
7	TAIWAN SEMICONDUCTOR MANUFACTURING CO LTD	172,246,373	3,931
8	ALIBABA GROUP HOLDING-SP ADR	15,622,619	3,914
9	TESLA INC	5,260,241	3,882
10	JPMORGAN CHASE & CO	21,546,516	3,624
Total	3,285 securities		471,332

◯ Alternative Assets holdings in order of market value

No.	Alternative Assets	Security name	Market value (¥100 million)
1	Infrastructure	STEPSTONE G INFRASTRUCTURE OPPORTUNITIES, L.P.	2,944
2	Infrastructure	PANTHEON G INFRASTRUCTURE OPPORTUNITIES LP	1,892
3	Infrastructure	GLOBAL ALTERNATIVE CO-INVESTMENT FUND I	1,650
4	Infrastructure	DG INFRASTRUCTURE, ILP	493
5	Infrastructure	DG INFRASTRUCTURE OPPORTUNITIES L.P.	383
1	Private Equity	TORANOMON PRIVATE EQUITY 1 AIV, L.P.	315
2	Private Equity	GLOBAL ALTERNATIVE CO-INVESTMENT FUND II	244
3	Private Equity	TORANOMON PRIVATE EQUITY 2 AIV, L.P.	52
1	Real Estate	CBRE GIP G REAL ESTATE INVESTMENTS, LP	3,529
2	Real Estate	MUTB G REAL ESTATE FUND	1,919

(Note) Security names are as of March 31, 2021.

Chapter 3

Memo

Code of Conduct

【1】Social responsibility

- GPIF's mission is to contribute to the stability of the public pension system (Employees' Pension Insurance and National Pensions) by managing the reserve assets and distributing the proceeds to the government.

【2】Fiduciary duty

- We fully understand that the reserve assets are instrumental for future pension benefits payments, act solely for the benefit of pension recipients, and pledge to pay due attention as prudent experts in exercising our fiduciary responsibilities. The Chairperson and the member of the Board of Governors shall by no means be motivated by benefitting the organizations to which they belong.

【3】Compliance with laws and maintaining highest professional ethics and integrity

- We shall comply with laws and social norms, remain fully cognizant of our social responsibilities associated with pension reserve management, and act with the highest professional ethics and integrity to avoid any distrust or suspicion of the public.

【4】Duty of confidentiality and protecting GPIF's assets

- We shall strictly control confidential information that we come to access through our businesses, such as non-public information related to investment policies and investment activities, and never use such information privately or illegally.
- We shall effectively use GPIF's assets, both tangible and intangible (e.g., documents, proprietary information, system, and know-how), and protect and manage such assets properly.

【5】Prohibition of pursuing interests other than those of GPIF

- We shall never use our occupations or positions for the interests of ourselves, relatives, or third parties.
- We shall never seek undue profits at the expense of GPIF.

【6】Fairness of business transactions

- We shall respect fair business practices at home and abroad, and treat all counterparties impartially.
- We shall never make transactions with anti-social forces or bodies.

【7】Appropriate information disclosure

- We shall continue to improve our public information disclosure and public relations activities.
- We shall ensure the accuracy and appropriateness of our financial statements and other public documents that are required to be disclosed by laws and ordinances.
- We shall remain mindful that our outside activities, regardless of whether business or private (e.g., publications, speeches, interviews, or use of social media) affect the credibility of GPIF, and act accordingly.

【8】Developing human resources and respect in the workplace

- We are committed to GPIF's mission by improving our professional skills and expertise, promoting communication and teamwork and nurturing a diversity of talents and capabilities.
- We shall respect each person's personality, talents and capabilities, perspectives, well-being, and privacy to maintain a good work environment, and never allow discrimination or harassment.

【9】Self-surveillance of illegal or inappropriate activity

- Whenever an illegal or inappropriate activity is (or is expected to be) perpetrated by executives, staff, or other related personnel, such activity shall be immediately reported to GPIF through various channels including our whistleblowing system.
- When such a report is made, we shall conduct the necessary investigation and take corrective actions and preventive measures according to our internal rules.

For All Generations

Government Pension Investment Fund, Japan

Annual Report Fiscal Year 2020

This document has been prepared and released to the public in accordance with Article 26, Paragraph 1 of the Act on Government Pension Investment Fund and Article 79-8, Paragraph 1 of the Employees' Pension Insurance Act.

Contact

Planning and Communication Division, Planning and Communication Department, Government Pension Investment Fund

Toranomon Hills Mori Tower, 1-23-1 Toranomon, Minato-ku, Tokyo, Japan 105-6377

Tel: +81-3-3502-2486 (direct dial) Fax: +81-3-3503-7398

Website: https://www.gpif.go.jp/en/

GPIF homepage

GPIF YouTube channel

GPIF Twitter