ANNUAL REPORT
FISCAL YEAR 2021

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 website: https://www.gpif.go.jp/en/.
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Investment Result Summary in Fiscal 2021

For details, refer to pages 23-31.

Rate of return

	Fiscal 2021	Since Fiscal 2001
Rate of return	+5.42% [annual rate]	+3.69% [annual rate]
Returns (Interest and dividend income)	+¥10,092.5 billion [annual returns] (+¥3,198.3 billion [annual returns])	+¥105,428.8 billion [cumulative returns] (+¥43,352.3 billion [cumulative returns])

The excess rate of return (over the compound benchmark)

Fiscal 2021	Since Fiscal 2006
-0.06%	-0.03%

Asset size

As of the end of fiscal 2021

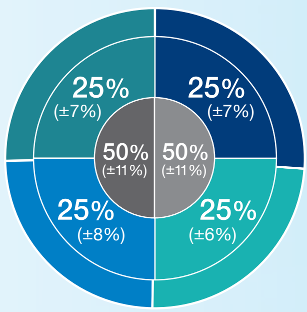
¥196,592.6 billion

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 2022

Foreign equities
25.11%
¥50,770.0 billion

Domestic equities
24.49%
¥49,513.7 billion



Domestic bonds
26.33%
¥53,235.7 billion

Foreign bonds
24.07%
¥48,678.4 billion

Allocation changes for each asset class due to rebalancing

(Unit: ¥billion)

	Domestic bonds	Foreign bonds	Domestic equities	Foreign equities
Allocated/withdrawn	+4,303.8	+312.0	+1,222.1	-5,476.4

(Note) Each figure shows the net rebalancing amount.

Total fees (The average fee rate on the total investment assets)

35.2 billion

(0.02%)

Topics in Fiscal 2021

1 Solid Investment Management Based on Policy Asset Mix

To steadily carry out investments based on the policy asset mix, GPIF conducts asset sales and purchases (rebalancing) in a timely and appropriate manner to ensure that the portfolio does not deviate from the asset composition ratio specified in the policy asset mix, even when the economic and market environments are rapidly changing.

In fiscal 2021, there was a phase of significant volatility in the financial markets as a whole due to a sharp rise in overseas interest rates and Russia's invasion of Ukraine. However, GPIF made efforts to manage risks by utilizing stock index futures to reduce price volatility risk and to make efficient our rebalancing. As a result, the return for fiscal 2021 was +5.42%, marking the second consecutive year of positive returns.

2 Promoting Stewardship Activities and ESG Activities

GPIF promotes ESG (environmental, social, and governance) investments applies (ESG) considerations to our investments to reduce negative externalities such as environmental and social issues, and to improve the sustainable return from whole assets.

In fiscal 2021, as a new initiative based on the revised Corporate Governance Code, GPIF asked the asset managers to which we outsource our domestic stock investment to identify companies with "excellent TCFD disclosures" and publicly announced the companies that received high evaluations. In addition, GPIF selected the following ESG index for domestic equities and began passive management based on this index.

- [Comprehensive index] FTSE Blossom Japan Sector Relative Index

For details, refer to pages 58-72.

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 ensure the stability of pension finance.

Since 2014 when we began alternative investments, GPIF has steadily increased its asset balance while improving its investment structure and, as of the end of fiscal year 2021, the market value of alternative assets exceeded ¥2 trillion. In fiscal 2021 GPIF newly undertook investments in the following asset class:

- Private equity (Japan-Focused)

For details, refer to pages 47-57.

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.

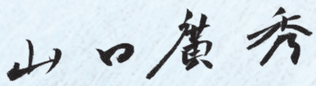
The mission of GPIF is to manage pension reserves stably and efficiently from a long-term perspective, solely for the benefit of the public, thereby contributing to the stability of pension finance.

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.

GPIF must always be a trustworthy organization for the Japanese public. To this end, it is most important to ensure that the pension reserves are managed and invested in an appropriate manner in accordance with the mission of GPIF. Even as the COVID-19 pandemic shows little sign of abating, international tensions are rising due to Russia's invasion of Ukraine. Meanwhile, central banks in Europe, the U.S., and other countries are beginning to tighten monetary policy to curb inflation. Despite these rapidly changing socioeconomic conditions, though, 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.

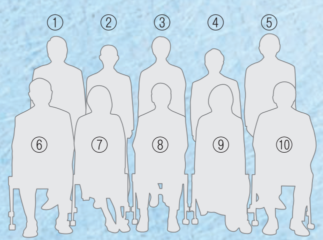
I would sincerely appreciate your continuous understanding and support.

Chairperson of the Board of Governors



YAMAGUCHI Hirohide

Government Pension Investment Fund, Japan



① UCHIDA Takakazu
② HORIE Sadayuki
③ KATO Yasuyuki
④ OHMI Naoto
⑤ OZAKI Michiaki
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 result for fiscal 2021 was a positive return of 5.42% due to the significant rise in foreign stock markets and the depreciation of the yen.

Although the stock markets of Germany and other countries declined due to Russia's invasion of Ukraine and the resurgence of COVID-19 infections, foreign stock markets on the whole rose as the U.S. stock markets and elsewhere climbed due to solid economic expansion and other factors. On the other hand, domestic stock markets remained mostly flat. In addition, as the Federal Reserve Board shifted away from its accommodative monetary policy due to record-setting inflation and other factors, yields on government bonds rose substantially in the U.S. and other major countries, while yields on Japanese government bonds remained relatively low as the Bank of Japan took a stance of continuing its accommodative monetary policy, and the yen depreciated against the U.S. dollar and euro due to the widening gap between domestic and foreign long-term interest rates.

Bringing more than ¥105 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 2021, we aim to improve further transparency by adding new analyses and relevant information, as we did in the previous year, so that we can provide a clearer picture of our activities.

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 in close collaboration with the Board of Governors.

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 pages 79-80.

(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 support," whereby pension benefits for elderly generations are paid from pension premiums collected from contemporary working 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 declining birthrate and the aging population?

A Since there will be fewer contributions from the working generation to cover the pensions for the elderly generation, it will be necessary to make up the shortfall. 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?

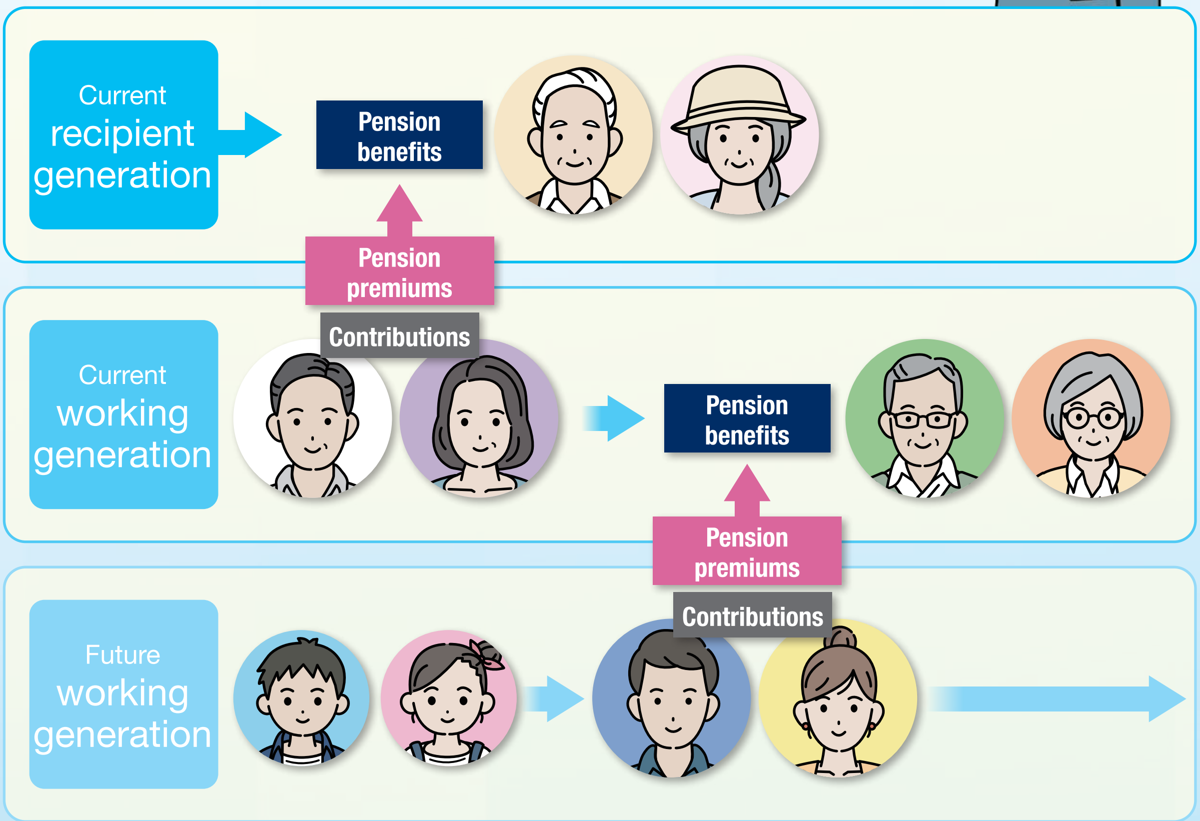
A What GPIF invests is the funds "reserved for future generations." Therefore, the amount of benefits to be received in the next year will not be affected regardless of whether the investment performance in this year is positive or not.

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.



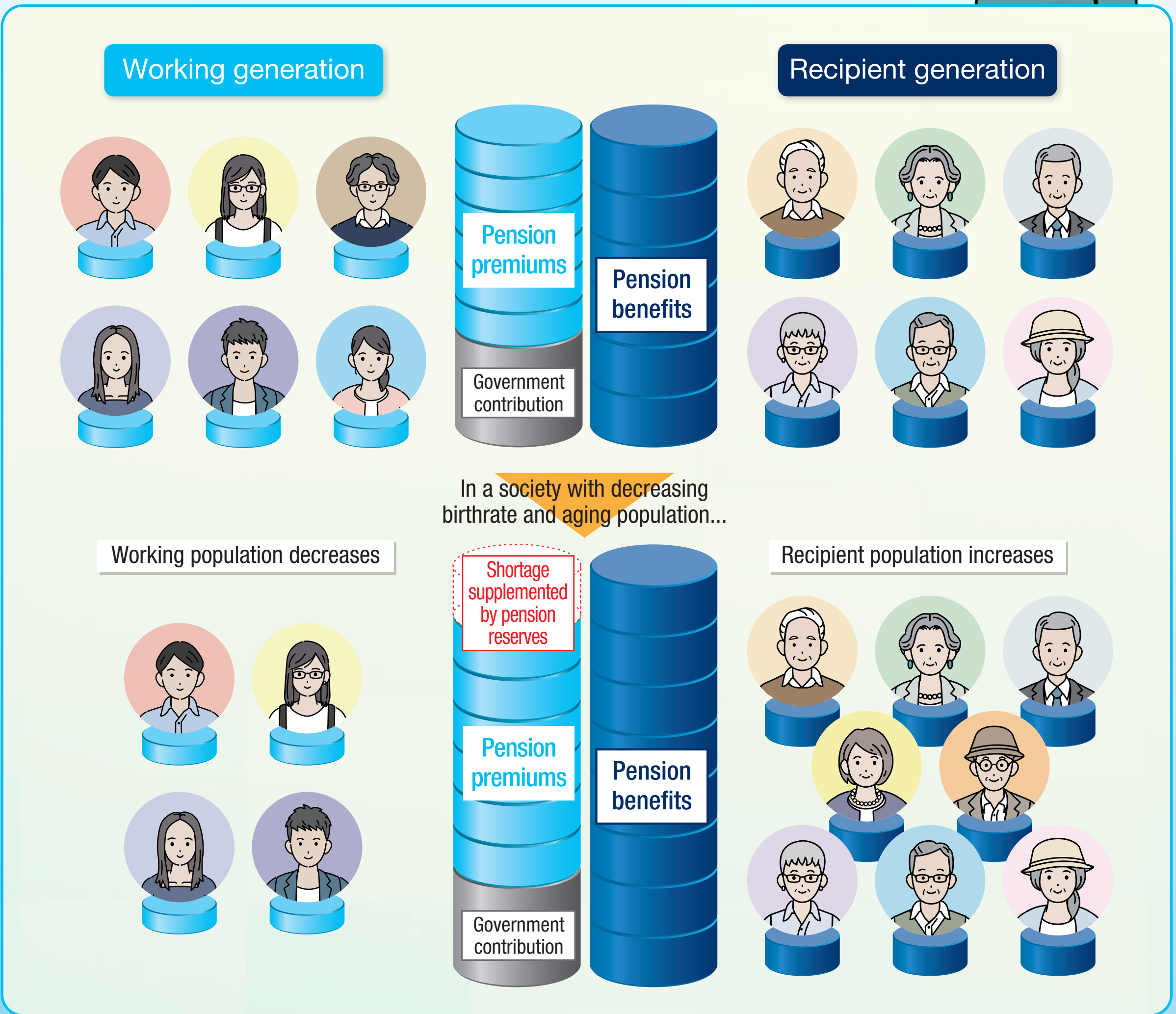
Under the public pension scheme in Japan, pension benefits for the elderly generations are paid by pension premiums collected from the contemporary working generations. In other words, pension benefits to be received in the future by the current working generations will be covered by the pension premiums 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 declining birthrate and aging population continue, the burden on future working generations would become too heavy.



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

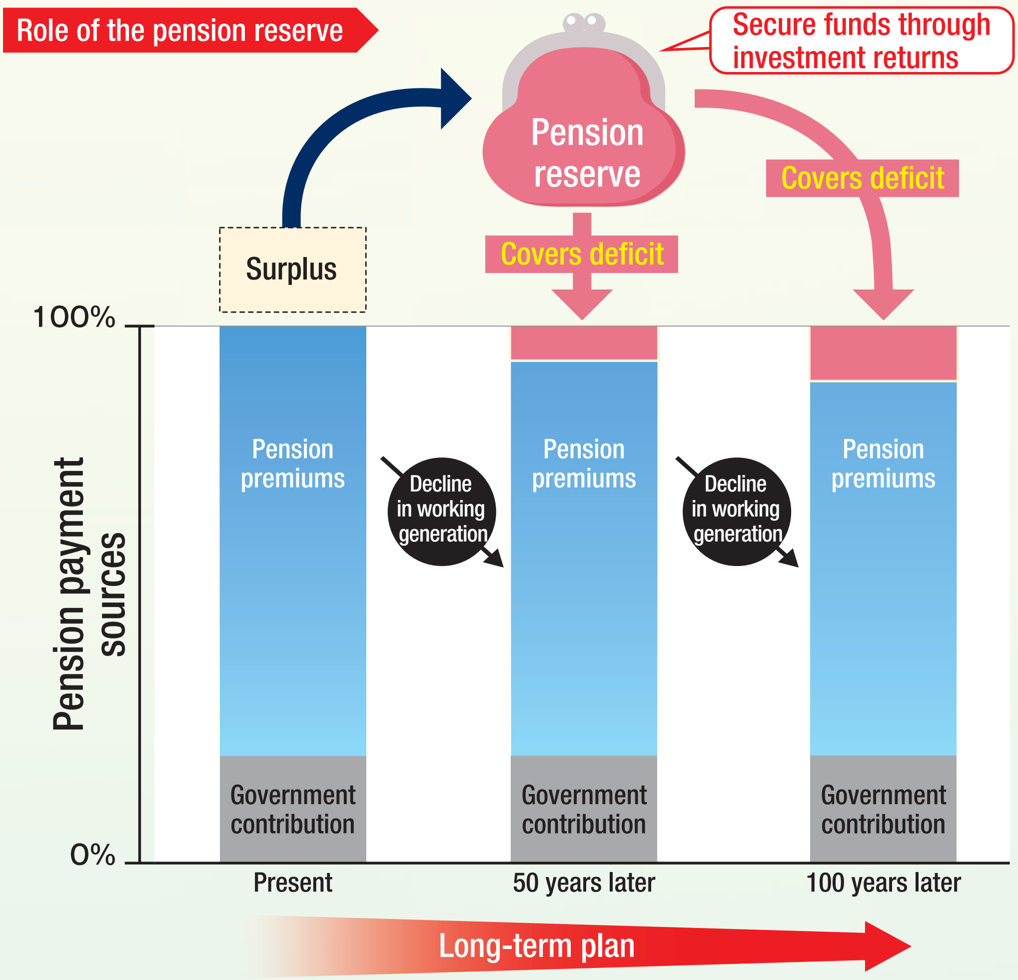
We will go into the role of pension reserves in detail.

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 are 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 of the next year will not increase. Likewise, even if the investment result of this year is negative, the amount of pension benefit payment of the next year will not be reduced.

2. About investments of the pension reserves

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

POINT 1

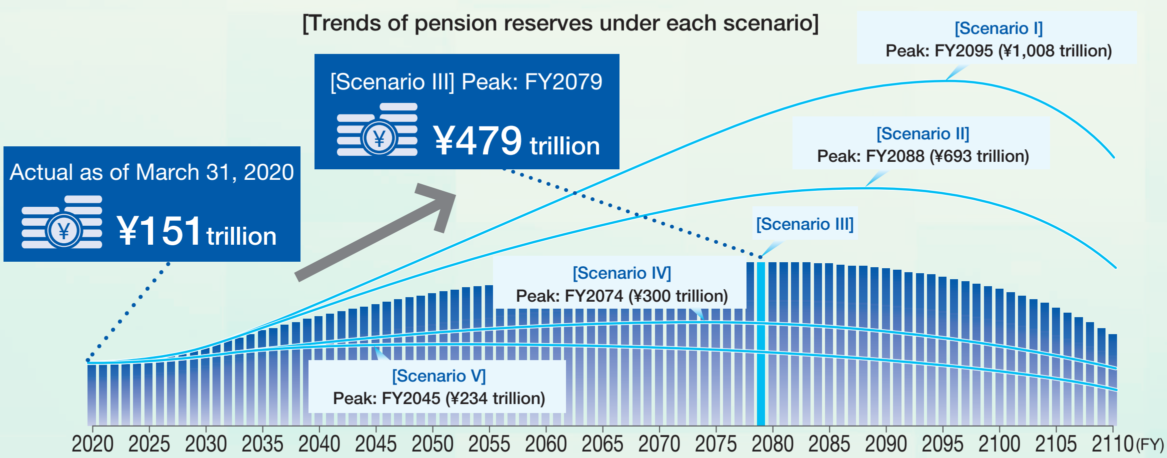
GPIF employs long-term investment and diversified investment as our principle investment strategies

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)

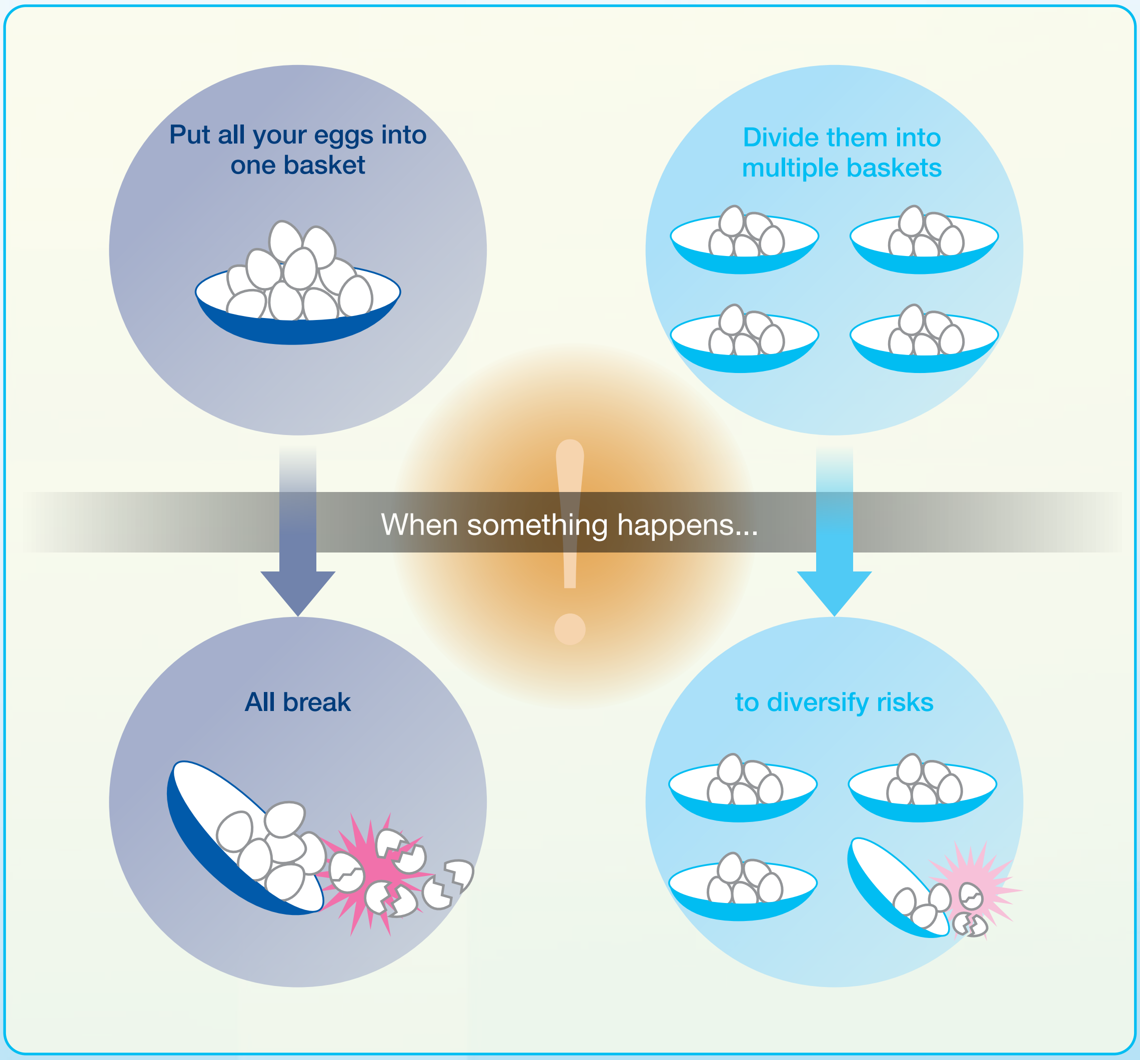


(Note) For details of Scenario I through Scenario V, refer to page 33.

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, being about ¥200 trillion. This allows us to invest in a wide range of domestic and foreign assets, carefully taking into account the potential impacts of our investments on markets and corporate management.



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

POINT 2

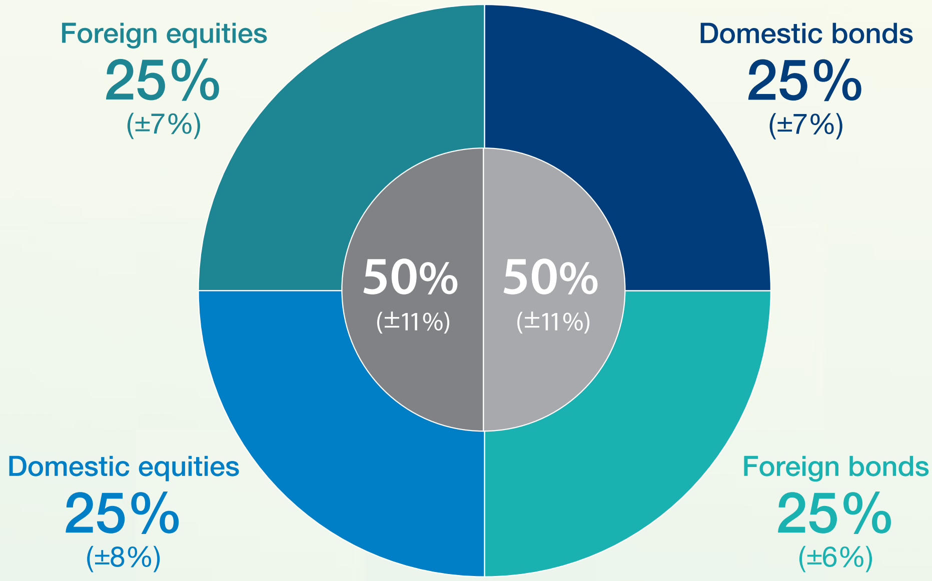
GPIF is making investment based on the policy asset mix (the principle asset allocation policy)

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 of the constant market fluctuation, 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 that the actual allocations are within the deviation limits.

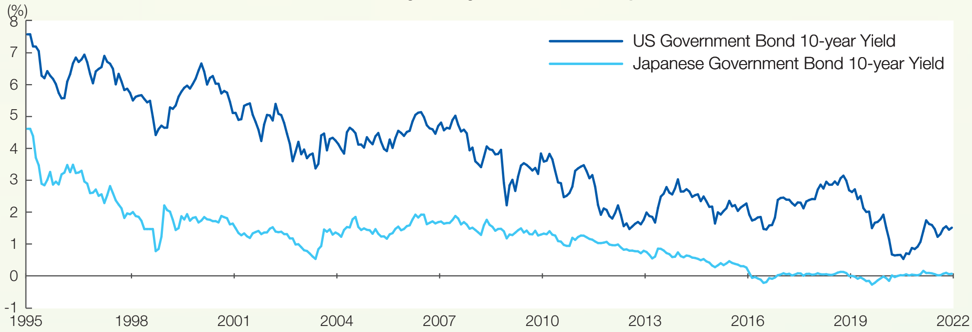
POINT 3

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

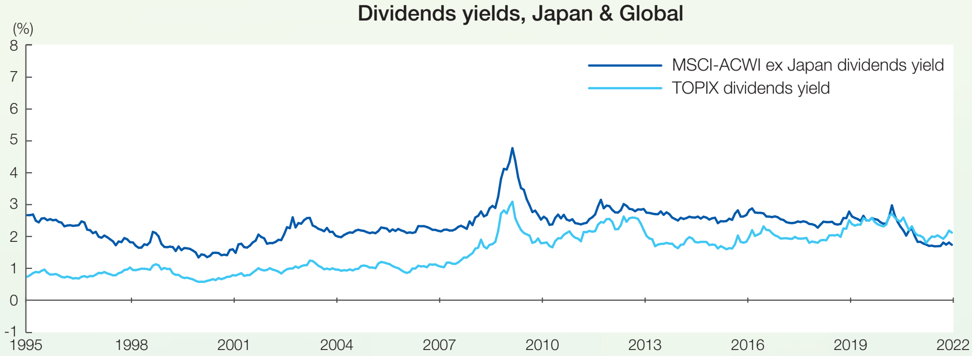
In recent years, the interest rate of 10-year Japanese government bonds has been around 0%. Under the condition that the consumer price and wages are expected to rise as the economic and investment environment change in the long run, it is difficult to secure the investment returns required for pension 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 appropriately incorporate equities in our portfolio, so that we aim to secure the investment returns required for pension finance with minimal risks by reaping the fruits of Japanese and foreign corporation's activities and the resulting economic growths in the form of "dividends" and "capital gains."

10-years yields, U.S. & 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 are projected not to be withdrawn for the next 50 years or so. (However, 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 global market trends.

POINT 4

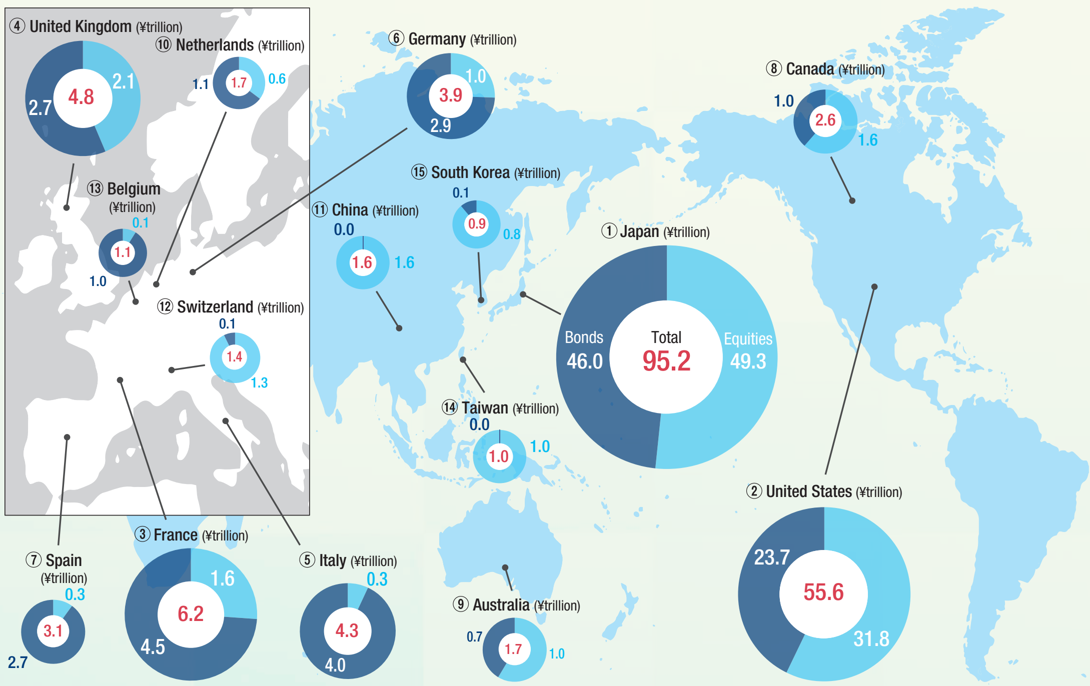
GPIF invests in various types of assets not only in Japan but also in foreign countries.

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 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 with an aim to increase opportunities for profits generated from global economic activities, and simultaneously to mitigate the risk of material losses by controlling fluctuations in the overall value of assets undermanagement thanks to the diversification.

Investment amount by country/region

Top 15 countries/regions by amount invested as of the end of March 2022 are as follows.



(Note 1) Equities are compiled mainly based on the company's country of incorporation and the primary listing of its securities (Country Classification for MSCI indexes), while bonds are compiled mainly based on the country where the issuer or the parent company of the issuer is headquartered (Country Classification for Bloomberg indexes).
(Note 2) Cash and other assets temporarily remaining in the fund are excluded.

POINT 5

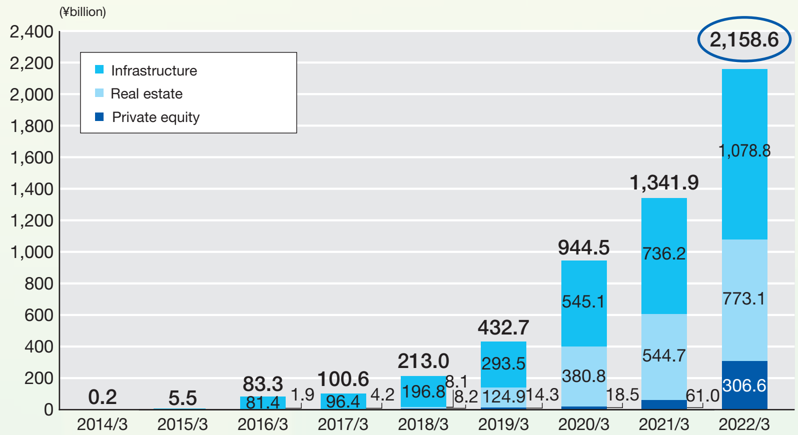
In addition to equities and bonds, GPIF also invests in alternative assets.

Alternative assets are the generic term for investment assets that are “alternatives” to traditional investment assets including listed equities and bonds. Among a variety of alternative assets, GPIF invests in infrastructure (investments in renewable energy and other infrastructure projects), private equity (investments in equities of private companies), and real estate (investments in real estate such as logistics and retails).

Since alternative assets have different risk-return profiles from equities and bonds, holding them alongside equities and bonds can be expected to reduce the volatility of the overall returns on assets. While they have lower liquidity in terms of buying and selling, they produce higher investment returns for this reason.

Overseas pension funds have been promoting diversification by investing in alternative assets for the aforementioned characteristics and effects. As a super-long-term investor, GPIF aims to improve investment efficiency by holding equities and bonds that can be bought and sold quickly, while steadily accumulating high-quality alternative assets with due attention to the market environment and investment risks.

Total value of alternative assets up until fiscal 2021



POINT 6

GPIF is undertaking stewardship activities and ESG investment.

From the perspective of increasing long-term investment returns, GPIF pursues activities to fulfill our stewardship responsibilities and promotes ESG initiatives.

In accordance with laws and regulations, GPIF's ESG investments are not aimed at contributing to the solution of social problems, but are promoted based on the concept of ensuring the economic benefits of pension recipients from a long-term perspective by reducing the negative impact of environmental and social problems on capital markets.

Stewardship responsibility refers to the responsibility of institutional investors to seek to increase long-term investment returns by adopting a long-term orientation and looking for sustainable growth among the companies in their portfolios and markets on the whole. GPIF has been fully engaged in stewardship activities since adopting Japan's Stewardship Code in May 2014.

Since GPIF does not directly hold stocks but invests through external asset managers, as part of its stewardship activities, GPIF has established the Stewardship Principles and the Proxy Voting Principles, which require external asset managers to engage in "constructive dialogue" (engagement) with portfolio companies, in consideration of ESG factors that contributes to sustainable growth.

ESG is an acronym for Environment, Social, and Governance.

ESG investment incorporates environmental, social, and corporate governance perspectives into investment decisions with the expectation of improving long-term returns.

GPIF, both as a "universal owner" (broadly diversified investor in capital markets worldwide) and a "cross-generational investor" (a super-long-term investor), must ensure the sustainable and stable growth of capital markets as a whole to earn stable returns over the long term. Based on this idea, GPIF is engaged in ESG investment.

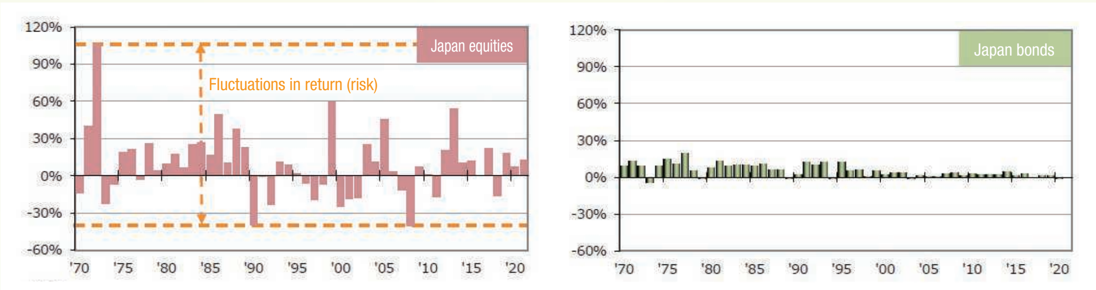
POINT 7

Risks are controlled appropriately to ensure a long-term profitability.

The word “risk” is used in the sense of “danger” or “probability that an unfavorable situation will occur.” 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 diagrams show fluctuations in the return of both assets, suggesting that the greater the fluctuation, the higher the risk.

Annual return on Japan Equities and Japan Bonds from 1970 to 2021



* 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 Equities: 0.03%, Japan Bonds: 0.02%
* No transaction costs in rebalancing nor taxes are assumed. Assumes reinvestments of interest income and dividend.
* Past performance is no guarantee of future results.

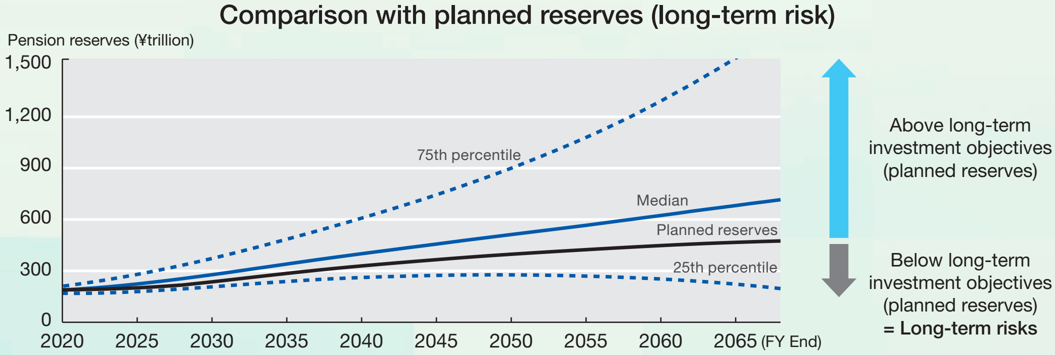
<Source> Japan Equities: Tokyo Stock Exchange 1st section weighted average return of market capitalization, Japan Bonds: Nomura-BPI Overall.

It is legally prescribed that the purpose of investing the reserve funds is to contribute to the future stability of management of the national public pension system 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.” In order to manage pension reserve fund safely and efficiently from a long-term perspective, GPIF is conducting our investment with an aim to mitigate the risk of failing to achieve the long-term investment return, by professionally analyzing various indicators, while taking into consideration short-term fluctuations in returns due to temporary market fluctuations.

(Note) Out of the six long-term real investment yield assumptions stipulated in the 2019 fiscal verification, the largest value of 1.7% has been set as the long-term investment target.

Comparison with planned reserves (long-term risk)



Overview of Fiscal 2021

Investment Results

For details, refer to pages 23·24.

Rate of return
(Returns)

	Fiscal 2021	Since Fiscal 2001
Rate of return [annual rate]	+5.42%	+3.69%
Returns	(+¥10,092.5 billion) [annual returns]	(+¥105,428.8 billion) [Cumulative returns]

Asset size

As of the end of fiscal 2021

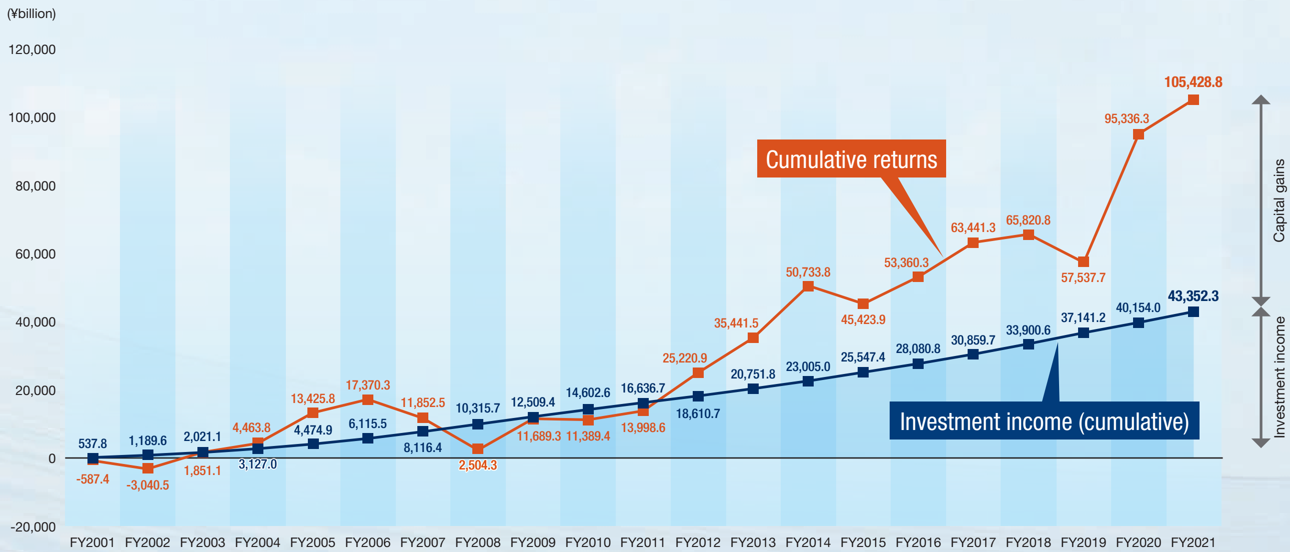
¥196,592.6 billion

(Note) Rate of return and returns are marked to market as of the end of fiscal 2021, and include unrealized gains and losses.

GPIF manages pension reserve fund with a long-term perspective. While short-term portfolio returns are influenced by the current market trends, investment results should be monitored with a 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 25.

Real return on investment for the whole pension reserves

(cumulative)

3.78% [annual rate]

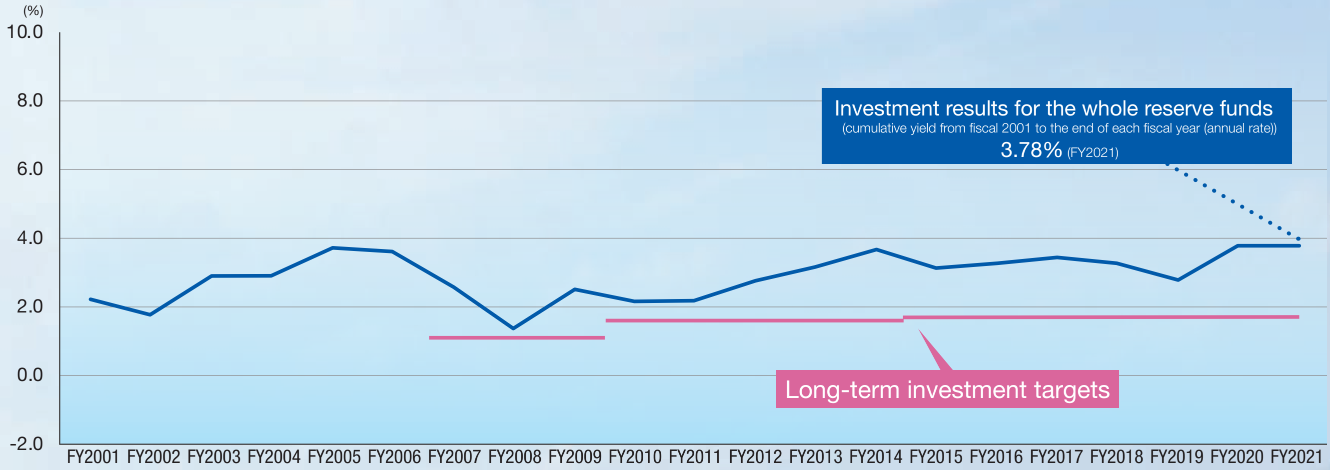
Under the Medium-term Objectives established by the Minister of Health, Labour and Welfare (MHLW), the investment target for the whole pension reserves (Note1) is to secure a long-term real return (net investment yield on the pension reserve fund less the nominal wage growth rate) of 1.7% with minimal risks. (Please note that this investment target is on a 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 pages 79·80.

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 of Fiscal 2021 Investment Activities

Fiscal 2021 was a year that saw GPIF endeavored to reduce its portfolio risk and strengthen its risk management in response to rapid market changes.

Revenue for fiscal 2021 exceeded ¥10 trillion, and the rate of investment return for the fiscal year was +5.42%. The real investment return over the 21 years since 2001, when GPIF started its discretionary investment for the pension reserve funds, has been +3.78% (annualized), so it continues to exceed the long-term investment target of "the nominal wage growth rate of +1.7%." Quarterly returns of the fiscal year were positive in all but the fourth quarter. As a result, quarterly returns since 2001 have in fact been positive in over 70% of the 84 quarters, reaffirming that the past and current policy asset mixes have enabled GPIF to reap the fruits of economic growth via long-term investment.

The excess rate of return was negative for the first time in two years at negative 6 basis points (down approximately 110 billion yen) due to the significant increase in market volatility during the second half of the fiscal year. However, the cumulative total of the return for the fourth Medium-term Plan target period was positive (+26 basis points). In terms of the last fiscal year's excess rate of return, despite the positive contributions of alternative assets and ESG index-based investments, the negative outcome was posted due to the foreign equity fund factor.

The market conditions changed significantly in the second half of the fiscal year. A policy shift from monetary easing to monetary tightening was made by the Federal Reserve Board (FRB) in the U.S. and by central banks in other countries, and market volatility remained high from the third quarter. In addition, Russia's invasion of Ukraine also occurred in February. Responding to these changes, GPIF strived to strengthen its risk management in the portfolio by managing its asset allocation based exactly on the policy asset mix as much as possible in order to avoid taking unnecessary risks.

Specific measures GPIF employed to reduce portfolio risk include (1) reducing the ratio of corporate bonds among its foreign bond allocation, (2) using stock price index futures to speed up its asset rebalancing, (3) reducing currency-hedged U.S. Treasuries due to concerns over rising U.S. dollar interest rates, (4) excluding securities with high settlement risk from benchmarks and reducing these holdings, (5) reducing equity active fund balances, and (6) reviewing collateral accepted for bond lending and lending periods. As a result, the peak of VaR ratio (for details, page 42) for a fiscal year has been steadily declining from 1.09 in fiscal 2019, to 1.05 in 2020, and 1.03 in 2021.

On the other hand, in terms of its alternative investments, GPIF selected a new domestic private equity fund in fiscal 2021, and steadily increased its alternative asset balance, exceeding ¥2.1 trillion at the end of the fiscal year, which surpassed 1% of total assets for the first time. In terms of its ESG investment, the FTSE Blossom Japan Sector Relative Index was newly selected, and consequently the total number of ESG indexes adopted by GPIF now stands at eight for domestic and foreign equities. As a result, the total amount of ESG investment based on our narrow definition, which consists of passive equity investments based on ESG indexes and investments in ESG thematic bonds such as green bonds, amounted to approximately ¥13.7 trillion.

Although the market conditions remain challenging, GPIF will continue striving for meticulous risk management to achieve the goals of the fourth Medium-Term Plan. We would sincerely ask the pension beneficiaries and the Japanese public at large for their understanding and support.

GPIF's main risk reduction activities in its portfolio for fiscal 2021

(1) Reducing the ratio of corporate bonds among foreign bond allocation

Although GPIF increased the ratio of corporate bonds among its foreign bond allocation in response to widening credit spreads in fiscal 2020, we decreased the ratio of corporate bonds to about 5% of total foreign bond allocation at the end of fiscal 2021. In particular, the amount of high-yield bonds held was reduced to less than one-fifth of the peak amount at the end of fiscal 2021 by changing investment guidelines and fund cancellations.

(2) Using stock price index futures to speed up asset rebalancing

Rising volatility has made rebalancing among the four asset classes a more important risk management objective than ever. To secure the risk-return characteristics of the policy asset mix, GPIF has aimed to achieve flexible rebalancing. To improve efficiency in its rebalancing, GPIF has started to use stock price index futures as part of its in-house investment since fiscal 2021. The use of stock price index futures for GPIF's in-house investment became available by regulations in 2018, however it was not until fiscal 2021 that they were first put to actual use. With due care given to concerns about the use of futures, which allow for large trades with small amounts of money (it means that GPIF can implement its trade with leverage), GPIF has utilized stock price index futures with a condition that the notional principal amount must be within a range of the amount of cash held by GPIF when purchasing stock price index futures so that no leverage is applied. By doing so, GPIF makes sure that we use stock price index futures as temporary substitutes for purchases of physical shares. The use of stock index futures enhanced the efficiency of GPIF's rebalancing, because it not only shortens the time between the decision to buy or sell a stock and the start of the execution of that trade, but also allows GPIF to adjust the amount of the trade in line with stock market movements and to utilize the liquidity of global markets open nearly round-the-clock for risk management.

(3) Reducing currency-hedged U.S. Treasuries due to concerns over rising U.S. dollar interest rates

GPIF manages the foreign currency exchange risk of foreign assets in an integrated manner by combining its foreign bond and foreign equity portfolios. In addition, GPIF manages the interest rate risk (i.e. duration risk) of its foreign bonds for its entire foreign bond portfolio and foreign bonds with currency hedges classified as domestic bonds in an integrated manner. Facing that the FRB was expected to start raising its policy interest rate from March 2022, GPIF reduced its holdings of currency-hedged U.S. bonds by approximately ¥1 trillion to reduce only the interest rate risk from foreign bonds, without deviating the foreign currency exchange risk from the policy asset mix. By doing so, GPIF achieved to lower the risk of interest rate hikes in its overall portfolio.

(4) Excluding securities with high settlement risk from benchmarks and reducing these holdings

GPIF invests in global markets, some of which are subject to uncertainties in terms of settlement systems and other factors, particularly those in emerging countries. GPIF pays due attention to such risks when managing its portfolio in keeping with its objective of safe and efficient investment for the benefit of the pension beneficiaries.

Given the fact that the Chinese government bonds are scheduled for gradual inclusion in the World Government Bond Index (WGBI) which is used by GPIF as the policy and evaluation benchmark for its foreign bond investments, a decision was made at the 59th Board of Governors meeting (held in September 2021) to exclude the Chinese government bonds from this benchmark customized for GPIF due to the bonds' characteristics including unavailability of an international settlement system (for details, refer to page 45).

Following the February 2022 invasion of Ukraine by Russia, GPIF's policy was reported to the Board of Governors at its 65th meeting (held in March 2022) that, from a risk management perspective, GPIF would suspend new investments in Russia-related assets and sell existing asset holdings at an appropriate time while closely monitoring the situation. Specifically, following the exclusion of Russia-related assets from the benchmark by the index company in March, the assets held by GPIF have been sold by external asset managers while taking liquidity and other factors into consideration. While some over-the-counter trading of Russia-related bonds has been conducted outside Russia through overseas clearing houses since March, trading and settlement of Russia-related equities by non-Russian investors have been restricted. Accordingly, GPIF's Russia-related bond holdings have decreased significantly as of the end of March while a certain level of Russian-related equity holdings has been retained. Relating to this issue, GPIF will continue to keep a close eye on the market environment.

(5) Reducing active equity fund balances

As shown in the rate of return factor breakdown (refer to page 28), the foreign equity fund factor had the greatest impact on the excess rate of return in fiscal 2021. GPIF is currently investing in the active foreign equity funds of seven companies, all of which underperformed their manager benchmarks for the year. The correlation of each fund's excess returns increased and market volatility rose sharply during the second half of the fiscal year, so GPIF reduced its active fund balance by a total of approximately ¥2 trillion for risk management reasons. To avoid a concentration of fund allocations and to achieve diversification effects in the equity portfolio, it is necessary to increase the number of active funds GPIF employs. For this purpose, GPIF has proceeded with the selection of active funds in the North American market, which offers the greatest number of options. GPIF will move to achieve a diversification effect among its active funds as fast as possible.

(6) Reviewing collateral accepted for bond lending and lending periods

GPIF earns income by lending out its bond holdings to improve investment yields. To prevent GPIF from being exposed to the credit risk of borrowers, it accepts an equivalent amount of securities as collateral for its bond lending. At the beginning of fiscal 2021, it was reported in the media that several securities companies in the U.S. market had lent bonds to a borrower that subsequently went bankrupt, resulting in large losses due to delays in selling the collateral. To avoid a similar risk, GPIF reviewed the types of collateral GPIF accepts and the lending periods for bonds on the conservative side.

Executive Managing Director (Management and Investment Operations)/CIO

UEDA Eiji

Chapter 1 Investment Results in Fiscal 2021

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 2021 is

+5.42%.

The amount of investment returns for fiscal 2021 is

+¥10,092.5 billion.

		1Q	2Q	3Q	4Q	Total
Total		2.68%	0.98%	2.81%	-1.10%	5.42%
		¥4,982.0 billion	¥1,876.3 billion	¥5,437.2 billion	-¥2,203.1 billion	¥10,092.5 billion
	Domestic bonds	0.47%	0.11%	-0.02%	-1.54%	-0.99%
		¥209.0 billion	¥50.1 billion	-¥7.5 billion	-¥747.6 billion	-¥496.0 billion
	Foreign bonds	1.87%	-0.85%	2.52%	-1.22%	2.29%
		¥887.3 billion	-¥409.1 billion	¥1,207.2 billion	-¥613.0 billion	¥1,072.4 billion
	Domestic equities	-0.25%	5.35%	-1.62%	-1.22%	2.12%
		-¥105.1 billion	¥2,591.9 billion	-¥808.1 billion	-¥591.6 billion	¥1,087.1 billion
	Foreign equities	8.62%	-0.77%	10.54%	-0.55%	18.48%
		¥3,990.8 billion	-¥356.5 billion	¥5,045.6 billion	-¥250.8 billion	¥8,429.0 billion

(Note 1) GPIF manages and invests its assets at the market value. 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) Investment returns are gross of fees (the same shall apply hereinafter).

(Note 3) 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 4) 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).

(Note 5) The rate of time-weighted investment return on total alternative assets for fiscal 2021 is 21.37% (infrastructure at 20.80%, private equity at 28.83%, and real estate at 20.25%).

(Note 6) Due to rounding off, the sum of each item in individual quarters does not necessarily match the total number for the fiscal year.

(Note 7) Fiscal 2021 runs from April 1, 2021 to March 31, 2022.

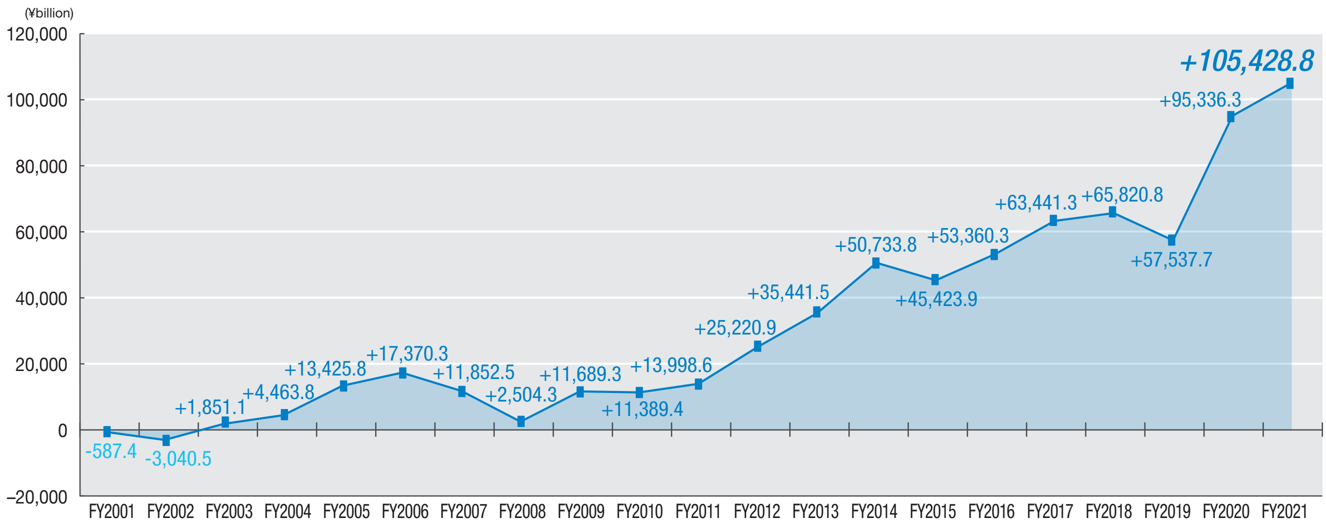
② Cumulative returns and asset size since fiscal 2001

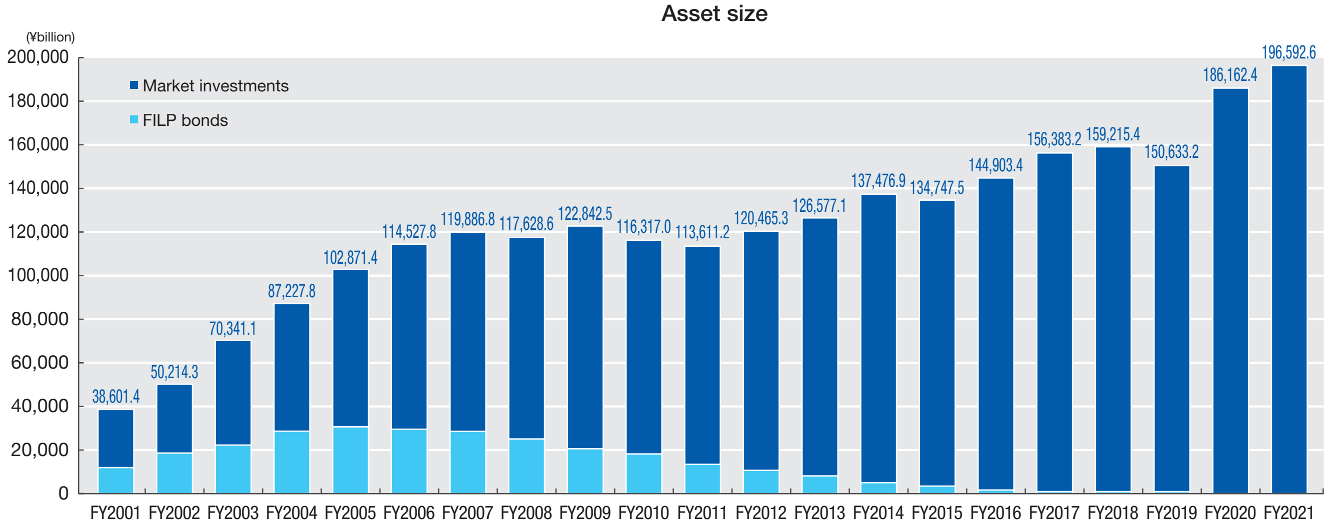
Cumulative returns from fiscal 2001 to fiscal 2021 are

+¥105,428.8 billion

and the value of investment assets at the end of fiscal 2021 is

¥196,592.6 billion.





(Note) Investments using FILP bonds were terminated during fiscal 2020.

③ Comparison to long-term investment targets

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

3.78%

for the 21 years since fiscal 2001.

Long-term investment target after fiscal 2015 is

+1.7%

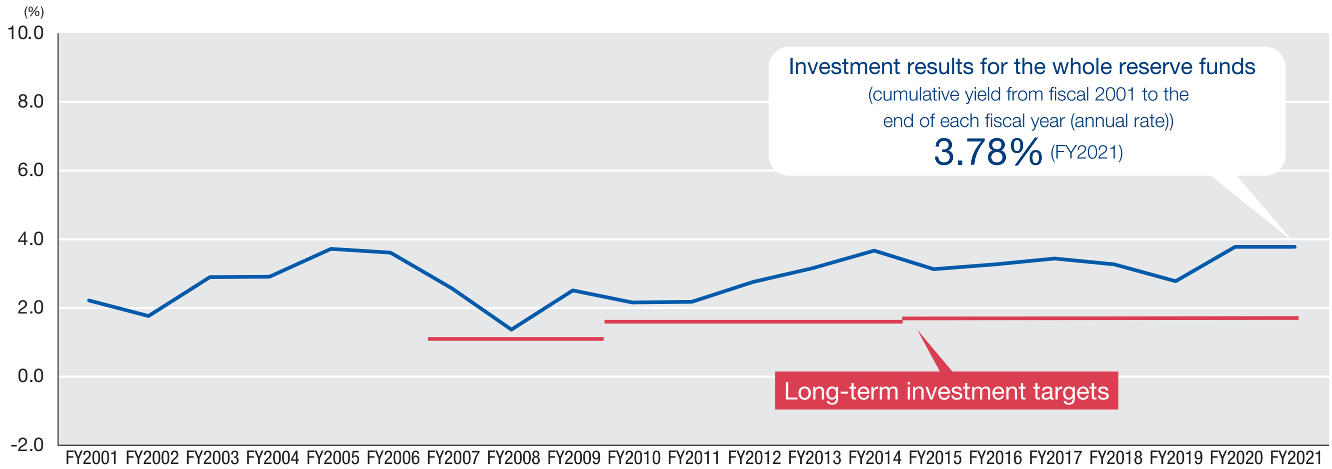
above the nominal wage growth rate.

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 pages 79·80.

(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 objective is +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



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	FY2021	Last21years (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	5.17	3.71
	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	1.26	−0.07
	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	3.86	3.78

(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) Long-term investment targets are the geometric means of cumulative yield from fiscal 2001 to the end of each fiscal year (annualized).

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, 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 2021, the total amount of investment income is

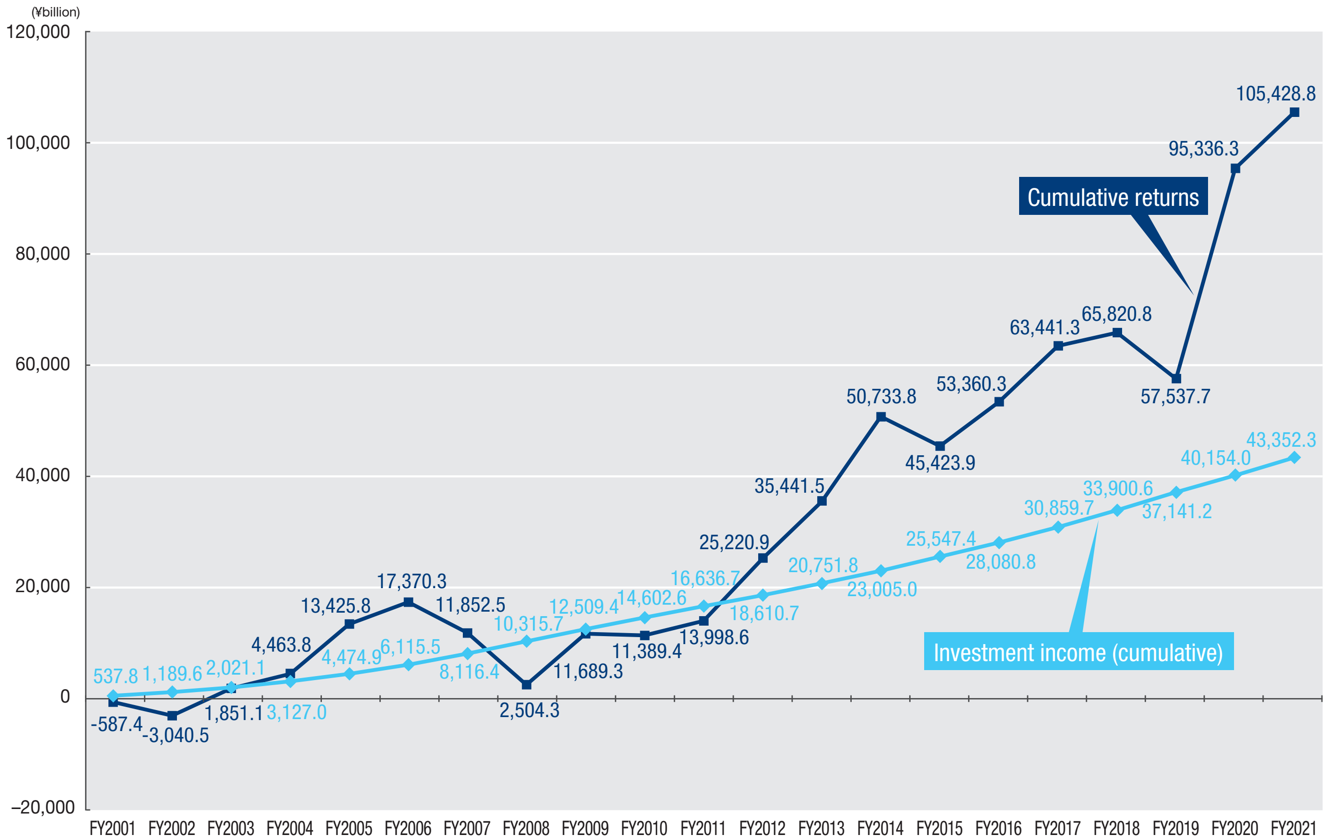
¥3,198.3 billion (rate of return: +1.63%),

and the cumulative amount of investment income for the 21 years since fiscal 2001, when GPIF started managing pension reserves, is

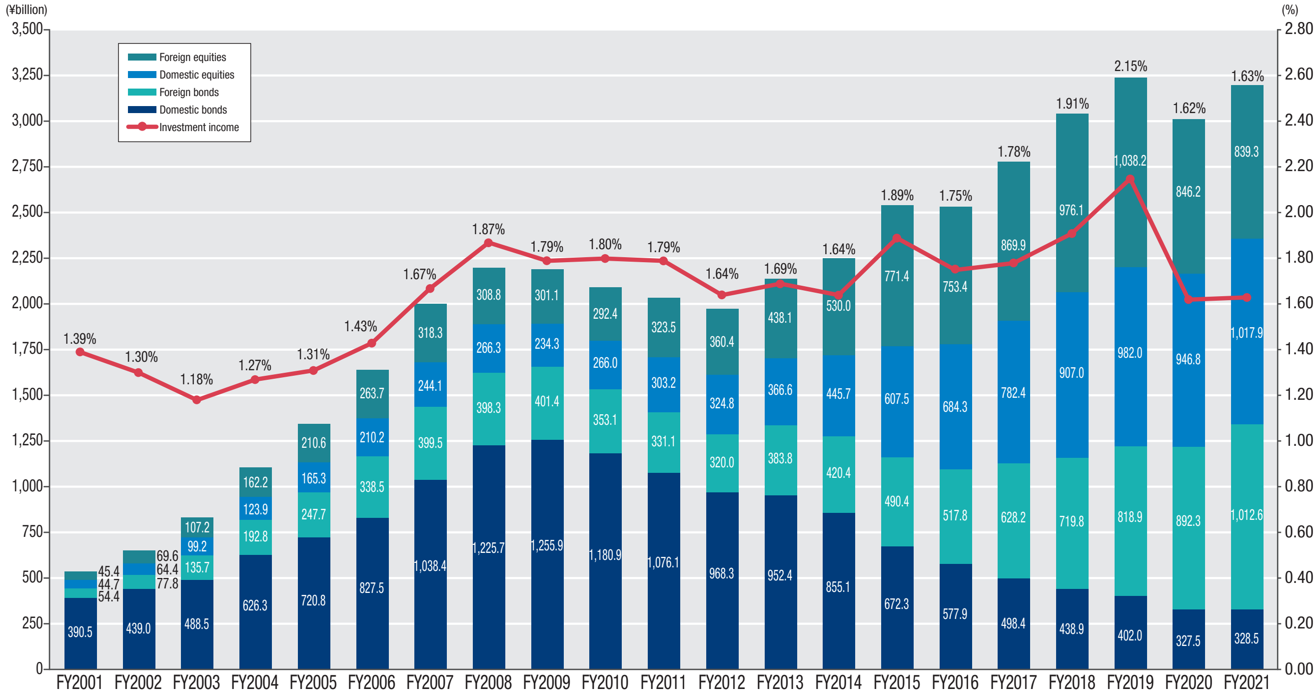
¥43,352.3 billion (rate of return: +1.64% [annual rate])

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	15,290.9 (1.21%)	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	9,134.5 (3.07%)	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	9,086.7 (1.68%)	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	9,825.6 (2.18%)	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	43,352.3 (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	FY2021
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%)	328.5 (0.69%)
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%)	1,012.6 (2.08%)
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%)	1,017.9 (2.06%)
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%)	839.3 (1.65%)
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%)	3,198.3 (1.63%)

(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 amount of income earned on short-term assets (income gain) is included in the total by fiscal 2019; from fiscal 2020 onward, the yen-denominated portion is included in domestic bonds and the foreign currency-denominated portion in foreign bonds.

(Note 3) The amount of income earned on currency-hedged foreign bonds (income gain) is included in domestic bonds from fiscal 2020 onward.

(Note 4) The amount of income earned on FILP bonds (income gain) is included in domestic bonds by fiscal 2020, the year to which FILP bonds were held.

(Note 5) The amount of income earned on convertible bonds (income gain) is included in domestic bonds for fiscal 2001.

(Note 6) The rate of return for each fiscal year is calculated by dividing the amount of return (income gain) for each asset by the amount of that asset under management.

(Note 7) 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 2021, the total rate of return on all investment assets was **5.42%** while the compound benchmark return was **5.47%** The excess rate of return was **–0.06%**

The average of the annual rate of return for the 16 years since the GPIF's establishment in fiscal 2006 on all investment assets was **3.96%** while the compound benchmark return was **3.98%** The excess rate of return was **–0.03%**.

The cumulative rate of return for the 2 years since the beginning of the fourth Medium-term Plan in fiscal 2020 on all investment assets was **31.93%**, while the compound benchmark return was **31.67%**. The excess rate of return was **+0.26%**.

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 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%).

The fourth Medium-term Plan covering a five-year target period from fiscal 2020 to fiscal 2024 calls for securing the respective benchmark rates of return (average market rates of return) for all assets as well as for each asset.

Factor analysis of the difference from the compound benchmark return in fiscal 2021

(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	+5.42	+5.47	-0.06	-0.05	+0.06	-0.07	-0.00	-0.06
Domestic bonds	-0.99	-1.22	+0.23	+0.01	+0.01	+0.05	-0.00	+0.07
Foreign bonds	+2.29	+1.88	+0.41	+0.00	-0.02	+0.13	+0.00	+0.11
Domestic equities	+2.12	+1.99	+0.13	-0.04	+0.06	-0.03	+0.00	-0.01
Foreign equities	+18.48	+19.38	-0.90	-0.02	+0.01	-0.21	-0.00	-0.22

(Note 1) 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 35.

(Note 3) The contribution to the excess rate of return by the overall alternative investments is +0.14%. For details of investment in alternative assets, refer to pages 47-57.

(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.

Factor analysis of the difference from the compound benchmark return【FY2006-FY2021】

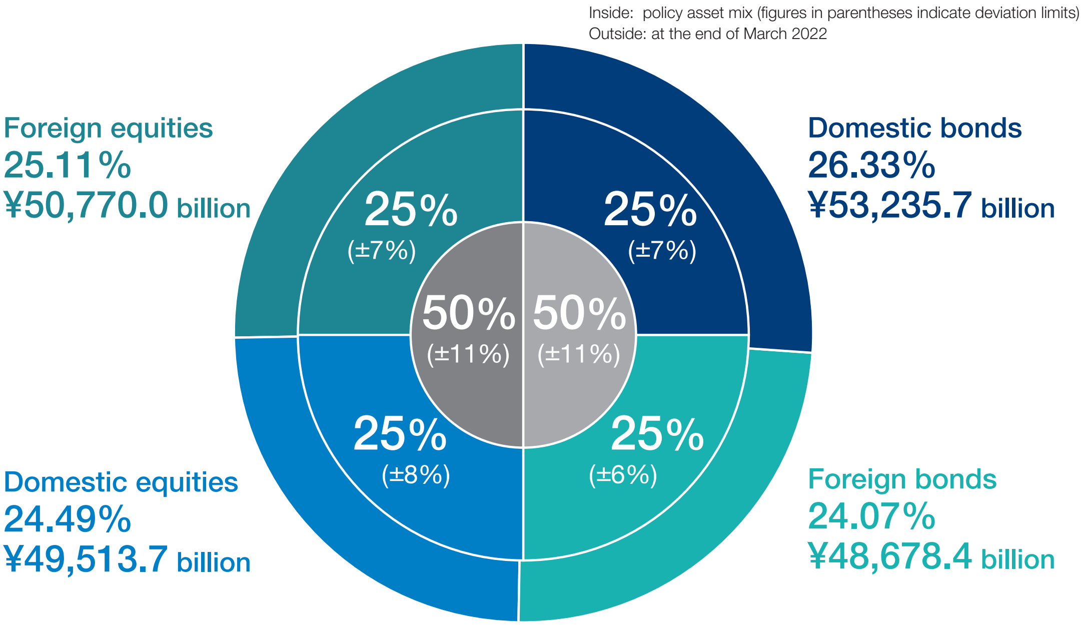
(Unit: %)

	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~FY2021	3.96	3.98	-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
FY2021	5.42	5.47	-0.06	-0.05	+0.06	-0.07	-0.00	-0.06

(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. Since 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. Investments in FILP bonds were terminated during fiscal 2020.

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	53,235.7	26.33%	50.40%
Foreign bonds	48,678.4	24.07%	
Domestic equities	49,513.7	24.49%	49.60%
Foreign equities	50,770.0	25.11%	
Total	202,197.7	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 2021 (about ¥5.6 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: 1.07% (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	+4,303.8	+312.0	+1,222.1	-5,476.4

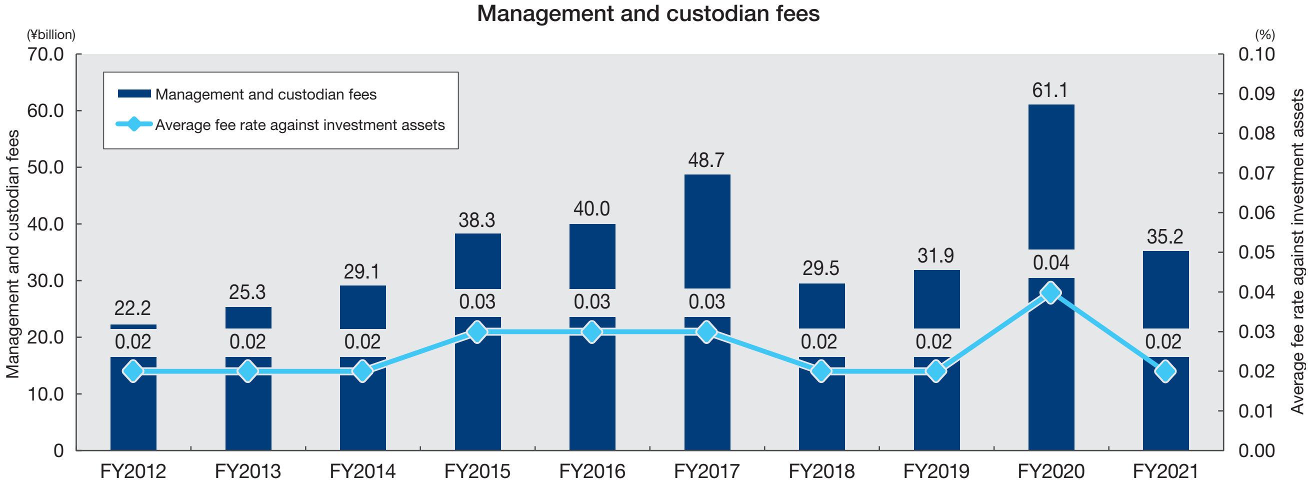
(Note) Each figure shows the net rebalancing amount.

⑧ Management and custodian fees

In fiscal 2021, total fees were **¥35.2 billion**.

The average fee rate on the total investment assets for fiscal 2021 was **0.02%**.

Management and custodian fees decreased by ¥25.9 billion from the previous year due to lower performance-based fees as some active asset managers fell short of their excess rate of return targets, while the balance of assets under management increased from the previous year.



Management and custodian fees by asset class

(Unit: ¥billion)

	FY2012	FY2013	FY2014	FY2015	FY2016	FY2017	FY2018	FY2019	FY2020	FY2021
Total	22.2	25.3	29.1	38.3	40.0	48.7	29.5	31.9	61.1	35.2
Domestic bonds	4.7	3.6	3.8	3.8	3.9	4.0	1.6	2.0	3.0	3.4
Foreign bonds	5.7	6.8	8.5	9.1	12.5	17.2	9.2	7.1	25.4	18.6
Domestic equities	5.9	7.8	5.7	8.3	8.8	10.6	7.5	6.5	12.7	6.0
Foreign equities	6.0	7.2	11.2	17.0	14.9	16.9	10.7	15.5	18.8	5.3
Alternative assets	—	—	—	—	0.0	0.0	0.3	0.7	1.0	1.4

(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: %)

	FY2012	FY2013	FY2014	FY2015	FY2016	FY2017	FY2018	FY2019	FY2020	FY2021
Total	0.02	0.02	0.02	0.03	0.03	0.03	0.02	0.02	0.04	0.02
Domestic bonds	0.01	0.01	0.01	0.02	0.03	0.03	0.01	0.01	0.02	0.01
Foreign bonds	0.06	0.05	0.05	0.05	0.07	0.08	0.04	0.02	0.06	0.04
Domestic equities	0.04	0.04	0.02	0.03	0.03	0.03	0.02	0.02	0.03	0.01
Foreign equities	0.04	0.04	0.05	0.05	0.05	0.04	0.03	0.04	0.04	0.01
Alternative assets	—	—	—	—	—	0.14	0.23	0.14	0.11	0.09
Average balance (¥trillion)	111.5	123.9	131.9	139.0	137.3	155.7	158.9	161.4	170.2	193.1

(Note 1) Total includes in-house investment assets and index licensing fees.
(Note 2) The average balance includes in-house investment assets. For investments in FILP funds held until fiscal 2020 and managed in-house, 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 objective, 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 the website: https://www.gpif.go.jp/gpif/portfolio.html. (Japanese only)

【Current policy asset mix】

(From April 2020)

(Unit: %)

<table>
<tr><th colspan="2"></th><th>Domestic bonds</th><th>Foreign bonds</th><th>Domestic equities</th><th>Foreign equities</th></tr>
<tr><td colspan="2">Target allocation</td><td>25</td><td>25</td><td>25</td><td>25</td></tr>
<tr><td rowspan="2">Deviation limits</td><td>Asset class</td><td>±7</td><td>±6</td><td>±8</td><td>±7</td></tr>
<tr><td>Bonds/Equities</td><td colspan="2">±11</td><td colspan="2">±11</td></tr>
</table>

(Note 1) Alternative assets (infrastructures, private equities, real estates, and other assets determined through resolutions at the Board of Governors) are classified into domestic bonds, domestic equities, foreign bonds, and foreign equities based on their risk and return profiles, and are 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 within 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: %)

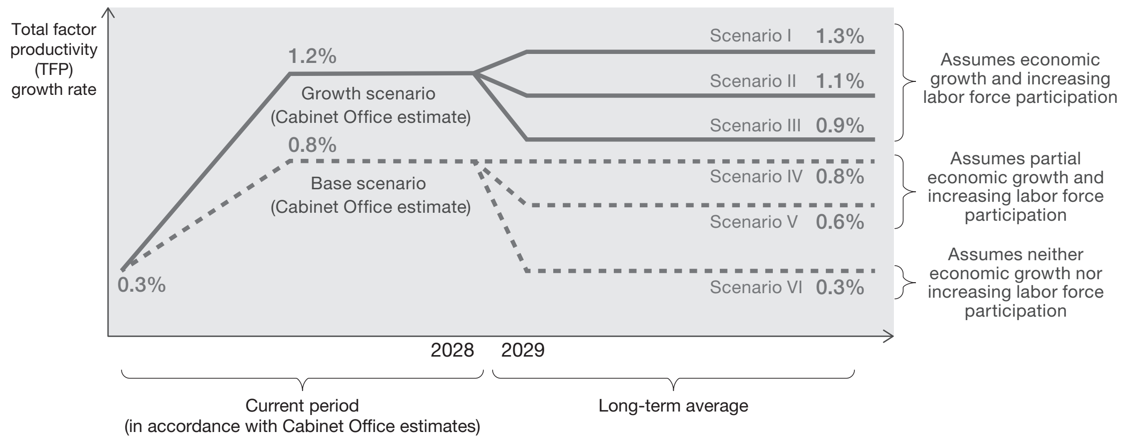
	Domestic bonds	Domestic equities	Foreign bonds	Foreign equities
Target allocation	35	25	15	25
Deviation limits	±10	±9	±4	±8

[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 declining 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. Target return on investments of the reserve fund was built upon this result.

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 pension 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 reserve fund.

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 minimal risks.

B. The policy asset mix must be formulated from a long-term perspective and it should incorporate generally recognized asset management expertise as well as domestic and overseas economic trends, in light of forward-looking risk analysis.

C. The downside risks of underperforming the nominal wage growth rate cannot exceed the one of the portfolios 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. 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, just the same as before. GPIF also used the average short fall rate in case the return is below the nominal wage increase (conditional average shortfall rate) in order to measure the risks when optimizing the portfolio.

F. Looking at the reserve 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 reserve 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 reserve 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, 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. Please note that, however, although the Chinese government bonds have been gradually included in the FTSE World Government Bond Index from October 2021, GPIF has decided not to invest in the Chinese government bonds for the time being. Accordingly, GPIF currently uses the following index that excludes the Chinese government bonds as its policy benchmark for foreign bonds (for details, refer to page 45).

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 the expected return of domestic bonds by the average return rate calculated within the bonds investments simulation (which assumes future long-term interest rates scenarios) combined with the equilibrium return rate (Note1) deemed intrinsic to market capitalization. To estimate expected 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 the 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 on the upper row indicate real returns, those in brackets on the lower row indicate nominal returns with wage growth rate.

④ Standard deviation and correlation of each asset class

GPIF estimated the risks and correlations of each asset class by using the annual data of the policy benchmarks for the 25 years after the bubble economy collapsed in Japan (i.e. the period from 1994 to 2018).

【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 combining several different assets with different risk-return profiles is the weighted average of the expected returns of individual assets, while the 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 the website: https://www.gpif.go.jp/gpif/ (Japanese only).

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 that meets the investment objective (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 25-year period from 1994 to 2018.

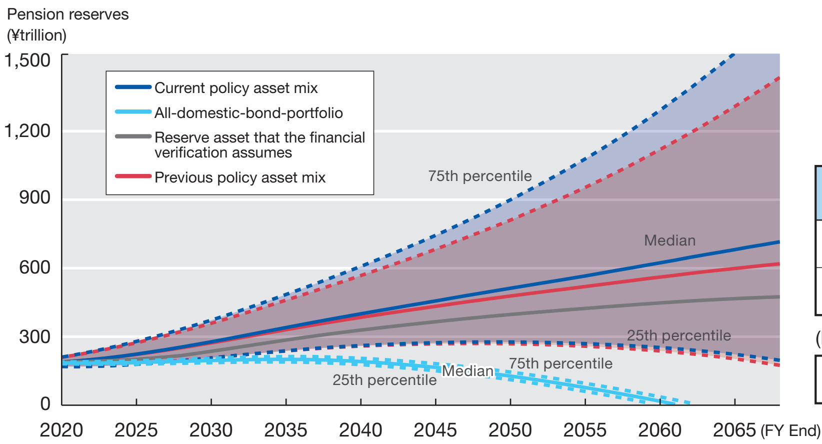
⑥ Risk verification for formulating the current policy asset mix

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 shows that the amount of pension reserves with an all-domestic-bond portfolio resulted in always smaller than the amount of the planned reserve assets.

From the above-mentioned overall perspectives with the aspects of lower partial probability and conditional average shortfall rate, this policy asset mix is the most efficient portfolio to meet the investment objective 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: %)

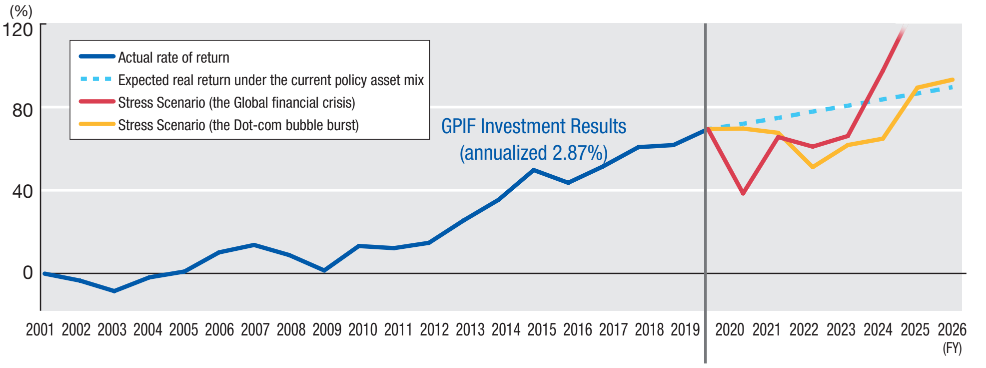
Previous policy asset mix	40.0	43.0

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 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 global financial crisis would occur once every 70 years, while that similar to 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

[4] Policy asset mix verification

① Verification policy stipulated in the Medium-term Plan

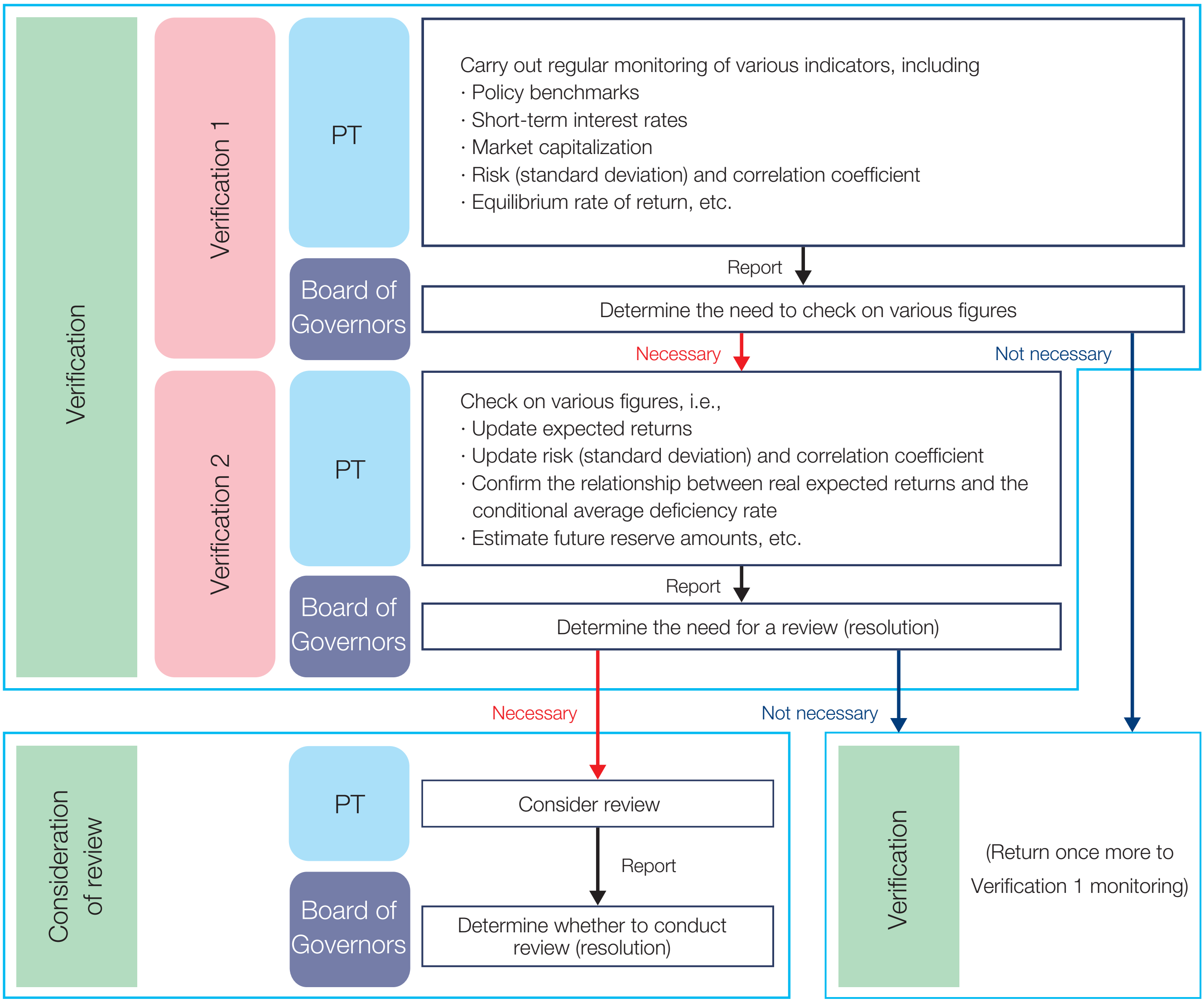
Verification of the policy asset mix at GPIF will be conducted in a timely and appropriate manner during the period of the fourth Medium-Term Plan and, when deemed necessary by the Board of Governors (e.g., when there is possibility of significant changes in the investment environment presumed at the time the Plan was formulated), a review will be considered and revisions promptly implemented as necessary.

② Verification system

To verify the policy asset mix at GPIF in a timely and appropriate manner, a PT for Policy Asset Mix Verification, etc., has been established under the Board of Governors to carry out practical tasks pertaining to policy asset mix verification. The PT comprises members of the Board of Governors who have expertise in the fields of finance and economics.

③ Verification method

Verification is performed in two stages: Verification 1 and Verification 2, as illustrated below.



*The PT in the figure above is the “PT for Policy Asset Mix Verification, etc.”

a. Verification 1

- GPIF's policy asset mix is formulated from a long-term perspective and is based on the 25-year of data including (1) policy benchmark return, (2)short-term interest rates, (3)the most recent market capitalization at the time the policy asset mix is formulated, and (4) the risk (standard deviation), correlation coefficient, and the equilibrium rate of return, all of which are calculated from these (1) (2) (3). The PT regularly monitors these various indicators that were used as the basis for formulating this policy asset mix.
- If changes are observed in these indicators in the course of periodic monitoring and it appears the investment environment may have changed significantly from that presumed when the portfolio was formulated, the PT will report such changes to the Board of Governors.

b. Verification 2

- If the PT reports that changes in various indicators are observed and that the investment environment may have changed significantly from that presumed when the portfolio was formulated as a result of regular monitoring (Verification 1), the Board of Governors shall determine whether to conduct a Verification 2 in which various figures – updating expected return, the risk (standard deviation) and correlation coefficient, confirming the relationship between real expected return and the conditional average deficiency rate, and estimating future reserves, etc. – are checked.
- If it is determined that a Verification 2 should be conducted (updating expected returns, etc.), the PT will carry out the Verification 2 tasks and report the results to the Board of Governors.
- The Board of Governors will determine whether to consider a review of the policy asset mix based on the report by the PT.
- Based on the Board of Governors' determination, if determined to be necessary, the PT will consider whether to review the policy asset mix, and the PT reports the outcome of its consideration to the Board of Governors.
- The Board of Governors will promptly revise the policy asset mix as necessary based on the results of the review consideration by the PT.
- Even if the regular monitoring (Verification 1) does not reveal any significant changes in the investment environment from that presumed when the policy asset mix was formulated, the PT will report the status of monitoring to the Board of Governors at least once a year. Based on the report by the PT, the Board of Governors will then determine whether it is necessary to carry out Verification 2 (checking various figures such as updating expected returns).

④ Outcome of Verification in fiscal 2021

Verification 1 conducted in fiscal 2021 concluded that the investment environment had not necessarily changed significantly from that presumed when the policy asset mix was formulated, so it was determined that neither Verification 2 (checking various figures such as updating expected returns), nor a review of the policy asset mix were necessary.

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 by safe 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 environments, 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 the entire portfolio, individual asset classes, and individual asset managers, respectively. At the same time, we ensures the achievements of the benchmark rates of return for the entire portfolio as well as for each asset class by monitoring various indicators 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 be reported 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 the level of the entire portfolio, individual asset classes, and individual asset managers, respectively, 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 the 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]

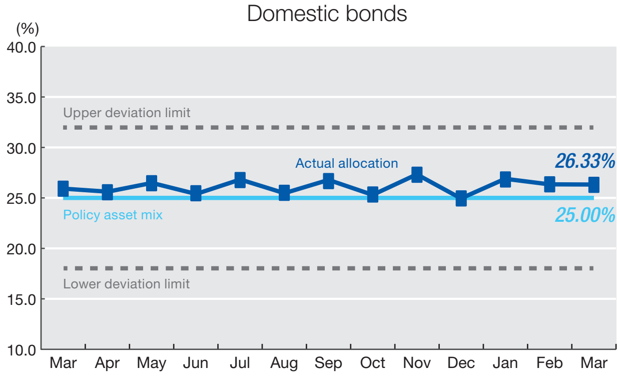
Market risk	The risk of changes in the value of portfolio assets, including derivatives, due to fluctuations in various market risk factors such as interest rates, foreign exchange rates, equities, and alternative assets
Liquidity risk	The risk of facing a difficulty in securing the necessary funds or 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, caused by factors such as deterioration in the financial position of issuers of the portfolio assets, institutions entrusted with asset management 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

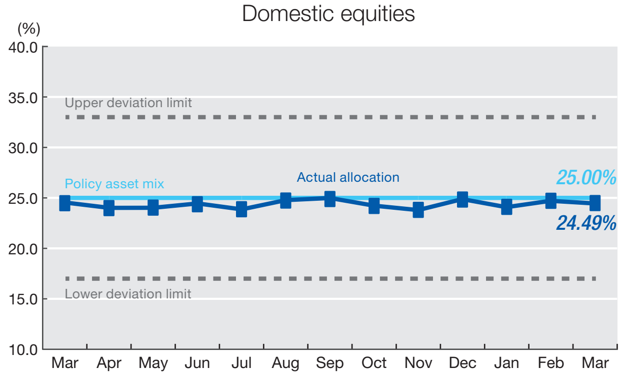
As mentioned above, GPIF believes that the most important aspect of portfolio risk managements is a proper management of asset allocation based on a policy asset mix. Since the markets constantly change, it is essential to establish a framework that enables GPIF to manage investments flexibly within 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 deviation limits in order to smoothly and appropriately manage its asset allocations, and sets a policy to clarify a responsive process in the event of exceeding the deviation limits as well as alarm points. In fiscal 2021, 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 these assets and expressly state 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 2021.

【Management of deviation limits】

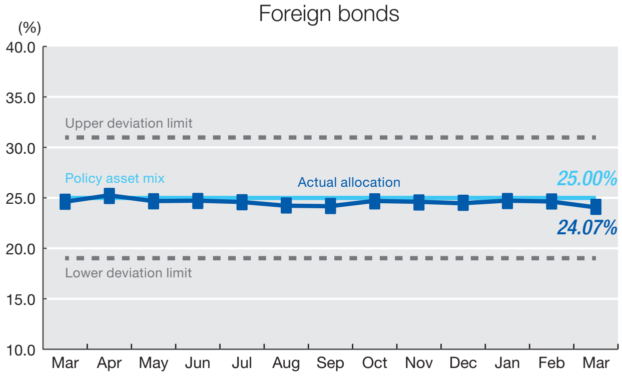
Domestic bonds



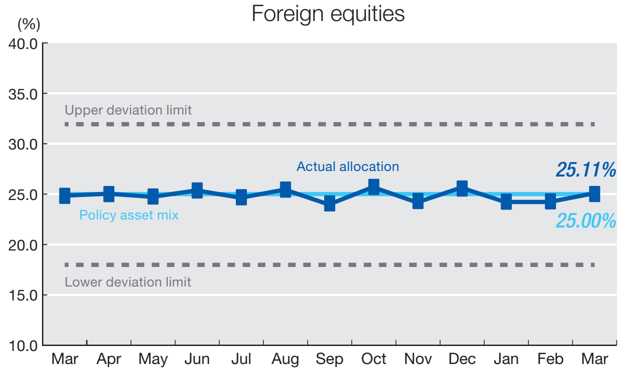
Domestic equities



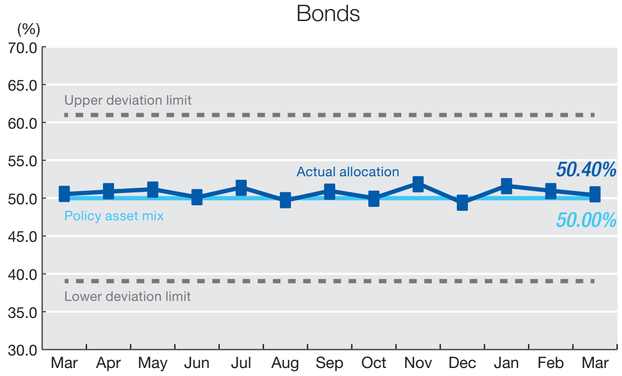
Foreign bonds



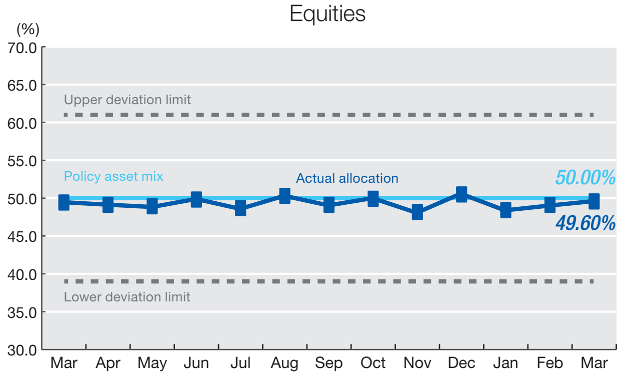
Foreign equities



Bonds



Equities



(Note 1) Asset allocation is calculated including reserves managed in the Pension Special Account.
(Note 2) Since fiscal 2021, the notional amount of stock index futures and other factors are taken into account in the calculation.
(Note 3) The deviation limits under the fourth Medium-term Plan are ±7% for domestic bonds, ±6% for foreign bonds, ±8% for domestic equities, ±7% for foreign equities. ±11% for overall bonds, and ±11% for overall equities.

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

In fiscal 2021, the estimated tracking errors of the overall assets remained low at 18-35 basis points (1bp refers to 0.01%) throughout the year, as a result of GPIF having utilized stock index futures and implemented carefully tailored measures to ensure that overall assets did not deviate from the policy asset mix's compound benchmark return, in the face of rising market volatility especially in the second half of the fiscal year.

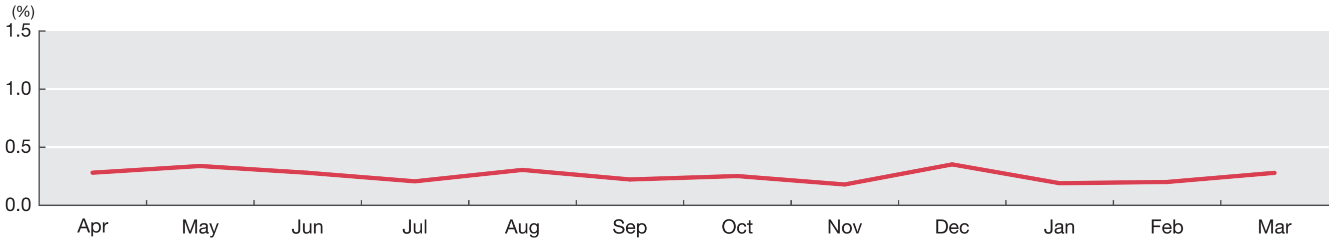
VaR ratio is obtained by dividing VaR (Note2) for the actual asset mix by VaR for the policy asset mix, an indicator for monitoring as to what extent the risk amount of the actual portfolio deviates from that of the policy asset mix.

In fiscal 2021, GPIF ensured that the actual amount of risk in the portfolio did not deviate from the amount of risk that would have been taken had it been investing in the policy asset mix, regarding the amount of stock price risk and foreign exchange risk, which are the major market risks, particularly in the face of rising market volatility in the second half of the fiscal year. In addition, the VaR ratio ranged between 1.00 and 1.03, as GPIF kept the amount of spread risk and alternative risk, which are minute in the policy asset mix, relatively low.

(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.

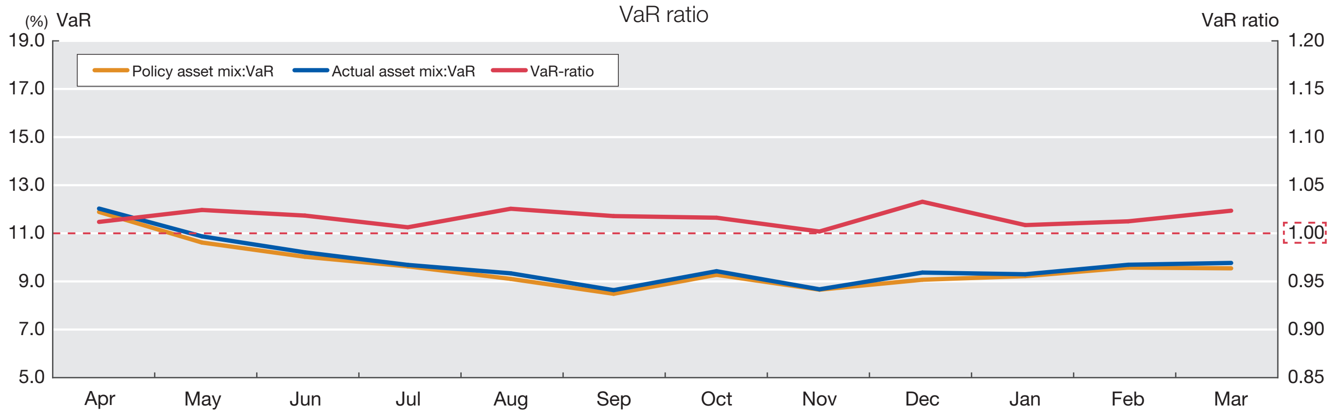
(Note 2) VaR indicates the largest loss likely to be suffered for individual assets assuming a certain holding period with a given probability (confidence level).

【Estimated tracking error of the overall assets】



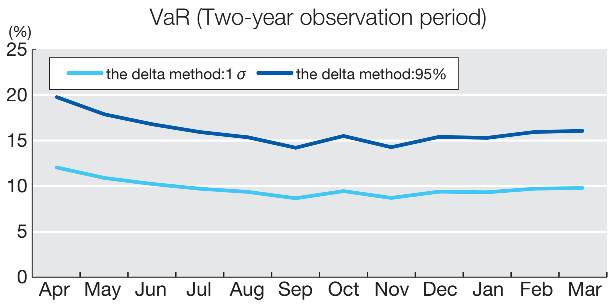
(Note) Since fiscal 2021, the notional amount of stock index futures and other factors are taken into account in the calculation.

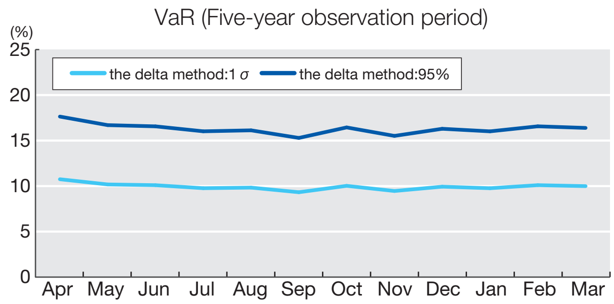
【VaR ratio and VaR】



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

(Note 2) Since fiscal 2021, the notional amount of stock index futures and other factors are taken into account in the calculation.





(Note 1) 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).

(Note 2) Since fiscal 2021, the notional amount of stock index futures and other factors are taken into account in the calculation.

[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 in alternative assets covers assessment items specifically required for in alternative investments, in addition to those common to traditional assets.

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

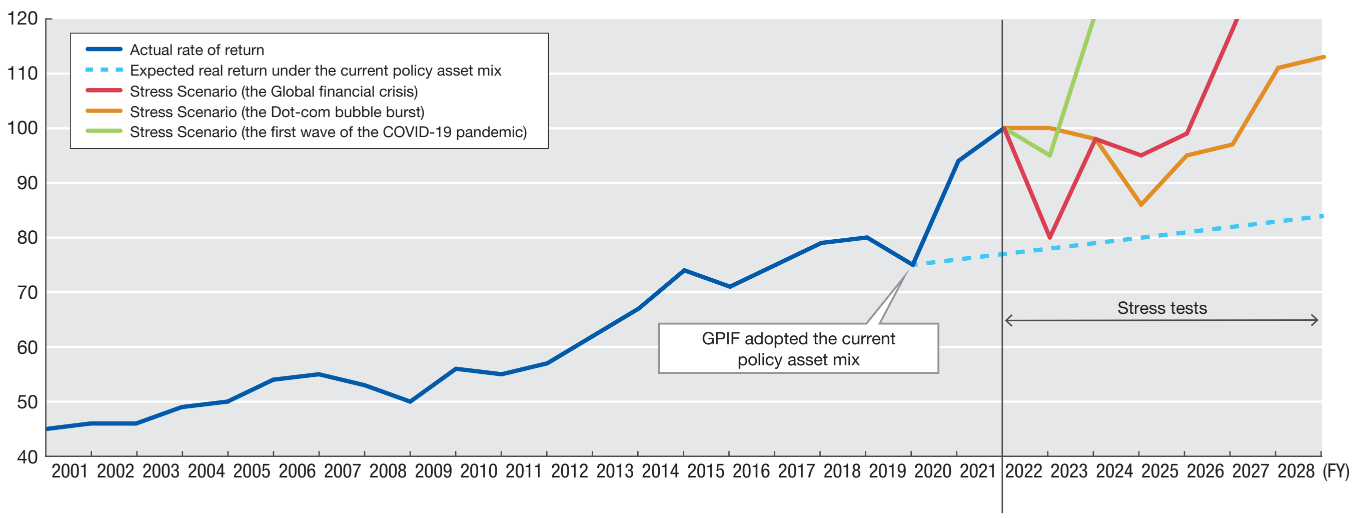
(Note) For details of risk management of alternative assets, refer to page 57.

[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.

It is essential that pension fund shall be managed safely and efficiently from a long-term perspective, and GPIF analyzes the impacts that might arise over the medium-to-long term. For a number of scenarios—the Global financial crisis scenario (2008-2009) in which the market fell sharply, the Dot-com bubble burst scenario (2001) in which the market was slow to recover, or a market decline scenario due to the COVID-19 pandemic (the first wave)—there were temporary impacts on the real investment yields obtained since the start of market investments, but the markets recovered thereafter and the expected level of investment yield was secured.

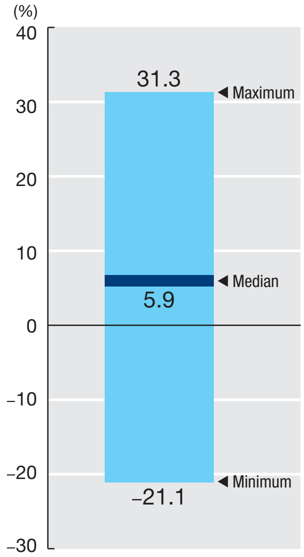


(Note 1) The investment results in the figure show a cumulative rate of investment return since 2001 {real return (net investment yield on the pension reserve fund less the nominal wage growth rate)}.
(Note 2) The figure for fiscal 2021 represents the result as of Dec. 31, 2021.
(Note 3) The vertical 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, 2021) as 100.

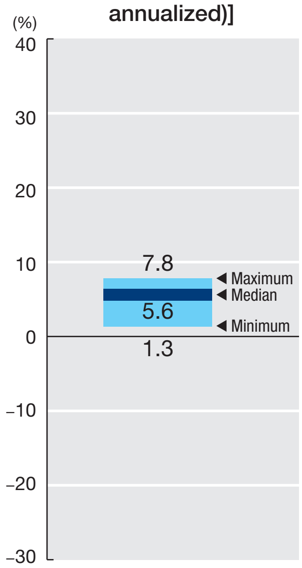
② Risk reduction through long-term investment

In analyzing portfolio returns based on historical data, GPIF analyzed the distribution of returns by the current policy asset mix using the market's actual performance over the past 34 years. We found that, in the short term, there was a maximum single-year gain of over +30% and a maximum single-year loss of over -20%, suggesting the possibility of a temporary loss equivalent to the record-high earnings of fiscal 2020. However, returns are stable over the long term, and not a single ten-year period over the past 34 years has been negative. The policy asset mix was created to ensure 1.7% real return over the long term. We should not be overly preoccupied with market fluctuations. Nevertheless, GPIF envisions a variety of stresses that could occur in the near future and gives due consideration to such short-term risks in order to manage investment risks over the long term.

[Short-term average return (in one-year periods)]



[Long-term average return (in ten-year periods, annualized)]



(Note 1) Average returns are calculated on the presumption of a rebalancing to the current policy asset mix at the end of each fiscal year.
(Note 2) The analyzed period spans 34 years from April 1985 to March 2019.

③ ESG investment expected to reduce risks from a long-term perspective

Given the fact that the law requires pension reserve fund should to be managed safely and efficiently from the long-term perspective, risk management based on the long-term perspective is further important for GPIF.

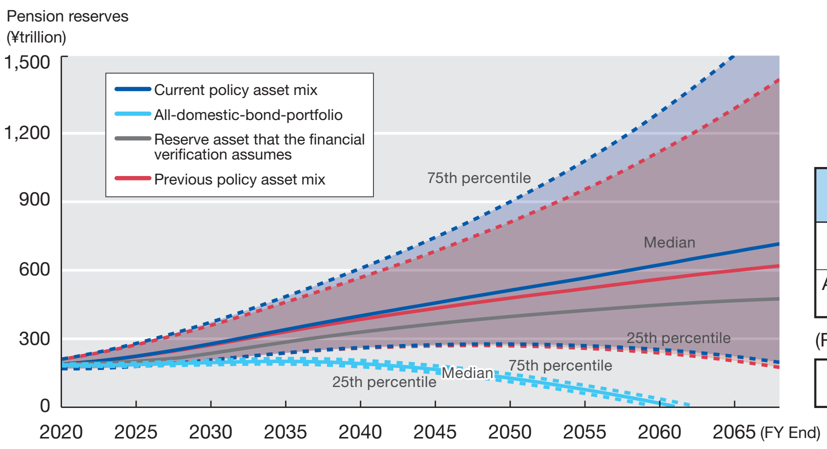
GPIF's investment approach takes ESG factors into account in order to improve long-term returns from the whole assets by reducing negative externalities such as environmental and social issues. Because ESG-related risks, as symbolized by climate change risks, etc., are expected to be more likely materialized as investment horizon becomes longer, we recognize that it is meaningful for GPIF to reduce these long-term risks through ESG investments. In fiscal 2021 like before, GPIF continued to promote investment with consideration to ESG factors.

④ 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 pages 32-39.

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 +0.23%. The breakdown of the excess rate of return on domestic bond investment by factor is as follows: benchmark factors (Note2): +0.04%; fund factors (Note3): +0.19%; 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
-0.99	-1.22	+0.23	+0.04	+0.19	+0.00

(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)).
(Note 3) Fund factors refer to those resulting from differences in rates of return between individual funds and manager benchmarks.
(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 +0.41%. The breakdown of the excess rate of return on foreign bond investment by factor is as follows: benchmark factors (Note2): -0.09%; fund factors (Note3): +0.50%; 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
2.29	1.88	+0.41	-0.09	+0.50	-0.00

(Note 1) The benchmark of foreign bonds is FTSE World Government Bond Index (not incl. JPY, CNY, 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, CNY, no hedge/JPY basis)).
(Note 3) Fund factors refer to those resulting from differences in rates of return between individual funds and manager benchmarks.
(Note 4) Other factors refer to calculation errors and such.

② Modification in Benchmark

The FTSE World Government Bond Index, the GPIF's benchmark for foreign bonds, is planned to gradually include the Chinese government bonds over the period of 36 months from October 2021. However, it is decided that GPIF would not invest in the Chinese government bonds for the time being, due to the various factors including (1) the Chinese government bonds cannot be settled through an international settlement system, (2) the bond's market liquidity is limited compared to the scale of GPIF's investment, and (3) futures trading is not permitted to foreign investors.

Consequently, the current benchmark for foreign bonds is customized to the FTSE World Government Bond Index (not incl. JPY, CNY, no hedge/JPY basis). Please note that, however, the benchmark for foreign bonds before October 2021 does not include the Chinese government bonds, so the characteristics of GPIF's foreign bond investments has not changed after October 2021 compared to before.

[3] Domestic equities

① Excess rate of return

Concerning domestic equity investment, the excess rate of return over the benchmark (Note1) was +0.13%. The breakdown of the excess rate of return on domestic equity investment by factor is as follows: benchmark factors (Note2): +0.24%; fund factors (Note3): -0.12%; 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
2.12	1.99	+0.13	+0.24	-0.12	+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)).
(Note 3) Fund factors refer to those resulting from differences in rates of return between individual funds and manager benchmarks.
(Note 4) Other factors refer to calculation errors and such.

[4] Foreign equities

①Excess rate of return

Concerning foreign equity investment, the excess rate of return over the benchmark (Note1) was -0.90%. The breakdown of the excess rate of return on foreign equity investment by factor is as follows: benchmark factors (Note2): +0.06%; fund factors (Note3): -0.96%; 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
18.48	19.38	-0.90	+0.06	-0.96	+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)).
(Note 3) Fund factors refer to those resulting from differences in rates of return between individual funds and manager benchmarks.
(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 to be 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 to contribute to the stability of overall pension finance. Also, alternative assets have lower liquidity while they produce higher investment return than so do traditional assets. As a long-term investor managing significant liquid assets, GPIF now strategically holds alternative assets with lower liquidity in the portfolio and aims to earn excess return with improving the investment efficiency of its 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 the investment premium for illiquidity and improve the efficiency of investment through diversification.

Alternative Assets

② Investment history

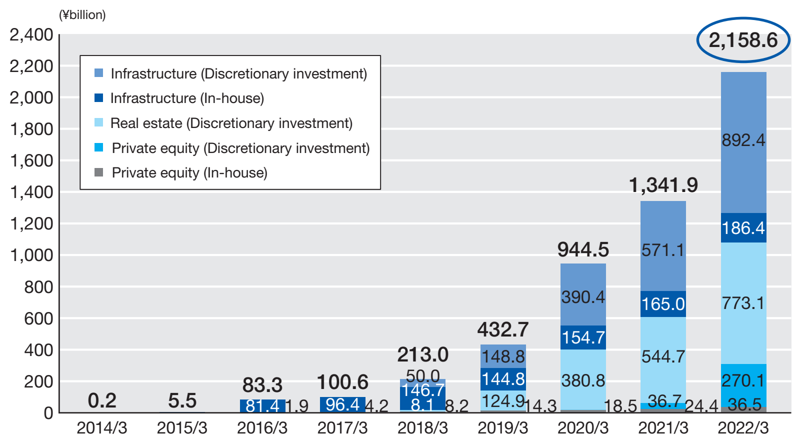
Based on the results of the above-mentioned commissioned research projects, GPIF has been investing in alternative assets through a co-investment platform with institutional investors since fiscal 2013 (in infrastructure since fiscal 2013 and in private equity since fiscal 2015).

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 (fund of funds managers who select multi-managers and gatekeepers who evaluate fund of funds managers' investment capabilities) 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 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 2021



(Note) Please refer to the website (https://www.gpif.go.jp/investment/alternative/) for specific examples of investments in alternative assets (Japanese only).

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 2022 is ¥2,158.6 billion (1.07% of the total value of the pension reserve fund).

③ Activities in fiscal 2021

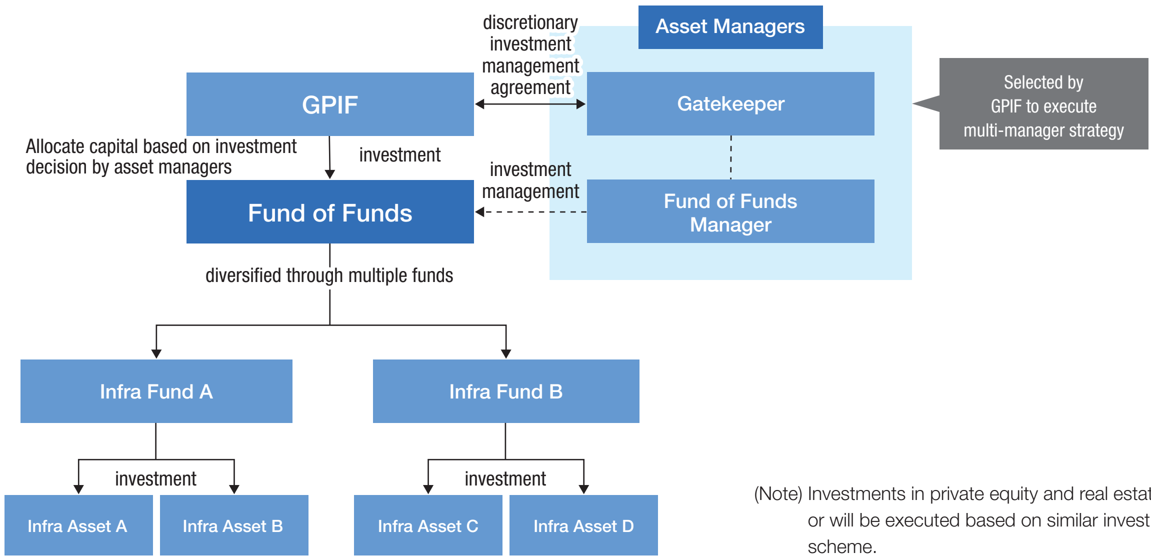
A. Call for application, selection of Gatekeepers and Fund of Funds managers

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.

In addition to starting investments in funds-of-funds with newly selected external asset managers for Japan-Focused Strategy in the private equity, GPIF has undertaken investments in new funds-of-funds with two existing external asset managers in the infrastructure.

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 2021, it bolstered its risk management and legal functions. 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 2022

	Total of alternative assets	Infrastructure	Real estate	Private equity
Commitment amount (¥billion) (Note1)	4,036.8	1,888.0	1,221.0	927.8
Total value (¥billion)	2,158.6	1,078.8	773.1	306.6
Internal rate of return (IRR) up until fiscal 2021 (in JPY terms)	10.89%	8.93%	12.99%	21.38%
Domestic assets (in JPY terms)	6.54%	3.24%	7.32%	–
Foreign assets (in USD terms) (Note2)	7.30%	5.85%	10.30%	11.85%
(in JPY terms) (Note3)	11.55%	9.17%	16.17%	21.38%

(Note 1) Each field is based on the sum of the funds-of-funds and investment trusts.
(Note 2) 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 3) The rates are based on the sum of the assets invested in domestic assets (currency: JPY).
(Note 4) The rates are based on the sum of the assets invested in foreign assets (currency: USD).
(Note 5) The amount of foreign currency-denominated assets is calculated by converting the amount into JPY.

(Column) Analysis on changes in market value in fiscal 2021

During the year beginning from the end of March 2021, the market value of GPIF's alternative assets increased by ¥816.6 billion. The increase can be mainly divided into five factors:

① Capital contribution to new investments (+¥554.1 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 2021, investments have been executed in all three asset categories of alternative assets.

② Distributions received (-¥81.9 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 2021, GPIF received distributions, mainly dividends from its investees in infrastructure and real estate.

③ Fees and expenses (-¥9.1 billion):

The amount includes fees and expenses for acquisition and disposition incurred by fund-of-funds and investment trusts (equivalent to 0.55% of the average of outstanding amount of alternative assets in fiscal 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.

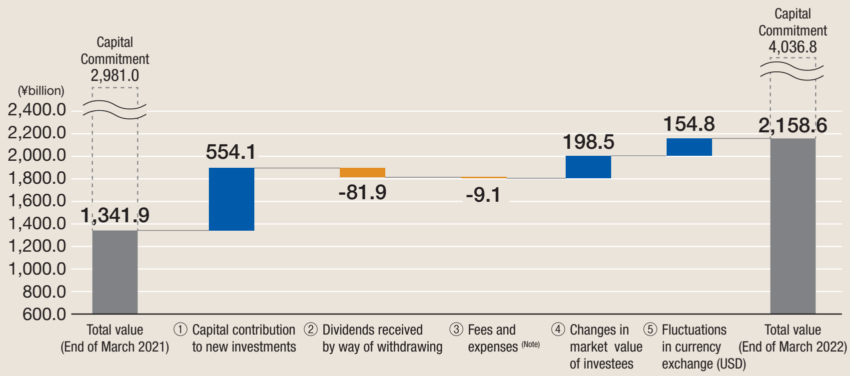
④ Changes in market value of investees (+¥198.5 billion):

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 2021, signs of recovery in market values were seen in sectors affected by the COVID-19 pandemic, and market valuations in other sectors remained strong, leading to an increase in the market value of portfolio companies.

⑤ Fluctuations in currency exchange (USD) (+¥154.8 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 2021.

Analysis on changes in the market value of alternative investments (from April 2021 to March 2022)



(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 of 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

We invest in infrastructure such as power generation plants, electricity transmission grids, renewable energy, railways, and telecommunication infrastructure. Due to the stable revenues, which are expected to be derived from such infrastructure over the long term, infrastructure investment has become one of the important investment strategies for pension funds globally.

Currently, GPIF mainly focuses on investing in core infrastructure, which are assets essential for social and economic activities, under a well-established regulatory environment and is expected to generate stable revenues based on long-term contracts. Infrastructure assets will operate for a long time, generally more than 10 years, and invested capital shall be recovered as dividends funded by stable revenue as well as proceeds from sale of the assets to other investors.

② GPIF's investment

A. Investment approach

GPIF aims to earn stable returns from a diversified portfolio mainly as income gain through timely and efficient investment, in consideration of various market conditions.

B. Investment objectives and schemes

GPIF mainly invests in equity stakes of operational infrastructure assets or 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 started investing in a unit trust that targets to invest in operational core infrastructure assets in developed countries in February 2014.

(ii) Discretionary investment

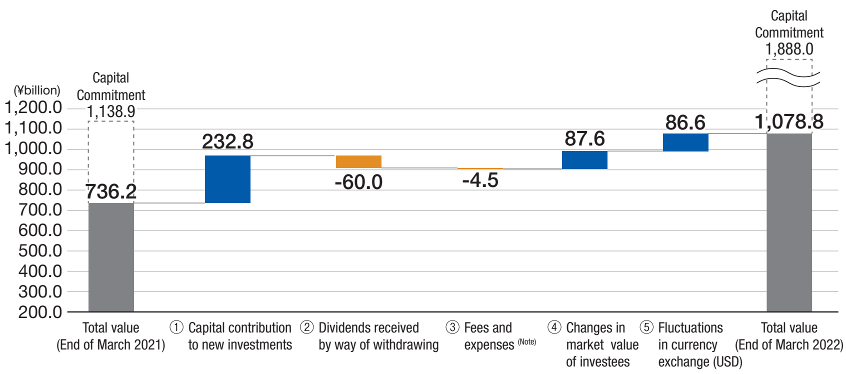
Throughout fiscal 2021, the following managers continued their investment activities and are constructing diversified investment portfolios focused on core infrastructure assets.

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 2022 was ¥1,078.8 billion, which increased by ¥342.6 billion from the end of March 2021. Signs of recovery in market values were seen in airports and other transportation sector assets that have been affected by the COVID-19 pandemic. Robust market values in other sectors as well as currency fluctuations have resulted in an overall increase in the market capitalization for infrastructure assets.

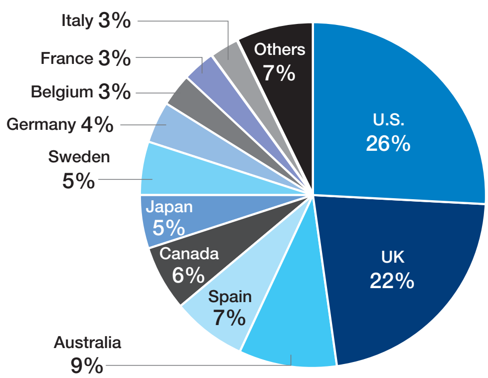
Analysis on changes in the market value of infrastructure (From April 2021 to March 2022)



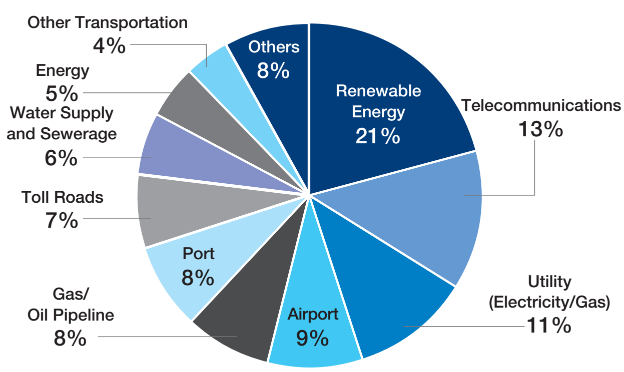
(Note) The amount paid by investee funds-of-funds and investment trusts is added up by GPIF. The amount of investment trusts is an estimate.

The breakdown of portfolio by country shows the U.S. with the largest share at 26%, followed by the UK at 22% and Australia at 9%. As for the breakdown by sector, the largest share went to renewable energy at 21%, followed by telecommunications at 13% and utility (electricity/gas) at 11%. GPIF expects stable revenue to be generated mainly from its diversified core infrastructure portfolio. Internal rate of return (IRR) from foreign infrastructure investment stood at 5.85% in USD terms, and IRR from domestic infrastructure investment stood at 3.24% in JPY terms since its inception in February 2014. The total dividend (excluding repayment of principal) received from the unit trust and fund of funds during fiscal 2021 was ¥34.9 billion.

Value by country



Value by sector



[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

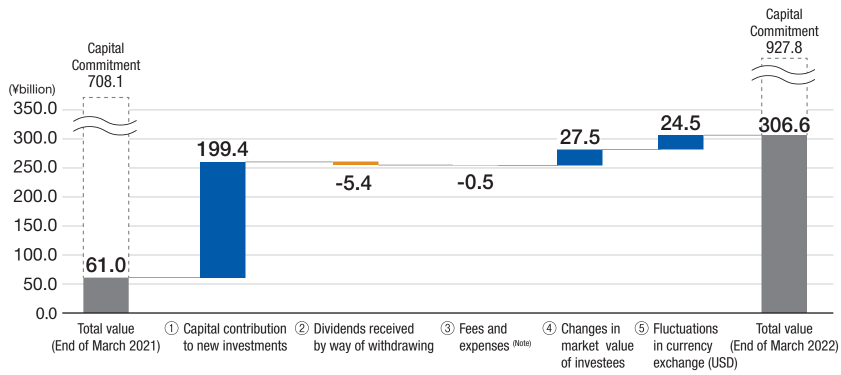
In fiscal 2021, GPIF appointed additional external asset managers for Japan-Focused Strategy to capture domestic investment opportunities not adequately covered by the asset managers for Global-Diversified Strategy in which GPIF began investing in fiscal 2020. Through the following external asset managers' fund-of-funds, GPIF invests in diversified PE funds, mainly in developed countries.

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
Gatekeeper and Fund of Funds Manager: Mitsubishi UFJ Trust and Banking Corporation Investment Advisor to FoF Manager: Alternative Investment Capital Limited	Japan-Focused Strategy	January 2022

C. Investment status

The total value of GPIF's private equity investment as of the end of March 2022 was ¥306.6 billion. Those increased by ¥245.6 billion from the end of March 2021. The market value of the entire private equity portfolio increased due to new investments made mainly through discretionary asset managers as well as market value appreciation of portfolio companies and foreign exchange fluctuations.

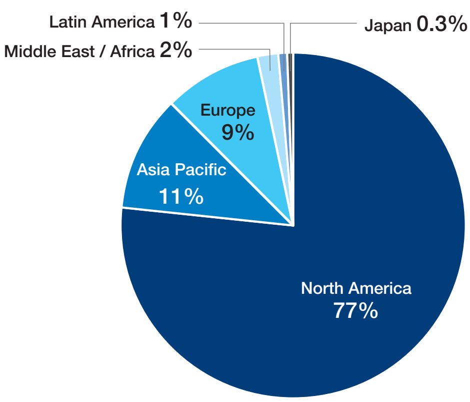
Analysis on changes in the market value of private equity (From April 2021 to March 2022)



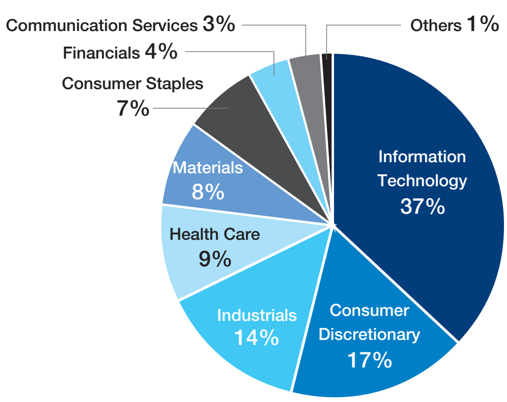
(Note) The amount paid by investee funds-of-funds and investment trusts is added up by GPIF. The amount of investment trusts is a rough estimate.

The breakdown of portfolio by region shows North America with the largest share at 77%, followed by emerging countries mainly in Asia. By sector, information technology accounted for the largest share (37%), while other investments were diversified across a wide range of industries, including consumer discretionary and industrials. The internal rate of return (IRR) from the entire PE investment stood at 11.85% in USD terms (as of the end of March 2022) since its inception of in-house investment in investment trusts in June 2015.

Value by region



Value by sector



(Note) The data is broken down by region, as PE investments span a wide range of countries.

[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

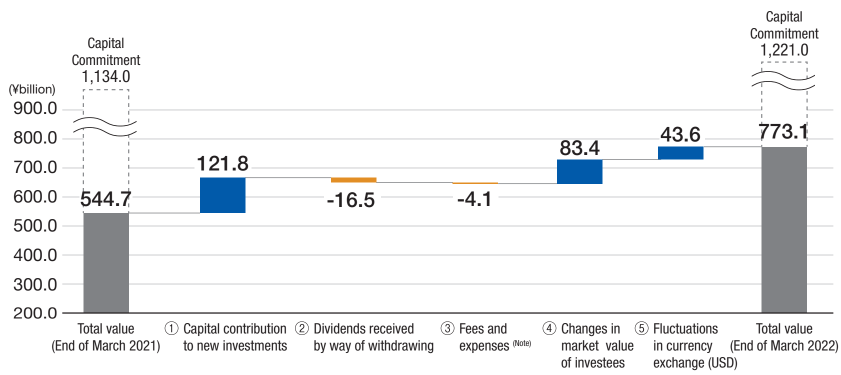
With an investment manager for domestic market appointed in 2017 and investment managers for foreign markets appointed in 2018 and after, GPIF has been building a global and diversified investment portfolio focused on its core-style investment strategy throughout FY 2021.

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 2022 was ¥773.1 billion. It increased by 228.4 billion from the end of March 2021. Some sectors affected by the COVID-19 pandemic showed signs of recovery, and overall market capitalization of real estate assets increased due to market value gains from generally stable performance and currency fluctuations.

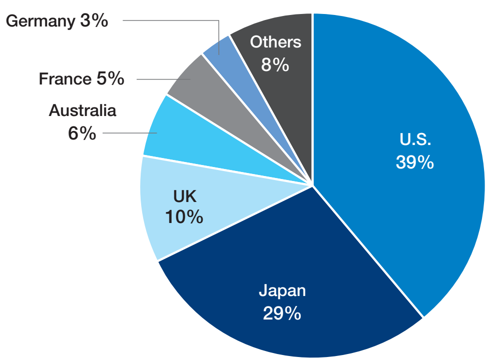
Analysis on changes in the market value of real estate (From April 2021 to March 2022)



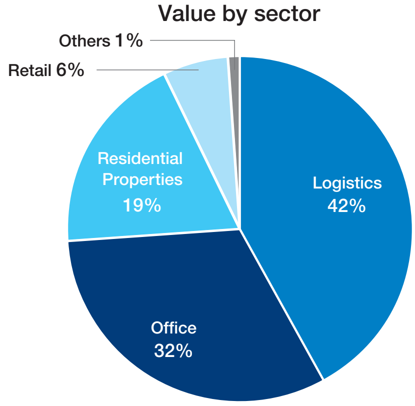
(Note) The amount paid by investee funds-of-funds and investment trusts is added up by GPIF. The amount of investment trusts is a rough estimate.

The breakdown of portfolio by country shows the U.S. with the largest share at 39%. followed by Japan (29%), UK (10%), and Australia (6%). As for the breakdown of the sector, logistics sector comprised the largest share at 42% of the total portfolio, followed by office at 32%, residential properties at 19%, and retail at 6%. 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 7.32% (yen-denominated), while that of foreign real estate investment since September 2018 inception is 10.30% (USD-denominated). Dividend received from the fund of funds in fiscal 2021 (excluding repayment of principal) was ¥13.7 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 sector

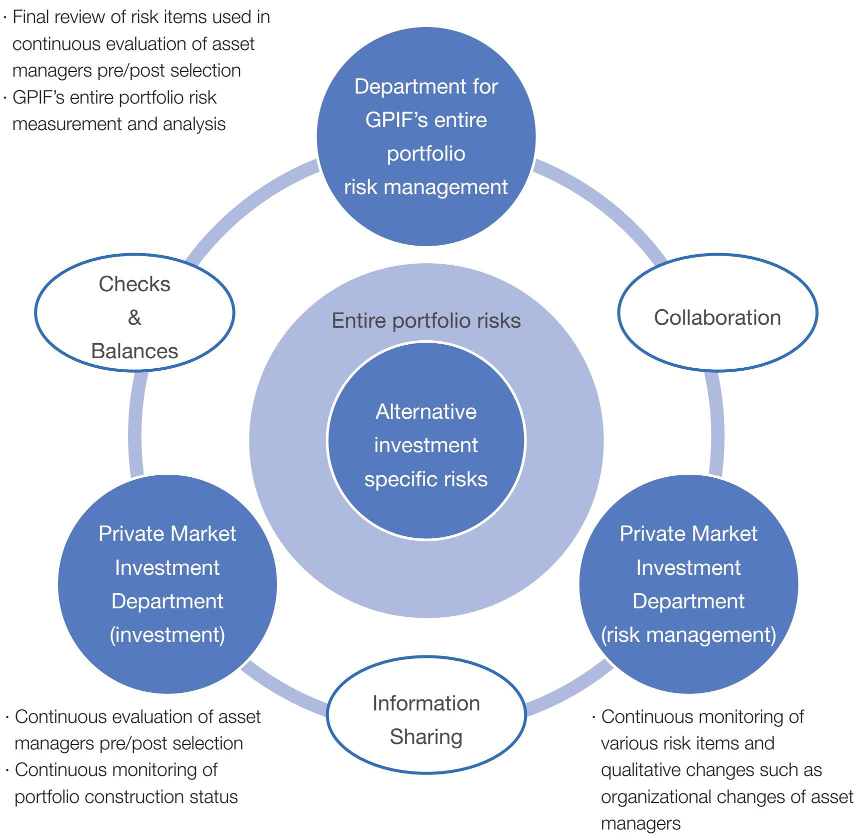


[5] Portfolio risk management of alternative assets

In fiscal 2021, GPIF further developed and strengthened its management system and pursued better risk management for alternative assets. It has enhanced dialogue and information sharing with external asset managers so that GPIF could understand more about portfolio companies for which there are concerns about worsening performance, it has also sought to gain a more in-depth understanding of their valuations, the factors causing their market valuations to fluctuate, including the background external environment, and measures to improve these factors. In addition to enhancing its existing monitoring system, GPIF is endeavoring to improve the accuracy of its evaluation of external asset managers, including conventional qualitative evaluations, by starting to conduct quantitative analyses to compare the performance of GPIF's funds of funds managed by external asset managers with available market data.

For highly individualized alternative investments, it is extremely important to carefully examine and confirm the provisions of domestic and foreign laws, regulations, and contracts relevant to these investments, and the Legal Department established in fiscal 2020 is conducting legal checks and taking other necessary steps.

<Portfolio risk management system for alternative investments>



Typical items common to traditional assets

- Market risk
- Liquidity risk
- Credit risk
- Country risk, etc.

For details, refer to page 40 "3 Basic Policy of Portfolio Risk Management"

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Typical items specific to alternative assets

- Expertise of asset managers specific to asset class
  (Changes in managers' expertise on investment decision-making)
- Organizational stability suitable for long-term investment
  (Revision of management organization and deviation from predetermined investment process)
- Validity of fair value measurement, etc.
  (Changes in investee's valuation and verification methods)
- Continuity of the business environment
  (Changes in legal and regulatory frameworks that could affect future cash flows of assets held)

Examples of risk events are shown in parentheses.

(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 pages 40-44.

6 | Stewardship Responsibilities

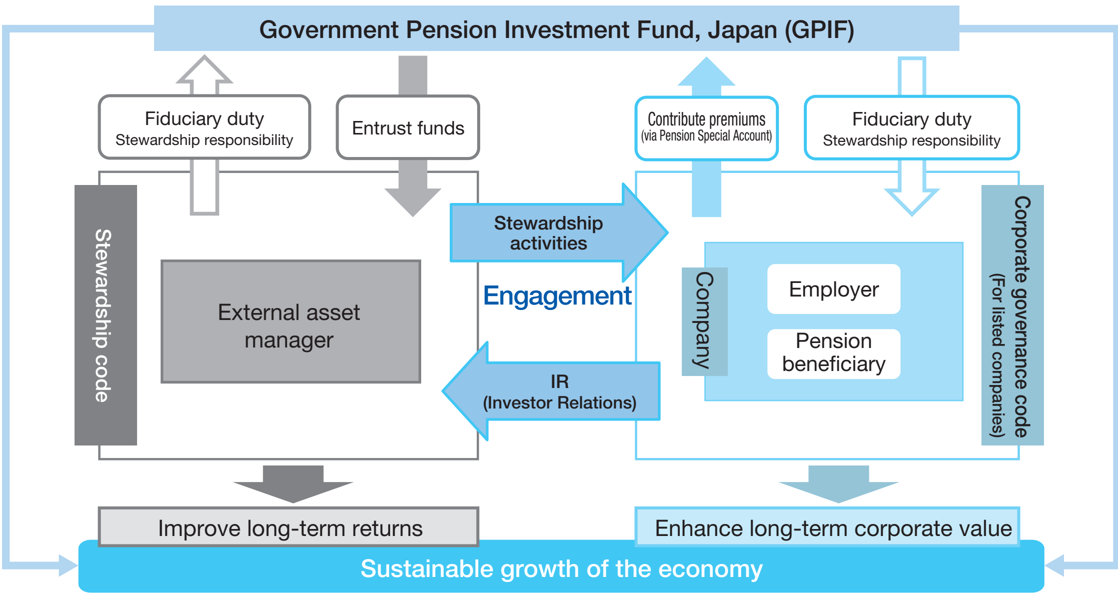
[1] Objectives and significance of stewardship activities

In the 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 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 assets, GPIF makes daily transactions and investments, and exercises voting rights, via external asset managers. Therefore, GPIF promotes constructive dialogues (engagement) in consideration of non-financial elements, i.e., ESG factors 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 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.

① Policy to Fulfill Stewardship Responsibilities

On March 24, 2020, Japan's Stewardship Code was rerevised (hereinafter referred to as "re-revised Code"). The revision includes adding consideration to sustainability issues (medium- to long-term sustainability including 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 our 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, GPIF expanded the scope of investment target from equities to all types of assets. In addition, as a response to individual principles of the re-revised Code, GPIF clarified ESG considerations. GPIF will continue to fulfill responsibilities as an asset owner in line with the Stewardship Code in all asset classes.

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 and cover all asset classes, as it had been focused on the 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 in various ESG initiatives. Meanwhile, the Proxy Voting Principles made a reminder that an exercise of voting rights shall be made as 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 the 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 Technical Advisory Committee, the Global Policy Reference Group, the Japan Network Advisory Committee, etc.

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.

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.

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.

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.

[3] Promotion of activities aimed at fulfilling stewardship responsibilities

① Initiatives for the sustainable growth of the whole capital markets

A. Assessment of stewardship activities by external asset managers for fixed income investment

The re-revised Code clearly states that the Code can be applied to investments in assets other than equities. Accordingly, GPIF had considered assessment of stewardship activities by external asset managers for bond investment. Subsequently GPIF determined that stewardship activities by external asset managers for bond investment would be assessed, in terms of their contribution to encouraging sustainable growth of investee companies and thus reducing credit risks, starting from the assessment in FY2022.

It cannot be said at this stage that evaluation methods for individual engagement for bond investment have been fully established, so GPIF has decided to evaluate their organizations and human resources for stewardship activities, including policies and systems such as their stewardship policies and management of conflicts of interest. Specifically, we will confirm the following points and exchange opinions on how external asset managers have put in place the organizations and human resources to conduct stewardship activities, and will evaluate this as one of the “organization/human resources” items in its evaluation criteria.

- ✓ Framework (organizations, management of conflicts of interest)
- ✓ Endorsement status of Japan’s Stewardship Code and the Principles for Responsible Investment (PRI)
- ✓ Policy for stewardship activities
- ✓ Response to the GPIF’s Stewardship Principles (applicable items), etc.

B. Engagement-enhanced passive investment funds

(i) Status of adoption

In fiscal 2021, Sumitomo Mitsui Trust Asset Management Co., Ltd., and Resona Asset Management Co., Ltd., were newly selected as “engagement-enhanced” passive asset managers for one of passive investment models focusing on stewardship activities. In fiscal 2018, GPIF selected Asset Management One Co., Ltd., and FIL Investments (Japan) Limited as engagement-enhanced passive asset managers, bringing the total to four funds. The expansion to a four-fund structure has broadened the range of engagement topics and target companies, and engagement utilizing the unique characteristics of each company is making steady progress.

(ii) Purpose

About 90% of GPIF’s equity investments are passive investments in a wide range of listed companies. 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, to conduct engagement activities in order to promote sustainable growth of the overall capital market from a long-term perspective. GPIF itself is not allowed to engage with investee companies, and needs equity passive managers to conduct the engagement, taking the above purpose into account. Moreover, the re-revised 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 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. Since the fee level for these asset managers is different from that for a general passive manager, GPIF monitors the status of their achievement of KPIs to measure the success of engagement plans and verify and evaluate their milestones for the next year in order to determine whether to renew their asset management contract on an annual basis.

The re-revised Stewardship Code points out that both institutional investors and clients/beneficiaries should share the view that reasonable costs associated with the implementation of stewardship activities are a necessary cost of investment. It indicates that passive managers should implement engagement activities more actively from a medium-to long-term perspective as it is critical for them to encourage investee companies in order to improve their corporate value given their limited options for selling shares. Accordingly, GPIF actively implements engagement activities.

Key Points for selection

<Setting of appropriate KPIs>
- Medium- to long-term goals for engagement activities
- Annual plan for the achievement (milestone)

<Engagement system and method>
- Organizations and persons in charge of stewardship activities
- Methods of Engagement

②Other activities for enhancing investment chain

To further invigorate the investment chain, in fiscal 2015, GPIF started conducting a survey of listed companies on external asset managers’ stewardship activities for the purpose of confirming how their stewardship activities are perceived by investee companies. As part of its efforts to promote dialogues between asset managers and investee companies, GPIF also publishes “excellent disclosures” selected by GPIF’s external asset managers.

A. Conducting a Survey of Listed Companies regarding Institutional Investors’ Stewardship Activities
<Objective of the survey>

As GPIF entrusts domestic equity investment to external asset managers, we request 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 fiscal 2015, 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 by directly surveying listed companies that are the target of external asset managers' stewardship activities and to strengthen the investment chain by publishing the survey results. In fiscal 2021, GPIF conducted the seventh survey, by sending questionnaires to the First Section of the TSE-listed 2,183 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. 709 companies responded (accounting for 32.5%): 37.0% of Prime Market companies and 9.1% of Standard Market and Growth Market companies.

* The number of companies is as of December 16, 2021.

<Summary of the results of the survey>

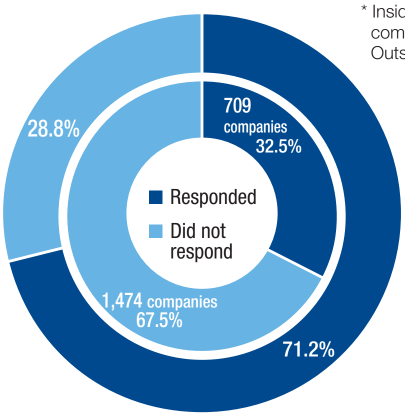
For the first time, more than 50% of companies answered that they have seen positive change in attitude of institutional investors at IR meetings, etc. over the preceding year. The survey results show a significant increase in the number of companies endorsing the Task Force on Climate-Related Financial Disclosure (TCFD) recommendations and disclosing TCFD-related and other non-financial information. In addition, many companies are considering preparing Integrated Reports and endorsing the TCFD recommendations, suggesting that companies will continue to disclose non-financial information from here on. At the same time, the survey found that companies are perceiving positive changes in investors' interest in and use of such non-financial information.

"Climate Change" was designated by 77.9% of the companies (+14.3% from the previous survey) as the most important theme of their ESG activities, followed by "Corporate Governance" at 71.7% (+/-0%), "Diversity" at 55.0% (+11.8%), and "Human Rights & Community" at 43.2% (+6.2%).

The survey results thus indicate that interest in a wide range of ESG topics is growing, mainly items on the Supplementary Principles that are added to the revised Corporate Governance Code, and items exemplified as sustainability issues, including not to mention governance (G), as well as environmental (E) issues such as climate change, and social (S) issues such as the impacts of the COVID-19 pandemic that seem to reflect recent global circumstances.

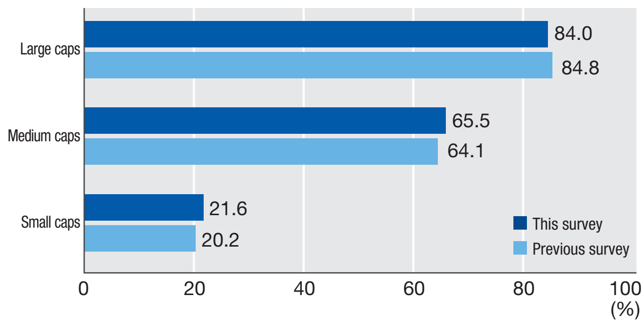
Many companies expect to GPIF: (1) encourage constructive dialogue from a medium- to long-term perspective; (2) promote ESG investment; and (3) continue disclosure. For more details on the results, please refer to the website: https://www.gpif.go.jp/en/esg-stw/stewardship/.

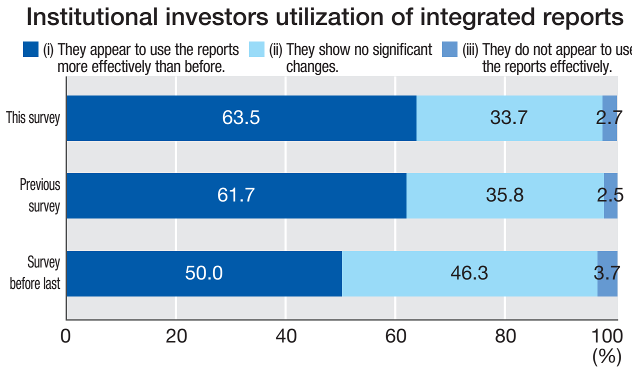
Response coverage rate

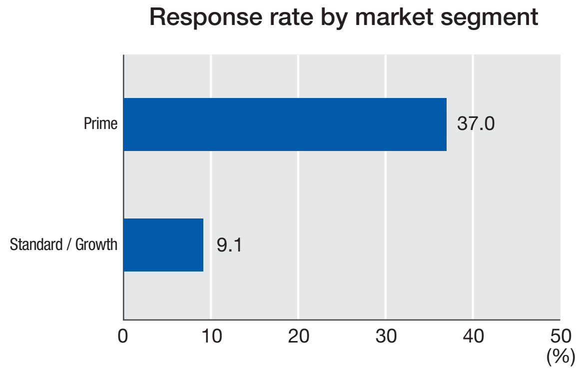


* Inside: based on number of companies
Outside: based on market cap

Response rate by company size







B. Expansion of "Excellent Disclosure" initiatives selected by GPIF's asset managers - "Excellent TCFD Disclosure" published -

GPIF believes that disclosure is an extremely important element for investors engaging in dialogue with their investee. From this perspective, GPIF has asked our external asset managers to select excellent disclosure and published "excellent Integrated Reports," "Most-improved Integrated Reports," etc., to encourage companies to start creating and enhance voluntary disclosure such as integrated reports as well as to encourage investors to utilize such disclosure. In fiscal 2021, GPIF newly requested external asset managers of domestic and foreign equity investments to select excellent TCFD disclosure and published these selections. The TCFD recommendations are also referred to in the Corporate Governance Code revised in June 2021, which states that companies listed on the Prime Market in particular "should strive to enhance the quality and quantity of disclosure based on the TCFD recommendations or an equivalent framework." Many companies in Japan have already endorsed the TCFD recommendations, and disclosure should begin to take off in earnest in the near future. In addition, the TCFD is a common global disclosure framework and it has been a topic in the ongoing international discussions on non-financial disclosure, so that its importance is expected to increase in future. It is likely that TFCD-related disclosure will become indispensable for global companies, and that investors will need more than ever to consider how to utilize this information in dialogues.

[4] Material ESG issues recognized by external asset managers

In the Stewardship Principles, GPIF requires that our external asset managers should proactively engage with investee companies on material ESG issues. For this reason, each year GPIF asks our external asset managers to identify what they consider to be significant ESG issues. The results for fiscal 2021 were as follows. All of the passive equity managers that keep holding shares in portfolio companies identified “Disclosure,” “Climate Change,” “Diversity,” and “Supply Chain” as significant ESG issues, and recognized long-term issues including “E” (environmental) and “S” (social) as particularly critical. The change from the previous year was outstanding in “Biodiversity,” with an increasing number of both domestic and foreign passive equity managers considering it critical. On the other hand, for active managers whose investment periods range primarily from a few months to a few years, we found a split between domestic and foreign equity managers on the ESG issues they view as critical. Both domestic and foreign equity managers appear to be emphasizing a broadening range of topics – E and S as well as G – but all respondents cited “Board Structure & Self-evaluation,” “Minority Shareholder Rights” and “Disclosure,” indicating that they consider G (governance) issues to be the most important issues. In particular, “Disclosure” was cited as a critical issue by all domestic equity and bond investment managers, showing that disclosure is important to Japanese companies regardless of the type of asset. Specifically, the survey found that what external asset managers consider to be important are the content of disclosure as well as the way of information is disclosed, including the preparation and enhancement of Integrated Reports, disclosure of greenhouse gas (GHG) emissions, disclosure policies, communications with investors, and disclosures in English.

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

<Active managers of domestic equities>	
Board Structure & Self-evaluation	100%
Minority Shareholder Rights	100%
Disclosure	100%
Supply Chain	88%
Climate Change	88%
Capital Efficiency	88%
Diversity	75%
Misconduct	75%
Human Rights & Community	75%
Waste Management	75%
Corporate Governance	63%
Environmental Opportunities	63%
Other (Governance)	63%
Pollution & Resources	63%
Labor Standards	63%

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

<Active managers of foreign equities>	
Climate Change	100%
Supply Chain	86%
Disclosure	86%
Corporate Governance	86%
Other (Social)	86%
Health and Safety	86%
Board Structure & Self-evaluation	86%
Human Rights & Community	86%
Social Opportunities	71%
Diversity	57%
Water Stress & Water Security	57%
Environmental Opportunities	57%
Capital Efficiency	57%
Minority Shareholder Rights	57%
Labor Standards	57%

<Domestic bonds>	
Disclosure	100%
Climate Change	93%
Corporate Governance	79%
Board Structure & Self-evaluation	64%
Supply Chain	57%
Diversity	57%
Environment Opportunities	57%
Misconduct	57%

<Foreign bonds>	
Climate Change	95%
Corporate Governance	70%
Health and Safety	70%
Supply Chain	65%
Pollution & Resources	65%
Human Rights & Community	65%
Labor Standards	65%
Anti-Corruption	60%

…E (Environmental)
…S (Social)
…G (Governance)
…A multiple themes of ESG

(Note 1) A survey on external asset managers for equities and bonds was conducted in December 2021.

(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 the 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 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 2021

GPIF held meetings based on the reports on the status of exercise of voting rights from April to June 2021. 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 2021 to March 2022)

Number of external asset managers who exercised voting rights: 40 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		167,987	63,019	15,577	10,405	693	7,592	1,086	876	1,435	13,511	94	790	7,899	465	1	234	218,240
Management proposals	Total	167,465 (100.0%)	62,824 (100.0%)	15,561 (100.0%)	10,397 (100.0%)	693 (100.0%)	7,539 (100.0%)	1,086 (100.0%)	876 (100.0%)	1,435 (100.0%)	13,396 (100.0%)	7 (100.0%)	790 (100.0%)	6,799 (100.0%)	465 (100.0%)	1 (100.0%)	213 (100.0%)	216,326 (100.0%)
	Approved	149,145 (89.1%)	55,445 (88.3%)	13,688 (88.0%)	8,594 (82.7%)	693 (100.0%)	6,971 (92.5%)	932 (85.8%)	127 (14.5%)	1,170 (81.5%)	13,234 (98.8%)	7 (100.0%)	747 (94.6%)	6,540 (96.2%)	21 (4.5%)	0 (0.0%)	155 (72.8%)	193,430 (89.4%)
	Opposed	18,320 (10.9%)	7,379 (11.7%)	1,873 (12.0%)	1,803 (17.3%)	0 (0.0%)	568 (7.5%)	154 (14.2%)	749 (85.5%)	265 (18.5%)	162 (1.2%)	0 (0.0%)	43 (5.4%)	259 (3.8%)	444 (95.5%)	1 (100.0%)	58 (27.2%)	22,896 (10.6%)
Shareholder proposals	Total	522 (100.0%)	195 (100.0%)	16 (100.0%)	8 (100.0%)	0 (0.0%)	53 (100.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	115 (100.0%)	87 (100.0%)	0 (0.0%)	1,100 (100.0%)	0 (0.0%)	0 (0.0%)	21 (100.0%)	1,914 (100.0%)
	Approved	47 (9.0%)	41 (21.0%)	8 (50.0%)	5 (62.5%)	0 (0.0%)	5 (9.4%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	28 (24.3%)	21 (24.1%)	0 (0.0%)	89 (8.1%)	0 (0.0%)	0 (0.0%)	2 (9.5%)	200 (10.4%)
	Opposed	475 (91.0%)	154 (79.0%)	8 (50.0%)	3 (37.5%)	0 (0.0%)	48 (90.6%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	87 (75.7%)	66 (75.9%)	0 (0.0%)	1,011 (91.9%)	0 (0.0%)	0 (0.0%)	19 (90.5%)	1,714 (89.6%)

(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 5 abstentions.

The status of exercise of voting rights by external asset managers for foreign equities (from April 2021 to March 2022)

Number of external asset managers who exercised voting rights: 23 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		114,574	4,580	12,718	26,931	149	181	6,513	10,017	5,767	10,766	8,456	192	12,352	54,214	267,410
Management proposals	Total	113,195 (100.0%)	4,190 (100.0%)	12,658 (100.0%)	26,700 (100.0%)	147 (100.0%)	179 (100.0%)	6,508 (100.0%)	9,991 (100.0%)	5,758 (100.0%)	10,734 (100.0%)	7,961 (100.0%)	187 (100.0%)	12,352 (100.0%)	49,837 (100.0%)	260,397 (100.0%)
	Approved	91,426 (80.8%)	3,518 (84.0%)	11,136 (88.0%)	21,158 (79.2%)	128 (87.1%)	151 (84.4%)	4,358 (67.0%)	9,719 (97.3%)	5,503 (95.6%)	8,764 (81.6%)	7,258 (91.2%)	140 (74.9%)	11,734 (95.0%)	42,280 (84.8%)	217,273 (83.4%)
	Opposed	21,769 (19.2%)	672 (16.0%)	1,522 (12.0%)	5,542 (20.8%)	19 (12.9%)	28 (15.6%)	2,150 (33.0%)	272 (2.7%)	255 (4.4%)	1,970 (18.4%)	703 (8.8%)	47 (25.1%)	618 (5.0%)	7,557 (15.2%)	43,124 (16.6%)
Shareholder proposals	Total	1,379 (100.0%)	390 (100.0%)	60 (100.0%)	231 (100.0%)	2 (100.0%)	2 (100.0%)	5 (100.0%)	26 (100.0%)	9 (100.0%)	32 (100.0%)	495 (100.0%)	5 (100.0%)	0 (0.0%)	4,377 (100.0%)	7,013 (100.0%)
	Approved	819 (59.4%)	333 (85.4%)	56 (93.3%)	58 (25.1%)	1 (50.0%)	0 (0.0%)	1 (20.0%)	18 (69.2%)	0 (0.0%)	19 (59.4%)	199 (40.2%)	5 (100.0%)	0 (0.0%)	2,061 (47.1%)	3,570 (50.9%)
	Opposed	560 (40.6%)	57 (14.6%)	4 (6.7%)	173 (74.9%)	1 (50.0%)	2 (100.0%)	4 (80.0%)	8 (30.8%)	9 (100.0%)	13 (40.6%)	296 (59.8%)	0 (0.0%)	0 (0.0%)	2,316 (52.9%)	3,443 (49.1%)

(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 3,994 abstentions.

7 | ESG Activities

[1] Basic approach

Universal owner

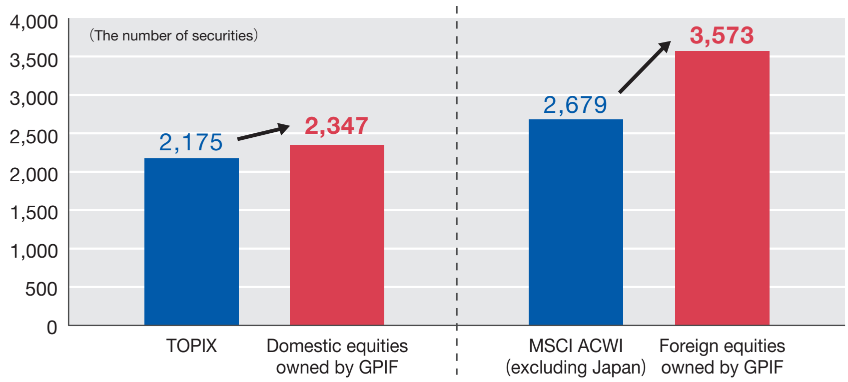
• GPIF is an investor with a very large fund size and a widely diversified portfolio.

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 investment 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 2022)



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.

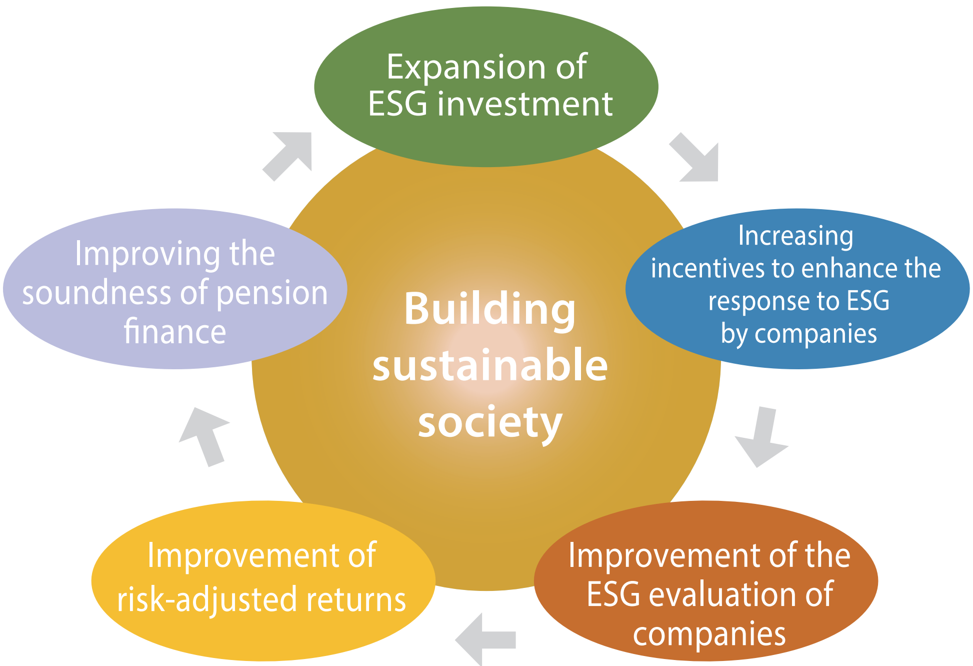
GPIF shall manage pension reserves in line with the basic policy that is meant to ensure that the reserves are managed and invested safely and efficiently from a long-term perspective (hereinafter referred to as the “Basic Policy of Reserves”) announced in accordance with the Employees’ Pension Insurance 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 nonfinancial 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 fiscal 2018. In fiscal 2021, we published ESG Report 2020, the 4th issue. GPIF expressed our 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 2018. ESG Report 2020 presents not only the performance of ESG indexes and other direct investment results but also quantitative analyses of trend in ESG ratings of portfolios and Japanese companies and of the effectiveness of engagement. A wide range of analysis of climate change risks and opportunities are provided in the “ESG Report” as well as in the “FY2020 Analysis of Climate Change-Related Risks and Opportunities in the GPIF Portfolio.”

GPIF will continue verifying the effect of ESG initiatives to improve ESG related activities. Recently, among climate change related risks and opportunities and governance themes, investors and companies have been showing interest in initiatives and information disclosure related to natural capital and human capital. GPIF will continue to keep a watchful eye on these new movements, especially from the perspective of effects on GPIF’s portfolio.

FY2020 Analysis of Climate Change-Related Risks and Opportunities in the GPIF Portfolio



(Column) GPIF named as a Leader in “Responsible Asset Allocator” list

GPIF was named by American think tank, New America, as a Leader in the 2021 Leaders List of “The 30 Most Responsible Asset Allocators.” Every two years, New America analyzes sovereign wealth funds and pension funds on their responsible investing practices, ranging widely from information disclosure to ESG integration, based on the Responsible Asset Allocator Initiative (RAAI) index, developed in partnership with the Fletcher School at Tufts University.

The RAAI Index evaluates a total of 30 indicators, three detailed indicators for each of the ten principles required for responsible and sustainable investment. A wide range of evaluation criteria is included, such as the objectives for its responsible investment, the status of ESG integration, the availability of ESG investment performance measurements, and the disclosure of information on these themes. GPIF received perfect scores in 29 of the 30 indicators, the one exception being “Takes an innovative approach to RI,” resulting in a high overall score of 98.

In 2021, 251 organizations were evaluated, and GPIF ranked alongside the Norway Government Pension Fund Global, APG Group of the Netherlands, and California State Teachers’ Retirement System (CalSTRS) in the United States. We were the only Asian pension fund to be selected as a Leader in 2021. This is GPIF’s second consecutive inclusion in the Leaders List, after being named in 2019.

[2] Passive investment based on ESG indexes

In fiscal 2017, GPIF selected two comprehensive 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 passed a resolution on “Practical Guidelines for the Selection of ESG indexes” setting forth basic policies for selecting ESG indexes and, in accordance with these guidelines, etc., GPIF began passive investment in foreign stocks tracking the MSCI ACWI ESG Universal Index and the Morningstar Gender Diversity Index (commonly known as “GenDi”).

After a review of comprehensive ESG indexes for domestic equities, the following index was adopted and began passive investment into domestic equities based on the index.

As of the end of fiscal 2021, total ESG index-based investments have grown to approximately ¥12.1 trillion.

Theme	Index Name
Comprehensive	FTSE Blossom Japan Sector Relative Index

(Primary screening criteria)

① ESG ratings play a central role in the constituent selection/weighting process

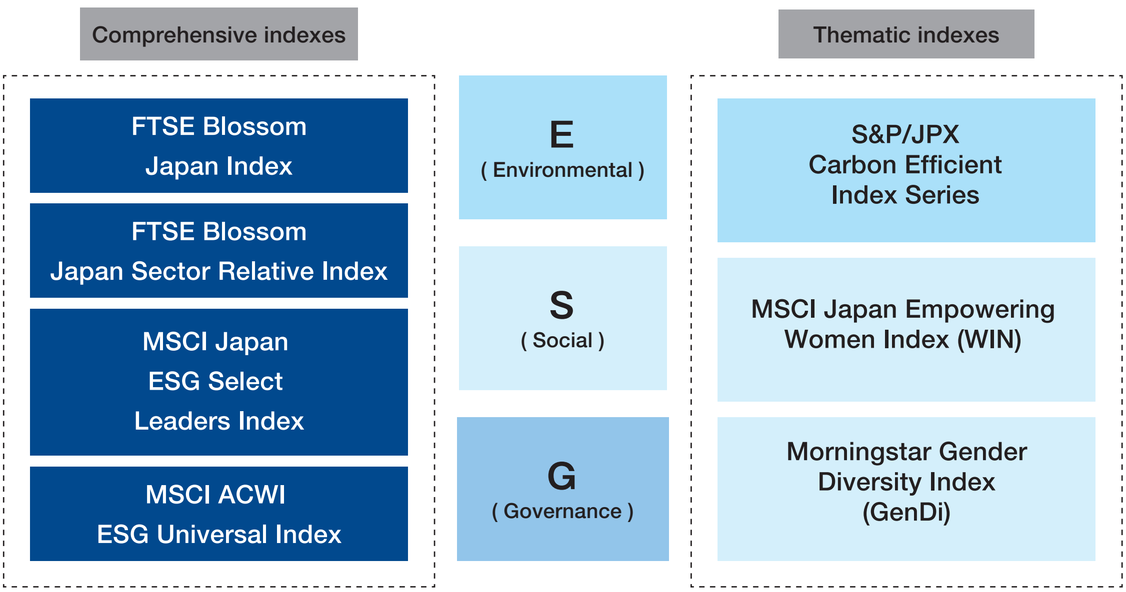
② ESG ratings for the index are highly transparent, and the evaluation method is easy to understand for companies so that the index can be expected to boost overall market.

③ The index does not include negative screening, such as excluding companies in specific sectors or industries.

④ The index has a relatively small tracking error compared to a parent index and is a tilted index with a large investment capacity or an index with a large number of constituents.

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



Comprehensive Indexes

	FTSE Blossom Japan Index	FTSE Blossom Japan Sector Relative Index	MSCI Japan ESG Select Leaders Index	MSCI ACWI ESG Universal Index
Concept and characteristics of index	· This index uses the ESG assessment scheme used in the FTSE4Good Japan Index Series, which has one of the longest track records globally for ESG Russell indexes. · It is a comprehensive ESG index that selects stocks with high absolute ESG scores and adjusts industry weights to neutral at the industry level.	· Assessments are performed based on FTSE Russell's ESG rating which FTSE Blossom Japan Index also uses. For the companies with high carbon intensity (greenhouse gas emissions/ sales), management attitude toward climate-change risks/opportunities is also assessed. · The index is comprised of stocks with relatively high ESG ratings within each industry, and adjusts industry weights to neutral at a sector level.	· The MSCI Japan ESG Select Leaders Index is a comprehensive ESG index that integrates various ESG risks into today's portfolio. The index is based on MSCI ESG Research used globally by more than 1,000 clients. · The index is comprised of stocks with relatively high ESG scores in each industry.	· One of MSCI's flagship ESG indexes, this comprehensive index adjusts the weight of constituents based on each issuer's current ESG rating and ESG trends to elevate the ESG metrics of the index overall. · The index was developed for large investors seeking to enhance ESG integration while achieving the same level of investment opportunity and risk exposure as the parent index.
Index Construction	Best-in-class	Best-in-class	Best-in-class	Tilted
Investment Target	Domestic Equities	Domestic Equities	Domestic Equities	Foreign Equities
Constituent universe (parent index)	FTSE JAPAN ALL CAP INDEX [1,395 stocks]	FTSE JAPAN ALL CAP INDEX [1,395 stocks]	MSCI JAPAN IMI TOP 700 [699 stocks]	MSCI ACWI ex Japan ex China A ESG Universal with Special Taxes Index [2,180 stocks]
Number of index constituents	229	493	222	2,111
Assets under management	¥983.0 billion	¥800.0 billion	¥2,099.0 billion	¥1,618.7 billion

ESG thematic indexes (women's advancement/climate change)

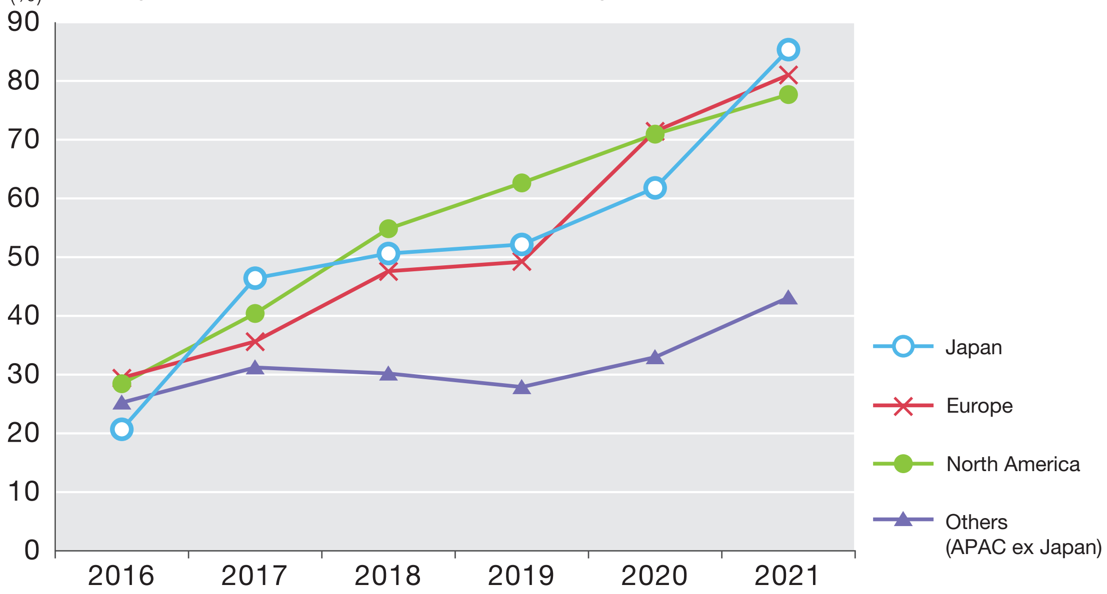
	MSCI Japan Empowering Women Index (WIN)	Morningstar Gender Diversity Index ("GenDi")	S&P/JPX Carbon Efficient Index	S&P Global Ex-Japan LargeMidCap Carbon Efficient Index
Index concept	· MSCI calculates the gender-diversity scores based on information disclosed under the Act on Promotion of Women's Participation 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.	· Determines investment weighting based on assessment of companies' commitment to gender equality, using the Equileap Gender Equality Scorecard. · Ratings are conducted in four categories: (1) gender balance in leadership and workforce; (2) equal compensation and work-life balance; (3) policies promoting gender equality; and (4) commitment, transparency, and accountability.	· Constructed by S&P Dow Jones Indices based on carbon data provided by Trucost, a pioneer in environmental assessment. · This index is designed to overweight companies that have lower carbon footprints (annual greenhouse gas emissions divided by annual revenues) and that actively disclose their carbon emission information.	· Constructed by S&P Dow Jones Indices based on carbon data provided by Trucost, a pioneer in environmental assessment. · This index is designed to overweight companies that have lower carbon footprints (annual greenhouse gas emissions divided by annual revenues) and that actively disclose their carbon emission information.
Index Construction	Best-in-class	Tilted	Tilted	Tilted
Investment Target	Domestic Equities	Foreign Equities	Domestic Equities	Foreign Equities
Constituent universe (parent index)	MSCI JAPAN IMI TOP 700 [699 stocks]	Morningstar® Developed Markets Ex-Japan Large-Mid[2,177 stocks]	TOPIX [2,175 stocks]	S&P Global Ex-Japan LargeMidCap (3,080 stocks)
Number of index constituents	352	2,149	1,855	2,428
Assets under management	¥1,245.7 billion	¥419.5 billion	¥1,567.8 billion	¥3,390.6 billion

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

(Note) Number of index constituents and assets under management are as of March 31, 2022.

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 ways in which they conduct ESG evaluation and construction of indexes, and to proactively engage with companies. As a result, both FTSE and MSCI have significantly expanded the coverage of ESG evaluation, which lead to increased dialogue between index providers and companies. It is hoped that this will lead to 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 has been created by selecting only major countries with 40 or more MSCI ACWI constituent companies. Constituents in individual indexes at the end of each year (December) were used to calculate the rate of inquiries.

[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 governmental 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 governmental finance agencies. As of March 31, 2022, 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-19) and sustainability bonds through these platforms reached ¥1.6 trillion as of the end of March 2022 (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 2021 is as listed in the right table.

Asset class	The number of entries	The number of information provided
Domestic bonds	5	6
Foreign bonds	258	15
Domestic equities	41	5
Foreign equities	311	31

B. Review of the Asset Manager Registration System for all four traditional asset classes

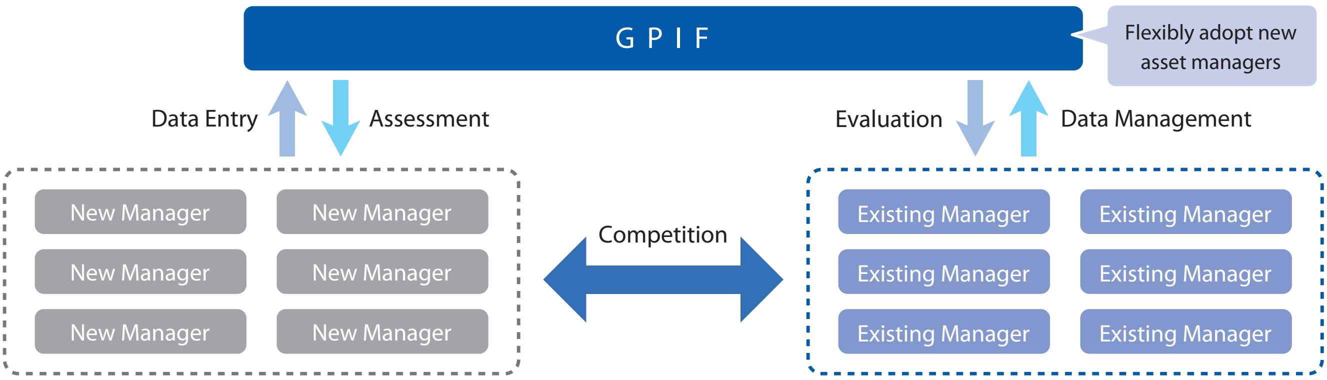
Data management for the Asset Manager Registration System for the four traditional asset classes was outsourced and applicants were required to update performance data for registered products but, due to the heavy burden of data updating, the process was changed in November 2021 with a decision to allow completion of the process simply by registering with GPIF. We utilize external databases for performance data, and applicants are asked to submit data to GPIF as necessary.

C. Selection for four traditional asset classes

With the aim to improve the long-term return from the overall assets under management, we selected five active domestic bond funds and two passive foreign bond funds in fiscal 2021.

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 estate 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 PE mandate in fiscal 2019, one external asset manager for a global PE mandate, one external asset manager for a foreign real estate mandate in fiscal 2020, and one external asset manager for a domestic PE mandate in fiscal 2021, and we have started investing in those assets.



② The selection process and screening criteria for external asset managers

A. In order to conduct each selection quickly and effectively, GPIF shall specify the profiles and investment capabilities of products and managers to select. In the first screening process, we check necessary qualification conditions of the applying managers. Then, qualified products are appraised in the second screening process. Through focused evaluation of the application materials, we appraise whether the products and managers do meet with the specified features. Then, candidates are narrowed down to the third screening process, where we do thorough investigation for the final decision of selection. 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 considering 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 integrate ESG 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 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 2021, meetings were held focusing on funds with possible management concerns. As a result of comprehensive evaluations appropriate actions were taken, including the cancellation of one active domestic equity fund and the issue of warnings to one passive domestic equity fund and one active foreign equity fund.

Besides the comprehensive evaluations, we closed two active domestic stock funds and one active foreign bond fund because changes in their investment structure had raised concerns about their investment capabilities.

Oversight of transition managers among the external asset managers was carried out by requesting submission of reports related to transactions when carrying out transitions, checking on transaction costs and compliance with investment guidelines, holding meetings as necessary to receive explanations, etc.

The remuneration system for active asset managers is based on a remuneration rate proportional to excess return (i.e., performance-linked remuneration), and remuneration is on par with that for passive management (i.e., base remuneration) if excess return is not earned.

B. Management and assessment of custody service providers

Custody service providers were managed by conducting regular meetings, including online meetings, at which explanations were received on the progress of operations and such topics, and holding other meetings as needed to address specific issues. In addition, GPIF requested the submission of materials pertinent to custody services once a year to ascertain the custody service providers' organizations, human resources, operational structures, internal controls, asset management systems, global custody, and information security measures. Based on the information received, GPIF conducted comprehensive evaluations of each custody service provider based on operational policies with an understanding of each custody service provider's strengths and issues.

C. Reviewing our asset management activities

In recent years, as GPIF's investment activities has become more diversified and sophisticated, the approaches taken by custody service providers has become more complicated. Facing this trend, GPIF has been optimizing the structure of our custody service providers (including the ones for global custody services) to accommodate further diversification and sophistication in its investments, based on comprehensive evaluations of our custody service providers and other factors including management costs and business continuity plans (BCP).

To precisely manage risks associated with the further diversification and sophistication of our investments and to enhance the effectiveness of our communications with external asset managers, it is necessary to collect transaction data more promptly than ever for use in risk analysis and other purposes. To this end, GPIF has established a system to collect transaction data directly from external asset managers for use in investment decisions in addition to the data collected from custody service providers for use in accounting. GPIF will continue organizing our framework to facilitate further usage of these data.

(Note) For the list of external asset managers, etc., refer to pages 90•91.

[2] Promoting research and study

① GPIF Finance Awards

Today, investment techniques are becoming increasingly sophisticated and financial products are growing their diversities. Accordingly, 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 2021, the ceremony for the fifth 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. NAKATA Taisuke, Associate Professor at the University of Tokyo
Profile :	After earning a BA in Economics from the University of Chicago, serving as an Assistant Economist in the Federal Reserve Bank of Kansas City's Research Department, completing a PhD in Economics at New York University, and then joining the Federal Reserve System Board of Governors' Research Department as Chief Economist, he was appointed to his current position in 2020.
Selection Reason :	Associate Professor Taisuke Nakata has conducted high quality researches focusing on important and timely topics--including analysis on changes in monetary policy effects and effects of uncertainty to the economy under the zero-interest rate lower bound. He has consistently generated valuable research outputs which are expected to be well applied to the pension investment management practices. In addition, he has recently worked on topics on the change factors of equilibrium yield curves under the zero-interest rate lower bound, which are expected to make further contributions to the field of finance.

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 at Kyoritsu Women's University, Professor Emeritus at the University of Tokyo (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 Emeritus at Waseda University (Former chair of Investment Advisory Committee)

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

② Research

GPIF believes it necessary to conduct research and amass the know-how gained for safely and efficiently managing and investing pension reserves for the future. In fiscal 2021, GPIF conducted the following three studies (two of which were joint research projects with universities and other organizations).

(Note) For the details of researches, refer to the website: https://www.gpif.go.jp/en/investment/research/.

A. Research on ESG and SDGs considerations in investment

GPIF has promoted ESG (Environment, Social, and Governance) factors – non-financial factors – incorporated investments with a thought that a sustainable growth of investees and the entire market is essential to achieve long-term expansion of investment return for the pension reserve investment management.

On the other hand, the fields connected with sustainability concept including ESG and SDGs have recently extended beyond the conventional fields including economics, finance, and financial engineering to incorporate a wide range of research fields such as environmental economics, climate science, and urban engineering. By utilizing technology in informatics, attempts to quantify non-financial information, which was previously difficult to quantify, are now being actively pursued as well.

Given the above circumstances, GPIF believes it is necessary to continuously conduct researches relating to ESG, etc. Therefore, GPIF has explored the mechanisms by which these ESG and SDGs incorporated investment methods can be effective, through conducting researches including the project titled “Research on diversification effectiveness and portfolio efficiency of ESG investment” (described in detail later in this section). In addition, considering that it is important to comprehend a whole picture of a wide range of sustainability-related fields including ESG and SDGs, GPIF plans to conduct an overhead research (a comprehensive literature review) to identify trends in existing research and future research directions in a wide range of sustainability-related fields.

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

With SDGs becoming widespread and interest in ESG growing, the criteria for evaluating companies and the way companies think about their stakeholders (shareholders, customers, employees, suppliers, society, and the environment) have been changing dramatically, and it is believed that the trend away from shareholder capitalism toward an emphasis on “stakeholder value” (the value of shareholders, customers, employees, suppliers, society, and the environment), which takes various stakeholders into account, will become even stronger. At the same time, companies are struggling to clearly explain to their various stakeholders the validity of increasing corporate earnings through enhancing stakeholder value.

Kyoto University conducted the research project titled “Survey for corporate values in the post-COVID-19 world” on the search for corporate value in a post-pandemic society with the aim of clarifying the gap between “society’s assessment of corporations” and “the circumstances in which corporations themselves find themselves,” as well as the state of corporate value in consideration of stakeholder value. GPIF contributed to a questionnaire survey conducted as part of the project.

This questionnaire survey was conducted on a wide range of organizations and individuals (“entities”): business companies, institutional investors, and individual investors. The results of the survey showed a conspicuous trend among all entities to respond that “employees and customers have become more important during the COVID-19 pandemic and the environment will become the most important in three years’ time.” The results also revealed that business companies tended more than institutional investors to respond that “our stakeholder-oriented efforts are not adequately reflected in our share price.” These new findings were obtained on the degree to which the importance of each stakeholder class differs by entity and the degree to which the perception of the relationship between stakeholder value and its reflection into share prices differs.

Joint research entity: Kyoto University

C. Research on diversification effectiveness and portfolio efficiency of ESG investment

As a universal owner and cross-generational investor, GPIF pursues ESG (Environmental, Social and Governance) investments with an aim to reduce the negative impacts of environmental and social issues and to improve the long-term return of the overall assets under management. In doing so, GPIF believes that to verify the effects of ESG investment on portfolio diversification and portfolio efficiency will enable us to take more appropriate and effective ESG initiatives. GPIF also believes it is necessary to objectively evaluate the effectiveness of ESG investment. To verify these aspects, GPIF conducted a quantitative analysis incorporating perspectives on over time transition and differences across countries. We also analyzed the impact of changes in market conditions by setting up a model able to reflect market conditions.

Among the objective assessments of the effectiveness of ESG investment, obtained by these analyses, were that the inclusion of ESG indexes may reduce risk and correlation, and thus increase portfolio efficiency; that the WIN index may outperform its parent index under certain market conditions; that, as the number of PRI signatures increases, the more a higher ESG score tends to be associated with higher corporate value; and that a high ESG rating reduces a company's credit spread with a statistical significance.

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

(Note 1) In addition to these research projects, a Request for Information (RFI) relating to information on "the mechanisms that have created and entrenched the worldwide low interest rate environment" was implemented by GPIF in fiscal 2021 and, the information received through the RFI was compiled to an article entitled "The Mechanisms Entrenching Low Interest Rates in Japan, the U.S., and Europe," which was published in the November issue of the Securities Analysts Journal.

(Note 2) GPIF Working Papers featuring GPIF's operations and policies with the underlying thoughts, which are simply explained by GPIF executives and employees with charts and graphs, are also available for the public. For details, please refer to the website https://www.gpif.go.jp/en/investment/research/working-paper.html.

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 support, 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 funds, aside from a payment reserve. However, to respond to changes in the population and economy appropriately, and to prepare for further declining 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 funds to stabilize pension finance."

Japan's declining 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."

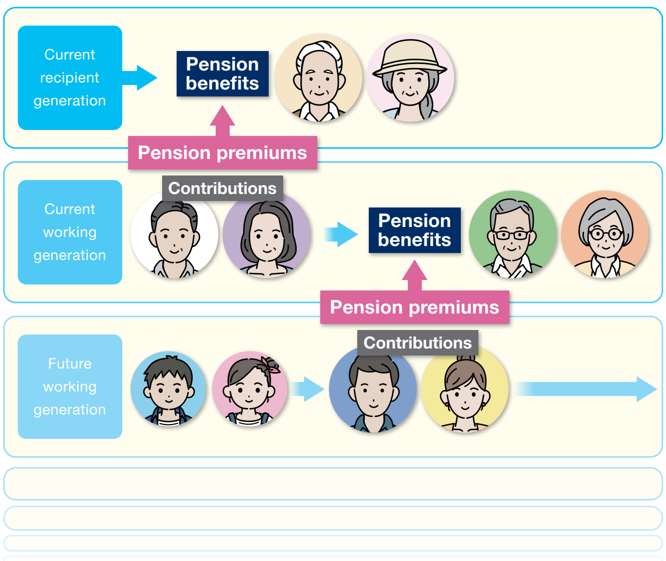
As is the case in other incorporated administrative agencies (Act on General Rules for Incorporated Administrative Agencies), the relevant minister lays out the objectives of GPIF for a set period of time. "Objectives to be achieved by GPIF" (hereinafter the "Medium-term Objectives"), established by 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.

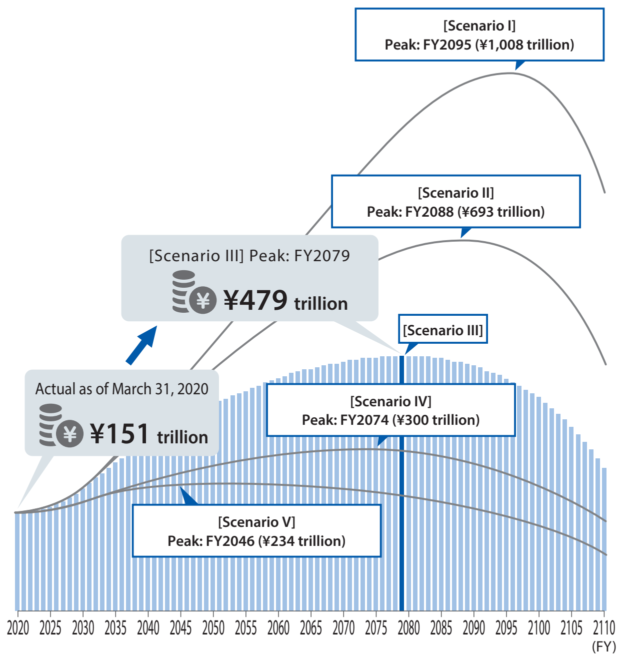
② Roles of reserve fund in pension finance

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 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.

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



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 33.

[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 the pension reserve fund, 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 fund 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 the 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 the pension reserve 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.

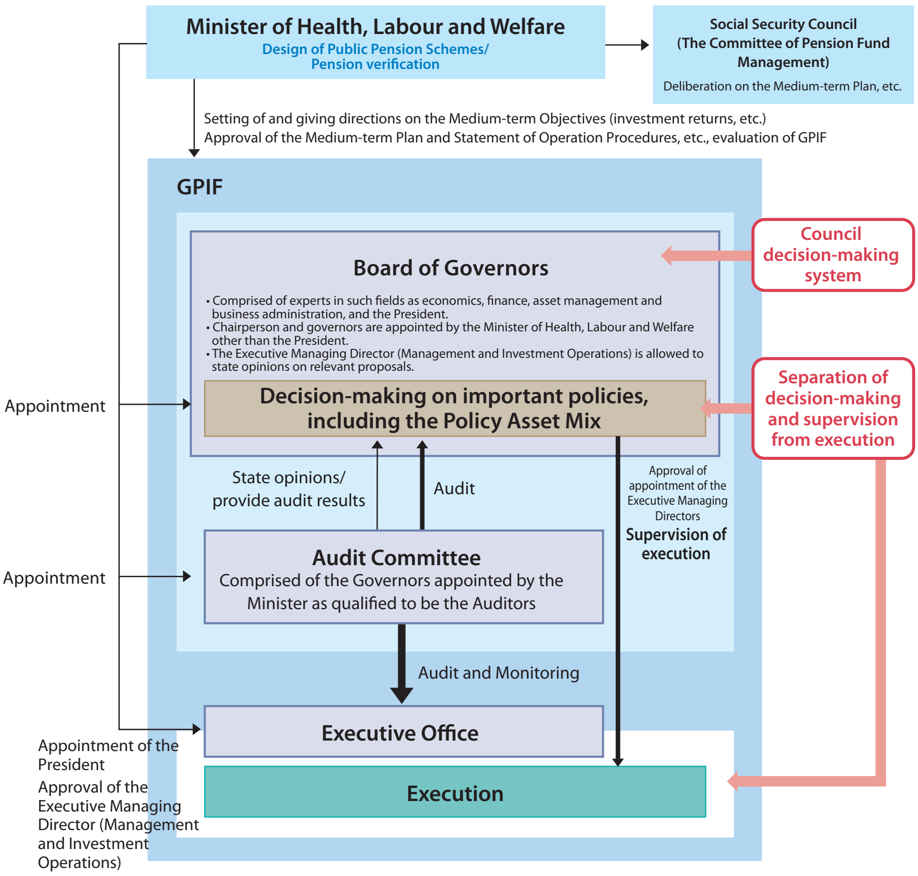
2 | Organization and Internal Control System

[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 of 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 four 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 13 meetings in fiscal 2021. An outline of the meetings is as described in the following table.

In fiscal 2021, the Board of Governors passed a resolution for measures for benchmarks, outlining framework for the policy asset mix, and others. The Board also received reports from the President or other executives 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 GPIF website of as a summary of agenda items.

Outline of meetings of the Board of Governors

(fiscal 2021)

	Date of meeting	Main agenda items (only matters for resolution/deliberation are recorded)
54th meeting	April 23, 2021	(Resolution) (i) Revision of statement of operation procedures due to a change in the accounting classification of FILP bonds, (ii) Revision of various rules and regulations due to the elimination of the seal requirement from GPIF's internal procedures
55th meeting	May 24, 2021	(Resolution) Revision of Board of Governors Regulations
56th meeting	June 11, 2021	(Deliberation) (i) Annual Report fiscal year 2020 (draft), (ii) Review of operations in fiscal 2020 (draft), (iii) Preparation of the financial statements, business report, and financial report for fiscal 2020, appropriation of profit and loss and other important matters related to accounting (draft)
57th meeting	June 28, 2021	(Resolution) Annual Report fiscal year 2020 (draft), (ii) Disclosure of portfolio holdings by asset category as of the end of March 2021, (iii) Review of operations in fiscal 2020 (draft), (iv) Preparation of the financial statements, business report, and financial report for fiscal 2020, appropriation of profit and loss and other important matters related to accounting (draft)
58th meeting	July 26, 2021	(Deliberation) Measures for benchmarks
59th meeting	September 22, 2021	(Resolution) Measures for benchmarks
60th meeting	October 21, 2021	—
61st meeting	November 12, 2021	—
62nd meeting	December 21, 2021	(Deliberation) Framework for the policy asset mix verification(draft)
63rd meeting	January 13, 2022	—
64th meeting	February 17, 2022	(Resolution) Framework for the policy asset mix verification(draft)
65th meeting	March 10, 2022	(Resolution) (i) Revision of Regulation for Salaries of Employees (wage proper matrix for the highly skilled professionals), (ii) Revision of Regulation for Information Security Management (Deliberation) Annual Plan for fiscal 2022 (draft)
66th meeting	March 30, 2022	(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)Revision of the Board of Governors regulations

[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 14 meetings in fiscal 2021. 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, 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 website.

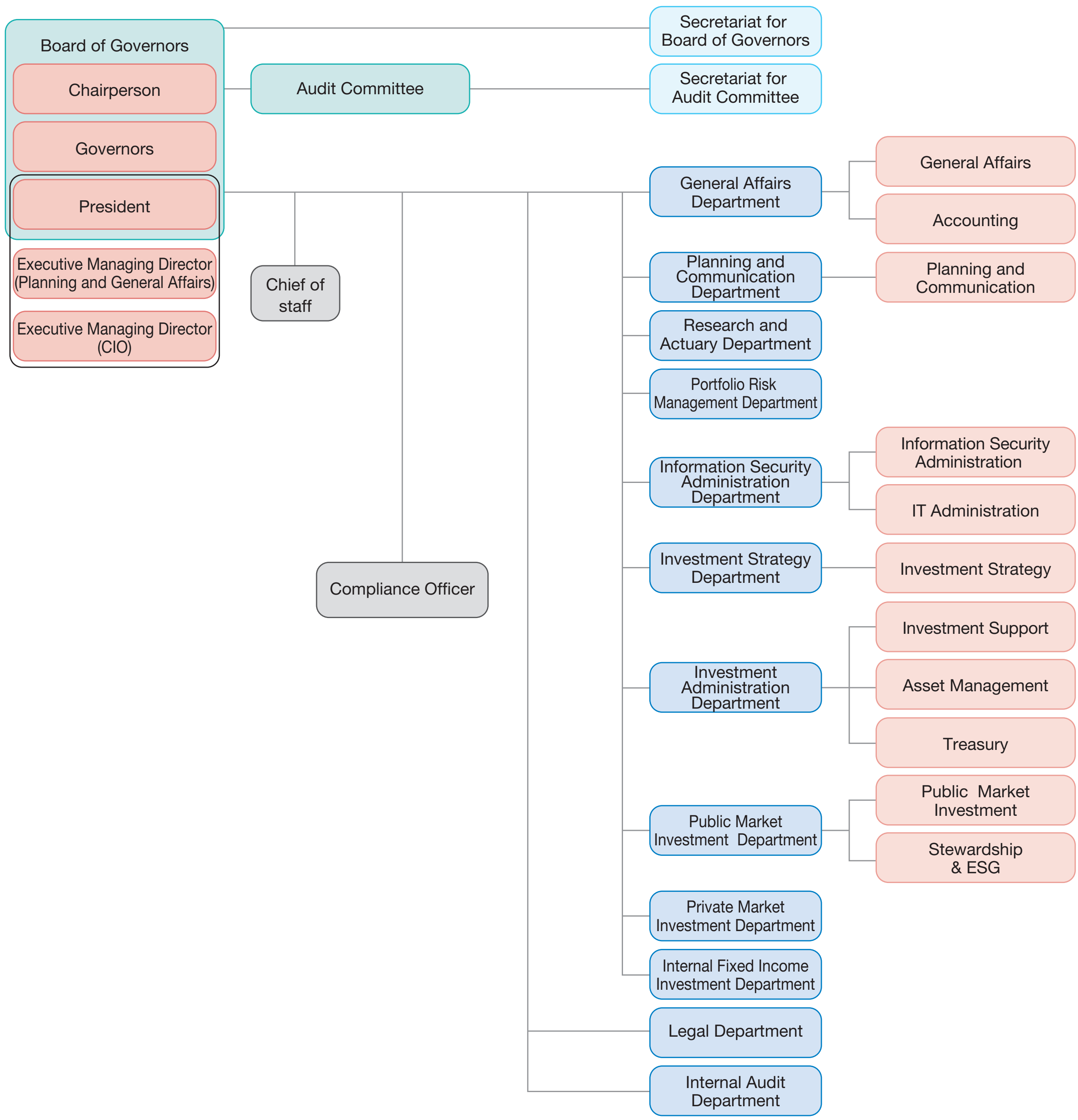
[4] Execution system

① Organization

As of April 1, 2022, 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 154 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, the Legal Department, and the Internal Audit Department (the last two Departments report directly to the President).

Organization chart (as of April 1, 2022)



Chapter 2

② 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.

GPIF's fourth Medium-term Plan provides for the expansion and strengthening of GPIF's legal function. To address this requirement, on March 1, 2021, GPIF established the Legal Department. With the establishment of the Legal Department, GPIF has become able to better manage its highly individualized alternative investments in a timely manner, further strengthen internal control and ensure stricter compliance with applicable laws and regulations.

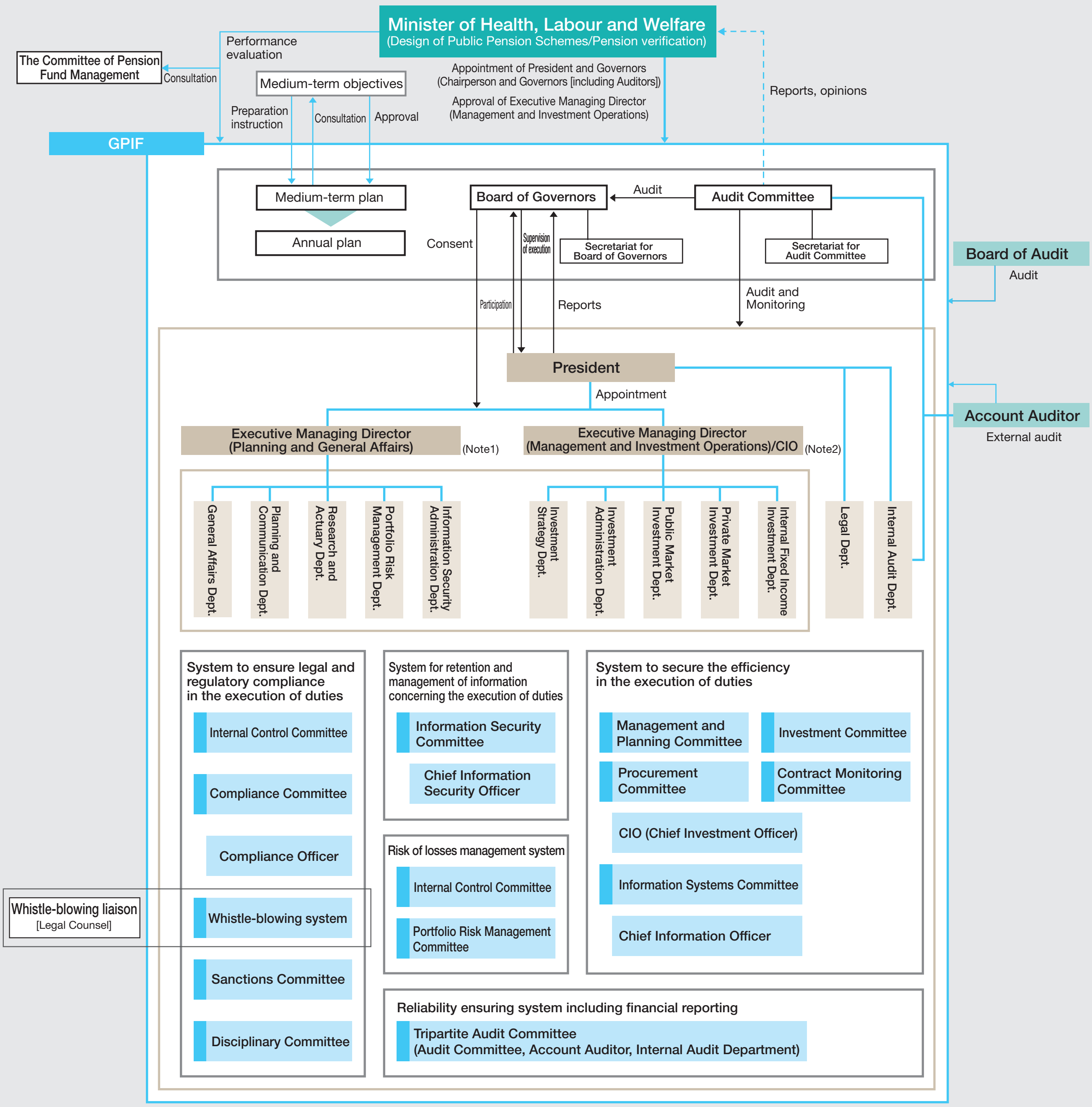
Regarding the management of the risk of losses of other related systems, the Portfolio Risk Management Committee has been established to appropriately monitor and handle various risks (portfolio risks) caused during the pension management. The Internal Control Committee has been established to identify, 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



(Note 1) 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.

(Note 2) 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 (the market value at the end of fiscal 2021)

		Market value (¥billion)	Portfolio allocation (%)
Total (Investment assets)		196,592.6	100.00
	Passive investments	167,524.5	85.21
	Active investments	28,284.9	14.39
	Others	783.2	0.40

			Market value (¥billion)	Portfolio allocation (%)
Total (Investment assets)			196,592.6	100.00
	Domestic bonds	Total	47,630.6	24.23
		Passive investments	36,484.3	18.56
		Active investments	10,412.7	5.30
		Others	733.7	0.37
	Foreign bonds	Total	48,678.4	24.76
		Passive investments	38,565.0	19.62
		Active investments	10,063.9	5.12
		Others	49.5	0.03
	Domestic equities	Total	49,513.7	25.19
		Passive investments	46,368.0	23.59
		Active investments	3,145.6	1.60
	Foreign equities	Total	50,770.0	25.82
		Passive investments	46,107.3	23.45
		Active investments	4,662.7	2.37

(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) refer 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: %)

		FY2012	FY2013	FY2014	FY2015	FY2016	FY2017	FY2018	FY2019	FY2020	FY2021
Domestic bonds	Passive	90.48	90.13	86.10	82.50	79.38	77.03	75.54	71.45	72.93	76.60
	Active	9.52	9.87	13.90	17.50	20.62	22.97	24.46	28.55	27.07	23.40
Foreign bonds	Passive	70.60	71.70	69.85	64.94	60.89	61.98	66.24	73.81	76.12	79.22
	Active	29.40	28.30	30.15	35.06	39.11	38.02	33.76	26.19	23.88	20.78
Domestic equities	Passive	78.78	87.69	86.71	81.52	90.62	90.44	90.58	90.93	92.97	93.65
	Active	21.22	12.31	13.29	18.48	9.38	9.56	9.42	9.07	7.03	6.35
Foreign equities	Passive	86.74	89.37	88.05	84.15	86.45	86.32	90.50	90.17	87.99	90.82
	Active	13.26	10.63	11.95	15.85	13.55	13.68	9.50	9.83	12.01	9.18
Total	Passive	84.50	86.00	83.91	79.28	77.31	76.28	77.87	79.21	82.69	85.21
	Active	15.50	14.00	16.09	20.72	22.69	23.72	22.13	20.79	17.31	14.79

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

[3] Investment assets by manager, etc. (the market value at the end of fiscal 2021)

(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)	MTBJ	BPI	1,134.5
	AllianceBernstein Japan Ltd. Ⅰ (AllianceBernstein L.P., etc.)	MTBJ	USMBS-H	596.7
	State Street Global Advisors (Japan) Co., Ltd. Ⅰ	MTBJ	BPI	1,269.9
	BlackRock Japan Co., Ltd. Ⅰ	MTBJ	USGOV-H	524.2
	BlackRock Japan Co., Ltd. Ⅱ	MTBJ	EGBI-H	23.7
	BlackRock Japan Co., Ltd. Ⅲ (BlackRock Financial Management, Inc.)	MTBJ	USMBS-H	612.1
	Sumitomo Mitsui Trust Asset Management Co., Ltd. Ⅰ	MTBJ	BPI	1,270.4
	Sumitomo Mitsui Trust Asset Management Co., Ltd. Ⅱ	MTBJ	BPI-G	6,256.1
	Mitsubishi UFJ Trust and Banking Corporation Ⅰ	MTBJ	BPI-G	6,136.8
	Resona Asset Management Co., Ltd. Ⅰ	SSTB	USGOV-H	527.9
	Resona Asset Management Co., Ltd. Ⅱ	SSTB	EGBI-H	22.6
	In-house investment Ⅰ	MTBJ	BPI	8,949.0
	In-house investment Ⅱ	MTBJ	BPI-G	9,160.4
Domestic bonds active investment	Asset Management One Co., Ltd. Ⅱ (former DIAM)	MTBJ	BPI	1,082.1
	Asset Management One Co., Ltd. Ⅲ (former Mizuho Trust & Banking)	MTBJ	BPI	933.7
	Amundi Japan Ltd	MTBJ	BPI	246.1
	MU Investments Co., Ltd.	MTBJ	BPI	691.3
	Tokio Marine Asset Management Co., Ltd.	MTBJ	BPI	922.7
	Nikko Asset Management Co., Ltd. Ⅰ	MTBJ	BPI	246.9
	Nissay Asset Management Corporation	MTBJ	BPI	246.8
	Nomura Asset Management Co., Ltd. Ⅰ	MTBJ	BPI	246.3
	PGIM Japan Co., Ltd. Ⅰ	MTBJ	BPI	628.7
	PIMCO Japan Ltd Ⅰ (Pacific Investment Management Company LLC (PIMCO), etc.)	MTBJ	BPI	538.8
	Manulife Investment Management (Japan) Limited Ⅰ	MTBJ	BPI	427.3
	Sumitomo Mitsui DS Asset Management Company, Limited Ⅰ	MTBJ	BPI	246.6
	Sumitomo Mitsui Trust Asset Management Co., Ltd. Ⅲ	MTBJ	BPI	688.3
	Mitsubishi UFJ Trust and Banking Corporation Ⅱ	MTBJ	BPI	929.3
	In-house investment Ⅲ	MTBJ	—	2,094.8
Domestic bonds others	In-house investment Ⅳ	CBJ	—	733.7
Foreign bonds passive investment	Asset Management One Co., Ltd. Ⅳ (former Mizuho Trust & Banking)	SSTB	WGBI-EXC	3,508.0
	State Street Global Advisors (Japan) Co., Ltd. Ⅱ	SSTB	WGBI-EXC	2,446.6
	Nomura Asset Management Co., Ltd. Ⅱ	MTBJ	WGBI-EXC	3,141.9
	BlackRock Japan Co., Ltd. Ⅳ	MTBJ	WGBI-EXC	4,975.4
	BlackRock Japan Co., Ltd. Ⅴ	MTBJ	WGBI-O-EXC	1,304.9
	BlackRock Japan Co., Ltd. Ⅵ	MTBJ	USGOV	3,255.6
	BlackRock Japan Co., Ltd. Ⅶ	MTBJ	USGOV 1-3Y	0.1
	BlackRock Japan Co., Ltd. Ⅷ	MTBJ	EGBI	3,345.1
	BlackRock Japan Co., Ltd. Ⅸ	MTBJ	USIG	9.8
	BlackRock Japan Co., Ltd. Ⅹ	MTBJ	EUROIG	99.1
	BlackRock Japan Co., Ltd. Ⅺ (BlackRock Financial Management, Inc., etc.)	MTBJ	USHY2%	26.7
	BlackRock Japan Co., Ltd. Ⅻ (BlackRock Financial Management, Inc., etc.)	MTBJ	EUROHY 2%	31.5
	Sumitomo Mitsui Trust Asset Management Co., Ltd. Ⅳ	SSTB	WGBI-EXC	4,583.5
	Resona Asset Management Co., Ltd. Ⅲ	SSTB	WGBI-EXC	4,848.9
	Resona Asset Management Co., Ltd. Ⅳ	SSTB	WGBI-O-EXC	764.9
	Resona Asset Management Co., Ltd. Ⅴ	SSTB	USGOV	2,977.0
	Resona Asset Management Co., Ltd. Ⅶ	SSTB	EGBI	3,246.0

(Unit: ¥billion)

Investment method	Asset manager name (Subcontractor, etc.)	Custodians	Manager benchmark	Market value
Foreign bonds active investment	Asset Management One Co., Ltd. Ⅴ (former Mizuho Asset Management) (Loomis, Sayles & Company, L.P.)	SSTB	G-AGG-EXC	709.3
	Ashmore Japan Co., Ltd (Ashmore Investment Management Limited)	SSTB	GBI-EMGD-EXC	225.8
	Goldman Sachs Asset Management Co., Ltd. (Goldman Sachs Asset Management, L.P., etc.)	SSTB	G-AGG-EXC	320.8
	Schroder Investment Management (Japan) Limited Ⅰ (Schroder Investment Management Limited, etc.)	SSTB	G-AGG-EXC	604.7
	Sompo Asset Management Co., LTD. (Colchester Global Investors Limited)	SSTB	G-AGG-EXC	845.7
	T.Rowe Price Japan, Inc. (T.Rowe Price International Ltd.)	MTBJ	EUROHY2%	61.4
	PineBridge Investments Japan Co., Ltd. (PineBridge Investments LLC)	MTBJ	USHY2%	63.0
	BNY Mellon Investment Management Japan Limited Ⅰ (Insight Investment Management (Global) Limited)	SSTB	EUROAGG	623.5
	PGIM Japan Co., Ltd. Ⅱ (PGIM, Inc. etc.)	SSTB	G-AGG-EXC	1,069.8
	PIMCO Japan Ltd Ⅱ (Pacific Investment Management Company LLC (PIMCO), etc.)	SSTB	G-AGG-EXC	986.5
	FIL Investments (Japan) Limited Ⅰ (Fidelity Institutional Asset Management (FIAM))	SSTB	USAGG	899.7
	BlackRock Japan Co., Ltd. XIII (BlackRock Financial Management, Inc., etc.)	SSTB	G-AGG-EXC	536.9
	Franklin Templeton Japan Co., Ltd. (Brandywine Global Investment Management, LLC.)	SSTB	G-AGG-EXC	719.7
	Barings Japan Limited (Barings LLC, etc.)	MTBJ	USHY2%	64.8
	Morgan Stanley Investment Management (Japan) Co., Ltd. Ⅰ (Morgan Stanley Investment Management Inc., etc.)	SSTB	G-AGG-EXC	930.8
	Morgan Stanley Investment Management (Japan) Co., Ltd. Ⅱ (Morgan Stanley Investment Management Inc.)	MTBJ	USHY2%	61.7
	UBS Asset Management (Japan) Ltd Ⅰ (UBS Asset Management (UK) Ltd)	SSTB	EUROHY2%	96.0
Foreign bonds others	In-house investment Ⅴ	SSTB	—	49.5
Domestic equities passive investment	Asset Management One Co., Ltd. Ⅵ (former DIAM)	MTBJ	TOPIX	8,432.5
	Asset Management One Co., Ltd. Ⅶ (former Mizuho Trust & Banking)	MTBJ	RN-P	2,072.6
	Asset Management One Co., Ltd. Ⅷ	MTBJ	FTSE-BL	983.0
	Nomura Asset Management Co., Ltd. Ⅲ	MTBJ	MSCI-IR	143.5
	Nomura Asset Management Co., Ltd. Ⅳ	MTBJ	RAFI	1,422.3
	FIL Investments (Japan) Limited Ⅱ (Geode Capital Management, LLC)	MTBJ	TOPIX	231.5
	BlackRock Japan Co., Ltd. XIV	MTBJ	TOPIX	5,608.2
	BlackRock Japan Co., Ltd. XV	MTBJ	FTSE-BLSR	800.0
	Sumitomo Mitsui Trust Asset Management Co., Ltd. Ⅴ	MTBJ	TOPIX	7,895.9
	Sumitomo Mitsui Trust Asset Management Co., Ltd. Ⅵ	MTBJ	SP-C	1,567.8
	Mitsubishi UFJ Trust and Banking Corporation Ⅲ	MTBJ	TOPIX	5,962.8
	Mitsubishi UFJ Trust and Banking Corporation Ⅳ	MTBJ	MSCI-ESG	2,099.0
	Mitsubishi UFJ Trust and Banking Corporation Ⅴ	MTBJ	MSCI-WIN	1,245.7
	Resona Asset Management Co., Ltd. Ⅷ	MTBJ	TOPIX	7,897.5
Domestic equities active investment	Asset Management One Co., Ltd. Ⅸ	MTBJ	TOPIX	229.1
	Asset Management One Co., Ltd. Ⅹ (former Mizuho Asset Management)	MTBJ	RN-SG	116.0
	Invesco Asset Management (Japan) Limited Ⅰ	MTBJ	TOPIX	288.1
	Invesco Asset Management (Japan) Limited Ⅱ	MTBJ	TOPIX	141.5
	Capital International K.K. (Capital International, Inc.)	MTBJ	TOPIX	619.3
	Schroder Investment Management (Japan) Limited Ⅱ	MTBJ	TOPIX	361.9
	Nomura Asset Management Co., Ltd. Ⅴ	MTBJ	RN-S	110.6

(Unit: ¥billion)

Investment method	Asset manager name (Subcontractor, etc.)	Custodians	Manager benchmark	Market value
Domestic equities active investment	FIL Investments (Japan) Limited Ⅲ	MTBJ	TOPIX	498.9
	Sumitomo Mitsui DS Asset Management Company, Limited Ⅱ	MTBJ	RN-V	356.3
	Lazard Japan Asset Management K.K. Ⅰ	MTBJ	TOPIX	143.7
	Russell Investments Japan Co., Ltd. Ⅰ (Russell Investments Implementation Services, LLC.)	MTBJ	TOPIX	231.2
Foreign equities passive investment	State Street Global Advisors (Japan) Co., Ltd. Ⅲ	MTBJ	MSCI-A-EXC	10,228.0
	State Street Global Advisors (Japan) Co., Ltd. Ⅳ	MTBJ	MSCI-N	1,920.0
	State Street Global Advisors (Japan) Co., Ltd. Ⅴ	MTBJ	MSCI-EU	356.5
	State Street Global Advisors (Japan) Co., Ltd. Ⅵ	MTBJ	MSCI-P	96.9
	State Street Global Advisors (Japan) Co., Ltd. Ⅶ	MTBJ	MS-CI-EXC	955.3
	State Street Global Advisors (Japan) Co., Ltd. Ⅷ	MTBJ	SP-GC	3,390.6
	BlackRock Japan Co., Ltd. XVI	MTBJ	MSCI-A-EXC	8,517.9
	Sumitomo Mitsui Trust Asset Management Co., Ltd. Ⅶ	MTBJ	MSCI-A-EXC	8,667.5
	Legal & General Investment Management Japan KK Ⅰ (Legal & General Investment Management Limited)	MTBJ	MSCI-A-EXC	7,846.9
	Legal & General Investment Management Japan KK Ⅱ (Legal & General Investment Management Limited)	MTBJ	MSCI-N	1,548.5
	Legal & General Investment Management Japan KK Ⅲ (Legal & General Investment Management Limited)	MTBJ	MSCI-EU	372.3
	Legal & General Investment Management Japan KK Ⅳ (Legal & General Investment Management Limited)	MTBJ	MSCI-P	110.3
	Legal & General Investment Management Japan KK Ⅴ (Legal & General Investment Management Limited)	MTBJ	MS-CI-EXC	58.0
	Legal & General Investment Management Japan KK Ⅵ (Legal & General Investment Management Limited)	MTBJ	MSCI-A-ESG	1,618.7
	Legal & General Investment Management Japan KK Ⅶ (Legal & General Investment Management Limited)	MTBJ	MO-GD	419.5
Foreign equities active investment	Asset Management One Co., Ltd. Ⅺ (former Mizuho Asset Management) (Allspring Global Investments,LLC.)	MTBJ	MSCI-E	127.1
	MFS Investment Management K.K. (Massachusetts Financial Services Company)	MTBJ	MSCI-K	777.5
	Nikko Asset Management Co., Ltd. Ⅱ (INTECH Investment Management LLC)	MTBJ	MSCI-K	931.6
	BNY Mellon Asset Management Japan Limited Ⅱ (Walter Scott & Partners Limited)	MTBJ	MSCI-K	627.6
	Mitsubishi UFJ Trust and Banking Corporation Ⅵ (Baillie Gifford Overseas Limited)	MTBJ	MSCI-A	706.0
	UBS Asset Management (Japan) Ltd Ⅱ (UBS Asset Management (UK) Ltd)	MTBJ	MSCI-K	787.9
	Lazard Japan Asset Management K.K. Ⅱ (Lazard Asset Management LLC)	MTBJ	MSCI-E	77.1
Alternative infrastructure	DBJ Asset Management Co., Ltd.	SSTB	—	109.2
	Gatekeeper : Nomura Asset Management Co., Ltd. Ⅵ Fund of Funds Manager : Pantheon	SSTB	—	262.1
	Gatekeeper : Nomura Asset Management Co., Ltd. Ⅶ Fund of Funds Manager : Pantheon	SSTB	—	21.8
	Gatekeeper : Sumitomo Mitsui DS Asset Management Company, Limited Ⅲ Fund of Funds Manager: StepStone Infrastructure & Real Assets	SSTB	—	399.2
	Gatekeeper : Sumitomo Mitsui DS Asset Management Company, Limited Ⅳ Fund of Funds Manager: StepStone Infrastructure & Real Assets	SSTB	—	100.0
	In-house investment Ⅵ (Unit Trust Manager : Nissay Asset Management Corporation)	SSTB	—	186.4
Alternative private equity	Gatekeeper : Neuberger Berman East Asia Limited Fund of Funds Manager : NB Alternatives Advisers LLC	SSTB	—	164.2
	Gatekeeper : Mitsubishi UFJ Trust and Banking Corporation Ⅶ Fund of Funds Manager: Hamilton Lane Advisors, L.L.C.	SSTB	—	105.9
	In-house investment Ⅶ (Unit Trust Manager : Nissay Asset Management Corporation)	SSTB	—	36.5
Alternative real estate	Gatekeeper : Asset Management One Co., Ltd. Ⅻ Fund of Funds Manager : CBRE Global Investment Partners Limited	SSTB	—	556.4
	Gatekeeper : Asset Management One Co., Ltd. XIII Fund of Funds Manager : CBRE Global Investment Partners Limited	SSTB	—	8.0
	Mitsubishi UFJ Trust and Banking Corporation Ⅷ	SSTB	—	208.7
Total	37 asset managers, 123 Funds			196,581.2

(Unit: ¥billion)

Investment method	Custodian, etc. name		Market value
Custody	State Street Trust and Banking Co., Ltd.	SSTB	33,702.6
	Custody Bank of Japan, Ltd.	CBJ	733.7
	The Master Trust Bank of Japan, Ltd.	MTBJ	162,145.0
Total			196,581.3

(Note 1) While the 37 asset managers in the total column do not include in-house investment, the 123 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 (123 funds managed by 37 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 (domestic equities: ¥11.3 billion) from closed funds (statutory trust accounts).

(Note 4) Stock index futures funds are not shown because their market capitalization at the end of the fiscal year was ¥0.0 billion. The amount of revenue from stock index futures trading is treated as a figure for reference only, as it was offset by the lost earnings and losses of the corresponding funds, but revenue from stock index futures trading in fiscal 2021 amounted to ¥4.3 billion.

(Note 5) 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.
	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 US MBS Fixed Rate Index (JPY hedged/JPY basis)	Bloomberg Index Services Limited
Foreign bonds	WGBI-EXC	FTSE World Government Bond Index (not incl. JPY, CNY, no hedge/JPY basis)	FTSE Fixed Income LLC
	WGBI-O-EXC	FTSE World Government Bond Index (not incl. JPY, USD, EMU, CNY, 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 Global Aggregate Index (not incl. JPY, CNY, no hedge/JPY basis)	Bloomberg Index Services Limited
	USAGG	Bloomberg US Aggregate Index (no hedge/JPY basis)	Bloomberg Index Services Limited
	EUROAGG	Bloomberg EURO Aggregate Index (no hedge/JPY basis)	Bloomberg Index Services Limited
	USIG	Bloomberg US Corporate Bond Index (no hedge/JPY basis)	Bloomberg Index Services Limited
	EUROIG	Bloomberg EURO Corporate Bond Index (no hedge/JPY basis)	Bloomberg Index Services Limited
	USHY2%	Bloomberg US Corporate High Yield 2% Issuer Capped Bond Index (no hedge/JPY basis)	Bloomberg Index Services Limited
	EUROHY 2%	Bloomberg EURO Corporate High Yield 2% Issuer Capped Bond Index (no hedge/JPY basis)	Bloomberg Index Services Limited
	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-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
	FTSE-BLSR	FTSE Blossom Japan Sector Relative 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 Index (not incl. China A, JPY basis, incl. dividends, after deducting taxes)	MSCI G.K.
	MO-GD	Morningstar Developed Markets (ex Japan) Gender Diversity Index (JPY basis, incl. dividends, after 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 2021 to March 2022)

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)	-1.20%	-1.22%	+0.02%	
	AllianceBernstein Japan Ltd. Ⅰ	-3.01%	-5.45%	+2.45%	
	State Street Global Advisors (Japan) Co., Ltd. Ⅰ	-1.21%	-1.22%	+0.01%	
	BlackRock Japan Co., Ltd. Ⅰ	-3.85%	-4.01%	+0.16%	
	BlackRock Japan Co., Ltd. Ⅱ	-6.24%	-6.16%	–0.09%	
	BlackRock Japan Co., Ltd. Ⅲ	-3.29%	-5.45%	+2.16%	
	Sumitomo Mitsui Trust Asset Management Co., Ltd. Ⅰ	-1.20%	-1.22%	+0.01%	
	Sumitomo Mitsui Trust Asset Management Co., Ltd. Ⅱ	-1.33%	-1.34%	+0.01%	
	Mitsubishi UFJ Trust and Banking Corporation Ⅰ	-1.33%	-1.34%	+0.02%	
	Resona Asset Management Co., Ltd. Ⅰ	-3.85%	-4.01%	+0.16%	
	Resona Asset Management Co., Ltd. Ⅱ	-6.15%	-6.16%	+0.01%	
	In-house investment Ⅰ	-1.02%	-1.22%	+0.19%	
	In-house investment Ⅱ	-1.33%	-1.34%	+0.01%	
Domestic bonds active investment	Asset Management One Co., Ltd. Ⅱ(former DIAM)	-0.92%	-1.21%	+0.29%	
	Asset Management One Co., Ltd. Ⅲ (former Mizuho Trust & Banking)	-0.56%	-1.21%	+0.65%	
	Amundi Japan Ltd	-1.49%	-1.52%	+0.02%	○
	MU Investments Co., Ltd.	-0.81%	-0.96%	+0.15%	
	Tokio Marine Asset Management Co., Ltd.	-1.00%	-1.15%	+0.15%	
	Nikko Asset Management Co., Ltd. Ⅰ	-1.56%	-1.81%	+0.25%	○
	Nissay Asset Management Corporation	-1.80%	-2.00%	+0.20%	○
	Nomura Asset Management Co., Ltd. Ⅰ	-1.43%	-1.52%	+0.09%	○
	PGIM Japan Co., Ltd. Ⅰ	-0.77%	-1.21%	+0.43%	
	PIMCO Japan Ltd Ⅰ	-0.64%	-1.28%	+0.64%	
	Manulife Investment Management (Japan) Limited Ⅰ	-0.24%	-1.28%	+1.03%	
	Sumitomo Mitsui DS Asset Management Company, Limited Ⅰ	-1.30%	-1.52%	+0.21%	○
	Sumitomo Mitsui Trust Asset Management Co., Ltd. Ⅲ	-0.96%	-1.28%	+0.31%	
	Mitsubishi UFJ Trust and Banking Corporation Ⅱ	-0.65%	-0.79%	+0.13%	
	In-house investment Ⅲ	3.98%	-	-	
Foreign bonds passive investment	Asset Management One Co., Ltd. Ⅳ (former Mizuho Trust & Banking)	1.97%	1.88%	+0.09%	
	State Street Global Advisors (Japan) Co., Ltd. Ⅱ	1.81%	1.88%	-0.07%	
	Nomura Asset Management Co., Ltd. Ⅱ	1.77%	1.88%	-0.11%	
	BlackRock Japan Co., Ltd. Ⅳ	1.82%	1.88%	-0.07%	
	BlackRock Japan Co., Ltd. Ⅴ	1.40%	1.42%	-0.03%	
	BlackRock Japan Co., Ltd. Ⅵ	6.04%	6.06%	-0.02%	
	BlackRock Japan Co., Ltd. Ⅷ	-2.81%	-2.66%	-0.15%	
	BlackRock Japan Co., Ltd. Ⅸ	-1.66%	-1.40%	-0.26%	○
	BlackRock Japan Co., Ltd. Ⅹ	-0.71%	0.32%	-1.03%	○
	BlackRock Japan Co., Ltd. Ⅺ	10.40%	9.11%	+1.29%	
	BlackRock Japan Co., Ltd. Ⅻ	2.03%	1.46%	+0.57%	
	Sumitomo Mitsui Trust Asset Management Co., Ltd. Ⅳ	1.86%	1.88%	-0.02%	
	Resona Asset Management Co., Ltd. Ⅲ	1.87%	1.88%	-0.01%	
	Resona Asset Management Co., Ltd. Ⅳ	1.44%	1.42%	+0.02%	
	Resona Asset Management Co., Ltd. Ⅴ	6.12%	6.06%	+0.06%	
	Resona Asset Management Co., Ltd. Ⅶ	-2.66%	-2.66%	+0.00%	
Foreign bonds active investment	Asset Management One Co., Ltd. Ⅴ (former Mizuho Asset Management)	2.41%	1.81%	+0.60%	
	Ashmore Japan Co., Ltd	-3.43%	-1.68%	-1.75%	
	Goldman Sachs Asset Management Co., Ltd.	1.45%	2.03%	-0.58%	
	Schroder Investment Management (Japan) Limited Ⅰ	0.35%	2.03%	-1.69%	
	Sompo Asset Management Co., LTD.	4.19%	2.03%	+2.16%	
	T. Rowe Price Japan, Inc.	2.07%	1.46%	+0.61%	
	PineBridge Investments Japan Co., Ltd.	9.68%	9.11%	+0.57%	
	BNY Mellon Investment Management Japan Limited Ⅰ	-2.24%	-2.14%	-0.10%	
	PGIM Japan Co., Ltd. Ⅱ	-0.03%	2.03%	-2.06%	
	PIMCO Japan Ltd Ⅱ	3.13%	2.85%	+0.28%	
	FIL Investments (Japan) Limited Ⅰ	6.74%	5.28%	+1.46%	
	BlackRock Japan Co., Ltd. XIII	2.96%	3.14%	-0.18%	
	Franklin Templeton Japan Co., Ltd.	4.70%	2.03%	+2.67%	
	Barings Japan Limited	11.11%	9.11%	+2.00%	
	Morgan Stanley Investment Management (Japan) Co., Ltd. Ⅰ	2.57%	2.06%	+0.52%	
	Morgan Stanley Investment Management (Japan) Co., Ltd. Ⅱ	10.13%	9.11%	+1.02%	
	UBS Asset Management (Japan) Ltd Ⅰ	3.42%	1.46%	+1.96%	
Domestic equities passive investment	Asset Management One Co., Ltd. Ⅵ(former DIAM)	2.10%	1.99%	+0.11%	
	Asset Management One Co., Ltd. Ⅶ(former Mizuho Trust & Banking)	1.91%	1.88%	+0.03%	
	Asset Management One Co., Ltd. Ⅷ	5.74%	5.72%	+0.02%	
	Nomura Asset Management Co., Ltd. Ⅲ	2.83%	3.11%	-0.28%	
	Nomura Asset Management Co., Ltd. Ⅳ	5.22%	5.34%	-0.12%	
	FIL Investments (Japan) Limited Ⅱ	1.99%	1.99%	+0.00%	
	BlackRock Japan Co., Ltd. XIV	2.02%	1.99%	+0.04%	
	BlackRock Japan Co., Ltd. XV	5.38%	5.57%	-0.19%	
	Sumitomo Mitsui Trust Asset Management Co., Ltd. Ⅴ	1.99%	1.99%	+0.01%	
	Sumitomo Mitsui Trust Asset Management Co., Ltd. Ⅵ	2.07%	2.02%	+0.06%	
	Mitsubishi UFJ Trust and Banking Corporation Ⅲ	1.99%	1.99%	+0.00%	
	Mitsubishi UFJ Trust and Banking Corporation Ⅳ	3.59%	3.64%	-0.05%	
	Mitsubishi UFJ Trust and Banking Corporation Ⅴ	0.80%	0.87%	-0.07%	
	Resona Asset Management Co., Ltd. Ⅷ	1.92%	1.99%	-0.07%	

Investment method	Asset manager name	Time-weighted return (A)	Benchmark return (B)	Excess rate of return (C)＝(A)－(B)	Remarks column
Domestic equities active investment	Asset Management One Co., Ltd. Ⅸ	7.82%	1.99%	+5.84%	
	Asset Management One Co., Ltd. Ⅹ(former Mizuho Asset Management)	-9.06%	-8.14%	-0.93%	
	Invesco Asset Management (Japan) Limited Ⅰ	0.21%	1.99%	-1.77%	
	Invesco Asset Management (Japan) Limited Ⅱ	0.77%	1.99%	-1.22%	
	Capital International K.K.	-0.46%	1.99%	-2.45%	
	Schroder Investment Management (Japan) Limited Ⅱ	1.37%	1.99%	-0.62%	
	Nomura Asset Management Co., Ltd. Ⅴ	-8.69%	-4.62%	-4.06%	
	FIL Investments (Japan) Limited Ⅲ	-4.18%	1.99%	-6.17%	
	Sumitomo Mitsui DS Asset Management Company, Limited Ⅱ	8.91%	10.57%	-1.66%	
	Lazard Japan Asset Management K.K. Ⅰ	8.51%	2.10%	+6.40%	
	Russell Investments Japan Co., Ltd. Ⅰ	-4.59%	1.99%	-6.58%	
Foreign equities passive investment	State Street Global Advisors (Japan) Co., Ltd. Ⅲ	19.41%	19.40%	+0.01%	
	State Street Global Advisors (Japan) Co., Ltd. Ⅳ	25.23%	25.67%	-0.44%	
	State Street Global Advisors (Japan) Co., Ltd. Ⅴ	14.47%	14.19%	+0.27%	
	State Street Global Advisors (Japan) Co., Ltd. Ⅵ	14.17%	14.12%	+0.05%	
	State Street Global Advisors (Japan) Co., Ltd. Ⅶ	-2.65%	-2.80%	+0.15%	
	State Street Global Advisors (Japan) Co., Ltd. Ⅷ	20.07%	20.13%	-0.06%	
	BlackRock Japan Co., Ltd. XVI	19.47%	19.40%	+0.07%	
	Sumitomo Mitsui Trust Asset Management Co., Ltd. Ⅶ	19.61%	19.40%	+0.21%	
	Legal & General Investment Management Japan KK Ⅰ	19.72%	19.40%	+0.32%	
	Legal & General Investment Management Japan KK Ⅱ	19.75%	20.05%	-0.30%	○
	Legal & General Investment Management Japan KK Ⅲ	9.87%	9.67%	+0.20%	○
	Legal & General Investment Management Japan KK Ⅳ	9.38%	9.35%	+0.03%	○
	Legal & General Investment Management Japan KK Ⅴ	-5.70%	-5.53%	-0.17%	○
	Legal & General Investment Management Japan KK Ⅵ	19.72%	19.72%	-0.00%	
	Legal & General Investment Management Japan KK Ⅶ	22.04%	22.13%	-0.10%	
Foreign equities active investment	Asset Management One Co., Ltd. Ⅺ (former Mizuho Asset Management)	-11.32%	-2.64%	-8.67%	
	MFS Investment Management K.K.	16.81%	22.89%	-6.08%	
	Nikko Asset Management Co., Ltd. Ⅱ	19.18%	22.89%	-3.71%	
	BNY Mellon Investment Management Japan Limited Ⅱ	17.95%	22.89%	-4.94%	
	Mitsubishi UFJ Trust and Banking Corporation Ⅵ	-1.85%	19.28%	-21.13%	
	UBS Asset Management (Japan) Ltd Ⅱ	14.76%	22.89%	-8.13%	
	Lazard Japan Asset Management K.K. Ⅱ	-9.88%	-2.64%	-7.24%	

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.	3.24%	3.24%	JPY	March 2018	
			3.36%	8.65%	USD	April 2018	
	Global-Core	Nomura Asset Management Co., Ltd. Ⅵ	6.99%	12.80%	USD	February 2018	
	Global-Core	Nomura Asset Management Co., Ltd. Ⅶ	—	—	USD	December 2021	○
	Global-Core	Sumitomo Mitsui DS Asset Management Company, Limited Ⅲ	4.46%	8.90%	USD	January 2018	
	Global-Core	Sumitomo Mitsui DS Asset Management Company, Limited Ⅳ	—	—	USD	September 2021	○
	Global-Core	In-house investment Ⅵ	5.77%	6.61%	USD	February 2014	
Private equity	Global-Diversified Strategy	Neuberger Berman East Asia Limited	15.29%	31.04%	USD	April 2020	
	Global-Diversified Strategy	Mitsubishi UFJ Trust and Banking Corporation Ⅶ	13.93%	33.04%	USD	January 2021	
	Emerging markets-Diversified	In-house investment Ⅶ	7.91%	10.92%	USD	June 2015	
Real estate	Global-Core Commingled Fund Investments	Asset Management One Co., Ltd. Ⅻ	10.33%	16.23%	USD	September 2018	
	Global-Core JV/Club Type Investments	Asset Management One Co., Ltd. XIII	—	—	USD	February 2021	
	Japan-Core	Mitsubishi UFJ Trust and Banking Corporation Ⅷ	7.32%	7.32%	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 return for external asset managers with investment periods of less than one year are those for the investment periods. For alternative assets, however, rates of return are shown only for investments underway for at least one year for which investments in the portfolio companies have already been executed.

[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)	MTBJ	183,105,119	
	State Street Global Advisors (Japan) Co., Ltd. Ⅰ	MTBJ	150,377,101	
	BlackRock Japan Co., Ltd. Ⅰ	MTBJ	48,023,803	
	BlackRock Japan Co., Ltd. Ⅱ	MTBJ	15,987,706	
	Sumitomo Mitsui Trust Asset Management Co., Ltd. Ⅰ	MTBJ	264,895,127	
	Sumitomo Mitsui Trust Asset Management Co., Ltd. Ⅱ	MTBJ	31,919,934	
	Mitsubishi UFJ Trust and Banking Corporation Ⅰ	MTBJ	44,500,480	
	Resona Asset Management Co., Ltd. Ⅰ	SSTB	63,672,859	
	Resona Asset Management Co., Ltd. Ⅱ	SSTB	35,204,170	
Domestic bonds active investment	Asset Management One Co., Ltd. Ⅱ (former DIAM)	MTBJ	1,111,444,858	
	Asset Management One Co., Ltd. Ⅲ (former Mizuho Trust & Banking)	MTBJ	1,031,454,742	
	MU Investments Co., Ltd.	MTBJ	472,897,199	
	Tokio Marine Asset Management Co., Ltd.	MTBJ	537,482,534	
	PGIM Japan Co., Ltd. Ⅰ	MTBJ	674,363,319	
	PIMCO Japan Ltd Ⅰ	MTBJ	544,685,944	
	Manulife Investment Management (Japan) Limited Ⅰ	MTBJ	1,185,459,088	
	Sumitomo Mitsui Trust Asset Management Co., Ltd. Ⅲ	MTBJ	803,115,603	
	Mitsubishi UFJ Trust and Banking Corporation Ⅱ	MTBJ	872,839,643	
Foreign bonds passive investment	Asset Management One Co., Ltd. Ⅳ (former Mizuho Trust & Banking)	SSTB	120,265,556	
	State Street Global Advisors (Japan) Co., Ltd. Ⅱ	SSTB	136,828,648	
	Nomura Asset Management Co., Ltd. Ⅱ	MTBJ	64,263,388	
	BlackRock Japan Co., Ltd. Ⅳ	MTBJ	281,184,746	
	BlackRock Japan Co., Ltd. Ⅴ	MTBJ	45,097,195	
	BlackRock Japan Co., Ltd. Ⅵ	MTBJ	176,632,327	
	BlackRock Japan Co., Ltd. Ⅶ	MTBJ	7,522,249	
	BlackRock Japan Co., Ltd. Ⅷ	MTBJ	158,701,001	
	Sumitomo Mitsui Trust Asset Management Co., Ltd. Ⅳ	SSTB	30,230,206	
	Resona Asset Management Co., Ltd. Ⅲ	SSTB	46,211,162	
	Resona Asset Management Co., Ltd. Ⅳ	SSTB	7,918,826	
	Resona Asset Management Co., Ltd. Ⅴ	SSTB	61,181,645	
	Resona Asset Management Co., Ltd. Ⅵ	SSTB	3,137,920	
	Resona Asset Management Co., Ltd. Ⅶ	SSTB	49,643,338	

(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	3,454,065,989	
	Ashmore Japan Co., Ltd	SSTB	1,095,383,569	
	AllianceBernstein Japan Ltd. Ⅱ	SSTB	377,784,108	○
	Goldman Sachs Asset Management Co., Ltd.	SSTB	1,630,359,624	
	Schroder Investment Management (Japan) Limited Ⅰ	SSTB	1,823,265,103	
	Sompo Asset Management Co., LTD.	SSTB	1,274,248,189	
	T.Rowe Price Japan, Inc.	MTBJ	314,718,890	
	Nomura Asset Management Co., Ltd. Ⅷ	SSTB	359,104,299	○
	Nomura Asset Management Co., Ltd. Ⅸ	SSTB	225,448,328	○
	PineBridge Investments Japan Co., Ltd.	MTBJ	134,277,805	
	BNY Mellon Investment Management Japan Limited Ⅰ	SSTB	2,867,948,269	
	PGIM Japan Co., Ltd. Ⅱ	SSTB	2,811,480,288	
	PIMCO Japan Ltd Ⅱ	SSTB	3,929,043,768	
	FIL Investments (Japan) Limited Ⅰ	SSTB	13,188,304,278	
	BlackRock Japan Co., Ltd. XIII	SSTB	1,739,257,579	
	Franklin Templeton Japan Co., Ltd.	SSTB	3,308,302,568	
	Barings Japan Limited	MTBJ	157,550,418	
	Manulife Investment Management (Japan) Limited Ⅱ	SSTB	336,571,771	○
	Morgan Stanley Investment Management (Japan) Co., Ltd. Ⅰ	SSTB	3,473,382,011	
	Morgan Stanley Investment Management (Japan) Co., Ltd. Ⅱ	MTBJ	213,334,764	
	UBS Asset Management (Japan) Ltd Ⅰ	SSTB	812,693,087	
Domestic equities passive investment	Asset Management One Co., Ltd. Ⅵ (former DIAM)	MTBJ	570,463,103	
	Asset Management One Co., Ltd. Ⅶ (former Mizuho Trust & Banking)	MTBJ	29,348,405	
	Asset Management One Co., Ltd. Ⅷ	MTBJ	120,925,331	
	Nomura Asset Management Co., Ltd. Ⅳ	MTBJ	2,833,358,990	
	FIL Investments (Japan) Limited Ⅱ	MTBJ	160,114,251	
	BlackRock Japan Co., Ltd. XIV	MTBJ	63,681,621	
	BlackRock Japan Co., Ltd. XV	MTBJ	94,519,462	
	Sumitomo Mitsui Trust Asset Management Co., Ltd. Ⅴ	MTBJ	97,403,947	
	Sumitomo Mitsui Trust Asset Management Co., Ltd. Ⅵ	MTBJ	254,960,020	
	Mitsubishi UFJ Trust and Banking Corporation Ⅲ	MTBJ	146,267,156	
	Mitsubishi UFJ Trust and Banking Corporation Ⅳ	MTBJ	268,849,397	
	Mitsubishi UFJ Trust and Banking Corporation Ⅴ	MTBJ	204,712,970	
	Resona Asset Management Co., Ltd. Ⅷ	MTBJ	81,279,818	

(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)	MTBJ	798,394,298	
	Invesco Asset Management (Japan) Limited Ⅰ	MTBJ	1,330,353,089	
	Capital International K.K.	MTBJ	6,652,000,906	
	Schroder Investment Management (Japan) Limited Ⅱ	MTBJ	655,601,224	
	Nikko Asset Management Co.,Ltd. Ⅲ	CBJ	138,123,271	○
	Nomura Asset Management Co., Ltd. Ⅴ	MTBJ	745,890,427	
	Nomura Asset Management Co., Ltd. Ⅹ	CBJ	378,948,637	○
	FIL Investments (Japan) Limited Ⅲ	MTBJ	2,456,302,810	
	Sumitomo Mitsui DS Asset Management Company, Limited Ⅱ	MTBJ	338,793,885	
	Russell Investments Japan Co., Ltd. Ⅰ	MTBJ	2,576,211,690	
Foreign equities passive investment	State Street Global Advisors (Japan) Co., Ltd. Ⅲ	MTBJ	519,132,481	
	State Street Global Advisors (Japan) Co., Ltd. Ⅳ	MTBJ	203,820,217	
	State Street Global Advisors (Japan) Co., Ltd. Ⅴ	MTBJ	44,436,814	
	State Street Global Advisors (Japan) Co., Ltd. Ⅵ	MTBJ	9,149,836	
	State Street Global Advisors (Japan) Co., Ltd. Ⅶ	MTBJ	27,474,010	
	State Street Global Advisors (Japan) Co., Ltd. Ⅷ	MTBJ	734,396,174	
	BlackRock Japan Co., Ltd. XVI	MTBJ	455,987,393	
	Sumitomo Mitsui Trust Asset Management Co., Ltd. Ⅶ	MTBJ	368,621,840	
	Legal & General Investment Management Japan KK Ⅰ	MTBJ	757,206,288	

(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	1,908,217,766	
	MFS Investment Management K.K.	MTBJ	741,002,175	
	Nikko Asset Management Co., Ltd. Ⅱ	MTBJ	1,824,756,426	
	BNY Mellon Investment Management Japan Limited Ⅱ	MTBJ	4,595,718,604	
	Mitsubishi UFJ Trust and Banking Corporation Ⅵ	MTBJ	14,795,952,668	
	UBS Asset Management (Japan) Ltd Ⅱ	MTBJ	6,599,902,561	
	Lazard Japan Asset Management K.K. Ⅱ	MTBJ	623,729,267	
Alternative infrastructure	DBJ Asset Management Co., Ltd.	SSTB	16,425,200	
	Nomura Asset Management Co., Ltd. Ⅵ	SSTB	487,987,591	
	Sumitomo Mitsui DS Asset Management Company, Limited Ⅲ	SSTB	588,449,350	
Alternative real estate	Asset Management One Co., Ltd. Ⅻ	SSTB	715,847,466	
	Mitsubishi UFJ Trust and Banking Corporation Ⅷ	SSTB	582,521,376	

(Unit: ¥)

Investment method	Custodian, etc. name	Custodians	Investment fees
Custody	State Street Trust and Banking Co., Ltd.	SSTB	9,879,114,815
	Custody Bank of Japan, Ltd.	CBJ	2,286,924,771
	The Master Trust Bank of Japan, Ltd.	MTBJ	25,760,398,453
Transition management	BlackRock Japan Co., Ltd. XVII (Foreign bonds)	SSTB	345,237
	Nomura Asset Management Co., Ltd. Ⅺ (Domestic equities)	MTBJ	2,200,000
	BlackRock Japan Co., Ltd. XVIII (Domestic equities)	MTBJ	5,090,767
	Russell Investments Japan Co., Ltd. Ⅱ (Domestic equities)	MTBJ	55,000

(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 2021 with less than three years of investment period since April 2019. 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) The custody service providers listed in the table of external asset managers are those as of the end of fiscal 2021. However, for funds that were terminated during fiscal 2021, the custody service provider at the time of termination is shown.
(Note 6) Fees paid to custodians include certain fees that are deducted from the entrusted assets, such as custody fees and attorney fees.
(Note 7) The investment fees of State Street Trust and Banking Co., Ltd., related to alternative assets is ¥402,430,583.

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

(Unit:¥)

Asset class	Investment returns	Investment fees
Domestic bonds	3,257,193,703	314,808,174
Foreign bonds	66,041,256,341	16,279,960,493
Foreign equities	10,800,563,021	2,203,955,613

(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 domestic bonds (by manager benchmark, etc.)

(Unit: %)

	NOMURA-BPI (excluding ABS) (passive)	NOMURA-BPI government bonds (passive)	U.S. government JPY hedged (passive)	Europe government JPY hedged (passive)	U.S. MBS JPY hedged (passive)	NOMURA-BPI (excluding ABS) (active)	NOMURA-BPI plus Inflation-Linked bonds (active)	Inflation-Linked bonds (active)	Alternative (active)	Short-term assets (others)	Total
Benchmark factors	0.00	-0.06	-0.07	-0.01	-0.11	0.00	+0.00	+0.27	0.00	+0.01	+0.04
Fund factors	+0.04	+0.01	+0.01	-0.00	+0.06	+0.02	+0.04	-0.03	+0.05	+0.00	+0.19

(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)).
(Note 3) Fund factors refer to those resulting from differences in rates of return between individual funds and manager benchmarks.

[2] 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. corporate (passive)	Europe corporate (passive)	U.S. high–yield (passive)	Europe high–yield (passive)
Benchmark factors	0.00	-0.02	+0.47	+0.00	-0.61	-0.00	+0.00	+0.03	-0.00
Fund factors	+0.02	+0.00	+0.01	-0.00	-0.01	-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	+0.03	+0.08	-0.09	+0.03	-0.00	+0.00	-0.02	0.00	+0.01	-0.09
Fund factors	+0.03	+0.03	-0.01	+0.00	+0.00	+0.00	-0.01	+0.42	-0.00	+0.50

(Note 1) The benchmark of foreign bonds is FTSE World Government Bond Index (not incl. JPY, CNY, 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, CNY, no hedge/JPY basis)).
(Note 3) Fund factors refer to those resulting from differences in rates of return between individual funds and manager benchmarks.

Chapter 3

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

(Unit: %)

	TOPIX (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)	FTSE Blossom Japan Sector Relative (passive)	S&P/JPX Carbon Efficient (passive)	NOMURA RAFI (passive)
Benchmark factors	0.00	-0.00	-0.00	+0.07	-0.03	+0.11	+0.01	+0.00	+0.09
Fund factors	+0.01	+0.00	-0.00	-0.00	-0.00	+0.00	-0.00	+0.00	-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	+0.06	-0.02	-0.03	-0.01	0.00	+0.24
Fund factors	-0.11	-0.01	-0.01	-0.00	+0.00	+0.01	-0.12

(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)).
(Note 3) Fund factors refer to those resulting from differences in rates of return between individual funds and manager benchmarks.

[4] 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	+0.01	+0.38	-0.08	-0.02	-0.47	+0.05	+0.01	+0.02
Fund factors	+0.06	-0.02	+0.00	+0.00	+0.00	-0.00	-0.00	-0.00

(Unit: %)

	ACWI (active)	Developed (active)	Emerging (active)	Alternative (active)	Total
Benchmark factors	-0.00	+0.29	-0.11	-0.02	+0.06
Fund factors	-0.55	-0.49	-0.05	+0.09	-0.96

(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)).
(Note 3) Fund factors refer to those resulting from differences in rates of return between individual funds and manager benchmarks.

3 | Portfolio Holdings by Asset Category as of Mar. 31, 2022

These are lists to summarize GPIF's top 10 portfolio holdings as of March 31, 2022 (as of the end of fiscal 2021), either indirectly through external asset managers or directly with 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.

Russia-related assets including in market capitalization at the end of March 2022 are valued at zero in principle, due to situations such as trade restriction against foreign investors, difficulties in settlement and exchange transaction, and difficulties in access to sufficient information about trading.

○ Domestic bonds holdings in order of market value

No.	Security name	Market value (¥100 million)
1	10-year Inflation-Indexed Bonds JGB #20	10,657
2	Fixed-rate Bonds JGB #365	6,524
3	10-year Inflation-Indexed Bonds JGB #21	6,428
4	Fixed-rate Bonds JGB #149	5,760
5	Fixed-rate Bonds JGB #360	5,653
6	Fixed-rate Bonds JGB #150	5,644
7	10-year Inflation-Indexed Bonds JGB #19	5,587
8	Fixed-rate Bonds JGB #146	4,414
9	Fixed-rate Bonds JGB #145	4,333
10	Fixed-rate Bonds JGB #364	4,076
Total	4,844 securities	460,269

○ Domestic equities holdings in order of market value

No.	Security name	Shares	Market value (¥100 million)
1	TOYOTA MOTOR CORP.	947,620,500	21,317
2	SONY GROUP CORP.	115,913,100	14,796
3	KEYENCE CORP.	15,983,200	9,167
4	MITSUBISHI UFJ FINANCIAL GROUP,INC.	1,127,494,300	8,736
5	TOKYO ELECTRON LTD.	12,873,200	8,232
6	RECRUIT HOLDINGS CO.,LTD.	138,425,400	7,509
7	NIPPON TELEGRAPH AND TELEPHONE CORP.	199,092,700	7,177
8	SHIN-ETSU CHEMICAL CO.,LTD.	33,463,800	6,372
9	NINTENDO CO.,LTD.	10,016,800	6,286
10	MITSUBISHI CORP.	128,322,300	5,995
Total	2,347 securities		489,475

○ Foreign bonds holdings in order of market value

No.	Security name	Market value (¥100 million)
1	Fannie Mae or Freddie Mac 2PCT APR22	2,725
2	US TREASURY N/B 1.125PCT 15FEB31	2,081
3	Fannie Mae or Freddie Mac 2.5PCT APR22	2,039
4	US TREASURY N/B 1.625PCT 15MAY31	2,002
5	US TREASURY N/B 2.875PCT 15MAY28	1,807
6	US TREASURY N/B 1.25PCT 15AUG31	1,792
7	US TREASURY N/B 2.875PCT 15AUG28	1,739
8	US TREASURY N/B 1.375PCT 15NOV31	1,673
9	FRANCE (GOVT OF) 2.5PCT 25MAY30	1,654
10	US TREASURY N/B 0.875PCT 15NOV30	1,644
Total	10,189 securities	489,571

○ Foreign equities holdings in order of market value

No.	Security name	Shares	Market value (¥100 million)
1	APPLE INC	99,297,286	21,044
2	MICROSOFT CORP	46,562,587	17,424
3	AMAZON.COM INC	2,793,047	11,051
4	ALPHABET INC-CL A	1,955,985	6,603
5	TESLA INC	5,046,730	6,601
6	ALPHABET INC-CL C	1,795,691	6,087
7	NVIDIA CORP	15,736,695	5,212
8	TAIWAN SEMICONDUCTOR MANUFACTURING CO LTD	153,693,373	3,903
9	META PLATFORMS INC-CLASS A	13,914,120	3,755
10	UNITEDHEALTH GROUP INC	5,992,086	3,709
Total	3,573 securities		490,171

○ 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.	3,992
2	Infrastructure	PANTHEON G INFRASTRUCTURE OPPORTUNITIES LP	2,621
3	Infrastructure	GLOBAL ALTERNATIVE CO-INVESTMENT FUND I	1,864
4	Infrastructure	TORANOMON INFRASTRUCTURE 1, L.P.	1,000
5	Infrastructure	DG INFRASTRUCTURE OPPORTUNITIES L.P.	617
6	Infrastructure	DG INFRASTRUCTURE, ILP	474
7	Infrastructure	TORANOMON INFRASTRUCTURE 2 LP	218
1	Private Equity	TORANOMON PRIVATE EQUITY 1 AIV, L.P.	1,642
2	Private Equity	TORANOMON PRIVATE EQUITY 2 AIV, L.P.	1,059
3	Private Equity	GLOBAL ALTERNATIVE CO-INVESTMENT FUND II	365
1	Real Estate	CBRE G REAL ESTATE INVESTMENTS, LP	5,564
2	Real Estate	MUTB G REAL ESTATE FUND	2,087
3	Real Estate	TORANOMON REAL ESTATE 1, LP	80

(Note) Security names are as of March 31, 2022.

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 2021

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.

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