



GPIF Selected ESG Indices

GPIF selected three ESG indices for Japanese equities and commenced passive investment tracking those indices. Investment heeding ESG factors is expected to enhance risk-adjusted return over the longer term. In choosing the ESG indices, GPIF emphasized that (1) "positive screening" that determines constituent companies based on their ESG evaluation should be adopted, (2) the evaluation should be based on public information and its method and results should be disclosed and (3) ESG evaluators and index providers should be properly governed and their conflict of interests should be properly managed.

<Three selected indices>

GPIF selected two "broad" indices covering all of the environmental, social and governance factors, and one "thematic" index focusing on the gender diversity among social factors.

| Type | Name of index |
|---------------------|---|
| Broad index | FTSE Blossom Japan Index |
| Broad index | MSCI Japan ESG Select Leaders Index |
| Thematic/social (S) | MSCI Japan Empowering Women Index (nickname: WIN) |

* Thematic index for environmental factor is still examined.

<Comment by President Norihiro Takahashi>

GPIF expects that the selected ESG indices incentivize Japanese companies to improve their ESG evaluations and enhance enterprise values in the long term. If overseas investors focusing ESG with long-term horizon follow, the investment returns of Japanese equities are likely to improve. GPIF, as a universal owner (a large scale investor holding well diversified portfolio), and its pension beneficiaries are considered to reap most benefit by the optimization of investment value chain.

GPIF's passive investment tracking the selected ESG indices initially accounts for 3% of Japanese equity portfolio (about 1 trillion yen). GPIF aims to expand ESG investment by adopting other indices or active investment. GPIF commits to actively engage in the ESG investment and the promotion of the ESG concepts.



Results of ESG Index Selection

July 3th, 2017

Summary of ESG index selection and the list of selected indices

ESG index selection (Summary)

1. Expect portfolio's risk-adjusted return to be improved over the long run.

- Aim for maximizing the long-term return of the portfolio by minimizing the negative externality of environmental and social problems.

2. Adopt positive screening based on public information and aim for boosting equity markets in Japan.

- Adopt positive screening based on ESG evaluation and provide opportunities for a wide range of companies to be included in the indices and avoid categorically excluding companies providing specific goods and services in order to boost overall equity markets in Japan.

3. Select multiple indices for them to be collectively balanced and not to be biased to a specific theme.

- Select multiple indices such as indices evaluating comprehensive ESG factors or a index focusing on gender diversity for them not to be biased to a specific theme and work on a wide range of themes.

4. Evaluate investment and manage risk appropriately.

- Monitor the selected indices by evaluating investment and managing risk properly, and review them as needed if the risk return profile does not improve in the medium to long term.

5. Commence investment from 3% of Japanese equity portfolio (1 trillion yen) and aim for increasing it in the future.

- Commence investment from 3% of Japanese equity portfolio funded in part by restructuring current holdings. Aim for increasing it including other products in the future.

List of selected ESG indices

Broad indices

**FTSE Blossom
Japan Index**

**MSCI Japan ESG
Select Leaders
Index**

E
(Environment)

S
(Social)

G
(Governance)

Thematic indices

Under examination

**MSCI Japan
Empowering Women
Index (WIN)**

N/A

Objective of ESG index selection, expected effect and the selection process

GPIF as a universal owner and a super-long-term investor

-- universal ownership --

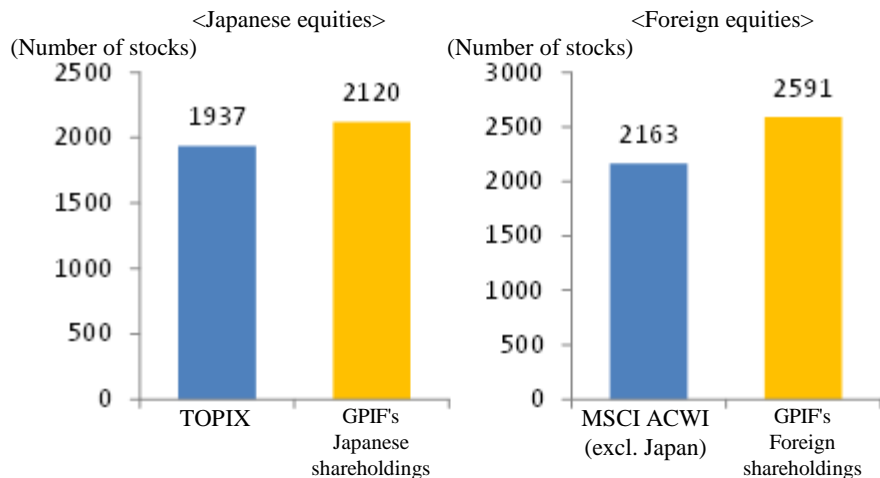
■ UNEP Finance Initiative "Universal Ownership" (2011)

"Leading institutional investors are, in effect, universal owners (shareholders that broadly encompass the entire capital markets) since over the long run they invest in well diversified portfolio that represents the world's capital market.

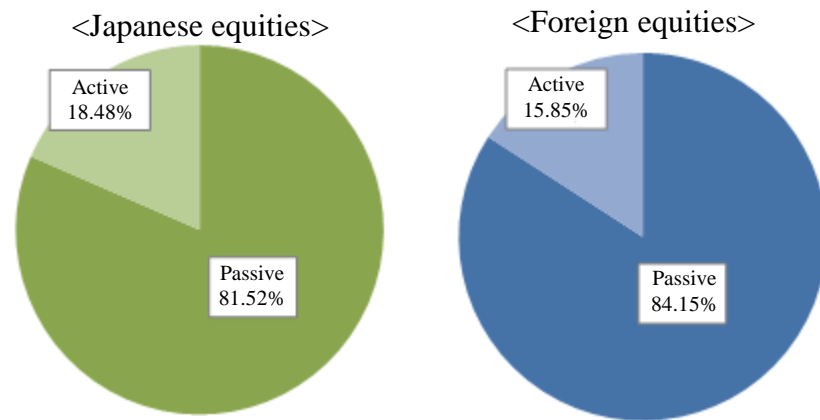
Their portfolios are inevitably exposed to ever-growing costs incurred due to environmental damage caused by corporate activities. To minimize such costs as a whole and reduce externality, institutional investors are able to influence ways of engaging in business activities. Long-term economic stability and beneficiary benefit are now faced with a crisis. Institutional investors can, and must, work together to take action to lower financial risks resulting from environmental effects." (excerpt from "Responsible Investment" by Takeshi Mizuguchi)

■ GPIF's shareholding (as of the end of March 2016)

Number of major indices' constituents and that of GPIF's shareholdings



Passive-active composition of equity investment

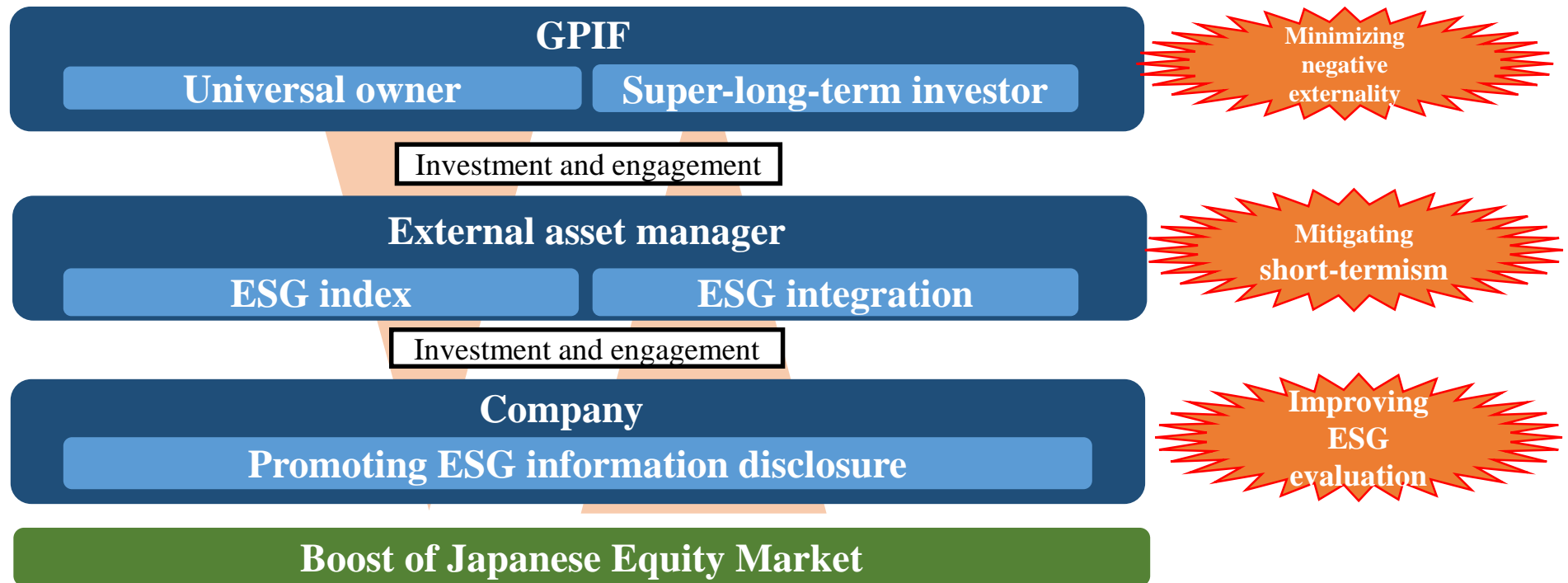


(Source) Annual Report for Fiscal Year 2015

* In the case of passive investing based on the full replication method using TOPIX as its benchmark, any of its shareholdings essentially continues to be held as long as it remains listed on the Tokyo Stock Exchange (TSE) First Section.

Objective of soliciting proposals for ESG indices

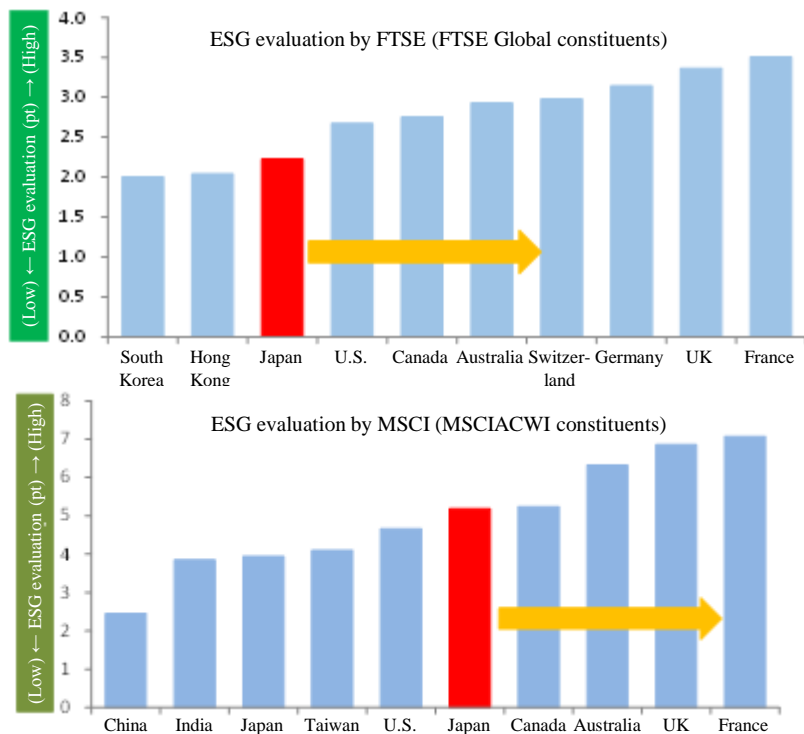
- For GPIF as a universal owner (a large scale investor holding well diversified portfolio), it is rational to seek to maximize its portfolio's investment return over the long term by minimizing negative externalities (e.g. environmental and social issues).
- Considering the risk-reduction effects that are expected to be realized by integrating the environment, social and governance (“ESG”) factors into the investment process, the longer the investment horizon is, the greater the effects improving risk-adjusted investment returns will be.
- GPIF called for applications for the indices (ESG indices), by which risk-reduction effects and acquisition of excess returns can be expected from a medium- and long-term perspective through the effects of ESG integration, with the aim of exploring the feasibility of passive investment in Japanese equities that integrate ESG factors.



Expected effect by expanding ESG investment

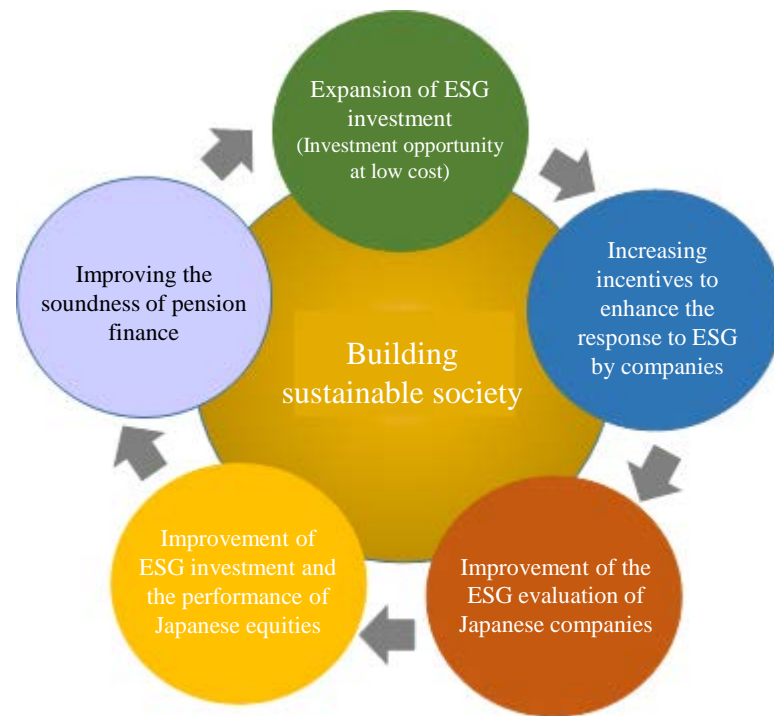
- Expanding ESG investment brings many benefits not only to GPIF. The increase in fund for ESG investment encourages companies to improve their ESG evaluations and enhanced ESG activities lead to the increase in enterprise values in the long term.
- Further, if the improvement of the ESG evaluation of Japanese companies leads to the inflow of foreign funds placing emphasis on ESG evaluation, the performance of Japanese equities is expected to improve. GPIF, as a universal owner, and the insured of the public pension are considered to reap most benefit with investment value chain optimized.

<Internatinal comparison of ESG evaluation>
(based on the number of stocks)



(Note 1) Analysis based on the ranking of ESG evaluation (average) of the top 10 countries (regions) in terms of the constituents of each index
(Note 2) Constituents and ESG evaluation are as of June 2017 (Source) Prepared by GPIF from MSCI and FTSE

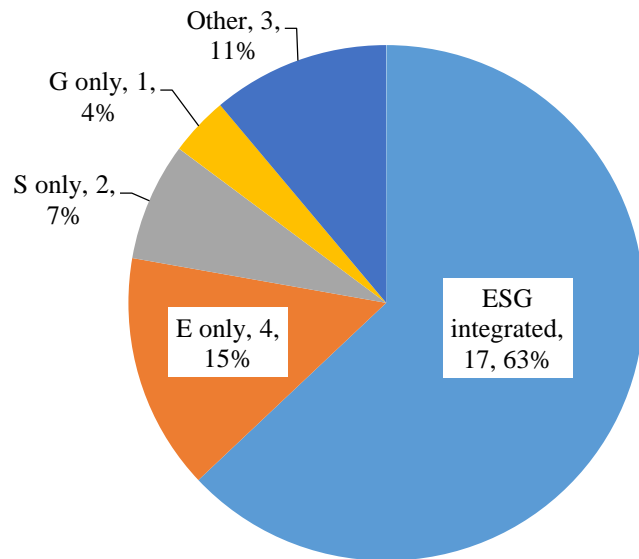
<Virtuous cycle brought by the expansion of ESG investment>



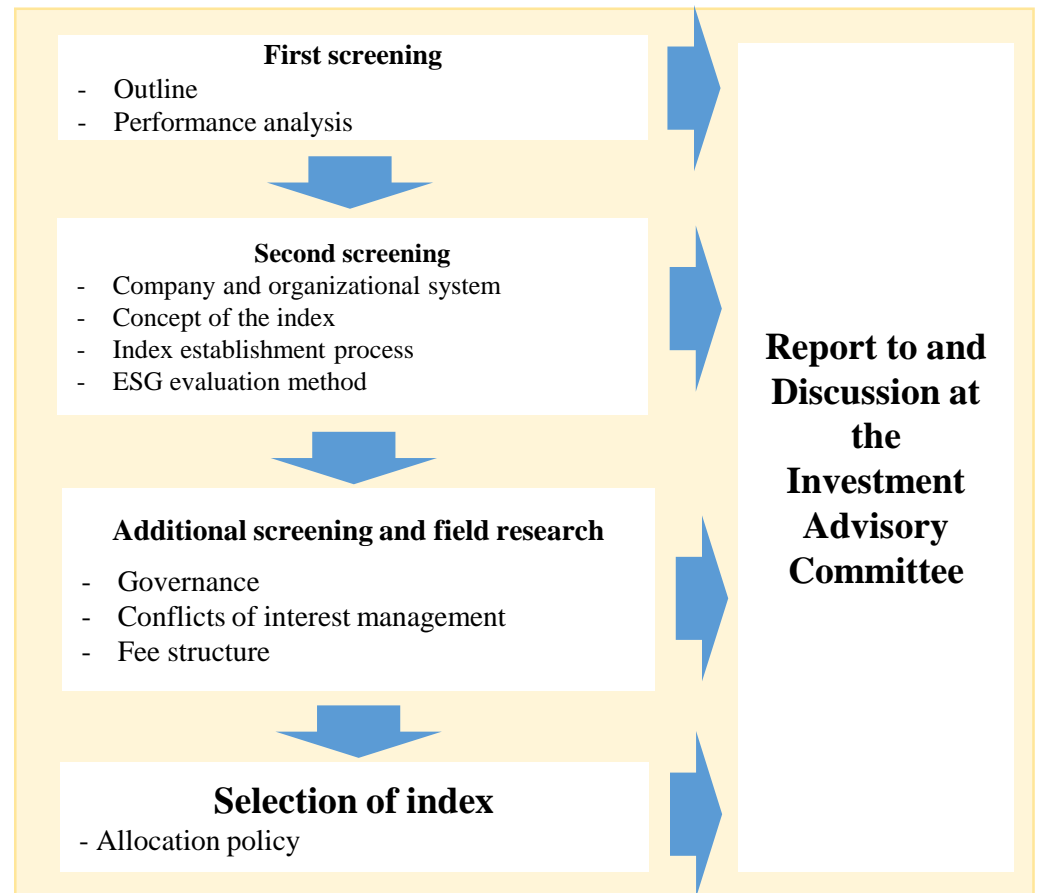
Process of ESG index selection

- During the solicitation period from the end of July to the end of September 2016, 27 indices were proposed by 14 companies, including asset managers and index developers at home and abroad. To examine the proposed indices both qualitatively and quantitatively, several dozen rounds of interviews have been conducted, field research has been implemented, and the Investment Advisory Committee has been convened seven times.

<ESG factor considered in proposed indices>



(Note) Legends shown are in the order of categories, number of proposals, and percentage. Classified by the GPIF



Points of ESG index selection

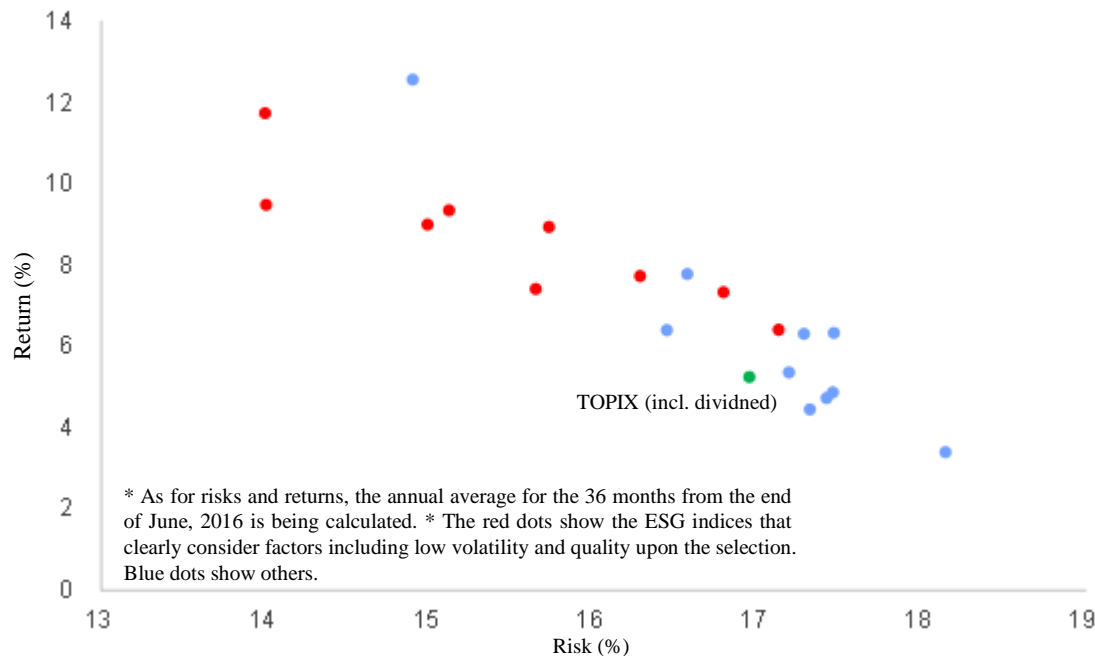
1. Positive screening
2. Encouragement of disclosure and improvement of ESG evaluation method
3. Governance and conflicts of interest

Evaluation point (1)

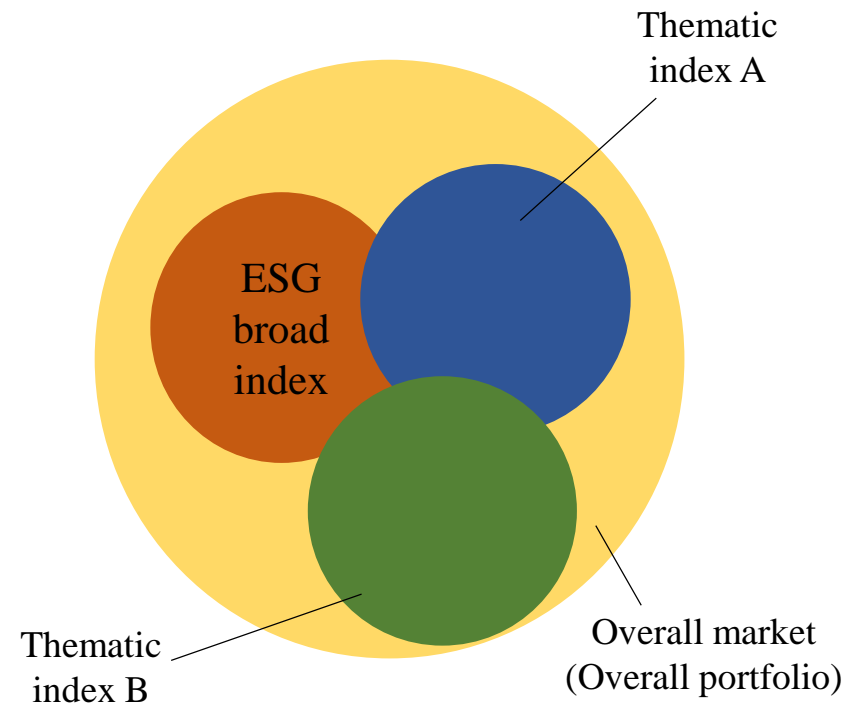
Positive screening

- Not a few indices incorporate different factors such as low volatility or quality in the formulation process in addition to the ESG factors and some of them may be more influenced by these factors even though they identify themselves as ESG indices.
- Indices were evaluated in the context of the purport of solicitation “indices by which risk-reduction effects and acquisition of excess returns can be expected from a medium to long term,” by putting emphasis on the fact that the index mainly focuses on ESG evaluation.
- As a result of positive screening based on ESG evaluation and from a view point of boosting overall equity markets in Japan, appreciated indices provide opportunities for a wide range of companies to be included and avoid categorically excluding companies providing specific goods and services. From the same perspective, the balanced combination of broad indices and thematic one was also considered.

<Risk/return of the indices that passed the first screening>



<Combination of ESG broad index and thematic index>

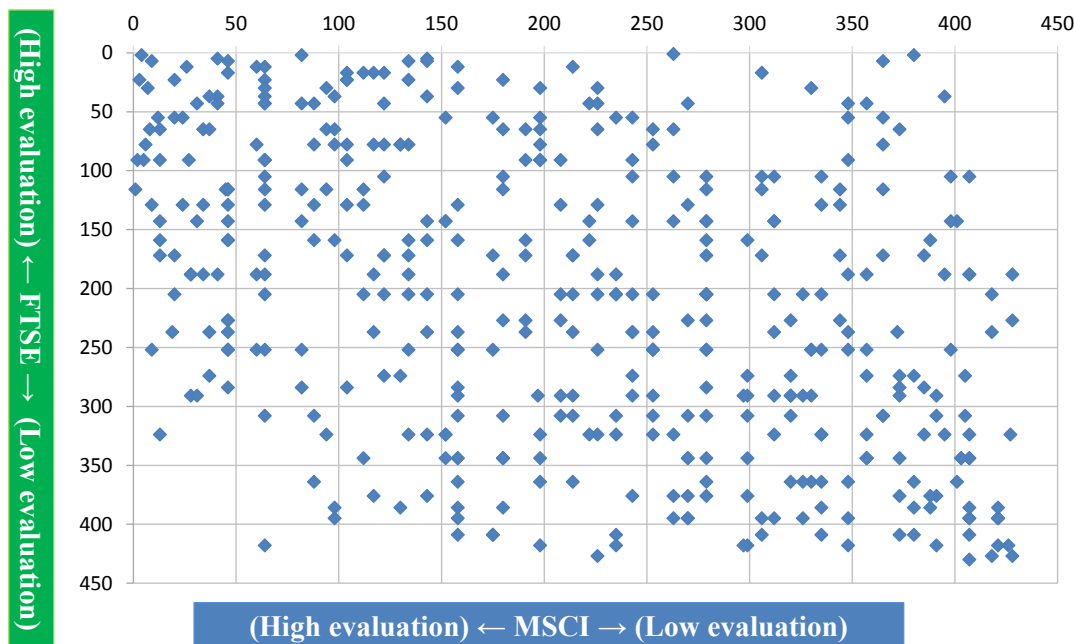


Evaluation point (2)

Encouragement of disclosure and improvement of evaluation method

- In order to improve the accuracy of ESG evaluation, the "promotion of the disclosure of ESG information by companies" and the "improvement of ESG evaluation method" are essential, and reactions to these issues are evaluated in selecting the indices.
- Both FTSE and MSCI are actively engaged in the detailed disclosure of ESG evaluation methods and results, providing the results of evaluation to companies, having dialogues with investors using the ESG indices, and are planning to analyze the results to improve ESG evaluation.
- “MSCI Japan Empowering Women Index (WIN)” was highly appreciated because it incentivizes constituent companies to disclose the information (companies with less disclosure are assigned low score).

<Comparison of ESG evaluation by FTSE and MSCI>



[Current situation of ESG evaluation]

- Unlike financial analysis, ESG evaluation does not have a long history, and the standard method of evaluation is yet to be established. Disclosure of information necessary for evaluation is also not sufficient.
- The correlation of ESG evaluations by FTSE and MSCI is very low.

(Note 1) Universe for the analysis are 430 Japanese companies commonly surveyed FTSE and MSCI (as of July 2016)

(Note 2) The plot of the diagram shows the ranking of ESG evaluation of each company (from 1st to 430th)

Evaluation point (3)

Governance and conflicts of interest

■ In the case of the traditional capitalization weighted equity indices, constituent companies are determined "automatically" based on the market capitalization and liquidity. On the other hand, in the case of the selected ESG indices, there is larger room for "human" involvement such as analysts implementing ESG evaluation and analysts devising the methodology to establish the index. That is, when guaranteeing the continuity, transparency and neutrality of ESG evaluation, governance and management to prevent conflicts of interest are critical. From such perspective, field research was implemented at multiple bases.

<Governance and philosophy of ESG evaluation>

| | FTSE | MSCI |
|--|--|--|
| Governance/management to prevent conflicts of interest | <ul style="list-style-type: none"> Parent company (London Stock Exchange Group) becomes listed in UK (there are no strategic investors who threaten the neutrality of ESG evaluation among large shareholders). Changes in the general framework of the ESG evaluation scheme and index methodology are decided at the committee comprised of only external experts. Have no involvement in services with which the interests may conflict, such as consulting service | <ul style="list-style-type: none"> Listing of U.S. NYSE (there are no strategic investors who threaten the neutrality of ESG evaluation among large shareholders). Decision of ESG evaluation, ESG evaluation, and the management/change of index methodology are implemented only by in-house staff members under a strict firewall from the perspective of information management and the ruling out of insider dealing. The results are disclosed together with reasons, allowing for external validation. Have no involvement in services with which the interests may conflict, such as consulting service |
| ESG evaluation philosophy | <ul style="list-style-type: none"> In the course of transition to a sustainable economy and low-carbon economy, we support all participants in the capital market, including issuer companies, investors and brokers. In order to support the inclusion of sustainability in capital allocation, data are improved and engagement is promoted. Allow the market participants to actively incorporate sustainability upon formulating investment strategy, and involvement with improving the corporate value of invested companies (engagement and stewardship). Strive to improve the transparency of ESG data and provide quality ESG data widely among market participants. | <ul style="list-style-type: none"> While society is increasingly becoming unable to bear costs of negative externality generated from corporate activities, such ESG risks are not priced in adequately in investors' portfolios. We invest in the central area of the finance community by providing forward-looking evaluation on these risks so that investors' portfolios can aim for long-term sustainable growth. |

Classification in the manager structure and the future policy

- Investment tracking the selected ESG indices is classified as passive investment. Within passive investment, the investment tracking the ESG index is managed and evaluated comprehensively in parallel with capitalization weighted investment and smart β .
- Passive investment tracking the selected ESG indices was commenced from 3% of Japanese equity portfolio (about 1 trillion yen) funded in part by restructuring current holdings. While checking the effect of investment in the midium to long term, aim for expanding the ESG investment covering Japanese equities (passive and active investments based on other ESG indices) in the future.
- As for ESG investments covering foreign equities, proposals are accepted in the framework of the current Asset Management Registration System and screening is implemented in sequential order.

<Manager structure in Japanese equities>

■ Previously

| | | |
|---------|-----------------------|--|
| Passive | Market capitalization | - TOPIX - JPX Nikkei 400 - MSCI Japan Standard - Russell/Nomura Prime |
| | Smart β | - Nomura RAFI - S&P GIVI Japan |
| Active | | |

■ In the future (centrally manage the ESG index)

| | | |
|---------|-----------------------|---|
| Passive | Market capitalization | - TOPIX - JPX Nikkei 400 - MSCI Japan Standard - Russell/Nomura Prime |
| | ESG | - FTSE Blossom Japan - MSCI Japan ESG Select Leaders - MSCI Japan Empowering Women - Thematic index of environment (E) (under screening) |
| | Smart β | - Nomura RAFI - S&P GIVI Japan |
| Active | | |

Summary of selected indices

FTSE Blossom Japan Index

MSCI Japan ESG Select Leaders Index

MSCI Japan Empowering Women Index

FTSE Blossom Japan Index

■ Index concept

- The Index uses the ESG standards that are applied to the FTSE4Good Index Series which has one of the longest track records globally for ESG indexes, having been launched in 2001.
- Employs a clear ESG rating methodology which is aligned with international standards that provide a strong basis and framework for stewardship and engagement with companies

■ Constituent universe (Parent index)

- FTSE JAPAN INDEX (approximately 500 stocks)

■ Constituent selection rule

- Only includes companies that demonstrate strong ESG practices. Those who have controversies based on public information will not be included.

■ Weighting

- Market Cap weighted (Industry neutral compared with the parent index to bring Industry weights in line)

■ Number of index constituents

- 151 stocks (as of June 2017)

MSCI Japan ESG Select Leaders Index

■ Index concept

- The MSCI Japan ESG Select Leaders Index is a broad ESG index that integrates various ESG risks/opportunities into the today's portfolio. The index is based on MSCI ESG Research that more than 1,000 clients use globally.
- ESG investing attempts to mitigate the long-term risks from ESG issues such as climate change, demographic change and the like because such risks affects the long-term performance of universal owners' portfolio.

■ Constituent universe (Parent index)

- Top 500 companies (in terms of float adjusted market cap) in the MSCI Japan IMI (MSCI Japan IMI Top 500 Index)

■ Constituent selection rule

- Select the higher ESG-rated stocks from each sector up to 50% of the sector's market cap of the parent index (Stocks involved with very severe controversy are out of the index.)

■ Weighting

- Float-adjusted market cap

■ Number of constituents

- 251 stocks (as of June 2017)

MSCI Japan Empowering Women Index (WIN)

■ Index concept

- MSCI calculates the gender-diversity scores based on various information disclosed under “the Act on Promotion of Women's Participation and Advancement in the Workplace”. The index is the first of its kind, and selects companies with better gender diversity scores from each sector.
- Due to the aging society in Japan, the companies with better gender diversity scores can withstand the long-term labor shortage risk by having access to wider talent pool. The index also aims to encourage more female employment among Japanese companies, so that the overall economic growth will be improved.

■ Constituent universe (Parent index)

- Top 500 companies (in terms of float adjusted market cap) in the MSCI Japan IMI (MSCI Japan IMI Top 500 Index)

■ Constituent selection rule

- Select stocks with better gender diversity scores from each sector of the parent universe excluding REITs. (Stocks involved with very severe controversy, and severe controversy on human rights and labor rights are out of the index.)

■ Weighting

- “Float-adjusted market cap” times “Composite score”

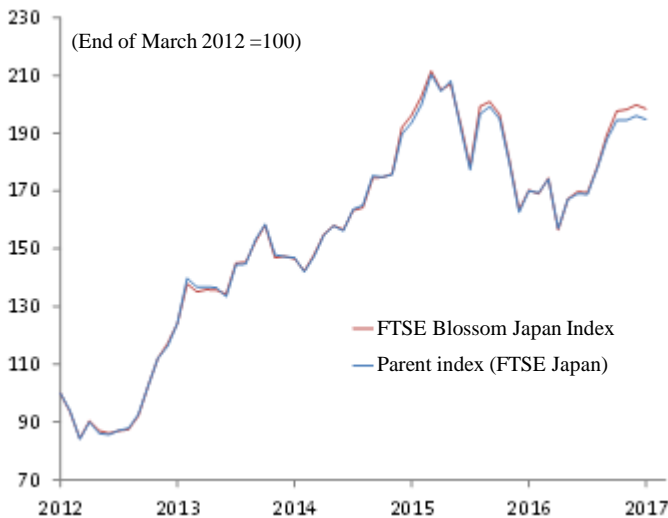
Composite score: “Sector-adjusted gender diversity score” times “Sector-adjusted quality score”

■ Number of constituents

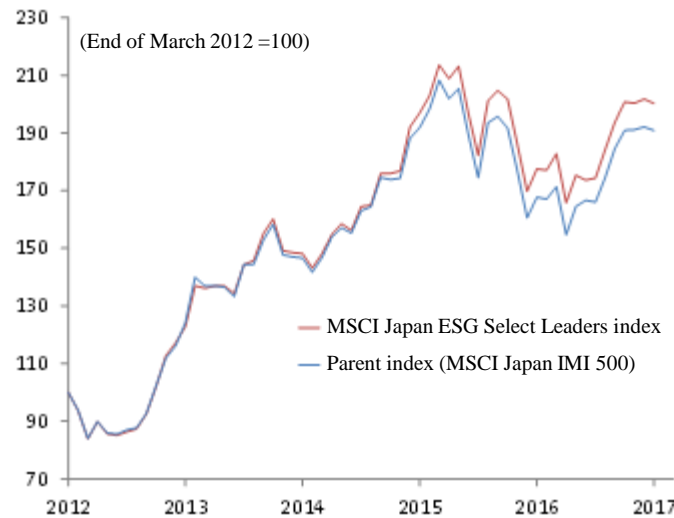
- 212 (June 2017)

Risk and return of each ESG index

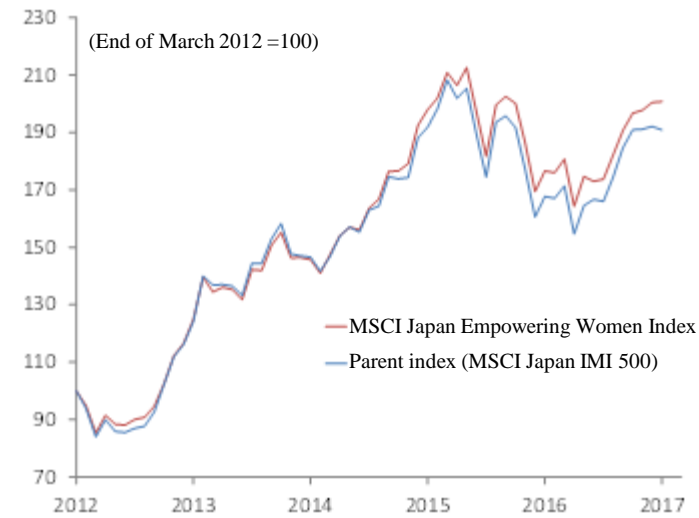
FTSE Blossom Japan



MSCI Japan ESG Select Leaders



MSCI Japan Empowering Women



[Risk and return of each ESG index]

| Name of index | Return | | |
|---|-----------------------|------------------|----------------------|
| | Index in question (A) | Parent index (B) | Difference (A) - (B) |
| (1) FTSE Blossom Japan Index | 14.69% | 14.26% | 0.42% |
| (2) MSCI Japan ESG Select Leaders Index | 14.90% | 13.80% | 1.10% |
| (3) MSCI Japan Empowering Women Index | 14.95% | 13.80% | 1.15% |
| Entire ESG portfolio* | 14.83% | *14.43% | 0.39% |

| Risk | | |
|-----------------------|------------------|----------------------|
| Index in question (C) | Parent index (D) | Difference (C) - (D) |
| 18.01% | 18.14% | -0.13% |
| 17.77% | 18.16% | -0.39% |
| 16.97% | 18.16% | -1.19% |
| 17.62% | *17.78% | -0.16% |

(Note 1) Risk and return are computed from the historical data for the past five years (from April 2012 to March 2017) and annualized. The parent index for (1) is FTSE Japan Index, and that for (2) and (3) is MSCI Japan IMI 500 Index

(Note 2) *As for the entire ESG portfolio, it is an estimate allocated with the proportion of 2:2:1 for (1), (2), and (3) ("2" for integrated index and "1" for thematic index). * shows the risk and return of TOPIX.

Corporate profile of each company

| | FTSE | MSCI |
|-------------------|---|--|
| Corporate profile | <ul style="list-style-type: none"> • FTSE Russell is a major index, data and analytics provider, and a part of the London Stock Exchange Group (LSEG). • Has developed a comprehensive range of ESG indexes since the launch of the FTSE4Good Index Series in 2001 which sets thresholds based on good practice standards which companies need to meet to gain and retain inclusion. • Researches and gives ESG Ratings to companies in 47 countries including approximately 750 Japanese companies. • Provides comprehensive ESG solutions to institutional investors utilising in-house capabilities of ESG research, company communication, ESG Ratings methodology development and management, as well as custom index and research capabilities. • FTSE is a founding signatory of the UN supported Principles for Responsible Investment and was the first index provider signatory. | <ul style="list-style-type: none"> • MSCI is listed on NYSE (Ticker: MSCI) • MSCI is located in 24 countries around the world, and with over 3,000 employees and more than USD 11 trillion is benchmarked to MSCI indexes.. • MSCI is #1 in the global ETF space in terms of the number of ETFs and ESG indexes. • MSCI provides ESG Ratings on more than 6,000 companies worldwide, and it's widely used for ESG integration by global asset owners and asset managers. • MSCI ESG Research is the largest provider of ESG research with more than 170 ESG analysts, and with more than 1,000 clients worldwide. • MSCI is a PRI signatory. |

(Source) FTSE, MSCI