



Index Insights | Sustainable Investment – Equity

# Ecosystem growth: Japanese ESG indices and passive investing blossom

ESG investing gains momentum  
in Japan

November 2022



**FTSE  
RUSSELL**  
An LSEG Business

Written in collaboration with SGX

**SGX**   
Equity Derivatives

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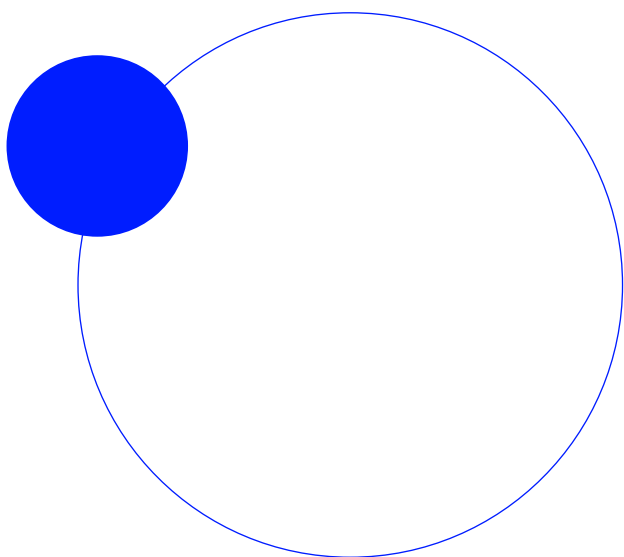
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## Quarterly analysis

Investors globally are developing investment strategies that aim to integrate environmental, social, and governance (ESG) considerations into their core approaches and are growing in sophistication. The Japanese sustainable market is no exception to this global trend and has blossomed in recent times, creating a demand to integrate ESG criteria into the core benchmark construction and passive strategies of investors. As part of a drive to improve sustainability standards, the Japanese market is increasing its emphasis on disclosure standards, regulations, and definitions. In recent years, there has been a growing convergence of international standards and the European Union’s Sustainable Finance Disclosure Regulation (SFDR) has been a forerunner to developments in many other markets, including Japan.

This analysis produced by FTSE Russell and SGX looks at the development of Japan’s sustainability standards, the attribution analysis of the FTSE Blossom Japan Index Series compared to the broad-market index, and the growth of index-linked SGX FTSE Blossom Japan Index Futures.



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## Developing a new ESG standard in Japan

The revision to Japan's Corporate Governance Code released in June 2021 and implemented in April 2022 by the Tokyo Stock Exchange<sup>1</sup> requires listed companies in the Prime Market to:

1. "Develop a basic policy and disclose its sustainability initiatives", and
2. "Enhance the quality and extent of climate-related disclosures following the Task Force on Climate-Related Financial Disclosures (TCFD) recommendations or other equivalent international frameworks".

Japan's Government Pension Investment Fund (GPIF), the world's largest public pension fund, has been one of the early adopters of integrating ESG into passive mandates. For example, GPIF adopted the FTSE Blossom Japan Index<sup>2</sup> as a benchmark for their domestic passive investment portfolio in 2017, with the aim of improving the long-term risk/return profile by reducing ESG risks in their investment portfolio. With the addition of the FTSE Blossom Japan Sector Relative Index<sup>3</sup> in 2022, the Fund selected eight domestic and foreign equity indices and the total AUM of their passive ESG equity portfolio has increased to approximately JPY 12.1 trillion as of the end of March 2022.<sup>4</sup>

With the growing demand of ESG data and focus on stewardship activities by investors, there is a requirement for more transparent corporate information for ESG assessments and engagements. With the expansion of ESG investing, such as increasing ESG passive investments by GPIF, Japanese companies are required to increase transparency and disclose relevant ESG information to investors. Many more Japanese companies begin to recognize the importance of good ESG performance, as indicated by high ESG assessment scores, and detailed ESG disclosures that are in line with international ESG rating standards.

## Encouraging signs of the existence of ESG factors in the Japanese equity market

According to the joint research paper published by GPIF and the Australian National University in February 2022<sup>5</sup>, ESG scores tend to significantly increase enterprise value as awareness of ESG indices increases in the market. The paper also states that the impact from the ESG scores on enterprise value tends to strengthen as the number of PRI signatories increases. Although the study is based on a global benchmark of 1,200 stocks, we believe that these findings are also applicable to the Japanese equity market. Our analysis shows that the persistent outperformance of the FTSE Blossom Japan Index Series over traditional market indices is an encouraging sign of the existence of the ESG factor in the Japanese equity market.

Exhibit 1 compares the total return performances of the FTSE Blossom Japan Index and FTSE Blossom Japan Sector Relative Index with their reference market capitalization index, FTSE Japan All Cap Index. As the chart shows, both the FTSE Blossom Japan Index and FTSE Blossom Japan Sector Relative Index have demonstrated a consistent outperformance compared to the underlying Japan All Cap Index during a period of market volatility and escalating energy prices in the wake of geopolitical tensions.

<sup>1</sup> [Revised Japanese Corporate Governance Code \(TSE\)](#)

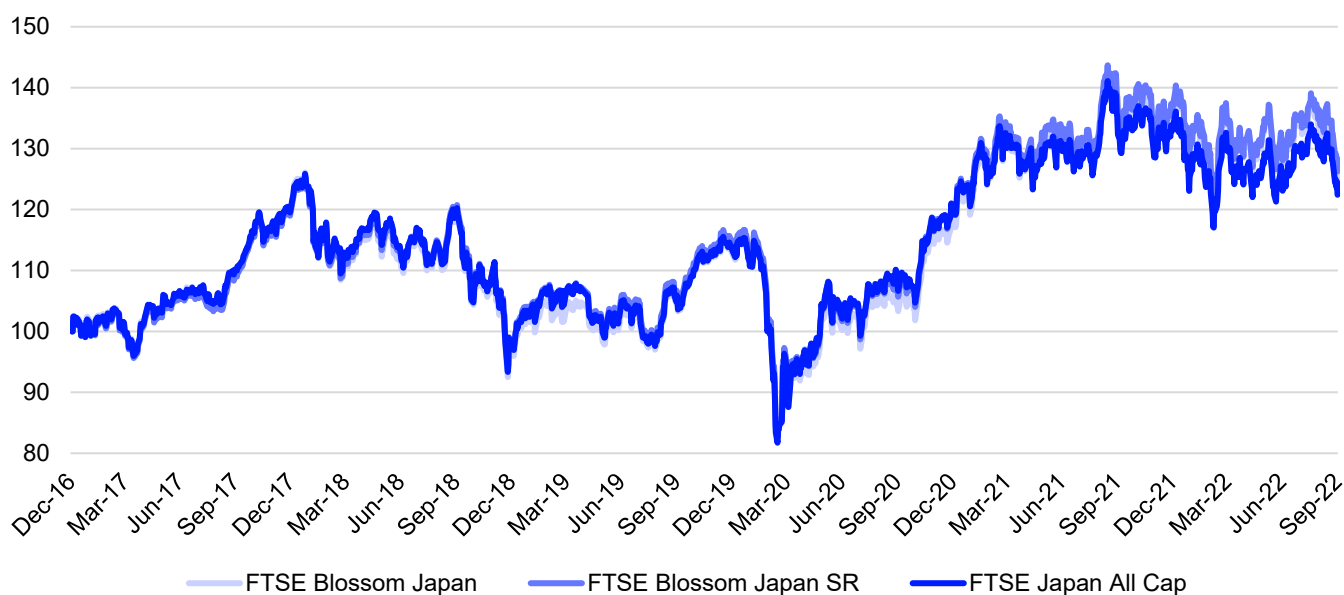
<sup>2</sup> [FTSE Blossom Japan Index Series](#)

<sup>3</sup> [GPIF adoption of FTSE Blossom Japan Sector Relative Index](#)

<sup>4</sup> [ESG Report 2021 \(GPIF\)](#)

<sup>5</sup> GPIF/ANU joint study on the diversification effects and portfolio efficiency of ESG investments can be found [here](#).

**Exhibit 1. Performance (total return, JPY)**



Source: FTSE Russell. Data based on monthly returns from December 2016 – September 2022. Past performance is no guarantee of future results. Please see end for important legal disclosures.

Exhibit 2 shows that not only the FTSE Blossom Japan Index Series significantly outperformed a traditional market cap index during the period, but also that the outperformance came primarily from the stock selection effect, and not necessarily from industry allocation. For the FTSE Blossom Japan Index, the overall outperformance of the index was **5.5%**, of which **652bp** was attributable to the stock selection effect. For the FTSE Blossom Japan Sector Relative Index, the overall outperformance was **4.5%**, of which **458bp** was attributable to the stock selection effect.

**Exhibit 2. Attribution Analysis (Industry Allocation or Stock Selection?)**

	Local Total Return (%) 18/12/2015 - 30/09/2022			Attribution Effects (bps)			
	FTSE Blossom Japan Index	FTSE Japan All Cap Index	Excess Industry Return	Industry Allocation	Stock Selection	Interaction	Total Contribution
Technology	81.4	78.3	3.1	-8.6	40.4	-0.3	31.6
Telecommunications	84.6	82.7	1.8	-18.7	22.0	-5.0	-1.7
Health Care	55.9	54.1	1.8	-11.4	20.8	-0.9	8.5
Financials	21.8	13.5	8.3	-4.4	113.1	19.4	128.0
Real Estate	-9.8	7.2	-17.0	-23.2	-55.5	-41.0	-119.8
Consumer Discretionary	47.6	37.6	10.0	7.9	249.6	9.1	266.5
Consumer Staples	23.1	17.1	6.0	18.7	44.0	-6.3	56.5
Industrials	55.3	57.3	-2.1	27.8	-10.3	-39.4	-21.9
Basic Materials	48.4	30.4	18.0	-6.3	138.0	-3.0	128.7
Energy	63.0	48.8	14.2	2.6	8.7	1.0	12.3
Utilities	13.5	-11.4	24.9	-14.2	81.0	-2.5	64.2
<b>Total Return (Local)</b>	<b>46.9%</b>	<b>41.4%</b>	<b>-29.9</b>	<b>651.8</b>	<b>-68.9</b>		
<b>Local Excess Return</b>		<b>5.5%</b>					

	Local Total Return (%) 18/12/2015 - 30/09/2022			Attribution Effects (bps)			
	Blossom Japan Sector Relative	FTSE Japan All Cap Index	Excess Industry Return	Industry Allocation	Stock Selection	Interaction	Total Contribution
Technology	77.6	78.3	-0.7	4.5	-5.1	-1.3	-1.9
Telecommunications	64.9	82.7	-17.8	-13.6	-68.3	0.9	-81.0
Health Care	63.1	54.1	9.0	-2.8	66.3	5.1	68.5
Financials	18.2	13.5	4.7	-3.4	73.6	-1.5	68.7
Real Estate	-2.2	7.2	-9.3	2.4	-20.1	-4.9	-22.7
Consumer Discretionary	43.8	37.6	6.2	2.5	152.6	-0.1	155.0
Consumer Staples	23.2	17.1	6.1	3.6	47.7	-2.2	49.0
Industrials	65.4	57.3	8.0	-6.2	201.0	3.0	197.9
Basic Materials	32.9	30.4	2.5	2.7	16.5	-0.4	18.8
Energy	42.9	48.8	-5.9	4.4	-4.8	-1.0	-1.4
Utilities	-12.0	-11.4	-0.6	3.9	-1.1	-0.2	2.6
<b>Total Return (Local)</b>	<b>45.9%</b>	<b>41.4%</b>	<b>-2.0</b>	<b>458.4</b>	<b>-2.8</b>		
<b>Local Excess Return</b>		<b>4.5%</b>					

Source: FTSE Russell. Data based on September 2022.

Past performance is no guarantee of future results. Please see end for important legal disclosures.

We also conducted a factor analysis based on traditional factors such as Industry, Value, Quality, Volatility, Size, and Momentum. Our premise was that, should ESG be a non-factor in the Japanese market, then the outperformances of the FTSE Blossom Japan Index Series over the reference market index could be explained by these well-established traditional factors. Exhibit 3 shows the result of this analysis, in which these factors failed to sufficiently explain the outperformance of the FTSE Blossom Japan Index Series. “Residual Factor”, which we defined as the “Total of excess return less the total of traditional factors”, represented **383/548bp (70%)** for the original Blossom Japan Index and **430/426bp (101%)** in the case of Blossom Japan Sector Relative Index.

### Exhibit 3. Factor Analysis

#### Industry and Style Factor Attribution—FTSE Blossom Japan Index

Period	Attribution with Industry and Style Factor: Return Contribution (bps)							Total Excess in JPY
	Industry	Value	Quality	Volatility	Size	Momentum	Residual	
31/05/2015 to 31/12/2018	-26.96	50.49	-55.47	69.05	-116.04	16.07	24.89	-37.98
31/12/2018 to 30/09/2022	-61.63	31.42	-6.69	-329.30	517.45	95.50	339.01	585.76
Full Period	-100.83	102.63	-84.20	-241.64	369.20	120.39	<b>382.57</b>	<b>548.12</b>

## Industry and Style Factor Attribution—FTSE Blossom Japan Sector Relative Index

Period	Attribution with Industry and Style Factor: Return Contribution (bps)							Total Excess in JPY
	Industry	Value	Quality	Volatility	Size	Momentum	Residual	
31/05/2015 to 31/12/2018	6.83	22.92	-84.27	30.60	-136.38	68.08	58.09	-34.12
31/12/2018 to 30/09/2022	-8.17	26.43	-5.13	-160.63	187.72	80.52	340.84	461.59
Full Period	1.10	58.94	-122.23	-122.38	3.36	177.14	430.45	426.38

Source: FTSE Russell. Data based on September 2022.

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While there are studies that show ESG practices and performance do broadly influence the market (one such study was “Corporate Sustainability: First Evidence on Materiality” by Khan, Serafeil, and Yoon in 2016), it is still unclear whether ESG has emerged to become a reliable source of alpha. This is also the case in Japan, and we continue to see many investment professionals debate this topic. While we acknowledge that our analysis has only been able to cover the period since inception of the FTSE Blossom Japan Index Series, and that it requires further continuous analysis to draw any concrete conclusion, **it is nevertheless encouraging to observe that the ESG-based stock selections of the FTSE Blossom Japan Index Series have been delivering strong performance and showing signs of the existence of the ESG factor in the Japanese capital market.**

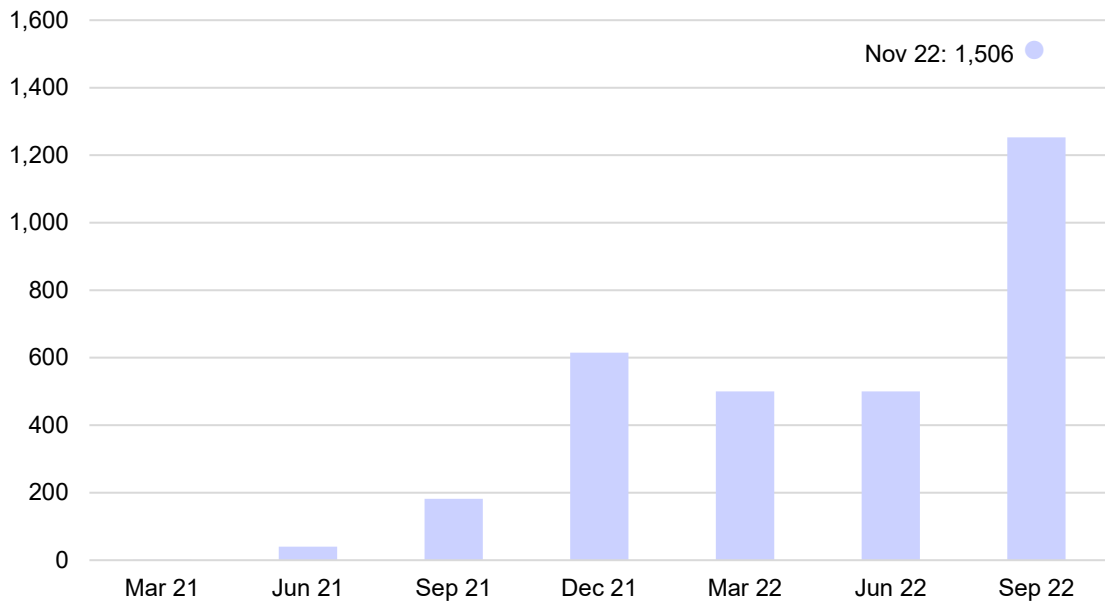
## SGX FTSE Blossom Japan Index Futures Growth

SGX is the only exchange to offer futures on the FTSE Blossom Japan Index. Launched in January 2021, SGX FTSE Blossom Japan Index Futures have experienced considerable growth in terms of Open Interest (OI) and Daily Average Volumes.

Over Q3 2022, SGX has seen (i) increasing market maker participation which has driven spreads to as tight as 5 basis points wide, and (ii) as shown in Exhibit 4, there has been a steep increase in OI, which achieved a record of 1,506 lots (~US\$ 82 million) in October 2022. As a reflection of the growing interest in the futures over the past year, there was a sizable block trade of around US\$32M on SGX in late September 2022.

With a high correlation of over 99% to broad based Japanese indices and the outperformance mentioned in the previous section, the FTSE Blossom Japan Index Series have gained the attention of multiple investor profiles. Futures provide these investors with a capital-efficient way to access top performing ESG indices like the FTSE Blossom Japan Index. With the SGX FTSE Blossom Japan Index Futures, both foreign and domestic investors also have the ability to tap into round-the-clock liquidity (~22 hours per day), all year round. Together with the ETFs, SGX's futures offer a listed solution that cater to a wide range of investor needs, further strengthening the ecosystem of the Blossom Japan Index Series.

Exhibit 4. Quarter-end Open Interest (Lots)





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