



Index Insights | Sustainable investment | Equity

Why Japan? Why sustainable investment? Why now?

Japan's further push to the green
transformation and ESG

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**FTSE
RUSSELL**
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Quarterly analysis

There is a large focus on sustainable investments in Japan, it is apparent through the prime minister's speaking engagements, research conducted and the performance of sustainability focused indices.

This Japanese sustainable investment and futures report, written in collaboration with SGX, reviews the development of Japan's sustainability standards, the FTSE ESG Scores of Japanese listed companies compared to the broad-market index, and the growth of index-linked SGX FTSE Blossom Japan Index Futures.

Key highlights from this quarter's analysis:

- A Key takeaway from PM Kishida's speech at PRI in Person 2023: Japanese public pension funds managing JPY 90 Tn in Assets Under Management (AUM) will join a global initiative for responsible investment
- Potential enhancement to factor model: Tested model with ESG factor better explains the strong performance of the FTSE Blossom Index Series than the traditional factor model
- FTSE/SGX Blossom Futures Open Interest reaches another high as we look ahead into 2024, mirroring the global growth in sustainable derivatives

Japan's prime minister endorses new epoch of sustainable investing

PRI in Person, the annual conference of PRI (United Nations Principles for Responsible Investment), was held in Tokyo in October this year, with around 1,300 participants.

Launched in 2006, the PRI is based on the premise that ESG factors have implications on investment performance, and is a platform for incorporating ESG into the investment and ownership decisions. Signatories include 4,000 asset owners, asset managers and service providers with approximately US\$120 trillion in assets under management.

Prime Minister Kishida made a surprise speech at the conference, demonstrating his aim of making Japan an investment-oriented nation. Two announcements he made were particularly positive. The first is that he endorsed at least seven representative public pension funds in Japan, with a total of approximately 90 trillion yen under management, which will sign the PRI. In Japan's public pension system, GPIF, which has approximately 200 trillion yen in assets under management, has been a signatory of the PRI since 2015 and is promoting ESG investment. It is a positive development to see Prime Minister Kishida's call for the public pension funds to be signatories of the PRI and encourage the expansion of their ESG investment commitments.

Exhibit 1. Japanese Pension Fund's AUM

| Japanese Pension Fund | AUM (Billion USD) Mar 2022 |
|---|----------------------------|
| GPIF | 1,638 |
| Public Pension ex GPIF (9 Mutual Aid Association Pensions etc.) | 558 |
| Corporate Pension (CP) | 872 |
| National Pension | 39 |
| Smaller Enterprise Retirement Allowance Mutual Aid | 53 |
| Small-Scale Enterprise Mutual Aid | 91 |
| Total | 3,252 |

Source: FTSE Russell from the data of "Nenkin Joho" published by Rating & Investment Information March 16, 2023

Another point that Prime Minister Kishida stated was, "[Japan] will establish a "Dialogue on Enhancing Sustainability Investment Products" within the year at the Financial Services Agency as an initiative for fostering GX (Green Transformation) and ESG investment by both individual and institutional investors". Japan's new NISA will start from January 2024, the Prime Minister also "aim[s] to develop GX-related investment products that will appeal to a broad spectrum of investors, from Japanese retail investors, who can use expanded and permanent NISA, the tax exemption scheme for small investments, to global investors". Japan's prime minister has instructed Japan's Financial Services Agency to establish a study group to include products related to GX, which Japan is promoting.

The Government Pension Investment Fund (GPIF) has been prominent in terms of ESG investment in Japan. But these endorsement of new epoch of sustainable investing will encourage further public pensions organisations and funds to engage in ESG investment. There is also a possibility that ESG investment will be rapidly expanded to corporate pensions and retail through the new NISA.

In fact, the average FTSE ESG score of Japanese companies has improved every year due to more robust ESG disclosure. Furthermore, from GPIF's latest annual ESG report, the long-term performance of GPIF's investment in ESG indexes suggests that it is no longer true that ESG investments sacrifice performance.

The FTSE Blossom Japan Index was one of the first ESG passive investments adopted by GPIF in 2017. In the new era of sustainable investing in Japan, the FTSE Blossom Japan Index is one of leading options for making or expanding new ESG investments or integrating ESG into current passive investments in the Japanese market.

Comparing Traditional Factor Model to ESG Factor Model

The existence of ESG factors in capital markets is still a topic of debate. As we wrote in our November 2022 report [Ecosystem growth: Japanese ESG indices and passive investing blossom](#), it is still unclear whether ESG has emerged to become a reliable source of alpha. However, it is also true that FTSE Blossom Japan Index Series has continued to show strong outperformance over traditional market cap indices over the past year. The fact that our traditional market factor model often reports a significant amount of “residual” in its output, i.e. the failure to explain the performance of Blossom index series, also encouraged us to explore enhancements to the model for better explanation of the performance of sustainable investment portfolios.

In an attempt to enhance the explanatory power of our traditional attribution model, we first approached this by simply adding ESG as an independent factor to the model. However, our preliminary test showed that the ESG factor had a significantly positive correlation with the size factor by 0.6, meaning the two factors could not be used simultaneously in the regression model (known to statisticians as “multicollinearity problem”). To address this problem, we then decided to run the two models (one with size factor instead of ESG factor, and vice versa) and compare their results – with particular focus on the amount of residual. Should residual from one model be significantly smaller than the other, we could interpret that the model with smaller residual better explains the performance of Blossom index series.

Exhibit 2. FTSE Blossom index series continue to outperform traditional market cap index



Source: FTSE Russell, Data as of September 30, 2023

Exhibit 3. Traditional factors do not explain the performances of Blossom series**Industry and Style Factor Attribution**

FTSE Blossom Japan Index vs. FTSE Japan All Cap ex J-REITs Index

Data as at: 30 September 2023

| Attribution with Industry and Style Factor – Return Contribution (bps) | | | | | | | | | |
|--|------------|----------|-------|---------|------------|------|----------|----------|--------------|
| Period Start | Period End | Industry | Value | Quality | Volatility | Size | Momentum | Residual | Total Excess |
| Full Period | - | 192 | 268 | 26 | 253 | 846 | 211 | 433 | 1,286 |

Residual Ratio
= 33.7%

FTSE Blossom Japan Sector Relative Index vs. FTSE Japan All Cap ex J-REITs Index

Data as at: 30 September 2023

| Attribution with Industry and Style Factor – Return Contribution (bps) | | | | | | | | | |
|--|------------|----------|-------|---------|------------|------|----------|----------|--------------|
| Period Start | Period End | Industry | Value | Quality | Volatility | Size | Momentum | Residual | Total Excess |
| Full Period | - | 43 | 85 | 103 | 109 | 248 | 283 | 437 | 798 |

Residual Ratio
= 54.8%

Source: FTSE Russell, Data as of September 30, 2023. Data covers the period from December 31, 2015 to September 30, 2023

The result was quite compelling. As shown in Exhibit 4., the residual from the ESG model for FTSE Blossom Japan Index was 20.1%, which compared to 33.7% from the traditional factor model as shown in Exhibit 3. For FTSE Blossom Japan Sector Relative Index, the improvement was even more significant. While the traditional factor model left 54.8% of the total excess return as residual, the newly tested ESG model reported only 13.5% as residual.

Exhibit 4. ESG model better explains the performances of Blossom series**Industry and Style Factor Attribution**

FTSE Blossom Japan Index vs. FTSE Japan All Cap ex J-REITs Index

Data as at: 30 September 2023

| Attribution with Industry and Style Factor – Return Contribution (bps) | | | | | | | | | |
|--|------------|----------|-------|---------|------------|----------|-------|----------|--------------|
| Period Start | Period End | Industry | Value | Quality | Volatility | Momentum | ESG | Residual | Total Excess |
| Full Period | - | 199 | 199 | 60 | 158 | 171 | 1,074 | 259 | 1,286 |

Residual Ratio
= 20.1%

FTSE Blossom Japan Sector Relative Index vs. FTSE Japan All Cap ex J-REITs Index

Data as at: 30 September 2023

| Attribution with Industry and Style Factor – Return Contribution (bps) | | | | | | | | | |
|--|------------|----------|-------|---------|------------|----------|-----|----------|--------------|
| Period Start | Period End | Industry | Value | Quality | Volatility | Momentum | ESG | Residual | Total Excess |
| Full Period | - | 43 | 39 | 116 | 57 | 247 | 619 | 108 | 798 |

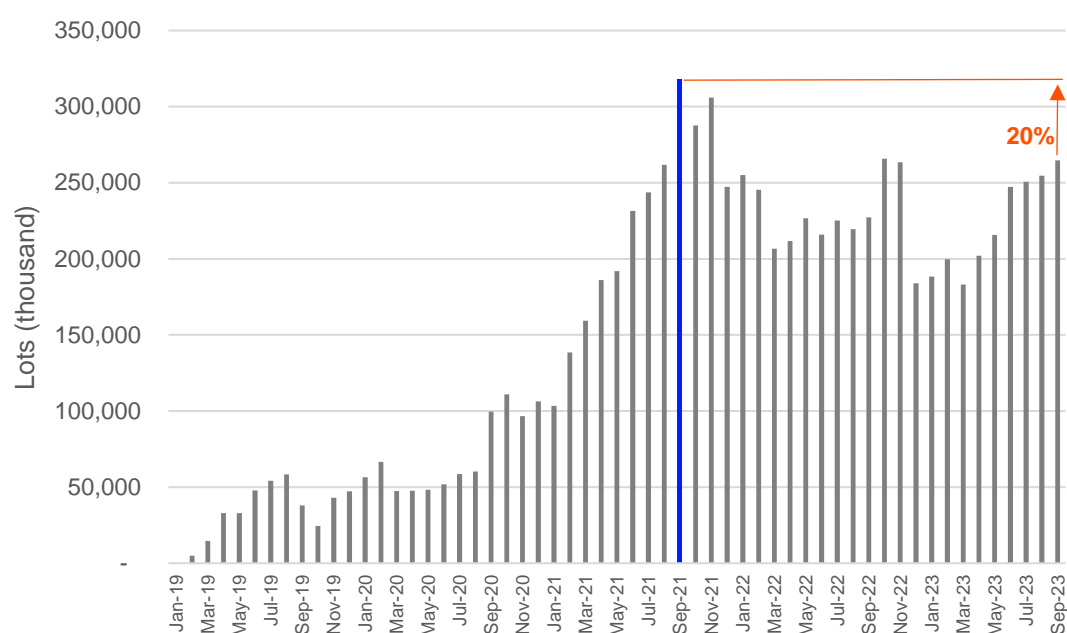
Residual Ratio
= 13.5%

Source: FTSE Russell, Data as of September 30, 2023. Data covers the period from December 31, 2015 to September 30, 2023

Open Interest reaches another high as we look ahead into 2024

As we approach the end of 2023, we take a pulse check of how the global sustainable derivatives market has evolved over the past year. While there is still an approximate 20% gap from the peaks in 2021, open interest (by lots) has climbed steadily over the last 12 months. The 32% YoY growth (as of end-Sep 2023), estimated at around US\$ 2.2B, suggests that investors have started turning their attention back to the sustainable derivatives market.

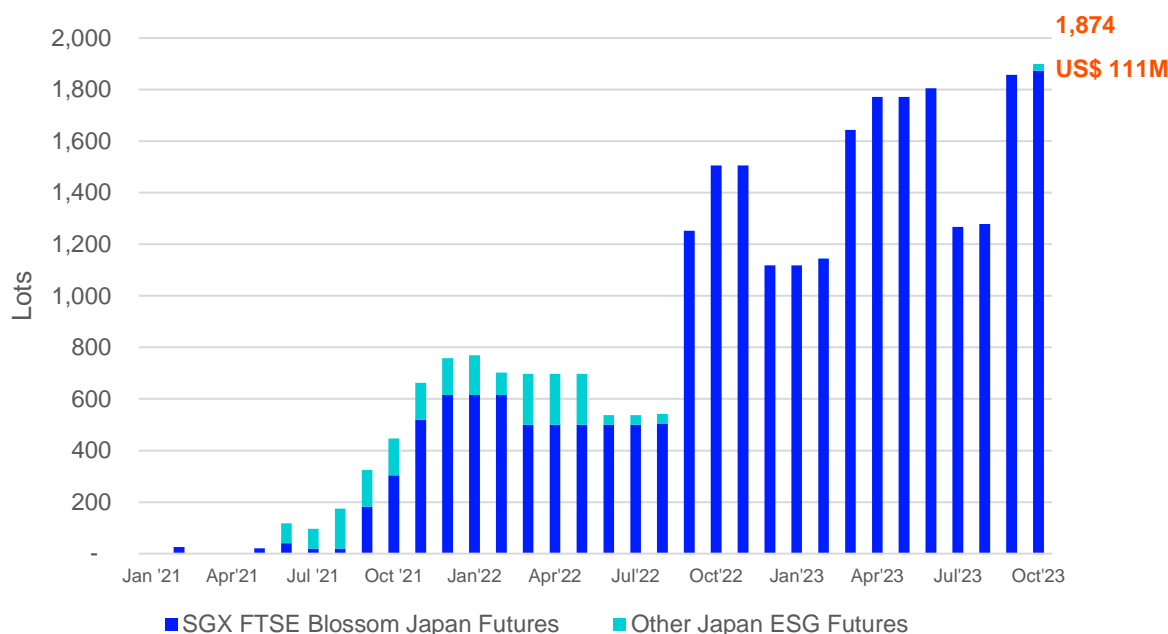
Exhibit 5. Global sustainable derivatives open interest (lots) have grown in the last 12 months



Source: SGX. FIA. Data as of end-Sep 2023. Past performance is no guarantee of future results. Please see end for important legal disclosures

Mirroring the global trends, the SGX FTSE Blossom Japan index futures are closing the year on a high. In the latest quarter, **month-end open interest has achieved another new record – 1,874 lots (\$111M)** – as end-client adoption continues to build. More importantly, the SGX futures remain the only Japan ESG futures with meaningful open interest, therefore making it one of the leading listed derivative products for Japan ESG.

Exhibit 6. Open interest (lots) of the SGX FTSE Blossom Japan Index Futures hits another record in October 2023



Source: SGX. FIA. Data as of end-Oct 2023. Past performance is no guarantee of future results. Please see end for important legal disclosures

In the last week of September, there was also increased activity around the Japanese dividends ex-date. This suggests that investors have continued to use our futures for dividend equitisation – a trend that we also saw in March. Consequently, in September, daily average volumes of the SGX FTSE Blossom Japan index futures were at US\$ 8.4M.

As a reflection of the further adoption of the SGX futures, open interest continues to grow over every quarterly roll this year. For clients looking to switch into the SGX futures this coming roll, the **screen bid-ask spread for the March 2024 contract is currently as tight as 5bps during the Japan cash hours**¹. Alternatively, a switch can also be facilitated on block with your brokers, and quarterly rolls typically offer better liquidity for such a switch.

Lastly, going into 2024, SGX will be investing in a more robust round-the-clock orderbook. As more investors from outside of Asia participate in the FTSE Blossom Japan ecosystem, they aim to deepen the liquidity of our orderbook during non-Asian hours, ensuring that participants can access the same competitive pricing during Europe and US hours.

¹ As of 30th Nov 2023

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