Spotlight on Japan: How Carbon-Efficient Indices Can Shape the ESG Landscape

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INTRODUCTION

The S&P Global Carbon Efficient Index Series is designed to reduce carbon exposure while maintaining similar levels of risk/return to the benchmark. Most notably, the index series incentivizes behavioral change among companies by uniquely encouraging two things:

- **Greater corporate transparency** by rewarding companies that disclose greenhouse gas (GHG) emissions with a 10% boost in index weight; and
- **The diversification of company business models toward low-carbon alternatives** as companies seek to improve their standing in the index.

The latter is achieved by assessing the carbon performance of companies (based on GHG emissions data from Trucost), sorting them into deciles within GICS® industry groups, and reweighting accordingly. However, since some industries are inherently more GHG emitting than others, our methodology considers the spread of possible emissions within an industry group and increases or decreases company weights by either a greater or lesser extent, depending on how much a company can feasibly improve given current available technologies.

For example, a highly carbon-efficient Energy company in the top decile of the broad-ranging Energy industry is likely to be far ahead of its peers and, thus, deserves a significant weight increase of 120%. Conversely, a Media company in the top decile of the smaller-ranging Media industry only receives a small weight increase of 20%, as it is only slightly ahead of its peers. Vice versa, a high-emitting Energy company in the bottom decile would get a weight reduction of 90% versus just 15% for a Media company in the same position (see Exhibit 1). As such, companies are incentivized to both disclose and decarbonize to boost their overall standing—to the extent that they are able to.

There need not be an inherent trade-off between investment performance and decarbonization.

Exhibit 1: S&P Global Carbon Efficient Index Weighting Methodology

DECILE CLASSIFICATION	DISCLOSURE STATUS	DECILE WEIGHT ADJUSTMENT (%)	INDUSTRY GROUP IMPACT FACTOR		
			LOW	MID	HIGH
			x0.5	x1	x3
			CARBON WEIGHT ADJUSTMENT (%)		
1st Decile[1]	Disclosed	40	20	40	120
	Non-Disclosed	30	15	30	90
2nd Decile	Disclosed	30	15	30	90
	Non-Disclosed	20	10	20	60
3rd Decile	Disclosed	20	10	20	60
	Non-Disclosed	10	5	10	30
Other (4th to 7th Deciles)	Disclosed	10	5	10	30
	Non-Disclosed	0	0	0	0
8th Decile	Disclosed	0	0	0	0
	Non-Disclosed	-10	-5	-10	-30
9th Decile	Disclosed	-10	-5	-10	-30
	Non-Disclosed	-20	-10	-20	-60
10th Decile	Disclosed	-20	-10	-20	-60
	Non-Disclosed	-30	-15	-30	-90

[1] First decile represents companies with the lowest carbon intensity.
Source: S&P Dow Jones Indices LLC. See the S&P Global Carbon Efficient Index Series Methodology for more information. Table is provided for illustrative purposes.

The carbon reduction performance of the S&P Global Efficient Carbon Index Series should further improve over the long term.

The S&P Global Carbon Efficient Index Series is designed to measure financial markets worldwide and offers market participants the opportunity to reduce their exposure to carbon risk. The methodology is also sector neutral, amounting to a carbon reduction of 20%-60% relative to the underlying benchmarks, with low tracking errors and comparable returns, thereby demonstrating that there need not be an inherent trade-off between investment performance and decarbonization. In theory, the carbon performance of the S&P Global Efficient Carbon Index Series should further improve over the long term, as companies adapt their behavior and as the indices continue to grow in popularity among market participants. Indeed, our initial results to date suggest that they are already heading in that direction.

CARBON-EFFICIENT SOLUTIONS IN JAPAN

In 2018, Japan's Government Pension Investment Fund (GPIF) selected two of our carbon-efficient indices for its ESG investment portfolio—the S&P/JPX Carbon Efficient Index for Japanese equities, and the S&P Global Ex-Japan LargeMidCap Carbon Efficient Index for non-Japanese equities. As of the June 2020 rebalance, the S&P/JPX Carbon Efficient Index recorded a 21% decrease in carbon emissions intensity, while the S&P Global Ex-Japan LargeMidCap Carbon Efficient Index reduced its carbon exposure by approximately 43%, compared with their benchmarks. As for annualized returns, the S&P/JPX Carbon Efficient Index gained 1.44%, while the S&P Global Ex-Japan LargeMidCap Carbon Efficient Index gained 7.45% over the five-year period ending June 2020, with tracking errors of 0.47% and 0.76%, respectively. Both indices performed slightly better than their benchmarks, with the TOPIX gaining 1.37% and the S&P Global Ex-Japan LargeMidCap gaining 7.34% over the same five-year period.

There was a significant boost in companies disclosing carbon emissions, in large part due to the GPIF's selection of this innovative index series.

Perhaps the most interesting result, however, is that there has been a significant boost in the number of companies disclosing their carbon emissions over the past two years, in large part due to the GPIF's selection of this innovative index series. Between the launch of the indices in October 2018 and the annual rebalance in March 2019, an additional 152 companies around the globe disclosed their GHG emissions, 33 of which are based in Japan. Additionally, between the annual rebalance in 2019 and the subsequent rebalance in June 2020, 230 more companies have disclosed their emissions, with 105 of those based in Japan.

Another interesting result is that the dispersion of the spreads of GHG emissions across GICS industry groups, upon which the weight adjustments are based, is stabilizing. There were no major changes to the classification of GICS industry groups as either "high," "mid," or "low" impact—defined by the spread of carbon emissions, where the bigger the spread, the higher the impact, and the larger the resultant index weight adjustments, and vice versa (see Exhibit 1). However, there was just one exception: the Commercial & Professional Services industry group, which moved from "high" to "mid" impact, suggesting that the GHG-emissions intensities of companies within that industry group are already beginning to converge.

CONCLUSION

Market participants acknowledge that the impacts of climate change on their investments cannot be ignored.

The S&P Global Carbon Efficient Index Series offers market participants across the globe a convenient pathway for addressing climate risks.

Now, more than ever, market participants acknowledge that the impacts of climate change on their investments cannot be ignored. But while institutional investors often claim the importance of low-carbon and ESG investment approaches in general, it can be difficult for them to engage in these strategies due to their commitment to closely track market returns. The S&P Global Carbon Efficient Index Series demonstrates that it is possible to target meaningful carbon reduction and incentivize systemic behavioral change, while at least maintaining the beta coefficient. For example, the S&P/JPX Carbon Efficient Index had almost the same level of risk and return as the TOPIX, its benchmark. As such, investors that allocate to the TOPIX could benefit from reducing their carbon exposure without compromising their fiduciary obligations. Indeed, the S&P Global Carbon Efficient Index Series offers market participants across the globe—who might otherwise be concerned with balancing their fiduciary responsibilities with sustainable investment returns—a convenient pathway for addressing climate risks.

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