MSCI ESG ENHANCED FOCUS INDEXES

A Customized Index Combining ESG with Low Carbon Investing

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INTRODUCING THE MSCI ESG ENHANCED FOCUS INDEXES

The size of the ESG investment markets has grown substantially in recent years, with the number of UN PRI signatories reaching 1,900 and with 81.7 trillion USD in invested ESG assets as of end-2018 [1]. Historically, many ESG investors applied exclusionary screens to their portfolios to align their investments with their beliefs, e.g., by divesting from tobacco, alcohol or weapons.

However, in recent years ESG investing trends have been driven by more investors seeking not only social benefits but also managing financial risks and opportunities. In fact, a recent survey indicated that most asset owners surveyed see the management of financial risks as the key benefit of ESG.[2]

In addition, after the COP 21 conference in 2015, many investors[3] came to realize that climate change is not only an environmental topic but also a financial risk that will very likely have a material impact on many companies' profitability during the global transition toward a low carbon economy. An estimated 25 trillion USD invested in carbon-related infrastructure is thought to be at risk[4] from this transition. For instance, the 22 billion USD write-down that General Electric[5] announced for its turbine business in 2018 indicated how carbon transition risk spreads across different industries and may affect the entire economic system, as well as the financial performance of investors.

In addition, various regulators have issued recommendations regarding the use of ESG information in asset management. For instance, the U.K. Pensions Regulator asks trustees of U.K. pension funds to consider ESG factors in their investment decisions when they are deemed financially material[6].

For many portfolio managers and financial product providers, the key challenge is to address investors' motivation for exclusionary screens as well as financially relevant ESG risks in their portfolio construction methodology. This can be particularly challenging when investors would like to achieve their ESG-related objectives under strict financial

[1] United Nations Principles for Responsible Investing. https://www.unpri.org/

[2] Eccles, R., M. Kastrapeli and S. Potter. (2017). "How to Integrate ESG into Investment-Decision Making: Results of a Global Survey of Institutional Investors." *Journal of Applied Corporate Finance,* Vol. 29, No.4, pp. 125-133.

[3] See https://theinvestoragenda.org/areas-of-impact/policy-advocacy/

[4] Carbon Tracker 2020 Vision: Why you should See Peak Fossil Fuels Coming. www.carbontracker.org

[5] See 2018 Annual Report of GE.

[6] See "A Guide to Investment Governance" by the Pensions Regulator, November 2018.

constraints, such as keeping the level of diversification and tracking error close to benchmark and achieving a similar risk-return profile.

The customized MSCI ESG Enhanced Focus Index series is designed to help clients address this challenge: Starting from a standard market cap parent index, it first applies the most commonly used exclusions screens in the asset management market and then increases the weight of companies with good ESG and carbon profiles, while aiming to maintain a risk and diversification profile that is close to the parent index.

The index methodology includes an exclusionary step and an optimization step:

1. **Exclusions:** The MSCI ESG Enhanced Focus Index applies the most common exclusions to the underlying market cap benchmark across the E, S and G categories as shown in Exhibit 1. Exclusions can be driven by different motivations, e.g., investors' beliefs, regulation or risk considerations. Divestment from thermal coal and oil sands is a global trend that is followed by several large investors, including some large global insurers. Divesting from nuclear weapons and firearms has been a focus of socially conscious investors from the very beginning of ESG investing. This step is designed to exclude companies commonly deemed controversial from the MSCI ESG Enhanced Focus Indexes.

Exhibit 1: Exclusionary Screens for MSCI ESG Enhanced Focus Index

	E	S	G
UNGC, Norms	Thermal Coal Oil Sands	Tobacco Controversial Weapons Nuclear Weapons	Companies that fail UNGC Red flags
Values		Civilian Firearms	

Source: MSCI

2. **ESG and carbon optimization:** To achieve the optimal ESG integration versus tracking error trade-off, the main step in the index construction methodology maximizes the index-weighted ESG score under a tracking error constraint of

0.5% p.a. and a constraint of at least 30% reduction in index-weighted carbon intensity.[7]

MSCI ESG ENHANCED FOCUS INDEX PROFILE

In the period of analysis, Nov. 30, 2012 to Dec. 31, 2018,[8] the MSCI ACWI ESG Enhanced Focus Index covered over 90% of the market by free-float market capitalization (Exhibit 2) and had a realized tracking error of 0.6%. Performance and risk figures (volatility, draw-down) as well as index liquidity (annualized traded value ratio – ATVR) also showed performance close to the parent index.[9] At the same time, we saw a clear increase in index turnover to above 20%, due to the optimization process used. This level of turnover was comparable to the turnover seen in quality, minimum volatility and dividend yield factor indexes, which all experienced turnover rates above 20%, while the momentum index exhibited turnover above 90% during the study period from November 1975 to March 2014.[10]

Due to the optimization process above, the MSCI ACWI ESG Enhanced Focus Index achieved a 21% increase in the index-weighted MSCI ESG score compared to its benchmark (Exhibit 2). To put this into perspective, this level of increase was comparable to the ESG improvement obtained by a 50% best-in-class selection of ESG-rated companies as used in the MSCI ESG Leaders index. The improvement in the ESG profile was also reflected by exposure to ESG Leaders (companies rated AAA and AA) more than doubling while exposure to ESG Laggards (companies rated BBB and C) reduced compared to the parent index.

At the same time, we observed a significant reduction in terms of both the actual carbon emissions reflected by the index, due to the carbon-intensity reduction constraint in the optimization process, and in potential future emissions due to the exclusions screen on thermal coal and oil sands.

[7] Carbon intensity is defined as a company's annual carbon emissions in tons divided by its annual sales in USD.

[8] The index was backtested starting from November 30, 2012.

[9] This report may contain analysis of historical data, which may include hypothetical, backtested or simulated performance results. There are frequently material differences between backtested or simulated performance results and actual results subsequently achieved by any investment strategy.

[10] Alighanbari, M., R. A. Subramanian and P. Kulkarni. (2014). "Factor Indexes in Perspective. Insights from 40 Years of Data. Part 1: The Study." MSCI Research Insight.

Exhibit 2: Key Index Metrics Comparison

	MSCI ACWI Index	MSCI ACWI ESG Enhanced Focus Index
Total Return (%)	8.0	8.2
Total Risk (%)	10.7	10.8
Sharpe Ratio	0.69	0.7
Tracking Error (%)	0	0.6
Information Ratio	-	0.34
Max Drawdown (%)	18.9	18.8
No of Stocks*	2495	2329
Parent Index Coverage* (%)	100	92.5
Large* (%)	82.7	82.8
Mid* (%)	17.3	17.2
Turnover[11] (%)	2.7	21.8
Weighted Average ATVR (%)	100.7	99.9
ESG score	5.7	6.9
ESG Leaders (AAA-AA) (%)	23.2	46.8
ESG Laggards (B-CCC) (%)	11.1	5.1
Carbon Intensity (t CO2e/$M Sales)	232	149 (-35.8%)
Potential Carbon Emissions (t CO2e/$M Invested)	3574	1991 (-44.3%)

*Period from Nov. 30, 2012 to Dec. 31, 2018. (*monthly averages)*

In brief, the backtested performance of the MSCI ACWI ESG Enhanced Focus Index was similar to the underlying MSCI ACWI Index. At the same time, the index tilted toward companies with high ESG Ratings and strong carbon efficiency profiles.

POTENTIAL APPLICATIONS

Indexes are often used as benchmarks at both a strategic and an implementation level. Investors may use policy benchmarks in their strategic asset allocation to define eligible markets and the universe of eligible securities for their portfolios. At the same time, they may use them to define active or passive allocations when implementing their asset allocation strategies.

We have observed an increasing number of investors incorporating ESG considerations into their investment process: For instance, ESG Ratings are sometimes used by clients

[11] Annualized one-way index turnover over index reviews.

to assess corporate headline risks that can threaten the reputation of the asset manager. In addition, in recent years many investors have identified carbon transition risks, as pressure both from regulators and from technological progress in green energy sources can potentially pose a risk to companies that are heavily reliant on fossil fuels.

For the purpose of consistency and transparency, investors who have decided to address these ESG-related issues across their portfolios may want such considerations to be reflected in their benchmarks, since benchmarks are typically used across all of investors' portfolios, whether they are active, passive or factor-based.

As illustrated in the previous exhibit, as well as that below, active size and sector weights for the MSCI ACWI ESG Enhanced Focus Index were fairly small. However, the use of MSCI Industry-adjusted ESG scores, together with a strict tracking-error constraint in index construction, kept sector and size deviations at low levels during the backtested period – despite the fact that certain exclusionary screens have been applied to the base universe (Exhibit 1).

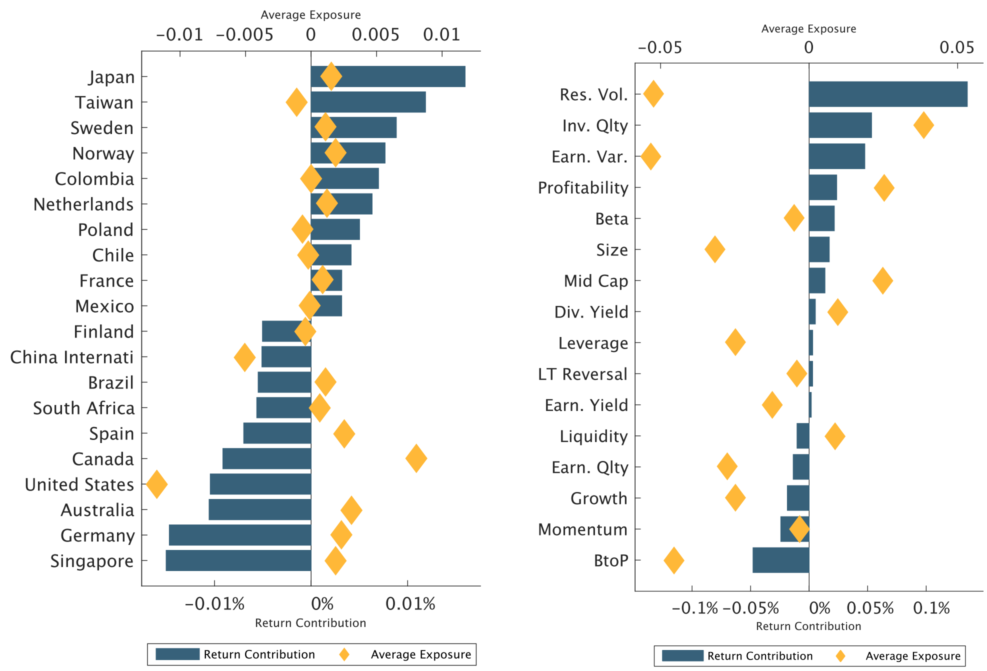
Exhibit 3: Active Sector Weights in MSCI ACWI ESG Enhanced Focus Index

Sector	Active weight %
Energy	-1.5
Materials	-0.3
Industrials	2.1
Consumer Discretionary	-0.8
Consumer Staples	-0.6
Health Care	-1.1
Financials	0.4
Information Technology	1.2
Communication Services	0.3
Utilities	0.0
Real Estate	0.3
Stdev	**1.0**

Simulated data as of Dec. 31, 2018. Not indicative of future performance.

In addition, active exposures and returns due to country and equity style factor shifts were small during the study period (Exhibit 4). It is important to note that these active factor exposures and their performance impact are simulated, unintended exposures and may vary over time.

Exhibit 4: Active Country (left) and Style Exposures (right) in MSCI ACWI ESG Enhanced Focus Index



Period from Nov. 30, 2012 to Dec. 31, 2018.

CONCLUSION

Addressing corporate ESG risks and the risks of the global transition to low carbon is becoming increasingly important for many investors. At the same time, an increasing number of national regulators are requiring institutional investors to consider ESG and carbon risks that may be financially relevant to their investment processes.

The MSCI ESG Enhanced Focus indexes are designed to help institutional investors measure ESG risks and carbon risks in their strategic asset management framework, while maintaining a low tracking error relative to the underlying broad-based index. In addition, these indexes exclude business activities that are commonly seen as controversial, such as tobacco production and weapons manufacturing.

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