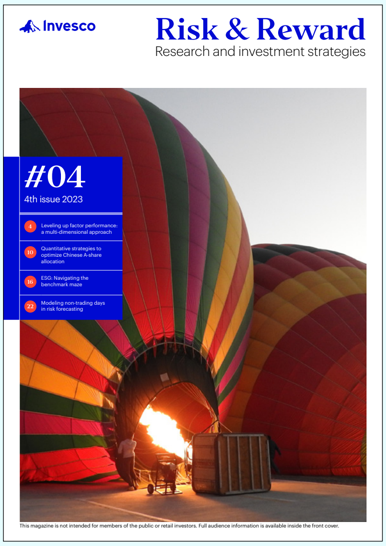
ESG: Navigating the benchmark maze

By Julian Keuerleber, David Mischlich and Alexander Tavernaro



In its 34th year, Risk and Reward provides a platform for Invesco's investment professionals to produce original research and investment strategy content. This Q4 2023 edition contains three additional articles. Contact your local Invesco representative for the full edition.

We've analyzed popular global and regional ESG indices, looking at their past performance and factor patterns, as well as comparing them to traditional capitalization-weighted indices. We also looked at ways to mitigate the risks inherent in the individual ESG benchmarks and present an alternative that may successfully address some of their shortcomings.

Investors face a plethora of ESG benchmarks, making for a landscape that is often confusing and fraught with uncertainty about which one to choose – especially for those favoring a passive investment strategy. We feel the time has come to seek greater clarity.

When choosing a non-traditional benchmark, a natural first step is to investigate alternative indices that best reflect an investor´s non-financial objectives. Popular index providers offer a wide range: MSCI Inc., for example, claims to be the world's largest provider of ESG indices, with more than 1,500 equity and fixed income ESG indices to help institutional investors manage, measure and report on ESG mandates.[1]

In our analysis, we will compare four global indices – the MSCI World SRI[2] Index, the MSCI World Climate Paris Aligned Index, the MSCI World ESG Leaders Index and the MSCI World ESG Universal Index. These indices include large and mid-cap stocks across 23 developed market countries, as defined by MSCI. There are differences in the index construction methodologies to achieve the target outcomes. We'll also compare the indices' European counterparts.

An abundance of choices ...

The **MSCI World SRI Index** is a capitalization-weighted index that excludes companies whose products have negative social or environmental impacts. Stock selection is based on proprietary MSCI research with the objective of achieving a diversified SRI benchmark comprised of companies with a strong sustainability profile. Companies that do not meet these criteria are excluded. The index has approximately 400 constituents.

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The **MSCI World Climate Paris Aligned Index** is designed to exceed the minimum standards of the EU Paris-Aligned Benchmark by incorporating the recommendations of the Task Force on Climate-related Financial Disclosures. The index is a common benchmark for investors seeking to reduce their exposure to physical climate risks and to transition to a lower carbon economy. The index comprises approximately 600 constituents and is the only index in our sample that uses an optimization approach to arrive at index weights; the other indices apply heuristics.

The **MSCI World ESG Leaders Index** is designed to represent the performance of companies based on environmental, social and governance criteria. The sector exposures are closely tied to the parent index, the MSCI World Index. The index targets 50% free float-adjusted market capitalization coverage of each sector. Stock selection of constituents is based on criteria, including the MSCI ESG Rating, its trend and individual companies' industry-adjusted ESG score, as well as each company's involvement in specific business activities and exposure to controversies. The index comprises approximately 700 constituents.

The **MSCI World ESG Universal Index** is designed to reflect the performance of an investment strategy that seeks exposure to companies with a robust – and improving – ESG profile. The index tilts away from free float market cap weights, but uses only very basic exclusions. The index comprises approximately 1,500 constituents.

... with different return characteristics ...

Since their inception almost nine years ago, the four MSCI ESG indices have slightly outperformed their parent indices, while performance over the short and medium term has been mixed. This is true for the global indices as well as their European versions. The ESG indices have outperformed their respective market capitalization-weighted parent indices over the full period and over 5 years. Interestingly, 'stricter' ESG indices have outperformed their less strict counterparts both in Europe and globally. On the other hand, relative performance over the most recent 1-year and 3-year periods has been lackluster, seeing global indices performing in line with and European indices underperforming their non-ESG counterparts. The MSCI Climate Paris Aligned Index has underperformed in both regions.

Figure 1

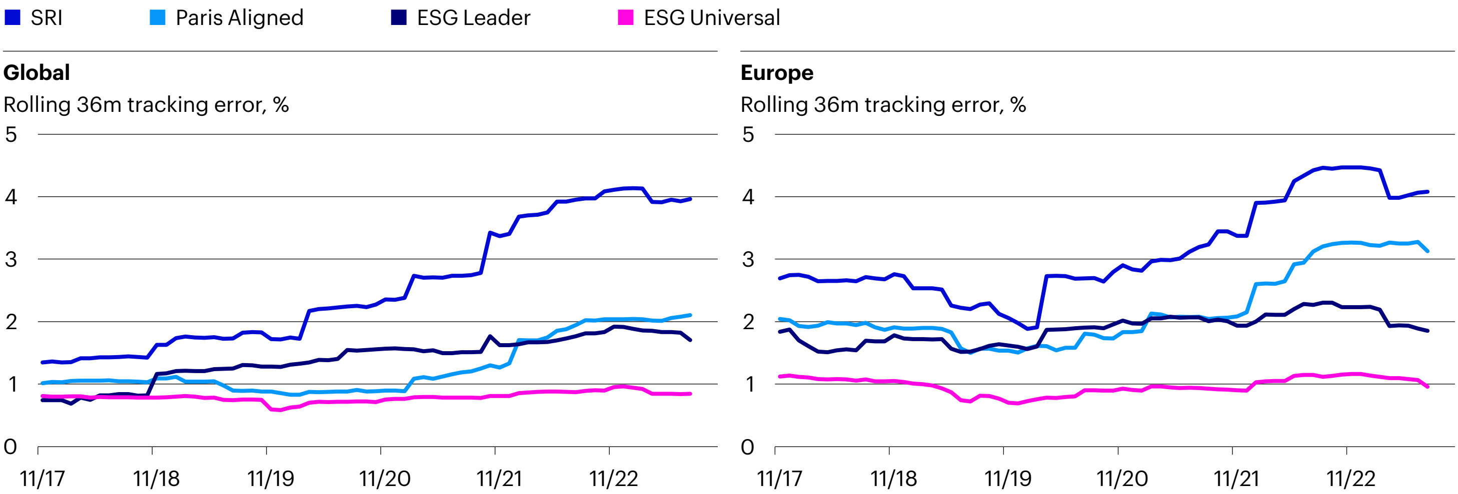
Annual relative performance of ESG indices vs. their parent indices

	Global indices vs. MSCI World				European indices vs. MSCI Europe			
	SRI	**Paris Aligned**	**ESG Leaders**	**ESG Universal**	**SRI**	**Paris Aligned**	**ESG Leaders**	**ESG Universal**
1 year	0.21	-1.64	-0.06	-0.10	-2.37	-2.18	-0.80	-0.20
3 years	-0.11	-1.16	0.16	-0.37	-1.83	-1.19	-1.35	-0.29
5 years	1.64	0.14	0.47	0.31	1.44	0.93	0.85	0.84
Since inception	1.42	0.62	0.04	0.12	1.53	0.82	0.52	0.59

SRI: MSCI World SRI Index/MSCI Europe SRI Index; Paris Aligned: MSCI World Climate Paris Aligned Index/MSCI Europe Climate Paris Aligned Index; ESG Leaders: MSCI World ESG Leaders Index/MSCI Europe ESG Leaders Index, ESG Universal: MSCI World ESG Universal Index/MSCI World ESG Universal Index.
Source: MSCI, Invesco calculations. Relative performance p.a. from Novemer 30, 2014 (common index inception) to July 31, 2023. **Past performance is not indicative of future results.** An investment cannot be made directly in an index.

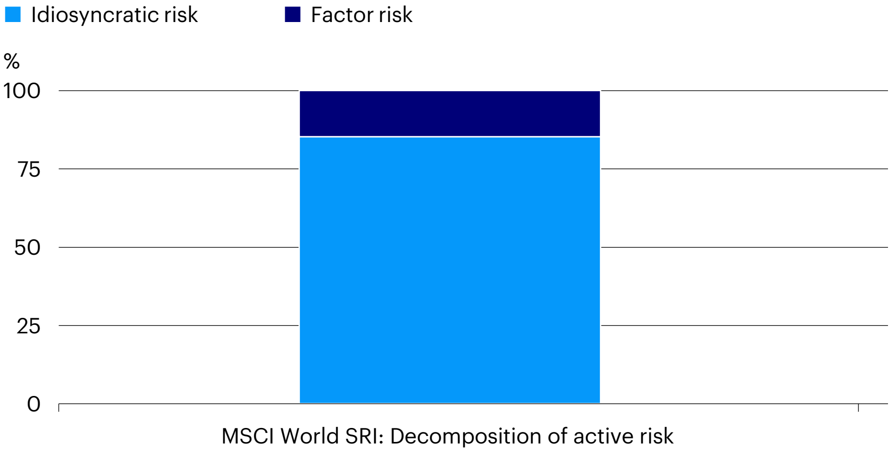
Figure 2

Tracking error of ESG indices vs. their parent indices



SRI: MSCI World SRI Index/MSCI Europe SRI Index; Paris Aligned: MSCI World Climate Paris Aligned Index/MSCI Europe Climate Paris Aligned Index; ESG Leaders: MSCI World ESG Leaders Index/MSCI Europe ESG Leaders Index, ESG Universal: MSCI World ESG Universal Index/MSCI World ESG Universal Index.
Source: MSCI, Invesco calculations. 36-month tracking error from November 30, 2017 to July 31, 2023.

Figure 3
Tracking error of the MSCI World SRI Index vs. its parent index



Source: MSCI, Invesco calculations. MSCI World SRI Index as of July 31, 2023.

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All ESG indices exhibit higher turnover.

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... and sometimes considerable active risk
The realized tracking error of ESG indices over their parent indices can range from 0.5% to over 4.0% (figure 2). While active risk has remained stable for the MSCI ESG Leaders and MSCI ESG Universal Screened index suites, it has increased significantly for the MSCI Climate Paris Aligned and MSCI SRI indices. For passive or enhanced index investors, this poses a challenge, as changes in active risk profiles can distort overall asset allocation. This can lead to increased monitoring costs and, in the case of asset allocation changes, increased turnover costs as well.

But where do these high levels of active risk come from? As an example, we have decomposed the tracking error of the MSCI World SRI Index into various components: elements of active risk that can be explained by common factors (e.g., sectors, countries, value factor, etc.) and a residual element that captures idiosyncratic stock-specific risks (figure 3). In July 2023, almost all of the tracking error was attributable to idiosyncratic stock-specific risks (86%). This is not surprising given the high concentration of this index; for example, Microsoft alone accounts for 16%.[3] The second largest contributor was the different sector structure (7%), primarily due to the considerable overweight in technology. This is followed by market sensitivity; i.e., beta (2%), as the SRI index’ beta is estimated to be around 1.05. Factors such as momentum, quality and value share the remaining 5%, with each accounting for only a negligible portion of total active risk.

Turnover, concentration ...
All ESG indices, for both Europe and the world, exhibit higher turnover, ranging from 10% to 28% p.a. – compared to 2% for the parent indices (figure 4). The ESG indices also appear to be more concentrated: While the number of index constituents could still indicate a reasonably well-diversified portfolio, the weight of the largest and the ten largest stocks indicate a significantly higher concentration risk, especially for the SRI index.

... and factor loadings
In addition, there are different (and potentially unwanted) factor loadings. Through the lens of the Invesco Quantitative Strategies model, the relative momentum exposure (measuring both price and fundamental momentum), fluctuates considerably. The relative quality exposure, on the other hand, remains unchanged – or rises. This is plausible since certain governance elements might be related to the quality concept. The value exposure is consistently below that of the parent index, indicating that ESG indices are invested in more expensive stocks.[4] While none of the indices target a specific factor

Figure 4
Turnover and concentration in comparison

	Global indices					European indices				
	SRI	Paris Aligned	ESG Leaders	ESG Universal	MSCI World	SRI	Paris Aligned	ESG Leaders	ESG Universal	MSCI Europe
Turnover p.a.	22%	11%	13%	13%	2%	28%	12%	27%	10%	2%
Number of stocks	407	607	724	1494	1512	199	260	206	421	428
Largest weight	16%	6%	8%	5%	5%	11%	3%	6%	4%	3%
Top 10 weight	34%	22%	26%	18%	20%	45%	22%	37%	26%	23%

SRI: MSCI World SRI Index/MSCI Europe SRI Index; Paris Aligned: MSCI World Climate Paris Aligned Index/MSCI Europe Climate Paris Aligned Index; ESG Leaders: MSCI World ESG Leaders Index/MSCI Europe ESG Leaders Index, ESG Universal: MSCI World ESG Universal Index/MSCI World ESG Universal Index.
Source: MSCI, Invesco calculations. Turnover data from December 31, 2014 (index inception) to July 31, 2023; all other data as of July 31, 2023.

Figure 5

Relative factor loadings of ESG indices vs. their parent indices

SRI: MSCI World SRI Index/MSCI Europe SRI Index; Paris Aligned: MSCI World Climate Paris Aligned Index/MSCI Europe Climate Paris Aligned Index; ESG Leaders: MSCI World ESG Leaders Index/MSCI Europe ESG Leaders Index, ESG Universal: MSCI World ESG Universal Index/MSCI World ESG Universal Index.
Source: MSCI, Invesco calculations. Relative factor loadings from June 30, 2017 (index inception) to July 31, 2023.

A multi-factor ESG strategy can be effective in achieving not only risk and return objectives, but also sustainability goals.

profile, it is important to understand and monitor factor loadings regularly, as they can be a significant contributor to performance.

So, what is the alternative?

Having analyzed the characteristics and shortcomings of common ESG indices, we now turn to a possible alternative. In our view, a multi-factor ESG strategy can be effective in achieving not only risk and return objectives, but also sustainability goals. To illustrate this, we have constructed a hypothetical long-only strategy against the MSCI World Index based on Invesco's proprietary model portfolio approach.[5] The investable universe consists of global developed-market large and mid caps, filtered for ESG characteristics. To avoid companies involved in controversial business activities and controversies, we used a best-in-class approach and excluded the worst 51% of assets within each sector and region.

Figure 6 compares the ESG profile of the final optimized portfolio with that of the MSCI World Index and the four global MSCI ESG benchmarks. Whereas some controversial companies and activities are still included in the ESG benchmarks, they are completely eliminated from our model portfolio. This illustrates that a multi-factor ESG strategy is an effective method to

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account for an investor's sustainability preferences.

The multi-factor ESG model portfolio is less concentrated than the indices, with balanced tilts to rewarded factors and fewer unintended bets. Comparing its ex-post risk attribution to that of the MSCI World SRI Index (which, as shown above, is the strictest of the four MSCI ESG indices), we find that the residual risk is significantly lower while the contribution from factor risk is significantly higher through time (figure 7). This aligns well with our optimization target.

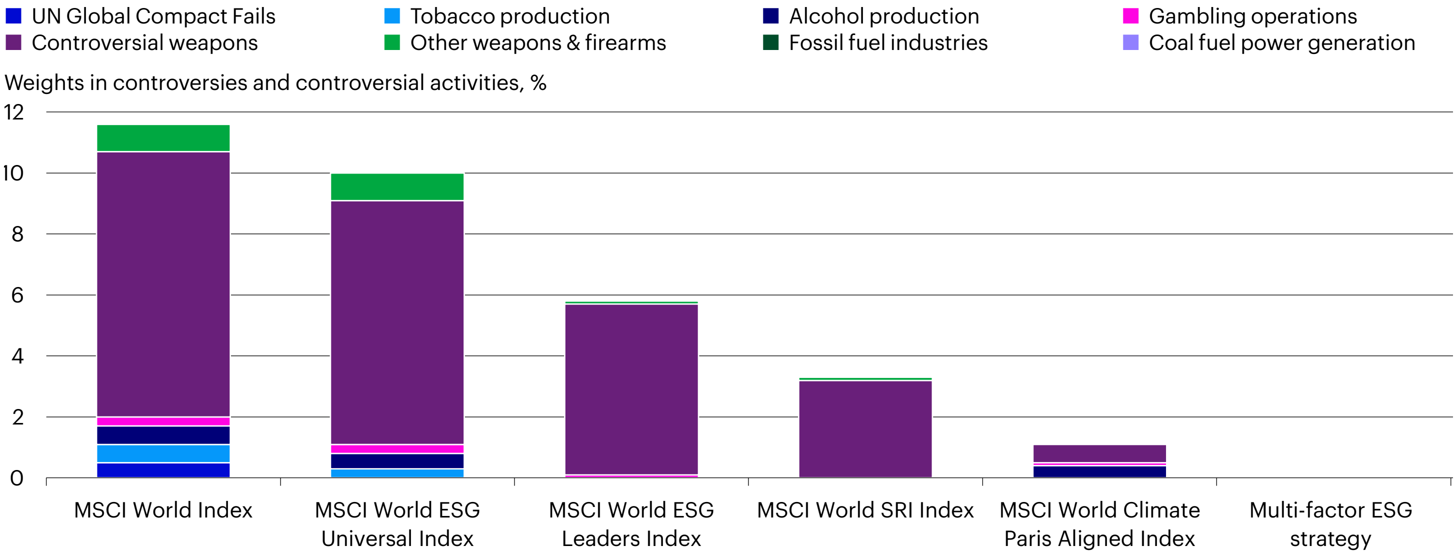
Summary

When seeking to incorporate ESG, passive investors must be aware of the differences between the various ESG indices and their active risk over traditional capitalization-weighted indices. As it turns out, an ESG-oriented multi-factor strategy may sometimes be the better alternative, lowering exposure to controversial companies even below that of the strictest ESG benchmark and leading to a more balanced risk structure overall.

Figure 6

Revenues from controversial activities are eliminated from the IQS model portfolio, but not from the MSCI ESG indices

Controversies are eliminated in IQS model portfolio, ESG indices still show high exposures

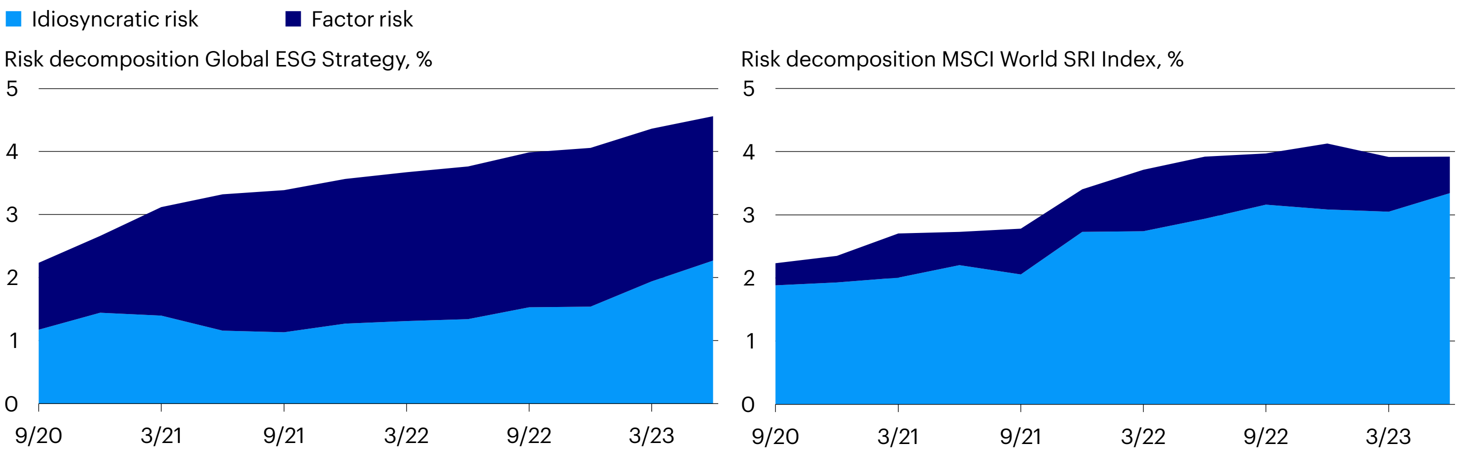


Portfolios are rebalanced monthly using an optimization approach to maximize the sensitivity to an equal risk attribution portfolio of Quality, Momentum and Value factors. There are 11 signals in the Quality bucket, including metrics to measure accrual and profitability; 13 signals in the Momentum bucket, including various price and earnings momentum signals; and 8 signals in the Value bucket, such as earnings yield and free-cash flow yield. We keep portfolio betas, as well as sector, industry, region, country and currency exposures, close to the MSCI World benchmark. In addition, turnover is controlled during the monthly rebalancing. There are (on average) 239 assets in our portfolio over time and the number of top 10 single stock holdings is comparable to the MSCI World with a total weight of 20%. This results in a realized tracking error of about 3% p.a.

Source: Invesco, Moody's ESG Solutions. As of September 29, 2023. Moody's ESG Solutions business involvement data. Indicates portfolio/benchmark weight of holdings which derive revenue from this business activity above a threshold of 10%.

Figure 7

Less stock-specific risk, more factor risk in the model portfolio



Source: MSCI, Invesco calculations. Tracking error vs. MSCI World Index from September 30, 2020 to June 30, 2023.

Notes

1 https://www.msci.com/our-solutions/indices/esg-indices
2 SRI = Socially Responsible Investment
3 MSCI also offers UCITS-compliant indices with capped weights.
4 This implies lower capital costs for more sustainable companies and may thus be desirable from a sustainability perspective. Nevertheless, it poses financial risks.
5 For more details see Quantitative Strategies Team (2022).

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About the authors

Julian Keuerleber, CFA®
Consultant Relations

Julian builds partnerships with the investment consultant community in EMEA.

David Mischlich, CFA®
Research Analyst
Invesco Quantitative Strategies

David Mischlich conducts research into quantitative models that drive the investment decisions for multi-factor equity products.

Alexander Tavernaro, CFA®, CAIA
Senior Portfolio Manager
Invesco Quantitative Strategies

Alexander is responsible for various global and regional equity and multi-asset portfolios.

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