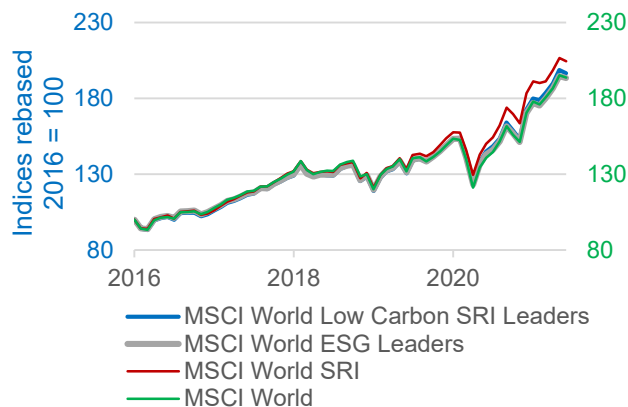


Does Sustainable Investing have to cost performance?

What you need to know

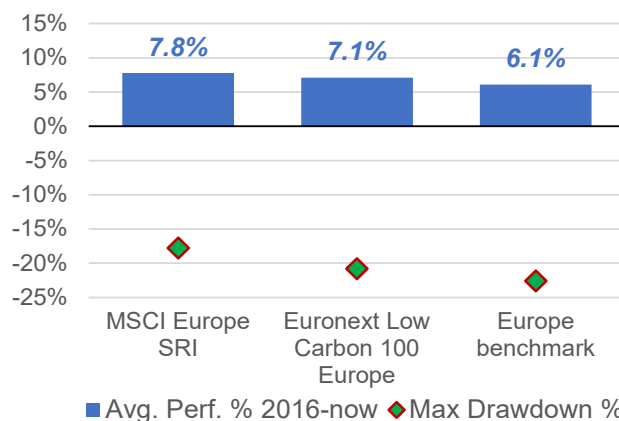
- 1. Responsible investing not an EITHER/OR choice, but an AND:** does choosing to invest responsibly cost investment performance? The evidence says NO, that you can choose a sustainable/responsible investment strategy and outperform non-sustainable benchmarks.
- 2. SRI, ESG, Low Carbon and Clean Energy indices have outperformed over the last 5 years:** since 2016, general SRI/ESG indices as well as more specific low carbon/clean energy indices have all outperformed World and Europe benchmark indices to a greater or lesser extent.
- 3. Sustainable/responsible investing indices have also suffered lower drawdowns in corrections:** in 2011, 2016 and 2018 stock market correction phases, SRI indices fell less than corresponding World and Europe benchmark indices.
- 4. If you buy ESG/SRI exposure, you are buying quality:** according to EDHEC-Risk, ESG outperformance is mostly due to a quality factor bias. In our view, this is positive as the quality factor has delivered superior long-term returns at lower downside risk than benchmark indices.
- 5. Reducing exposure to tail risk:** Implementing improvement in Environmental, Social and Governance issues reduces tail risk for investors, including stranded asset risk in fossil fuels and corporate governance risks from fraud and lack of risk control, thus reducing idiosyncratic risks.

SINCE 2016, ESG/SRI INDICES HAVE MARGINALLY OUTPERFORMED



Source: BNP Paribas Wealth Management, Bloomberg

SRI AND LOW CARBON PERFORMED BETTER, AND AT LOWER RISK



Source: BNP Paribas Wealth Management, Bloomberg

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You CAN invest sustainably without sacrificing performance

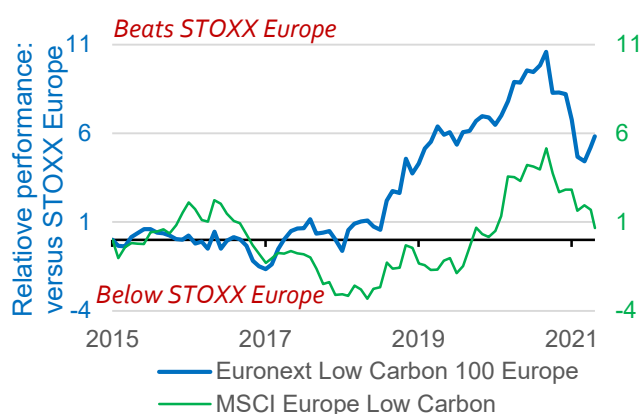
If I invest sustainably, will my investments fare worse? This is the key question that many clients ask us when we discuss sustainable investments, via managed funds or passive index ETFs. They are understandably concerned that a choice to invest in a sustainable fashion does not imply a worse investment performance as a result.

If we look at the performance of a number of sustainable investment methodologies in equities, as that is the most well-established form of sustainable investing, we can answer **NO**.

In fact, over the last five years or so, a range of sustainable equity indices have actually outperformed standard non-sustainable benchmark stock indices such as STOXX Europe or MSCI World.

- ❖ **Socially Responsible Investing (SRI)** indices such as MSCI World SRI have delivered a 14.1% compound annual growth rate (CAGR) in returns since the beginning of 2016, 1.1% more than the MSCI World standard benchmark index.
- ❖ **Environmental, Social and Governance (ESG)** indices, such as the MSCI World ESG Leaders Select, have returned an annual average of 13.9% since 2016, again significantly ahead of the standard MSCI World index (in USD).
- ❖ **Low Carbon indices**, which aim to avoid high carbon-emitting companies, such as the Euronext Low Carbon 100 index, have returned 7.1% CAGR since 2016, ahead of the 6.3% achieved by STOXX Europe over the same period.

LOW CARBON INDICES HAVE DONE BETTER SINCE 2016 IN EUROPE



Source: Bloomberg

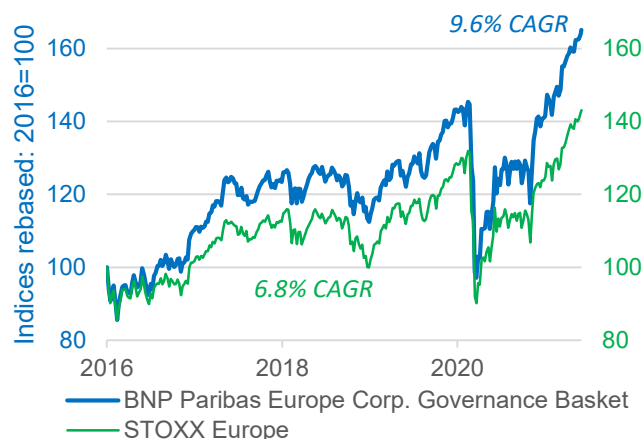
- ❖ **Corporate governance methodologies**, which focus on the shareholder- and employee-friendly structure of rules, practices, and processes used to direct and manage companies, have also delivered outperformance over time. The BNP Paribas Europe Corporate Governance basket of stocks, selected for their high scores on corporate governance criteria, has generated a 9.6% CAGR since 2016, 2.8% ahead of the STOXX Europe index.

Not only better average performance, but also at lower risk: over the period since January 2016, admittedly a limited dataset but the period over which sustainable investing has been developed, this better performance has been achieved with lower drawdowns than for benchmark indices. From 2016 to June 2021, the MSCI World index suffered a maximum drawdown from peak of 21% (at end-March 2020, during the initial COVID-19 crisis), using end-month data.

By comparison, the MSCI World SRI index suffered an 18% drawdown by March 2020, the MSCI World ESG Leaders Select 20% and MSCI World Low Carbon SRI Leaders 19%.

So all three sustainable investing indices achieved a better overall performance from 2016, and with lower downside risk during the early 2020 stock bear market than for the benchmark MSCI World index. Looking at Europe-based sustainable indices against the STOXX Europe benchmark index, we reach a similar conclusion of a better average performance, achieved at slightly lower downside risk.

STRONG CORPORATE GOVERNANCE STOCKS HAVE OUTPERFORMED IN EUROPE



Source: BNP Paribas Wealth Management, Bloomberg



Is this outperformance really due to better sustainability scores?

Is Sustainability or Quality the real factor behind outperformance? Proponents of ESG argue that there are not just moral benefits to investing according to environmental, social and governance goals: ESG funds also outperform their peers. But these excess returns may really be coming from another source, according to the Scientific Beta April 2021 paper "*Honey I shrunk the ESG alpha*".

Scientific Beta has found that 75% of the outperformance of ESG strategies cited in popular academic studies on the subject was due to their exposure to quality factors that are mechanically constructed from balance sheet information (such as low net debt). Indeed, the MSCI World SRI index does tend to outperform the benchmark MSCI World at the same time as the MSCI World Quality factor index, underlining EDHEC-Risk's conclusion.

Sustainability-oriented investors still win: this should not matter to long-term investors, as the ultimate conclusion does not change. If anything, it is reinforced by the fact that diversified ESG/SRI funds have a marked quality factor bias. These strategies have still delivered long-term outperformance at lower downside risk than benchmark equity indices, as for quality factor strategies.

For the end-client, this is still great news. Risk-adjusted returns, on a purely financial basis, are better than for classic equity index exposures. Additionally, investing in ESG/SRI funds can also deliver a number of other benefits, such as the hedging of climate risk, aligning investments with clients' ethical stances and effecting a positive impact on society.

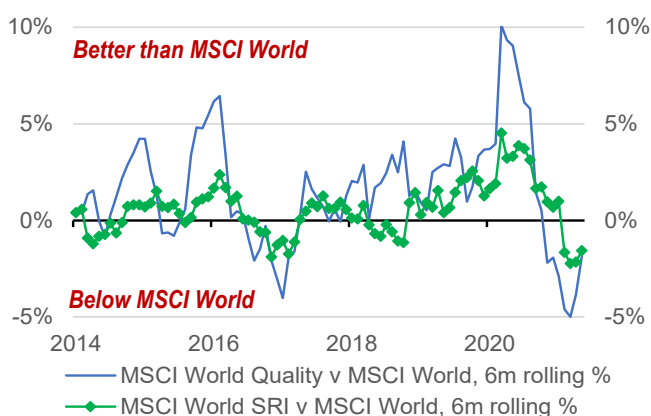
Outperformance also driven by flow of funds? We should also consider the argument that the outperformance of ESG and SRI funds over the last few years has been simply due to a growing "popularity" bias, with the ever-increasing inflow to these sustainable funds driving investment towards those companies that are more heavily represented.

This would suggest that the trend of ESG/SRI outperformance is temporary and linked to the flow of funds, as opposed to any fundamental drivers. There is no debating the fact that sustainability has been an increasing popular investment style over the past few years, and that this is likely to have had some sort of impact on those stocks that are over-represented in relative terms in these indices.

Different aims, different data, different results: however, we should also remember that ESG, SRI and more focused clean energy/energy transition funds have quite different investment methodologies and weighting strategies for companies. They often use different underlying sustainability data sources that can give different ESG scores for the same companies.

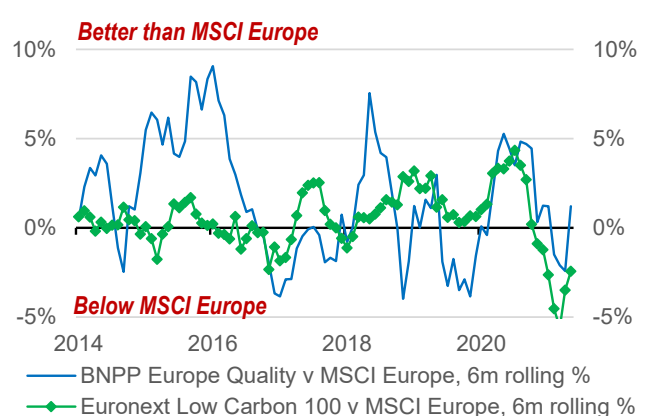
Those investors looking to replace an existing portfolio exposure to traditional non-sustainable equities, either globally or in Europe, with a diversified sustainable equity fund, should look rather to those funds and ETFs which are benchmarked on general ESG indices such as ESG Leaders, ESG Select or SRI. For those investors looking for more aggressive growth and who are looking to invest in a key sustainable theme as a smaller part of their portfolio, then a focused clean energy or energy transition fund may be considered.

WORLD SRI AND QUALITY FACTOR INDICES OUT- AND UNDER-PERFORM TOGETHER



Source: BNP Paribas, Bloomberg

EUROPE LOW CARBON AND QUALITY FACTOR INDICES ARE ALSO HIGHLY CORRELATED



Source: BNP Paribas, Bloomberg



Improved corporate performance and lower cost of capital

Applying ESG criteria to one's investments implies a restriction of the global investment universe. It is thus important to understand which mechanisms in such a restricted universe can explain why the risk-return is not affected negatively. One key mechanism greatly discussed in ESG research relates to the cost of capital and corporate efficiency at the company level. Clark, Feiner and Viehs (2015)¹ highlighted this topic. The report shows that "90% of the studies find a relationship which points to a reducing effect of superior sustainability practices on the cost of capital". The main drivers were "good corporate governance structures, anti-takeover measures, good environmental management, and good employee relations and product safety". As mentioned previously, the growing "popularity" of sustainable investments should also underpin demand for stocks and bonds of companies with a high ESG rating and drive the cost of capital even lower.

Another key mechanism discussed in the report relates to operational performance. Studies show that all three ESG factors play a positive role. Regarding governance, "issues such as board structure, executive compensation, anti-takeover mechanisms and incentives are viewed as most important". When it comes to environmental issues, "corporate environmental management practices, pollution abatement and resource efficiency are mentioned as the most relevant to operational performance".

¹Clark, Feiner and Viehs (2015) "From the stockholder to the shareholder: How sustainability can drive financial performance", University of Oxford and Arabesque Partners.

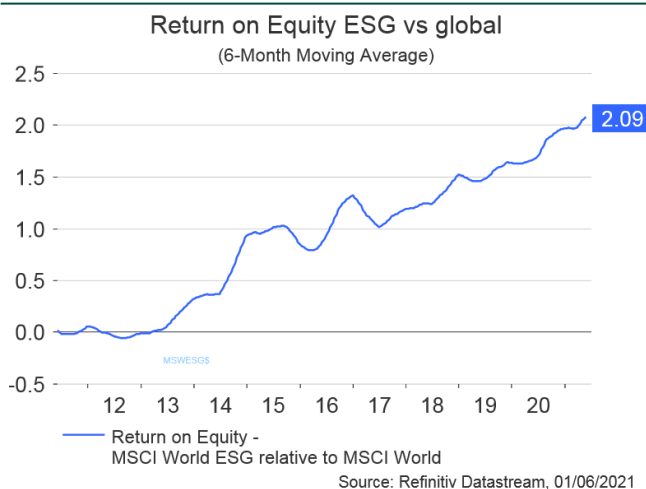
ESG expected to reduce tail risks

If companies neglect issues related to ESG they are exposed to higher risks, such as environmental accidents (E), reputational risk linked to labour conditions or gender inequality (S) and risks linked to corporate governance, such as fraud, compensation schemes and lack of risk control (G). Lee and Faff (2009)² find that "leading corporate social performance firms exhibit significantly lower idiosyncratic risk and that idiosyncratic risk might be priced by the broader equity market". Ilhan, Emirhan, Zacharias Sautner, and Grigory Vilkov (2019)³ show that "the cost of option protection against downside risks is larger for firms with more carbon-intense business models". This suggests the perception of large tail risks (low probability events but often with huge consequences) for some firms. The German government's decision to exit nuclear power in the wake of the Fukushima catastrophe had a major negative impact on utility companies for example (see chart). The 2019 IMF Global Financial Stability Report stresses that "Environmental risk exposures can lead to large losses for firms and climate change may entail losses for financial institutions, asset owners and firms". The integration of ESG factors into a firm's business model may help mitigate these risks. Beyond the environmental issues, reputational risks can lead to lasting negative effects on a company's valuation, and even default, in extreme cases. Typical examples are negative newsflow surrounding labour conditions, gender inequality as well as governance issues, such as compliance and risk control.

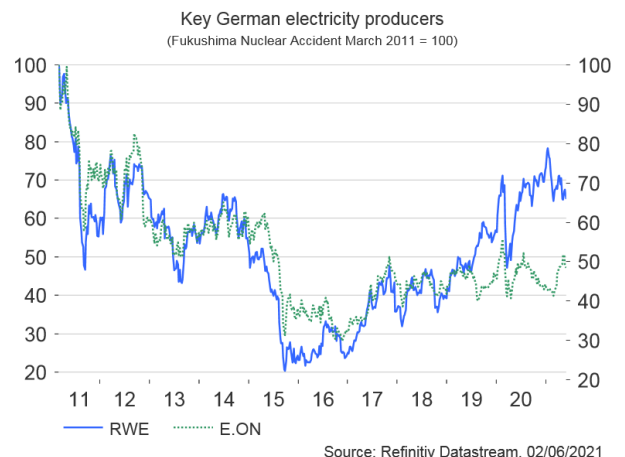
²"Corporate sustainability performance and idiosyncratic risk: A global perspective", The financial review, Vol. 44, N°2.

³"Carbon Tail Risk."

RETURN ON EQUITY ESG



THE EFFECTS OF THE DECISION TO EXIT NUCLEAR POWER IN GERMANY



Choosing a general ESG, SRI exposure or focused thematic exposure

Replacing general equity portfolio exposure, or seeking specific thematic exposure for growth? The choice between a more generalised and thus diversified ESG/SRI exposure on the one hand, or a specific thematic exposure to one subtheme within sustainability depends on one's investment objectives.

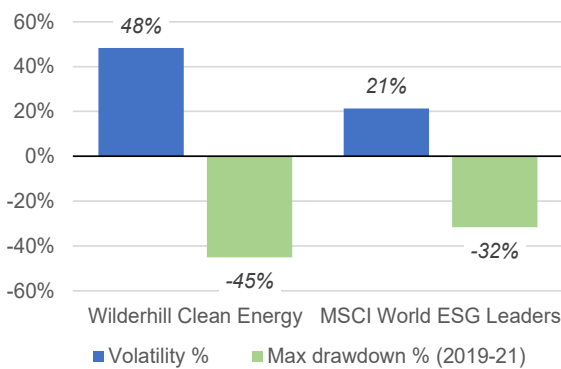
Investors looking simply to replace overall equity portfolio exposure with a sustainable equity exposure should opt for diversified funds or ETFs tracking a broad ESG/SRI benchmark index. However, investors looking to target a specific sustainability subtheme for a small part of their overall equity exposure to generate higher growth can look to specific thematic funds/ETFs in themes, such as the future of food, water, the energy transition, or diversity & inclusion.

Greater risk in specific thematic funds: given the larger concentration on a specific theme and fewer stocks, specific thematic funds naturally tend to have higher risk metrics than more diversified ESG funds.

High risk, high rewards in clean energy, carbon credit and electric vehicle/battery funds: clean energy/energy transition, carbon credit and electric vehicle and battery funds are all highly correlated with the technology sector and the growth investment style more generally. This is evident in the high correlation between the Wilderhill Clean Energy index and the ARK innovation ETF since 2019.

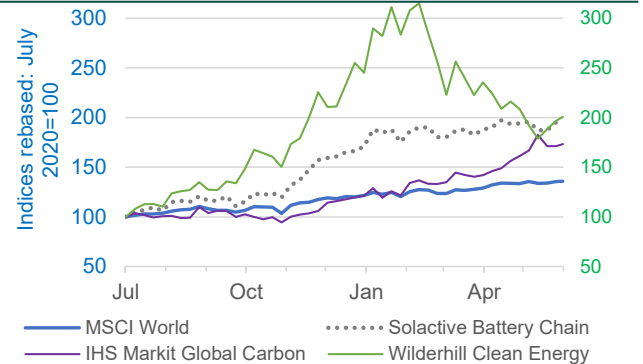
More steady outperformance of late from future of food, water and diversity & inclusion funds: these three thematic sustainability indices have performed in a more steady fashion since the middle of 2020, all outperforming the diversified MSCI World ESG Leaders index by varying amounts, but each remaining highly correlated to this broad equity index, exhibiting similar levels of volatility. This is unsurprising, since the composition of each of these thematic indices includes a high proportion of stocks drawn from more defensive sectors such as Food & Beverage and Utilities.

SPECIALISED CLEAN ENERGY INDEX MUCH MORE VOLATILE THAN DIVERSIFIED ESG



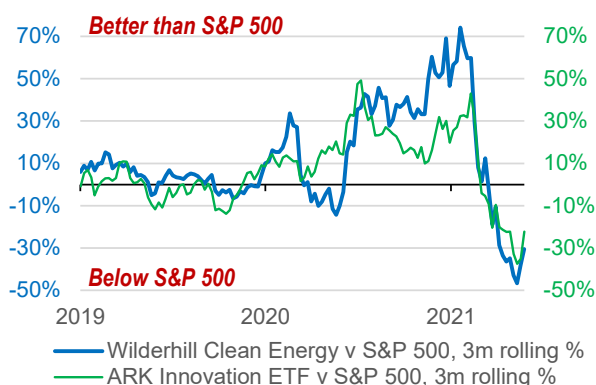
Source: BNP Paribas, Bloomberg

CLEAN ENERGY, BATTERY CHAIN AND CARBON CREDIT INDICES HAVE OUTPERFORMED...



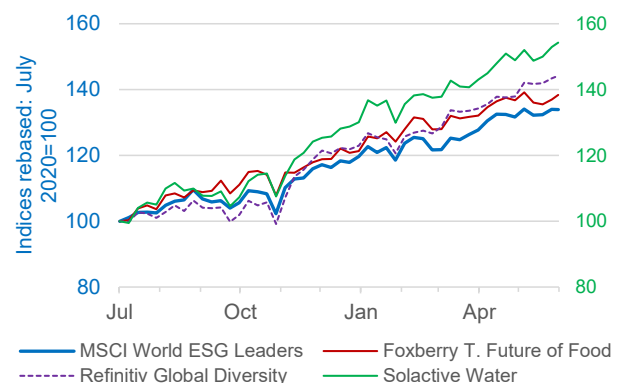
Source: BNP Paribas, Bloomberg

CLEAN ENERGY INDICES HIGHLY CORRELATED TO HIGH GROWTH STOCKS



Source: BNP Paribas, Bloomberg

...AS HAVE FUTURE OF FOOD, WATER AND DIVERSITY & INCLUSION INDICES



Source: BNP Paribas, Bloomberg



Sector bias in sustainability indices: Short Tech & Communications, Short Energy; Long Financials, Consumer

Sometimes heavy divergence in sector weightings: if you are investing in a specific thematic index such as Clean Energy or the Future of Food, you have to expect heavy sector biases in terms of fund weightings, as that is, after all, part of the thematic game.

But perhaps what is less obvious is the variance in sector weightings of even the more generalised ESG/SRI benchmark indices against a more traditional equity benchmark index like MSCI World.

ESG Enhanced, Low Carbon indices vary less v MSCI World: if you want a broad sustainability benchmark that is relatively close to the sector weightings in the MSCI World index, it is better to pick a fund that uses either the **MSCI World ESG Enhanced** or the **MSCI World Low Carbon** indices as a sustainability benchmark.

These two sustainable indices have broad sector weightings that remain relatively close to the MSCI World sector weightings, particularly when looking at the largest sectors such as Information Technology, Financials and Health Care.

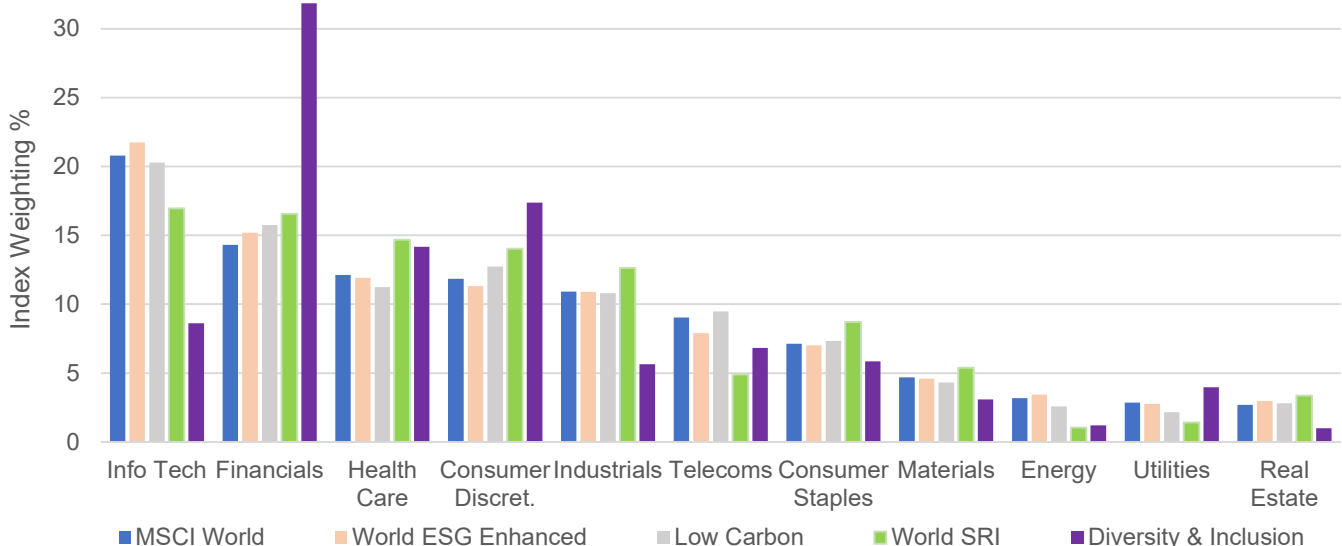
SRI and Diversity & Inclusion indices vary a lot: in contrast, the MSCI World SRI and Refinitiv Inclusion & Diversity indices depart markedly from the MSCI World in their sector weightings.

Both of these sustainable indices are more heavily weighted towards Financials, Health Care and Consumer sectors than the MSCI World.

But in contrast, they are less exposed to Information Technology, Communications (Media & Telecoms) and Energy than the MSCI World.

So before investing in funds that use either of these indices as benchmarks, one should be aware that performance of these sustainable funds can vary significantly from global equities overall, simply by virtue of these sector biases.

SRI, DIVERSITY & INCLUSION INDICES DIVERGE MOST FROM MSCI WORLD BENCHMARK



Source: BNP Paribas, Bloomberg



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