Insights
ESG

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S&P 500 ESG Exclusions-Based Exposure: A Strategic Allocation

Shankar Abburu
Quantitative Research & Analysis, SPDR ETF Model Portfolio Solutions

Daniel Ung, CFA®, CAIA, FRM
Head of Quantitative Research & Analysis EMEA & APAC, SPDR ETF Model Portfolio Solutions

- The risk-return profile of the S&P 500 ESG Exclusions exposure is similar to that of the broad S&P 500 benchmark.
- Excluding companies engaged in controversial industries or behaviour may mitigate reputational risks and promote ethical well-being for investors.

Overview

In this paper, we examine how to incorporate into an investment portfolio the S&P 500 Index where certain ESG values-based/SRI exclusion criteria have been applied. To this end, we examine the differences between using the S&P 500 Exclusions II Index and the S&P 500 Index in a strategic investment portfolio.

As a reminder, the S&P 500 Exclusions II index utilises an ESG/SRI exclusion[1] approach, while targeting a very similar risk-return profile as the broad benchmark. **It is designed to remove companies that are involved in controversial industries (namely, thermal coal[1], controversial weapons[2], tobacco[3] and firearms[4]) as well as violators of the UN Global Compact as determined by Sustainalytics and RRI Indicator as determined by RepRisk.**

How to Incorporate The Index in a Portfolio Context

The S&P 500 ESG Exclusions II index can be used as part of strategic (core) allocation within investment portfolios to gain exposure to broad US equities. The index is designed to maintain a similar risk profile to traditional beta benchmarks while removing controversial businesses or business areas.

Rationale Behind Applying Exclusions

Exclusionary screening is by far the most adopted sustainable investing approach, and 20% of globally invested assets exclude companies involved in controversial activities.[5] These approaches avoid companies that generate revenues from potentially objectionable activities and this may help mitigate reputational risks and promote ethical well-being for investors.

As an example, we can consider the implications of excluding companies that are deemed non-compliant with the United Nations Global Compact (UNGC) principles. These principles, which fall within the realm of human rights, labour, environment and anti-corruption issues, are designed to integrate sustainability into the heart of business operations, allowing for greater corporate transparency and accountability.

Divesting companies in violation of these Principles could help alleviate a potential risk faced by investors, which may arise from an insufficient focus on governance and a weak corporate culture. This is because deficiencies in internal corporate controls often foreshadow poor future behaviour. In this respect, investors can consider removals of badly managed companies as a longer-term risk management tool.

In addition to norms-based screening, the S&P 500 ESG Exclusions II index discards companies involved in controversial industries, such as tobacco and controversial weapons. In this instance, investors may view divestments as a mechanism to drive change in business strategies, activities and practices.[6]

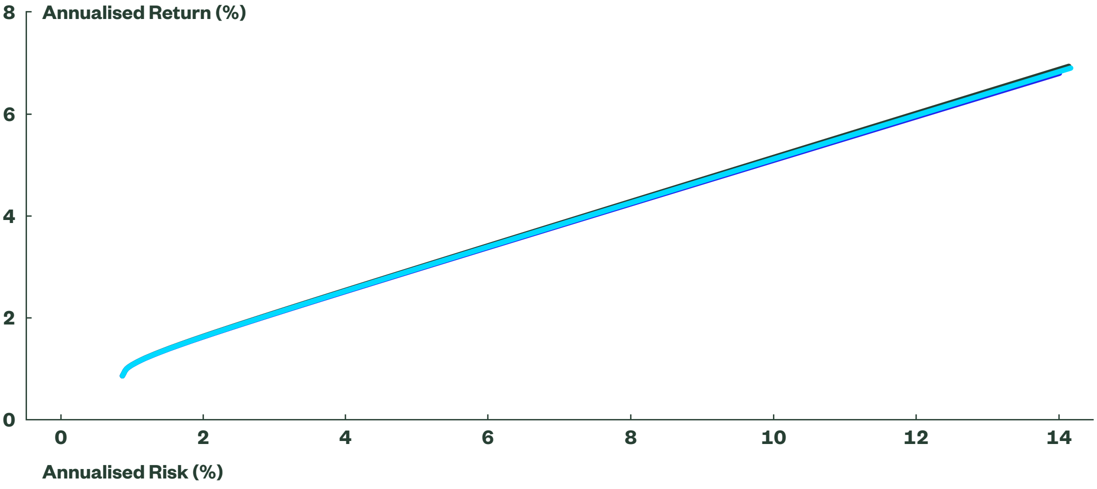
Assessing the Role S&P 500 Exclusions II Index in Portfolios

Our analysis shows that incorporating the S&P 500 Exclusions II Index in investment portfolios has delivered a similar risk-return profile as the broad-based S&P 500 Index, with the added benefit that companies engaged in controversial industries or 'objectionable' behaviour were removed from the investment universe.

Similar Risk-Return Profile as the Broad Benchmark

Here we evaluate whether replacing the S&P 500 with the S&P 500 Exclusions II Index compromised the risk-return profile of investment portfolios. To do this, we analysed a portfolio of equities and fixed income indices and observed the impact on the efficient frontier when the S&P 500 Index was replaced with the S&P 500 ESG Exclusions II Index. **Historically, the efficient frontier of the portfolios using the S&P 500 Index and the one that used the S&P 500 Exclusions II Index were nearly indistinguishable, highlighting the fact that the risk-return profile of the two indices was largely similar** (see Figure 1).

Figure 1
Efficient Frontier Analysis of Investment Portfolios with ESG-Enhanced and Conventional US Indices (Unconstrained) (Jul 2009–Feb 2021)



Source: Bloomberg Finance L.P., State Street Global Advisors, as of February 2021. Monthly Data between July 2009 to February 2021. "US Treasury" is represented by the Bloomberg Barclays US Treasuries 1–3 Years TR Index. "**S&P 500 ESG**" is represented by the S&P 500 ESG Exclusions II Index, "S&P 500" is represented by the S&P 500 Index and "MSCI USA" is represented by the MSCI USA Index. Past performance is not a guarantee of future results. The inception date for the S&P 500 Exclusions II index was 26 August 2019. Results prior to this date were calculated by using available data at the time in accordance with the Index's current methodology. Index returns reflect capital gains and losses, income, and the reinvestment of dividends. **BACKTESTED PERFORMANCE**: This document contains index performance data based on backtesting conducted by S&P Dow Jones Indices, i.e. calculations of how the index might have performed prior to launch if it had existed using the same index methodology and based on historical constituents. Backtested performance information is purely hypothetical and is provided in this document solely for information purposes. Backtested performance does not represent actual performance and should not be interpreted as an indication of actual performance.

To further examine the difference in performance from using the S&P 500 ESG Exclusions II Index as a core building block, we created various stylised equity-fixed income portfolios, where one of the portfolios used the S&P 500 ESG Exclusions II building block and the others simply used the traditional US broad equity benchmarks.

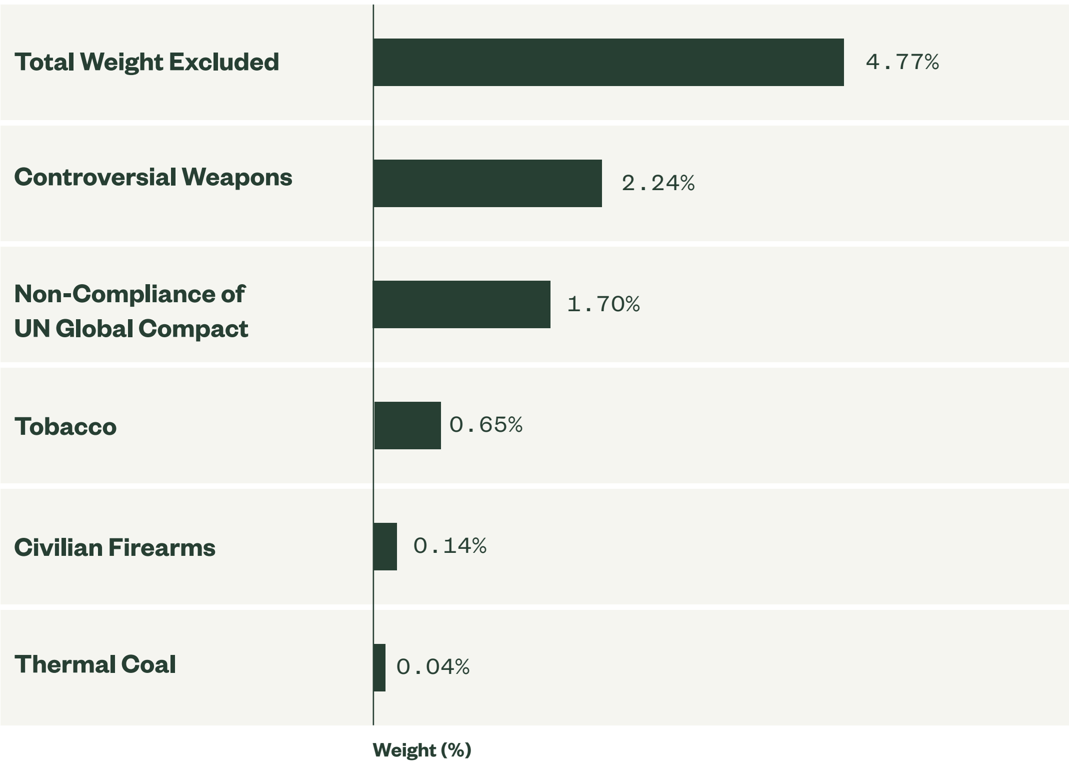
From the results (see Figure 2), it is apparent that the three portfolios delivered a similar level of return and risk, regardless of whether the S&P 500 ESG index is used. This result demonstrates that there is very little performance difference over the study period, even though removing companies involved in controversial activities or behaviour may improve performance over the longer term. **In any case, only 4.77% of the companies, equivalent to 18 companies, were excluded from the S&P 500 in December 2020** (See Figure 3).

Figure 2
Selected Risk-Return Characteristics of Equity-Fixed Income Portfolios Containing Different US Equity Benchmarks (with and without exclusionary filters)

	S&P 500 ESG Exclusions II 60%/US Treasury 40%	**MSCI USA 60%/ US Treasury 40%**	**S&P 500 60%/ US Treasury 40%**
Return			
Past 1 Year	19.41	20.21	18.59
Past 3 Years	10.01	10.03	9.45
Past 5 Years	10.72	10.79	10.42
Annual Return (Full Period)	9.56	9.54	9.40
Risk			
Past 1 Year	13.46	13.94	13.47
Past 3 Years	10.79	10.95	10.72
Past 5 Years	8.81	8.91	8.74
Annual Volatility (Full Period)	8.30	8.32	8.22
Maximum Drawdown	-10.71	-11.04	-10.89
Ratio			
Return per unit Risk	1.15	1.15	1.14
Market Beta			
Market Beta	1.01	1.01	–
Excess Returns			
Up Months	0.03	0.02	–
Down Months	-0.02	-0.01	–
Drawdown Statistics Based on the 60 Equity — 40 Fixed Income Drawdown Dates (%)			
Jan 2020 to Mar 2020 (COVID-19)	-10.71	-11.04	-10.89
Apr 2011 to Sept 2011 (Second Largest Drawdown)	-9.61	-9.79	-9.72
Sept 2018 to Dec 2018 (Third Largest Drawdown)	-8.14	-8.00	-7.92

Source: State Street Global Advisors, Bloomberg Finance L.P., as of February 2021. Monthly Returns data from July 2009 to February 2021. “US Treasury” is represented by the Bloomberg Barclays US Treasuries 1–3 Years TR Index. “**S&P 500 ESG**” is represented by the S&P 500 Exclusions II Index, “S&P 500” is represented by the S&P 500 Index and “MSCI USA” is represented by the MSCI USA Index. **BACKTESTED PERFORMANCE:** This document contains index performance data based on backtesting conducted by S&P Dow Jones Indices, i.e. calculations of how the index might have performed prior to launch if it had existed using the same index methodology and based on historical constituents. Backtested performance information is purely hypothetical and is provided in this document solely for information purposes. Backtested performance does not represent actual performance and should not be interpreted as an indication of actual performance.

Figure 3
Total Exposure of Companies Excluded in the S&P 500 Exclusions II Index



Source: S&P Dow Jones Indices, as of 31 December 2020. Characteristics are as of the date indicated, are subject to change, and should not be relied upon as current thereafter. This information should not be considered a recommendation to invest in a particular sector or to buy or sell any security shown. It is not known whether the sectors or securities shown will be profitable in the future.

Risk Attribution of ESG Index Against Broad-Based Benchmark

We conclude by conducting a risk attribution analysis of the S&P 500 Exclusions II Index against its benchmark in order to understand the sources of tracking error. This is particularly useful when investors would like to appreciate the drivers of risk and return of the ESG Exclusions II Index against the broad benchmark. Tracking error is a benchmark-relative (active) risk that indicates by how much the S&P 500 Exclusions II Index moves away from the broad-based S&P 500 Index.

To understand the biases that result from replacing the equity index with its ESG-orientated version, we compared the ESG Exclusions II Index against the S&P 500 Index. The analysis was conducted on the basis of holdings data using an MSCI Barra Multi-Asset Class Risk Model as at the end of February 2021.

As shown in Figure 4, the tracking error between the ESG Exclusions II Index and the S&P 500 was low. The main source of the tracking error lies in the selection risk. This outcome highlights that equity selection using ESG exclusionary criteria is a relevant consideration for this index. The rest of the tracking error emanates from style risk, mainly momentum (see Figure 5).

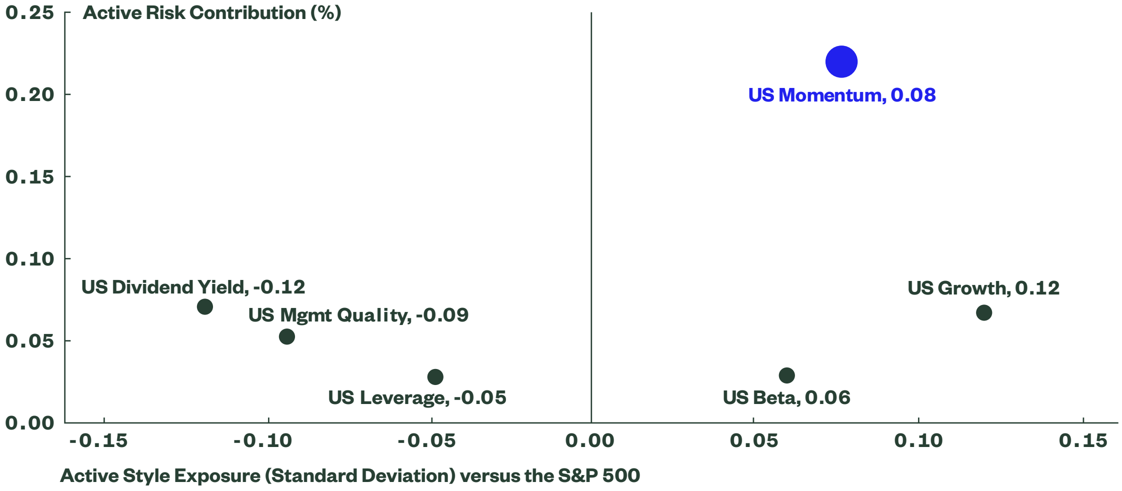
Figure 4
Risk Contribution to Ex-Ante Tracking Error of S&P 500 ESG vs. S&P 500

Risk Source	Active Portfolio Risk Contribution
Market	0.00
Style	0.56
Industry	0.37
Selection Risk	0.80
Currency Risk	0.00
Total (Tracking Error)	**1.73**

Source: MSCI Barra, State Street Global Advisors, as of February 2021. "S&P 500 ESG" is represented by the S&P 500 Exclusions II Index, "S&P 500" is represented by the S&P 500 Index.

Figure 5

Portfolio Risk Contribution — Style Risk Factors (S&P 500 ESG Index vs. S&P 500 Index)



Source: MSCI Barra, State Street Global Advisors, holdings data as of February 2021. The numbers next to the label in the graph represent the active style exposure in standard deviation.

Endnotes

[1] More than 25% of the revenues from thermal coal extraction (including thermal coal mining and exploration) or more than 25% of the revenues from electricity generation.

[2] Internal production or sale of controversial weapons or the ultimate holding company owns more than 10% of voting rights of the involved company.

[3] 0% revenue threshold.

[4] Manufacturers and sellers small arms and assault weapons to civilians and military/law enforcement or companies that derive more than 10% of their revenues from the sale of small firearms and assault weapons or owning more than 10% of the voting rights a company that are owned by the involved company.

[5] *2018 Global Sustainable Investment Review,* Global Sustainable Investment Alliance.

[6] *Demystifying negative screens: The full implication of ESG exclusions,* Schroder, December 2017.

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