

# US Investment Grade Credit: Stability Through ESG

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- Recent flows into investment grade credit have gone into ESG-compliant funds. We expect this trend to continue.
- State Street develops ESG indices that have similar characteristics to broader benchmarks. This allows investors to improve their ESG rating while also continuing to track the broader indices.
- Higher ESG ratings are also associated with lower levels of volatility and provide some stability.

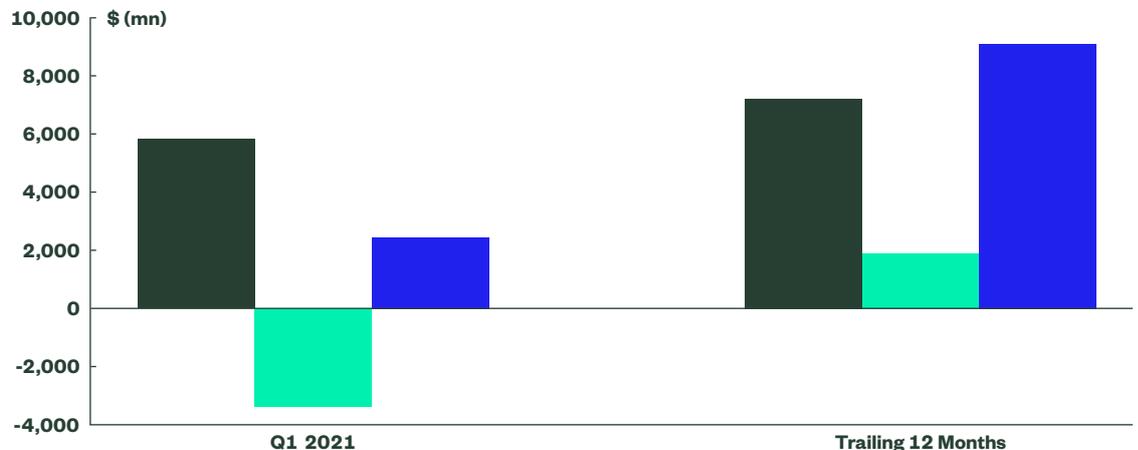
## ESG Asset Gathering

The financial industry is constantly evolving and in many cases new legislation is the key driver. In the fixed income world this is especially true, with pension and insurance legislation having played a major role in shaping the curve.

The latest evolution in fixed income has been a shift towards ESG assets. These flows have been evident in the euro-denominated corporate bond market for some time, with the development of new legislation such as the EU's SFDR<sup>1</sup> rules acting as a catalyst. USD-denominated flows are also starting to pick up. This is a reflection of trends in wider society, but there has also been an acknowledgement that focusing on environmental, social and governance (ESG) considerations need not mean forfeiting investment performance.

Figure 1  
European ETF Net  
Flows for US IG  
Credit Funds

■ ESG  
■ Non ESG  
■ Total



Source: Bloomberg Finance L.P., State Street Global Advisors as of 31 March 2021. Flows are as of the date indicated and should not be relied upon as current thereafter.

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The flows speak for themselves. In the investment grade (IG) credit arena, traditional strategies have seen outflows, driven by tight spreads to government bonds and the need to limit duration risk in an environment of rising government yields. However, ESG-associated flows have remained positive, pointing to switches out of non-ESG funds.

There is more legislation in the pipeline, with US president Biden also helping to drive the agenda. In addition, COP 26, scheduled to be held in Glasgow in November, will keep climate change initiatives in the spotlight.

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## The State Street Approach to ESG

While the shift toward ESG assets has been welcomed by investors, many asset managers have not yet evolved to track an ESG-compliant benchmark. This may well result in a portion of assets under management being in an “ESG-labelled bucket” but the majority are still trapped, tracking the more traditional market-weighted benchmarks. The State Street approach has been to develop a set of ESG indices that actually reflect the characteristics of the standard non-ESG benchmarks. This then means that the indices can be considered as building blocks for a core credit portfolio.

### A Brief Guide to the R-Factor™

The R-Factor™ is State Street’s ESG scoring metric, originally developed for its Asset Stewardship program. It is constructed using data from four different ESG data providers. These data points are mapped across to the Sustainability Accounting Standards Board’s (SASB) materiality map. The data is then averaged to give a single score to an issuer. This approach has three benefits:

- 1 The use of four separate data providers should neutralise any subjectivity bias that may result from using just one data provider.
- 2 The use of the SASB materiality map should ensure that this is a transparent framework that focuses on the aspects of ESG that are recognised as being financially material.
- 3 It creates a single ESG score per issuer that can then be used to compare different companies across sectors and industries.

For further details on State Street’s approach to ESG and its Asset Stewardship program, please visit our website, [ESG Investing: From Tipping Point to Turning Point](#).

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## Building the Bloomberg SASB ESG Ex-Controversies Select Indices

The R-Factor™ was developed for the State Street stewardship program but it is also used as the ESG scoring metric in the Bloomberg SASB ESG Ex-Controversies Select indices. The approach is a ‘best-in-class’ solution developed with Bloomberg but it first starts with a few exclusions.

The parent Bloomberg Barclays IG Corporate index is initially screened for several factors:

- **Extreme Event Controversies** Companies included within Category 5 (Extremely Severe Controversies).
- **Controversial Weapons** All companies classified as involved in the core weapon system or components and services that are considered tailor-made and essential for the lethal use of controversial weapons.
- **UNGC Violation** Companies that have breached a principle of the UN Global Compact.

- **Civilian Firearms** All companies deriving 5% or more in revenue generation from the manufacturing and/or sale of assault and non-assault weapons to civilian customers and/or their key components, as well as from the distribution and/or retail sale of assault and/or non-assault weapons.
- **Thermal Coal Extraction** All companies deriving 5% or more of their revenue from the extraction of thermal coal.
- **Tobacco** All companies deriving 5% or more of their revenue from the production or supply of tobacco or tobacco-related products and services, or 10% or more of their revenues from the distribution and retail sale of tobacco products.

Any issuers without an ESG score are also removed. These are typically companies that do not offer full disclosure in their corporate accounts.

The remaining index constituents are then optimised with the twin objective of **maximising the ESG score** while at the same time **minimising the difference in the index profile characteristics to the parent index** (the optimisation constraints are shown in Figure 2).

Figure 2  
**Index Optimisation Constraints**

<b>R-Factor™ Score or ESG Score</b>	Securities with R-Factor™ scores greater than or equal to the parent index average R-Factor™, and that also meet all controversial business screens, have a minimum market value weight equal to their parent index weight. Securities with R-Factor™ scores less than the parent index average R-Factor™ are eligible. These issuers are either excluded from the index or assigned a weight between one quarter of their parent index weight and up to 15 times their parent index weight.
<b>Option-Adjusted Duration</b>	Must be within 0.15 years of each Class 2 sector of the parent index.
<b>Duration Times Spread (DTS)</b>	Must be within 0.2 years of each Class 2 sector of the parent index. DTS is calculated by multiplying spread duration by LIBOR option-adjusted spread. DTS measures sensitivity to relative spread change as opposed to absolute spread change like modified duration.
<b>Yield to Worst</b>	Must be no less than 10bps from the parent index.
<b>Class 2 Sector Weights</b>	Bloomberg Barclays Class 2 sector weights must be within 200bps of the parent index.
<b>Index Rating Weights</b>	Bloomberg Barclays Index Rating weights (Aaa, Aa, A, Baa) must be within 300bps of the parent index.
<b>Security and Issuer Weights</b>	Individual security weights must be less than 15 times their weight in the parent index or 100bps, whichever is less. Issuer (ticker) weights must be less than 200bps plus their weight in the parent index. Only long positions are allowed.
<b>Cash Position</b>	All cash that enters the index mid month is completely reinvested into next month's index at the next rebalancing date. On each rebalancing date, cash has a 0% weight

Source: Bloomberg Finance L.P., as of June 2021.

The impact on the number of issuers/bonds at each stage is shown in Figure 3. By far the largest impact comes from the optimisation process, where securities with an R-Factor™ greater than or equal to the parent index average R-Factor™, and that also meet all controversial business screens, have a minimum market value weight equal to their parent index weight.

Securities with an R-Factor™ less than the parent index average R-Factor™ are eligible but may be assigned a weight that is less than in the parent index or be excluded.

Figure 3  
**ESG Exclusions and their  
Impact on the Parent Index**

	<b>Bloomberg SASB U.S. Corporate ESG Ex-Controversies Select Index</b>		
	<b>% of Parent Index</b>	<b>Issuers</b>	<b>Bonds</b>
Parent Index	100.0	876	6,780
ESG Flag/UNGC Violation	4.0	8	194
Business Exclusion	3.5	13	212
No R-Factor™	5.3	191	494
Optimisation Exclusion	32.9	333	2,624
<b>SASB Corporate ESG Index</b>	<b>54.3</b>	<b>331</b>	<b>3,256</b>

Source: State Street Global Advisors, Bloomberg Finance L.P., as of 1 April 2021. Characteristics are as of the date indicated and should not be relied upon as current thereafter.

## Comparing the ESG Index with its Parent

A comparison of the characteristics of the Bloomberg SASB U.S. Corporate ESG Ex-Controversies Select Index with its parent can be seen in Figure 4. Alignments of the characteristics are within the tolerance bands specified in Figure 2. The index ratings are in line, while the liquidity score is just marginally lower for the ESG index. Unsurprisingly there is a substantial (around 10 point) improvement in the ESG score for the Bloomberg SASB U.S. Corporate ESG Ex-Controversies Select Index versus the parent.

Figure 4  
**A Comparison of  
Index Characteristics**

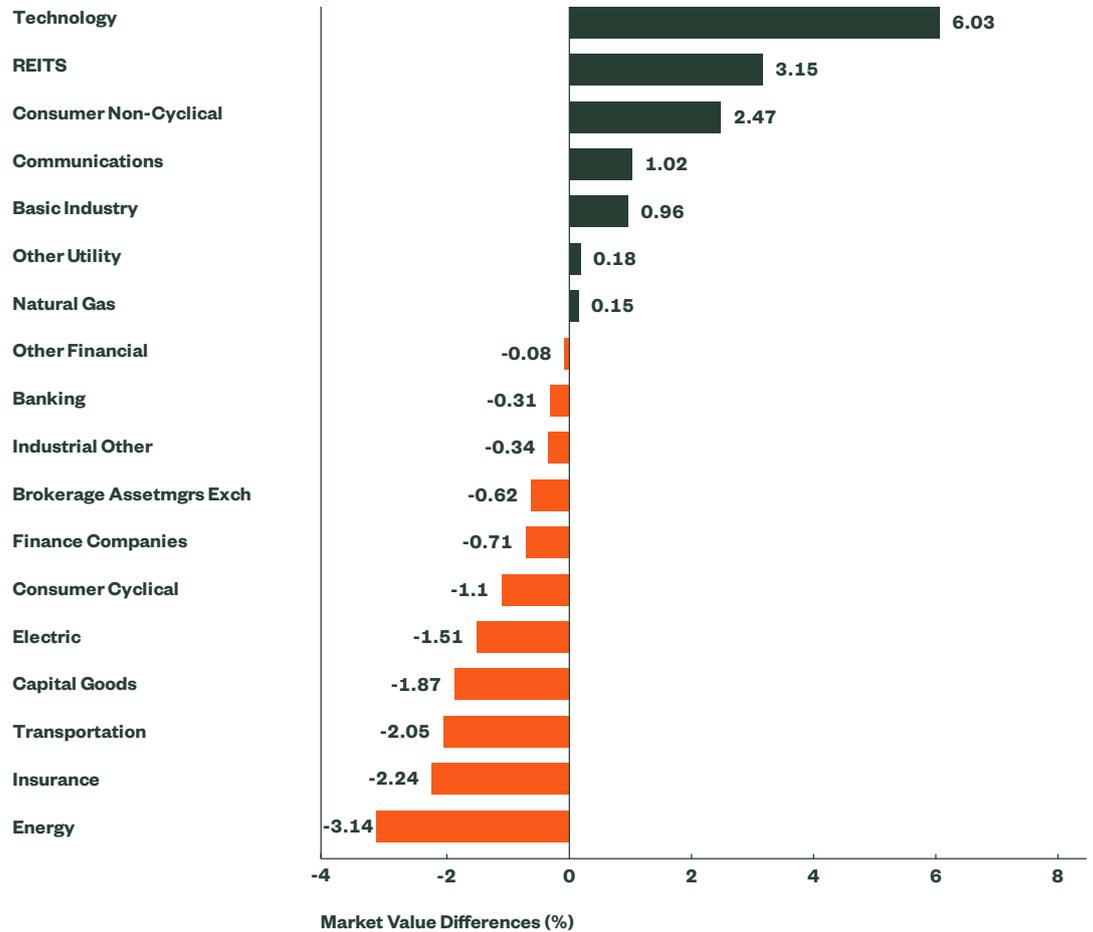
	<b>Bloomberg SASB U.S. Corporate ESG Ex-Controversies Select Index</b>	<b>Bloomberg Barclays U.S. Corporate Index</b>
Number of Issues	3,256	6,780
Number of Issuers	331	876
Market Value (USD Billion)	1,226	6,663
Yield to Worst	2.22	2.23
Coupon	4.142	3.806
Maturity (Years)	12.25	12.06
Option-Adjusted Duration	8.65	8.53
Option-Adjusted Spread	86.55	89.15
Option-Adjusted Convexity	1.38	1.36
Duration Times Spread	9.25	9.37
Index Rating	A3/BAA1	A3/BAA1
Liquidity Score	79.91	80.82
ESG Score (R-Factor™)	73.3	63.1*

Source: State Street Global Advisors, Bloomberg Finance L.P. As of 1 April 2021. Characteristics are as of the date indicated and should not be relied upon as current thereafter.

The sector weight constraints only refer at a Bloomberg Barclays Class 2 level, meaning there are still some material differences in sector allocations.

Figure 5

**Sector Weight Difference for the Bloomberg SASB USD Corporate ESG Ex-Controversies Select Index vs. Parent Index (%)**



Source: Bloomberg Finance L.P. As of 1 April 2021. Weights are as of the date indicated and should not be relied upon as current thereafter.

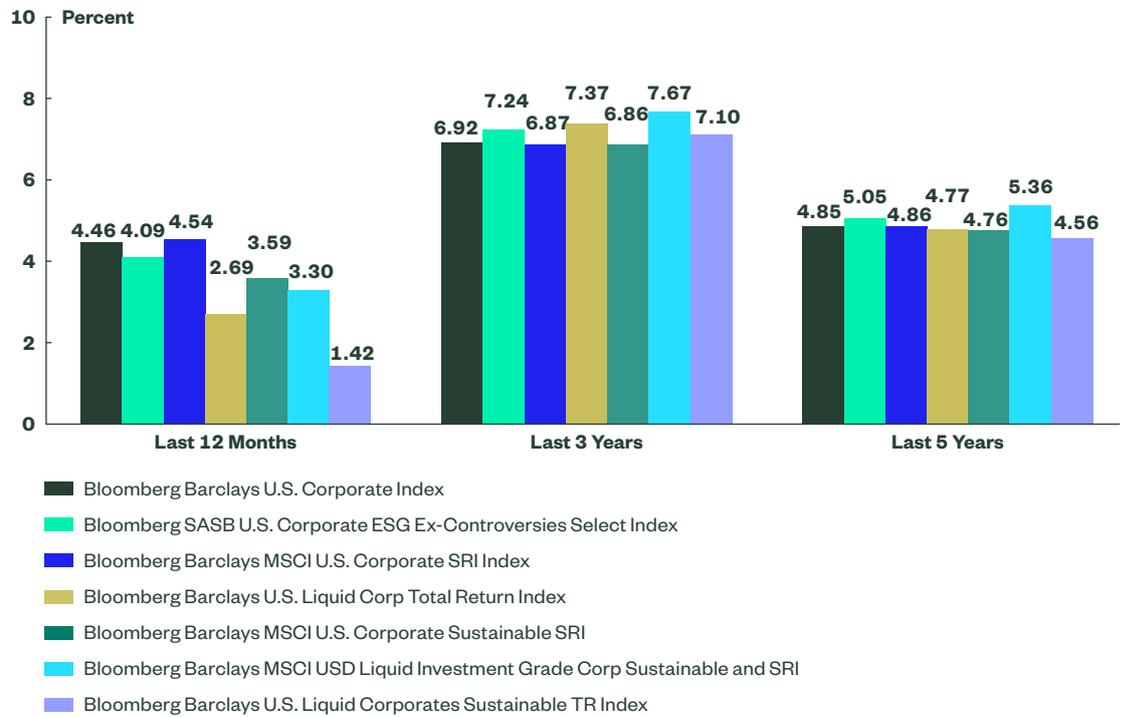
The ESG index is more heavily weighted toward technology issuers and real estate investment trusts (REITS). The Bloomberg SASB ESG index is underweight energy and transportation, which is fairly common in an ESG index. Later we will assess how these sector differences have affected performance.

**Performance: The Proof is in the Pudding**

There has been plenty written on how a focus on ESG assets does not undermine portfolio performance and can potentially enhance it over the longer term. Higher standards of governance and a reduced probability of violating laws by businesses considered ethical should at least help to avoid the bad apples in the barrel. However, on a shorter time horizon, given the sometimes substantial differences in sector and rating allocations, performance versus more traditional benchmarks can diverge.

While the Bloomberg SASB ESG Ex-Controversies Select Index also has different sector allocations, it is designed as a substitute for core bond holdings, meaning it should track the standard credit indices quite closely. Looking at the historical performance over the 12 months, 3 years and 5 years to 30 April 2021 (Figure 6), we see very little difference in returns with just a +20bp difference over 5 years. Indeed, the Bloomberg SASB U.S. Corporate ESG Ex-Controversies Select Index has had a tendency to outperform its parent index over the longer term.

Figure 6  
**Annualised Returns for IG USD ESG Indices vs. the Bloomberg U.S. Corporate Bond Index**

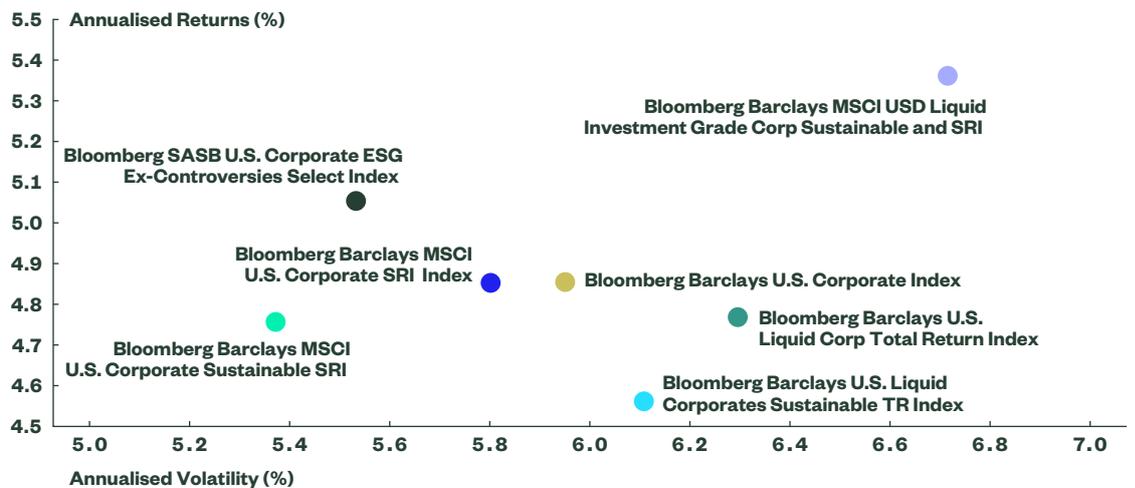


Source: Bloomberg Finance L.P., as of 30 April 2021. Past performance is not a reliable indicator of future returns.

Short-term deviations, however, can be higher, as seen over the 12 months to the end April 2021. That said, in comparison to many of the other ESG strategies shown, deviations from the Bloomberg Barclays U.S. Corporate Index are modest.

Another key draw for the inclusion of ESG-compliant issuers in a bond portfolio is the dampening effect that this typically has on volatility.<sup>2</sup> Again this is a reflection of higher governance standards and adherence levels to best practice that companies selected for their high ESG scores have a tendency to display. Low price volatility is certainly true of the Bloomberg SASB U.S. Corporate ESG Ex-Controversies Select Index, which has 40bp lower annualised volatility over a 5-year history than its parent index. It is the second lowest in its peer group, which, as can be seen from Figure 7, has a wide variance. The liquid strategies in particular are substantially more volatile.

Figure 7  
**Returns vs. Volatility in the USD IG Credit Market Over a 5-Year Period**



Source: Bloomberg Finance L.P., as of 30 April 2021. Past performance is not a reliable indicator of future returns.

## Surviving a Crisis — Performance Attribution in 2020

Figure 8  
**Performance Attribution  
for the Bloomberg SASB  
U.S. Corporate ESG  
Ex-Controversies  
Select Index Against  
the Bloomberg Barclays  
U.S. Corporate**

This lower volatility and focus on the issuers with best-in-class ESG credentials showed during the market volatility seen in early 2020. During the period from the end of 2019 to the end of March 2020, the crisis period, the Bloomberg SASB U.S. Corporate ESG Ex-Controversies Select Index returned -205.9bp against the Bloomberg Barclays U.S. Corporate Index return of -363.4bp.

(bp)	Dec-19 to Mar-20	Mar-20 to Dec-20
Yield Curve	4.2	-8.2
Asset Allocation	102.9	-78.4
Security Selection	52.1	-12.7
<b>Total</b>	<b>159.1</b>	<b>-99.2</b>

Source: Bloomberg Finance L.P. As of 30 April 2021. Past performance is not a reliable indicator of future returns.

The broad performance attribution shown in Figure 8 illustrates that this stronger relative performance during the crisis itself was predominantly driven by asset allocation. This makes sense given some of the worst-performing areas of the corporate bond market were energy and transportation as global travel ground to a halt and oil prices collapsed. As Figure 5 shows, these are both sectors where the Bloomberg SASB U.S. Corporate ESG Ex-Controversies Select Index has a substantially lower weight than the parent index.

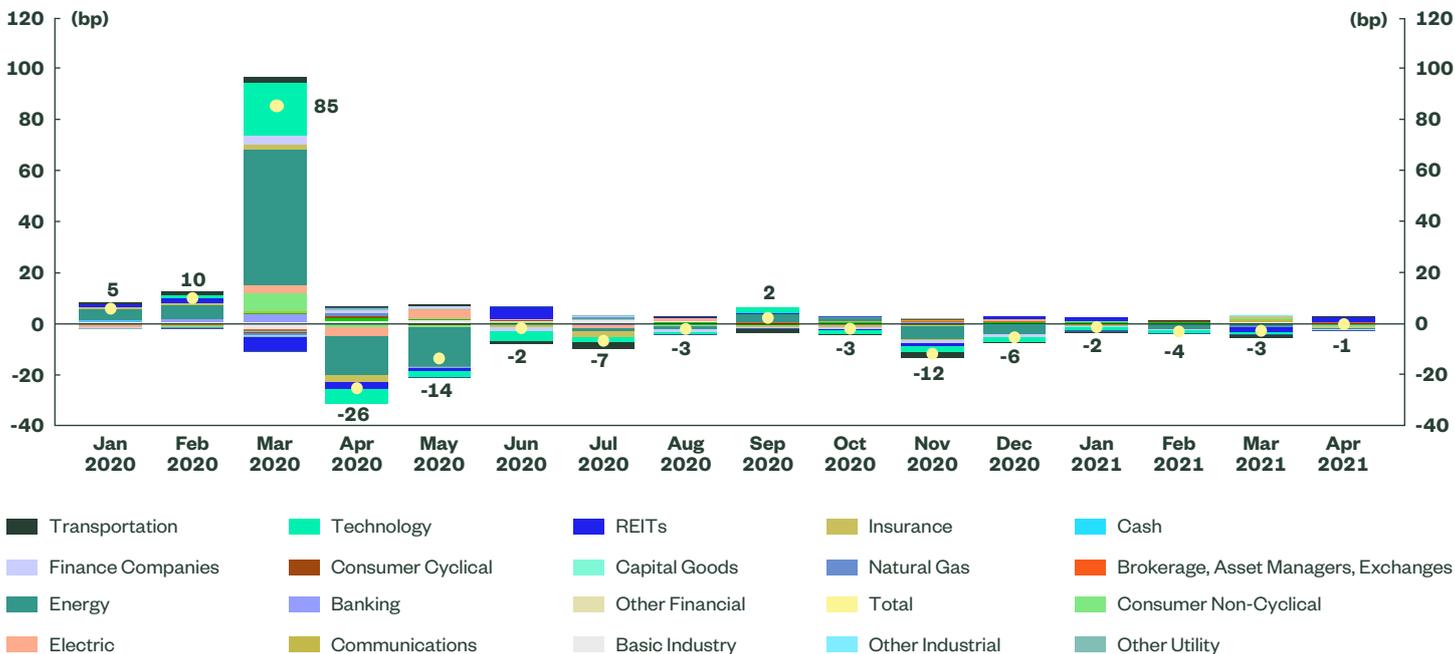
Conversely, the heavier weighting to tech was highly supportive as these were names that, on the whole, were perceived to benefit from the work from home environment. The effect can be seen clearly in Figure 9, where monthly drivers of relative performance are shown, with the lower weighting towards energy being a clear reason behind the ESG index's outperformance in January, February and March 2020.

In contrast, the period since the end of March 2020 saw a general compression of credit spreads, not least because the Federal Reserve (Fed) announced that it would start buying corporate bonds. This Fed safety net resulted in some of the most oversold bonds enjoying the sharpest rebounds. It should be no surprise that the Bloomberg SASB U.S. Corporate ESG Ex-Controversies Select Index struggled to match the performance of the parent index, with returns of 472.8bp against 524.3bp for the Bloomberg Barclays U.S. Corporate Index.

Figure 9 illustrates the sectors that have weighed on performance of the Bloomberg SASB U.S. Corporate ESG Ex-Controversies Select Index since March 2020 and energy is clearly the key driver as oil prices rebounded. Technology also swung from a key support for ESG performance to a drag.

Figure 9

**Performance Attribution by Sector for the Bloomberg SASB U.S. Corporate ESG Ex-Controversies Select Index vs. the Bloomberg Barclays U.S. Corporate**



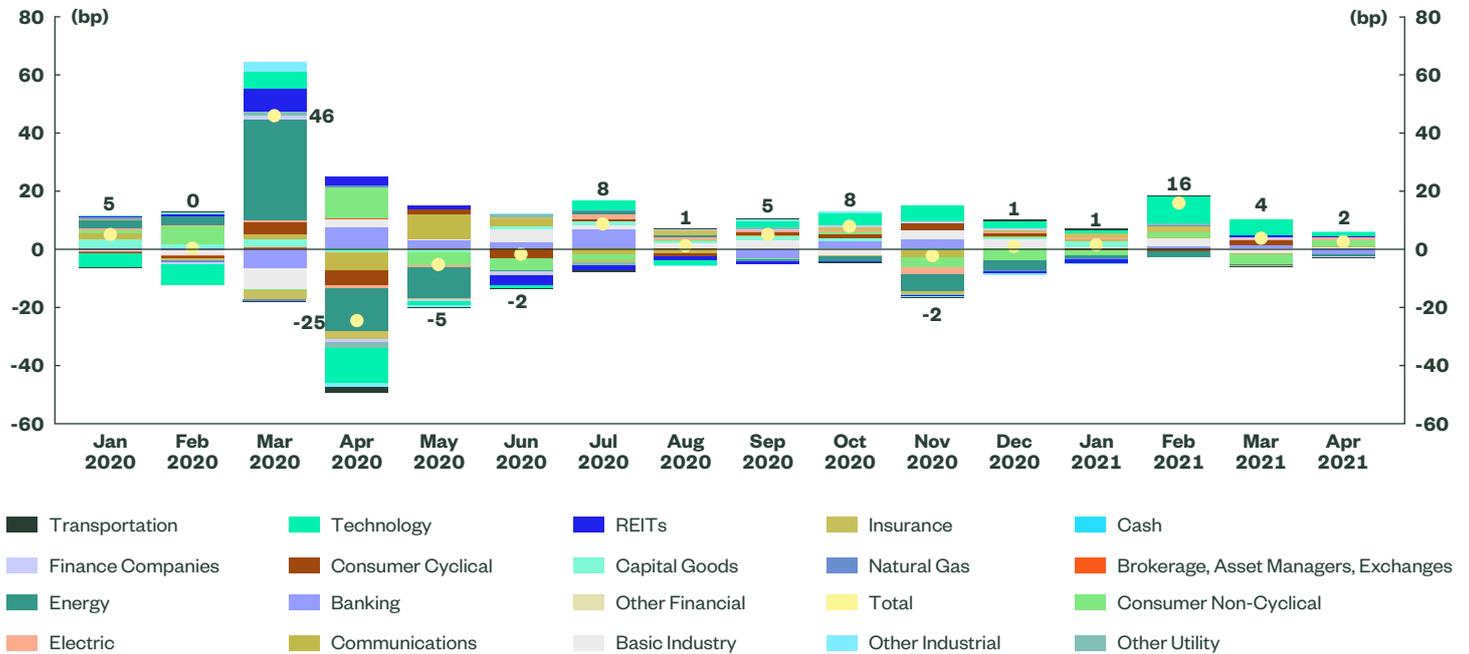
Source: State Street Global Advisors, Bloomberg Finance L.P., as of 30 April 2021. Past performance is not a reliable indicator of future returns.

The attribution also shows an ESG effect through security selection. This effect contributed more than 50bp of outperformance in Q1 2020 and suggests that, in times of stress, issuers with lower ESG ratings are the most aggressively offered in the market. The more granular monthly breakdown provides insights into which areas security selection was most influential. Unsurprisingly there is a heavy overlap to the sectors that were the big movers, such as energy. REITs and tech also made a significant positive contribution in March 2020, although tech actually acted as a relative drag on performance in January and February 2020. Security selection in basic industry and banking also contributed negatively.

Since March 2020, there has been some ‘payback’ with security selection weighing on the relative performance of the Bloomberg SASB U.S. Corporate ESG Ex-Controversies Select Index. However, this effect has been modest with security selection contributing just -12.7bp to the ESG index, so falling well short of reversing the gains made during the crisis period. Indeed, the only month of significant drag was April 2020, during the immediate rebound from the crisis.

Figure 10

**Performance Attribution by Security Selection for the Bloomberg SASB U.S. Corporate ESG Ex-Controversies Select Index vs. the Bloomberg Barclays U.S. Corporate**



Source: State Street Global Advisors, Bloomberg Finance L.P., as of 30 April 2021. Past performance is not a reliable indicator of future returns.

ESG is becoming more visible in fixed income investing and this can be seen in the physical flow of funds. Given increasing legislation, we expect this trend to persist for the foreseeable future. Making the switch is not always straightforward for those investors that are benchmarked to more traditional market-cap-weighted strategies. One possible solution is the Bloomberg SASB U.S. Corporate ESG Ex-Controversies Select Index, which is designed to provide a similar performance to the wider Bloomberg Barclays U.S. Corporate Index and can therefore be used as a core bond holding. While the aim of the strategy is to match performance, it has the advantage of delivering that performance with lower levels of volatility than the parent index.

**Endnotes**

- 1 The Sustainable Finance Disclosure Regulation imposes mandatory ESG disclosure obligations for asset managers and became effective on 10 March 2021.
- 2 For further reading see the paper by our colleagues in Quantitative Research & Analysis, ESG-Enhanced Corporate Bond Indices: A Strategic Allocation.

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