

ESG Investing in U.S. Investment Grade Credit

Contributor

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Introduction

Assets tracking ESG-based investment strategies have been booming recently. While ESG demand has increased in recent years, there's been additional appetite in the wake of the COVID-19 pandemic. ESG refers to three key aspects of sustainability and ethical business practices: environmental, social and governance. When measured and filtered for, ESG-based investing can provide a way for capital to flow to firms that engage in business lines and practices conducive to sustainability and high standards of ethics. Much in the way investors have long understood risk factors related to credit, interest rates and idiosyncrasies, ESG metrics seek to capture real risk factors facing investors.

With the launch of the iBoxx MSCI ESG Advanced USD Liquid Investment Grade (IG) Index (IBOXIG ESG), the U.S. IG corporate bond market has a crucial measure for the tradable ESG IG credit market. The IBOXIG ESG selects from the iBoxx USD Liquid Investment Grade Index (IBOXIG) universe, and then applies climate and values-based screens to create an index composed of the IBOXIG entities with above-average ESG scores relative to their industry peers. The ESG screens exclude flagged business lines, as well as firms where the percent of revenue is linked to flagged business practices.¹

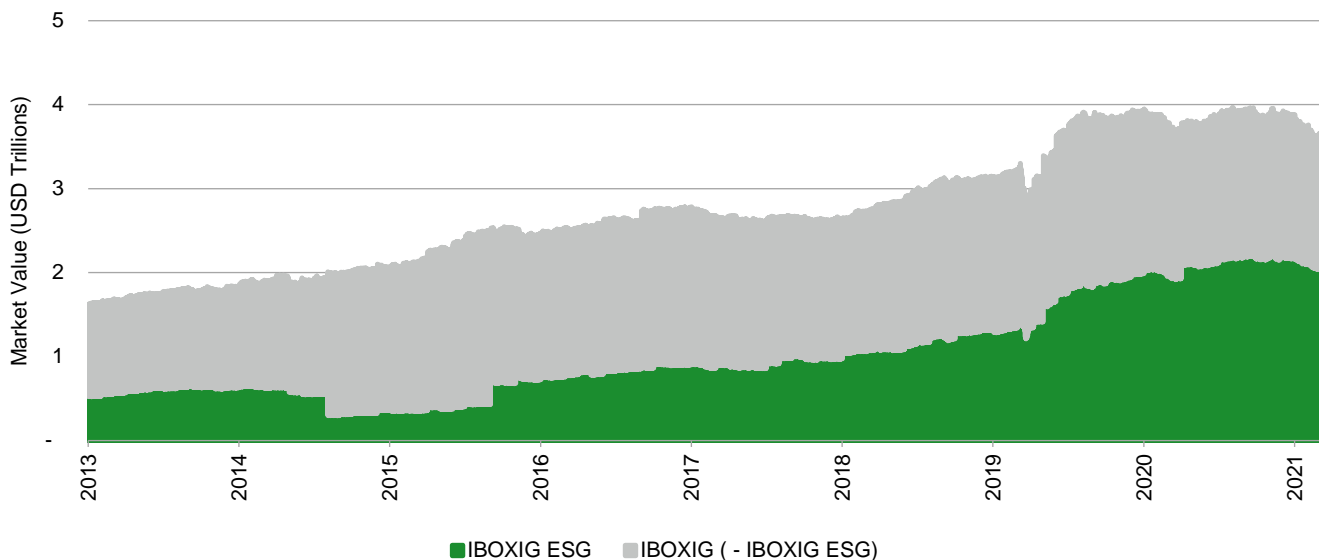
¹ For details of the flagged industries and thresholds, please see the index rules guide [here](#).

The climate-based screens remove issuers from the Oil & Gas sector, issuers with industry ties to fossil fuels and issuers scoring below a defined threshold for environmental controversy. The values-based screens remove a variety of controversial business activities including adult entertainment, alcohol, civilian firearms, controversial weapons, privatized prisons, gambling, genetically modified organisms, nuclear power, nuclear weapons, palm oil, predatory lending and tobacco, as well as issuers violating the United Nations Global Compact (UNGC). The index also removes issuers with MSCI ESG ratings of BB and below and issuers below a defined threshold for overall controversy.

Overview of the ESG Market

Of the current USD 3.5 trillion of bond market value in IBOXIG as of March 31, 2022, USD 2.0 trillion are in-debt issuers with above-average ESG scores that are also included in IBOXIG ESG. High quality ESG entities have averaged 36.60% of the market value of the broader liquid IG market since Dec. 31, 2013. Beginning mid-2018, the share of quality ESG entities began to rise, and now it stands at 56.51% of the total market. This may suggest the positive impact that ESG frameworks have had by incentivizing company managers to establish practices in demand from their potential investors.

Exhibit 1: Market Value

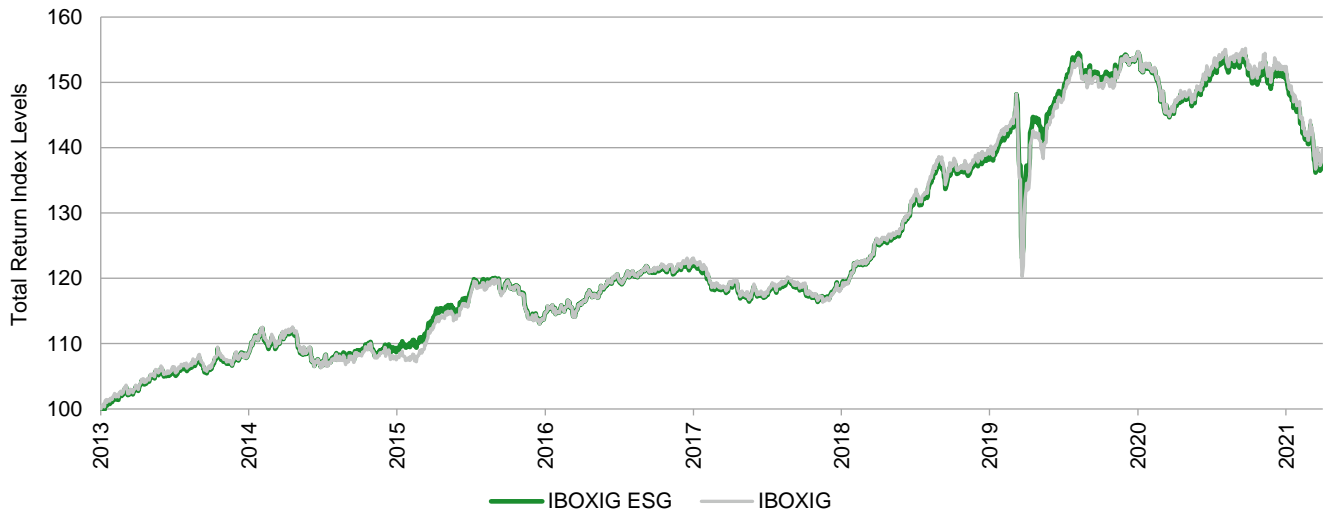


Source: IHS Markit, part of S&P Global. Data as of March 31, 2022. The iBoxx MSCI ESG Advanced USD Liquid Investment Grade Index was launched July 28, 2021. All data prior to index launch date is back-tested hypothetical data. Past performance is no guarantee of future results. Chart is provided for illustrative purposes and reflects hypothetical historical performance. Please see the Performance Disclosure at the end of this document for more information regarding the inherent limitations associated with back-tested performance.

Risk/Return Profile

The total return performance was nearly identical between IBOXIG ESG and IBOXIG (annualized 4.02% versus 4.09% in the period from Dec. 31, 2013, to March 31, 2022, respectively), with a correlation of daily returns between the two indices of 0.99. This enables investors to attain near-identical performance to the overall U.S. IG credit market within an ESG framework.

Exhibit 2: Total Return Index Levels



Source: IHS Markit, part of S&P Global. Data as of March 31, 2022. Past performance is no guarantee of future results. The iBoxx MSCI ESG Advanced USD Liquid Investment Grade Index was launched July 28, 2021. All data prior to index launch date is back-tested hypothetical data. Past performance is no guarantee of future results. Chart is provided for illustrative purposes and reflects hypothetical historical performance. Please see the Performance Disclosure at the end of this document for more information regarding the inherent limitations associated with back-tested performance.

The IBOXIG ESG's performance suggests the utility of ESG screens for overall risk management. While the 4.02% annualized total returns for the IBOXIG ESG were only 7 bps less than the IBOXIG. The 5.86% annualized volatility of the IBOXIG ESG was 32 bps less than IBOXIG's 6.19% annualized volatility. This resulted in the IBOXIG ESG having a higher Sharpe ratio than the IBOXIG. Additionally, the maximum drawdown for the IBOXIG ESG was 1.92% less than the IBOXIG.

Exhibit 3: Historical Back-Tested Risk/Return Profiles of the iBoxx IG ESG and iBoxx IG Indices

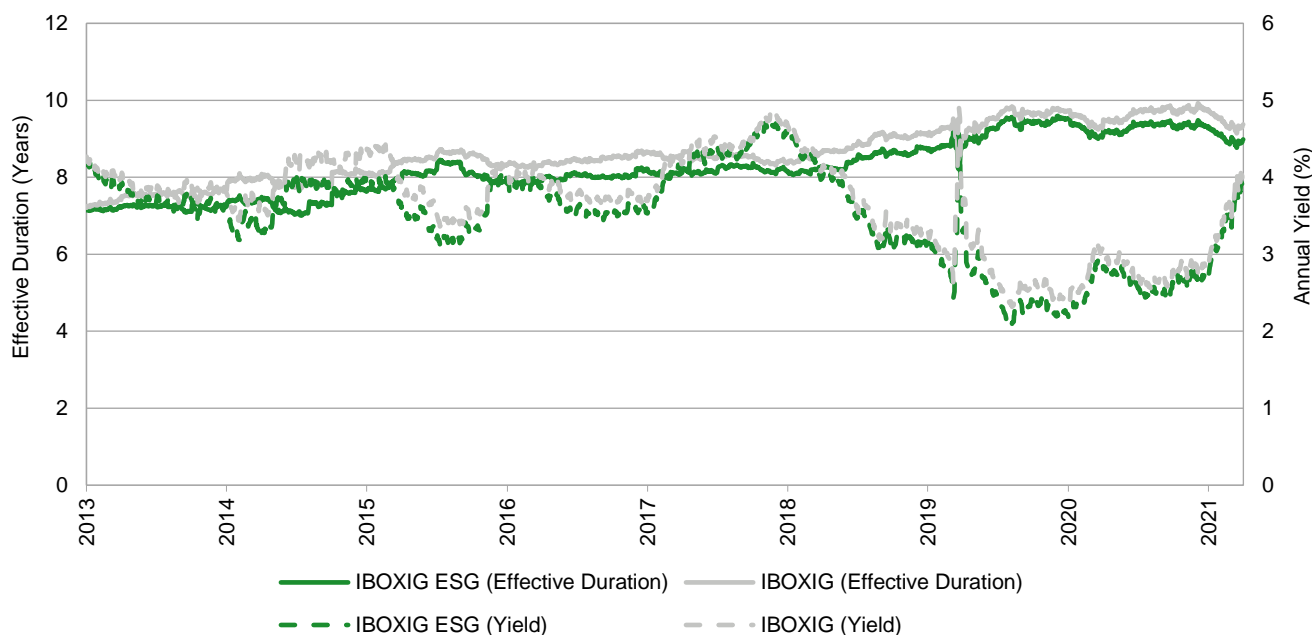
Category	IBOXIG ESG	IBOXIG
Annualized Return (%)	4.02	4.09
Volatility (%)	5.86	6.19
Sharpe Ratio (0 rates)	0.685	0.661
Maximum Drawdown (%)	-16.96	-18.88
Maximum Drawdown Date	March 20, 2020	March 20, 2020

Source: IHS Markit, part of S&P Global. Data as of March 31, 2022. The iBoxx MSCI ESG Advanced USD Liquid Investment Grade Index was launched July 28, 2021. All data prior to index launch date is back-tested hypothetical data. Past performance is no guarantee of future results. Table is provided for illustrative purposes and reflects hypothetical historical performance. Please see the Performance Disclosure at the end of this document for more information regarding the inherent limitations associated with back-tested performance.

Duration, Yield and Spread

As of March 31, 2022, interest rate risk was slightly less for the IBOXIG ESG; its effective duration of 8.98 was 0.39 years less than the 9.37 duration of the IBOXIG. The IBOXIG ESG's annual yield of 3.75% was 12 bps less than the 3.87% yield of the IBOXIG.

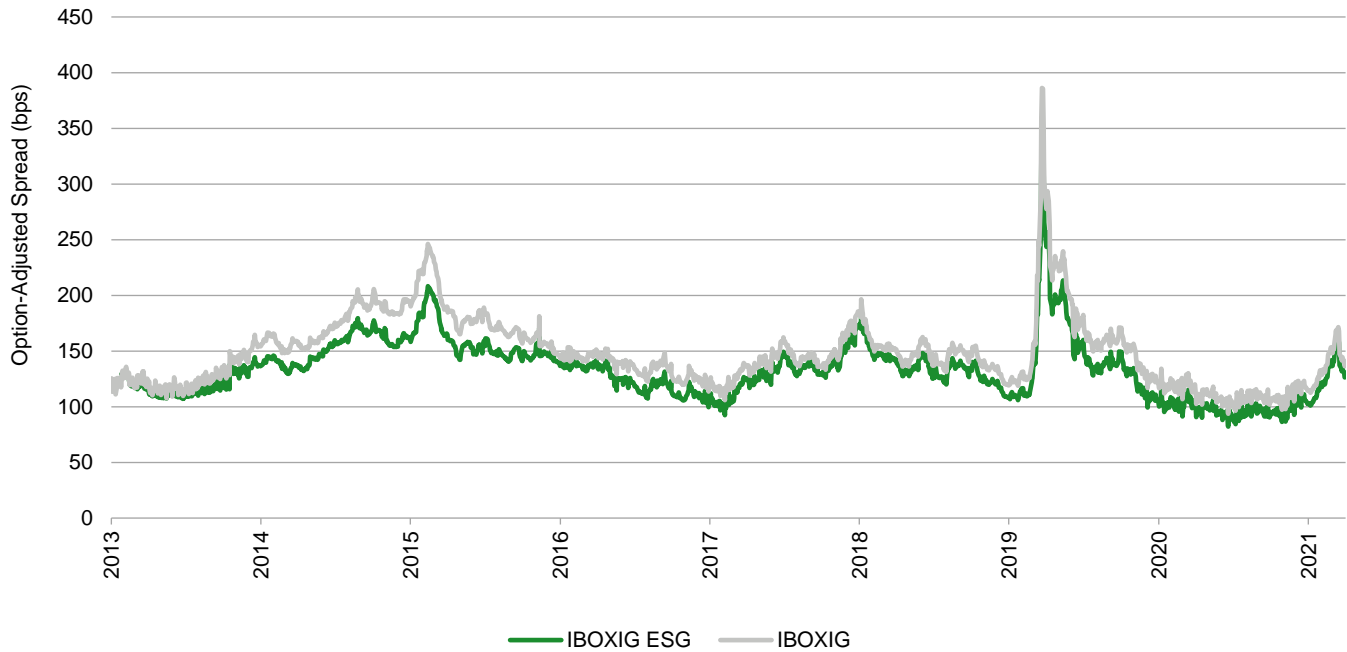
Exhibit 4: Duration and Yield



Source: IHS Markit, part of S&P Global. Data as of March 31, 2022. Past performance is no guarantee of future results. The iBoxx MSCI ESG Advanced USD Liquid Investment Grade Index was launched July 28, 2021. All data prior to index launch date is back-tested hypothetical data. Past performance is no guarantee of future results. Chart is provided for illustrative purposes and reflects hypothetical historical performance. Please see the Performance Disclosure at the end of this document for more information regarding the inherent limitations associated with back-tested performance.

Overall credit risk was similar, although the IBOXIG ESG skewed toward higher rated bonds. The 127 bps option-adjusted spread (OAS) for the IBOXIG ESG was 10 bps lower than the 137 bps OAS for the IBOXIG.

Exhibit 5: Option-Adjusted Spread

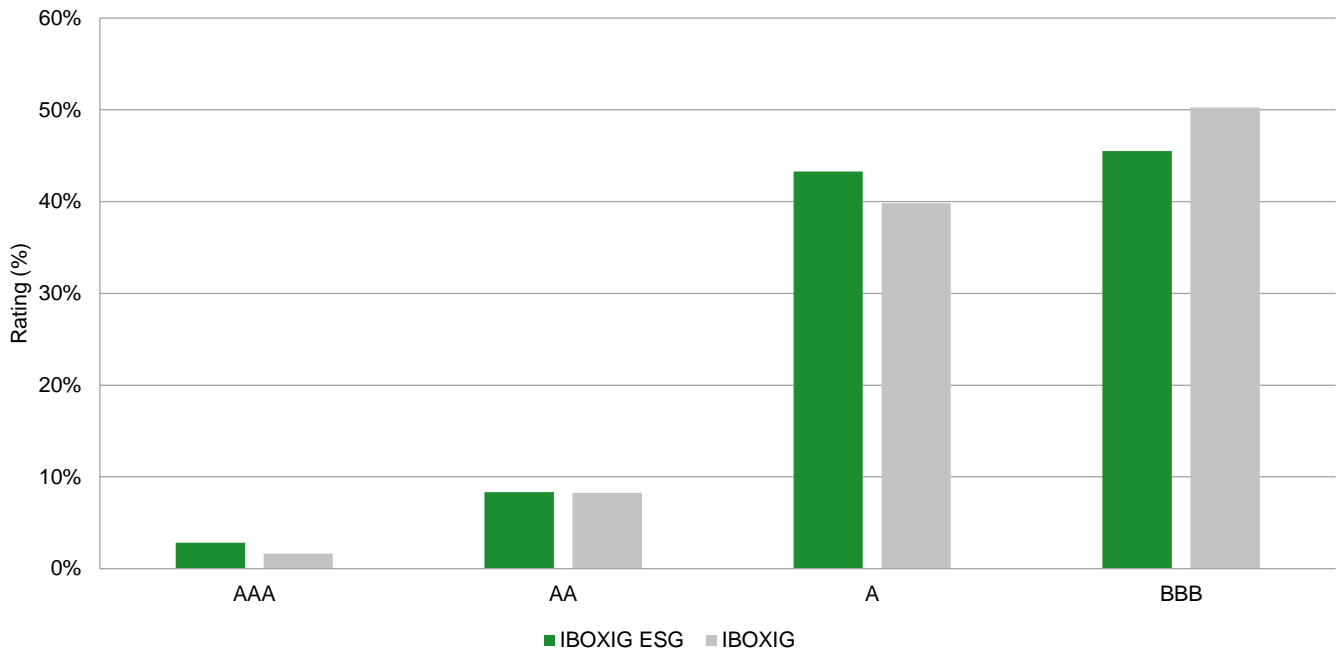


Source: IHS Markit, part of S&P Global. Data as of March 31, 2022. Past performance is no guarantee of future results. The iBoxx MSCI ESG Advanced USD Liquid Investment Grade Index was launched July 28, 2021. All data prior to index launch date is back-tested hypothetical data. Past performance is no guarantee of future results. Chart is provided for illustrative purposes and reflects hypothetical historical performance. Please see the Performance Disclosure at the end of this document for more information regarding the inherent limitations associated with back-tested performance.

Rating Distribution

The biggest rating differences were in the A- and BBB-rated buckets (the IBOXIG ESG buckets were up 3.46% and down 4.71% versus the IBOXIG, respectively). The IBOXIG ESG had 1.19% more exposure to AAA-rated bonds than the IBOXIG (2.84% versus 1.64%, respectively), while having 6 bps less exposure to AA-rated bonds (8.34% versus 8.28%, respectively).

Exhibit 6: Rating Distribution



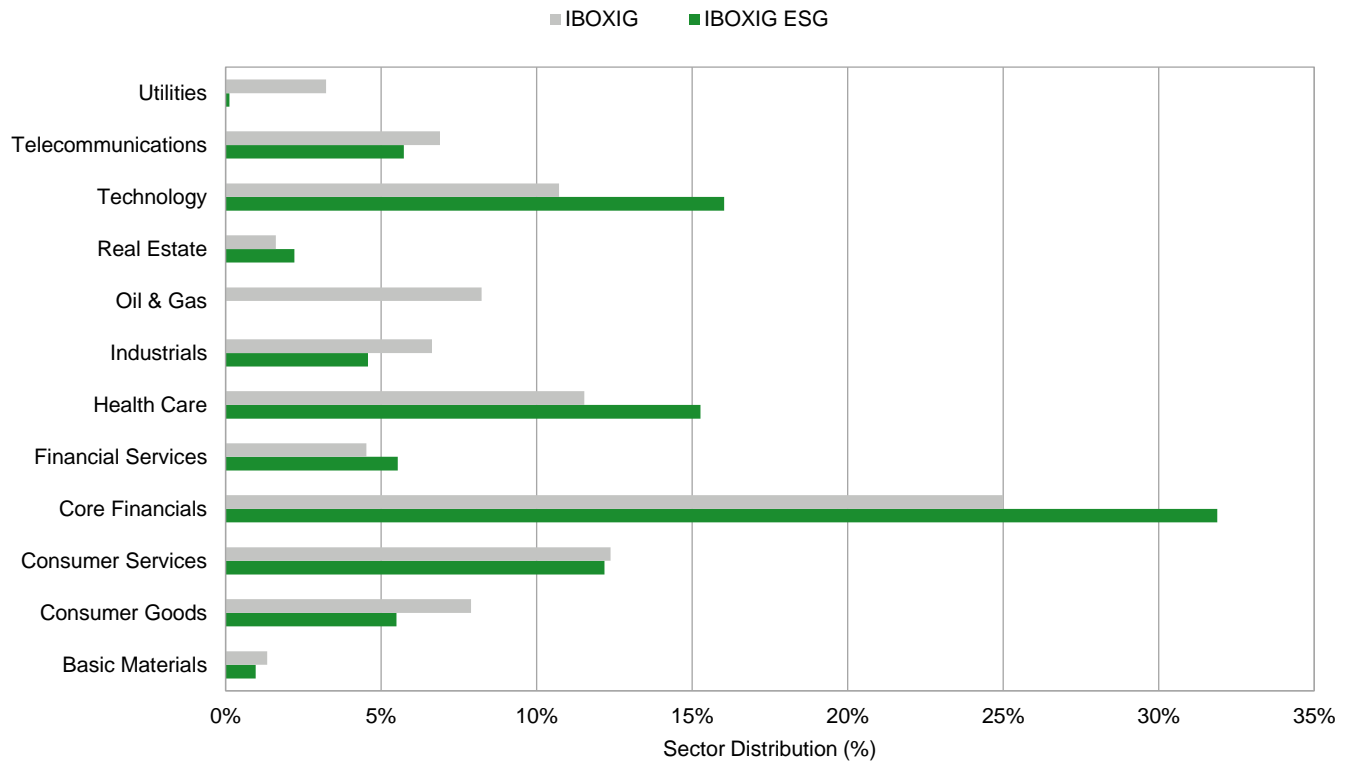
Source: IHS Markit, part of S&P Global. Data as of March 31, 2022. Past performance is no guarantee of future results. Chart is provided for illustrative purposes.

Sector Distribution

Unlike the IBOXIG that had a 23% weight in Oil & Gas issuers, the IBOXIG ESG had no exposure to the sector, since Energy names were excluded by rule. This exclusion had an impact on spread—by removing Oil & Gas issuers from the IBOXIG, the OAS was reduced by 1 bp from 137 to 136. There was still an additional 9 bps reduction in spread to get to the IBOXIG ESG’s 127 bps OAS that couldn’t be explained by Energy names and could instead be due to the broad application of ESG criteria across other industries.

The next two most underweight sectors in the IBOXIG ESG versus the IBOXIG were Utilities and Consumer Goods. The IBOXIG ESG was most overweight versus the IBOXIG in Core Financials, Technology and Health Care.

Exhibit 7: Sector Distribution



Source: IHS Markit, part of S&P Global. Data as of March 31, 2022. Past performance is no guarantee of future results. Chart is provided for illustrative purposes.

Top Issuers Comparison

Seven names overlapped between the IBOXIG and IBOXIG ESG top 10 largest issuers by market capitalization. Notably, AT&T, Wells Fargo and Comcast were names in the IBOXIG top 10 that were excluded from the IBOXIG ESG due to failing the ESG criteria.

The three additional names in the IBOXIG ESG top 10 were Oracle, HSBC and Abbvie. Both the IBOXIG ESG and IBOXIG used a 3% issuer cap to ensure diversification of idiosyncratic risk. The IBOXIG had two entities that required capping the issuer weight, while the seven largest issuers in IBOXIG ESG had their weight constrained to 3%.

Exhibit 8: IBOXIG Top 10 Issuers

Issuer	Weight (%)	Market Value (USD Million)	Par Amount (USD Million)
Bank of America Corp	3.00	126,715	128,093
JPMorgan Chase & Co	3.00	110,316	110,000
Goldman Sachs Group Inc/The	2.50	90,042	89,091
Citigroup Inc	2.35	84,896	82,736
AT&T Inc*	2.32	83,734	87,108
Morgan Stanley	2.17	78,431	78,485
Wells Fargo & Co*	2.08	75,015	71,816
Verizon Communications Inc	2.08	74,963	76,843
Apple Inc	1.90	68,700	70,000
Comcast Corp*	1.88	67,746	69,140

*Entities that did not qualify for the IBOXIG ESG

Source: IHS Markit, part of S&P Global. Data as of March 31, 2022. Table is provided for illustrative purposes.

Exhibit 9: IBOXIG ESG Top 10 Issuers

Issuer	Weight (%)	Market Value (USD Millions)	Par Amount (USD Millions)
Bank of America Corp	3.00	126,715	128,093
JPMorgan Chase & Co	3.00	110,316	110,000
Goldman Sachs Group Inc/The	3.00	90,042	89,091
Citigroup Inc	3.00	84,896	82,736
Morgan Stanley	3.00	78,431	78,485
Verizon Communications Inc	3.00	74,963	76,843
Apple Inc	3.00	68,700	70,000
Oracle Corp*	2.90	59,428	63,490
HSBC Holdings PLC*	2.51	51,384	50,500
AbbVie Inc*	2.20	45,113	42,816

*Entities that were not in the IBOXIG top 10

Source: IHS Markit, part of S&P Global. Data as of March 31, 2022. Table is provided for illustrative purposes.

Exhibit 10 shows the 10 largest firms that are part of the IBOXIG as of March 31, 2022, but are not in the IBOXIG ESG due to failing the ESG screens. There are several reasons why an entity could be excluded, and they can in fact fail more than one of the ESG screens, as was the case for Wells Fargo and Boeing.

Exhibit 10: Top 10 Missing from IBOXIG ESG

Ticker	Issuer	Market Value (USD Millions)	Par Amount (USD Millions)	Reason for Exclusion
T	AT&T Inc	83,734	87,108	ESG Rating < BBB
WFC	Wells Fargo & Co	75,015	71,816	ESG Rating < BBB; Overall Controversy Score
CMCSA	Comcast Corp	67,746	69,140	ESG Rating < BBB
ABIBB	Anheuser-Busch Cos LLC	60,149	53,951	Alcohol Producer
CHTR	Charter Communications Operating LLC	41,854	42,600	ESG Rating < BBB
BA	The Boeing Co	40,663	38,800	ESG Rating < BBB; Controversial & Conventional Weapons; Overall Controversy Score
AVGO	Broadcom Inc	36,983	38,504	ESG Rating < BBB
TMUS	T-Mobile USA Inc	34,106	35,550	ESG Rating < BBB
UNH	UnitedHealth Group Inc	32,981	31,800	ESG Rating < BBB
GM	General Motors Co	30,607	29,950	ESG Rating < BBB

Source: IHS Markit, part of S&P Global. Data as of March 31, 2022. Table is provided for illustrative purposes.

Conclusion

The iBoxx MSCI ESG Advanced USD Liquid Investment Grade Index is designed to provide a measure of the most liquid high quality ESG issuers within the USD investment grade corporate bond market, which accounts for the majority of the overall IG credit space. By maintaining the same ruleset as the iBoxx USD Liquid Investment Grade Index with the additional overlay of ESG screens, the index has historically delivered a broad, diversified investment set for investors with stringent ESG selection criteria. The IBOXIG ESG has historically outperformed the IBOXIG on a risk-adjusted basis, while also experiencing more tempered drawdowns in times of stress. The ESG index has near-identical total returns, with a 0.99 correlation of daily returns, while having a slight tilt toward higher-rated entities. An important additional distinction is the blanket exclusion of Energy firms from the ESG index, leading to greater exposure to Core Financials, Technology and Health Care. With the iBoxx MSCI ESG Advanced USD Liquid Investment Grade Index, credit exposure can be more easily aligned with ESG needs without sacrificing performance, diversification or underlying market liquidity.

Performance Disclosure/Back-Tested Data

The iBoxx MSCI ESG Advanced USD Liquid Investment Grade Index was launched July 28, 2021. All information presented prior to an index's Launch Date is hypothetical (back-tested), not actual performance, and is based on the index methodology in effect on the index launch date. However, when creating back-tested history for periods of market anomalies or other periods that do not reflect the general current market environment, index methodology rules may be relaxed to capture a large enough universe of securities to simulate the target market the index is designed to measure or strategy the index is designed to capture. For example, market capitalization and liquidity thresholds may be reduced. In addition, forks have not been factored into the back-test data with respect to the S&P Cryptocurrency Indices. For the S&P Cryptocurrency Top 5 & 10 Equal Weight Indices, the custody element of the methodology was not considered; the back-test history is based on the index constituents that meet the custody element as of the Launch Date. Complete index methodology details are available at www.spglobal.com/spdji. Back-tested performance reflects application of an index methodology and selection of index constituents with the benefit of hindsight and knowledge of factors that may have positively affected its performance, cannot account for all financial risk that may affect results and may be considered to reflect survivor/look ahead bias. Actual returns may differ significantly from, and be lower than, back-tested returns. Past performance is not an indication or guarantee of future results.

Please refer to the methodology for the Index for more details about the index, including the manner in which it is rebalanced, the timing of such rebalancing, criteria for additions and deletions, as well as all index calculations. Back-tested performance is for use with institutions only; not for use with retail investors.

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