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Understanding Green Bond Performance in Market Setbacks

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Fixed Income, Responsible Investing

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ESG Bond Structures: The Current Landscape

	Project-Based Structures			Target-Based Structure
	Green Bond	Social Bond	Sustainability Bond	SLB-/KPI-Linked Bond
Short Description	<ul style="list-style-type: none"> Funds dedicated to strict green projects Follow the ICMA GBP framework 	<ul style="list-style-type: none"> Funds dedicated to social projects Follow the ICMA SBP framework 	<ul style="list-style-type: none"> Funds dedicated to both green and social projects Follow the ICMA SBP and GBP frameworks 	<ul style="list-style-type: none"> No requirements for the use of proceeds The issuer is committed to meet green target(s); otherwise, coupon/return will increase ICMA recently issued guidelines for this structure
Sample Projects	<ul style="list-style-type: none"> Renewable energy Energy efficiency Pollution prevention and control Biodiversity protection Sustainable transportation 	<ul style="list-style-type: none"> Access to basic services Affordable housing Food security Socioeconomic advancement and equality 	<ul style="list-style-type: none"> Combination of projects from green and social bonds 	<ul style="list-style-type: none"> Increase renewable energy capacity above a predetermined threshold or increase the coupon by 25 b.p.
Subject to a Framework?	✓	✓	✓	✓
Project Based?	✓	✓	✓	✗
Funds Committed?	✓	✓	✓	✗
Issuer Retains Flexibility?	✓	✓	✓	✓
Direct Impact If KPI Not Met	✗	✗	✗	✓
Impact Report	✓	✓	✓	✗

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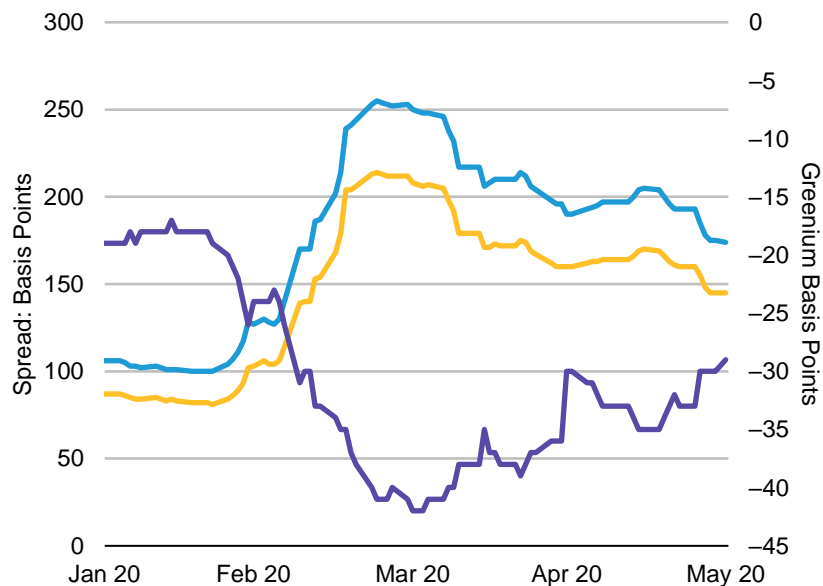
GBP: Green Bond Principles; ICMA: International Capital Market Association; KPI: key performance indicator; SBP: Social Bond Principles; SLB: sustainability-linked bond
Source: AB



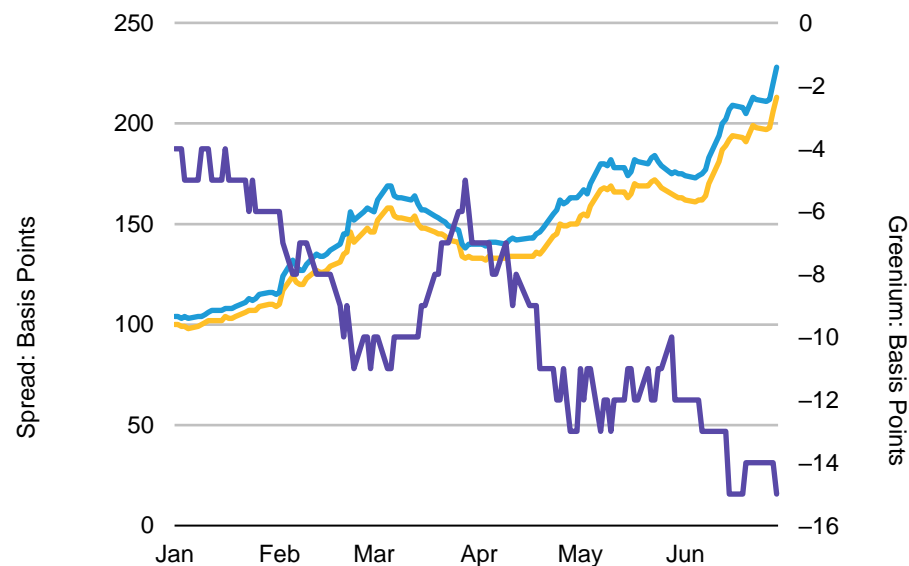
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1H 2022 Sell-Off: Greeniums Grew By A Smaller Magnitude than in 1H 2020

Spreads and Greenium
January through May 2020



Spreads and Greenium
January through June 2022



■ Investment-Grade Bonds (LHS)
 ■ Green Bonds (LHS)
 ■ Greenium (RHS)

When **greenium** becomes more negative green bonds generally outperform the broader index.

Analysis provided is for illustrative purposes only and subject to revision.

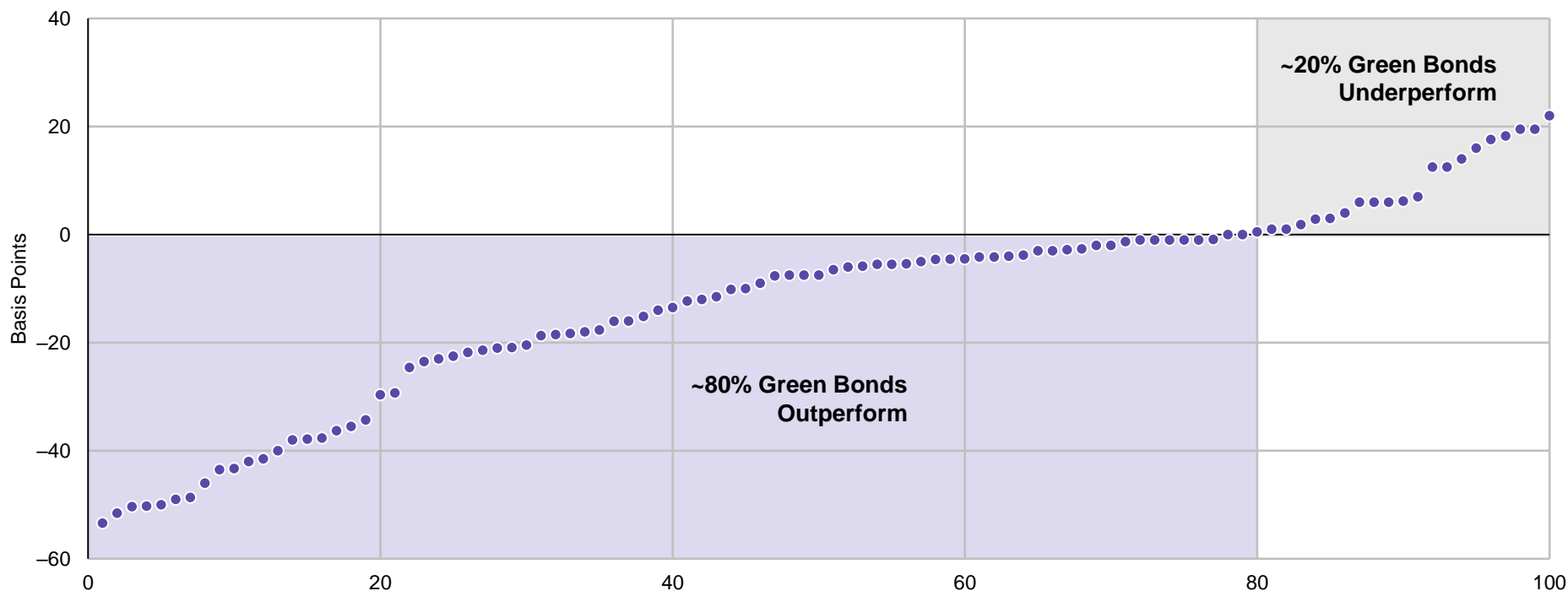
Green bonds are represented by the ICE EUR Corporate Green Bond Index; investment-grade bonds are represented by the ICE BofA 5–10 Year Euro Corporate Index. Source: Bloomberg, ICE Green Bond Index data and AB. Greenium refers to pricing benefits based on the logic that investors are willing to pay extra or accept lower yields in exchange for sustainable impact. RHS: right hand side, LHS: left hand side. As of June 30, 2022



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Rising Performance Dispersion Warrants Diligent Differentiation

Change in Greenium (Jan through Jun 2022)



Greenium Rank (Each dot represents a company)

For 100 representative Green bonds in the ICE index, ~80% saw their Greenium become more negative or stay flat*

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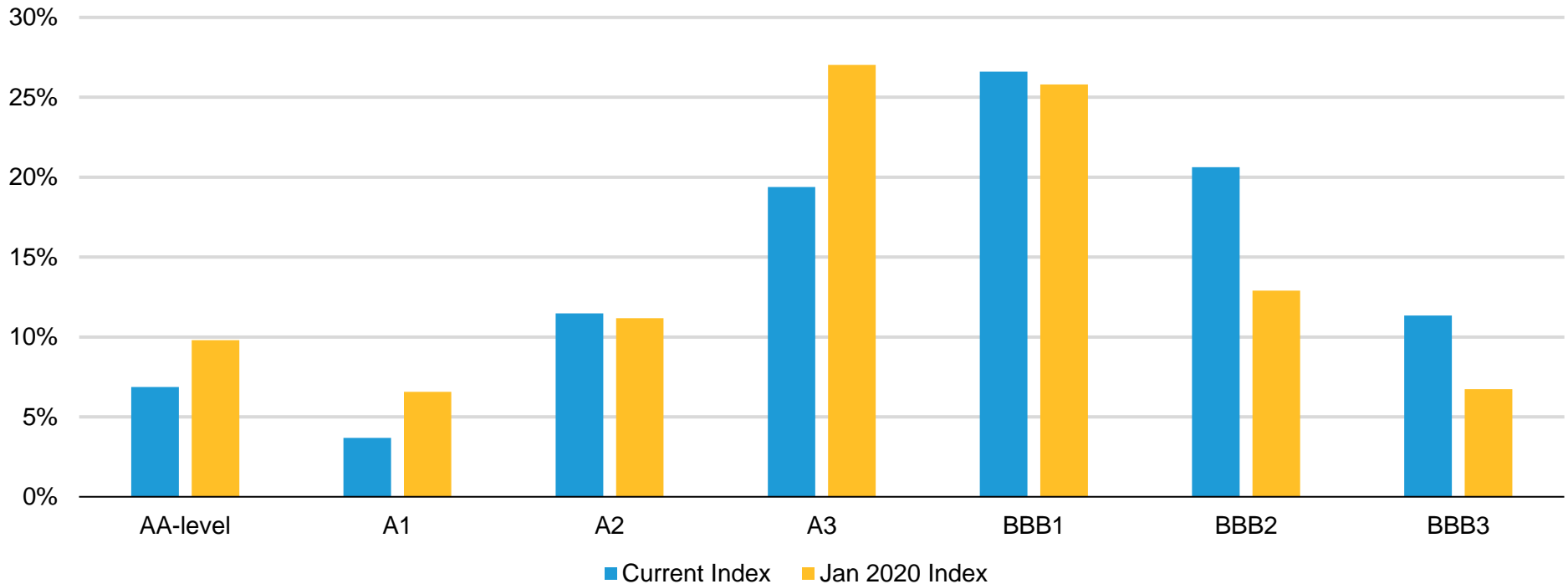
The chart takes into assumption that greeniums are measured by the average spread of all the bonds in a ticker vs all the green bonds for a ticker. The extreme tails on top and bottom are cut-off. Source: Bloomberg, ICE Green Bond Index data and AB. Greenium refers to pricing benefits based on the logic that investors are willing to pay extra or accept lower yields in exchange for sustainable impact. As of June 30, 2022



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Green Bonds Include More BBB-Rated Issues Since 2020

Green Bond Index Ratings Migration



Historical analysis does not guarantee future results.

Green bond index is ICE EUR Corporate Green Bond Index.

Current index data as of June 30, 2022

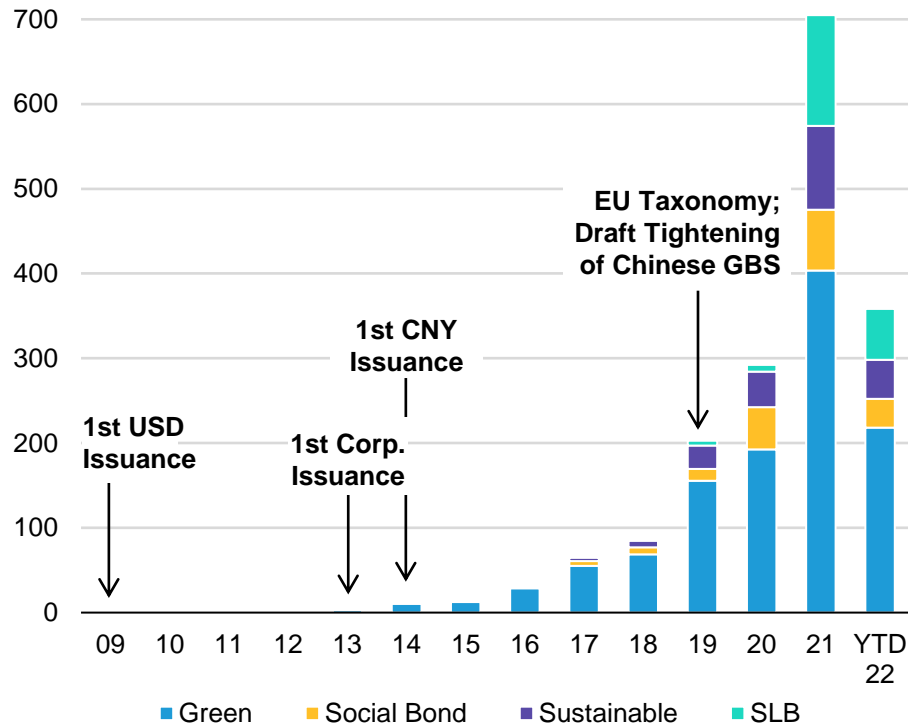
Source: Bloomberg, ICE Bond indices and AB



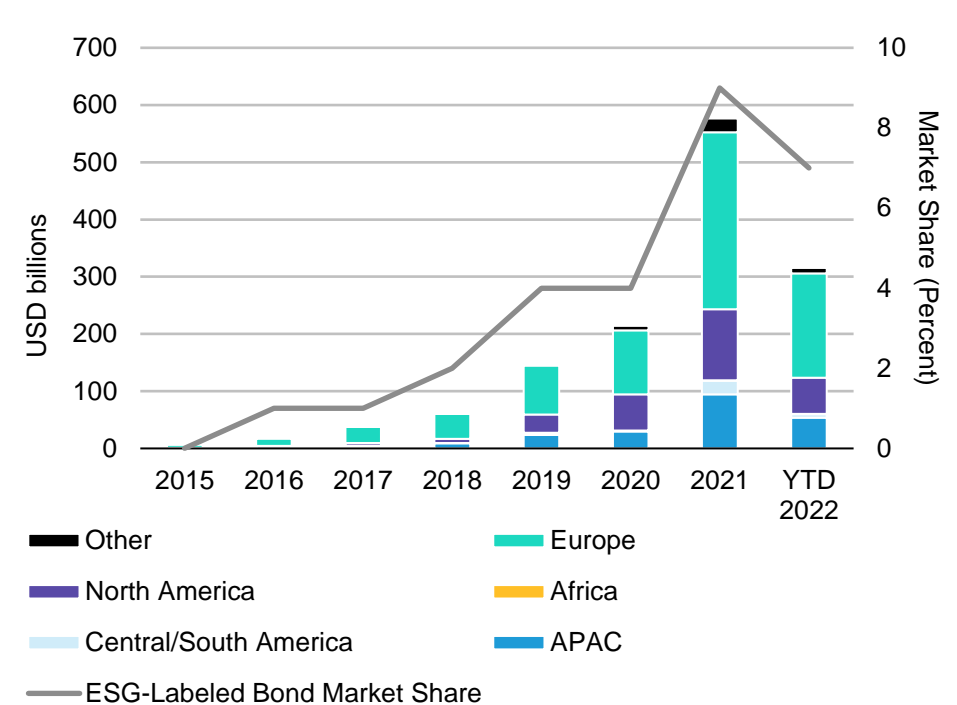
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ESG Bonds: Strong Structural Trend in Global Fixed-Income Markets

Global Corporate ESG-Labeled Bond Issuance
USD billions



Global Corporate ESG-Labeled Bond Issuance (ex China) vs. Total Global Corporate Issuance (ex China)



For illustrative purposes only.

Year-to-date issuance numbers for 2022, not annualized.

As of 30 September 2022

Source: Bloomberg and AB



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ESG Insights: Thought Leadership from the Team

<https://www.alliancebernstein.com/corporate/en/insights-landing.html?ref=ab-contexthub>



Understanding Your Bond Portfolio's Carbon Footprint



ESG in Action: Improving Climate Change Models for Investments



Making Sense of ESG Bond Structures

Assessing an ESG bond means delving deeper than an issuer's financials, into the bond's governing framework and to fit with the overall sustainability of the issuing company. In other words, to make the right investment choices, investors must understand the different structures and their investment implications.

Many investors are already familiar with green bonds, which have been on the market since 2007. Green bonds finance a specific project or projects with an environmentally beneficial purpose. Since then, companies have issued new types of bonds to finance a range of green, social and sustainable projects (ESG).



Deciphering China's 2060 Carbon-Neutral Plan

China's 2060 carbon-neutral framework not only addresses climate change, but also discreetly reveals how Beijing envisions the country's economic future. As efforts to generate more sustainable growth progress, the transition to a greener economy will create diverse new investment opportunities.



The Green Transition: Implications of the European Recovery Plan

Despite questions over financing the European Union's (EU's) new Green Deal, the green transition is now under way. The implications for bond investors are clear and urgent.

ESG Structures: The Landscape

Bond Description	Project-Based Structures			Target-Based Structures
	Green Bonds	Social Bonds	Sustainability Bonds	SPV-Linked Bonds
Bond Description	<ul style="list-style-type: none"> Funds dedicated to green projects Follow the ICMA GBN framework 	<ul style="list-style-type: none"> Funds dedicated to social projects Follow the ICMA SBN framework 	<ul style="list-style-type: none"> Funds dedicated to both green and social projects Follow the ICMA SBN and GBN frameworks 	<ul style="list-style-type: none"> No requirements for the use of proceeds The issuer is committed to meet (over the life of) its transition plan and/or related to various ESG metrics to be used quarterly for 3-5 years
Subject to a framework?	✓	✓	✓	✓
Project Based?	✓	✓	✓	✗
ESG Certified?	✓	✓	✓	✓
Issue Priced a Premium?	✓	✓	✓	✓
Direct Impact (PFI) Risk Mit.	✗	✗	✗	✓
Included in Green Finance?	✓	✓	✓	✓
Impact Report	✓	✓	✓	✗

Analysis is for illustrative purposes only and is subject to verification.
 As of May 17, 2023.
 GBN stands for Green Bond Guidelines, SBN stands for Social Bond Guidelines, and SPV stands for Special Purpose Vehicle.
 Source: AllianceBernstein (AB)

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Investment Risks to Consider

The value of an investment can go down as well as up and investors may not get back the full amount they invested. Past performance does not guarantee future results. Investment returns and principal value of the Portfolio will fluctuate so that an investor's shares, when redeemed, may be worth more or less than their original cost. Dividends are not paid for all share classes and are not guaranteed. The Portfolio is meant as a vehicle for diversification and does not represent a complete investment program.

Some of the principal risks of investing in the Portfolio include:

Market Risk: The market values of the investments may rise and fall from day to day, so investments may lose value.

Currency Risk: Currency fluctuations may have a large impact on returns, and the value of an investment may be negatively affected when translated into the currency in which the initial investment was made.

Derivatives Risk: The portfolio may include financial derivative instruments. These may be used to obtain, increase or reduce exposure to underlying assets and may create gearing/leverage; their use may result in greater fluctuations of the assets under management.

OTC Derivatives Counterparty Risk: Transactions in over-the-counter (OTC) derivatives markets may have generally less governmental regulation and supervision than transactions entered into on organized exchanges. These will be subject to the risk that their direct counterparty will not perform its obligations and that the portfolio will sustain losses.

Illiquid Securities: Selling illiquid or restricted securities usually requires more time, and costs are often higher.

Leverage Risk: The portfolio may use derivatives or other financial instruments to gain exposure to investments exceeding its overall value. This may cause greater changes in the portfolio's price, as it is more sensitive to market or interest-rate movements, and increase the risk of loss.

Interest-Rate Risk: Bonds may lose value if interest rates rise or fall. Long-duration bonds tend to rise and fall more than short-duration bonds.

Credit Risk: A bond's credit rating reflects the issuer's ability to make timely payments of interest or capital—the lower the rating, the higher the risk of default. If the issuer's financial strength deteriorates, the issuer's rating may be lowered and the bond's value may decline. Medium-, lower- and unrated securities may be subject to wider fluctuations in yield and market values than higher-rated securities.

Corporate Debt Risk: There is risk that a particular issuer may not fulfill its payment and other obligations. In addition, an issuer may experience adverse changes to its financial position or a decrease in its credit rating, resulting in increased debt-obligation price volatility and negative liquidity. There may also be a higher risk of default.

Sovereign Debt Risk: There is risk that government-issued debt obligations will be exposed to direct or indirect consequences of political, social and economic changes in various countries. Political changes or the economic status of a country may affect the willingness or ability of a government to honor its payment obligations.

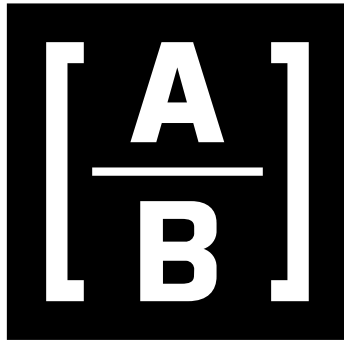
Below-Investment-Grade Securities Risk: Investments in fixed-income securities with lower ratings (commonly known as "junk bonds") tend to have a higher probability that an issuer will default or fail to meet its payment obligations.

These and other risks are described in the Portfolio's Prospectus.

Before investing in the Portfolio, investors should review the Portfolio's full Prospectus, together with the Portfolio's Key Investor Information Document (KIID) and the most recent financial statements and discuss risk and the Portfolio's fees and charges with their financial adviser to determine if the investment is appropriate for them.

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