RAYMOND JAMES

APRIL 2021

Fixed Income Solutions / Special Report

FIXED INCOME AND ENVIRONMENTAL, SOCIAL AND GOVERNANCE (ESG) INVESTING

Introduction: Environmental, Social and Governance (ESG)

Environmental, Social, and Governance (ESG) is a wide-ranging topic related to the sustainability of an organization and how its business, investment and activities impact society. The ESG label is relatively young and therefore dynamic in terms of its nature, definition, focus, size, influence and potential impact to the market. There is currently no universally accepted definition or metrics as concepts like social acceptance continue to evolve over time, new information is obtained and/or perceptions develop.

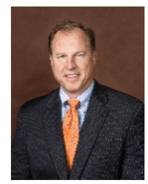
There are many different groupings and/or entities getting involved. The United States, China and Europe are all developing actions and policies. Within the U.S., the federal government, states and major companies are implementing action plans. Issuers are incentivized with possible tax exemptions and/or tax credits.

The United States, European Union and China are collectively responsible for over 40% of global greenhouse gas emissions. Currently, there is no governing body or agency setting, mandating or supervising ESG policies, but this is likely to transition toward more formal guidelines as the market develops. There are third parties verifying that the bonds back ESG certified projects. ESG has exploded in awareness, membership and involvement as evidenced by government/corporate participation, public awareness and social engagement.

ESG is anticipated to continue to demonstrate great growth and maturity of policy, acceptance and size in the upcoming years. This report covers many basic principles and standards to help investors recognize and determine their desired level of involvement.

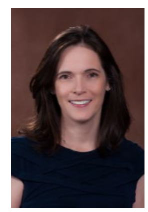
This report is intended to provide introductory information and education on ESG and relies on a wide range of sources (listed in the appendix) which are believed to be accurate but cannot necessarily be verified. This is not an endorsement to buy or sell any bonds which may or may not be classified as ESG bonds. (Last update: April 2021)

AUTHORED BY



DOUG DRABIK

Managing Director,
Fixed Income Strategist



CAMILLE HERNANDEZ

Director, High Net Worth,
Fixed Income Solutions

CONTRIBUTORS

Sarah Tucker
Drew Teaf
Colby Meyers
Drew O’Neil

IN THIS REPORT

ESG COMPONENTS DEFINED

ENVIRONMENTAL

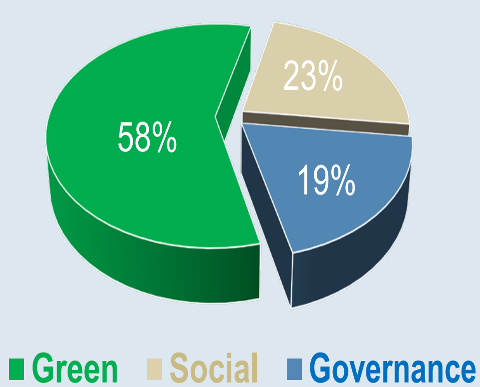
Issues such as climate risk, air pollution, water scarcity, and toxic emissions are key components of the "E" in ESG. It also includes issues such as the utilization of natural resources, recycling efforts, the effect an enterprise has on the environment and the sustainability of a company's products.

The terms *green* bonds or *climate* bonds were terms that preceded the environmental component of ESG. Green bonds are bonds used for projects that have positive environmental or climate benefits. They are intended to support energy efficiency, pollution prevention, aquatic protection, clean water management, green building, wind, solar, agriculture, fishery, forestry, or any other environmentally friendly projects.

> "The terms green bonds or climate bonds were terms that preceded the environmental component of ESG."

SOCIAL

Social issues such as labor, health and safety, human rights, and equity are important components of the "S" in ESG. An entity's diversity and inclusion record, its participation in and growth of the community and stance on human rights, consumer protection, and animal welfare are also components. The "S" in ESG considers a company's representation of both inside employees and outside its walls with society and government. Social bonds are intended to have positive social outcomes.



Sources: Moody's Investors Service, Raymond James; 2020

GOVERNANCE

Governance provides a framework of rules and procedures for corporations and municipalities. Governance issues include leadership, transparency, practices, effectiveness and experience. It includes fair compensation and the way a company values and provides for its employees. The role and makeup of a company's board of directors, as well as its management, are also included in the "G" of ESG.

THE THREE BROAD CATEGORIES OF ESG

Environmental

- Carbon Transition
- Physical Climate Risks
- Water Management
- Waste & Pollution
- Natural Capital

Social

- Customer Relations
- Human Capital
- Demographic & Societal Trends
- Health & Safety
- Cybersecurity
- Responsible Production

Governance

- Financial Strategy & Risk Management
- Credibility & Track Record
- Organizational Structure
- Compliance & Reporting
- Board Structure & Policies

ESG BOND GROWTH

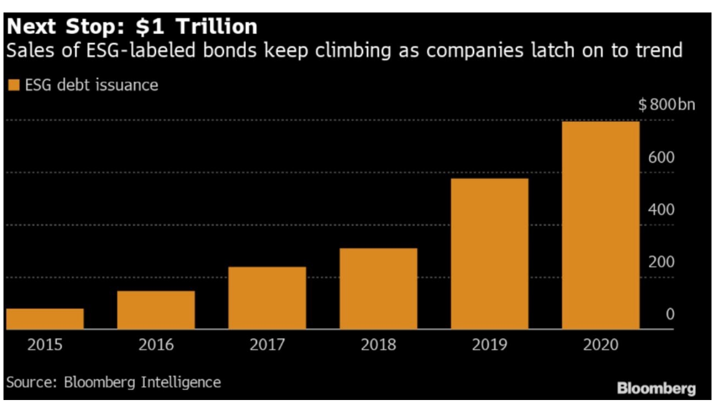
The Biden administration's emphasis on the importance of “clean technology” and the increased scrutiny surrounding the way companies provide and care for the health and wellness of their workers are among the growing components of ESG investing and their potential benefits in the years to come. Biden’s proposal titled “The American Jobs Plan,” would encourage investment into lower carbon technologies and other infrastructure with many components aligned with ESG initiatives.

Over the last nine years, global issuance of green bonds climbed to new highs, averaging 60% annual growth since 2015. In 2020, green issuance approached $270 billion, reaching $1 trillion in cumulative bonds and loans. The shift from “green” to social bond issuance was noticeable in 2020 as it was up 500% from 2019 to 2020. Still, the social bond universe is comparatively small.

For the year ended 2020, the United States led green bond issuance with $51 billion. Fannie Mae (FNMA) was the largest green bond issuer in 2020 with $13 billion total issuance. FNMA green MBS issuance supports properties with Green Building Certifications or improvements in energy or water use.

The first municipality to issue a bond with a “green label” was the Commonwealth of Massachusetts in 2013.

Proceeds provided financing for improvements to water quality, energy efficiency and pollution cleanup. Since then, municipal green bonds have been issued in nearly all sectors, with transportation and water & sewer the top green bond uses. California and New York, through April 2021, are the top state issuers although 43 states have at least one green bond issuer. Over 300 municipalities have issued green bonds with New York MTA as a significant leader, capturing ~18% of the market. There are 33 states that have released or in the process of developing a climate action plan that generally includes a greenhouse gas emissions reduction target.



ESG MOMENTUM LIKELY TO REMAIN STRONG & BROAD BASED

- ❖ NASDAQ has submitted a board member diversity proposal to the SEC
- ❖ Key members of the Biden Administration are focused on ESG Principles
- ❖ Global commitments have been made to reduce carbon emissions
- ❖ The Fed identified climate change as a key risk to financial stability
- ❖ Shareholders are submitting resolutions on ESG related topics

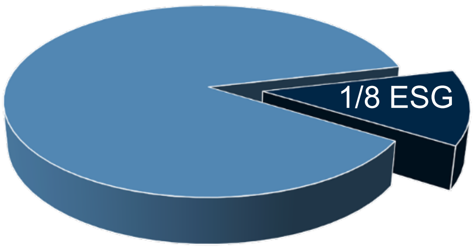
Raymond James is involved in ESG in many ways including municipal ESG underwriting. Our Public Finance Department reports that Raymond James is ranked second in number of issues and eighth in par amount on the Green Bond underwriting League Tables.

Manager	# of Issues	Par Amount	Market Share
BofA Securities	20	2,953	15.4
Raymond James	**17**	**924**	**4.8**
Wells Fargo & Co	16	2,818	14.7
Morgan Stanley	16	1,063	5.6
Citi	14	2,713	14.2
Jefferies LLC	10	2,224	11.6
JP Morgan	10	2,025	10.6
Piper Sandler & Co	10	263	1.4
Barclays	9	834	4.4
RBC Capital Mkts	9	572	3.0
Ramirez & Co	7	323	1.7
Stifel Nicolaus & Co	6	338	1.8
Goldman Sachs	5	1,318	6.9

Public Finance Department Raymond James 2020

A notable recent corporate issuance was Truist’s (the result of BB&T and SunTrust merger). They underwrote a $1.25bn 6-year fixed-to-float bond to fund investments in affordable housing with greater access to essential services. The deal was heavily oversubscribed, meaning there were a greater number of buyers than available supply. The increasing corporate focus includes companies such as Total and Suzano who have pledged to only issue sustainability-linked bonds going forward.

Estimated Global Bond Issuance 2021



sources: Bloomberg LP, Raymond James

ESG ORGANIZATIONS AND VERIFIERS

The Forum for Sustainable and Responsible Investment (US SIF): US SIF is a United States membership association whose purpose is to support sustainable investing. Its organization, the US SIF conducts education, research and other programs. Members of US SIF include: mutual fund companies, research firms, advisory or investment management firms, advisors, brokers, community development organizations and individuals. The US SIF provides a report with a detailed breakdown of professional assets under management across all asset classes that are engaged in sustainable investing strategies (US SIF Foundation – ussif.org).

Investor confidence is important to the ESG market. To increase investor confidence in ESG bonds, many issuers have their bonds verified as ESG by an independent external reviewer. As the ESG market grows, so does the need for verifications. Nearly three-quarters of ESG municipal issues were verified in 2020. In the verification process, the reviewer determines if the use of proceeds aligns with certain criteria such as the Green Bond Principles developed by the **International Capital Markets Association (ICMA)**.

The Green Bond Principles are internationally recognized voluntary issuance guidelines to promote transparency and integrity around the development of the green bond market.

Four Components of Green Bond Principals – ICMA 2018

1. Use of Proceeds
2. Process for Project Evaluation and Selection
3. Management of Proceeds
4. Reporting

Other ESG guidelines such as the Assurance Framework for the Climate Bond Standard are also available. The Climate Bond Initiative provides these guidelines to certify bonds under the Climate Bonds Certification Scheme. The certification aligns with the Green Bond Principles, uses best practices for reporting and verification, and is consistent with the goals of the Paris Climate Agreement.

Other international guidelines and principles include the Guidelines for the Conduct Assessment and Certification

Approved Verifiers under Climate Bonds Standard

AECLU	Spain	EPIC Sustainability	Worldwide	Pacific Credit Rating (PCR)	Latin America Caribbean
BAM	U.S.	EQA Spain	Worldwide excl Canada, U.S.	Raising Clean-Tech Investment Consulting	China
Beijing Zhongcai Green Financing Consultants	China	ERM CVS	Worldwide	RAM Sustainability	Worldwide
BlockC	Brazil	First Environment	Worldwide	RSM Australia	Australia
Blue Snow Consulting	Malaysia UK and ASEAN	Golden Credit Service Co. Ltd.	China	Rubicola Consulting	Africa, Asia Pacific
Bureau Veritas	Brazil	Greensolver	Worldwide	Scope Group	Europe
Bureau Veritas (UK)	Worldwide	HKQAA	Worldwide excl Canada, U.S.	SGS Hong Kong	Worldwide
Carbon Care Asia Limited (CCA)	Asia	HR Ratings	Worldwide	SinoCarbon	China
Carbon Trust	Worldwide	IBIS ESG Consulting	Africa, Asia	SITAWI	Latin America
CECEP	China	iGreenBank	China, excl Hong Kong,	SustainAdvisory	Europe
China Chengxin Credit Management Co	China	Indufor Oy	Worldwide	Sustainalytics	Worldwide
China Lianhe EIA	China	ISS	Worldwide	SynTao Green Finance	China
China Quality Certification Centre	China	Japan Credit Rating Agency	Japan	TRIS Rating (S&P Global partner)	Thailand
DNV.GL	Worldwide	Kestrel Verifiers	U.S., worldwide	TuV Nord	Worldwide
DQS CFS	Worldwide	Multiconsult ASA	Worldwide excl U.S.	Vigeo Eiris	Worldwide
Emergent Ventures India (EVI)	Worldwide	NSF Certification, LLC (NSF)	Worldwide		

Sources: Climate Bond Standard Board, Raymond James of Green Bonds (China), the EU Green Bond Standards, and the ASEAN Green Bond Standards.

THE RATING AGENCIES ON ESG

The rating agencies recognize that ESG is in its early stages, and therefore it is probable that the methodology of how they view and rate ESG bonds will evolve. It is openly recognized by the agencies that ESG guidelines adhered to by corporations and municipalities will not necessarily benefit their credit ratings but conversely, ignoring ESG guidelines may disadvantage credit evaluations.

MOODY'S ESG EVALUATION

In December 2020, Moody's updated its general principles for assessing ESG risks. They have introduced three distinct E, S and G **issuer profile scores** that indicate the extent to which a given issuer or transaction is exposed to E, S, or G risks. Moody's also introduced an overall ESG **Credit Impact Score**, which is a qualitative assessment of how ESG considerations impact the rating of an issuer or transaction. These scores provide greater clarity, consistency and differentiation on risk exposure and credit impact.

S&P ESG EVALUATION

S&P, to increase transparency, has referenced ESG factors in their rating actions since March 30, 2020. "The ESG Evaluation is not a credit rating, a measure of credit risk, or a component of our credit rating methodology. However, the information we gather for an ESG Evaluation can inform our credit analysis of rated entities." S&P's evaluations of ESG are subject to monitoring through reviews of their analysis and dissemination to the public and response to ESG controversies or business disruptions.

FITCH ESG EVALUATION

Fitch launched ESG Relevance Scores in 2019 that show how ESG factors impact individual credit rating decisions. The information is not a rating, but the "data was developed to assist investors with their credit analysis and to provide transparency around the material ESG issues that have influenced Fitch's credit ratings." Andrew Steel, Global Head of Sustainable Finance at Fitch Ratings, said "The scores do not make value judgments on whether an entity engages in good or bad ESG practices, but draw out which E, S, and G risk elements are influencing the credit rating decision."

KBRA ESG EVALUATION

KBRA has taken a different approach to incorporate ESG risk analysis into their credit ratings compared to other rating agencies. They use a two-step approach (called ESG Management) to identify and integrate credit-relevant ESG factors into their credit rating analysis.

First, KBRA identifies ESG factors having a direct impact on a given issuer or transaction. These are factors that have a tangible effect on credit, are typically quantifiable, using an assessment generally rooted in existing methodologies. In the second step, KBRA seeks to understand and encourage disclosure of a broader array of ESG-related risks or opportunities that may have an indirect impact on credit or that may affect credit in the future.

ESG BOND MARKET PERFORMANCE

Should you look to buy ESG bonds? This may be more of a personal question than one of financial positioning. The ESG movement is a stance and/or commitment to an ideal that many find very worthy of consideration if not admiration. The underlying characteristics represent appealing attributes for many investors. Most of us want a clean planet, fair practice, and equal opportunity for all persons. Most of us can positively relate to the underlying purpose behind the ESG movement. So all things equal, why not support companies or municipalities exhibiting responsible sustainability?

Are you giving up yield by buying bonds with ESG characteristics? Maybe, maybe not. There are many variables that affect ratings and pricing on bonds: debt, revenue, forward prospects, product/service demand, cash flow, management, capital structure, etc. In general, with all things equal, our traders and our unscientific observation of live offerings comparing ESG bonds versus vanilla bonds reflect very little difference in pricing between the two. Several offerings appear slightly more expensive while others are slightly more affordable. Our bias leans toward intermediate high-quality bonds as they represent the typical structure in many of our client's portfolios. While it is almost impossible to find an exact match, the last two columns of the above chart closely resemble and represent this comparison. It compares high-quality corporate intermediate bonds with ESG bonds bearing the same criteria. The average maturity is slightly lower and the yield-to-worst a mere 2bp difference.

ESG vs Vanilla Bond Index Comparison

	Corporate	Corporate ESG	Corporate Intermediate	Corporate Intermediate ESG
Average Maturity	12.00	11.45	5.13	5.09
Average Rating	A3/BAA1	A3/BAA1	A3/BAA1	A3/BAA1
Modified Duration	8.40	8.12	4.53	4.50
Coupon	3.69	3.67	3.26	3.26
OAS	0.90	0.88	0.70	0.69
YTW	2.28	2.21	1.58	1.56

Sources: Bloomberg LP, Raymond James; as of 4/1/2021

Generally in the U.S., there seem to be minimal pricing differences whereas in Europe and internationally, ESG bonds tend to price and/or trade tighter (higher price vs. vanilla issues). One can theorize that other societies are placing a greater importance/value on ESG issues. Another factor could be the emphasis on disclosure in the EU. The EU's new Sustainable Finance Disclosure Regulation requires asset managers with an ESG focus in the EU to demonstrate a tangible, measurable plan showing their portfolios align with the rules.

Consistent and comparable disclosure of non-financial and ESG data is not widely available making it difficult to quantify/measure and incorporate into models. Even with these challenges rating agencies are already starting to incorporate ESG related risks into their analysis. Once the data is harmonized it is possible that ESG issues may begin to carry more weight within their analysis/ratings. The Sustainability Accounting Standards Board (SASB) and the Task Force on Climate-related Financial Disclosures (TCFD), among others, are working to harmonize these disclosures globally largely due to a push from asset managers such as BlackRock and State Street. This began in 2018 and by the end of 2020, there were already over 600 companies participating.

TAKEAWAY

This report is intended to provide information only, not an opinion, solicitation or influence on anyone's personal involvement or participation in ESG and/or its principles.

The following section is not meant to be an all-inclusive list but is intended to provide some examples of countries and companies that are practicing ESG principles.you look to buy ESG bonds? This may be more of a personal question than one of financial positioning. The ESG movement is a stance and/or commitment to an ideal

ESG COMMITMENTS

NATIONAL COMMITMENTS

- **U.S.**: rejoins Paris Climate Agreement February 2021
- **EU**: declares that the future is low carbon Commits to net-zero greenhouse gas emissions by 2050
- **China**: Commits to carbon neutral by 2060

UNITED STATES PARTICIPATION

- Biden's Build Back Better Economic Recovery Plan: ~$2 trillion investment focused on infrastructure projects.
- The Federal Reserve joins Network of Central Banks and Supervisors for Greening the Financial System (NGFS), December 2020. Enhances global coordination and knowledge sharing to manage the risks presented by climate change.
- The Securities and Exchange Commission creates Climate and ESG Task Force, March 2021. Complements senior policy advisor for climate and ESG.
- 33 states have or are in the process of developing a climate action plan that generally includes greenhouse gas emission reduction targets.
- 43 states have at least one green bond issuer. California and New York have the most.
- Over 300 municipalities have issued green bonds.

EXAMPLES OF COMPANY PARTICIPATION (NOT ALL INCLUSIVE)

- If the SEC approved the NASDAQ board member diversity proposal, ~75% of the companies would not currently satisfy the criteria.
- 126 countries have set goals to decarbonize their economies. The U.S. can affect 60% of the world GDP by acting on an emissions reduction initiative.

  - Microsoft: declare carbon negative by 2030
  - Google: carbon neutral since 2007, carbon-free by 2030
  - Walmart: zero global emissions by 2040
  - Amazon: net-zero carbon by 2040
  - Unilever: net-zero emissions by 2039
- Major banks vowing to align financing activities with Paris Agreement goals:
  - Bank of America Corporation
  - Morgan Stanley
  - JPMorgan Chase & Company
  - Goldman Sachs Group Inc.
  - Citigroup Inc.
  - Wells Fargo & Co.
- General Motors to eliminate gasoline and diesel light-duty cars and SUVs by 2035; carbon neutral by 2040.
- (Social) Microsoft converted campus into vaccine centers, offered to track hospitalizations and testing.
- (Social) Budweiser donated Super Bowl advertising money to vaccine awareness efforts.
- (Governance) Ursula Burns was the first black woman to led a Fortune 500 company, Xerox, from 2010-2016. Today, two black women are leading Fortune 500 companies. In March 2021, Walgreens named Roz Brewer to CEO, and Thasunda Brown Duckett is the President and CEO of TIAA.
- (Governance) The Silicon Valley Leadership Group (includes: Twitter, Facebook, Zoom) agrees to fill 25% of executive roles with people from underrepresented groups by 2025.

Sources For This Report

- Moody's Investor Service; Sustainable Finance – Global, February 4, 2021
- Climate Bonds Initiative https://www.climatebonds.net/
- Moody's Investor Service; General Principles for Assessing Environmental, Social and Governance Risk Methodology, December 14, 2020
- FANNIE MAE Capital Markets; Multifamily Green MBS https://capitalmarkets.fanniemae.com/sustainable-bonds/green-bonds/multifamily-green-mbs
- Raymond James Monthly Newsletter – Public Finance/Debt Investment Banking, September 21, 2020
- Center For Climate And Energy Solutions: https://www.c2es.org/
- Raymond James 2021 Ten Themes – ESG
- Bloomberg LP
- WSJ EU to Make Fund Managers Back Up Sustainability Claims March 9, 2021 https://www.wsj.com/articles/new-european-esg-rules-to-hit-fund-managers-around-the-world-11615291644
- Moody's: General Principles for Assessing Environmental, Social and Governance Risks Methodology, December 14, 2020
- ICMA Green Bond Principals 2018 https://www.icmagroup.org/assets/documents/Regulatory/Green-Bonds/Green-Bonds-Principles-June-2018-270520.pdf
- Moody's: Biden infrastructure plan would boost growth and employment, with benefits for a range of public and private sectors April 12, 2021
- 2021 Sustainable Finance Outlook: Large Growth In Green, Social, Sustainable Labels As Municipal Market Embraces ESG Feb 16, 2021
- Fitch Ratings: https://www.fitchratings.com/
- Kroll Bond Rating Agency: https://www.kbra.com/

RAYMOND JAMES®

INTERNATIONAL HEADQUARTERS: THE RAYMOND JAMES FINANCIAL CENTER
880 CARILLON PARKWAY // ST. PETERSBURG, FL 33716 // 800.248.8863 // RAYMONDJAMES.COM

The author of this material is a Trader in the Fixed Income Department of Raymond James & Associates (RJA), and is not an Analyst. Any opinions expressed may differ from opinions expressed by other departments of RJA, including our Equity Research Department, and are subject to change without notice. The data and information contained herein was obtained from sources considered to be reliable, but RJA does not guarantee its accuracy and/or completeness. Neither the information nor any opinions expressed constitute a solicitation for the purchase or sale of any security referred to herein. This material may include analysis of sectors, securities and/or derivatives that RJA may have positions, long or short, held proprietarily. RJA or its affiliates may execute transactions which may not be consistent with the report's conclusions. RJA may also have performed investment banking services for the issuers of such securities. Investors should discuss the risks inherent in bonds with their Raymond James Financial Advisor. Risks include, but are not limited to, changes in interest rates, liquidity, credit quality, volatility, and duration. Past performance is no assurance of future results.

Investment products are: not deposits, not FDIC/NCUA insured, not insured by any government agency, not bank guaranteed, subject to risk and may lose value.

To learn more about the risks and rewards of investing in fixed income, please access the Securities Industry and Financial Markets Association's "Learn More" section of investinginbonds.com, FINRA's "Smart Bond Investing" section of finra.org, and the Municipal Securities Rulemaking Board's (MSRB) Electronic Municipal Market Access System (EMMA) "Education Center" section emma.msrb.org.