

Impact Investing in Public Fixed Income Markets

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Fixed income investment approaches

Traditional Integrated Intentional Impact Positive screening/ **Negative Investing Best in Class** screening Direct and measurable Investing to achieve green, social, sustainable outcomes Consideration of ESG Exclude issuers, industries, Clearly defined eligibility · Impact reporting is evolving to factors for investment countries due to unacceptable ESG • Issuers assessed relative to peers. capture more KPIs and decisions related risks or values-based not in absolute terms equivalencies, greater granularity, · Material risks are "priced Limited or no judgment SDG alignment, and more · Best-in-class approach leans into into" investment regard for ESG Limits opportunities for engagement favorable behaviors and enables Dependent on engagement related decisions via practices • Examples: Fossil fuel free, religious engagement with both leaders and to use of proceeds, outcomes, and fundamental credit reporting frameworks values laggards assessment, portfolio construction, and/or risk Thematic Investing management Examples: Low Carbon, • May include features of all three approaches, yet tends to be more Climate, SDG Alignment proscriptive and less engagement-oriented

Source: Nuveen GFI

Our impact investing framework

We identify impact investments across the global fixed income markets using "direct and measurable" criteria established in 2007:

- Use of proceeds (explicit objective, initiative, or projects(s); "pure-play" issuer mission)
- Issuer commitment to transparent, relevant impact reporting

Societal outcomes / social bonds



- Low- and moderateincome housing loans
- Transit-oriented development
- Walkable communities
- Mixed-use development projects





Community and economic development

- Benefits underserved and/or economically disadvantaged communities
- Services: financial, hospital/medical, and educational
- Urban revitalization: community centers, reconstruction activities
- International development and humanitarian activities: disaster relief, economic aid, and agricultural support















Environmental outcomes / green bonds



- New, expanding or existing renewable energy projects (including hydroelectric, solar and wind)
- Smart grid and other projects designed to make power generation and transmission systems more efficient
- Energy efficiency projects resulting in the reduction of greenhouse gas emissions



Natural resources

- Sustainability projects: forestry and agriculture; waste management; certified green buildings; blue bonds
- Remediation and redevelopment of polluted or contaminated sites
- Improvement of clean drinking water supplies and/or sewer systems infrastructure









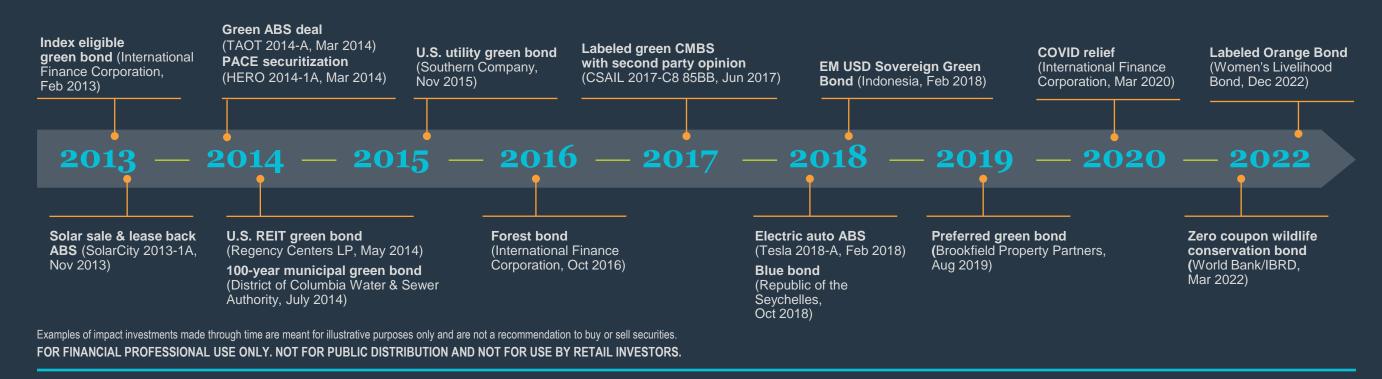




Engagement on impact issues

Proactive engagement with issuers is an important input to our forward-looking credit and ESG analyses

- On-going dialogue with issuers, rating agencies, and industry experts empowers our portfolio managers and analysts to collaborate and influence use of proceeds, impact reporting standards, deal structures, and best-in-class ESG-related business practices
- ESG/Impact strategy team conducted 101 engagement meetings in 2023, in addition to analyst- and RI-led meetings
- Our relationship with issuers and underwriters paves the way for first-of-their-kind environmental and social transactions in public markets, helping to enable subsequent deals to come to market; examples include:



Our commitment to industry best practices, ESG/Impact advocacy and leadership

IFC Operating Principles for Impact Management

- Founding signatory and Advisory Board member
- All our impact AUM, including \$7.1B of public fixed income, aligns with the Principles¹
- Our alignment is independently verified by BlueMark²
- ESG/impact fixed income team was named to BlueMark's 2023 Practice Leaderboard,³ which highlights investors with best-in-class impact management practice

ICMA Green Bond Principles

- Liberatore was a member of the initial executive committee (and served two terms)
- Liberatore and Zarzycki served on the 2021 Advisory Council

United Nations

- Liberatore is a member of the United Nations (UN) Capital Development Fund's working group on Climate Insurance linked Resilient Infrastructure Finance
- Liberatore serves on the UN's Joint Sustainable Development Goals (SDG) Fund's Blue Economy Investor Advisory Group

Select speaking engagements

- SOCAP22
- United Nations Biodiversity Conference (COP15)
- World Economic Forum 2023 (Davos)
- IMF/Caribbean Regional Technical Assistance Centre (CARTAC) conference
- ESG in Fixed Income Americas 2022
- Guest lecturer:
- Stanford Graduate School of Business
- Duke University
- Johns Hopkins University's
 School of Advanced
 International Studies

Additional affiliations

- Founding signatory and steering committee member of the Orange Bond Initiative™
- Standard & Poor's Global Ratings ESG Leadership Council
- Fannie Mae Green Rental Housing Task Force
- Sustainalytics Sustainable Bond Input Group
- Ceres Green Bond Working Group

¹ As of 31 Dec 2022. https://documents.nuveen.com/Documents/Nuveen/Default.aspx?uniqueId=d41de448-fa00-4682-be45-7fe6cbf1524a

² Operating Principles for Impact Management Nuveen Disclosure Statement May 2023 https://documents.nuveen.com/Documents/Nuveen/Default.aspx?uniqueld=30871a45-2704-4a2e-8d4d-4d76d5ade5ea

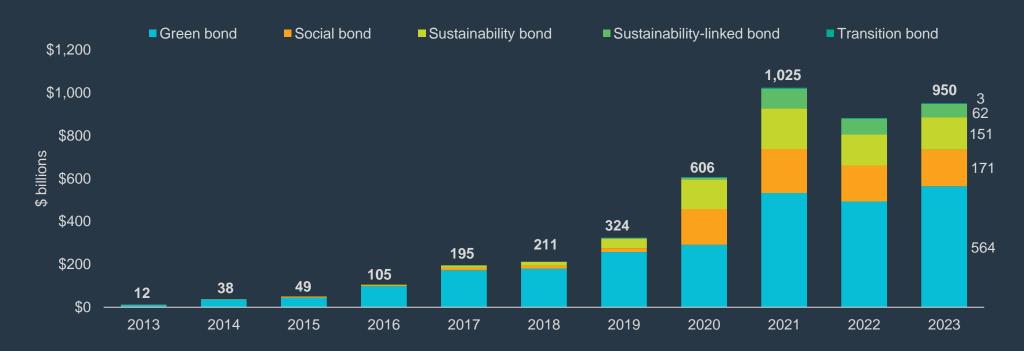
³ https://makingthemark.bluemarktideline.com/

Sustainable bond market trends

Size and growth



Sustainable bond issuance 2013-2023 (\$ billions)



- Sustainable debt issuance increased by ~8% while the global debt market increased by ~6% in 2023.
- We estimate that 2024 issuance will challenge 2021's record level, and expect use of proceeds to fund renewable energy projects to remain the largest segment of the labelled GSS market. This is because global energy grids continue to transition away from fossil fuels as the cost of renewables decline.

Source: Environmental Finance: https://www.environmental-finance.com/assets/files/research/sustainable-bonds-insight-2023.pdf; LSEG.

Issuance summary: calendar year 2023

Top 10 themes:

Use of proceeds issued in 20231

	\$ billions
Renewable energy	146.1
Clean transportation	110.8
Energy efficiency	93.3
Green Buildings	76.6
Affordable housing	67.3
Sustainable water management	47.3
Access to essential services	45.8
Socioeconomic advancement and empowerment	43.0
Pollution prevention and control	37.5
Affordable basic infrastructure	32.8



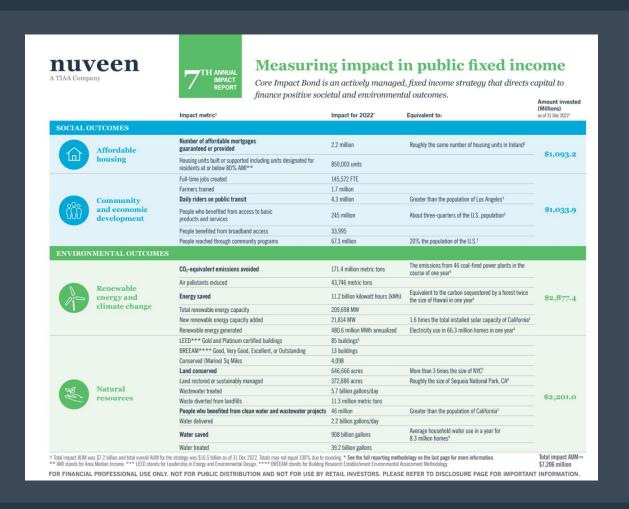
¹ Environmental Finance may assign multiple use of proceeds to the same deal. For those bonds, we divide the nominal proceeds by the number of assigned uses equally. Source: Environmental Finance. FOR FINANCIAL PROFESSIONAL USE ONLY. NOT FOR PUBLIC DISTRIBUTION AND NOT FOR USE BY RETAIL INVESTORS.

Our commitment to annual impact reporting

Learn more in our 2023 Global fixed income impact report:







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