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Think fixed income | March 2023

Innovation in impact bonds

Impact investing in public fixed income markets has evolved dramatically in the past decade.

The growth and innovation in the impact bond market has unlocked new opportunities for investors to provide capital for projects that have a positive social and/or environmental impact while generating competitive returns.

This paper discusses these developments and presents best practices and a framework for institutional and other professional investors seeking to increase their exposure to impact bonds.

Innovation strengthens the global impact bond market

The market for publicly traded bonds that provide intentional, direct and measurable social or environmental impact has evolved significantly over the past decade.

Advancements on several critical fronts have made impact investing an increasingly compelling consideration for institutions' core bond allocations:

- The impact bond market has grown rapidly to approach or even exceed the size of many established bond markets.
- The breadth of issuers has multiplied substantially, and the uses of capital have broadened across social and/or environmental concerns.
- The expansion of impact investing into securitized markets has broadened the investor base and accelerated the availability of capital for climate-related and societal outcomes.
- Asset owners and investment managers have made impressive strides in the sophistication of their models, classifications, investing frameworks and reporting.
- Third-party organizations that monitor the market have increased the reach and rigor of their evaluation processes.
- Regulators have increasingly prescribed more detailed disclosures for public companies, asset managers and wealth management firms.

The result is a deeper and more diverse set of opportunities for investors seeking to incorporate impact goals into their fixed income portfolios. Today, there are ample opportunities for investors to generate compelling risk-adjusted absolute and relative returns while financing initiatives that are driving positive environmental and social outcomes.

We dive deeper into the trends shaping the trajectory of the impact bond market and identify best practices for institutional investors looking to expand their exposure to this growing segment of the fixed income universe.

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How the impact bond market has evolved

The perception that impact objectives can be pursued only through private strategies is demonstrably false.

Public markets now offer vast opportunities to finance positive outcomes, whether it is clean energy alternatives, protecting oceans and marine wildlife, promoting a more sustainable economy or directing capital to increase the supply of affordable housing.

Tapping the potential of public fixed income markets has proven to be a highly effective way to lower the cost of capital for all these projects. Because public bonds offer pricing transparency, liquidity and far lower minimum investments than private markets, the public market has allowed more entities to raise capital, including nonprofits and other entities that don't have publicly traded equity.

Since the global financial crisis, the pool of issuers financing positive environmental and societal outcomes with fixed income securities has grown dramatically — both in terms of breadth and depth.

This growth has increased the opportunity set for investors to build more diverse portfolios of impact investments. And as more investors are attracted to these opportunities, the increase in capital flows should help lower the cost of capital for issuers. This, in turn, should bolster the long-term viability of projects that aim to deliver positive outcomes. As projects season and technology scales, efficiency gains can be achieved. Similarly, better reporting and more robust frameworks are giving bond investors more confidence while fostering constant improvement in best practices by issuers and investors, alike.

This virtuous cycle should continue to fuel the growth and evolution of the impact bond market for years to come, particularly as net zero targets require new capital to help achieve ambitious climate-aligned goals.

As investors increasingly recognize that they have access to impactful investment strategies — without having to sacrifice performance, liquidity or security — they further increase the supply of capital for financing ever more innovative projects.

FIGURE 1: **Issuance of bonds labelled green, social and sustainable (GSS) reached record high in 2021 ($ billions)**

Source: Environmental Finance, Sustainable Bonds Insight 2023.

Market size: Rapid growth over the last decade

Investors have been increasingly interested in adding impact bonds to their portfolios for a host of reasons, including a greater focus on corporate responsibility and the acknowledgement that impact investing can fortify risk-adjusted returns as both a source of alpha and diversification. At the same time, issuers are increasingly using public debt instruments to finance impact-focused projects.

Estimating the size of the impact bond market is a challenge. Market participants continue to debate terminology, and have yet to coalesce around a consensus definition of an impact security. Data providers, however, have generally come to agree on GSS as an acceptable acronym for this market: green, social and sustainable bonds.

Issuance of labelled GSS bonds exceeded $1 trillion for the first time in 2021 and nearly doubled in 2020 and 2021 (see Fig 1). While 2022 was a challenging year for bond markets generally, and issuance of GSS bonds declined, the underlying trends for 2022 signal the ongoing maturation of this market. Issuance declined 26% across fixed income markets, yet green-labelled bonds experienced a significantly lower fall of 10%. The sustainable bond market's share of the outstanding global bond market rose to 13.5%, an increase from 12% in 2021 and 7% on 2020.[1]

The pace of growth over the last ten years and the recent resilience of these bonds hint at the expansion potential over the next decades, particularly as net zero carbon targets come into sharper focus.

Issuer types: Broadening of market creates more access to impact capital

A decade ago, issuance overwhelmingly came from large corporations in developed markets and multinational organizations with missions to support developing markets. Today, smaller companies, organizations, agencies, municipalities and sovereigns from across developed and emerging markets are active issuers.

Several developed and emerging market sovereigns have issued green-labelled bonds or are creating green bond frameworks. This has the potential to propel the size of the market further as sovereign bond deals tend to be larger than those from non-government issuers.

The greater breadth of issuers has expanded diversity in loan tenors too. While supranational issues are largely shorter-maturity bonds, corporate and municipal entities tend to borrow across the yield curve, attracting a broader pool of investors.

On the shorter end, the U.S. securitization market is rapidly building scale through serial issuance from a variety of sponsors with different collateral types. Issuance in euros is also growing. This broadening of the issuer universe offers more opportunities for investors, whether by including those that favor securitized credit or by enabling core bond mandates to include impact investments from the securitized sector.

The expansion of the issuer universe has made it easier to track the capital's impact. A decade ago, many impact bonds were issued by entities such as the World Bank, which would then lend to an entity that managed the project. As such, the borrower — the World Bank in this example — was essentially an intermediary, and thus it was more difficult to gain transparency into project outcomes.

Today, impact bonds are issued by a wide variety of borrower types, with corporations being the largest issuer group for green bonds, and agencies the largest for social bond issuance (see Fig 2). Financial institutions are significant issuers of both.

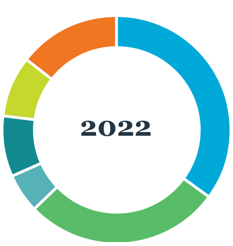
Use of proceeds: So much more than green bonds now

The impact bond market was initially focused on financing renewable energy projects, but over the last decade has expanded across a myriad of social, community, sustainable and climate-aligned themes and outcomes, illustrated in Figure 3.

Recent developments include blue bonds that focus on ocean preservation and restoration, and orange bonds that raise funds to support initiatives related to gender equality. Social impact investment broadly has grown with areas such as racial justice and even vocational training generating

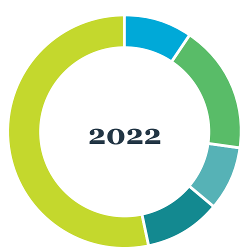
FIGURE 2: **Different issuer profiles for green and social bonds**

Green Bonds



% of issuance
- Corporate **35.0%**
- Financial institutions **28.0%**
- Municipal **5.5%**
- Supranational **8.5%**
- Agency **8.8%**
- Sovereign **14.2%**

Social Bonds



% of issuance
- Corporate **9.6%**
- Financial institutions **17.7%**
- Municipal **9.0%**
- Supranational **10.6%**
- Agency **53.1%**

Source: Environmental Finance, Sustainable Bond Insights 2023.

FIGURE 3: **Top 10 use of GSS bond proceeds issued in 2022**

	$ billion
Renewable energy	130.4
Clean transportation	88.8
Green buildings	87.7
Energy efficiency	72.8
Access to essential services	59.1
Affordable housing	55.9
Socioeconomic advancement and empowerment	47.9
Sustainable water management	42.5
Employment generation	30.3
Pollution prevention and control	29.7

Source: Environmental Finance, Sustainable Bond Insights 2023. Methodology: the value of each bond is divided up by the amount of Use of Proceeds it covers and allocated equally amongst them.

significant interest and activity. COVID-19 relief bonds funded the manufacturing of personal protective equipment, increased staffing at hospitals, expanded access to vaccinations and other health services and, in some countries, unemployment benefits for workers displaced by COVID shutdowns. In 2022, the World Bank issued its first-ever Wildlife Conservation Bond — dubbed the Rhino Bond given the endangered animal population the proceeds will support.

Reporting: Transparency improves in response to investor demand

Successful impact investing requires more than allocating capital; it also requires transparent, evidence-based reporting and visibility into the capital's measurable outcomes. Over the past decade, vocal investors engaged with and pressed issuers to provide reporting with increasingly granular impact data, geographical precision, more frequent and timelier updates, and alignment with UN Sustainable Development Goals (SDGs). These advancements in reporting allow investors to allocate capital and track the real-world results of their investments with more precision.

Frameworks and regulation: Third parties bring heightened scrutiny and best practices to impact investing

As the market for impact-related bonds has grown, it has attracted increased scrutiny from regulators and questions from issuers, ratings agencies and investors about nomenclature, disclosures and other important areas. Until recently, the growth of the impact bond market has outpaced the widespread adoption of industry standards and clear regulation.

Organizations are addressing this gap by creating frameworks that bring increased rigor, transparency, consistency and best practices to the market.

The International Capital Market Association (ICMA) provides best practices for issuers via their Green and Social Bond Principles and Sustainability Bond Guidelines. These principles promote transparency, provide guidance to issuers and attempt to establish minimum issuance standards for labelled bond deals.[2]

Voluntary frameworks, such as the International Finance Corporation's (IFC's) Operating Principles for Impact Management, also provide a strong foundation. The IFC's principles ensure that impact is integrated, monitored and assessed throughout the life cycle of an investment. These operating principles were written with private market investors in mind. However, a small number of public market investors (of which Nuveen is one) have embraced the discipline and hired third parties to verify adherence to the principles.[3]

Sustainable Development Goals

Identifying several SDGs that align with the institution's mission and values, as well as its existing investment expertise, can help focus an institution's impact investing efforts.

Further information about UN SDGs can be found at www.un.org/sustainabledevelopment.

Building an effective impact bond investing framework

An investment framework that can capitalize on the growing opportunities in impact bonds requires intentionality and focus.

We have been refining our impact bond framework for more than 15 years, and in 2022, we managed more than $7 billion in impact bond assets on behalf of clients.

Over this time, we have identified several best practices and key considerations for institutional investors focused on expanding their exposure to impact bonds.

This is based on lessons we have learned in developing our impact framework, working with issuers, and collaborating and consulting with leading third parties and our clients.

Incorporate impact with other responsible investing approaches

The broader category of responsible investing comprises a range of approaches, including exclusionary screens, environmental, social and governance (ESG) leadership, thematic and impact investment. When developing an impact framework, it is important to consider the relative strengths and limitations of each approach and determine how they can work in concert to achieve the institution's financial and impact objectives.

Examples of responsible investing approaches

Moving along the spectrum of responsible investing strategies allows institutional investors to have a more direct impact on social and environmental outcomes and further align the portfolio with the institution's mission and values. This progression, however, can create challenges in reporting and scalability.

Source: Nuveen, 2023

When thinking about these approaches as a spectrum, they become incrementally more involved from an execution and reporting perspective while offering the potential for greater alignment with the institution's objectives.

- **Exclusionary:** An exclusionary approach to responsible investing involves prohibiting the portfolio from investing in companies or issuers whose practices do not align with the institution's mission and values. These exclusions, or negative screening, can happen at the company level (e.g., excluding companies that don't have diverse boards) or at the industry level (e.g., excluding companies that manufacture tobacco, alcohol or firearms).

  A benefit of this rules-based approach is that it can be relatively simple to execute. The primary drawback, however, is that exclusions limit an institution's ability to engage with issuers and drive positive change. It also precludes delivering capital to market segments or issuers most in need of positive change.

- **ESG leadership:** This approach centers on tilting an institution's portfolio toward companies with above-average ESG scores for their industry, and avoiding ESG laggards with material deficiencies or risks. In addition to investing in ESG leaders, some institutions may choose to also target companies or issuers who currently have below-average ESG scores but are on an upward trajectory in those areas. When applying an ESG leadership approach, it is important to think about the materiality of various ESG criteria; not every ESG factor is equally relevant across industries or company types, so it can be very helpful to adjust ESG scores to reflect materiality weightings.

As with exclusions, an ESG leadership approach has the benefit of having clearly defined eligibility standards, making it more scalable and simpler to implement. A major benefit of ESG leadership versus exclusions is that ESG leadership allows institutions to directly engage with management teams of companies and issuers to address areas for improvement.

- **Impact investing:** Impact investing involves seeking opportunities to deploy capital in investments that have an intentional, direct and measurable positive effect on environmental or social outcomes, in addition to having a competitive risk-adjusted return. This is where impact investing can differ from concessionary or philanthropic approaches.

  Unlike exclusionary or ESG leadership approaches, impact investing is more focused on measuring how the capital is being used to achieve a positive outcome. Measuring impact can be less clear-cut and more labor-intensive than ESG scoring or negative screening. But these challenges are becoming increasingly manageable as the impact market grows and matures and as more institutional investors work with companies, issuers and impact-focused industry groups to make reporting more available, transparent and directly linked to the projects and initiatives funded with proceeds from a specific bond.

For institutions that seek to incorporate impact into their core bond exposure, one approach (which is employed at Nuveen for core portfolios) is to combine both ESG leadership and impact investing. The impact bond market is rapidly growing, but it is not yet broad enough to mirror the exposures of core bond benchmarks. Investing the balance of the portfolio by ESG leadership standards can limit the tracking error relative to core bond benchmarks and help manage idiosyncratic credit risk, while allocating capital to issuers with strong ESG track records.

Impact investing: a three-step framework

1. Start with intentionality

With impact investing, progress starts with intentionality. This involves identifying which specific causes or areas of social and environmental impact the institution wants to focus its efforts on.

The Sustainable Development Goals (SDGs) can be extremely helpful in providing a common set of goals and language to orient an institution's impact efforts. Rather than trying to address all 17 SDGs, it may be helpful to zero in on several specific goals and focus the institution's impact efforts on those areas.

In developing our fixed income impact framework at Nuveen, we engaged our clients in discussions and evaluated the opportunities across bond market sectors. We then decided to direct impact capital across four themes: affordable housing, community and economic development, renewable energy and climate change, and natural resources.

2. Make impact direct and measurable

An institution needs to provide clarity on how it will deliver on its impact intentions.

At Nuveen, we use the following guidelines for impact bonds:

- **Direct:** The capital raised must fund specific projects or initiatives that deliver a clearly defined environmental or social benefit, including pure-play issuers; typically, general purpose debt does not meet this standard.
- **Measurable:** The issuer must be able and willing to disclose key performance indicators (KPIs) through impact reporting for the project or initiative. Such disclosure enables investors to assess efficacy on a financial and outcome basis. This ongoing assessment of the capital expenditures informs their judgement of potential risk while providing transparency about specific impact outcomes.

As noted above, impact reporting by issuers has improved considerably over the past decade. But challenges and limitations remain, including accessing data at the appropriate level. We believe that security- and project-level data is significantly more useful than issuer-level data in assessing the impact of the activities financed directly or indirectly by the bonds.

This is particularly important when assessing projects involving carbon emissions. Green projects typically report carbon emissions avoided or reduced, but not emitted. And, at present, commercially available carbon data sets for location-specific renewable energy projects often include enterprise- or parent-level greenhouse gas emissions and other carbon intensity data. These issues make it challenging to fully understand the project's carbon footprint.

3. Prioritize engagement with issuers

In addition to providing capital for projects, impact bond investors have a powerful opportunity to drive change by engaging with issuers and other stakeholders. As noted, engagement with issuers is one reason why ESG leadership and impact approaches give institutions more leverage in affecting positive change than an exclusionary approach.

Engagement with issuers is an essential aspect of Nuveen's approach to responsible investing broadly and impact investing particularly. As one of the world's largest fixed income managers, we maintain strong relationships with issuers, underwriters, policy makers, ratings agencies and asset owners. We use these relationships to engage in ongoing dialogues about how to structure bonds, what characteristics are needed to satisfy investor demand and the appropriate level and quality of impact disclosure and reporting.

From maturity to mainstream: Impact bonds in the next decade

The growth and development of the impact bond market make these bonds a compelling consideration for institutions' core bond exposure.

The rapid growth and maturation of the impact bond market has been spurred by surging investor demand, a broadening of the issuer universe, increased reporting transparency and stronger frameworks for assessing, monitoring and evaluating impact investments.

We expect this virtuous cycle to continue fueling the growth of the impact bond market — but challenges remain. Investors, asset managers and issuers must continue collaborating to build on the current momentum.

We hope that the best practices and considerations described in this paper will provide clarity to the process of investing in impact bonds and guide institutional investors seeking to make them a valuable part of their bond allocation.

IMPACT BOND RESOURCES

There are ample resources and industry groups that institutions can draw on to guide their efforts related to impact bonds and impact investing more generally, including:

- International Capital Market Association
  - Green Bond Principles
  - Social Bond Principles
  - Sustainability Bond Guidelines
- International Finance Corporation Operating Principles for Impact Management
- Principals for Responsible Investment (PRI)
- Global Impact Investing Network (GIIN)
- Global Investors for Sustainable Development Alliance (GISD)
- United Nations 2030 Agenda for Sustainable Development

NUVEEN RESOURCES

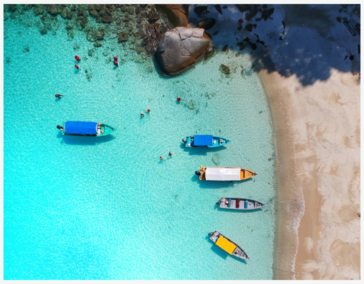
Committed to investing to make an enduring impact, Nuveen has developed a robust reporting framework for its investment portfolios as well as regularly producing thought leadership to share best practices. Recent examples include:

- Nuveen global fixed income impact report 2021
- Impact investing: the insurer's perspective
- Sustainability-linked bonds do not fit our impact framework

Innovative impact transactions

These case studies* and the timeline on the following pages illustrate how the public bond market is responding to the growing demand for capital to fund impact solutions.

Republic of Seychelles issues first sovereign blue bond



In 2018, the Republic of Seychelles, an island nation off the coast of East Africa, issued the world's first sovereign blue bond, an instrument designed to support sustainable fisheries and other marine projects in countries whose economies depend primarily on the health of the ocean.

The $15 million issue was part of a larger World Bank program known as SWIOFish3 and was designed to support a transition to sustainable fisheries in the Seychelles.

Women's Livelihood Bonds enhance financial inclusion in Southeast Asia

Impact Investment Exchange (IIX), a Singapore-based financial institution, recently launched a series of bonds to fund microfinance institutions and social enterprises that help low-income Southeast Asian women build credit histories, start businesses and transition to sustainable livelihoods. Other long-term benefits of these bonds include higher female workforce participation and increased standards of living and enhanced education and healthcare opportunities for women and children.

IIX's Women's Livelihood Bond 5, issued in December 2022, was the first to be officially labelled as an orange bond. The Orange Bond Principles were organized to provide support and momentum for gender equality impact securities.[4] Orange is the color of the icon representing SDG 5 Gender Equality.

COVID-19 bonds highlight the speed and agility of public bond markets to marshal capital for impact

In 2020, many issuers tapped public bond markets to raise capital to support communities, small businesses and individuals affected and disrupted by the pandemic. The speed at which public markets were able to raise funds for COVID-19 relief suggests that impact bonds are likely to play an increasingly important role in funding new and unexpected challenges facing society.

* Nuveen participated in these transactions.

Accelerating innovation in impact bond investing

The pace of innovation in impact bonds has accelerated over the past decade. This is illustrated by the diversity of new transaction types* and the growth in impact bond issuance globally.

Innovative transactions

Industry advocacy and milestones

GSS-labelled bond issuance exceeds $10 billion

2013

Green Bond Principles published[2]

2014

2015

First impact reports across Nuveen's four themes

GSS-labelled bond issuance exceeds $100 billion

2016

Social Bond Principles and Sustainability Bond Guidelines published

2017

* Nuveen participated in these transactions.

2018

Republic of Seychelles blue bonds [see case study]

First USD emerging market sovereign green bond

GSS-labelled bond issuance exceeds $200 billion

2019

Women's Livelihood bonds issued by Impact Investment Exchange [see case study]

Nuveen becomes founding signatory and Advisory Board member of the IFC Operating Principles for Impact Management

2020

COVID-19 response bonds [see case study]

Nuveen named Investor of the year by Environmental Finance

2021

GSS-labelled bond issuance exceeds $1 trillion

2022

World Bank Wildlife Conservation Bond (Rhino Bond)

Women's Livelihood Bond 5 issued – first to be officially labelled an orange bond [see case study]

Nuveen's inaugural Global Fixed Income impact report named Impact report of the year by Environmental Finance

For more information, please visit nuveen.com.

Endnotes

1 Data sourced from Environmental Finance, Sustainability Bond Insights 2023.

2 Stephen Liberatore, an author of this paper, served on the ICMA Green Bond Principles Advisory Council and was a member of the initial executive committee. He also serves on the UN's Joint SDG Fund's Blue Economy Investor Advisory Group. and the Steering Committee of the Orange Bond Principals.

3 BlueMark, a leading provider of impact verification services in the impact investing market, independently verified the extent of alignment with the Impact Principles for Nuveen Fixed Income, Nuveen Real Estate and Nuveen Private Equity. 6 June, 2022. https://documents.nuveen.com/Documents/Global/Default.aspx?uniqueId=30871a45-2704-4a2e-8d4d-4d76d5ade5ea

4 Nuveen is a founding signatory and steering committee member of the Orange Bond Principles.

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