Fixed Impact: Green Bonds Primer

Investment Primer

PARTAP SINGH AHUJA
Asset Allocation Strategist
Morgan Stanley Wealth Management
Partap.Ahuja@morganstanley.com

JON MACKAY
Managing Director
Senior Market Strategist
Morgan Stanley Wealth Management
Jonathan.Mackay@morganstanley.com

"We believe sustainable investing will become the standard way of managing a fixed-income portfolio, transforming how companies and the projects they support are managed"

Heike Reichelt, World Bank

Deciphering The Spectrum of Sustainable Fixed Income Investment Opportunities

The advent of the "green bond" has proved revolutionary in global capital markets, demonstrated by unprecedented growth and widespread adoption. Last year alone green bond issuance exceeded $47 billion[1] with new offerings in France, Sweden, Germany, China, and India, among others. While novel in theory, green bonds are much like their traditional counterparts in practice except for the nature in which proceeds are allocated.

For a more holistic perspective, this primer revisits the concept of sustainable investing, contextualizes green bonds amidst the broader category of sustainable fixed income and explores ways to integrate sustainability through credit-based investment solutions.

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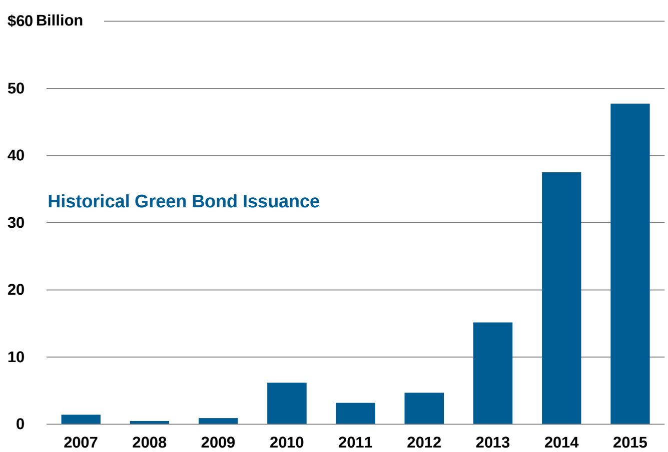
Sustainable Investing 101

At Morgan Stanley, we define sustainability as a commitment to economic, social and environmental well-being for both the present and the future, balancing needs of today with the demands of tomorrow. Sustainability encompasses behaviors, processes, tools and technologies that can be perpetuated and replicated in ways that achieve economic, social, or environmental benefits. Sustainable investing serves as a means of channeling capital to businesses that engage in these behaviors and practices with the goal of generating attractive risk-adjusted returns alongside social and environmental outcomes. Indeed, sustainable investments have often met or exceeded the performance of traditional investments, as demonstrated in a propriety study conducted by Morgan Stanley's Institute for Sustainable Investing.[2]

The appetite for sustainable investment products and strategies has grown markedly and now accounts for over $6.57 trillion of assets managed in the US[3] and $21.4 trillion globally.[4] More than one out of every six dollars in the US adheres to sustainable and responsible investment strategies, up from one in nine in 2012. Harvard Management Company (HMC), overseer of the nation's largest higher education endowment at $36.4 billion,[5] has been one of the many organizations to integrate sustainability as part of their broader investment strategy. HMC was also the first US endowment to sign the United Nations-supported Principles for Responsible Investment (PRI). In the words of Jameela Pedicini, HMC's former vice president for sustainable investing, "We're not limiting our investment opportunity. We're actually enhancing our ability to make good investment decisions - now and in the future."[6] Mainstream asset managers are no longer able to ignore this investment approach as a market niche and so are launching products to satisfy demand from a variety of investor channels.

Exhibit 1: A Green Future



Source: Bloomberg New Energy Finance, Bloomberg LP

Looking for Impact in Fixed Income

Given the prevalence of equity-based solutions, many investors assume the practice of sustainable investing relates only to stock selection. As investors navigate different sustainable investment opportunities, it is essential that they learn about the range of fixed income approaches and structures available. Other than forfeiting voting rights held by stockowners, fixed income investors can realize similar, if not greater, levels of impact. Fixed income is one of the world's largest asset classes and plays an important part in preserving wealth and providing a reliable stream of income, while simultaneously acting as a counterweight to volatility in the equity markets. Therefore, if investors are to take a comprehensive approach to integrating sustainability in their portfolios, fixed income serves an essential role.

Sustainable Fixed Income Options

In 2012, Morgan Stanley created a proprietary *Investing with Impact* framework to highlight investment approaches that collectively aim to generate financial returns alongside positive environmental and social impact (see Appendix, page 5). This framework is comprised of the four distinct categories below, whereby the impact of each category is increasingly targeted and implicitly defined as one moves further along the spectrum.

Values Alignment

One approach to sustainable fixed income is to simply exclude issuers involved in objectionable industries, projects or geographies. For example, investors can avoid bonds from a company that may use proceeds to finance the manufacturing of firearms. This approach often relies upon revenue thresholds to ensure that no more than a specified percentage of income is derived from predefined conflict areas and therefore does not actively seek environmental and social impact. When implemented without the construct of a broader investment strategy, such an approach can be limiting and lead to concentration risk.

Environment, Social and Governance Integration

Proactively seeking issuers with exemplary Environmental, Social and Governance (ESG) performance is another common approach. Making ESG analysis an essential component of fixed income investment selection can create value differentiation and serve as a risk management technique. The tools to measure ESG performance are constantly improving as they are adopted by a growing base of investors. Many asset managers and fund providers have built proprietary frameworks to analyze different sustainability measures and assign ESG ratings to each issue under consideration, drawing from a variety of information sources. These strategies can also help portfolio managers identify opportunities that prioritize safety along with high credit quality.

Thematic Exposure

Identifying specific impact themes and finding corresponding issuers is one of the most powerful means of aligning sustainability objectives with a portfolio's fixed income allocation (see Exhibit 2). Since bond issuers represent such a broad array of governments, corporations, and institutions, fixed income investors can take a more strategic approach by funding specific projects or geographies. For example, green bonds that help support the installation of solar panels in developing regions where the lack of reliable electricity sources can be remedied by the natural abundance of sunlight.

Impact Investing

There are also avenues available to directly fund environmentally or socially conscious initiatives through the private market. Microfinance loans and peer-to-peer lending networks have emerged to help provide capital to underserved populations that would otherwise have no means of gaining access to financial services. This approach is furthest along the impact spectrum and is intended for those with a higher risk tolerance.

Exhibit 2: Impact Themes

Sustainable Infrastructure	Education	Healthy Living
Renewable Infrastructure Systems	Primary and Secondary Education	Hospital Projects
Energy Efficient Public Transportation	Public University Systems	Parks & Recreation
Carbon Reduction	Charter Schools	Specialized Care and Assisted Living Facilities
Water Delivery Improvement	Public Libraries	Medical Research & Development

Source: Morgan Stanley Wealth Management

Green Bonds

What are green bonds?

Green bonds are fixed income instruments for which the proceeds are specifically designated for projects with clearly defined environmental benefits. Eligible projects include, but are not limited to, renewable energy, energy efficiency, sustainable waste management, sustainable land use, biodiversity conservation, clean transportation and clean water. While similar to traditional bonds in terms of deal structure and maturity, green bonds have additional disclosure requirements with regards to the use of proceeds and specific impact achieved for given time horizons. This transparency also extends into reporting, with many green bond issuers committing to tracking the progress of the projects for the life of the bond.

Who invests in green bonds?

Thus far, purchasers of green bonds have been primarily institutional investors, specifically those with an environmental focus or mandate. However, governments, corporations, and retail investors have been increasingly drawn to the multifold benefits that green bonds provide in a structure that is easy to understand. Since fixed income instruments can be used to fund any number of activities, green bonds give all investors a way to realize positive impact in a way that is both personal and meaningful.

Who issues green bonds?

While originally dominated by multilateral development banks, now corporations, municipalities and government agencies have become important issuers. Since green bonds are backed by the full credit of the underlying issuer, returns are not dependent upon the success of any one particular venture and therefore investors are not subject to project risk. This is a key point, as Standard & Poor's explains, because it signifies that "investors do not have to sacrifice yield to gain green exposure, nor significantly increase their risk profile in order to invest in assets that aid environmental efforts."[7] Given that the risk profile of green bonds is in line with that of traditional offerings from the issuer, they will typically trade at identical or very similar valuations.

Green Bonds Brought To Market

Development Banks

The first official green bond was issued by the European Investment Bank (EIB) in June 2007 with the designation "Climate Awareness Bond." Historically, the green bond market has been driven by supranational development organizations, including the World Bank and International Finance Corporation (IFC), and they continue to be the most active issuers. Proceeds are generally designed to address the challenges of climate change, supporting such projects as renewable energy and sustainable transportation systems. Leveraging its AAA/Aaa credit rating, the World Bank has issued over $8.5 billion in green bonds in 18 currencies since 2008.

Corporations

Corporations have been increasingly drawn to green bonds to support sustainability initiatives and clean energy projects. Standard & Poor's explains that "corporate issuers see green bonds as an alternative financing avenue, offering access to a diversified investor base, plus a means of implementing and maintaining efficiency measures considered environmentally sustainable."[8] Unilever, one of the largest consumer goods companies in the world, issued its first green bond with a 2% fixed rate in March 2014 as part of a broader *Sustainable Living Plan*. Proceeds from the offering, which was three times oversubscribed, have since been directed to reducing emissions and waste output, improving water usage, and increasing overall energy efficiency at new and existing facilities. Toyota Financial Services issued its second green bond in 2015 and has raised more than $3 billion thus far to fund green vehicles for its Toyota and Lexus brands.

Municipalities

The municipal market lends itself particularly well to green bonds. State and local governments consistently tap capital markets to borrow money for projects designed to positively impact the lives of residents, such as building schools and hospitals. Municipals can also help to meet personalized investment objectives by utilizing a multitude of varying credit qualities, coupon structures and final maturity ranges. Massachusetts was the first state to issue a green bond to finance infrastructure projects. Numerous states have followed suit including New York and California.

Government Agencies

Government agencies have been relatively quick to signal their support. Fannie Mae's *Multifamily Green Initiative* provides mortgage financing to apartment buildings and cooperatives in order to finance energy and water efficiency improvements. Mortgage-backed securities are similarly well-suited for this approach as proceeds can be easily designated for those investing in homes that incorporate sustainable features such as solar panels and high-efficiency windows. More ambitious projects seek to minimize urban sprawl and encourage pedestrian friendly neighborhoods.

Challenges

First, there still exists varying interpretations as to what qualifies as a green bond given that different market participants may define "green" differently. Investors must hold issuers accountable to ascertain that proceeds are being used in the manner stipulated. With the maturity of the green bond market, third-party verifiers have emerged to track issuers for the life of their respective projects and initiatives. Financial services firms acting as underwriters have also drafted and supported the Green Bond Principles, which serve as voluntary guidelines encouraging increased transparency and disclosure. Second, green bond issuance still remains a very small portion of the global bond market, with limited secondary market activity. We believe this will change over time with increased standardization as more issuers enter the market and green bonds become a more common investment vehicle for both institutional and retail investors.

Conclusion

The practice of sustainable investing has only just begun to realize its full potential. While equity based instruments may have lead the way, fixed income will play an increasingly important role in orienting portfolios towards total impact. The emergence of green bonds serves as a prime example of the evolving market landscape and points to a future where attractive financial returns and positive societal outcomes are realized as one.

Many thanks to Morgan Stanley's Global Sustainable Finance (GSF) team for their guidance and partnership.

Appendix

Investing with Impact Framework

Minimize Objectionable Impact → Targeted Impact

	VALUES ALIGNMENT	ENVIRONMENTAL, SOCIAL AND GOVERNANCE (ESG) INTEGRATION	THEMATIC EXPOSURE	IMPACT INVESTING
DEFINITION	• Managing exposures by intentionally avoiding investments based on specific criteria	• Proactively considering ESG criteria alongside financial analysis to identify opportunities and risks during investment process	• Focusing on themes and sectors dedicated to solving sustainability-related domestic and global challenges	• Allocating to investment funds focused on private enterprises structured to deliver specific positive social and/or environmental impacts
IMPACT INVESTMENT CHARACTERISTICS	• Public equity, Public fixed income, alternatives • Differentiated by restriction criteria and degree of shareholder advocacy • Not proactively seeking environmental and social impact	• Public equity and public fixed income • Differentiated by ESG integration process and degree of shareholder advocacy • May also include screens	• Public equity and public fixed income • Differentiated by macro-analysis, sustainability research and sector focus	• Differentiated by impact approach, regional focus, liquidity and impact reporting • May have investor restrictions
INVESTMENT EXAMPLES	• Mutual fund that excludes companies from buy universe (e.g. tobacco, firearms, coal mining companies)	• Separately Managed Account (SMA) incorporating analysis of ESG performance into stock selection process	• Exchange-traded fund (ETF) tracking index of renewable energy companies	• A private equity fund focused on emerging consumers or project level renewable energy investment.
	PUBLIC MARKETS			PRIVATE MARKETS

Source: Morgan Stanley Wealth Management

Endnotes

[1] Bloomberg New Energy Finance, Bloomberg LP, January 2016.

[2] Morgan Stanley Institute for Sustainable Investing *Sustainable Reality,* February 2015.

[3] Report on the Sustainable and Responsible Investing Trends in the United States, 2014. US SIF Foundation, November 2014.

[4] Global Sustainable Investment Review 2014. Global Sustainable Investment Association (GSIA), February 2015.

[5] Mendillo, Jane L. "2014 HMC Endowment Report," Harvard Management Company, Inc., September 2014.

[6] "Q&A with Jameela Pedicini," *Harvard Gazette,* April 2014.

[7] Bolger, Andrew. "Bond markets join the green revolution," *Financial Times*, May 2014.

[8] "The Greening of The Corporate Bond Market," Standard & Poor's. May 2014.

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