Sustainable/ Green Bonds Whitepaper





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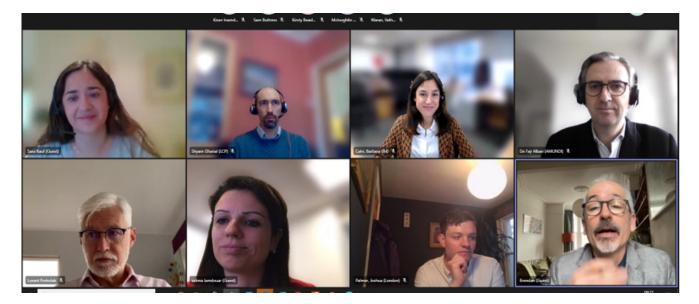
Welcome to CAMRADATA's Sustainable / Green Bonds Whitepaper

Disclosure on the sustainability of investment portfolios is beginning to bite. Fiduciaries now feel the pressure that they have to understand the value of their portfolio in the context of the wider world, not just the retirement plans of their beneficiaries. While that seems like a worthy additional purpose for long-term capital, it has come into being rapidly. There is a case for arguing that investors are being asked to make judgements about borrower companies' sustainability ahead of the company itself.

Investing is difficult enough when just considering financial metrics. Events such as the Covid pandemic and Russia's invasion of Ukraine are grim reminders of exogenous unpredictability. The rapidly developing demands to incorporate sustainability then add even more burden of estimation. This CAMRADATA whitepaper will examine how asset owners, asset managers and advisers are coping with new regulatory responsibilities in the shift towards sustainability.

Sustainable / Green Bonds Roundtable

The CAMRADATA Sustainable / Green Bonds Roundtable took place virtually in London on 16th March 2022.



Environmental, Social and Governance (ESG) considerations are growing inexorably larger in the management of long-term savings. The CAMRADATA Sustainable/Green Bonds roundtable 2022 began with a discussion on fixed income labelled Green Bonds, including Social and Sustainability-Linked issuance. Asset manager panellists were asked about their firms' exposure to this flourishing sector.

Alban de Faÿ, head of responsible fixed income at Amundi, said it had E5bn in dedicated Green Bond Strategies, plus a Social Bond fund, Just Transition for Climate fund, and tailor-made Climate mandates. Amundi had recently won a E1bn mandate on Green and Sustainable bonds from a German pensions provider. De Faÿ added that it was too early for a dedicated Sustainability-Linked Bond vehicle even though the volume of issuance was growing.

Salima Lamdouar, sustainable fixed income portfolio manager at Alliance Bernstein, mentioned their main global sustainable fixed income offering met Article-9 designation of the EU's Sustainable Finance Disclosure Regulations (SFDR) and that Alliance Bernstein also manages a climate focused "Consultants at the CAMRADATA roundtable were then asked whether they had advised on any Green Bondonly searches or mandates in the last two years."

high income fund and a small dedicated green bond strategy.

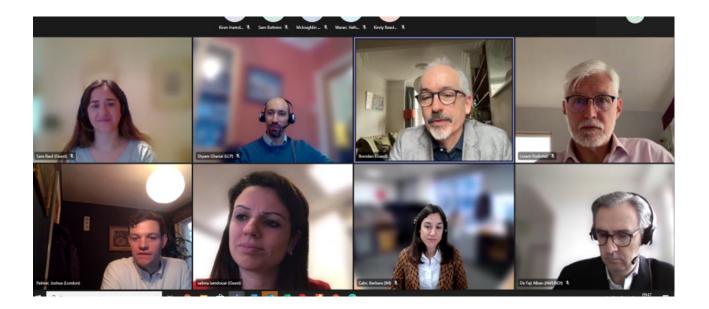
Lamdouar added that Green Bonds generally are likely to benefit from strong technicals because of regulation. "Taxonomy-aligned Green Bonds could be defined as sustainable investments, and so easier for managers to define under SFDR," she said. Lamdouar saw valuations based on sustainability metrics now embedded in fundamental analysis. As an example, she noted Alliance Bernstein's Global Multi-Sector Fixed Income strategy (GMSFI) held a meaningful allocation in Green Bonds based on a bottom-up valuations perspective.

For Morgan Stanley Investment Management (MSIM), Barbara Calvi, executive director for sustainable investing in fixed income, said their Sustainable bond fund range carried between 20-35% in Green and other labelled bonds. She noted that Calvert Research and Management, a recent MSIM acquisition, had been running a dedicated Green Bond strategy since 2013.

Calvi also pointed to the catalyst role Green Bonds can play in reducing the emissions at the issuing company level, citing research showing that frequent issuers of these products tend to reduce their emissions faster than those who don't have a green financing programme in place. So there is a positive trend to be acknowledged.

Consultants at the CAMRADATA roundtable were then asked whether they had advised on any Green Bond-only searches or mandates in the last two years. As per the managers' responses, the answers suggested that there is more incorporation into wider fixed income on sustainability metrics than exclusivity.

Josh Palmer, head of sustainable credit research at WTW, said it had created a Climate Bonds mandate last year for its delegated clientele. He explained that the criteria were designed inhouse, so not



"Rauf asked the manager panellists, where they have an allocation to labelled Green Bonds, how emissions get reported."

necessarily issuer-labelled Green or Sustainability bonds. He also mentioned some RFPs in Private Debt where clients were looking for strategies aligned with SFDR Article 9, i.e. Impact strategies.

Similarly, for LCP, senior investment consultant Shyam Gharial, said that he had looked into Impact credit on behalf of clients in the charity space but no Green Bonds-only mandates for pension fund or insurers. LCP has, however, made sustainabilityaware credit the default choice for clients' Buy & Maintain mandates. Gharial emphasised that sustainability-aware goes beyond ESG integration. The decision has already affected £9bn in Investment Grade segregated mandates which had either been implemented already or were in advanced-stage negotiations with fund managers for inclusion in investment management agreements. LCP has also worked with one asset manager to create a short-term credit pooled fund with net-zero targets.

Sara Rauf, senior consultant at Aon, hadn't been involved in any exclusive Green Bond searches. Aon has, however, just created a Multi-Asset Credit strategy, featuring two underlying managers focused on the UN's Sustainable Development Goals and two on climate transition. Generally speaking, Rauf said her team was seeing a mix where managers have some allocation to Green issuance.

Aon is having ongoing discussions with credit managers on how to report the efficacy of those Green Bonds. "We recently spoke to a manager who reported them as having zero-emissions. Their argument is that by treating them the same as a vanilla bond, the portfolio manager is not sufficiently incentivised to buy them," she said.

Rauf asked the manager panellists, where they have an allocation to labelled Green Bonds, how emissions get reported. "Do you report the same as vanilla bonds or do you write Green Bonds down as zero-emissions?"

Calvi replied that MSIM accounts for the entirety of an issuer's emissions: "It is the most conservative and transparent way. Within a portfolio, we then show the sector split of emissions, but also what proportion of the total carbon footprint is associated with green bond holdings that, in practice, finance renewable energy and other environmental projects that help avoid or reduce emissions," she clarified. This enables clients to do a more informed comparison against the benchmark.

De Faÿ said that Amundi takes into account emissions of the issuer but also the environmental benefits of the project if it is a Green Bond, of which Amundi has 900 on its database. Following Calvi's point, he noted that Green Bond funds tend to have higher carbon footprints due to the significant exposure to the utilities sector. "Some managers are against adjusting the carbon emissions of the issuer with the environmental benefits of the project. We think that is misleading," he said, "as the refinanced green projects are already integrated in the current carbon footprint of the issuer." Moreover, Amundi believes that issuers are ultimately best placed to assess their own environmental impact. He said creditors should leverage on the issuer to do this.

Lamdouar agreed that exposure was to the issuer and so that was where the ultimate credit risk lay. "Don't cut corners," she said. "The full carbon footprint and environmental impact comes from Green Bonds and the rest." She added that presumption of zero emissions from green bonds was misleading as even the 'cleanest' projects such as solar power do have a carbon footprint. Additionally, use of proceeds linked to other climate considerations



reporting. She noted that net-zero was not a linear development, especially towards the end where uncertainty grows. Aon, like WTW, is grappling with data-gathering and evaluation itself. Aon as a business and its operations is committed to being net-zero by 2030 and its delegated business for the products it invests in by 2050.

De Faÿ said that the goal was to discover how far companies were aligned with the Paris Agreement. "We have to understand how a company is moving; for instance, working on climate stress tests, such as proper carbon pricing, to see how an issuer will be impacted by climate risks" he said. On temperature, he said there

such as water usage and biodiversity are sometimes included in green bonds. She suggested that investors had to look to more holistic metrics and forward looking decarbonisation metrics and linked to the companies themselves such as Science-Based Targets Initiative (SBTi) assessments.

A practical problem Lamdouar noted was that when it comes to the impact of the proceeds of a Green or Other use-of-proceeds bonds, market practice is to wait twelve months before the release of impact reports. "What if that bond is sold after four months? How do you apportion impact and compare like with like?" she asked.

Lamdouar said that Alliance Bernstein is working on its own model for carbon emissions saved and thus impact. Calvi said that MSIM also has a new carbon evaluation tool, co-created with Morgan Stanley's Global Sustainable Finance team, offering more granular detail on carbon footprinting and scenarios on carbon pricing.

Calvi was then asked what questions clients were asking regarding sustainability. Her first answer was about preferred metrics, for example whether Carbon Intensity gets measured on a revenue or an enterprise value basis (Institutional investors such as UK pension schemes have been guided by the UK Government not to report aggregate emissions unless all third-party mandates "Net-zero alignment: do you start with the portfolio's absolute status or reference an external benchmark to set your baseline?"

are using the same methodology). Another question MSIM has faced is what it would take to transition a mandate complying currently with Article 8 (i.e., promoting environmental and/ or social characteristics) to Article 9 (sustainability objectives) in the context of the EU Sustainable Finance Disclosure Regulation (SFDR).

A third question was on netzero alignment: do you start with the portfolio's absolute status or reference an external benchmark to set your baseline?

Lorant Porkolab, an independent professional pension trustee from Law Debenture, said that with all the additional reporting and governance requirements, dealing with related questions and the increased scrutiny came some cost implications. Lamdouar asked whether he meant for the asset owner or the asset manager. For both, replied Porkolab.

Change in Temperature

Rauf asked the managers if they were integrating temperature alignment into their sustainability were different methodologies and different carbon reduction targets. Amundi has conducted a study analysing the methodology of different third-party data providers and found such variability that it is wary of relying on temperaturerelated scores. Instead, Amundi's research team has come up with new net-zero metrics. "We have built new internal ratings for dedicated strategies such as the Just Transition rating," he said. "The idea is to understand how companies integrate social dimensions behind the overall pathway."

So actual emissions quantification is only the first step. Amundi's second step is to assess how companies are moving on the decarbonisation pathway. Third comes engagement and the chance to hear and assess companies' intentionality.

On temperature, Calvi said MSIM was currently looking at SBTi as the main reference to confirm companies' 1.5 degree alignment. MSIM has also developed carbon pricing scenarios and carbonrelated earnings at risk, which allow to analyse holdings that could suffer most relative to the benchmark.

Calvi was asked whether companies rejected or accepted investors' assumptions about the risks facing them. She responded that some corporates have not yet started to do this kind of analysis themselves. Others, such as oil majors, have done a lot of heavy modelling and do raise challenges.

Calvi noted that MSIM is working on developing new climate scenarios, ranging from 1.5-degree, net zero-aligned to a more pessimistic business-as-usual outlook that would put average global rises at 4 degrees by 2100.

Slim Funnel of Doubt

Gharial said LCP was not overly keen on temperature scores. "Aggregating is dangerous because you end up with hard figures and they are rarely accompanied by a funnel of doubt. End-users will nevertheless take those figures to be true."

De Faÿ agreed that much education was needed to help clients understand the nuances of sustainability metrics and pathways. Gharial said that some of his clients had been asking for immediate portfolio decarbonisation. LCP's response was to encourage them instead to take a transitional approach, considering corporate issuers' pathways and using ratchets to mark decarbonisation milestones along the way.

Rauf said that even the basics such as going through what the 17 UN SDGs stood for was necessary with some trustee boards.

Porkolab said that some of the current approaches and methodologies of asset managers don't reflect very closely trustees' needs and requirements. "[In the UK] these come from the Department for Work and Pensions and The Pensions Regulator, and tend to focus on the Taskforce on Climate-Related Financial Disclosure (TCFD) regime" he said. "Transparency, data quality and reporting standards need to improve. The TCFD obligation currently applies to larger schemes



only (with assets above £5bn), but is not properly on the agenda as of yet for mid-to-small sized schemes, which represent the majority of the UK DB universe."

On TCFD, Gharial said there were gaps in coverage once you get into issuers such as Housing Associations, universities, Special Purpose Vehicles. More generally, he observed that coverage in High Yield was worse than Investment Grade, while Private Credit and Loans was "disappointing". In Asset-Backed Securities "no one seems to know what to do there. We accept some will take longer than others," said Gharial. LCP sends data requests to managers but where they struggle, LCP resorts to the template of the Institutional Consultants' Sustainability Working Group, in the hope they are, or become, familiar with the 12 data points which may be requested more frequently by other consultants.

Rauf agreed, especially with Gharial's points on ABS. "The key is having a standardised approach across all managers," she said. However, like other consultants, Aon is faced with variety and workarounds. "Some managers use a sector average as a proxy for missing data" she said. "A homogenous approach would make life easier."

She suggested this would be SBTi. Recently, there have been accusations that SBTi is compromised by the fact that it is funded by the companies it analyses. Lamdouar suggested that whilst there were this was no different to the major credit ratings agencies, and whilst the SBTi was understandably under a lot of scrutiny considering the traction it has had recently, the underlying sector-pathways methodology was thoughtfully put together. Gharial noted that SBTi had just made it clear that Oil & Gas companies cannot participate in the initiative because of their incompatibility with achieving climate change goals. He took this as a virtuous policy decision.

Returning to reporting requirements, Palmer said WTW has developed its own Climate Dashboard with six elements: carbon footprint (emissions); alignment metrics; sustainable revenues as a percentage of the company's total revenues; and Climate Value-at-Risk, covering transition risk. Palmer explained that the CVaR model worked by

Aggregating is dangerous because you end up with hard figures and they are rarely accompanied by a funnel of doubt. End-users will nevertheless take those figures to be true.



cashflows earned under a Businessas-Usual scenario versus a sub-2 degree-temperature rise. The difference between the two gave the issuer's CVaR figure.

Palmer said there were different levels of quality with metrics. He said that ClimateAction and TPI use fewer data points than skilled asset managers' research departments. His general advice was for managers and their clients to assess an issuer's commitment to transition qualitatively and quantitatively. "Data tell part of the story," he said, "but part of our client education is to help them concentrate on what matters. We encourage them to pick a single metric aligned with their goals."

Finally, Palmer pointed out that ABSs sit outside the framework of the Institutional Investors Group on Climate Change. This might explain in part poor reporting on securitised assets.

On securitised assets, Lamdouar agreed with Palmer. She said that Alliance Bernstein has done a lot of work on physical risk modelling with Columbia University. She noted, however, that Fannie and Freddie Mac don't yet disclose underlying mortgagee data because of data privacy.

On CVaR modelling, Lamdouar said that you have to take into account the nuances. For example, physical risks have more impact in a shorter timeframe. For transition risks, on the other hand, you have to integrate carbon pricing and the elasticity of pricing of all sorts of commodities and products. Lamdouar doubted current data "Data tell part of the story, but part of our client education is to help them concentrate on what matters. We encourage them to pick a single metric aligned with their goals."

providers can do this detailed modelling, although some CVaR data providers offered a good starting point for analysis.

Calvi's closing remarks harked back to Palmer's emphasis on combining data with other forms of observation to reach a judgement. "The qualitative brings colour," said Calvi. "And the work we are doing on company engagement is to evidence the convergence of sustainability with all the other dimensions of an enterprise. When you look, for example, at auto manufacturers and their plans for electrification of the fleet, it is the level of commitment and the credibility of these companies' management that matters."

Porkolab concluded the CAMRADATA roundtable with cautious optimism. "For us to make better decisions on the ESG front, we – as an industry - have significant collective responsibilities to improve the quality of data, refine the methodologies and find pragmatic practical solutions," he said. "It's an ongoing dialogue between asset managers, investment advisers and trustees. It will be a challenging evolutionary process. But we will get there."

Roundtable Participants



Salima Lamdouar Portfolio Manager – Sustainable Fixed Income

Personal Profile

Salima Lamdouar is a Vice President and Portfolio Manager for Sustainable Fixed Income, focusing on sustainable thematic credit, income and emerging-market debt strategies. Before joining the firm in 2015, she was a generalist portfolio manager at fixed-income manager Rogge Global Partners.

Lamdouar holds a BSc (Hons) in banking and international finance from Cass Business School. Location: London



AllianceBernstein

Company Profile

AllianceBernstein is a leading investment-management firm with \$779 billion in client assets under management, as of 31 December 2021. We provide forward-looking perspective, independent research and investment discipline across asset classes, from equities and fixed income to alternatives and multiasset portfolios.

Our worldwide clients—including institutional, high-net-worth and retail investors—face new investment challenges and opportunities every day. Through our unique combination of expertise, research and global reach, we apply collective insights and leverage our extensive global footprint to help keep our clients at the forefront of change.

Roundtable Participants



Alban De Faÿ Head of Fixed Income, Responsible Investment & Green Bonds

Personal Profile

Alban is Head of Fixed Income Responsible Investment at Amundi. In this role he is responsible for the integration of ESG considerations into our fixed income portfolios in coordination with investment teams worldwide. He is the lead portfolio manager of our Global Green Bond strategies and represents Amundi at the Green Bond Principles, of which our firm is an Executive Committee member.

Alban joined the firm as an SRI Fixed Income Portfolio Manager in 2003. He managed our successful and long established European Credit SRI Fund for ten years. Alban has been instrumental in developing our capabilities in sustainable fixed income and has been involved in pioneering work including a recent project to develop a portfolio in line with the Paris Agreement targets, incorporating all aspects of climate risk and opportunities, and taking the social dimension of the green transition into account. He began his career at ABF Capital Management as a financial engineer in 2000.

Alban holds a B.S. in Mathematics and Social Sciences and a Master's Degree in Mathematics from Dauphine University in Paris.



Amundi Asset Management

Company Profile

Amundi, the leading European asset manager, ranking among the top 10 global players¹, offers its 100 million clients - institutional, corporate and retail - a complete range of savings and investment solutions in active and passive management, in traditional or real assets. With its six international investment hubs², financial and extra-financial research capabilities and longstanding commitment to responsible investment, Amundi is a key player in the asset management landscape. Amundi clients benefit from the expertise and advice of 4,800 employees in more than 35 countries. A subsidiary of the Crédit Agricole group and listed on the stock exchange, Amundi currently manages nearly £1.7 trillion of assets³.

¹ Source: IPE "Top 500 Asset Managers" published in June 2021, based on assets under management as at 31/12/2020

² Boston, Dublin, London, Milan, Paris and Tokyo

³ Amundi figures including Lyxor as of December 31, 2021



Barbara Calvi Executive Director, Sustainable Investing, Fixed Income Personal Profile

Barbara is Executive Director for Sustainable Investing, and is dedicated to promoting sustainability across the MSIM Global Fixed Income Team and EMEA Firm Management. Barbara leads the Fixed Income team's work on Engagement, ESG integration and Impact. She joined Morgan Stanley in 2018 and has over nine years of experience in finance and sustainability.

Previously, she worked with the World Bank's Financial and Private Sector Development unit, where she focused on financial inclusion, local content and business environment reform projects across East Africa.

Barbara holds an MBA with Distinction from HEC Paris and a Master of Science in Economics and Social Sciences from Bocconi University.

Morgan Stanley

INVESTMENT MANAGEMENT

Morgan Stanley Investment Management

Company Profile

Established in 1975 as a subsidiary of Morgan Stanley Group Inc, Morgan Stanley Investment Management has provided client-centric investment and risk-management solutions to a wide range of investors and institutions for more than 40 years.

Our investment teams strive to provide strong investment performance, excellent client service and a comprehensive suite of investment management solutions to a diverse client base, including governments, institutions, corporations and individuals worldwide.

In March 2021, Morgan Stanley completed the acquisition of Eaton Vance, including its marketleading affiliates Calvert Research and Management and Parametric Portfolio Associates LLC, allowing the Firm to bring even more value to clients through an expanded array of diverse and complementary investment offerings across public and private markets.

Roundtable Participants



Sara Rauf

Senior Consultant

Sara is a senior investment consultant within the fixed income manager research division of Aon in London. She is the global ESG lead for fixed income and specialises in sustainable credit, green bonds, UN SDG aligned strategies and climate funds.

Before joining Aon in 2017, Sara worked at Close Brothers Asset Management as a senior hedge fund analyst conducting due diligence on alternative strategies for family offices and high net worth clients. Prior to this, she worked at Tarchon Capital Management, a London based Fund of Hedge Funds, as a due diligence analyst.

Sara is a CAIA Charterholder and holds a BSc (Hons) degree in International Management and Modern Languages (German) from the University of Bath.



Shyam Gharial

Actuary

I am an actuary and began working in the industry in 2006. My experience spans investment, pensions and sustainability. I am a member of the Responsible Investment team at LCP and am a responsible investment specialist within fixed income research, with particular focus on sustainable credit. Across real assets and credit asset classes, I attempt to source and research specialist sustainability-related investment funds.

I am a client-facing consultant and have helped propose and implement various climate and sustainability related mandates covering equities, equity derivatives and credit. I also help clients comply with sustainabilityrelated regulation. Within the Institute and Faculty of Actuaries, I am a member of the Sustainability Board, where my focus is on the UN Sustainable Development Goals. I have contributed to incorporating sustainability-issues into the actuarial course materials.

In terms of my own non-actuarial study, I have completed various courses covering ESG, climate change, sustainability and energy through a range of institutions.







Lorant Porkolab

Trustee Director

Lorant is a Trustee Director at Law Debenture, working as a professional independent trustee on a number of UK pension schemes. He is a very experienced corporate finance and pensions professional. He joined LawDeb in September 2021 following his 10-year term as Partner and Head of Covenant Advisory Services at XPS Pensions Group. Prior to that Lorant worked in various roles at PricewaterhouseCoopers, Hymans Robertson and Mercer. He advised both trustee and corporate clients on funding defined benefit pension schemes, focusing on pension strategy, corporate transactions, covenant assessments, and negotiation support.

Lorant is an Accredited Member of the Association of Professional Pension Trustees (APPT). He is also a CFA® Charterholder with a PhD in Operations Research who spent the early years of his career in academia, lecturing both at Imperial College and the London School of Economics.



Josh Palmer

Head of Sustainable Credit Research

Josh Palmer joined Willis Towers Watson in August 2013 as a Manager Researcher focusing on hedge fund and fixed income strategies. He currently leads the Sustainability research efforts in fixed income.

He has led the Emerging Market Debt research team, the Discretionary Macro research team and the Volatility Arbitrage team.

He is also a member of the Manager Research Sustainable Investment Working Group, the London Investments Inclusion Network Steer-Co and the WTW Climate and Resilience Hub.





Moderator



Brendan Maton

Freelance Journalist

A highly experienced financial journalist with an expansive network of contacts in the UK and across Europe. Brendan has written about pension schemes and national welfare systems from Finland to Greece for 18 years and understands the retirement savings industry in each European country. Brendan has interviewed EU commissioners and national ministers; central bankers; pension scheme heads; insurance chief executives; chief investment officers; actuaries; union officials; professional and lay trustees.He worked at Financial Times Business for eight years, finally as editor-in-chief of all international pensions titles.

Brendan has spent the last ten years as a freelancer for a number of publications, including Financial Times, Responsible Investor, Nordic region pensions news and IPE. He is also Chief webcast host for IPE. Brendan has acted as conference chair for Financial News, the UK National Association of Pension Funds, Dutch Investment Professionals Association (VBA), Corestone, Insight Investment, Marcus Evans, Robeco Asset Management, Sustainable Asset Management (SAM), Towers Watson.



CAMRADATA

3

The Knowledge Bank

UNLOCKING THE DOOR TO THOUGHT LEADERS

The newest addition to CAMRADATA Live...

We're unlocking the door to thought leaders, providing a home to the all-new and exclusive forum, The Knowledge Bank.

This new tab will allow users of CAMRADATA Live to share and access all the latest news, insights and thought leadership within the institutional investment industry – all within one platform.

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P: +44 (0)20 3327 5600 E: info@camradata.com A: 11 Strand, London, WC2N 5HR

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Key Steps on the Journey to Sustainability



"We believe investors need a disciplined framework for assessing ESGlabeled bonds and effective ways to model climate risk and its financial impacts" Fixed-income investors must shoulder new responsibilities as they transition to sustainable portfolios. But what does that entail? We believe investors need a disciplined framework for assessing ESG-labeled bonds and effective ways to model climate risk and its financial impacts.

AB's Principles for ESG-Labeled Bonds

Nearly US\$800 billion in ESG-labeled bonds were issued in 2021. But there are no minimum requirements for issuing ESG-labeled bonds, certifying green bonds or determining if a sustainability-linked bond's targets are meaningful or ambitious. Despite voluntary guidelines, it's often hard to verify that proceeds are genuinely earmarked for ESG goals. Three principles can help investors cut through this confusion:

- . Issuing ESG-labeled bonds opens companies to higher levels of ESG scrutiny.
- Before buying an ESG-labeled bond, investors must inspect the issuer's ESG track record.
 Identifying and avoiding poorly structured ESG-labeled bonds can help compel issuers to raise the bar.

We start with a sequence of questions to address the key issues and separate the wheat from the chaff.

Our Framework for Selecting ESG-Labeled Bonds

Level 1: Is the borrower free of ESG controversy? Even a hint of hypocrisy can damage reputations and hurt bond performance. We consider a company's fundamental ESG scores using our proprietary platform and we don't invest in issuers with low scores.

Level 2: Are the KPI targets or use of proceeds acceptable, and are the bond's mechanics appropriate? Proceeds for green or social bonds must clearly align with green or social goals. For sustainability-linked bonds, the KPI target must be clearly geared toward achieving meaningful and lasting improvements. We also consider whether the use of proceeds could cause material harm in other respects.

Tactical issues we explore include: will the funds raised be deployed in a timely manner? Is the timeline for meeting the KPI reasonable? Is the penalty for missing a sustainability target consequential enough?

Consistent and systematic application of this framework sets a gold standard for issuance. It helps investors avoid surprises from controversy and greenwashing, and potentially enhances alpha over time.

Modelling Climate Change Brings Deeper Understanding

Historically, a portfolio's climate impact was measured by its carbon footprint or weighted average carbon intensity. Today, climate-change scenario analysis can further inform our understanding of potential climate outcomes, the related physical and transition costs and benefits, and the financial impacts on companies. While methods vary, scenario-analysis generally combines scientific climate change models with company-level data.

In 2019, we partnered with Columbia University's Earth Institute to evaluate existing climate scenario analysis providers and their approaches before choosing one. We continually try to improve our climate scenario analysis and reporting.

But fundamental analysis and insight is still needed to interpret results for issuers. Even the best models rely on incomplete and imperfect data. Scope 3 emissions numbers can vary, even among similar businesses. But a well-versed fundamental analyst knows when a company's emissions are out of step with peers. By engaging with company management, we can encourage better reporting practices and understand risks that models might miss. For instance, companies with carbon-dense operations, such as trash collection and disposal, score high in transition risk, but they're also helping clean up the mess others are making.



Author:



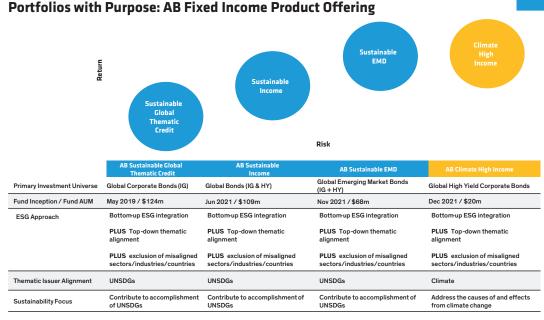
Salima Lamdouar

Portfolio Manager – Sustainable Fixed Income Companies facing large transition risks that are making meaningful improvements (e.g., utilities) could present opportunities. Investing in select, carbon-intensive firms and industries is critical, in our view, because they're essential to the clean-energy transition—and it allows us to engage with management to gain insight into their climate strategies and the risks they face.

AB's Portfolios with Purpose

As climate challenges persist, green and other ESG-labeled bonds will play an important part in creating a greener future. That's why they are a key component of the bond portfolios in our responsible investing fund ranges, which we call Portfolios with Purpose. For their corporate bond exposure, our Sustainable funds invest in bonds issued by companies whose products and services contribute to achieving the UNSDGs, focusing on three themes: Climate, Health and Empowerment. We have also developed proprietary frameworks to determine SDG-alignment for both sovereign and securitized issuers. Our actively managed portfolios focus their assets in bonds that we believe are positively aligned with the SDGs. Through a proprietary process, our team analyzes ESG-labeled bonds, including their use of proceeds and their environmental and social impact.

Our Climate High Income Fund invests primarily in global high-yield corporate bonds, choosing from issuers that address the causes and effects of climate change. It focuses on three sustainable investment themes related to climate change: Resilience, Innovation and Transition.



For illustrative purposes only. All portfolio statistics are subject to change Data as of December 31, 2021.

Source: AB

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These funds embody our belief that a responsible investing agenda can drive sustainable, long-term investment returns. Through these strategies, **investors can play a role** in securing a greener and better future.

For investment professionals only. The value of an investment can go down as well as up and investors may not get back the full amount they invested. Capital is at risk.

The views expressed herein do not constitute research, investment advice or trade recommendations and do not necessarily represent the views of all AB portfolio-management teams and are subject to revision over time.

Why AB?

IN FOCUS CAMRADATA ROUNDTABLES

CAMRADATA BRINGS TOGETHER EXPERT FUND MANAGERS WITH CAREFULLY SELECTED INVESTORS IN A STREAMLINED VIRTUAL FORMAT





"I have taken part in several roundtables over the last 18 months and this was the best orchestrated by far"

Investment Director, UK Consulting firm



"Just a note to say thank you for organising the panel and having me on it. I found the full group discussion super informative."

Portfolio Manager, Global Asset Manager



"The CAMRADATA virtual roundtable went really well, as well as the live events, which was quite surprising! It was informative and interesting, and I know our Fund manager enjoyed being a part of it."

Business Development Manager, UK Asset Manager



Interactive and dynamic debate • A wide array of asset classes covered • Branding , editorial and advertising opportunities as part of all roundtables • Expert investor panels • Ability to connect and network with key stakeholders

To find out more - Natasha Silva (Natasha.silva@camradata.com) would be delighted to speak to you.

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(1) Source IPE "Top 500 asset managers" published in June 2021 and based on AUM as of end December 2020. (2) Amundi data including Lyxor as at 31/12/2021. In the UK, this promotion is issued by Amundi (UK) Limited, registered office: 77 Coleman Street, London, EC2R 5BJ, United Kingdom. Amundi (UK) Limited is authorised and regulated by the Financial Conduct Authority under number 114503. This document is not intended for any citizens or residents of the United States of America or any "U.S. Person" as defined by "Regulation S" of under the US Securities Act of 1933. The content of this advertisement is for information purposes only and does not constitute a recommendation to buy or sell. amundi.com. March 2022. $\mid ar{W}$

Confidence

must be earned

ASSET MANAGEMENT

Harnessing the ESG features of Green Bonds: a long-term challenge



"Total green bond issuance grew from just \$11 billion in 2013 to \$285 billion in 2020 and \$400 billion in 2021." The 21st century company must not only maximise financial profitability. It must also ensure that the ecosystem in which it operates is preserved. That is to say, companies should respect the principles of sustainable development as defined in the Brundtland Report, published in 1987¹ a sustainable development is one "that meets the needs of the present without compromising the ability of future generations to meet their own needs".

It concerns the natural and physical limits of the Earth – we must give our planet time to regenerate if we do not want to deplete its resources. It is also about social rules – companies must respect international laws such as the International Labour Organisation (ILO) standards.

Since the 2015 Paris Agreement and the emergence of net zero emissions policies, climate change is now the top priority on the agenda of financial institutions, supervisors and policy-makers. Green bonds have proved to be an effective way to target investment towards the climate change mitigation goals set out in the Agreement. The green bond market has grown exponentially since the first issuance in 2007 and we have seen a significant acceleration over the past few years in particular. Total green bond issuance grew from just \$11 billion in 2013 to \$285 billion in 2020 and \$400 billion in 2021. Green bond issuance accounts for the largest share of new ESG bond supply.

The universe is also becoming more diversified. Private and public sectors have been active across developed markets, and increasingly in EM. Corporates and financials continued to underpin the market in 2021, but there was a notable increase in issuance from sovereign and supranational entities including several European sovereigns such as the UK, France, and Germany. Peripheral countries were also active. Italy and Spain issued inaugural green bonds in the region of \$16 billion and \$6 billion, respectively. In total, European sovereigns have issued almost \$90 billion. We also saw the inaugural green EU bond placed in mid-October. The trend will continue in the coming years with the arrival of the EU's NGEU ² green bonds and as the green transition grows in political importance.

Consequently, given the prominence of green bonds in the Fixed Income market, and to capture all the ESG features of these bonds, it has become essential for investment managers to assess the alignment of the green bond issuance and the issuer's ESG strategy as well as the green funding rationale behind.

For instance, Amundi considers a range of elements beyond the projects such as the carbon reduction target at the issuer level, the link between the green bond and the issuer's key performance indicators, the projects' ability to abate carbon footprint and the trend in green capital investment.

Net zero challenges

Institutional investors are regrouping into the UN convened Net Zero Asset Owner Alliance with the objective to "transition their portfolios to net zero GHG emissions by 2050". Investment managers for their part have formed the Net Zero Asset Managers initiative, which currently boasts 220 firms representing \$57 trillion of assets under management. Governments have also implemented additional regulations to promote the efforts of companies and financial market participants around the disclosure and the transparency of carbon emissions data, such as the Sustainable Finance Disclosure Regulation (SFDR) and the EU Taxonomy.

¹ https://sustainabledevelopment.un.org/content/documents/5987our-common-future.pdf ² The NextGenerationEU Covid Recovery Plan



Author:



Alban de Faÿ Head of Fixed Income Responsible Investment & Green Bonds However, as we are at an early stage in the race to Net Zero, climate risk assessment methodologies have not yet reached maturity. The availability of relevant data in terms of frequency, quality and coverage presents a key challenge. If these metrics are not self-reported by companies, data providers usually estimate their carbon emissions. However, the quality of these estimates is usually poor and experts find no evidence that these scores can predict future changes in emissions.

Mobilisation of the asset management industry for Net Zero requires the development of more precise and specific carbon metrics. New climate risk measures are being developed to complement those traditionally adopted (carbon emissions and carbon intensity), for example temperature scores, taxonomy alignment, green revenues or capex values. These will shape the practice of alignment in the future. In parallel, at Amundi we have developed new static measures such as Net Zero emissions (NZE carbon metrics). We used these measures in a new participation, ambition, and credibility framework, that will help asset owners and managers to define their engagement policies and their NZE investment strategies, to monitor trajectories and targets of issuers. These metrics can give a more precise and dynamic understanding of portfolio alignment. **As such, investors are increasingly making use of carbon trajectories, rather than relying on current carbon measures, which are mostly static**. Indeed, carbon trajectories allow investors to anticipate the effects of direct risks on issuers and to identify companies whose alignment appears unrealistic, therefore excluding or underweighting the associated securities within their net zero strategies.

ESG Disclosure: Towards more demanding and harmonised reporting

Last year, the European Commission released the final version of its 'Green Taxonomy'. The EU Sustainable Finance Taxonomy is intended to precisely define the criteria, metrics and thresholds that will help to establish whether an activity can be deemed 'green', with the aim of more efficiently channelling investment flows towards the EU's climate goals. For green bonds, this should help to standardise which projects are acceptable and pave the way for the EU Green Bond standards, the European standards that aim to raise the ambition of the green bond market.

If the promise of green bonds is at the level of the financed projects with a clear assessment of the environmental benefits, the need to also provide confidence at the issuer level in terms of alignment with the Paris Agreement is key and will become a must.



2022 CALENDAR OF EVENTS

Some of the dates will be subject to change

	Date	Format	
January	00. Jan	Deurschehle	<u>**</u>
Emerging Market Debt February	20-Jan	Roundtable	
Trade Finance*	9-Feb	Roundtable	*
Credit Opportunities*	24-Feb	Roundtable	*
UK Insurance Breakfast Club	10-Feb	Breakfast Club	
March	10-160	Dieakiast Glub	_
Impact Investing	03-Mar	Roundtable	**
Private Markets*	09-Mar	Roundtable	*
Awards	10-Mar	Awards	Ψ
Sustainable / Green bonds	16-Mar	Roundtable	**
April			
Tech funds*	27-Apr	Roundtable	**
Real Estate	27-Apr	Roundtable	*
Inflation Protection Strategies*	28-Apr	Roundtable	- 📛
Lloyd's Training	28-Apr	Training	<u>.</u>
May			
High Yield	11-May	Roundtable	
Climate Transition	19-May	Roundtable	**
UK Insurance Breakfast Club	12-May	Breakfast Club	- in
Asia Forum	TBC	Forum	Ť
June			
Net Zero Focus	8-Jun	Roundtable	<u>***</u>
	14-Jun	Roundtable	~
Natural Capital*			
Multi Sector Fixed Income July	21-Jun	Roundtable	
China	05-Jul	Roundtable	*
			<u> </u>
Sustainable Investing (Equity) August	07-Jul	Roundtable	
UK Insurance Breakfast Club	11-Aug	Breakfast Club	an a
September			
US equity	13-Sep	Roundtable	🛎
Insurance RT	21-Sep	Roundtable	**
Diversity & Inclusion	28-Sep	Roundtable	*
October			
Quant / Systematic Investing	05-0ct	Roundtable	
Global Equity	12-0ct	Roundtable	*
US CIO Insurance	13-0ct	Roundtable	**
November			
Sustainable Multi asset*	03-Nov	Roundtable	*
DC	10-Nov	Roundtable	
UK Insurance Breakfast Club	10-Nov	Breakfast Club	∳∏⊉
December			
Digital Assets*	02-Dec	Roundtable	**
*Denotes Lite roundtables at which we will have 3 asset managers and 3 investors participating.		Meet the Manager events will take place on an adhoc basis.	
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Race to Net Zero: Challenges & Morgan Stanley INVESTMENT MANAGEMENT Opportunities in Fixed Income Investing

"Establishing a structured approach to net zero alignment can allow active managers to differentiate themselves from passive strategies by applying their own, researchbased judgement when evaluating the credibility and attractiveness of a company's decarbonisation strategy."

The latest report by the Intergovernmental Panel on Climate Change (IPCC)¹ adds further scientific evidence to the urgency of mobilising capital to mitigate human-induced climate change and invest in resilience. Fixed Income investors play an important role in filling the estimated funding gap², by providing debt financing to corporations, governments, and other agencies to deploy towards sustainable and inclusive infrastructure, products and services. Aligning Fixed Income portfolios to net zero emissions objectives represents a unique opportunity for active managers to differentiate themselves from rules-based, passive climate strategies. Active managers can distinguish themselves by identifying attractive investments in sustainability improvers across sectors, intensifying engagement with issuers on their climate strategy and targets, ultimately supporting a steady low-carbon transition while delivering consistent returns.

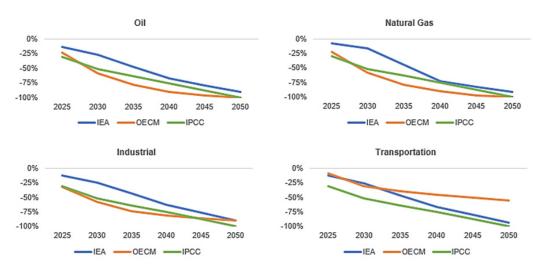
An Imperative to Invest in Climate Mitigation

The latest IPCC report is categoric in its assertion that human activity is heating the planet and exacerbating extreme weather events. It serves as a sombre reminder of climate-related threats, but also highlights that more ambitious commitments can help achieve net zero emissions by 2050 and limit warming to a 1.5°C scenario. Access to debt financing is vital for companies, governments, and development agencies to invest in decarbonisation and resilience projects. At the same time, climate-related factors can affect credit quality across fixed income assets, requiring issuer-specific as well as sector-by-sector analysis of physical and transitional risks. The urgency of tackling climate change requires active management of sustainability within a portfolio to mitigate those risks effectively. However, active management also focuses on pursuing opportunities and potential outperformance associated with businesses and economies that are helping to drive a low-carbon and inclusive transition.

The Fixed Income Data Challenge of Net Zero Alignment

Aligning portfolios with net zero emissions pathways that help meet the 1.5°C warming objective requires comprehensive data on greenhouse gas (GHG) emissions and on targets for their reduction. The availability of such information is improving, partly thanks to the regulatory push towards climate-related disclosure³. As an example, the Bloomberg Global Aggregate Corporate Index has c.95% scope 1 (direct) and scope 2 (indirect from energy sourcing) emissions data coverage as of end-2021, up by almost 20% compared to end-2019), with almost 80% of it being directly reported by companies. However, there remain significant data gaps in asset classes such as high yield, emerging markets and securitised debt, which require research-driven solutions, in addition to data availability and quality challenges in the disclosure of scope 3 (all other indirect) emissions and of carbon reduction targets. To help address some of these issues, organisations such as the International Energy Agency (IEA) and the IPCC itself have developed reference emissions reduction scenarios for the more carbon-intensive sectors. However, these trajectories do not necessarily correspond due to different assumptions (see Figure 1). In addition, in Fixed Income, it is necessary to consider how changing sector allocation weights can impact the current and future carbon footprint.

Figure 1: Sector decarbonisation pathways compared – IEA Net Zero, One Earth Climate Model (OECM), IPCC 1.5°C-aligned



Source: Morgan Stanley Investment Management. Based on IEA Net Zero pathways, One Earth Climate Model, IPCC Mitigation Pathways Compatible with 1.5°C.

This calls for asset managers to build on these external references to develop their own scenario analysis and decarbonisation frameworks, determining what carbon metrics to track and setting interim emissions reduction targets at the portfolio level that can be monitored and optimised. Establishing a structured approach to net zero alignment helps ensure consistency across investments, and can allow managers to differentiate themselves from rules-driven passive strategies by applying their own, research-based judgement when evaluating the credibility and attractiveness of a company's decarbonisation strategy. For example, investing in climate improvers with current high emissions but ambitious reduction strategies and low carbon investment plans, has the potential to generate superior investment returns from capturing such sustainability-related momentum, alongside positive impact.

The Engagement and Green Investment Opportunity

We see the low carbon transition as a structural trend, with both regulation and investment flows increasingly influencing the accessibility and cost of capital to certain sectors. We believe investors should engage on companies' decarbonisation strategies, with a focus on the setting of science-based targets that have verifiable milestones, and on transparent sustainability disclosure that spans environmental and social metrics. In addition, Fixed Income investors have leverage beyond that of corporates. Engaging with federal and regional governments can help ensure accountability for progress towards the Paris Agreement and the UN Sustainable Development Goals (SDGs) agendas. Active engagement also allows investors to effectively identify which issuers are being most ambitious in their climate strategies, and better positioned compared to their peers to benefit from systemic tailwinds, ultimately facilitating better investment decisions.

Fixed Income investors are also able to invest in direct positive environmental impact via labelled instruments such as green and other labelled sustainable bonds. 2022 year-to-date levels of labelled issuance have already surpassed \$220 billion, with total outstanding market value at \$2.4 trillion⁴. Developing a bespoke methodology for better assessing green bonds' carbon footprint, differentiating it from the issuer-level total emissions and taking into account these instruments' catalyst role in supporting the low carbon transition, would allow for a fairer representation of their emissions within portfolios.

To this end, Morgan Stanley is currently participating in the Green Bonds and Sovereign Bonds working groups under the Partnership for Carbon Accounting Financials (PCAF).

In Practice: The Role of Active, Climate-Aware Fixed Income Strategies

We view an active and flexible investment approach as essential to identifying the best investment opportunities in sustainability improvers across sectors. Morgan Stanley Investment Management has developed sustainable fixed income strategies that combine a flexible and broad investment universe with a comprehensive approach to ESG integration and low carbon. Our approach has evolved beyond pure rules-based screening, by applying proprietary research and a targeted engagement programme aiming to tilt towards superior sustainability performers. The rigorous analysis embedded in our security selection process takes into account each issuer's climate performance and objectives, and for labelled green/sustainable bonds that finance environmental and/or social projects, seeks to identify the most robust and impactful securities.

We have built dynamic strategies that allocate across the whole spectrum of the fixed income market through a strong sustainability lens^{5.} We aim to deliver consistent returns with low correlation to other asset classes alongside a positive climate-related impact⁶. The net result is a set of strategies that is designed to ride through the peaks and troughs of market fluctuations, with a focus over the long run on generating consistent positive returns combined with positive sustainability and climate outcomes.

¹IPCC 2022: Climate Change 2022: Impacts, Adaptation and Vulnerability.

 2 The IPCC 2022 report estimates that financial flows are a factor of three to six times lower than levels needed by 2030 to limit warming to below 2°C.

 3 The number of organisations supporting the Task Force on Climate-related Financial Disclosures (TCFD) increased by 73% in 2021 versus 2020, reaching over 2,600 organisations worth over \$25 trillion in market capitalization supporting the TCFD, reporting in line with the TCFD recommendations, or both (Source: CFD 2021 Status Report, Financial Stability Board, October 2021). ⁴Source: Environmental Finance Data, as of 25 April 2022.

⁵Note: Diversification does not prevent the risk of loss in a declining market.

⁶Note: there is no guarantee that any investment strategy will work under all market conditions.

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Author:



Barbara Calvi

Executive Director, Sustainable Investing, Fixed Income

Meet the Team!



Sean Thompson Managing Director



Natasha Silva Managing Director, Client Relations



Amy Richardson

Managing Director, Business Development



Sam Buttress Associate, Business Development



Mithursha Kesavan Database and Publication Support Associate



Sarah Northwood

Marketing and Events Coordinator



CAMRADATA 5th Floor, 11 Strand, Charing Cross, WC2N 5HR

+44 (0)20 3327 5600 camradata.com



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