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Welcome to CAMRADATA's ESG in Fixed Income Whitepaper

Bond funds, but with an ESG twist, are on the rise. A number of fund launches over the past year have centred on fixed income, linking the asset class with the key related ESG themes of carbon-neutrality and climate change.

Asset managers are applying the same procedures to bonds as they have for public equities. Bond funds, like equity funds, can reduce exposure to material ESG risks by screening out issuers.

Alternatively, portfolios can tilt in favour of the strongest sustainability performers. This approach stretches right across a diversified fixed income portfolio - sovereigns and corporates, high yield, securitised and developed and emerging markets debt. Further, bonds can just as easily be aligned with UN SDGs as are equities.

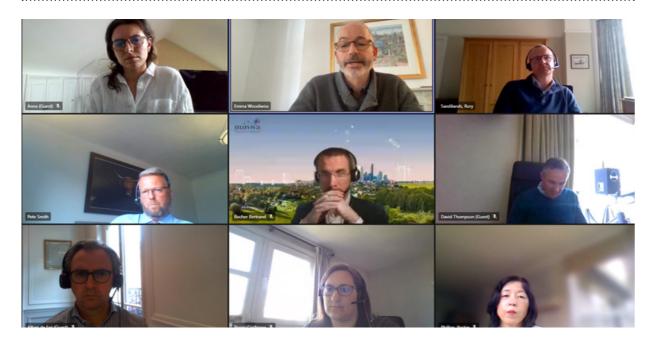
And then there are green bonds. The EU was expected to start issuing €225 billion of green bonds from Q2 onwards – equivalent to one third of its Covid-19 recovery package. Italy recently launched a €8.5 billion green bond, thought to be the largest debut issuance in Europe so far. Around 90% of the bond is for transport, energy efficiency, environmental protection and bio-diversity.

But as fund managers increase their efforts in ESG bond investing, challenges come from at least two areas. Are bond indices up to the job of supporting sustainable investments? And just as with their equity managers, investors will need convincing that bonds are solid vehicles for ESG investing.

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ESG in Fixed Income Roundtable

The CAMRADATA ESG in Fixed Income roundtable took place virtually in London on 6 May 2021.



The importance of Environmental, Social and Governance (ESG) criteria in fixed income investing continues to grow. In terms of supply, issuance of bonds labelled green, social or sustainable in the first four months of 2021 topped US\$160bn. Social bond issuance alone is up twelve times on Q1 2020. In terms of demand, more of the regulations applied to long-term investors, including asset managers, now explicitly require recognition and evaluation of ESG factors. The European Union's Sustainable Finance Disclosure Regulation is the latest of these.

Anna Rudgard, senior consultant at Aon, one of the largest advisers to institutional investors globally, told the CAMRADATA roundtable, ESG integration in fixed income was an essential part of manager research at Aon. She said that within its European fiduciary management business, only managers scoring 2 or higher on Aon's scale of 1-4 would be considered.

For Russell Investments, another major investment consultancy and fiduciary, Yoshie Phillips also said

"The consultants were asked if they saw considerable differences in use of metrics by managers; and whether they had to standardise managers' measures for their own internal ratings"

that ESG criteria have been integral parts of the overall assessments of managers since 2014. She noted, however, that among corporate pension plan clients in North America, appetite for ESG bond strategies has not been as strong as in other regions of the world until recently.

For Hymans Robertson, a major UK pension consultancy, Penny Cochrane said that institutional clients had not been opting for thematic fixed income strategies such as Green Bond or Climate Change Bond funds. Nevertheless, she said that ESG is a big part of bond manager rating for Hymans.

The consultants were asked if they saw considerable differences in use of metrics by managers; and whether they had to standardise managers' measures for their own internal ratings. Rudgard said that

the more you delve into internal proprietorial styles, the more you see stronger strategies that have ESG as a fundamental feature. But she noted that ESG data are not free: some managers include more than others.

Cochrane added that some managers only use external sources; some have basic ratings for issuers (such as green; amber; red). "We prefer more granular categorisations," she said.

Phillips said that many credit managers are focusing on a forward-looking lens. She gave the example of General Motors, which has suffered scandals over safety and produces a current fleet that relative to other global carmakers is not fuel-efficient. "In backward-looking data, GM might look poor," she said. "But active managers can engage with management and



assess the sustainability trajectory of the company to see if the current valuation reflects forward-looking sustainability risk - some view GM as a kind of eco-Value play"

David Thompson, CIO at Zurich Insurance Company in the UK, said he didn't have a problem with managers having different calibrations: "Everyone sees things differently. The most important thing is engagement."

Thompson did not believe in merely expelling issuers from a portfolio for poor ESG ratings, although divestment does have a role to play. He also noted that sector neutrality is important as it avoids skewing the index towards certain sectors, reduces tracking error and polluting companies are encouraged to improve by the construction of the index.

"Rather than tell managers how to vote on each issue, we look at their engagement policies in the same way we would look at their investment process to ensure it is in line with ours," he said.

Pete Smith, a senior consultant at Barnett Waddingham, a UK pension fund consultancy, agreed with Thompson: "We don't mind managers having different metrics. I am interested to know from others whether we'll get greater standardisation as more data become available."

He noted that ahead of standardisation came the issue of simplification. Some clients such "Rather than tell managers how to vote on each issue, we look at their engagement policies in the same way we would look at their investment process to ensure it is in line with ours"

analyst.

as lay trustees need education on technical issues such as climate change and governance structures to be able to make informed decisions.

The managers at the CAMRADATA roundtable then explained their own ESG methodology.

Rory Sandilands, co-manager of Aegon Asset Management's new Short Dated Investment Grade Bond Fund, said that he was focused on best-in-class issues. How to determine best-in-class? "We have a proprietary framework on a scale of 1-5," he said. "First up, we focus on those scoring 1-3. There is some flexibility on including 4s" where a company issues, for example, a green or sustainability-linked bond.

Sandilands and his team then divide up the 1-3s into low and high-impact sectors: issuers in the power complex such as utilities are high-impact. For inclusion in the portfolio, Aegon AM wants to see measurable outputs, plus convincing plans in place for the energy transition.

An example of a '4' that does not currently make the cut is Bayer, the German chemicals manufacturer. It is out because of concerns about the company's exposure to and attitude towards expected fines

and legal claims. Bayer will likely pay out billions to settle lawsuits related to cancer caused by use of its pesticides. For Sandilands, the fear is that Bayer accepts litigation as part of the price of doing business. This opinion emanates from interactions with Aegon AM's Responsible Investment team, although the final decision on the ESG category is made by the credit

Sandilands then turned the CAMRADATA panel's attention to ENEL, the Italian energy provider, which last October baked into the terms of a new sterling issue a step-up in premium. The extra money will be paid to holders of the bond should ENEL not meet related decarbonisation targets.

While Sandilands regards ENEL as a relative leader amongst utilities in its decarbonisation plans, issuance of Sustainability-Linked Bonds (SLB) demand scrutiny to ensure targets and related penalties are sufficiently robust. He said that the extra ENEL was prepared to pay in the event they miss their targets was "de minimis" in today's markets of rock-bottom rates, especially where the SLB can be issued at a premium to an issuer's outstanding debt. In other words, the company



main goals. First, how companies will be affected by ESG materially - the effect on credit quality of the company - and the second is the societal impact." De Faÿ noted that the evaluation of ESG policy of the company could vary from manager to manager and region to region.

"Tax avoidance could be viewed as a negative by some Europeans on the responsible side while some US companies might see it as advantageous from a financial point of view because of the benefits to share and bondholders," he said.

Of ENEL's Sustainability-Linked Bonds, de Faÿ had criticisms too. He welcomed the Italian company's innovation in developing a Sustainability-Linked Financing

wasn't really going to punish itself for failure.

He added that the analysis and decisions made around climate risks can vary significantly depending on the maturity of an individual bond. When lending to climate-exposed companies over the longer term, investors typically demand a premium for doing so.

"Parts of the energy sector are starting to look like tobacco; the markets are attaching credit risk to these companies," he observed, concluding that it is becoming more challenging to construct long-dated low-carbon portfolios without foregoing yield. But this is not the case with shorter-dated bonds, which are much less exposed to any climate-related deterioration in credit quality during their lifetime. Sandilands explained that it is possible to construct a short-dated investment grade credit portfolio that does not sacrifice expected return, but which has a carbon intensity around two-thirds less than the broader universe.

Bertrand Rocher, portfolio manager at Mirova said his firm distinguished itself by trying to do more than just ESG. "We are trying to put client money in sectors which are making an impact," he told the CAMRADATA panel. In the case of ENEL, Rocher said that he declined to participate partly because with its Sustainability-

"The managers were then asked whether they engaged for influence or to understand a company better, as a feedback mechanism"

Linked Bonds (ENEL has previously issued euro and USD-denominated versions), the issuer assigned the target themselves. "You don't have transparency with SLBs. They start to resemble general purpose issuance," he said.

He contrasted Green Bonds of which bondholders know exactly what every cent is going to finance. Mirova would have preferred the Italian energy company to make its latest issues Green rather than SLRs

On step-up coupons, Rocher said that some Mirova clients are opposed on principle. "They just want the company to meet its targets, and do not want to be rewarded for having granted money to a company that has not met environmental objectives," he said.

Alban de Faÿ, portfolio manager at Amundi then spoke about the firm's capabilities in ESG fixed income, which accounts for over EUR220bn of AUM.

He began by explaining that now all Amundi's open-ended funds integrate ESG with higher scores than the benchmark or investment universe that they are measured against. "Behind ESG there are two Framework but worried about self-labelling by issuers. "As a credit manager, self-labelling leaves us work to do," he told the CAMRADATA panel.

De Faÿ emphasized that ESG-related bonds (Green Bonds, Social Bonds, SLBs) are part of the solution but are, individually, not a guarantee that the issuer has a coherent approach at the company level to adopt more sustainable business models. "You have to check the consistency with the overall sustainability strategy of the company," he said. "Dialogue and engagement is key to implementing sustainable policies with the appropriate KPIs."

Prime influencers

The managers were then asked whether they engaged for influence or to understand a company better, as a feedback mechanism. It is a moot point as to how much credit managers do liaise with issuers, given bondholders' lack of voting rights in the company.

De Faÿ replied that there were different ways of engaging, including on an ongoing basis via ESG, credit or equity research teams. He said that Amundi challenged issuers on a broad range of topics with analysts and ESG specialists working on a shared agenda.

Alongside Stewardship Reports, Amundi conducts projects on specific themes, which then get followed up every two years to document progress achieved. De Faÿ pointed out that Amundi's Engagement policy was a way to mobilize all sectors and actors on their journey towards zero carbon and socially cohesive models. However, Amundi had to draw a red line and exclude the most controversial sectors such as tobacco and coal from all its investments, and thus, from all stewardship activities.

For Mirova, Rocher said it was a mission-driven organisation and so always sought to engage. "We are a B-Corp company. This means we aim not just to perform financially but to influence all economic agents. Our door is open to anyone; even oil companies want to hear us but we are clear we want them to have a positive impact. We are not paid for doing that, but consider it one of our missions."

Sandilands said that Aegon AM too engages to influence, and explained the process as determined by milestones. The first is to contact the company and air the problem. The second milestone is dialogue, and the third is the issuer addressing the problem. The fourth and final milestone is closure. Harking back to Bayer, Sandilands said that engagement was at milestone 2. "These processes don't happen in a short space of time. We do have a two-year lookback to gauge achievements."

Smith asked what avenues of influence lay open to smaller institutional investors: either those in pooled vehicles or those with unique circumstances such as some endowments.

Phillips said that only some managers were open to scrutiny in

terms of their engagement efforts.
De Faÿ responded that Amundi
publishes an annual engagement
report across all asset types.
"Bondholders are the forgotten
stakeholders in the company,
engagement is key" he commented.

Phillips asked the managers if they expected to see more scientific-based transparency beyond use of proceeds for green bonds.

De Faÿ said he did expect more stringent criteria even in the second half of 2021. He reiterated that the big concern regards self-labelling of SLBs by companies. "We are trying to harmonise the way we analyse this," he said.

Sandilands said the green bond market was still in its infancy and that standardisation of metrics would come in time. He noted that ENEL was not the only issuer taking advantage of rising demand for any kind of ESG-related investment opportunity. UK supermarket, Tesco issued a bond redeeming in 2029 that targets a 60% reduction in greenhouse gas emissions by 2025, versus a 2015 baseline. "But the company has already achieved 50% of the 60% target," noted Sandilands. So hardly a bold statement of intent.

The managers at the CAMRADATA roundtable were then asked if ESG methodologies for passive investing were at all to blame for the soft targets or "light greenness" of some of these issues, as indextrackers' methodology tends to be transparent enough for issuers to satisfy inclusion criteria perhaps more in word than spirit.

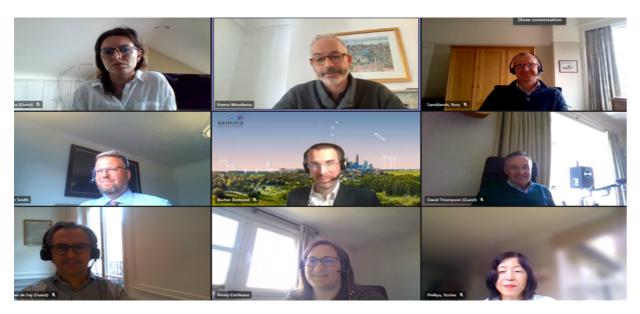
Sandilands said that the whole new market was a good thing. He described the behaviour of some issuers as "greenwashingesque" but noted that resources required to satisfy the eligible criteria are quite high. From the ultimate lenders' perspective, he added that the green bond market still has the attractive characteristic of being lower beta.

The next level

The final question posed at the CAMRADATA roundtable was what is required to take asset owners and consultants to the next level in fixed income ESG.

Rocher said that as green bonds were less than ten years old, they were doing well. He said that third-party certification of issuer KPIs had to happen, but the most important need was standardisation in order to make certification understandable to all.

"Smith asked what avenues of influence lay open to smaller institutional investors: either those in pooled vehicles or those with unique circumstances such as some endowments"



Cochrane stressed reporting. "This is the key," she said. "Engaging with issuers on one side and with clients on the other."

Rudgard said that this roundtable had concentrated on credit but there was need for product innovation in ESG in Asset-Backed Securities, loans and all other types of debt

Thompson left the panel with two thoughts for the future. The first was how investors bring ESG criteria to bear in sovereign bond markets. He said there was a challenge for the asset management industry on how to influence countries to act more responsibly.

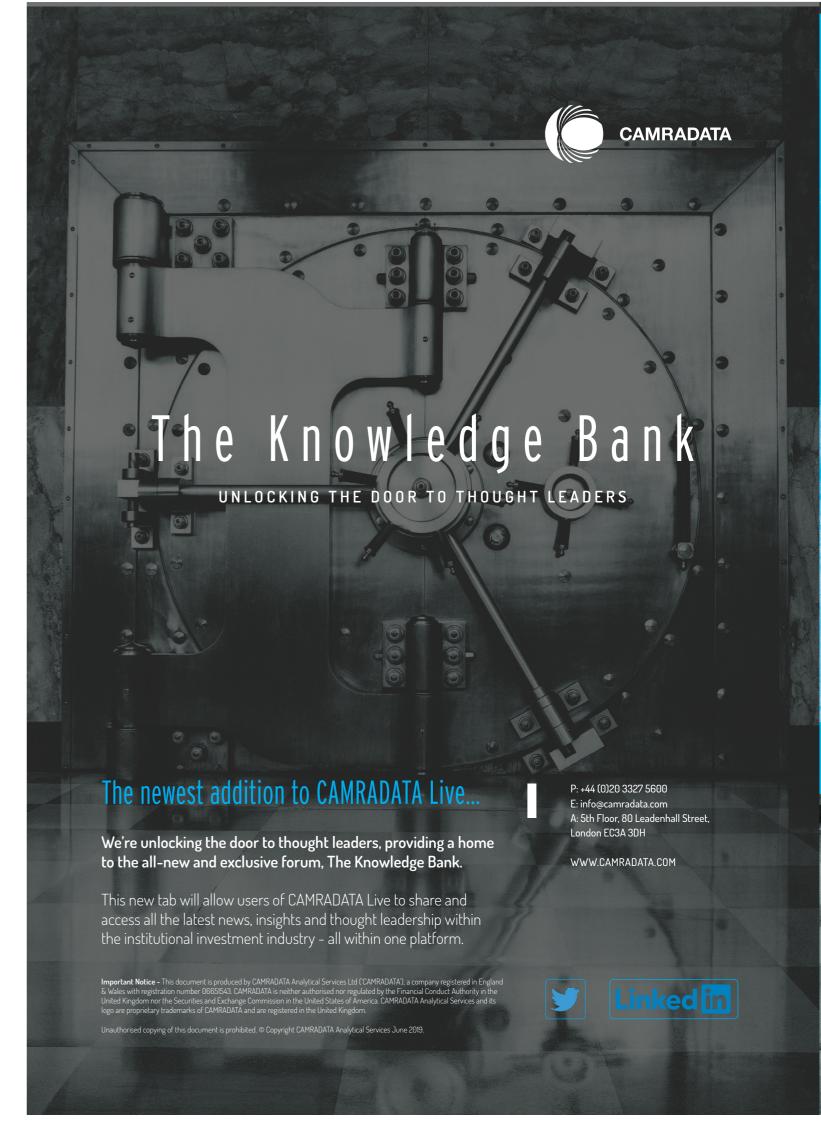
The second challenge was how to make all issuers - corporates and sovereigns - act faster; given that humankind is not reaching its set targets for climate change mitigation, decarbonisation and rates of loss of biodiversity: "If everyone was doing what they said they were doing, we would be getting there. But we're not," said Thompson.

He suggested that asset owners in co-operation with asset managers devise ESG bond indices. He said they were far more readily available for equities than for fixed income, where index providers had failed so far "to step up."

Thompson was asked whether these new indices would replace or co-exist alongside existing indices. Thompson replied that the new ESG versions would have to be sector neutral in order to promote

"If everyone was doing what they said they were doing, we would be getting there. But we're not"

change rather than bypass heavy emitters of CO2. He said that the new indices could be used for both active and passive mandates. Active management in fixed income has many advantages over a passive strategy.



Roundtable Participants



Rory Sandilands, Investment Manager, Investment Grade



Aegon Asset Management

Personal Profile

Rory Sandilands is an investment manager within the Fixed Income team. He co-manages an absolute return bond fund, sterling corporate bond fund and sterling investment grade bond fund. Previously, Rory was a vice president in credit sales at Goldman Sachs. In addition, he has also worked in credit sales for Morgan Stanley and in fixed income sales for Merrill Lynch.

He has extensive experience working with both cash bonds and derivative products across the full ratings spectrum.

Rory holds an honours degree in Law with Accountancy from the University of Edinburgh. He has 21 years' industry experience.

Company Profile

Aegon Asset Management is an active global investor. Our 380 investment professionals manage and advise on assets of £331 billion* for a global client-base of pension schemes, public funds, insurance companies, banks, wealth managers, family offices and foundations. We organize our investment capabilities around four focused investment platforms where we have deep asset-class expertise: fixed income, real assets, equities, and multi-asset & solutions. Across these platforms we share a common belief in fundamental, research-driven active management, underpinned by effective risk management and a commitment to responsible investment.

Aegon Asset Management strives to be a global leader in responsible investing. Our 14-strong Global Responsible Investment team supports ESG integration by our research and investment teams, leads our active ownership activities, develops innovative products and promotes responsible investing best practices across the organization.

*Source for data: Aegon Asset Management. As at 30 June 2020.



Alban de Faÿ, Head of SRI Fixed Income Process and Portfolio Manager

Personal Profile

Alban de Faÿ joined ABF Capital Management in 2000 as a financial engineer. He then became an asset allocation fund manager. He joined IDEAM in July 2003 and Amundi in 2008 as SRI Fixed Income portfolio manager. Since 2015, Alban has headed Amundi's SRI processes within the fixed income universe and manages Amundi Funds SRI Credit and the Green Bonds Portfolio.

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



Amundi Asset Management

Company Profile

Amundi, the leading European asset manager, ranking among the top 10 global players¹, offers its 100 million clients - retail, institutional and corporate - 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 long-standing 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 more than €1.750 trillion of assets³.

¹ Source: IPE "Top 500 Asset Managers" published in June 2020, based on assets under management as at 31/12/2019 ² Boston, Dublin, London, Milan, Paris and Tokyo

³ Amundi data as at 31/03/2020

Roundtable Participants



Bertrand Rocher, Portfolio Manager, Senior Credit Analyst

Personal Profile

Bertrand has been with the group since 2010 and has 23 years of experience.

Bertrand started his career in 1997 and has been both a buy side and a sell side credit analyst covering industrials for various banks and AMs in Madrid, Brussels and Paris. He is a lecturer in equity valuation at SciencesPo.

He ranked second at the Euromoney 2018 survey for two categories: Autos, General Industrials.



Mirova – an affiliate of Natixis Investment Managers.

Company Profile

Natixis Investment Managers serves financial professionals with more insightful ways to construct portfolios. Powered by the expertise of more than 20 specialized investment managers globally, we apply Active Thinking® to deliver proactive solutions that help clients pursue better outcomes in all markets. Natixis ranks among the world's largest asset management firms¹ (USD 1,389.7 billion AUM²).

Natixis Investment Managers' distribution and service groups include Natixis Distribution, L.P. (a limited purpose US broker-dealer and the distributor of various US registered investment companies for which advisory services are provided by affiliated firms of Natixis Investment Managers), Natixis Investment Managers S.A. (Luxembourg), Natixis Investment Managers International (France), and their affiliated distribution and service entities in Europe and Asia.

¹ Cerulli Quantitative Update: Global Markets 2020 ranked Natixis Investment Managers as the 17th largest asset manager in the world based on assets under management as of December 31, 2019.

² Assets under management ("AUM") as of December 31, 2020. AUM, as reported, may include notional assets, assets serviced, gross assets, assets of minority-owned affiliated entities and other types of non-regulatory AUM managed or serviced by firms affiliated with Natixis Investment Managers.



Anna Rudgard

Senior Consultant, ESG Fund Research

I lead research on ESG fixed income strategies including sustainable active and passive strategies, Green Bonds and SDG-aligned/impact funds.

As a member of the ESG Working Committee I represent the global fixed income team, tasked with owning our ESG research processes, and am a member of the Responsible Investment Team.

In addition to ESG research, I lead research on liquid securitised strategies in Europe including ABS and CLOs. Other research areas are private debt and supply chain finance strategies.



Pete Smith, AFA

Principal and Senior Investment Consultant

Pete is a Principal and Senior Investment Consultant in our Glasgow office. Pete has significant experience in providing strategic and implementation investment advice to defined benefit schemes both in the private and public sector. He is a lead member of Barnett Waddingham's Sustainability and ESG investment team.

Pete's extensive experience, clear advice and proactive approach have helped him to become a trusted consultant to a wide range of businesses.

A native of Glasgow Pete has a love of following Scottish national sports teams and golf.





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Roundtable Participants



Penny Cochrane



Penny joined Hymans Robertson in 2020 and leads research on private debt, emerging market debt and absolute return bond funds. Her responsibilities include ongoing monitoring of managers and products, identifying new opportunities or changing dynamics within the investment opportunity set.

Penny has over 14 years' experience across public and private markets. Prior to joining Hymans, Penny led the private markets research at JLT across private debt, private equity and real assets.

Prior to JLT, Penny worked as an investment manager at Aviva focusing on investment strategy across debt asset classes. Penny is a CFA and CAIA charterholder.



Yoshie Phillips

Director of Investment Research

Yoshie is a seasoned manager researcher for Russell Investments. She evaluates a wide range of fixed income strategies and guides the firm's fund-of-funds and advisory clients in manager selection and strategy recommendations around the globe. She leads Russell Investment's manager research efforts in the global credit market, across High Yield, Senior Loans, Multi-Asset Credit, LDI Solutions and Convertible strategies.

Yoshie also leads the firm's ESG efforts in fixed income and evaluates a wide range of Sustainable fixed income strategies. She is a member of the firm's Responsible Investing Council and is involved in many fixed income-related responsible investing initiatives and priorities. She originally joined the firm in 2000 and rejoined in 2010 after a brief stint.



David Thompson

Chief Investment Officer

David is Zurich Chief Investment Officer: UK. He is responsible for the ZAL Balance sheet of £3.3bn and the UK Life discretionary managed unit linked policyholder investments totaling £23bn.

David started his career as a fixed income trader at Lehman Brothers, and then moved into sales and sales management.

David then moved to asset management focusing on insurance companies, before joining Zurich in 2019.

100 Hymans # ROBERTSON





Moderator



Brendan Maton

Freelance Jounalist

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-inchief 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.

How short-dated bonds can help investors to manage climate risks

Asset Management

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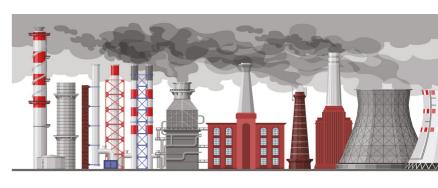
In this article we discuss why short-dated corporate bonds which are relatively close to maturity can help investors to capture attractive yields with minimal interest-rate sensitivity, low portfolio volatility and good levels of liquidity – all while having a relatively low climate-related impact.

The appeal of short-dated investment grade bonds

The unique characteristics of short-dated bonds offer investors an opportunity to access a lower-volatility segment of the broader fixed income market. They can be attractive to a diverse range of clients, such as treasurers seeking enhanced returns above cash and pension schemes undergoing de-risking. Their appeal is based on a range of factors, including:

- A record of generating attractive risk-adjusted returns.
- Capital-preservation qualities individual bonds are typically much more resilient to negative company-specific events than longer-dated bonds.
- They are less susceptible to fluctuating interest rates, because they derive returns through credit risk rather than duration risk.
- They can generate steady cashflows, which can be paid-out as an income or reinvested to take advantage of further opportunities.
- Short-dated bonds are inherently more liquid than their longer-dated equivalents, due to the relatively high frequency of bonds reaching maturity.
- There is no material cost to having a low carbon impact.

It is this final benefit that we want to explore in more detail in the remainder of this article.



Assessing climate impact

When assessing an issuer's credit profile we use a proprietary ESG credit framework based on five categories, as outlined in the table below. Within our short-dated investment grade bond portfolios we aim to have a strong bias to issuers within ESG categories 1 to 3.

Aegon AM's proprietary ESG credit research framework	
Category	Description
1. Responsible leader	A leader in sustainable business practices or positive ESG practices are combined with the pursuit of Sustainable Development Goals as established by the United Nations.
2. Minimal risk	Fundamentally low exposure to ESG risks or policies in place that mitigate most ESG risks.
3. Event risk potential	ESG risk exposures could negatively affect the company, but the potential effect and timing are uncertain. The company's response is likely to influence the severity of such risk.
4. Credit outlook impact	ESG risks are resulting in pressure on the company's credit fundamentals, but there is still an ability to address these risks and limit the impact of the credit rating.
5. Internal rating override	ESG factors have resulted in a material effect on the company's credit quality that is not reflected in its credit rating.

4. Credit outlook impact angement (SAM), Towers Watson.

5. Internal rating override ESG factors have resulted in a material effect on the company's credit quality that is not reflected in its credit rating.

" The unique

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market."



Climate-related risks are a particular area of focus for our research, particularly in higher-risk sectors such as energy, utilities and transport. However, if you look beyond the headline emission numbers, then other sectors also carry climate risks.

There are challenges to overcome in the banking sector, not least the varying degrees of willingness by the banks themselves to adopt aggressive targets to reduce climate exposures. The practicalities of reducing carbon intensity for a bank's loan portfolios are also demanding and it can take many years to effect meaningful change. As fixed income investors we believe the best way to understand and manage these risks is through active engagement with banks and other financial institutions. This enables us to encourage more aggressive targets and help improve the quality of disclosures from large financial institutions.

Maturity and climate risks

The analysis and decisions made around climate risk can vary significantly, depending on the maturity of an individual bond. This is because some of the key climate risks in areas such as stranded assets and the costs of transition can take many years to play out.

Although we can potentially identify those risks now, they can take a long time to significantly impact a company's credit profile. In general, the longer you lend to a company that potentially faces climate risks, the more you are exposed to those risks. So, for holders of longer-dated bonds, especially through buy-and-hold strategies, it is vital to analyse and understand climate change risks.

If you are lending to climate-exposed companies over the longer term, then you can typically get paid a premium for doing so. But this is not true for shorter-dated bonds, which are much less exposed to a climate-related deterioration in credit quality during their lifetime.

What this means is that it is possible to construct a short-dated investment grade credit portfolio that does not sacrifice expected return, but which has a weighted average carbon intensity of around two-thirds less than the broader universe. This is potentially attractive to investors as regulatory, societal and investment pressures lead to a greater awareness of climate-related risks.



Iain BuckleHead of Credit UK



Rory Sandilands
Fixed Income
Investment Manager



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Source: Aegon Asset Management. All data as of 31 March 2021. Responsible investment products and services may vary regionally. Personnel may be employed by any of the Aegon Asset Management affiliates. Carbon-neutral status reflects principal Aegon N.V. operations in the Netherlands, US and the UK. We achieve carbon neutrality by reducing facility-level emissions and supporting offset projects in cooperation with Climate Care.

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"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



Greening Fixed Income markets: a challenge of today and tomorrow

Policymakers around the world continue to implement comprehensive strategies to foster sustainable finance.

> Most notably, in March 2018, the European Commission adopted its action plan resting on three pillars: (i) re-orienting capital flows towards sustainable investments; (ii) managing financial risks stemming from climate change; and (iii) fostering transparency and long-termism in financial activities.

Carbon pricing at the roots of the debate

" In a 2016

paper, William

Nordhaus, the

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on the path of

climate change

the future, this

does not reduce

the urgency of

climate-change policies today."

taking strong

and its impact in

In a 2016 paper, William Nordhaus, the 2018 Nobel Prize recipient, wrote that while there is uncertainty on the path of climate change and its impact in the future, this does not reduce the urgency of taking strong climate-change policies today.1 In a recent speech2, he mentioned three key actions that organizations, companies and financial institutions can undertake for an efficient fight against climate change:

Carbon pricing: today, the price of CO2 emissions is zero almost everywhere in the world, and when it has a price, it is not an accurate one. Without high prices on carbon emissions, no 2018 Nobel Prize policy nor action will be effective. It is certainly the largest issue to solve.

Environmental science: to understand climate change, governments and institutions need to promote environmental science and innovation in the field.

Long-term investing; companies need to assess their carbon footprint and risks associated in a forward-looking business scheme. They need to lengthen their time horizon.

The financial industry has a clear role to play in channeling capital to the relevant sectors, actors and projects. They can direct them in such a way that each player follows good practices. In particular, 'greening' fixed income markets, the largest source of financing, will be critical if the financial sector successfully embraces the Paris climate agreement goals.

Institutional issuers: the question of yield and additionality

However, there are two major obstacles for fixed income investors seeking to invest in green and sustainable solutions: yield, and additionality.

The green bond market is concentrated on supranationals, sovereigns or large utilities. Therefore, two problems may occur:

- Problem of yield: these issuers are mostly investment grade, and in developed markets.
- Problem of additionality: these actors already have access to markets to finance their green activities. Whether they finance these projects via a normal bond or a green bond yields little for investors seeking to have a real 'additional' impact.

¹ William D. Nordhaus, "Projections and uncertain-ties about climate change in an era of minimal climate policies", NBER

² Amundi World Investment Forum, William D. Nordhaus keynote speech available on YouTube



New frontiers to set in the green bond market

To address these obstacles, new frontiers of green finance need to be explored:

- A geographic frontier: in emerging markets, more yield and additionality can be found. In 2018, <u>Amundiand the International Finance Corporation (IFC)</u> announced the successful launch of the world's largest targeted green bond fund focused on emerging markets.
- An issuer frontier: new issuers at the forefront of the fight against climate change, both public (subsovereign entities such as cities) and private (new economic sectors: energy efficiency), need to be given a wider access to capital. In 2019, Amundi and the Asian Infrastructure Investment Bank (AIIB) unveiled a new project to develop the climate bond market through the establishment of a fixed income portfolio focusing on climate champions.
- An instrument frontier: high yield bonds, private debt, and unlabeled green instruments have to be
 designed. In 2019, <u>Amundi and the European Investment Bank (EIB)</u> launched the "Partnership to
 expand Green Finance in Europe". The Green Credit Continuum Project aims to foster the development
 of the green debt market beyond the existing green bonds, supporting small-scale green projects, and
 financing SMEs and mid-caps.

Amundi believes in creating partnerships with key players to help solve these issues through employing a holistic approach. First, stoking the demand side of green markets by launching dedicated debt funds. Second, supporting the supply side of these new fixed income instruments via the definition and dissemination of best practices and standards for these nascent segments. This can be done via Scientific Committees incorporated within these programs, the publication of research pieces, technical support to issuers etc. Finally, through working hand-in-hand with leading institutions, to boost the depth and breadth of innovation.

Find out more here.





Alban de Fay Credit Portfolio Manager, Head of Fixed Income SRI Processes

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(1) Source IPE "Top 500 asset managers" published in June 2020 and based on AUM as of end December 2019. (2) Amundi figures as of March 31, 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. April 2021. | WALK"





Extracting value from the "Greenium"



Unpeeling the layers of the green bond premium can create potential profitable arbitrage opportunities

The pandemic has increased investor appetite for sustainability, leading to fast-growing issuance of green bonds. After a sluggish first half, 2020 turned into the biggest year yet for green bonds, with around \$350bn in primary issues.

Green bonds are now worth more than \$900bn as corporates such as Google, Visa and Apple, vie with national, supranational and municipal issuers to tap the market. In all likelihood, 2021 will set a new record with an estimated \$550bn in new issuance¹.

" Green bonds are now worth more than \$900bn as corporates such as Google, Visa and Apple, vie with national, supranational and municipal issuers to tap the market."

And yet, demand still exceeds supply. Why? Quite simply, institutional and retail investors alike are seeking investment strategies that improve their SRI profiles. Registered investment funds are rushing to rebrand themselves as SRI funds, to the extent that 26% of European corporate bond funds now invest in green bonds even though green bonds account for less than 3.5% of the benchmark.

This has led to the phenomenon known as the "Greenium", or the green bond premium.

The "Greenium" explained

The Greenium is the yield that investors are prepared to give up compared to investing in a conventional bond from the same company with the same maturity.

The Greenium is not homogenous. On 20 January 2021, according to our proprietary model, the Greenium was 2bp for an 8-year bond. But this small overall premium hides huge variations across the green bond spectrum that potentially offer investors significant arbitrage opportunities.

We think better analysis and understanding of variations in the Greenium can lead to better green bond allocations and higher returns for investors.

Our proprietary green bond valuation model analyses the Greenium by sector, issuer, credit rating, maturity, Mirova's internal SRI ratings and liquidity. We think some of the outputs of this model are eye-opening.

Sectoral dispersion

Starting with sector analysis, companies which focus on specific green projects, thus ensuring environmental impact, generate a sizeable Greenium. This is particularly the case for the automotive, telecommunications and consumer sectors where the Greenium averages more than 7bps.



In the sectors with most issuance, primarily banks and utilities, the Greenium is a more modest 2bps. Meanwhile real estate, chemicals, certain industrials and transport have a slightly negative Greenium. That is, they offer higher yields to investors.

Impact on the Greenium of issuer type, credit rating and maturity

Inaugural issuers, which tend to have strong brands and significant amounts of outstanding bonds, such as Daimler or Volkswagen, command a higher Greenium. Conversely, companies that are less visible use green bonds to enhance their reputations and to capture a larger investor base, so are more generous to investors in terms of the yield offered.



In general, the lower the credit rating, the lower the Greenium. In addition, the Greenium tends to decrease as the spread increases. The Greenium is strong for investment grade ratings, with a spread above conventional bonds of 4%-4.6%. High-yield green bonds, on the other hand, are more recent additions to the market and have been launched amid tough economic conditions, leading to a negative Greenium and therefore offering opportunities to investors.

The Greenium of subordinated bonds is 2.6% out of the total yield spread. Subordinated bonds are more complex to evaluate because of prepayment options, step-up coupon, capital treatment and so on, creating inefficiencies that can be exploited.

Finally, given the search for long duration and yield by many institutional investors, particularly insurers, the Greenium increases as the maturity rises.

So where's the gain for investors?

The Greenium offers possibilities for asset managers who keep the medium/long-term investment horizon in sight and remain anchored to a robust investment process focused on environmental impact and the search for alpha.

Variations in the Greenium enable us to carry out curve arbitrages between green and conventional bonds and vice versa. We can also find arbitrages between green bonds from the same issuer.

For instance, in the summer of 2020, we noticed a high Greenium on the senior non-preferred LBBW 26 green bond (issued by Landesbank Baden-Wuerttemberg) relative to the conventional LBBW 27 bond. The difference was about 15bps yield spread, or a 0.75% price difference. In the past, these two bonds traded at around the same price, but the prices diverged because of the pandemic.

Likewise, we noticed a sizeable price inefficiency between two green bonds issued by Engie, a utilities provider which has a balanced, liquid and lively green bond curve, providing investment opportunities across all maturities from one to 15 years.

Conclusion: alpha from analysis and monitoring

The existence of the Greenium does not detract from the outperformance of green bonds versus conventional bonds. However, it does offer investors additional opportunity for alpha.

As the Greenium grows, analysing it in great detail using a proprietary model, in real-time, will put selection back at the centre of the management of these instruments. Investors must be mindful that Greenium is dynamic and requires constant monitoring for arbitrage strategies to bear fruit.



Marc BriandHead of Fixed Income

Mirova

Mirova is an expertise of Natixis Investment Managers. For more information on Mirova please visit www.im.natixis.com/mirova

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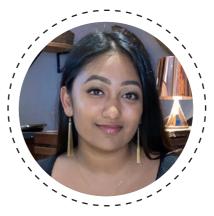


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