

Fixed income considerations

Sustainable investing in fixed income



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Executive summary

Interest in incorporating environmental, social and governance (ESG) considerations into investment decisions has increased substantially over recent years and this is now moving beyond the more traditional domain of the equity markets and into fixed income. This paper examines the drivers behind this trend, what ESG integration means for fixed income investors, how the ESG corporate universe compares with a traditional one, and why investing in green bonds is not as simple as one may think.

- Bonds comprise a key constituent of institutional investors' portfolios and applying ESG principles to fixed income investments is an understandable evolution arising from investors' demands for broader ESG integration, reinforced by growing regulatory and fiduciary pressures.
- Analyzing the inherent challenges in addressing ESG issues in fixed income starts with the fundamental differences between fixed income and equity asset classes. This includes the focus on default risks, maturity considerations and bondholders' rights.
- Increasing levels of corporate disclosure and the expansion of corresponding coverage by ESG data providers have provided a starting point for the deeper integration of ESG considerations into fixed income. In our opinion, the next significant step is incorporating the effect of this in the overall credit assessment.
- Greater ESG integration in the investment approach helps to establish the foundation for sustainable themed investing.
- Effective management of green bond portfolios demands strong understanding of index universe and construction. The differences between indices can be substantial and index analysis is essential.

Fixed income is evolving towards ESG integration

Historically, the integration of sustainability considerations in finance has been more prevalent in listed equities than in fixed income. This lag in investors implementing ESG considerations within their fixed income investment processes has been due to a variety of reasons. These include the role of ESG in credit ratings, the limited availability of sustainability indices against which to benchmark performance, and the challenges in engaging with issuers. At UBS Asset Management (UBS-AM), we observe that this is now quickly changing.

Investor interest in broad ESG investments has been rising steadily over the past three decades. This is now being underpinned by the clear support of policymakers via initiatives, such as the European Commission's High-Level Expert Group on Sustainable Finance.

In a recent report published by the World Bank in conjunction with the Government Pension Investment Fund (GPIF) of Japan, "Incorporating Environmental, Social and Governance (ESG) Factors into Fixed Income Investments", the authors chart the spread of ESG investing beyond its traditional domain of the equity markets to other asset classes, including fixed income. As the report highlights, given the fact that bonds comprise a key constituent of institutional investors' portfolios, investor interest in applying ESG principles to fixed income investments is hardly surprising, particularly as regulatory and fiduciary pressures increase. Greater levels of corporate disclosure, as well as the expansion of corresponding coverage by ESG data providers, have also provided a starting point for integrating ESG into fixed income. ESG data and ratings are now available for almost all investment grade credit issuers as well as a large proportion of high yield issuers. At the same time, there have been several important innovations in fixed income, including the rise of green bonds, the emergence of social bonds, and unique partnerships, for example the collaboration between the World Bank and UBS to provide lower risk sustainable investment alternatives to high grade fixed income investments. These innovations give investors the ability to allocate more private capital to sustainable fixed income instruments.

In our opinion, the next significant step is the integration of sustainability considerations into the overall credit assessment. This moves sustainability beyond a niche investing activity with significant implications for mainstream investors who are looking to implement sustainability in their credit portfolios.

Unique challenges to addressing ESG in fixed income

Any analysis of the challenges inherent in addressing ESG issues in fixed income must start with the fundamental differences between the fixed income and equity asset classes and the reasons why equity approaches cannot simply be replicated within fixed income.

The key difference between fixed income and equity investors is the fixed income orientation towards managing downside default risk and the equity orientation towards upside appreciation. However, at the more granular level of analysis, the range of considerations which must be incorporated and accounted for is wide in fixed income. These were highlighted by the GPIF/World Bank Group report cited earlier. We would particularly draw attention to:

- The duration/maturity of fixed income investments. Bonds can only be held for a predefined period, whereas an equity holding can potentially be held in perpetuity.
- The place of fixed income instruments in the capital structure of the company. This differs from that of equity investments given differing layers, such as senior, subordinated debt, hybrid etc.
- Bondholders' rights, which differ from those of shareholders, especially with respect to voting and engagement.
- Sovereigns, quasi-sovereigns, supranational, agency issuers and asset-backed securities are all important segments in fixed income.

We believe that these challenges can only be overcome by pursuing sustainability integration at a more fundamental level than the application of third-party scores that are widely available in the market today.

What impact does ESG investing have for all fixed income investors?

Until recently, only a few investors and asset managers focused on sustainability-themed investments and most market participants did not consider ESG as an impactful factor in their investment process. However, the substantially increased demand from investors and offering by asset managers have created a new trend. Despite rising interest, many market participants still do not believe that sustainability factors have a direct effect on their fixed income strategies. However, we believe the market is evolving rapidly and at UBS-AM, we are not only looking to offer a wide range of sustainable strategies, but actually are shifting the investment analysis and strategy towards sustainability.

The evolution of the investment process typically starts with integrating sustainability into credit analysis. Credit analysts incorporate ESG factors into company analysis and their assessment of creditworthiness. Subsequently, portfolio managers utilize this integrated analysis, combining it with their own relative value assessment while implementing their investment strategy with a clear aim of delivering sustainable performance versus any index (standard or sustainable).

As a result, we foresee that the further ESG integration becomes mainstream, the more ESG factors will become a performance driver and reflect in the total return of client portfolios. As the goal is to channel capital into sustainable issuers and projects, it is important for investors to form a forward-looking view rather than looking for historical, long-term patterns based on past market behavior. The more ESG factors are incorporated and weigh in the investment process, the more market impact these factors will eventually have. Firms that need to raise debt will be under pressure to follow ESG standards to be able to attract a growing number of sustainability-focused investors.

There are various active and passive approaches to implementing sustainability in fixed income strategies. There has been a substantial increase in sustainable strategies in tailor-made funds, segregated mandates and ETFs alongside actively managed strategies. We envisage that increasing demand will fuel further product innovation. UBS-AM has a leading role in the industry, as our approach is to integrate ESG factors in the investment process to be able to offer sustainable strategies managed both actively and passively.

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
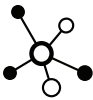




Exhibit 1 below illustrates various approaches to sustainable fixed income investing.

The most basic and longstanding form of sustainable investing is exclusionary strategies. Our clients have been providing us with lists of sectors, companies or business practices that do not meet certain social, environmental or ethical criteria, prohibiting investments. Exclusions have been more effective in equities than fixed income. This approach allows investors to use a standard index and have minimal impact on benchmark relative returns. It's important to note that large exclusion lists lead to further divergence from index returns, especially if large sectors are excluded that cannot be compensated within the remaining eligible universe.

ESG integration into the investment process starting from credit research is the foundation for sustainable themed investing. This approach entails incorporating ESG factors and considerations into the fundamental credit analysis and provides deeper risk analysis, adding another dimension. We further detail our approach to integration in the next section.

The more sophisticated approach to sustainable investing is sustainability-focused strategies. These types of strategies follow a best-in-class or positive screening approach, where portfolio managers invest in issuers with high sustainability ratings and/or profiles. If this is the preferred approach, the manager will have to focus on sustainability and the impact on the portfolio will be more than just exclusions. On a passive basis, this approach can be implemented via ESG-compliant indices. The index offering has proliferated not only from major index providers but also from new providers, so investors are now faced with a growing number of indices with very different rules for index construction. Therefore seeking assistance for index analysis and selection has become essential and is often delegated to asset managers who have the necessary resources and experience to provide an in-depth analysis. Consequently, index licensing costs are not negligible as it is an area of growing focus.

Exhibit 1: Sustainable Investing (SI) approaches – an overview

Exclusion	ESG Integration	Sustainability Focus	Impact
 <p>Exclusion of certain sectors or companies based on specific ESG criteria</p>	 <p>Integration of material ESG factors into the credit analysis and research recommendations used by active portfolio managers</p> <p> Exclusion</p>	 <p>Strategies where sustainability plays a significant role in the investment process and security selection</p> <p> Exclusion</p>	 <p>Investment strategies seeking to have positive social and environmental impacts alongside financial returns</p>

Source: UBS Asset Management.

The biggest impact fixed income investors can achieve is via investing in securities that have a direct link to a sustainable project, such as green bonds where the proceeds are used to fund specific sustainable projects. We will provide further thoughts on these bonds below. Another alternative would be to invest in asset-backed securities where the proceeds directly finance sustainable investments. These are the purest ways of impact investing in publicly-traded fixed income markets. Direct lending and loans are excluded from analysis given the limited accessibility to a broad base of investors.

The UN Principles for Responsible Investment (PRI) define integration as “the analysis of all material factors in investment analysis and investment decisions, including environmental, social and governance (ESG) factors.”

Integrating ESG: Focusing on fundamentals

The UN Principles for Responsible Investment (PRI) define integration as “the analysis of all material factors in investment analysis and investment decisions, including environmental, social and governance (ESG) factors.” Unfortunately, the concept of “integration” of sustainability is, in our view, often used too broadly in the industry to refer merely to the application of sustainability data or ratings in the investment process. We believe, this is due to three misunderstandings regarding the nature of third-party sustainability ratings that are widely used in the industry and their place in the integration of sustainability.

Firstly, there is often a belief within the field of responsible investment (RI) that simply applying ESG Ratings based on some form of screening represents sustainability integration.

In our opinion, this view fails to recognize the role of ESG research providers as providers of information and data rather than investment analysis. Without question, the data sets created by large ESG providers, such as MSCI, Thomson Reuters and Sustainalytics represent an essential and invaluable service for the industry. The task of collecting ESG information and providing it in a consistent and usable format should not be underestimated, given the challenges posed by inconsistent and often voluntary sustainability reporting by companies around the world.

However, while this data access represents an essential first step, the ratings that often accompany this data do not constitute forward-looking recommendations but rather screenings based on historical information. Such ratings are derived from publicly reported information by companies, as

well as news controversies available in the public domain. By their very nature, they are historical in orientation, generally providing an assessment of what has happened, rather than giving a viewpoint on progress and what is likely to occur in the future.

Secondly, while the issue of financial materiality has been widely discussed, we view third-party rating frameworks as too broad to be immediately applicable to an investment process. Given the wide range of parties that rating providers serve, the topics covered in their sustainability ratings address not only financially material information but also data and criteria that are employed for ethical screening. Furthermore, these ratings attempt to cover sustainability information that is applicable to both fixed income and equities. And while there is clearly overlap in terms of the information required, the ratings fail to address the specific needs of fixed income investors, in particular with respect to their greater focus on downside risk.

Thirdly, and most fundamentally in our view, sustainability ratings provide an assessment, which is separate from the financial analysis of the company itself. By definition, this must be the case given that they come from third-party ratings providers who work independently from the investment process. Consequently they do not cover the financial impact of material sustainability issues on the actual financial assessment, and can therefore only be useful from an investment standpoint when applied to the fundamental credit assessment. In short, while sustainability ratings play an important and crucial part in sustainability integration, incorporating this information within investment recommendations requires the additional and crucial application of this information by the credit analysts and portfolio managers themselves.

At UBS-AM, we have taken the decision that ESG integration is strongest when the credit analysts sit at the heart of it. UBS-AM's fixed income team includes over 25 credit analysts averaging over 25 years of industry experience covering investment grade, sovereigns, high yield and emerging markets. This team is located in various centers including Chicago, Zurich, London, Singapore, and Sydney.

Our credit analysts are at the center of ESG integration in fixed income because we believe they are best placed to make use of their in-depth knowledge of issuers and experience in fundamental analysis to provide the context in which to consider sustainability issues. They aggregate quantitative and qualitative data, consider its relevance and materiality, put it into an appropriate recommendation framework, and then also make judgements based on sometimes incomplete and imperfect information. Analyzing ESG issues requires the same skills, albeit from a different starting point, a different set of conditions and sometimes divergent conclusions.

Crucially though, UBS-AM credit analysts make forward-looking judgements. This applies as much to ESG issues as to financial ones, and as such, distinguishes their work from pure ESG data gathering or scoring discussed earlier in this paper. While the current level of sustainability profile and performance of an issuer is an important starting point, dynamics of sustainability issues, timing, and expected responses by the issuer are all important forward-looking aspects when it comes to assessing the credit. Finally, UBS-AM analysts' ownership of their understanding of sustainability issues is how we expect to further deepen ESG integration.

Collaboration is an important part of the assessment process. Credit analysts are supported in the development of their ESG analysis by UBS-AM's sustainability investment research team. Through dialogue, they are able to address questions about the materiality of an issue, the quality of an issuer's management of its risks, and how to balance different levels of materiality, or the timing of how ESG issues are expected to develop. They also utilize various data sources to gather information.

The important pillars of ESG integration in our credit research process are:

Materiality analysis: The integration process is based on UBS-AM's materiality analysis, which was developed by our sustainable investment research team working in collaboration with our credit analysts. The frameworks are based on the recommendations of the Sustainability Accounting Standards Board, the weighting methodologies of our data providers, and in discussion with individual credit and equity analysts. This materiality analysis covers a variety of key issues across the range of sustainability factors, including corporate governance, products, business ethics, and labor. These issues are assessed for their overall credit impact, looking at the importance of a particular ESG issue, both on the creditworthiness of a debt instrument but also on its longer-term implications and impacts on the longer-term debt instruments of that issuer.

Fundamental analysis: Based on the materiality framework to focus on the most material issues, the credit analysts then assess a set of key ESG strengths and weaknesses for each issuer. Crucially, analysts focus their research and analysis on whether and to what extent the most material sustainability issues impact the fundamental creditworthiness and risk profile of the issuer. Analysts also look at recent controversies for an additional check on the management ability, as well as for potential future liabilities for possible material impacts on creditworthiness. The credit analysts determine whether the scale of the ESG issues is enough to impact the credit assessment. This leads them to provide an explicit assessment scored on a scale for each issue of whether, and to what extent, sustainability issues have an impact on the fundamental credit recommendation. The key test of this assessment is whether the scale of the ESG risks is significant enough to become one of the key considerations in the development of the issuer's creditworthiness going forward as well as the extent to which the ESG analysis leads to a change in credit opinion.

Capturing outcomes: The outcomes of our credit analysis are captured via our UBS ESG score which, put simply, requires analysts to make three key decisions for individual issuers:

- What is the material impact of sustainability issues on the fundamental credit assessment?
- What is the likely future direction of the ESG credit score?
- Does the ESG analysis lead to a change in credit opinion?

By systematically integrating ESG factors across our fixed income platform, we are moving a step closer to our stated ambition of broad sustainability integration across all asset classes.

How does an ESG corporate universe compare with a traditional one?

When Bloomberg Barclays started their collaboration with MSCI to develop a suite of ESG indices in 2013, interest from investors was quite limited. Although most asset managers and investors welcomed the initiative, the actual flows to track these indices were not significant. At UBS Asset Management, we engaged with the providers early on to better understand their approach and process for index construction to be able to assess the impact and potential result on portfolios as and when our clients start investing. In July 2015, in response to demand from our clients, we launched the UBS ETF – Bloomberg Barclays MSCI US Liquid Corporate Sustainable, hedged to different currencies as the first mover in Europe.

We aimed to offer access to a liquid corporate universe consisting of companies that fulfil certain sustainability criteria measured by MSCI ratings.

We believe it is always essential to analyze the index universe before investing in order to understand the index construction methodology, which is also valid for ESG indices. The investors need to understand index dynamics and factors impacting index construction not only for the current index but also for future changes. Fixed income indices have different characteristics to equity indices, driven by the nature of the asset class. Fixed income indices contain higher numbers of securities, as one company typically has one stock listed but many outstanding bond issues. For example, the Bloomberg Barclays Global Aggregate Index contained 21,082 individual bond issues at the end of December 2017 compared to 3,157 stocks in the FTSE All-World Index (source: Barclays POINT and FTSE).

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Fixed income indices also tend to be more dynamic and have higher turnover. As an indication, approximately 30 of the global bond index changes annually, compared to 3 of the global equity index. If additional rules and constraints are added, such as ESG considerations, the turnover will likely increase further, therefore ESG indices tend to have higher turnover than standard indices. To illustrate, Bloomberg Barclays US Corporate Sustainable Index has 3,200 securities compared to 5,600 in the Bloomberg Barclays US Corporate Index and the sustainable index has 8 higher turnover than the latter standard corporate index over one year driven by ESG Ratings. If we look at the EUR corporate bond universe, although it follows the same pattern of higher turnover, the substantially smaller universe only generates 2 of additional turnover. Turnover is an important consideration for fixed income investors, as it is the main driver of transaction costs represented by the bid-ask spread and tends to be higher than equity commissions. For example, the US corporate bond universe has a bid-ask spread of approximately 0.50 and the additional turnover leads to an extra 4 to 5 bps of transaction costs annually.

As mentioned above, in recent years, there has been a proliferation of offerings by various providers spanning both traditional market value and alternative weighted indices. There can be various approaches to building indices, however, we will highlight three different themes applied by Bloomberg Barclays MSCI to construct the sustainable corporate index family:

Socially responsible indices negatively screen issuers that may be involved in business activities in conflict with values, or social norms.

Sustainability indices positively screen issuers (min BBB) based on MSCI's ESG Ratings, which are a best-in-class assessment of how well an issuer manages ESG risks relative to its industry or peer group.

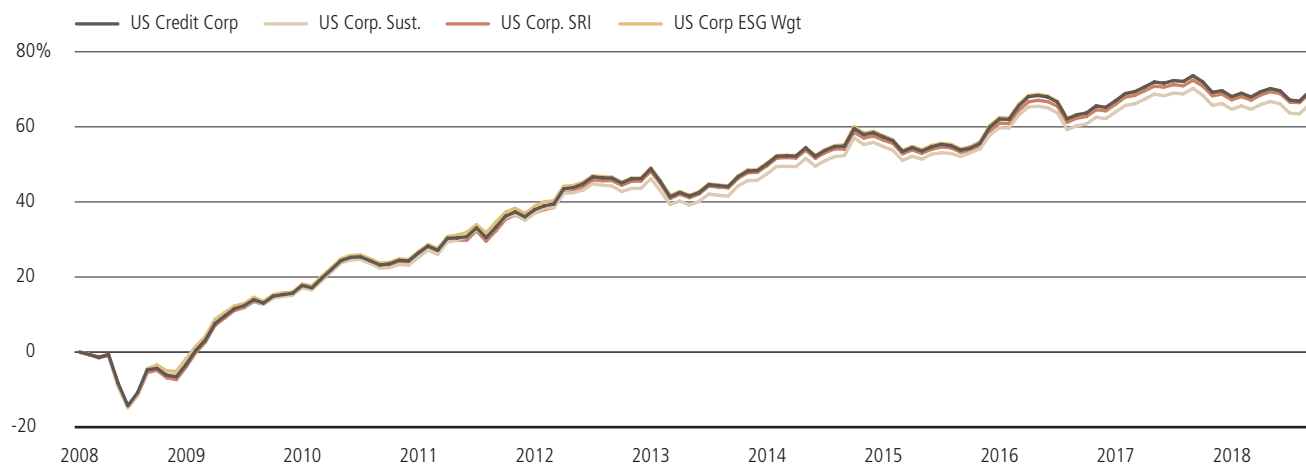
ESG-weighted indices use MSCI ESG Ratings to apply tilts to the natural market value weights in favor of higher-rated/positive momentum issuers and against lower-rated/negative momentum issuers.

The SRI index family is based on negative screening of issuers using the MSCI Business Involvement Screening Research (BSRI). These indices apply thresholds for index exclusions for companies involved in sectors, such as alcohol, gambling, tobacco, military weapons, civilian firearms, nuclear power, adult entertainment and genetically modified organisms (GMO). As an example, the Bloomberg Barclays MSCI US Corporate SRI Index reduces the traditional universe by about 1,000 securities, while most overall risk characteristics stay very similar to the standard index.

The sustainability indices are based on the MSCI ESG Ratings and each bond must have an ESG Rating of at least BBB. It is important to note that the ESG Ratings are different to traditional credit ratings. Furthermore, the index includes companies that are best-in-class among their peers. Lastly, there is an impact monitor applied to refine the screening to fulfill governance criteria to be considered best-in-class. For example, even though a company may be in an accepted sector and meet the ESG Rating criteria, if it is located in a country on the restricted list, it would be excluded from the index.

Exhibit 2: Total return of US Corporate standard vs. SRI Indices

Cumulated Performances



Source: Bloomberg Barclays Indices (calculations by UBS AM). Data as of January 2008–December 2018.

This methodology reduces the index universe to fewer than 3,300 securities from approximately 5,600 in the traditional universe. Unsurprisingly, the sustainable universe has a notch better credit rating, as many of the index criteria should be part of the credit rating process. Again, as expected, this index has the largest performance difference versus the traditional index based on better credit quality.

The ESG-weighted index contains the same number of securities but each issuer’s weighting is determined by ESG Ratings. These indices have relatively low tracking error versus the traditional index, yet that does not mean they are the same. This option is suitable for investors who prefer to be invested in traditional indices (as they are measured against them), but also seek to implement an ESG strategy while keeping relative risk low.

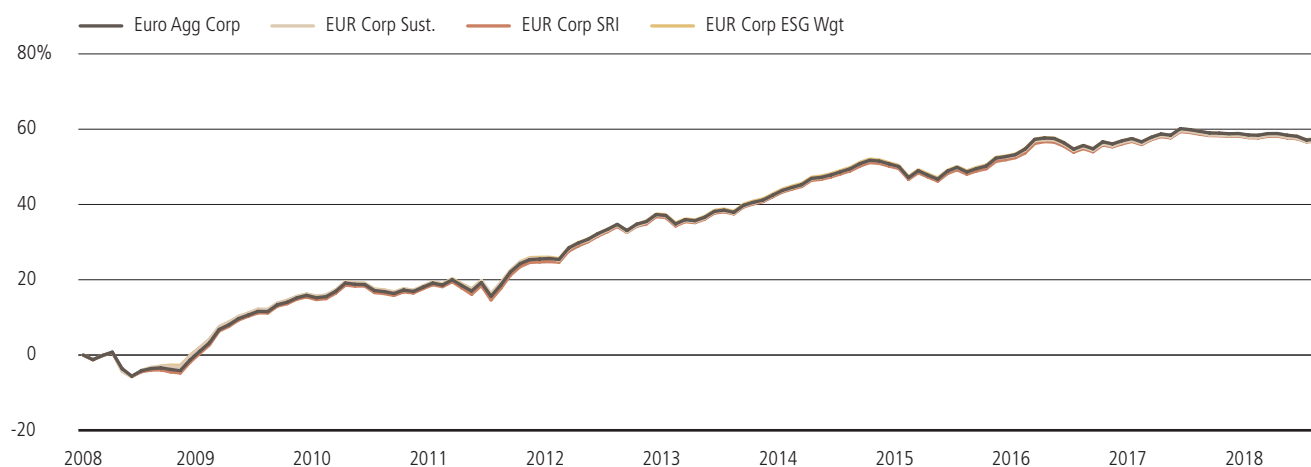
Investors are most interested in the total return of their portfolios following different indices. Exhibit 2 compares returns on these different indices versus the standard US corporate index. We observe that the standard index performed in line or better in the long term. In the last five years, all indices have posted similar performance.

We make similar observations in the EUR corporate universe.

At UBS Asset Management, we are happy to work with our clients to analyze a variety of universes and elaborate on different options. Similar to the traditional space, index selection is a key decision and requires detailed analysis.

Exhibit 3: Total return of EUR Corporate standard vs. SRI Indices

Cumulated Performances



Source: Bloomberg Barclays Indices (calculations by UBS AM). Data as of January 2008–December 2018.

Why green bonds are not the silver bullet

Green bonds have been a growing market, almost doubling in size every year, providing a wide range of investors with a new instrument to channel financing into green projects. Therefore, we find it useful to provide some further thoughts on this developing market.

In early 2014, Bloomberg Barclays MSCI launched the Global Green Bond Index, followed by other index providers. Although a relatively small market, the differences between indices, in some cases, are substantial, so we reiterate that index analysis is essential as investors need to understand the index universe and construction.

Although the green bond market has grown exponentially in recent years with interest from sustainability-focused investors as well as traditional investors, it is still quite small in size. The Green Bond Index has 304 issues, whereas the Bloomberg Barclays Global Aggregate Index has 22,742 (as of the end of December 2018). Although the market values are different, we still believe that the indices are comparable from a risk-return perspective given the global footprint and the types

of issuers included. Both indices are of similar duration, about seven years, but Green Bond Index yield is ~0.20% lower. This should take into consideration that the Green Bond Index is also the only global index where the EUR component (62%) is larger than USD (27%). By comparison the Global Aggregate comprises 25% and 45% respectively.

The Global Aggregate index includes debt outstanding for all funding requirements whereas the Green Bond index includes only funding for eligible projects and proceeds are earmarked for those specific purposes. Therefore, the index composition and dynamics, such as issuer weights and sector allocation of the two indices are quite different.

Exhibit 4 clearly shows that close sector comparison is not appropriate and we should look at the different dynamics driving these differences. The green bond universe is expected to continue growing at a fast pace, which would be beneficial for all parties. The current tilt towards European issuers or at least EUR-denominated issues could disappear once the US issuers embrace green bonds as a funding source for their green projects. Needless to say, the governments would make

Exhibit 4: Sector allocation comparison

	Global Agg	Global Green Bond Index
		Market Value (%)
Treasury	54.43	11.41
Government-Related	11.72	52.22
Agency	5.38	26.61
Local Authority	2.93	7.83
Sovereign	1.23	1.39
Supranational	2.19	16.39
Corporate	18.52	32.88
Industrial	10.12	3.21
Utility	1.45	13.57
Financial Institutions	6.95	16.1
Securitized	15.33	3.49
MBS Passthrough	11.6	—
ABS	0.26	0.13
CMBS	0.81	0.2
Covered	2.67	3.16

Source: Barclays POINT. Data as of December 2018.

the biggest impact on such a universe. Currently, only very few sovereigns have issued green bonds but, these are relatively large issues compared to the EUR 500 million to 1 billion denominated corporate issues outstanding. Lastly, given the universe is still rather small, every new issue has a proportionately bigger impact on the existing universe. As mentioned before, should governments start to issue green bonds, the sector allocation will change dramatically and the overall yield would likely drop, given most issuers today are corporations and supranational organizations, which typically offer higher yield than government bonds.

All these differences are also becoming visible in the performance comparison between the two indices over a few years.

It is not advisable to draw too many conclusions given the short performance history. Also, index composition and dynamics currently are quite different for the two indices. For example, the green bond index still has few issuers so every issue has a much bigger impact on the index risk-return characteristics. We expect these dynamics will likely continue in the near future and will continue to drive idiosyncratic risks.

Beside the standard bond index comparison, we need to be aware that not every newly-issued green bond will be included in the universe as there are additional index inclusion criteria; MSCI adds a filter to ensure a certain quality of “green” is achieved.

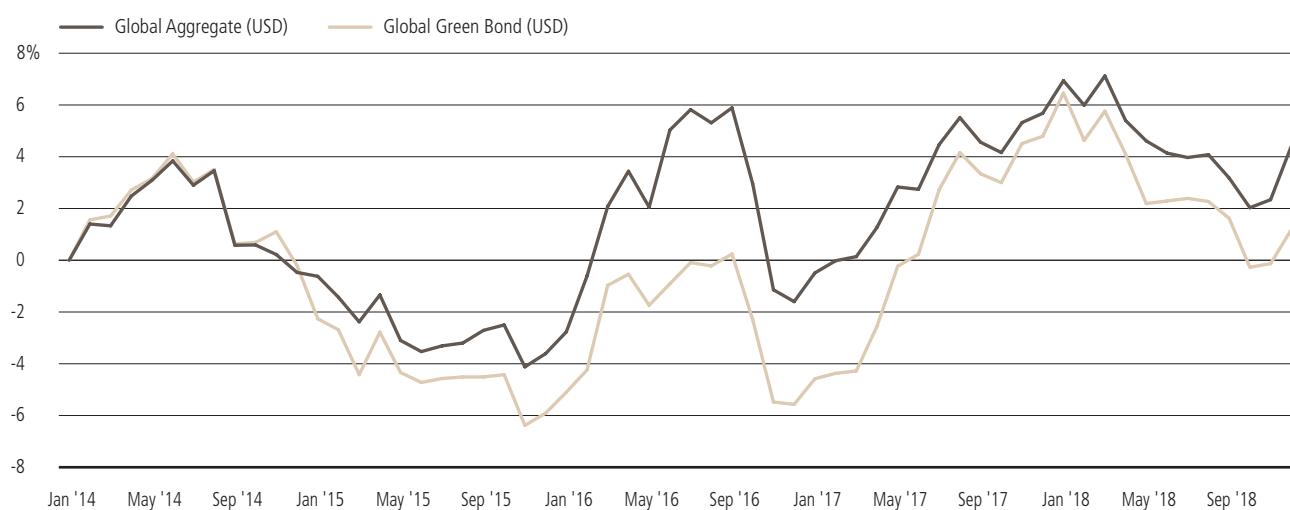
These eligibility criteria reflect themes articulated in the Green Bond Principles and require commitments about:

- Stated use of proceeds.
- Process for green project evaluation and selection.
- Process for management of proceeds; and
- Commitment to ongoing reporting of the environmental performance of the use of proceeds.

Bonds are classified into one of seven themes according to the MSCI ESG Research Green Bond taxonomy, (i) Alternative Energy, (ii) Energy Efficiency, (iii) Pollution Prevention, (iv) Sustainable Water, (v) Green Building, (vi) Climate Adaptation and (vii) Other.

Exhibit 5: Total return comparison

Cumulated Performances



Source: Bloomberg Barclays Indices (calculations by UBS AM). Data as of January 2014– December 2018.

At the same time, the lack of standardization of the Green certificates available to companies makes it hard to guarantee the quality of the green bond. For that reason, investors should be extra careful when investing in funds, which are labelled “Green” but do not have an additional screening in place. As an active manager, one would want to have a fundamental analysis in place, which does not only cover the traditional credit metrics of a company, but also the quality of the green project to be financed by the green bond issuance. Another challenge for active managers is that investing actively within the rather small universe today may prove very difficult, not only because of the limited opportunities, but also due to the liquidity which, as of today, is still much lower in green bonds than in traditional bond markets. This may well be explained by

three reasons. Firstly, today’s green bond investors often focus on buy-and-maintain portfolios, hence bonds are purchased in the primary market and will seldom be sold or traded. Secondly, the lack of active managers in the space does not help to create a well-defined relative value analysis framework with pricing often being driven by the issuer, and not by the investors. Lastly, an active manager would likely see value in managing a green bond fund by choosing the best green bonds, but in addition, adding non-green bonds, which is often a challenge from the impact or sustainability point of view (the original idea behind investing in green bonds). The market will surely continue to evolve very quickly and market participants, whether dedicated green bond investors or not, will need to actively participate.

Bibliography

World Bank, (2018) *Incorporating Environmental, Social, and Governance (ESG) Factors Into Fixed Income Investments*.
OECD, (2006) *UN Principles for Responsible Investment (PRI)*.

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Matthias Dettwiler is Head of Index Fixed Income and has overall responsibility for all index tracking fixed income portfolios globally, including exchange traded funds. Prior to being appointed to his current role in November 2012, Matthias headed the FX and Global Bonds team in Zurich, and was responsible for implementing active and passive global bond strategies across Zurich-based portfolios. In addition, he was a senior portfolio manager of USD denominated money market, short and medium term aggregate and credit mandates for more than ten years. Matthias holds the "Certified International Investment Analyst" designation and the "Swiss Federal Diploma for Expert in Finance and Investment". He is a member of the European Council of Bloomberg Barclays Indices and the FTSE EMEA Bond Index Series Advisory Committee.

Francis Condon

Francis Condon is a Senior Sustainable Investing Research Analyst and is responsible for projects supporting ESG in Fixed Income, as well as content specialist on climate change and on sustainability in the energy, materials, and utilities sectors. Prior to joining UBS, he was a Senior ESG Analyst at RobecoSAM responsible for research in the oil & gas and mining sectors. Previous roles in sustainable finance include Senior Engagement Specialist at Robeco, and Vice President Sustainability at ABN Amro where he implemented the sustainability strategy, and carried out environmental & social risk assessments. Earlier, he was also a Senior Equity Analyst at ABN Amro and Equity Analyst at Prudential Plc. Francis holds an MPhil and BSc (Hons) in Mining Engineering from University of Nottingham, has a Postgraduate Certificate in Sustainable Business from the University of Cambridge Institute for Sustainability Leadership and is an alumnus of their Climate Change Leaders Programme. He has also completed the London Business School Investment Management Programme, and the associate qualifications for the UK Society of Investment Professionals.

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Oya Ecevit is a Fixed Income Specialist within the Fixed Income team with a focus on index fixed income and sustainable fixed income strategies. In this role she is responsible for communicating our investment capabilities to clients and consultants, working on fixed income business development and responding to client requests. Oya joined UBS Asset Management in July 2013. Prior to this, she worked at Wellington Management in Boston and London, as a portfolio analyst on the Global Fixed Income team where she was responsible for beta management and implementation of active strategies across a range of global bond portfolios. Later, she moved to the business development team, focusing on prospects and consultants in the UK. Previously, Oya was an operations manager at IFX Markets in Boston. Oya holds the Investment Management Certificate (IMC).

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