BlackRock

Gilts get the green light

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On Monday 9 November 2020, Chancellor Rishi Sunak confirmed as part of a series of announcements on financial services that the UK Government intended to issue their first green gilt in 2021.

With The Pensions Regulator ("TPR") increasingly mandating the trustees of pension schemes across both defined benefit and defined contribution sectors to consider environmental, social and governance (ESG) factors, this provides an opportunity for investors in a part of their portfolio where options had been limited.

While green bond markets have been growing rapidly in recent years, for many this may be a new or unfamiliar area. In this paper we explore some key features of green bonds and how these might relate to green gilt issuance, along with our thoughts on how Her Majesty's Treasury ("HMT") and the Debt Management Office ("DMO") might best structure the issuance.

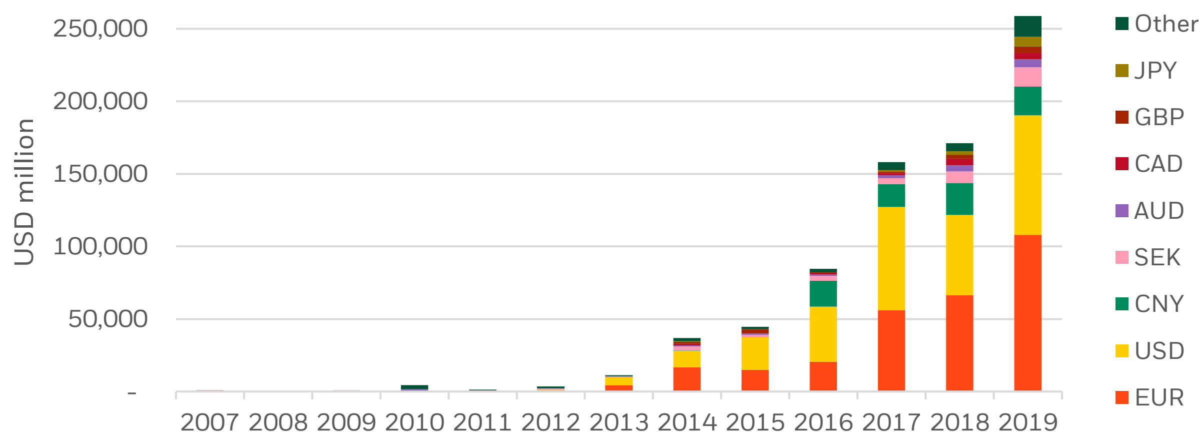
What are Green Bonds?

Green bonds are typically issued with proceeds ring fenced and directed to specific projects or areas of investment that are expected to have a meaningful environmental, and sometimes also social impact. While the proceeds are ring fenced, the backing for the bonds from the issuer is generally pari passu with all other bonds– e.g. revenues or returns from specific projects do not back the bonds but the whole credit of the issuer.

Best practice described by the green bond principles encourages issuers to clearly report on how the proceeds are spent and the impact of projects. This allows investors to better quantify the direct effect of their capital allocation and to hold the issuer to account.

The market has been growing rapidly over the past few years, with bonds from a mixture of government, supranational, and corporate issuers. But despite this, the overall size of the green bond market ($754bn) vs. the broader fixed income universe ($128.3tn) remains modest for now.

Figure 1: Yearly green bond volume by currency in USD



Source: Climatebonds.net. Data is to the end of 2019.

The case for Green Gilts

The economic crisis caused by COVID-19 has driven a greater funding requirement for the UK Government. This, alongside a greater demand to rebuild the economy through growing industries such as clean energy and clean transport as part of the Government's "build back better" policy, means that there has arguably never been a better time for green gilts. While full details are still emerging, the Prime Minister's announcement of his 10-point plan for a green industrial revolution has started to provide

some steer for the types of projects planned, some of which could be appropriate use of proceeds from a green gilt, in particular offshore wind and electric vehicle infrastructure.

Green gilts could attract new investors to the gilt market while also meeting the demands of existing environmentally-conscious investors as well as those who view these assets as having an attractive upside due to supply and demand dynamics.

While there aren't yet green gilts, there are some green sterling denominated bonds already in issue. The current size of the sterling green bond market is very small ($12.5bn has been issued until end 2019), in comparison to the euro green bond market which is about 40 times bigger. However, demand from institutional investors is high. Since 1 October 2019, pension schemes need to include ESG considerations in their Statement of Investment Principles. Furthermore, large asset owners should be meeting TCFD (Task Force on Climate-related Financial Disclosures) guidelines by 2022. With the added support of such changes, one can foresee increased demand for green bonds. This comes at an opportune time given current high government borrowing needs, potentially allowing the government to secure cheaper financing from a wider range of sources.

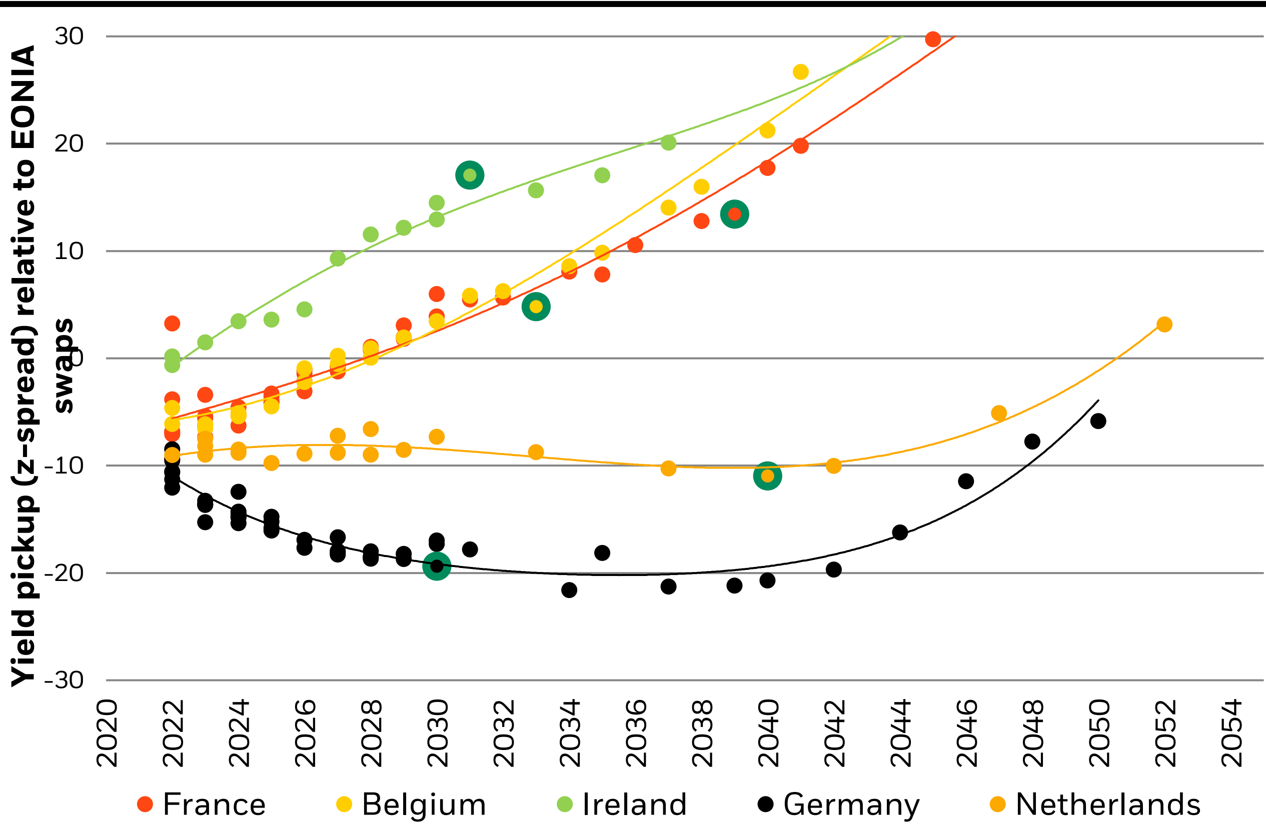
This heightened demand for green gilts could lower financing costs, which would allow for greater spending on green and social projects, arguably at a time when this is most needed from an employment perspective, as the economy battles the impacts of lockdowns and associated job losses. Prior to the recent announcement of green gilt issuance, BlackRock co-signed a letter to the UK Prime Minister, advocating the issuance of Green+ gilts as written about by LSE's Grantham Institute. There are also political considerations, with the UK wanting to demonstrate its position as a world leader in green finance in the run up to the UN Climate Change Conference (COP26) due to take place in Glasgow in less than a year's time.

How has Green Bond issuance worked in other regions and what might work best in the UK?

A wide range of sovereigns around the globe have issued green bonds, with six Eurozone countries having already issued - France, Belgium, Lithuania, Ireland, the Netherlands, and Germany. Also, within Europe but outside the Eurozone, Poland was one of the first sovereign issuers, coming to market with a $4.3bn bond in December 2016.

With the exception of Belgium, all of the Eurozone countries issued new green bonds at yields close to or below equivalent non-green bonds. In many cases the green bonds have subsequently performed well relative to their non green peers. Green bonds appear to sit slightly below the rest of the issuer's curve, with the current exception of the 2031 Irish green bond. This likely reflects the fact that demand for green bonds remains high while the supply continues to be limited compared to the wider bond universe.

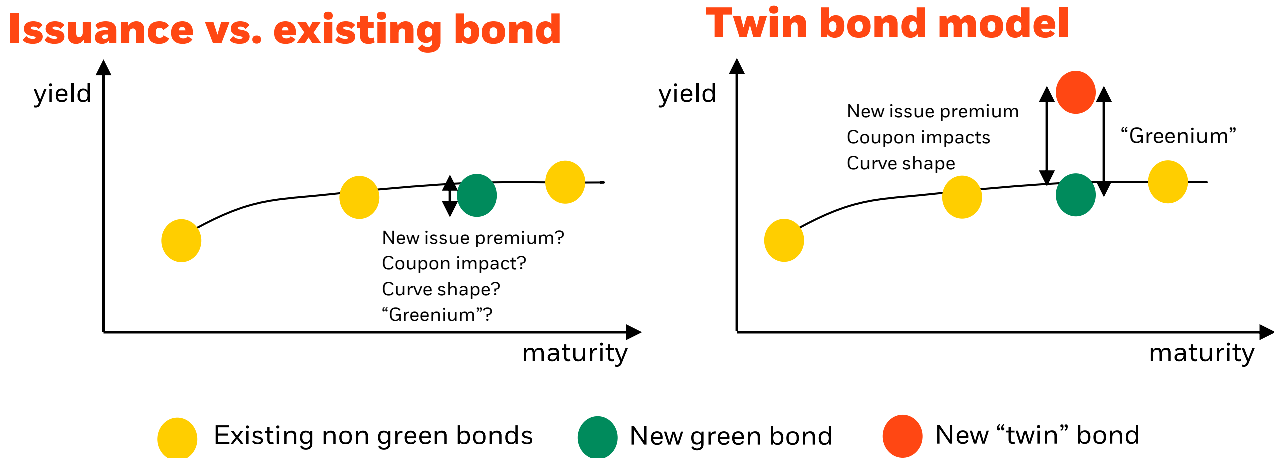
Figure 2: Yield pickup relative to swaps of selected Eurozone issuers – green bond issues tend to offer a lower yield pickup vs. swaps than others, but there can be exceptions



Source: BlackRock. Data as at 15 November 2020. Green bond issues are circled in dark green for each issuer. Longer-dated issuance with higher spreads from France and Belgium has been truncated to aid presentation of areas of the curve in which green bonds are in issue. Trendlines for indication purposes only and constructed using a polynomial fit.

In all the cases with the exception of Germany, identifying the premium for the bond being green (often referred to as a "greenium") is difficult to isolate, as there is no directly equivalent non-green bond. A host of other factors such as coupon, curve fitting approach, and convexity effects can potentially explain small differences in value for different bonds vs. their respective curve. When Germany issued its first green bond in September 2020, a 10yr issue, it adopted a novel approach where both a green (where proceeds were ringfenced for certain projects) and non-green (where they were not) version of the bond were set to have identical coupon and maturity characteristics. The only difference in these "twins" was the use of the proceeds.

Figure 3: Comparing the twin bond model with conventional issuance approaches



Source: BlackRock. Illustrative only.

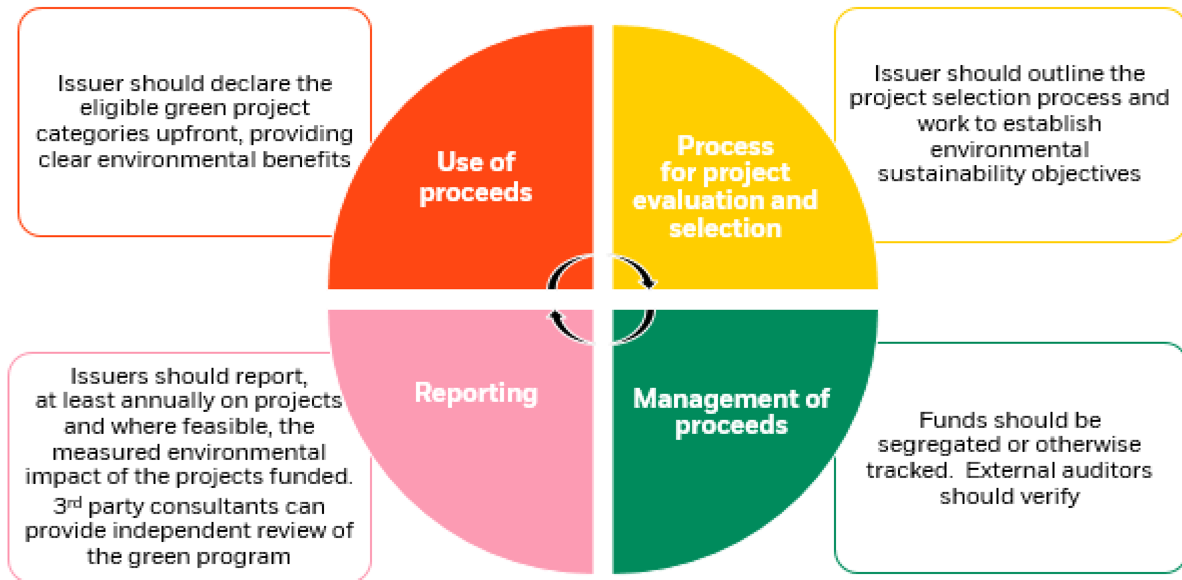
A benefit of this approach is that it allows for a very clear isolation of the greenium associated with the green bond, whether that be caused by supply and demand effects or investors willingness to pay a higher price for bonds with ring fenced proceeds that aim to achieve goals that meet their broader investment goals, including ESG considerations. For example, on the 13 November 2020, based on BlackRock's calculations the yield on the green version of the 16 August 2030 Bund was 1.9bps lower than the yield on the non-green equivalent of the same maturity. Despite this, the green Bund looks to sit broadly on the asset swap curve, while its twin sits some way above. These bonds were only issued relatively recently and may still be experiencing a degree of new issue premium, as the market expects them to be issued again. Without the twin bond model, the green Bund may look like it lacked a greenium, when in fact it clearly has one.

How should a Green Gilt best be structured

Green gilts may adhere to the best practices from the Green Bond Principles. The ICMA Green Bond Principles (of which BlackRock is on the Executive Committee) are voluntary process guidelines that recommend transparency and disclosure and promote integrity in the development of the Green Bond market.

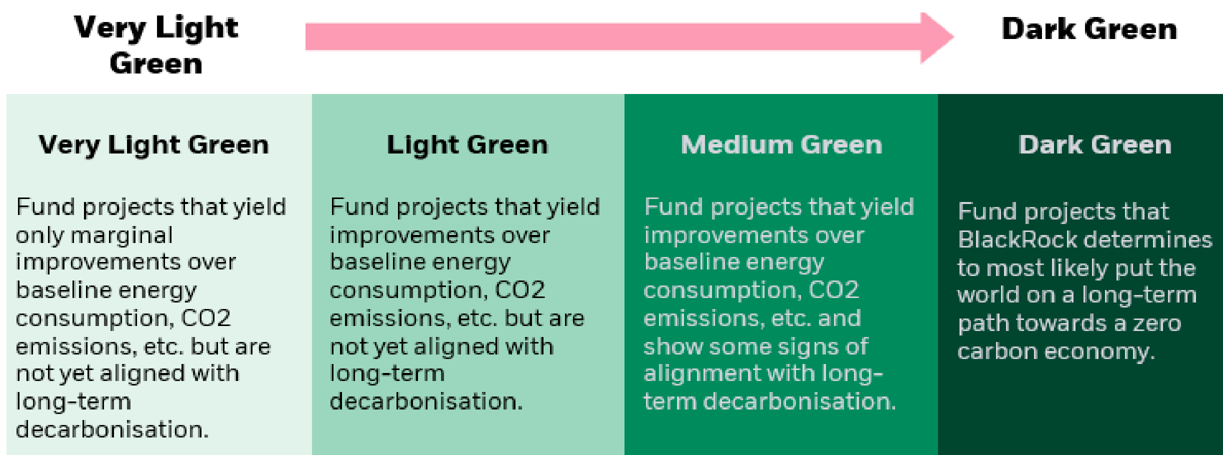
The four core components of the principles are shown in Figure 4 below.

Figure 4: Core components of the Green Bond Principles



As green bonds are a new asset class, methodologies for determining which bonds qualify as "green" vary somewhat. At BlackRock, our process includes checking new issues for alignment with the Green Bond Principles. We update our proprietary list of green bonds monthly, cross-checked against Bloomberg, the Climate Bonds Initiative, and Environmental Finance databases. We also seek annual verification that issuers are meeting their reporting obligations. Here we have a scoring methodology which assigns tiering to bonds based on the "greenness" or "impact" of the proceeds used, as shown in Figure 5 and 6.

Figure 5: BlackRock Green Shading Scale Methodology



Very Light Green	Light Green	Medium Green	Dark Green
Fund projects that yield only marginal improvements over baseline energy consumption, CO2 emissions, etc. but are not yet aligned with long-term decarbonisation.	Fund projects that yield improvements over baseline energy consumption, CO2 emissions, etc. but are not yet aligned with long-term decarbonisation.	Fund projects that yield improvements over baseline energy consumption, CO2 emissions, etc. and show some signs of alignment with long-term decarbonisation.	Fund projects that BlackRock determines to most likely put the world on a long-term path towards a zero carbon economy.

Source: BlackRock

Figure 6: Examples of projects could include:

	Light	Medium	Dark
Renewable energy	Combined heat and power – non-fossil	Energy storage including pumping	Renewable energy such as: Wind, Solar, Tidal/wave
Energy efficiency & green buildings	Retrofits: Energy or water efficiency improvements of up to 25% vs. baseline	Retrofits: Energy or water efficiency improvements of more than 25% vs. of local market baseline but not reaching top 15% performance	Retrofits: Buildings in the top 15% of energy performers in their local market
Pollution prevention and control	Landfill with methane capture	Waste-to-energy plants (including sewage)	Anaerobic digestors and composting facilities
Sustainable Management of Natural Resources and land use, protection of biodiversity	Land remediation and cleanup	Sustainable agriculture and farming practices that reduce emissions	Re-afforestation
Clean Transportation	Non-electrified public transit projects	Hybrid-electric vehicles, including cars, trucks, buses, etc. and cycling and pedestrian lanes	Electrified vehicles, including cars, trucks, buses, etc. Charging infrastructure
Sustainable Water and Wastewater	Desalinization plants	Waste water treatment (utility/industrial)	Water infrastructure that reduces losses and improves access and efficiency of distribution without generating emissions
Eco-Efficient Products, Technologies & Processes	Compact fluorescent lighting	LED lighting	Facilities dedicated to manufacturing energy efficient appliances and equipment that are top energy performers and/or certified by a product label

Source: BlackRock

Practical considerations of green gilt issuance

While restrictions applied to the use of proceeds and green credentials will be key in the program design, it will also be important to think about how the new gilt would fit into existing investor frameworks and the broader market.

We would expect green gilts to have the same covenant and credit risk as traditional gilts. As it has the same covenant, we expect these bonds to be eligible for posting as margin under ISDA CSAs as well as initial margin for cleared trades. We also expect these bonds to be financeable on repo.

Regarding the asset purchase facility operated by the Bank of England as part of their quantitative easing programme, we would expect green gilts to become eligible once they are a sufficient size, which is currently specified as an outstanding notional above £4bn. This follows moves by the Bank of England and European Central Bank reviewing their asset-purchasing strategies towards low-carbon emitting companies. This, along with likely inclusion in standard indices, will improve the liquidity for these bonds. In other markets, our BlackRock Sustainable Investing team (BSI), alongside our fixed income portfolio management and trading teams, have conducted analysis on green bonds and equivalent non green bonds and have not found a material difference in liquidity.

For the first green gilt issuance, a 20-year maturity bond could be considered the sweet spot to balance demand from different parts of the market. Many LDI accounts hold other gilts around this maturity as a result of the pick-up offered over swaps, which will allow switching. However, it is not ultra-long, which may be undesirable for overseas investors and central banks. This maturity sector may also still be short enough in maturity to attract interest from bank treasuries, who often hold gilts on asset swap as part of their capital reserves and would likely be keen to burnish their green credentials, which in itself can link back to their own cost of funding.

To allow the initial issue to grow quickly and to ensure early eligibility for the Bank of England Quantitative Easing program the green gilt could be initially issued via the usual syndication process for gilts with reference to an existing gilt already in issue and widely held. For issues further into the future, the twin bond approach could be used to better isolate the greenium during issuance.

Will investors need to pay a “Greenium”, and should they?

Whether investors should be willing to pay a greenium is one of the most difficult and contentious questions on the subject of green bonds.

At the most basic level, an argument could be made that the bonds experience exactly the same credit as other gilts. Unlike an equity where a strong ESG standing and preparation for the effects of climate change may lead to outperformance for the company in general, in bond space there is no upside on a hold to maturity basis, only a defined yield and a credit risk which is shared with all other bonds from that issuer. Arguments are also often made that in some cases the spending would have taken place anyway, so by issuing a green bond this solely acts to make other bonds “browner” in nature.

While these arguments are not entirely without merit, we still believe standard green bond issues have an important role to play and there are justifications for investors to consider paying a greenium, if necessary.

We identify three key reasons below:

1. Supply and demand effects

Green bond issuance in general is currently small. This is particularly pronounced in the UK considering the size of the economy and GBP debt market as shown by the data in Figure 1., GBP green bonds make up only 1.6% of the global value issued for 2019.

While this supply may continue to grow over time it is likely that initial demand will outstrip supply, even if the bond is initially syndicated at a premium to others.

This may lead to further outperformance of the bond from the point of issuance. This has been seen in other markets, for example the 10-year green Bund was issued at a greenium of around 0.01% and is now closer to 0.02% lower in yield than its twin.

If held to maturity, any bond issued with a greenium will have a lower yield than its non-green equivalent. However, many UK pension schemes will not hold bonds 20 years or longer to maturity. Some sort of exit strategy such as buy-in/buy-out or consolidation will likely come into play before then. These bonds may also have value to insurers or other providers seeking to improve the ESG characteristics of their asset books. Buying bonds with a greenium may still add value for schemes seeking to reach their end game.

2. Enables trustees balance the objectives of investing in members' best interests and TPR guidance on ESG

Holding a green gilt will allow UK pension schemes to specifically quantify the ESG impact of at least a part of their LDI portfolio, an increasingly large allocation for many schemes, to the overall ESG characteristics of their scheme.

While the payment of a greenium vs. holding other gilts may conflict with the trustees objectives to invest in the best interests of their members when evaluated solely through the lens of yield to maturity, the other considerations argued in this section need to be balanced against this.

Particularly relevant may be TPR's points in their investment guidance that "When setting investment strategies, we expect trustee boards to take account of risks affecting the long-term financial sustainability of the investments".

3. May improve the long-term credit and strength of the UK economy

The Bank of England has demonstrated that it believes climate change is important and that it could impact the economy is various ways. For example, the Bank of England is a founding member of the Central Banks and Supervisors Network for Greening the Financial System. The United Kingdom has signed up to the Paris Agreement of which climate finance is a component.

The issuance of green gilts is expected to attract new flows of capital as a result of green bond funds and overseas institutions such as central banks increasing their allocation to UK Government bonds. In addition to this, running a well-managed green bond programme, with clear use of proceeds and reporting, should increase ESG scores for the UK government more broadly, thus increasing the weight of gilts in ESG weighted indices.

In the near term, one could argue this may push gilt yields lower, which may be negative for UK pension schemes, particularly those that have not fully hedged interest rate risks. However, thinking longer term, the UK government being able to borrow at attractive rates relative to swaps should allow for a stable and growing economy through continued investment.

This, along with having an economy that is positioned well for the future in terms of adaptations for the effects of climate change and the growth of a global green economy should be broadly supportive of the economy and tax revenues, encouraging higher interest rates and a stronger credit rating. This

would be positive for pension schemes, even for the deficits of those that have hedged their funding level. It may also reduce some of the risk of future challenges in the use of gilts as a hedging and collateral asset should the risk of further credit downgrades continue, as we recently saw when Moody's downgraded the UK from Aa2 to Aa3.

Supporting the issuance of green gilts, even if this meant paying a greenium, may therefore have wider ancillary long term benefits to UK pension schemes.

In conclusion, given the supply and demand dynamics at play we believe it likely that some form of implicit greenium will be included in initial green gilt issuance. If the bond is issued against an existing gilt rather than a twin, measuring this explicitly may be more difficult and the issue may still come at a discount to existing gilts held when all other factors are considered.

For the reasons we set out above, we do believe there are arguments for there being merit in the existence of a greenium, but it will be important to understand the long term impact of the green gilt programme once more details are known about the use of proceeds.

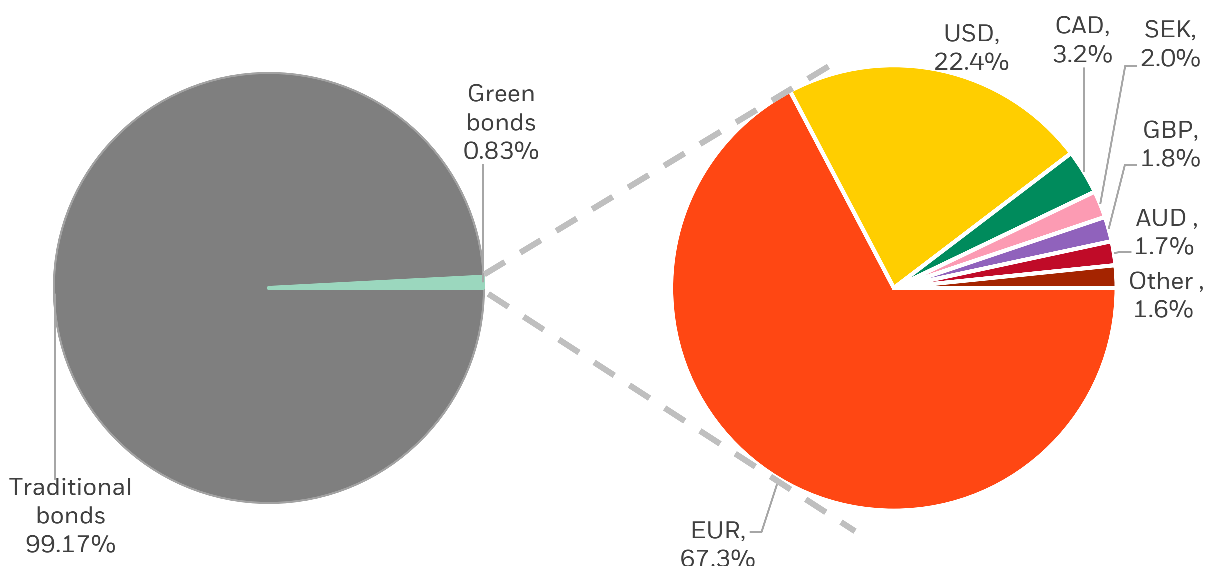
Will green gilts enter standard indices and ESG indices?

We would expect green gilts to enter the standard gilt and aggregate indices. In some cases, such as FTSE, which rebalance daily this would occur as of the close of business on the day of issuance, creating a natural source of demand from index investors.

For ESG indices, this is less clear cut. New bonds have to be assessed for qualification by the index provider and there may be a lag to when this occurs. We would encourage this to be a focus area for the Treasury and the DMO to work on with index providers. This would ensure that bonds enter indices promptly to avoid there being a long evaluation period. This is likely to drive some flows into these bonds, albeit the impact is likely modest relative to the flows for the standard gilt indices.

There may be ancillary funding benefits to the government from issuing a green bond, such as a higher score in the FTSE climate indices metrics, meaning a larger weight to gilts. Gilts are currently under-represented considering the size of the market, having a smaller weight than Swedish government bonds.

Figure 7: Currency proportions of the Bloomberg/MSCI green bond index



Source: Bloomberg/MSCI green bond as at 30th September 2020

Expected next steps

2021 could be the year that kickstarts GBP green bond issuance, providing a valuable additional tool for improving sustainability for UK pension schemes and other investors. BlackRock believes that as the green bond market continues to develop, in terms of size and guidelines for issuance, the funding infrastructure can allow for a preference for qualifying green bonds, which would then result in tighter funding spreads. This would have the effect of changing capital allocation internally within issuers, such as the UK Government, thus ultimately driving more capital through balance sheets or budgets toward environmentally beneficial projects. We believe this is in the long-term interests of all stakeholders, throughout the investment chain.

The imminent November 2020 Spending Review along with the Budget in March 2021 will hopefully give some more clarity on green gilts and the potential target projects. Given that the announcement to issue is very recent, the DMO and Treasury may need to build out the infrastructure for accounting for the proceeds and reporting on deployment to ensure green gilts adhere to the Green Bond Principles. Our base view is that initial issuance of a green gilt comes in the second half of 2021.

For clients with funds or mandates managed against indices, the inclusion of green gilts in mandates is trivial and no direct action is required. For clients with more bespoke mandates, including bespoke LDI mandates, we will be assessing the inclusion of green gilts in mandates and engaging clients where appropriate.

If you have further questions, please contact your usual BlackRock representative.

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