CLIFFORD CHANCE

GREENING THE FINANCIAL SYSTEM

INTRODUCTION

The need to mobilise green, climate smart, environmentally friendly financing is racing at speed up the agenda of regulators, governments and the institutional investor and financial communities globally. Whilst the commitment in the Paris Agreement to hold global average temperature increases well below 2°C above pre-industrial levels has been extensively reported, less well known is the commitment to “making finance flows consistent with a pathway towards low greenhouse gas emissions and climate-resilient developments”. Governments and regulators are responding to this commitment, enlisting a wide variety of bodies to explore options to create an enabling policy environment.

The perennial discussion is what constitutes “green” financing. The financing of renewable energy assets is perhaps an obvious example of a growing green finance area – from the first project-financed offshore wind farms, to solar plant portfolio financings, banks and institutional investors have been attracted by the relatively stable, quasi-government revenue streams on such projects in the form of subsidies. Those investors familiar with the sector will be vital to sustain funding as subsidies drop and finance is required for new technologies, such as storage.

Whilst this is an important and evolving area, such financings alone, or financings by “pure play” green companies, will not be sufficient to move the dial towards a green financial system. This will require a much wider focus on green issues across the financial markets, and a step-change in scale. The drives to streamline the taxonomies and standards used in the market must be viewed in this light – both to provide comparability to make it easier to take “green” investment decisions, and to ensure that a wide range of companies, including “brown” issuers, can engage without exclusion where they make climate positive investments as part of their transition.

Ultimately, to achieve the ambitious goals of Paris all corporates and financiers must focus on environmental issues as part of their usual business planning. Initiatives to improve and standardise reporting on climate risks (as set out in the TCFD recommendations) seek to ensure assessments of long term credit risk reflect long term sustainability and climate risks and opportunities. This could help climate-focussed companies obtain lower-cost funding and be more competitive. More importantly perhaps, it puts board-level focus on green issues. This seems to be an additional benefit for green bond issuers too – joining the dots between sustainability and finance teams, which creates a virtuous circle for green funding opportunities.

In this publication we have brought together our team to outline developments in green financing in local markets across the globe, demonstrating the sometimes contrasting approaches of different regions. We also focus on notable green financing products that show great future promise, notably sovereign green bonds, green loans and green securitisation. But the trend for innovation doesn’t stop there and green equities, sukuk, regulatory capital and hybrid bonds also look set to be growth areas in the year ahead.

Green bonds started the green finance trend, but a climate-focussed financial system must be the goal.

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MAKING SENSE OF THE INITIATIVES

A GUIDE TO SOME OF THE KEY INITIATIVES IN GREEN FINANCE

MAKING SENSE OF THE INITIATIVES: A GUIDE TO SOME OF THE KEY INITIATIVES IN GREEN FINANCE

There are a multitude of initiatives aimed at turning finance "green". Making sense of these is not always straightforward. Supranational, national, corporate and non-governmental actors have produced a wide range of recommendations, guidelines and obligations for the finance industry and its participants. In this article, we make an effort to shed some light.

We have highlighted six key themes and provided more detail on some key initiatives, their remit, ambitions and published guidance. Our focus is on the GBP, G20 GFSG, the HLEG, TCFD and the CBI, but there are many more.

Six key themes in green finance initiatives:

- Significant political will
- Not just "top down"
- Green bonds will play a crucial role
- Improvements in disclosure and classification
- More initiatives in the pipeline
- Scope of initiatives is widening

Part I: Six key themes

There is significant political will behind green finance initiatives

Sustainable and green finance is a priority of the Paris Agreement. Article 2(c) commits to "…making finance flows consistent with a pathway towards low greenhouse gas emissions and climate-resilient development."

It is then no surprise that a host of supranational institutions have dedicated bodies aimed at facilitating this objective. Prominent examples include the G20 GFSG, HLEG, the IFC Sustainable Banking Network, the OECD Green Finance and Investment Centre and the Inquiry into the Design of a Sustainable Financial System hosted by the UN Environment Programme.

There has also been an increase in the number of national initiatives. To pick on just two – in China, the State Council approved the "Guidelines for Establishing the Green Financial System" in August 2016 whilst Japan established its "Green Bond Guidelines" in March 2017. More generally, the UN Environment Programme has identified over 200 innovative measures taken by financial policymakers, central banks, financial regulators and standards bodies to address social and environmental issues. In short, green finance is being taken seriously by policy makers globally.

Green finance initiatives are not just "top down"

In July 2017, 389 institutional investor signatories with more than US$22 trillion in assets delivered a letter to the G20 expressing their concern that climate change issues had been omitted from a recent G20 Finance Ministers Communiqué, and urging the G20 to explicitly acknowledge the topic at the Leaders' Summit later in the year (it was, albeit alongside the significant caveat of the United States' withdrawal from the Paris Agreement).

This was one example of an investor-led initiative promoting green finance. There are many more. For example, in September 2017, the Financial Times reported that 1,784 institutional investors have now signed up to the UN Principles for Responsible

Investment. Investors are not alone. The Green Finance Council is an assembly of mainly financial sector trade bodies with the stated aim of coordinating green finance initiatives and influencing policy. There are similar initiatives in other sectors and industries.

The CBI projects that issuance volume in 2017 may exceed US$130 billion.

This is, in part, altruism and partly self-interest. There is increasing recognition that climate change can pose a significant risk to businesses and investment portfolios alike, be it through the physical disruption of existing revenue-generating assets on account of climate and weather related events, or simply a failure to adjust to the transition to a lower carbon economy.

Green bonds look set to continue to play a crucial role

A consistent theme supported by policy signals from national and supranational institutions is that private markets need to provide the majority of the increased investment required to meet climate change goals, and the green bond market should be front and centre. This is recognised in strategy recommendations and proposals put forward by the G20 GSFG, the HLEG, the World Bank and United Nations.

Whilst green bond issuance is on track for a record year (the CBI projects that issuance volume in 2017 may exceed US$130 billion), the proportion of green bonds as a total of all bond issuance remains low. It is estimated that labelled green bonds in 2015 represented less than 1 per cent of US bond issuance and less than 0.2 per cent of issuances globally. The potential to scale-up the green bond market to achieve green financing targets is obvious and international initiatives are attuned to that.

Improvements in disclosure standards, classification and information flows

There is also an effort to improve the disclosure and classification of environmental data. This is taking a number of forms, often with the aim of increasing standardisation.

As we discuss elsewhere in this publication (see Institutionalising Climate Change Disclosure: The Climate Task Force Recommendations on page 25), earlier this year, the TCFD produced practical recommendations and guidelines on how business can improve its communication of climate change information. The HLEG is looking to build on existing green bond taxonomies, such as the GBP, and develop a Europe-wide classification system for green bonds and other sustainable assets. Elsewhere, the focus of the G20 GFSG during 2017 has been the development of environmental risk analysis in the financial industry (that is, the ability to measure and quantify environmental risk) and creating a supportive framework for improvements in the production and availability of publicly available environmental data.

Thus far, green finance has developed without specific, globally agreed definitions on what makes a green investment (for more, see What does it mean to be green? on page 13). Improving environmental information flows, disclosure standards and green taxonomies, including debate as to how closely classification systems should be regulated, is likely to be a consistent feature of green finance initiatives.

New initiatives, with more in the pipeline

Notably, there has been a recent proliferation of substantive national and international initiatives on environmental finance with a number of bodies due to present their findings and recommendations over the next few months. Given that the signatories of the Paris Agreement are now faced with the task of funding their "Nationally Determined Contributions" under that agreement, more are expected in the future.

The scope of initiatives is widening

We are also beginning to see environmental policies develop into legally binding obligations (see, for example, Article 173 of the French energy transition law in Global Perspectives: France on page 61 or the newly minted obligations of certain, large public interest EU companies to disclose environmental information under the EU Non-Financial Reporting Directive (Directive 2014/95/EU)). Indications are that green finance initiatives and policies will continue to filter through the financial system and begin to have a larger impact on the industry at large. This is likely to be particularly true at the EU level as demonstrated by the wide ranging interim findings of the HLEG (see our table summarising those findings in Part II of this article). Clearly, there is much to occur before interim findings and policy suggestions become concrete but the direction of travel is notable.

Conclusion

It is clear that the finance industry will play a key role in achieving the aims of the Paris Agreement and the transition to a lower carbon world. The macro and micro drivers behind green finance initiatives are also clear. There is significant political will, a range of willing green finance participants and advocates and, behind it all, the spectre of the negative effects of human-induced climate change. We expect green bonds to remain front and centre and an increasing focus on the nature, availability and reliability of environmental data. Less clear is precisely how future initiatives and regulatory frameworks will manifest themselves. Current indications are that they will be ambitious, far reaching and may require significant adjustment across a range of finance-related activities.

Significant dates for 2017 and beyond

- UN and World Bank to launch "Roadmap for Sustainable Finance" in October 2017
- UNFCCC climate conference in Bonn (COP23), 6-17 November
- EU High Level Expert Group expects to publish its findings in December 2017
- Beginning in 2018, certain large public interest EU companies will begin to report environmental data (for year-end 2017) under the EU Non-Financial Reporting Directive (Directive 2014/95/EU)

Part II: Key Initiatives – an overview

European Commission High-Level Expert Group on Sustainable Finance (HLEG)	
Who?	EU High-Level Expert Group on Sustainable Finance established by the European Commission in December 2016, with experts from the finance, business, civil society and academic communities. The European Commission acts as Secretariat and supports HLEG with its own experts
What?	HLEG's objective is to develop an overarching sustainability strategy for the EU in order to 'hardwire' sustainability into the EU's regulatory and financial policy framework and to encourage more capital flows towards sustainable investment and lending
Recommendations	HLEG's July 2017 Interim Report included the following early recommendations: • A classification system for sustainable assets: that the Commission works on a shared EU classification of sustainable assets, focused initially on climate change finance • A European standard and label for green bonds and other sustainable assets, and for sustainable funds: that the Commission introduce European standards for green bonds based on the EU taxonomy (as above) and the GBP. Plus development of a sustainable finance label for funds and the promotion of green securitisations, layered funds and covered bonds – encouraged, where appropriate, by incentives • Fiduciary duty that encompasses sustainability: that the Commission (i) clarifies in upcoming regulation and regulatory reviews that fiduciary duties should explicitly encompass ESG considerations, and (ii) promotes such a concept of fiduciary duty internationally, including at the OECD level • Disclosures for sustainability: that the Commission supports further work on developing frameworks to assist firms and financial institutions with ESG reporting and that firms and financial institutions improve sustainability disclosures, including by way of climate scenario analysis • A sustainability test in financial legislation: that the Commission includes ESG impacts in its proposed legislation impact assessments and that new policy and legislative proposals contribute to sustainable investment goals • Create 'Sustainable Infrastructure Europe': that the EU creates an organisation dedicated to advising municipalities and local authorities on infrastructure projects, with a particular focus on sustainable projects needed to achieve Europe's climate objectives • Position the European supervisory agencies on sustainability: that the Commission ensures that ESG sustainability issues are embedded in the European Supervisory Authorities' objectives and that they facilitate coordination on these issues across competent authorities • Accounting standards for energy efficiency: that the Commission supports Eurostat in revising its interpretation of public sector accounting standards on energy efficiency

What next?	HLEG will engage and consult with stakeholders on its initial recommendations and the policy areas it identified for further discussion (set out below). It will publish its final report with further recommendations in December 2017 Policy areas for further discussion: • Improve long-term policy signals to the private sector • Develop corporate governance principles that encourage long-term thinking and incorporate sustainability and ESG factors • Foster ESG integration into credit ratings so that it becomes a 'built-in feature' and not an 'add-on' • Explore if the frequency of financial reporting impacts the focus of listed firms on short-term profits over long term investments • Review how sustainability factors can be factored into accounting standards • Further consider the impact of market benchmarks and indices on sustainable investment • Investigate what sustainable regulatory changes could be applied to banks and insurance companies, e.g., via Pillar II, Pillar III and Solvency II • Encourage European financial centres in their green finance initiatives • Assist with increasing the pipeline of sustainable projects, e.g., via the National Energy and Climate Plans and EU state aid rules • Increase the involvement of society in sustainable finance issues • Promote investment in social enterprises

Task Force on Climate-Related Financial Disclosures	
Who?	Task Force commissioned by the Financial Stability Board and including representation from a variety of organisations in the financial, services, manufacturing and energy sectors in G20 countries
What?	Voluntary, industry-led recommendations aimed at companies (both financial and non-financial) with public debt or equity to include forward-looking climate impacts in their financial filings. First published in June 2017. The primary aim is to ensure that investors, lenders and insurance underwriters have sufficient information about how climate change could affect their actual and proposed investments
Recommendations	There are four elements to the disclosures: • Governance: The role of management in assessing climate change risks and opportunities, and oversight by the board • Strategy: Where material, a description of the impacts of actual and potential risks/opportunities from climate change upon the business's strategy and financial planning over different time horizons; and the resilience of the organisation's strategy based on different climate scenarios • Risk Management: Description of the organisation's process for identifying and managing climate-related risks, and how these relate to the organisation's overall risk management framework • Metrics and Targets: Where material, disclosure of the organisation's greenhouse gas emissions, and related risks; and a description of the metrics used to identify risks and opportunities
What next	The Task Force reports that more than 100 organisations with a total capitalisation of over US$3.3 trillion, and financial institutions with responsibility for assets of over US$24 trillion, have already declared support for the recommendations. Its mandate has been extended into 2018 to support capacity building and implementation. The key question now is the extent to which the recommendations will develop into an industry standard for climate disclosure

<table>
<tr><th colspan="2">G20 – Green Finance Study Group (GFSG)</th></tr>
<tr><td>Who?</td><td>GFSG was launched under China's presidency of the G20 in 2016, and is co-chaired by China and the United Kingdom. Argentina has signalled in intention as incoming G20 President to continue the work of China and Germany. The UN Environment Programme acts as Secretariat</td></tr>
<tr><td>What?</td><td>The GFSG aims to "identify institutional and market barriers to green finance, and based on country experiences, develop options on how to enhance the ability of the financial system to mobilise private capital for green investment"</td></tr>
<tr><td>Recommendations</td><td>In 2016, the GSFG outlined seven broad, voluntary options for adoption by G20 countries:
• Provide strategic policy signals and frameworks
• Promote voluntary principles for green finance
• Expand learning networks for building capacity
• Support the development of local green bond markets
• Promote international collaboration to facilitate cross-border investment in green bonds
• Encourage and facilitate knowledge sharing on environmental and financial risk
• Improve the measurement of green finance activities and their impacts
During 2017, the GFSG has focused on two themes: first, the application of environmental risk analysis (ERA) in the financial industry; and second, the use of publicly available environmental data (PAED) for financial risk analysis and informing decision-making. The GFSG has outlined various options for G20 members to facilitate effective ERA and improving the accessibility and usefulness of PAED:
ERA
• Consistency of policy signals: improve transparency of policy measures to align the financial system with environmental sustainability
• Raise awareness: cooperate with country and sector level industrial initiatives in developing and/or adopting ERA methodologies
• Quality, availability and use: consider voluntary options to improve the quality, availability and usefulness of environmental data
• Public institutions: encourage public institutions to conduct research and assessment of environmental risks and their implications for the financial sector
• Clarifying financial institutions' responsibilities: review best practices in this area and clarify the role of financial institutions in considering environmental factors
• Enhance capacity building on financial sector ERA: develop initiatives to encourage resource and knowledge sharing.
PAED
• Building partnerships to promote the sharing of PAED: partner with selected research institutions to promote the sharing of publicly available methodologies
• Supporting the private sector: support private sector efforts to improve the quality and user-friendliness of PAED.
• UN Environment-OECD Catalogue of PAED: support the development of a catalogue of locations and web links to PAED to reduce search costs for financial institutions wishing to conduct environmental analysis
• Domestic sharing: encourage domestic environmental agencies, financial regulators, third-party data providers or NGOs to develop systems making PAED more easily accessible and relevant to financial institutions in the local context</td></tr>
<tr><td>What next?</td><td>GFSG will continue to monitor developments in green finance against the options it outlined in 2016. The work of GSFG continues under Germany's 2017 presidency of the G20</td></tr>
</table>

Green Bond Principles (GBP)	
Who?	Issuers, investors and underwriters that have participated in a green bond (or social or sustainable bond) issue. As of 7 July 2017, there are approximately 250 members and observers, such as second opinion providers, law firms and audit firms. ICMA acts as the GBP secretariat
What?	A market practitioner-developed set of non-prescriptive principles designed to promote the growth of the market without imposing unduly high barriers to entry. Intended to provide integrity to the market by setting out guidelines on transparency, disclosure and reporting
Recommendations	Voluntary, industry-wide principles. First published in January 2014, and most recently in June 2017. There are four components of the GBP: • Use of Proceeds: proceeds must be used for a green project (the GBP sets out broad categories of eligible projects that address key environmental concerns, such as climate change and resource depletion) • Process for Project Evaluation and Selection: the issuer must communicate its environmental objectives and describe the process whereby projects fit within the eligible green project categories. External review is recommended. • Management of Proceeds: formal internal process to track application of net proceeds to green projects. • Reporting: annual reporting on the use of proceeds. Compliance with voluntary impact reporting guidelines, if possible
What next?	The four established working groups (Index and Database, Impact Reporting, Green Projects Eligibility and Social Bonds) will continue their work. Aim is to translate the GBP into other languages. Annual consultation on the GBP by members and observers

Climate Bonds Initiative (CBI)	
Who?	CBI was launched in 2009 by the Network for Sustainable Markets, and is supported by the Carbon Disclosure Project. The CBI Advisory Panel includes members from the finance, business, environmental and academic sectors
What?	CBI's objective is to promote the widespread use of green bonds to finance a transition to a low carbon economy
Recommendations	CBI's primary focus has been to develop the Climate Bonds Standard and Certification Scheme under which certain bonds may be certified as "green", provided that specific eligibility criteria are met In order to receive the "Climate Bond Certified" label, a prospective issuer of a green bond must appoint an independent verifier to provide a verification statement that the bond meets the Climate Bond Standard. Information about the bond is also reviewed by the Climate Bond Standards Board. The intention is that the development of such a standard will lead to improved confidence, quality and transparency in the market for green bonds which will, in turn, support its growth CBI also writes policy proposals and tracks global issuances of certified climate bonds
What next?	The question going forward will be the extent to which the certification scheme will be adopted globally


WHAT DOES IT MEAN TO BE GREEN?

WHAT DOES IT MEAN TO BE GREEN?

What exactly constitutes 'green' has been a long standing debate in the green bond market. The GBP devoted a specific working group to the topic and there have been well publicised concerns about 'greenwashing' (the practice of using the green label to raise funds which are then not applied to low carbon or other appropriate projects).

There are clearly advantages in having a specific definition against which all products could be clearly assessed. It would remove the risk of greenwashing, facilitate certain policy incentives (see The incentive and policy toolbox on page 19) and expand the investor base. However, there are concerns that creating a universal definition within a realistic time frame is unachievable, and that a prescriptive approach may deter issuers and impede the growth of the market.

The Chinese and Indian regulators have taken a prescriptive approach to their domestic regimes (see Global Perspectives: China and India on pages 65 and 71). Similarly, the CBS have detailed sector-specific criteria and requirements for the use and management of proceeds, and reporting that an issuer must satisfy in order to receive certification. Conversely, the GBP identifies only broad categories of what constitutes a green project, and compliance is voluntary.

A common language and harmonised tools

There is increasing recognition, even from those who favour the pragmatic 'market-led' GBP view, that to be effective a non-prescriptive approach needs to be allied with progress on developing consistent taxonomies and harmonisation of the metrics and methodology for impact reporting. There are a number of projects already looking at these – including the HLEG, the GBP and the CBI. Once the guidance or standards resulting from these projects are available and adopted by market practice, it will enable issuers and investors to more easily describe, measure, record and compare green bond projects and their environmental impact. The TCFD recommendations are also an important step in this push towards increased consistency and standardisation.

The HLEG states in its Interim Report that "there remains a lack of common definitions and metrics. The levels and quality of disclosure are insufficient to enable informed decision-making and oversight". The Interim Report recommends an EU classification of financial products that captures all acceptable definitions of what is 'sustainable', developing an official European standard for green bonds based on, and any few EU taxonomy that is formulated.

The GBP Working Group on Green Projects Eligibility recognises that "the capital markets have an appetite for improved guidance on sources of environmental taxonomies (definitions) and technologies", and identifies its role in "coordinating and collating existing green taxonomies". Additionally, the GBP is focusing on developing a

"Lack of standardisation can lead to complexities in research and a need for extra due diligence that may not always be fulfilled"

a commonly cited investor concern in the OECD Input Report harmonised framework for impact reporting, and encourages further initiatives to establish additional references for reporting. (See The Green Bond Principles: the 2017 update on page 29 for more on the GBP Working Groups).

The CBS label has developed a taxonomy that provides green definitions for the following sectors – energy, transport, water, low carbon buildings, information technology and communications, waste and pollution control, nature-based assets and industries and energy intensive commercial activities. The CBS taxonomy acts as an initial screening process for projects eligible for certification, or for identifying those to be excluded.

Of course, certain projects and outcomes lend themselves more easily to standardised impact reporting and have established frameworks and recognised methodologies in place (voluntary frameworks exist for energy efficiency, renewable energy, water and wastewater projects). But others do not. Even where established frameworks exist, not all green bond issuers will have sufficient resources to prepare the detailed impact assessments that investors require. The GBP recognises that it might not be feasible for all issuers to provide quantitative performance and monitor achieved impacts, and also that the GBP impact reporting templates can be adapted to an issuer's own particular circumstances.

Standardised language and definitions will also enhance the service offered by external review providers and rating agencies. These entities are well placed to help both issuers and investors, but more commonality is required as there are currently over 40 external reviewers and rating agencies working in the green bond field, each using different methodologies to assess green and other ESG factors. The OECD Input Report noted that second party reviews "can lack standardisation across different providers and even within the same providers". The paper raised similar concerns in relation to green bond indices and green segments on stock exchanges, which have different measures and categories that need to be complied with for a bond to be entered onto the relevant index or stock exchange segment. With respect to green bond indices, it stated that a "potential lack of agreement of a qualifying definition for what is green" is a barrier for the development of green bond indices. And, in relation to stock exchanges, that they can "only play a role in defining what is green... when more standardised bonds are available in the market".

What about brown issuers?

Can carbon-heavy businesses issue a green bond? Views in the market differ. For some, any engagement with sustainability is good and what matters is the issuer's transition towards a low carbon strategy. For others, it is inherently contradictory. An obvious example is 'clean coal', where technology changes will reduce carbon emissions, but which for many, can never be green despite these changes. Perhaps less obvious are large hydro projects, which produce clean energy but can have significant social and environmental impacts. The CBS taxonomy excludes nuclear power and fossil fuels, including fossil fuel efficiency projects, and currently has hydropower as an area requiring more work to build a consensus.

Can carbon-heavy businesses issue a green bond? Views in the market differ. For some, any engagement with sustainability is good and what matters is the issuer's transition towards a low carbon strategy. For others it is inherently contradictory

The GBP take a different view, and the 2017 GBP states that "the GBP aim to support issuers in transitioning their business model towards greater environmental sustainability through specific projects". The focus on the use of proceeds allows for an issuer that does not have a low carbon or sustainable business model to issue a green bond, provided that the proceeds of the bond are applied towards a green project that satisfies the GBP framework.

The ability of even a "brown" issuer (i.e. one involved in more environmentally controversial sectors) to access the green bond market was discussed positively on a number of occasions by panel members at the 2017 GBP Annual Conference, and made it clear that, in order to issue a successful green bond, a so-called brown issuer would need to provide a broad frame of reference for the green project funded by the bond as part of its transition towards a low carbon future. Investors are also likely to require more detailed confirmations about the project, and additional assurances on monitoring and impact reporting, from such issuers.

The GBP position is not universally accepted, and this type of issuer may not be attractive to certain investors. Many investors will find the greenwashing risk too great and will only invest in a bond satisfying an objective set of criteria which

GBP questions and answers

- Are all hydropower projects eligible for a green bond, regardless of size?

  Answer (in brief): the GBP indicates that renewable energy projects, such as hydropower, are potentially eligible to be financed by a green bond, regardless of their size.

- Would a project be eligible for inclusion in a green bond if it were to improve energy efficiency on projects associated with fossil fuel production or industrial processes linked to fossil fuel production?

  Answer (in brief): they are potentially eligible, as long as the bond funding of such projects is aligned with the four core components of the GBP.

- Can a green bond be issued by an issuer that has low ESG ratings, exposure to controversial issues or controversial sectors/technologies (such as fossil fuels or nuclear energy)?

  Answer (in brief): the focus of green bonds is on eligible projects rather than on the issuer itself.

In each case, the answers reiterate that the issuer will need to give investors clear details of its "overarching objectives, strategy, policy and/or processes relating to environmental sustainability" (see GBP 2017 Process and Project Evaluation and Selection).

confirms that it is sufficiently environmentally compliant, such as the CBS certification. In addition, certain investors have "dark green" investment criteria that must be satisfied. The Repsol green bond, in May 2017, outlined the difficulties faced by brown issuers.

Repsol – the great debate

Green bonds are defined by the projects that they finance, rather than the green credentials of the issuer. This means that there is nothing precluding "brown" issuers, such as oil and gas companies, issuing green use of proceeds bonds. Many market participants have emphasised that using the "brown" balance sheets of fossil fuel companies to fund green assets is needed for a faster transition to a green economy. This premise was put to the test, in May 2017, by Madrid-based Repsol SA, which issued a EUR 500m green bond maturing in 2022. This was the first green bond to be issued by an oil company, and attracted widespread attention, reigniting the debate on what constitutes a truly "green" bond.

The proceeds for the bond are being used to finance energy efficiency improvements in Repsol's chemical and refinery facilities. Repsol's bond did meet the GBP and its green bond framework received an external review from Vigeo.

The issue raised by some market participants was that, while Repsol's bond does not directly invest in increasing fossil fuel output, refineries are still processing fossil fuels and any investment in making refineries more efficient will likely extend plant operating lifetimes and therefore indirectly increase CO^2 emissions over time. In addition, some market participants felt that the energy efficiency improvements to be financed by Repsol did not go far enough: they were only incremental improvements, were not substantial enough to help deliver significant reductions in CO^2 emissions, and did not signal a fundamental shift or transition in the company's business model.

As a result of these concerns, the CBI did not include Repsol's bond within its green bond classification system, and so it was not eligible for inclusion in the main green bond indices (e.g. the S&P Green Bond Select Index).

The CBI says: "Green bonds have the potential to act as a catalyst in driving investment in the rapid shift needed. Bonds like Repsol's will not make this happen. At best, they are a beginning… From a climate perspective, Repsol's business strategy should aim for greater change – for example by transitioning to bio-feedstock. This needs to be an urgent focus for industry (subject to bio-feedstock certification) and would allow quick re-use of existing refineries… In a nutshell, the Repsol green bond encapsulates the international challenge. Incremental change is out of time."

What's next?

It is unlikely that a universally accepted set of definitive green criteria will be developed, but there are moves in the market to develop more consistency in taxonomies, methodologies and criteria. Improvement in these areas will reduce the reputational risk of greenwashing for issuers and investors alike. Issuers will have more certainty that their bond will not be criticised by the market for being insufficiently green, making the issuance of a green bond (with its associated costs such as external reviews) more appealing. Investors will be better able to make meaningful comparisons across different green bonds, with the assistance of more consistent external reviews. Such clearer comparison and evaluation is increasingly important for dark green investors and for investors as a whole, if more controversial brown issuers continue to enter the market.

The case for brown issuers, as set out in the GBP, recognises that the market needs to grow exponentially if targets are to be achieved. This cannot be achieved by prescribing too tightly the type of issuers that can enter the market. It also reflects the hope that by encouraging brown issuers to engage with sustainability issues and adopt the necessary business changes to issue a successful green bond, it will engender broader changes for the issuer in the rest of its business. However, as the controversies of the Repsol bond illustrate, the lack of clarity as to the definition of 'green' is likely to continue to act as a barrier to brown issuers coming to the market, so improved consistency in definitions and impact reporting is of even more significance.

Clearly, the converse view about brown issuers will continue, but, provided there is full disclosure, reporting and transparency of the green project, investors can make their own decisions as to the suitability of the bond for their own purposes. There seems to be no reason why the current shades of green market, which permits participation by dark green investors and brown issuers alike, cannot continue.

THE INCENTIVE AND POLICY TOOLBOX

THE INCENTIVE AND POLICY TOOLBOX

Whether to adopt regulatory policy to incentivise sustainable finance is not a new question. But the current focus is whether the green financing market can grow big enough and fast enough without more incentives being put into effect. Possible regulatory responses include adopting tax based incentives, making changes to risk weighting and encouraging credit enhancement. Other "softer" types of policy signals can be given, for example encouraging public sector investment and public issuance, improving project identification, facilitating best practice and knowledge sharing.

"Strategic policy signals and frameworks can help reduce perceived policy uncertainties for green investment and thereby help accelerate the development of green finance"
UN Environment Green Finance Progress Report

Definitions matter

An overarching consideration is that regulators will find it easier to develop policies if taxonomies become more streamlined and consistent. This is the view expressed in a number of expert reports when considering policy options. In respect of local green bond markets, the OECD Input Paper makes the point that "to grant favourable policy support (such as interest subsidies and guarantees)... definitions need to be sufficiently specific so that they can form the basis for decision making". The G20 Synthesis Report similarly states "greater clarity on green definitions, measurement of green finance flows and associated impacts is important information for guiding green investment flows and for policy makers and regulators to achieve their policy objectives". See What does it mean to be green? on page 13 for a more detailed discussion on how to define 'green'.

Demand or supply?

Incentives can be structured to address either supply or demand side bottlenecks. In emerging markets there is scope for action to be taken to stimulate both supply and demand, but for the more developed sections of the green bond market there is an emerging consensus that attention should be increasingly focussed on the supply side. Green bond issuances are typically heavily oversubscribed in more mature green bond markets.

Different incentives will be appropriate for different types of green bonds and different types of markets. Some are more contentious, such as preferential risk weightings, and some will clearly be more effective where demand, rather than supply, is the primary concern. However, all can be part of the potential policy toolkit.

Outlined below are some of the main incentives and policy suggestions currently on the regulatory agenda.

Tax based incentives

Different types of tax incentives for financing already exist, for example US municipal bonds. Depending on how they are structured, they can encourage both supply and demand. However, governments can only provide tax breaks if it is clear which bonds will be eligible. This depends on improved and specific taxonomies being in place. For this reason, current tax incentives are specific and targeted, for example the US federal government Clean Renewable Energy Bonds programme. Tax incentives can only be granted on an individual country or tax authority basis, so there is a limit to their scalability and consistency across the market.

Regulatory capital treatment

This involves regulators imposing lower regulatory capital requirements on green or sustainable financial products or, conversely, imposing higher requirements on high carbon investments. The effect of altering the risk weightings is to make green bonds more attractive to bank and institutional investors, and 'brown' investments less attractive. However, in a risk-based system, altering capital requirements without a demonstrable difference in actual risk is controversial. The HLEG Interim Report asserts that to imply that there are lower risks for green assets that justify lower risk weightings confuses policy objectives. However, there is some evidence that certain green asset classes do involve lower risks, for example reports indicate that green mortgages appear to have lower rates of default. If further evidence can be provided to support these claims, changes to risk weightings could be more appealing to regulators in those asset classes. In the HLEG's view there is a stronger case for imposing higher risk weightings to brown assets because there is a legitimate risk of these types of assets becoming obsolete or "stranded" during the low carbon economy transition. This incentive is predominantly a demand side stimulus.

Credit enhancement

Credit enhancement usually takes the form of guarantees given by governments, development banks and other public financing bodies or via such entities purchasing junior tranches of the debt. It can also take the form of policy insurance that protects investors if the policy on which the investment was based is reversed. Credit enhancement makes financing more attractive to private investors by improving its credit rating. As a demand side measure, it is more likely to be of use in less developed green bond markets or in connection with innovative financial products or project bonds, which cannot achieve a sufficiently 'investable' rating without such external support. By way of example, OPIC – a US Government agency that provides guarantees to encourage US private investment in environmentally and socially sustainable projects in the emerging markets – has issued a number of green guarantees to support projects in Latin America.

Aggregation

Many green projects are not sufficiently large to access funding via the capital markets. This is particularly the case for renewable energy and energy efficiency projects. Aggregation allows for projects to be pooled and sufficiently scaled up to access large scale institutional investors. Policy actions to encourage aggregation include developing

Tax based incentives

- Tax credit bonds – investors receive tax credits instead of interest and issuers do not have to pay interest on their bonds
- Direct subsidy bonds – issuers receive cash rebates from government to subsidise their interest payments
- Tax-exempt bonds – investors do not pay income tax on the bonds they hold.

standardised contracts (which make the assets more homogenous and easier to pool), providing green warehouse facilities (also dependent on standardised contracts) and incorporating low carbon assets in the list of eligible assets under covered bond legislation.

Public investment in green bonds

Public entities that act as cornerstone investors in a green bond will increase demand in that issuance. In doing so, they also stimulate private investor demand by raising awareness in the asset class and removing apprehension over first mover risks. Regulators can encourage public investment by amending the mandates of the public institutions to favour such investments. This type of policy measure is more suited to emerging green bond markets where there is a lack of demand, but public investment can still be utilised to support innovatively structured deals in the more mature markets. Sovereign wealth funds, public pension funds and development banks are best placed to serve this role, for example the recently launched Amundi and IFC Green Cornerstone Bond Fund.

Amundi and IFC – Green Cornerstone Bond Fund

In April 2017 IFC and Amundi, a European asset manager, established a USD 2 billion fund to invest in green bonds, the Green Cornerstone Bond Fund (the "**Fund**"). The purpose of the Fund is to encourage private investment in climate related projects in developing countries by buying green bonds issued by financial institutions in those countries. Initial investment is in vanilla bonds issued by sovereigns and financial institutions in the target countries, and these will be substituted by green bonds from financial institution issued as they become available. The Fund aims to be fully invested in green bonds after seven years.

The Fund will be financed with USD 325m from IFC, with the remainder raised by Amundi from private institutional investors, typically pension funds, sovereign wealth funds and insurers. The IFC contribution will provide first-loss protection, making investment more attractive. IFC will also provide training to financial institutions in the target countries on how to issue green bonds, and will share best practice on methodologies, impact measurement and reporting. Amundi will manage the Fund in accordance with the Responsible Investment Policy developed by Amundi and the IFC; this includes specific green bond investment guidelines.

The Fund aims to encourage both supply of green bonds in these developing markets, via the guidance and training given by the IFC, and demand, by facilitating private investment in the Fund. The Fund will allow investors from developed countries to participate in these developing markets which they may otherwise not have been able to access. The intention is to establish a robust green bond market with strong adherence to best market practice.

"The Green Cornerstone Bond Fund promises to be a game changer with a unique product that combines attractiveness for investors and impact in emerging markets. Fighting against climate change requires financial innovation in order to help properly channel capital flows towards the low carbon economy"

Lord Stern, IG Patel Professor of Economics and Government at the London School of Economics

Demonstration bonds

'Demonstration' bonds are those by high profile issuers, such as sovereigns and other public entities, such as the French OAT (see The year of the sovereign green bond on page 53). These types of bonds increase supply of green bonds and, depending on the size, significantly increase liquidity in the market. Similar to public investment in green bonds, they generate a number of positive secondary consequences. They improve visibility of the asset class, encourage new investors to enter the market and demonstrate the viability of these types of bonds to other potential issuers. Such deals can also help publicise and promote best practice, such as adoption of green bond taxonomies, proceeds management and impact reporting standards, as demonstrated by EIB's green bond issuance.

EIB: setting the standard

In 2007, EIB issued the world's first green bond, branded a "Climate Awareness Bond" ("**CAB**"). Since then, it has issued over EUR 16 billion green bonds across a variety of currencies. It seeks to improve the financial features of green bonds by supplying the market with benchmark issuances, which increase liquidity and tradeability in the market. In 2016 the EIB issued EUR 3.8 billion in green bonds across six different currencies, including a USD 1.5 billion benchmark 10 year issuance.

The issuance proceeds are earmarked to match disbursements to EIB lending projects that contribute to climate action in the fields of renewable and energy efficiency. Funds raised through green issuances are ring-fenced in a separate "CAB-Portfolio". EIB reports regularly on the balance of this account in its annual financial report and dedicated CAB Newsletters.

The EIB has also been at the forefront of developing in-depth reporting techniques designed to provide investors with transparency on the projects the green bond funds are allocated to and the expected environmental impact of the green bond projects. In 2016 the EIB published a statement ("**CAB Statement**") which describes in detail EIB's green bond activities in 2015 (management responsibilities, operational criteria, allocation/impact reports).

The CAB Statement was accompanied by an independent reasonable assurance report by KPMG Luxembourg. The report gave a higher degree of assurance than previously provided by auditors in this field. The audit report provides investors with comfort on the reliability and accuracy of the information provided by EIB in the CAB and confirms that the EIB's internal green bond criteria are in line with the GBP. The report also annexed an External Review Form that summarised the key features of EIB's green bond framework. This review form follows the GBP recommendations, the objective of which is to establish a reporting tool which promotes clarification of review standards and standardises comparison of key features across the different green bonds issued.

Policy environment, pipeline and project identification

Regulators need to provide a positive regulatory environment for the development of green financing. They must clearly signal their commitment to environmentally sustainable policy objectives to provide predictability to investors and enable a stable pipeline of green projects to emerge. Governments and regulators are highly aware of this imperative, and there are a number of initiatives in process, many identified by the G20 Synthesis Report. The European Commission suggests a possible EU policy action to "collect, disseminate and to maintain a list of planned green investment to support the development of a green project pipeline". To support a strong pipeline, the HLEG considers that National Energy and Climate Plans (developed at EU and member state level) could include capital raising plans to provide investors with information on intended investments. In the UK, the Government has established a Green Finance Taskforce to work with industry to help deliver investments that will address the UK's carbon reduction targets.

Collaboration, knowledge sharing and best practice

Facilitating improved collaboration between those entities that have knowledge of green financing and those that are new to the market will encourage growth and best practice. The G20 Synthesis Report identifies the expansion of learning networks to improve information flows and analytical. The HLEG recommends the creation of 'Sustainable Infrastructure Europe', which it envisages as a dedicated advisory and matchmaking facility between public authorities and private investors to fund sustainable infrastructure projects.

INSTITUTIONALISING CLIMATE CHANGE DISCLOSURE

THE CLIMATE TASK FORCE RECOMMENDATIONS

INSTITUTIONALISING CLIMATE CHANGE DISCLOSURE: THE CLIMATE TASK FORCE RECOMMENDATIONS

The publication of the Report on the Recommendations of the Task Force on Climate-related Financial Disclosures in June 2017 (the "**Recommendations**") is a potential watershed moment in institutionalising climate disclosure within business practice, including in the finance sector.

The Recommendations make the case that disclosure of climate change risks, and also the recognition of the opportunities climate change potentially offers to business, will help to engage business in the climate effort. To date, disclosure of climate change has generally been voluntary and viewed as the province of corporate and social responsibility, via initiatives such as the Carbon Disclosure Project and Carbon Disclosure Standards Board Framework. However, many regulatory systems (particularly in G20 countries) do provide for some level of carbon emissions or other climate-related disclosure as part of corporate reporting, or listing requirements. We have also begun to see instances where companies are being investigated or challenged in the courts for failure to disclose information about climate change risks. Furthermore, investors and shareholders increasingly want to understand how businesses are building climate change analysis and planning into their business strategy, not only as a demonstration of good citizenship, but to future-proof the value of their investments.

Task Force on Climate-related Financial Disclosures Recommendations

The TCFD was commissioned by the Financial Stability Board, led by Bank of England Governor Mark Carney, to look into how business can improve its communication of climate change information. It was led by Michael Bloomberg, and included representation from a variety of organisations from the financial, services, manufacturing and energy sectors in G20 countries, and it consulted widely across industry. The key recommendation of the TCFD was for companies to include climate-related information within their financial filings.

Crucially for the finance industry, this is the first time that a mainstream climate disclosure project has been aimed specifically at the finance sector. The principal objective of the Recommendations is to ensure that investors, lenders and insurance underwriters have sufficient information about how climate change could affect their actual and proposed investments. However, the TCFD suggests that all companies with public equity or debt should adopt them, both in financial and non-financial sectors.

Disclosure should cover four key areas, and these are described briefly below:

- Governance: The role of management in assessing climate change risks and opportunities, and oversight by the board;
- Strategy: Where material, a description of impacts of actual and potential risks/ opportunities from climate change upon the business's strategy and financial planning over different time horizons; and the resilience of the organisation's strategy based on different climate scenarios;

Potential impacts of climate change include:

- Tightening operational restrictions (stricter regulations on emissions and energy use)
- Disappearance or disruption of existing markets (e.g. those relating to fossil fuels)
- Interruptions to supply chains (e.g. through changes to availability of raw materials)
- Natural disasters (e.g. impact on production and other operations)
- Opportunities from new markets (e.g. in clean energy and battery storage)

- Risk Management: Description of the organisation's process for identifying and managing climate-related risks and how these relate to the organisation's overall risk management framework; and
- Metrics and Targets: Where material, disclosure of the organisation's greenhouse gas emissions (with reference to direct and indirect emissions as described by the Greenhouse Gas Protocol standards), and related risks; and a description of the metrics used to identify risks and opportunities.

Significantly, the TCFD recommends that companies include climate disclosure in their mainstream financial filings (rather than in separate reports) where possible. As mentioned above, a number of G20 countries already have regulatory requirements to disclose climate-related impacts, often through environmental disclosure requirements, and it is intended that these disclosures would be expanded to include the additional reporting.

There is also an expectation that disclosures will be subject to review by an organisation's chief financial officer and audit committee. This should help raise the importance of projected climate-related impacts to board room level.

The emphasis of reporting is on forward-looking analysis, an area in which the TCFD recognises that disclosures have been weak in the past.

Organisations are encouraged to report over different time periods (which the organisation itself should define). The focus of the Recommendations on scenario-planning will encourage organisations to consider the risks based on 2 or 3 different global temperature outcomes over those time periods, including the "2°C increase" and "less than 2°C increase" scenarios envisaged in the Paris Agreement.

Specific guidance for the financial sector

Usefully, the Recommendations include specific guidance for individual finance sectors, building on a platform of common cross-sector guidance. The finance sector guidance recognises that banks, insurance companies, asset owners and asset managers all see climate change risks and opportunities from different perspectives.

In addition to assessing the impacts of their own operations, key sector-specific considerations include:

- ***Banks***: They should consider the impacts of their lending activities (e.g. litigation risk), as well as exposures from their credit and equity holdings (e.g. to fossil fuel producers).
- ***Insurance companies***: They should specifically consider their underwriting and investment activities, given the likelihood that the proportion of natural catastrophe losses due to weather is likely to increase. Analysis of the different climate scenarios will be particularly important here.
- ***Asset owners***: They typically bear the greatest risk in relation to physical risks for climate change and the transition to a low carbon economy, but can also benefit greatly from corresponding opportunities. They should therefore consider, in particular, how climate change risks feed in to their investment strategies, for their own sake and that of their beneficiaries and other stakeholders.
- ***Asset or investment managers***: They help to provide information and analysis required for the needs of asset owners as described above; as such, they should

Key Elements of the Recommendations

- Industry-led recommendations: all companies with public debt or equity include climate impacts in financial filings
- Disclosure should cover governance, strategy, risk management, metrics and targets
- Emphasis on forward-looking analysis using different climate change scenarios
- Already 100 companies with market capital of over US$3.3t and responsibility for assets over US$24t have declared support

report on the portfolios of products they offer and their investment strategies. They will also need to provide information relevant to their own shareholders to understand the risks to the managers' business from climate change.

Prospects for Mainstream Adoption of the Recommendations

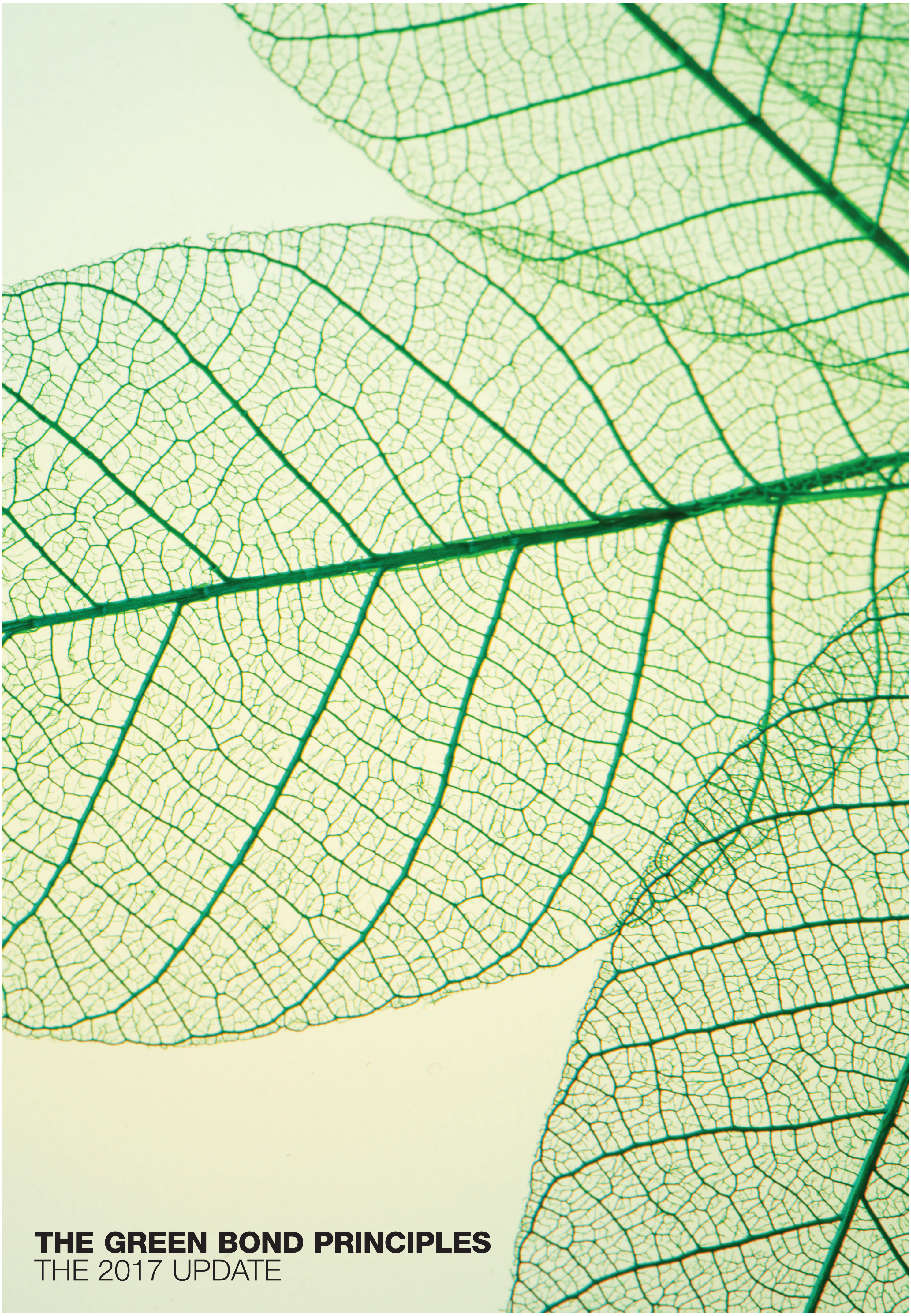
The TCFD hopes that the Recommendations will create an accepted standard across all sectors. This seems likely to depend on a number of factors, including for example:

- ***Reporting requirements and guidance need to be practical***: The Recommendations contain practical guidance (with examples) on how to assess financial impacts from climate change. The additional sector-specific guidance will be particularly useful for the finance sector.
- ***Reporting should not place a significant additional burden on organisations***:
  - Some responses to initial consultation on the Recommendations were critical of the additional burden of multiple disclosure frameworks. Indeed, many organisations will already be carrying out much of the data gathering and analysis for external reporting under other frameworks. For example, there is overlap with other carbon and environmental reporting frameworks (e.g. Carbon Disclosure Project and Climate Disclosure Standards Board); the Recommendations seek to align reporting under the Recommendations with that undertaken under other frameworks and encourage organisations to use this existing content for their financial disclosures.
  - The new focus on *scenario planning* may make some of the analysis more complex and therefore deter some organisations, although the TCFD has issued specific guidance on how to perform this additional analysis.
- ***In order to gain traction, reporting will need to be widely adopted across all major sectors***: So far, the TCFD reports that 100+ companies with market capitalisation of over US$3.3 trillion, and financial institutions with responsibility for assets of over US$24 trillion, have already declared support for the Recommendations.

What next?

The prospects for widespread adoption of the Recommendations, and for climate change disclosure to become a standard element of business practice, seem positive. The UK Government, for example, has recently endorsed the Recommendations in its new Clean Growth Strategy. It is also considering whether any elements of the Recommendations should be mandatory as part of proposals to reform the UK's current corporate energy and carbon reporting framework.

Our experience of advising companies on carbon reporting frameworks has shown that, while initial implementation can be a major task, once monitoring and reporting systems are up and running, the burden of gathering data, analysis and reporting can be significantly reduced. Looking beyond the additional reporting burdens, the benefits of a fuller understanding of the opportunities and risks from climate change for reporting organisations should not be underestimated. When they are making decisions in relation to investments, loans and insurance, financial institutions should also find the data and analysis from reporting organisations provides a more developed and coherent risk profile.



THE GREEN BOND PRINCIPLES

THE 2017 UPDATE

THE GREEN BOND PRINCIPLES: THE 2017 UPDATE

The GBP are a voluntary set of principles first published in 2014 (see Part II of Making Sense of the Initiatives on page 5 for a summary of the GBP). The GBP have been revised each subsequent year following consultation with its members and observers. The 2017 GBP were published in June at the GBP annual conference

Few changes needed

Only limited changes were made to the GBP between 2016 and 2017. This reflects the confidence of the key stakeholders, such as issuers, investors and underwriters, in the GBP standards and the current performance of the green market. The GBP have been widely adopted and several governments and regulators have looked to the GBP as reflecting best practice when developing their own guidelines.

The GBP, together with the CBS certification scheme, are "key enablers of the development of green bonds"

EU High-Level Expert Group On Sustainable Finance

2017 GBP amendments

The 2017 GBP made minor amendments to the four GBP cornerstone principles:

- Use of Proceeds: the green project categories list was expanded to include green buildings which meet regional, national or international standards. Other small changes were made to existing project categories.
- Process for project evaluation and selection: a renewed emphasis was given to clear communication of the issuer's environmental objectives and its bond's eligibility criteria, with explicit encouragement to position this information within the issuer's overarching environmental sustainability objectives and policy.
- Management of proceeds: this was amended to allow for the net proceeds to be tracked by the issuer other than through a sub-account. This suggests that the proceeds can be accounted for on a book basis, rather than requiring segregated accounting.
- Reporting: the list of voluntary impact reporting guidelines was expanded to include Sustainable Water and Wastewater Management Projects.

The GBP also published its Social Bond Principles and Sustainability Bond Guidelines at the 2017 AGM. The Social Bond Principles replicate the framework and technology of the GBP but with application to distinct social projects. The Sustainability Bond Guidelines are for use where the proceeds of the bond are to be applied to a project with both green and social benefits.

New Questions and Answers

Together with the revised principles, the GBP published a set of Questions and Answers ("**Q&A**"). These provide more detailed additional guidance on current market concerns and questions. New Q&A will be added to address topical difficulties as they arise, allowing for a consistent approach on such issues to be adopted in the green bond community. The Q&A include questions such as:

- How do the GBP align with international climate change related initiatives, such as the Paris Agreement, or the Sustainable Development Goals?

Answer (in brief): the GBP are voluntary and, although there is a broad correlation, there is no exact alignment.

- Are green bonds becoming a separate asset class?

  Answer (in brief): green bonds do not meet all the criteria generally considered necessary to classify as a separate asset class, although some investors disagree.

- Does an issuer need to demonstrate that the projects would not have been undertaken without green bond issuance?

  Answer: no. The purpose of the green bond market is to fund or re-finance projects that contribute to environmental sustainability irrespective of whether other means of financing were/are available.

More of the Q&A are discussed in other sections of this publication, for example questions on "brown issuers" and whether non-compliance with the GBP would lead to a bond default.

The Q&A add to the growing repository of information available on the ICMA website, such as the recommended templates and examples of use of proceeds methodologies. Translations of the GBP, Social Bond Principles and the Q&A into 19 different languages are also expected to be published shortly.

Green Sovereign Issues

One of the helpful changes in the 2017 GBP is the development of the Management of Proceeds principle. The revised principle references tracking funds other than through a sub-account which appears to allow for the receipt of proceeds into a general pooled account. This may make it easier for sovereigns to issue green bonds.

For example, when Poland issued its sovereign green bond in December 2016, it faced a challenge in issuing a bond with a specific use of proceeds. An act of parliament was needed to ring-fence the green cash account since all previous Polish sovereign issues were required to raise funds only for general budgetary purposes. The Management of Proceeds changes should alleviate similar problems faced by other sovereigns.

GBP Working Groups

Although the GBP themselves are accepted as working well, the GBP working groups continue to look at some of the more challenging areas facing the market. There were three working groups looking at Indices and Databases, Impact Reporting and Green Projects Eligibility during the 2016/2017 period.

- Index and Database Working Group – this focuses on identifying existing green bond databases indices and then summarising and comparing the methodology adopted, with a view to compiling a comparative database. In May 2017 the Working Group published its Summary of Green Bond Database Providers and, in June 2017, it published its Summary of Green Fixed Income Indices Providers. Work continues in summarising and comparing the databases and indices.
- Impact Reporting Working Group – this focuses on how to accurately convey information on the environmental benefits of assets funded by green bonds. The aim is to reduce uncertainty for issuers and ensure availability of information for investors. The Working Group also seeks to develop best practice for qualitative and quantitative disclosure on the impact of the green bond investment. In May 2017 it

- **GBP Working Group identified Databases:**
  - Bloomberg
  - Environmental Finance
  - Dealogic
  - CBI
- **GBP Working Group identified Indices:**
  - Bloomberg MSCI Barclays Green Bond Index
  - BAML Green Bond Index
  - S&P Green Bond Index
  - Solactive Green Bond Index
  - ChinaBond China Green Bond Index
  - ChinaBond China Green Bond Select Index

published its Suggested Impact Reporting Metrics for Sustainable Water and Wastewater Management Projects. This supplements the existing impact reporting templates for energy efficiency and renewable energy.

- Green Projects Eligibility Working Group – this group aims to assist in coordinating and collating the range of green taxonomies and certifications currently used in the market. The aim is to map the existing green labels and taxonomies, link these to the environmental categories in the GBP and develop dialogue with the label and taxonomy providers to promote the GBP.

For the 2017/2018 period there will be seven working groups: the three listed above, plus groups looking at new markets, external reviews, green bonds labels and lists and social bonds.

GREEN BONDS IN PRACTICE
LEGAL AND DOCUMENTATION CONSIDERATIONS

GREEN BONDS IN PRACTICE – LEGAL AND DOCUMENTATION CONSIDERATIONS

As the green bond market continues to mature, there is a heightened focus on legal and documentary issues. We look at two questions the market is currently addressing. First, what are the consequences if a green bond issuer does not comply with its promises about the green project, including the use of proceeds, set out in the bond documentation? Secondly, what are the implications if the green project funded by the green bond does not, in fact, provide environmental benefits?

Events of default and covenants

The terms of 'use of proceeds' green bonds, in contrast to project bonds, do not make non-compliance with either the specified application of proceeds to the identified green project or the issuer's specified green commitments (such as annual reporting), an event of default. Nor does the bond documentation include an express covenant from the issuer on these matters. To date, issuers have resisted including these provisions, because they do not get a pricing advantage for green bonds and are therefore reluctant to commit to more onerous contractual obligations. The situation is different in the nascent green loan market where we have seen green covenants being included in loan agreements. In this case, compliance with the green covenant rewards the borrower with a better margin (see The path to green loans on page 43).

Notwithstanding the lack of express contractual rights in the terms and conditions there are concerns around potential claims from investors, bearing in mind that a successful claim is likely to require the investor to show loss. This concern is being addressed in risk factors and disclaimers which we discuss below.

Greenwashing risk

What if the project funded by the bond is not green enough? This is commonly known as 'greenwashing' i.e. presenting a bond as 'green' even though the use of the bond proceeds would not lead to a suitable environmental benefit. Greenwashing is a significant potential reputational risk for green bond issuers and underwriters.
The concern is that an issuer, and more broadly the market as a whole, could lose credibility with environmentally conscious investors. However, where bonds are issued in accordance with market principles, such as the GBP, and not regulations with definitive rules on what constitutes green, it is difficult to fully eliminate the risk of a charge of greenwashing. This is exacerbated as different investors have divergent views on what is green, as do the various green bond indices and stock exchange segments. For example, the recent Repsol green bond, although it complied with the GBP and received a detailed second opinion, was not considered green enough to be included on the main green bond indices.

Full and transparent disclosure regarding the green project and use of proceeds in the bond documentation, plus the preparation of a detailed second opinion or other external review, will go some way to mitigating the greenwashing risk. Alternatively, although it has been granted to a relatively small number of green bonds to date, the CBS certification label does provide assurance to those investors who require more certainty on the environmental criteria satisfied by the bond.

Risk factors and disclaimers

Recent green bond prospectuses have include a number of risk factors and disclaimers to attempt to address the considerations set out above. For example, a risk factor which makes it clear that if the proceeds are not applied to the green project or if the project cannot be completed as intended, is delayed or becomes unfeasible for other reasons this will not result in an event of default under the bond. Nor will it be an event of default if the project does not achieve the expected environmental impact. Risk factors that deal with the sufficiency or adequacy of the bond's climate benefits provide that the issuer makes no assurance that (i) the green project, to which the proceeds are to be applied, satisfy the "green" investment criteria of any investor, (ii) the green bond will satisfy the requirements of, or be included on, any stock exchange segment for green bonds, or (iii) that the contents of any external review is suitable or accurate.

These risk factors and disclaimers attempt to protect both issuers and underwriters. Underwriters are understandably keen to properly delineate the scope of their diligence obligations in relation to the green element of a bond. Clarity that non-compliance with the green obligations will not trigger an event of default helps with this. As does the inclusion of disclaimers regarding the sufficiency of the green credentials of the bond. Although we are not seeing underwriters undertaking specific environmental diligence, we are occasionally seeing representations being given by an issuer in the subscription agreement confirming that the bond proceeds will be applied to the specified green projects and that it will comply with any stated reporting and annual assurance commitments. Care should be taken to ensure that these representations do not commit the underwriters to monitoring ongoing compliance over the lifetime of the bond.

Clarity for investors

These risk factors and disclaimers make it clear to investors that, as currently structured, a green bond does not give investors express contractual rights in relation to the green elements of the bond. They also emphasise the market understanding that investors should make their own decisions on the environmental suitability of the bond. This assessment should be based on the information on the green bond and green bond framework provided by the issuer in the prospectus and assessed in any external reviews and second opinions. Neither issuers nor underwriters are in a position to confirm whether a bond satisfies the green considerations or criteria of any individual investor, stock exchange or index. However, both issuers and underwriters are highly motivated to ensure that the risk of a charge of greenwashing is low – neither want to damage their reputation or ability to continue to access the market.

The emergence of discussions around risk factors and disclaimers perhaps highlights the risk perceived by many underwriters and issuers that some investors may not fully appreciate these aspects of a green bond. This concern may be inevitable given the growth of the market and the number of newcomer investors and issuers. Of course, a potential consequence of new entrants could see a shift in current practice regarding these areas.

GBP view

The GBP view on these questions is that "Underwriters of Green Bonds are not responsible if issuers do not comply with their commitments to Green Bonds and the use of the resulting net proceeds" (see GBP Disclaimer) and that green bonds will not "default" if they do not follow the GBP recommendations. The GBP Q&A says that alignment with the GBP is voluntary but an issuer could face significant reputational risks if its green bond does not meet their environmental undertakings and ceases to be aligned with the GBP. (See The Green Bond Principles: the 2017 update on page 29 for more information on the GBP Q&A)

EU Regulation – Prospectus Regulation and PRIIPs

A development to watch is whether the new Prospectus Regulation, the majority of which comes into force in 2019, will specifically address green bond disclosure. Under the existing Prospectus Directive rules, it has been difficult to include full disclosure on the use of proceeds of a green bond issued from an MTN programme. This is because the information that can be included in a final terms document is tightly prescribed. To date, the market has included a certain level of disclosure in final terms, usually in an annex, but it would be preferable if green bond disclosure was specifically provided for. The consultation on the level 2 measures, which will supplement the new Prospectus Regulation, does not include a specific reference to green bonds use of proceeds disclosure. However, it does seek feedback on what "additional items" could be permitted to be included in the final terms. ICMA's response to the consultation suggested use of proceeds disclosure for green bonds as an additional item. The consultation does provide that a final terms document for wholesale issue (i.e. over EUR 100,000 in minimum denomination) can include a Use of Proceeds section, but while this is not in the existing Prospectus Directive rules, this will be helpful for wholesale green bonds.

In contrast, the EU PRIIPs Regulation does make reference to environmental disclosure. This Regulation requires the key information document, prepared to summarise the key terms of a financial product being sold to retail investors, includes, where applicable, details of the "specific environmental or social objectives targeted by the product". In July 2017, the European Supervisory Authorities provided technical advice on this point and concluded that the identified objectives must be sufficiently specific, the strategy for pursuing those objectives must be well established, and investors must be given enough detail to assess the PRIIP in light of their own environmental or social objectives. In other words, as with the practitioner-led green bond market, there must be full disclosure and transparency and investors need to make their decisions in light of their own green investment considerations.

WHO DOES WHAT?

EXTERNAL REVIEWS, GREEN RATINGS AND GREEN BOND INDICES AND STOCK EXCHANGE SEGMENTS

WHO DOES WHAT? EXTERNAL REVIEWS, GREEN RATINGS AND GREEN BOND INDICES AND STOCK EXCHANGE SEGMENTS

External reviews, green bond indices and green bond segments on stock exchanges can play a crucial role in facilitating the green bond market.

External reviews perform two main functions: to confirm compliance with set of external standards; and to provide assurance to investors that the environmental claims made by the issuer about its bond have been subject to independent scrutiny. The GBP recommends an issuer obtains an external review to confirm the alignment of its green bond with the GBP key features, but this is a recommendation only. Conversely the CBS certification will *only* be awarded to bonds that have been independently verified as complying with its criteria. A green bond issuer needs to consider the benefits of obtaining an external review against the additional costs incurred. Investors in green bonds increasingly see an external review as a "must have", and the large majority of "labelled" green bond issuances are supported by some type of external review.

Green bond indices and stock exchanges also provide valuable information to investors about the nature of the bond, its green credentials and any objective criteria it satisfies. Inclusion on these indices and stock exchange segments will, in many cases, depend on an external review being given. Indices and stock exchanges can provide easily accessible and comparable information across a range of green bonds in a shorthand form to investors. Information provided in this way helps to facilitate investment decisions and improve liquidity in the market.

"Given the complexity of assuring the use of proceeds for green bonds, additional levels of oversight concerning proceeds tracking and selection of eligible green projects are helpful to investors"
CERES Statement of Investor Expectations for the Green Bond Market

The different types of external review

The term "external review" in the context of green bonds is used in relation to different concepts. The table below summarises what is meant by the most frequently used terms. Second-party reviews or opinions are the most common.

Review type	Who?	What?	When?
Second-party reviews or opinions	External organisations such as environmental consultants	Green bond issuers ask a second party reviewer (i.e. a party that is not the issuer) to review their issuance frameworks, such as the green projects selected, the proceeds tracking process and the proposed reporting A short report is produced and shared with investors	Typically pre-issuance Some second-party reviewers are engaged very early in the process to help with the development of the green project framework Post-issuance reports reviewing the allocation of proceeds and the bond performance indicators are sometimes prepared, but this is less common
Third-party assurance	Audit firms	Issuers engage audit firms to undertake an annual review of the financial allocation of proceeds to the green project. The environmental impact of the bond is not typically included	Post-issuance
Certification and verification	Third-party verifiers; the CBS maintains a list of its approved verifiers	The verifier certifies that the bond has satisfied the relevant independent sector-specific scientific criteria on environmental impact. Currently, only the CBS offers this certification model Post-issuance, the verifier will confirm compliance with the certification criteria	Pre- and post-issuance
Credit Rating	Credit rating agencies	The credit rating typically assesses the issuer based on its compliance with the best practice process, such as the components of the GBP. The rating does not rate the environmental impact of the green project	Typically pre-issuance, although can be periodically updated

Second opinion providers: CICERO: Shades of Green

The Centre for International Climate and Energy Research, Oslo ("**CICERO**") is one of the largest second-opinion providers in the green bond market. It bases its second opinions on environmental research by reference to the green bond project framework and its compliance with the GBP or other applicable standard, such as the CBS. CICERO gives its review at the time of issuance and post-issuance changes are not given unless specifically requested. CICERO established its "Shades of Green" methodology in 2015 to provide information on how a green bond aligns to a long-term carbon resilient future. It grades the relevant projects as dark green, medium green, light green or brown depending on how close this alignment is.

- Dark green projects correspond closely to a low carbon future, for example renewable projects
- Medium green projects go some way to contributing to a carbon resilient future but there remain some environmental concerns, for example plug-in hybrid buses
- Light green projects are climate friendly in the short-term, but do not align with the long-term climate goal, for example efficiency in fossil fuel production
- Brown projects are those which are in contravention of the green low carbon climate goal, for example new infrastructure for coal

This methodology is intended to provide investors with a more nuanced understanding of the green credentials of a project. It recognises that different investors have different environmental requirements that they need their investments to satisfy.

The green ratings provided by Moody's and S&P provide a similar granular analysis. This approach is designed to "align the incentives of those who want to invest in those bonds, and make it easier for asset managers to satisfy those preferences" (BIS Quarterly Review, September 2017).

Credit rating agencies

The main providers of green bond ratings are currently Moody's Investors Services ("**Moody's**") and S&P Global Ratings ("**S&P**"). These green bond ratings do not constitute a credit rating and are separate from an issuer's ESG rating.

Moody's Green Bond Assessment ("**GBA**") is intended to "assess the relative likelihood that bond proceeds will be invested to support environmentally friendly projects". The methodology evaluates the following five factors: organisation, use of proceeds, disclosure on the use of proceeds, management of proceeds, and ongoing disclosure and reporting. The rating applies to the bond not the issuer, and ranges from GB1 (Excellent) to GB5 (Poor). It is envisaged that the assessment is updated periodically to take into account the environmental impact of the projects and any updates in the relevant taxomony. It is possible, especially in the case of long-term green bonds, that a project whose environmental impact is rated highly at the beginning of the life of the bond can later be reassessed as less environmentally beneficial in light of technological or scientific developments. As of September 2017 Moody's had assessed 17 transactions using its GBA. All received the highest overall score of GB1, but Moody reported differing levels of issuer commitment to reporting and disclosure.

S&P's Green Evaluation is intended to assess "the environmental net benefit of projects financed by the bond's proceeds over a lifetime, relative to a local baseline". Similarly to Moody's GBA, S&P's evaluation assesses the governance of the project and the transparency and comprehensiveness of use of proceeds, it draws, among other sources, on green bond principles and relevant taxonomies. In addition, it assigns a 'mitigation score' to projects that are aimed at mitigating impacts of climate change and an 'adaptation score' to projects that aim to provide protection against the consequences of changes in weather conditions caused by climate change.

Other providers of green ratings include Golden Credit Rating, a research company assessing green bonds issued in China, and Trucost Plc, part of the S&P Dow Jones Indices which specialises in analysing environmental data.

Separate provision of green bond assessments is helpful, but a more ambitious goal is the full integration of long-term ESG factors into credit ratings themselves. This is a focus of the Principles for Responsible Investment paper, "Shifting Perceptions: ESG, Credit Risk and Ratings", which flags that investors are increasingly interested in ESG factors and recognise that ESG risks can impact on creditworthiness. The paper notes that, to date, the application of ESG factors into ratings has been inconsistent and credit rating agencies should be more transparent in dialogue with investors. The HLEG Interim Report suggests that the EU "leads by example" to encourage the integration of ESG factors into credit ratings, recognising, in particular, the long-term nature of sustainability risk.

"... today's credit ratings only partially account for long-term sustainability risk. It is time for long-term sustainability to move from an 'add-on' consideration to a built in feature"
HLEG Interim Report

Green bond indices

Green bond indices track the global green bond market and provide performance data for green bonds. Such indices help to expand the investor base by making green bond investment available to mainstream tracking funds. Bonds are included in each index according to its stated methodology, which differs between index providers, although many of the green bond indices refer to the CBS taxonomy. The index does not inform investors about environmental risks that might affect the bonds' financial performance.

The green bond indices, to date, are provided by Bank of America Merrill Lynch Green Bond Index, S&P Dow Jones, Solactive, Barclays in collaboration with MSCI and Bloomberg, and more recently by China Central Depository & Clearing Co., Ltd, China Energy Conservation and Environmental Consulting Co Ltd and the CBI, acting in collaboration.

This year has also seen the launch of a number of exchange traded funds that offer exposure to the green bond markets; these include Lyxor Green Bond UCITS ETF and VanEck Vectors Green Bond ETF.

Stock exchanges

The Luxembourg, London, Oslo and Mexican stock exchanges have dedicated green bond segments or lists. Each of these segments requires the bond to satisfy certain criteria in order to be included. All insist upon the preparation of an external review, and compliance with ongoing reporting is a requirement for the Luxembourg, Oslo and Mexican stock exchange green segments. The Johannesburg Stock Exchange launched its green bond segment on 25 October this year. The Shanghai Stock Exchange also has a pilot programme in place for listing green corporate bonds that comply with the Chinese domestic green bond legislation.

These segments can provide assurance to investors that the green bonds meet certain objective criteria and help to improve the visibility of green bonds. They have a role to play in developing robust standards, but the view expressed by in the OECD Input Paper is that they are not "well placed to be the initial developer of standardised green definitions".

In addition to the stock exchanges that have already launched specific green bond lists, many more stock exchanges are members of the United Nations Sustainable Stock Exchanges initiative, which looks to share best practice and improve ESG disclosure and performance amongst listed issuers. For example, as part of this initiative stock exchanges from a number of countries in the Middle East, North Africa and Sub-Saharan Africa are promoting climate resilient disclosure and performance among listed companies.


THE PATH TO GREEN LOANS

THE PATH TO GREEN LOANS

Although the green loan market is still in its infancy, it may offer opportunities that green bonds currently do not provide and which would be measurable in terms of their sustainable impact.

Why would a company agree to include green covenants? This is where this loan is particularly interesting: the borrower actually benefits from a financial upside if it complies with the green covenants.

The green bond market has developed on the basis of a "use of proceeds" approach, meaning that the issuer discloses that it will allocate the proceeds of the issue of bonds to a specified green purpose. However, for the moment, contractual recourse by investors against issuers of green bonds is generally not provided in the terms and conditions of the bonds. In recent conferences on the subject, when investors ask whether it would be possible to obtain a recourse against issuers of green bonds, issuers tend to respond that they are not ready to give a recourse unless it would have a positive impact on the pricing of the bonds. This is where the problem lies: so far, the pricing of green bonds has not been better for issuers than the pricing of regular bonds issued by the same issuer, on the basis that investors have the same credit risk exposure whether the bond is green or not.

This "use of proceeds" approach had been transposed to certain green loans, where the loan agreement would provide that the loan proceeds will be used to invest in sustainable projects. So far, this is in line with the "use of proceeds" approach of green bonds, except that a loan agreement does not offer the same publicity or disclosure to the public as a green bond.

The seeds of change

This may, however, be changing. We have recently been involved in an innovative green loan which did not provide for a green use of proceeds, but rather included green covenants. Why would a company agree to include green covenants? This is where this loan is particularly interesting: the borrower actually benefits from a financial upside if it complies with the green covenants.

In this transaction, we advised Unibail-Rodamco, Europe's leading listed commercial property company, in putting in place its first green loan. The facility consists of a revolving loan facility, available in euros, with a five-year initial term and two one-year extension options. It enabled Unibail-Rodamco to refinance an existing debt facility from 2011 and provides liquidity for general corporate purposes.

In this first-of-its-kind green loan, the interest margin is not only tied to Unibail-Rodamco's long-term credit ratings, but also to three green covenants based on Unibail-Rodamco's sustainability strategy. If the green covenants are met, the borrower benefits from a better margin – a "green margin"– but if they are not met, the borrower is financially penalised and has to pay a higher "brown margin".

The green covenants were structured to take into account certain technical measurements that the group regularly makes, such as the amount of CO^2 emissions generated by its shopping centres. In addition, certain covenants aim to encourage an improvement in the sustainable impact of the group's activities over the years, with these covenants becoming more and more stringent during the life of the facility.

This structuring shows a commitment by Unibail-Rodamco to comply with its sustainability strategy over the medium- to long-term, and to attain a progressively improved sustainable impact, going further than mere disclosure or publicity, as is generally the case for green bonds. On their side, the lenders are also able to demonstrate that they are acting for the development of a sustainable economy and that they are ready to reward clients financially for their efforts.

A company such as Unibail-Rodamco is particularly well-suited for this type of transaction, given that it has already issued green bonds in the past and has adopted a sustainability strategy, including measures of certain green key performance indicators, providing data that could be used for the definitions of the green covenants. Generally, real estate companies should be well placed to take advantage of green loans, as their assets and activities lend themselves well to putting in place measureable green key performance indicators. A number of these companies are already familiar with the green bond market, so this should, for them, be a fairly natural evolution.

A shared interest in sustainability

Is there a clear path to the development of green loans in the future? It seems to us that, if similar structures to Unibail-Rodamco's green loan are to be developed, one clear prerequisite is the ability to measure the green impact in concrete ways, whether in terms of CO^2 emissions or other measures. In exchange, it would certainly be helpful if borrowers could derive a direct financial benefit for their green commitment.

In this context, regulators are beginning to consider lowering banks' minimum capital requirements for green loans. The HLEG Interim Report considers lowering minimum capital requirements for green loans and bonds. It mentions, in particular, the difficulty of taking into account green policy considerations in banks' risk analysis, of identifying green assets, and of collecting data on such assets, thus permitting an analysis of their risk profile. The report also explores the possibility to impose a "brown-penalty" applicable to financing sectors which are seen to have strong sustainability risks.

Given these encouraging developments in the green loan market, is it likely that green covenants will begin to appear in the green bond market? Beyond the question of whether this is something that parties are ready to implement, and the risk of the market drying up if too many constraints are placed upon it, it seems to us that the green bond market presents a greater risk for companies than the green loan market. Any such green covenants would be granted in favour of a potentially high number of investors, who do not necessarily have a relationship with the issuer that is as close and long-standing as that which lenders have with their borrower clients. Investors in the bond market may, as a consequence, be less flexible with issuers, and less inclined to grant waivers if a company fails to meet its targets.

Nonetheless, there is certainly room for further developments in the green loan markets. In July 2016, in the H2 2016 edition of LMA News, an article on green lending relayed certain key points of the LMA's fourth Real Estate Finance Conference, where the early stages of green loans were described and its future potential outlined. A year is a long time in the world of green finance, and the potential highlighted at that LMA conference is now clearly being realised. The Unibail-Rodamco loan is surely only the beginning of a new strand in the development of sustainable finance, and one that can soon perhaps rival the well-established green bond market. In this regard, a current project by the Global Green Finance Council ("GGFC") to develop green lending principles is to be welcomed. This project is looking to produce a high level framework with a view to setting market standards and guidelines to create a consistent methodology to apply in every green loan transaction. The current numbers of the GGFC are AFME (Association of Financial Markets in Europe), EBF (European Banking Federation), EMF ECBC (European Mortgage Federation and European Covered Bond Council), EFAMA (European Fund and Asset Management Association), GFMA (Global Financial Markets Association), ICMA (International Capital Market Association), IIF (International Institute of Finance), LMA (Loan Market Association) and WFE (World Federation of Exchanges). Participating observers are CERES, EFR (European Financial Services Roundtable) and Insurance Europe.

SECURITISATION GETS THE GREEN LIGHT

SECURITISATION GETS THE GREEN LIGHT

The increased political mandate and will to address environmental concerns will require a huge amount of investment by government and industry. Structured finance transactions can play a key role in financing these goals. We consider in this article what constitutes a green securitisation transaction and the challenges that will need to be overcome to develop a robust green securitisation market.

What is green securitisation?

Identifying what constitutes green securitisation will be key to the development of this market, its scope and role. There are three potential categories: (i) transactions secured by portfolios of green assets ("**Green Collateral Securitisations**"); (ii) transactions, the proceeds of which are ring-fenced for investment in green projects ("**Green Proceeds Securitisations**"); and (iii) capital relief securitisations, where the originator utilises freed-up capital to invest in green projects ("**Green Capital Securitisations**"). In respect of (ii) and (iii) it is not necessary that the underlying collateral be green. We consider what we mean by this term "green asset" in greater detail below.

Green Collateral Securitisations require a clearly identifiable portfolio of relatively homogenous green assets. There is the exciting potential for the growth of new asset classes and for green variations of existing asset classes to develop. We could, for example, soon see RMBS or CMBS deals secured on green real estate, such as the Dutch Green Storm RMBS transaction in 2016, which was secured on properties meeting certain energy efficiency requirements. Auto deals financing electric or hybrid vehicles are probably not too far away and there is the potential for a new "green loan" version of SME and consumer loan securitisations to develop.

Green Proceeds Securitisations and Green Capital Securitisations are potentially broader in scope as they are not restricted by the requirement of a pool of homogenous green assets. Recent examples include the US Toyota transactions, the proceeds of which were applied to fund the development of environmentally-friendly cars, the FlexiGroup deals (more details below) and the Premium Green synthetic securitisations by Crédit Agricole CIB which utilised capital relief for green purposes. A market for green covered bond and secured corporate deals (for example, in the water and waste management industries) could also develop.

To date the majority of green securitisations have been in the US and Asia rather than Europe. The market certainly has the potential for global scope and we note the recent green issuance we worked on with Bank of China in 2016.

What criteria are there for identifying green securitisation transactions in the current market?

A number of green securitisation deals have obtained verification of compliance with the GBP and CBS from external reviewers, for example, the Obvion and FlexiGroup deals. The rating agencies have also introduced green bond assessment methodology (separate from the usual credit rating process) which evaluates the environmental credentials of originators and issuers (see Who does what? on page 37).

Asset specific regulations are also relevant, and may be referenced in the eligibility criteria for Green Collateral Securitisations. Under European Directive 2010/31/EU, Member States are required to establish a system of certification of energy performance which formed part of the eligibility criteria on Obvion. There is also the Energy Efficient Mortgages Initiatives of the European Mortgage Federation and European Covered Bond counsel which aims at developing energy efficiency mortgages based on preferential rates. Finally, for vehicles, there are the emissions tests performed on vehicles for CO^2 per g/km. However, accessing information about the green nature of underlying assets has historically been, and still is, difficult and the lack of this underlying data is causing challenges in the growth of this market. We note that it was only the recent release of EPC (energy performance certificate) data by the UK government that Barclays Bank cited as a key factor in its ability to launch, in September this year, its green bond framework for the financing of energy efficient residential properties.

Structured finance as a form of financing for green assets

There are strong arguments in favour of developing a green securitisation market in Europe and the UK to help fund the demand for financing. Securitisation has a proven track record of financing these types of assets, providing ready access to institutional investors and reducing costs of capital.

There are strong arguments in favour of developing a green securitisation market in Europe and the UK to help find the demand for financing

Encouragingly, there are few legal or regulatory barriers to the development of a Green Proceeds Securitisation or Green Capital Securitisation market which utilise established asset classes, structures and techniques. All that is required is sufficient incentive for lenders to invest proceeds or capital relief in green assets, technologies and businesses, and investor demand for green securitisation bonds. We hope investors will increase their mandates to invest in green securitisations, and note with interest that the recent green bond issued by FlexiGroup (the proceeds of which refinanced solar power systems) priced slightly tighter than the non-green bond issued by FlexiGroup at the same time. Governments can also assist the progress of this asset class by introducing or expanding upon programmes that incentivise originators and investors – such as tax or regulatory capital benefits, or beneficial treatment by central bank financing schemes. The continued development of green criteria and labelling schemes will be critical if there are benefits to be gained in being labelled "green".

Green Collateral Securitisations give rise to additional challenges. As well as green variations of existing asset classes, there is the potential to develop new asset classes similar to recent deals in the US. Potential new asset classes are infrastructure deals and consumer and SME loans for the financing of green assets, for example, the installation of solar panels, renewable storage units or air cooling equipment. Originators may also enter into equipment leases and power purchase agreements with customers where the originator retains title to the asset installed at the customer's property and the customer benefits from the energy produced. The US has also developed property asset clean energy programmes (known as "**PACE**") where municipal bonds issued by state entities or companies fund the installation of energy equipment, with payments on the bonds being funded by the relevant homeowner making an increased property tax payment. All these types of asset can be packaged up and securitised and examples include the SolarCity and Renovate America HERO deals.

What challenges do public Green Collateral Securitisations face?

The development of all aspects of a green securitisation market is dependent on the advancement of the industry as a whole, originator incentives and investor demand. However, some more specific legal and regulatory issues arise in the context of Green Collateral Securitisations. The first challenge for originators will be building a sufficient stock of relatively homogenous green assets to support a public securitisation. The second will be how to deal with changing attitudes, regulation and policy in such a progressive industry, for example, who takes the risk of a change in what constitutes a green asset, what happens if government incentives are withdrawn or reduced and what happens if an asset you thought was green turns out not to be, noting, by way of example, the recent scrutiny around car emissions testing.

Although the quantity of green housing stock will grow as property developers harness green technologies for new build properties these assets will make up a relatively small proportion of the market. The development of a substantial green RMBS and CMBS market may depend on the success of programmes designed to upgrade the energy efficiency of existing real estate stock and government incentives. The upgrade programmes are more likely to be financed by consumer, SME loans or equipment leasing (which face their own difficulties, as to which see below) but an existing property, once updated, may then become eligible for a green mortgage loan. Multi-originator transactions are a potential way of addressing limited stock for public securitisations but are often not popular with investors and require additional due diligence compared to other deals.

In the SME and consumer loan space, although we would expect loans to individuals to finance the installation of solar panels to be fairly homogenous, loans to enable businesses to install or develop green equipment or technologies may be more bespoke – less granular assets are often less suitable for securitisation.

These issues are less likely to apply to the development of a green auto market which is naturally homogenous and the amount of investment by the industry in the development of green technologies will hopefully mean these types of green securitisation transactions are not too far away.

Additional challenges to the development of Green Collateral Securitisations secured on green SME loans, consumer loans and similar underlying contracts

As mentioned above, the US has seen the development of some new green asset classes in the context of SME and consumer loans, equipment leasing, power purchase and PACE. These asset classes also give rise to some specific issues deserving of further consideration.

Taking security, enforcement and the identity of the underlying customer

It would be challenging to take valuable security over the majority of green assets financed pursuant to these underlying contracts. Green assets will often be tailored to a particular property or business and/or integral to the construction of the property, making it physically difficult or costly to remove the asset upon the enforcement of the underlying contract and meaning the asset has little or no value in the secondary market. The speed of technological advance in the industry also gives rise to a material risk that the green asset will become obsolete and of little value prior to the termination of the underlying contract. Many of these receivables will therefore either be unsecured or secured on another asset owned by the underlying customer. If unsecured, this will have an impact on recovery in the event investors wish to enforce under the securitisation deal, for example, by way of a portfolio sale. If secured on another asset of the underlying customer, for example, the relevant property, priority of security issues may arise if that asset is already secured (or may in future be secured) for another purpose, such as a mortgage loan. Similar issues arose in the US in connection with whether mortgage loan payments on loans purchased or underwritten by Fannie Mae and Freddie Mac were subordinate to increased tax assessment payments under PACE programmes.

There is also a risk that solutions designed to overcome commercial challenges for the industry will create new challenges from a securitisation perspective and restrict the development of this market. A common concern for potential customers is what will happen if they want to sell the property before the end of the term of the underlying contract. If the new purchaser is unwilling to take over the contract the customer would likely have to repay or buy out the remaining term of the contract in full at that time. To allay this concern the industry is incentivised to encourage a future purchaser of the property to assume responsibility for any remaining term, for example, by being able to demonstrate that the contract is cost efficient or by somehow linking the contract to the property. However, the fact that the underlying customer could change raises issues from a credit perspective for a securitisation, particularly if the loan is unsecured and the identity of the customer relevant to eligibility. The shorter-term nature of many securitisation transactions, the fact that any new customer should either own the property and/or have been approved for a mortgage and the fact that energy costs are likely to be a priority for any customer, helps mitigates this risk.

Feed-In Tariffs and credits

Feed-In Tariffs and credits are another example of potential conflict between industry concerns and securitisation concerns. Many governments support the introduction of schemes that allow owners of energy creating assets to sell excess energy back to the grid. As well as providing an incentive to make buildings more environmentally friendly there is the added benefit of reducing dependence on existing energy sources. An example is the Feed-In Tariff designed for solar panels in the UK. The party that directly benefits from the credits is the owner of the asset, whether that is a borrower that utilises a green loan to acquire a green asset or a supplier that enters into lease or power purchase contracts with customers. Depending on the structure of the particular arrangements, payments by customers on the underlying contracts may vary depending on the volume of excess energy available to be sold each month. Although these government-backed schemes incentivise customers to invest in green assets and therefore support the development of the industry as a whole, the application (and potential sudden withdrawal, reduction or limitation) of these schemes could make the income stream for any securitisation transaction unpredictable (unless the benefit of any credits were also sold into the deal).

The risks associated with any removal or curtailing of these schemes during the life of the securitisation transaction would also need to be thought through. If originators and customers rely on the availability of these government-backed schemes any change in availability or applicability could impact on origination levels with customers and suppliers looking to other income sources to make up for any reduction in income. We note, by way of example, that access to the Feed-In Tariff in the UK was reduced by the UK government recently and it is expected to be phased out over time on the basis that the costs of installing solar panels have decreased and become more financially viable without this ongoing political support. Any changes in political will and government strategy in this new industry could have an impact on any securitisation deal, particularly while the industry and market is still establishing itself.

Reliance on the originator maintaining the asset

Any structured finance transaction for a green asset will also need to consider and structure for any capex requirements. We would expect some form of ongoing maintenance agreement to be entered into between the financing vehicle and the originator as well. The due diligence process will need to ensure there are third party maintenance providers able and willing to step into this role in the event the originator becomes insolvent.

Conclusions and Next Steps

We strongly welcome the development of a green structured finance market and hope it will become an important tool in the fight to meet growing demands and needs for financing green initiatives. There are a number of advantages to securitisation as a means of finance and many existing asset classes could be utilised to raise funds to invest in this market. Although there will be challenges that will need to be faced, particularly in the context of developing new asset classes, we look forward to the opportunity to work on many of these projects. In the short-term, we would expect to see more financing of green assets funded in the private warehouse space as the industry becomes more established. This will enable structures to be refined, track records established and problems solved, so as to open up the potential for public term securitisation take outs in time as the volume of assets and certainty over cashflows grows.

Although there will be challenges that will need to be faced, particularly in the context of developing new asset classes, we look forward to the opportunity to work on many of the projects

THE YEAR OF THE SOVEREIGN GREEN BOND

THE YEAR OF THE SOVEREIGN GREEN BOND

The vast majority of green bond issuance to date has been by corporate rather than sovereign issuers and yet, international policy efforts to combat climate challenges encourage countries to look inward and shift their focus towards a more climate resilient economy to ensure that the financial risks associated with climate change and the depletion of non-renewable resources can be managed. Increasingly, countries are looking at finance as a way to facilitate a transition towards a low carbon and climate resilient economy.

As part of its 2°C strategy, France, which played a decisive role in the Paris Agreement, went on to issue its Green OAT, one of the largest and longest dated green bonds to date. In doing so it acknowledged several core objectives: these include "fostering the development of the green bonds market, helping to define the best framework for this market and cementing the Paris marketplace's lead in terms of green finance". Poland brought a green bond to market in late 2016. Fiji became the third country to issue a green bond in October 2017.

Following the French, Polish and Fijian sovereign bonds, many other sovereigns, including Hong Kong, Nigeria, Kenya and Argentina, are now believed to be contemplating green bond issuances.

Sovereign states have many different roles to play in connection with the continuing development of the market for green bonds. Sovereigns may, for example, take steps to promote the further issuance of green bonds within their own domestic markets.

Sovereigns may also take a multilateral approach to promoting the green bond market through, for example, the G20, the European Union or other multilateral groupings.

Issues for Sovereigns to consider as issuer

Over the remainder of 2017 and into 2018 the levels of Sovereign green bond issuances are now expected to increase and it will be interesting to see the extent to which these new issuances are expressly influenced by the aim in Article 2(c) of the Paris Agreement to "make finance flows consistent with a pathway towards low greenhouse gas emissions and climate-resilient development". Sovereigns will also need to reflect on the extent to which they align any green bond issuance with the GBP four core components – use of proceeds, process for project evaluation and selection, management of proceeds and reporting (see Part II of Making Sense of the Initiatives on page 5). In general terms, there will be a balance to be struck between likely investor preference and the additional work generated for the sovereign through its relevant Ministries as well as the extra costs of second opinions and ongoing reporting obligations. Moody's and S&P have each also developed methodologies for assessing the "greenness" of green bonds. These are separate from any other rating of

Poland: First Sovereign Green Bond

- EUR 750m 0.500% Notes due 2021, issued in December 2016 under Republic of Poland's MTN programme.
- The Managers were HSBC Bank plc, J.P. Morgan Securities plc and PKO Bank Polski S.A. and the Notes are listed on the Luxembourg Stock Exchange (main market and the Exchange's green bond platform, the LGX Luxembourg Green Exchange).
- Use of proceeds: budget allocation, subsidies and/or projects for new financing or the refinancing of existing eligible projects that promote the transition to a low-emission economy and climate resilient growth, including both climate mitigation and adaptation. Projects have to fall into at least one of the following sectors: renewable energy, clean transportation, sustainable agricultural operations, afforestation, national parks or reclamation of heaps (rehabilitation of landfills).
- 61% of the bonds were bought by dedicated green investors.
- Awards: "Bond of the year: SSA and Award for Innovation: Structure – Poland" at Environmental Finance's Green Bond Awards and "First Sovereign Green Bond" at Climate Bonds Initiative's Green Bond Pioneer Awards.

the credit quality of the issuer and, should a sovereign decide to obtain one, would also involve additional cost (see Who does what? on page 37).

Both the Polish and French deals complied with the GBP components, as summarised in the table at the end of this article. This included, in each case, producing a public framework, pursuant to which sovereign bond issuance will be evaluated; providing a second opinion on issuance and committing to annual reporting. This overall approach is both transparent and should assist with predictability for all interested stakeholders.

The GBP can be complied with at differing levels of involvement. By way of example, ensuring appropriate use of proceeds for green purposes could be achieved through an assurance that funds may only be disbursed for one or more of the applicable green purposes. A more rigorous and cumbersome approach, which may, however, be preferred by some investors, would involve establishing a separate account for receipt of green bond proceeds and a local legal requirement that disbursement from that account may only be made for specified purposes directly linked to green projects. A further example is the significant reporting commitments promised by France to investors in its green bond: an annual report on allocation, an annual report on performance indicators and a report on ex post impacts at an appropriate frequency. This aims to "provide full transparency to investors on the nature of allocations". Not all sovereigns will want to commit to such rigorous and regular reporting. Clearly on this issue of transparency and ongoing reporting, the ideal perspective for green bond investors (involving high levels of both) will need to be balanced with the costs involved for the sovereign issuer. At the same time, Agence France Trésor was concerned to ensure its green OAT would be liquid and, would find its place in its business as usual OAT curve. To this end it ensured that the size of the inaugural issue was comparable to regular OATs and that, going forward, liquidity will be maintained and enhanced as necessary by regular taps based on future investor demand.

France: Green OAT

- EUR 7 billion 1.75% Notes due 2039 issued in January 2017 by the Republic of France and listed on Euronext Paris.
- The lead managers for this syndicated bond issue were Barclays, BNP Paribas, Crédit Agricole CIB, Morgan Stanley, Natixis and SG CIB. Crédit Agricole CIB structured the Green OAT and all of the primary dealers were members of the syndicate.
- Projects have to fall into the following sectors: renewable energy, transportation, real estate, adaptation to climate change, protection of living resources, and air, water and soil protection, which must contribute to one or several of the following objectives: climate change, mitigation and adaptation, biodiversity protection and pollution control.
- Around 200 final investors supported the issue of this sovereign green bond including asset managers (33%), banks (21%), pension funds (20%), insurers (19%), official institutions (4%) and hedge funds (3%).
- France's Green OAT Framework follows the GBP and uses the French Energy and Ecological Transition for Climate label ("**TEEC**") as a reference point.

Sovereigns, as with other green bond issuers, also need to consider investor concerns that less-green projects could be financed through green bonds. This so-called "greenwashing" has prompted calls for more robust monitoring procedures to be implemented. In the sovereign sphere, sovereign issuers are developing their own methods of governing green compliance.

Under the Polish Bonds, a separate committee was established to oversee the use of proceeds and businesses and projects involved in a list of operations (such as burning of fossil fuels for power generation and transportation, large scale hydro projects and nuclear power generation) were expressly marked as ineligible.

The French Green OAT adopted a broadly comparable approach to governance and reporting. Certain projects are excluded from the selection process, an Inter-Ministerial Working Group will undertake the eligible green expenditure selection and the allocation of funds will be carried out by the Ministry of Finance (under the supervision of the Prime Minister). The allocation of proceeds for the French Green OAT will also be reviewed by an audit firm. As mentioned above, both countries issued a second opinion that formed part of the reporting process.

"The bond intended by the French Republic represented by the Agence France Trésor is a "Green Oat" with positive footprint, aligned with the Green Bond Principles"

From the Vigeo Eiris' Opinion, available on the Agence France Trésor website.

Legal Frameworks

In the Polish and French issuances, frameworks were created to facilitate green issuances, including amendments to laws and procedures to accommodate the unique nature of green bonds. Once established, such frameworks will provide an efficient platform for future issuances.

Poland

In 2015, Poland established its National Renewable Energy Action Plan (NREAP) in response to the EU Directive (2009/28/EC) which promotes renewable energy. NREAP requires that, amongst other things, 15 per cent of Poland's energy comes from renewable sources by 2020 and sets out a methodology for achieving this objective. It also has a longstanding National Programme for the Augmentation of Forest Cover, which aims to increase forest cover to 30 per cent by 2020.

To support its Green Bond Framework, the Polish Government passed an Act of Parliament to allow the proceeds to be used for a particular purpose and to ring-fence a designated green cash account to segregate and track the use of the subscription funds. Usually, but not always, a sovereign issuer would use funds raised through bond issuances for general budgetary purposes and so would generally not segregate funds in this manner. Aside from the framework itself, sovereign issuers will therefore need to give some consideration to any legal or procedural hurdles which need to be overcome and the infrastructure required to facilitate the issuance of green bonds.

"Clear policy frameworks that encourage sustained private investment are thus essential, including those that mobilise private investment to finance the transition to the low-carbon economy."

Mark Carney, Governor of the Bank of England

France

In France, the Energy Transition for Green Growth Act specifies the means by which France is required to meet the Paris Agreement targets. This includes the adoption of a carbon price trajectory which is the first of its kind. The Act reinforces the need to "align finance flows with the goals of the Paris Agreement".

The green elements of France's green bond are implemented using standard French OAT architecture, but with key additional wording, found at Article 6 of the Arrêté du 23 janvier 2017. This wording provides that the French state intends to invest the proceeds of the bond issuance into green projects and that these eligible investments will contribute, wholly or in part, in the fight against and adaptation to climate change, the protection of biodiversity and combating pollution. As mentioned above, it also places reporting obligations on France in respect of the use of proceeds and the environmental impact of such investments.

China

Whilst China has yet to issue a sovereign green bond, regulatory developments in China, as early as 2015, have lead to the creation of a framework for green bond issuances. China's central bank, The People's Bank of China, published regulations for the issuance of green bonds on the interbank market and the National Development & Reform Commission has also published green guidelines for the state-owned enterprise sector. This framework requires green bonds to achieve regulatory authority approval prior to issuance. Approval is based on the eligibility of green projects, the management of proceeds, certain disclosure obligations and an external verification process. In 2016, Chinese issuers issued almost 38 per cent of all green bonds globally. This illustrates the facilitating role that governments can play in supporting this market through legal and regulatory measures even where the sovereign is not itself directly an issuer.

Areas for sovereigns to consider from a policy perspective

The French Green OAT Framework builds upon the GBP and other best practices in the green bonds market whilst also reinforcing them. The newly created Green Bond Evaluation Council which, in relation to all French Green OATs, has the task of defining the parameters and frequency of environmental impact reporting, as well as assessing the quality of project evaluation will play a key role. Its opinions will be published on a dedicated website. However, these elements demonstrate the time commitment, resources and costs that putting in place a sustainable legal framework and reporting process can take, as well as determining suitable use of proceeds (e.g. through project selection criteria). Each country considering a sovereign green bond will need to carry out a cost/benefit analysis. Whilst currently issuing a green bond appears not to deliver advantages from a pricing perspective, benefits for sovereigns will include investor diversification, establishing green credentials and leading the way for other domestic companies to follow. Establishing a more prescriptive and disciplined green investment and reporting process to support compliance with international treaty obligations is also beneficial and may outweigh any costs. Certainly, in recent history, many multilateral development banks, starting with the World Bank ten years ago, and some export credit agencies have issued green bonds to finance environment related programmes. Like them, sovereigns will also need to consider where green bonds would fit in their overall debt raising strategy.

For small countries this could be particularly daunting and there the technical assistance of a multilateral or NGO can be determinative. Any standardisation in the markets, whether based on principles, categorisation, labelling or implementation can only be helpful. It goes without saying, therefore, that multilateral development banks and international financial institutions can play a key part in terms of standard setting (as they have done for years through their environmental and social performance standards), capacity building and if necessary credit enhancement through their own balance sheet.

"In addition to its responsibility for the execution of the state budget, the Republic of Poland has increasingly become recognised as a progressive example among sovereigns"

Polish Green Bond Framework

Sub-Sovereign Issuances

As well as at sovereign level, the market at sub-sovereign level is expected to continue to grow especially to support infrastructure development.

Notable examples include:

Gothenburg

The Swedish city of Gothenburg issued a SEK 1 billion Green bond in June 2016, having been the first city in the world to raise green bonds. Funds raised are to be used for Eligible Projects that promote the transition to low carbon and climate resilient growth. Please see the matrix on page 58 for further details.

La Rioja – Province of Argentina

In March 2017, and partly with the aim of alleviating its dependency on energy imports, the Argentinian province of La Rioja issued a US$200,000,000 green bond to finance the development of El Parque Eólico Arauco S.A.P.E.M's renewable energy projects and other public works. This is consistent with Argentina's plan for renewable sources to contribute to a quarter of its total energy needs by 2025. Please see the matrix on page 58 for further details.

Sub-sovereign green bond issuance has broader growth potential – see, for example, Moody's report of 21 September 2016.

Seychelles – financing the blue economy

Whilst a debt conversion transaction rather than a green bond issuance, in 2015, Seychelles participated in a so-called debt for nature swap where a trust purchased discounted Paris Club Seychelles debt obligations and directed certain amounts of the scheduled debt servicing payments to marine conservation and climate adaptation. Through this transaction Seychelles was able to pursue its blue economy strategy as a model for sustainable development and thereby counter some of the particular climate change vulnerabilities associated with being a small island state. Part of the infrastructure it has put in place should facilitate its plans to issue blue bonds to benefit its fisheries industry.

Seychelles: Debt for Nature Swap

- Agreed between the Seychelles, three Member States of the Paris Club (Belgium, France and Italy) and the Nature Conservancy in 2015.
- The Debt for Nature transaction provides US$281,000 per year for marine conservation activities and will see the Seychelles increase its marine protected area. This was the first time a debt conversion deal has included private impact investment.
- The restructuring won the 2016 FT/IFC Transformational Business Award for "Achievement in Transformational Finance". The judges said that this project showed "an ability to leverage strategic partnerships to deploy a novel financial solution, which can be replicable in small island states."

Looking Ahead

As more sovereign green bonds are issued, it is reasonable to assume that the green bond market will become more standardised. Increased standardisation should make the investment process more efficient as investors will not have to complete the same levels of due diligence or research and thereby serve to expand the investor base further.

Press reports suggest Nigeria plans to launch a green bond in 2017; Poland is expected to issue more green bonds this year; Kenya is developing Green Bond Guidelines; and green bonds have been suggested as a way for India to achieve its plan of tripling its renewable power capacity by 2022.

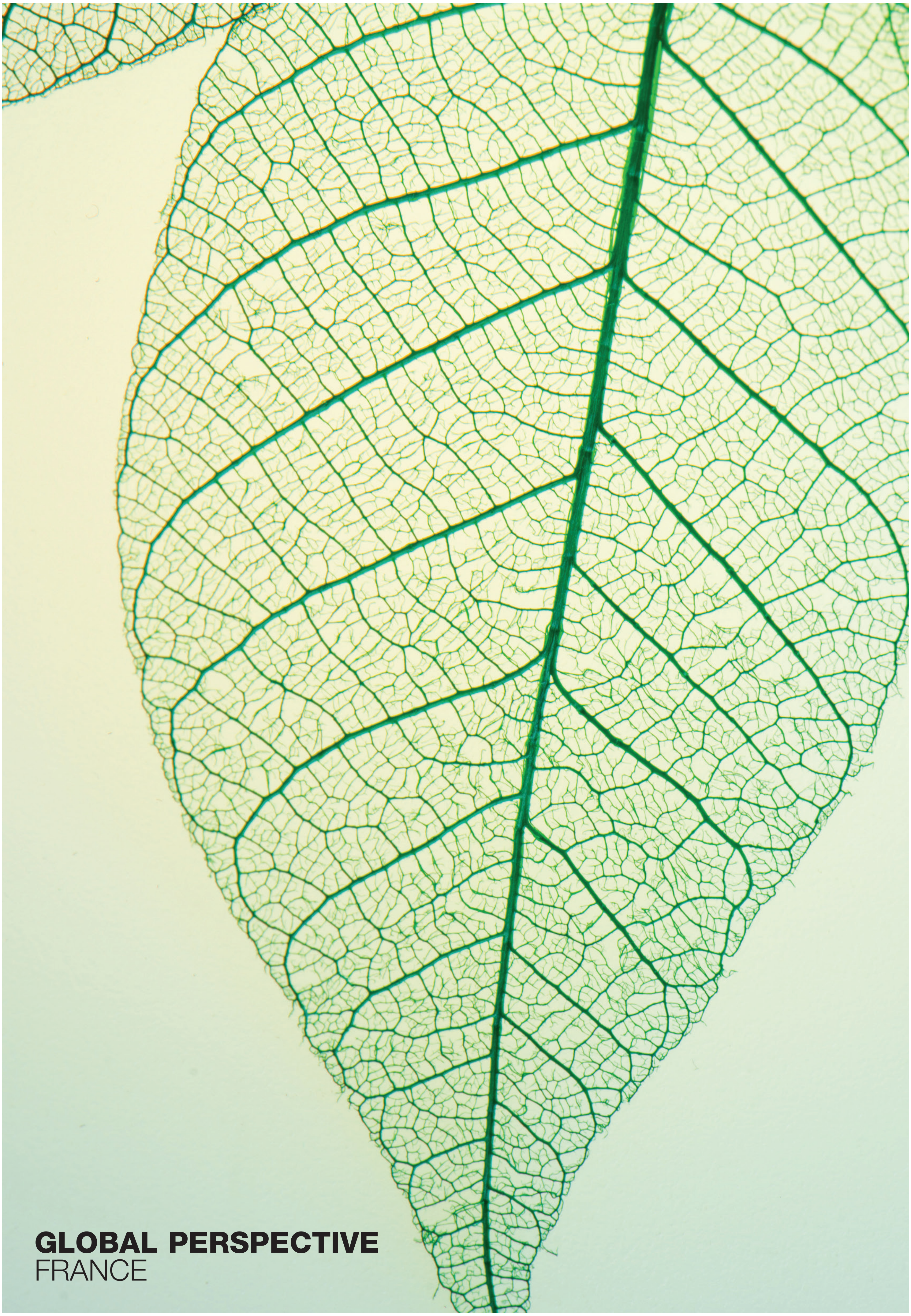
The green bond market has seen strong growth and is expected to be worth up to US$150 billion by the end of 2017. Sovereigns and sub-sovereigns have the opportunity through green bond issuance to interact with a broader investor base and raise funds whilst simultaneously addressing some of their environmental challenges.

Green bonds "have the potential to deliver the low-carbon, climate-resilient infrastructure needed in Nigeria... with access to private capital at scale"

Peter Tarfa, director of the climate change department in the Environment Ministry of Nigeria

Position adopted by sovereign (and certain sub sovereign) issuers on the core GBP components in recent green bond issuances

	Use Of Proceeds	Process For Project/ Expenditure Evaluation And Selection	Management Of Proceeds	Reporting	Size
Poland (Dec 2016)	Exclusively for budget allocation, subsidies and/or projects for new financing or refinancing of existing Eligible Projects in one or more of the following sectors: – Renewable Energy – Clean Transport – Sustainable Agriculture – Afforestation – National Park Management – Reclamation and remediation of contaminated land	In accordance with Green Bond Framework, Minister of Development and Finance will review and approve relevant expenditure for Eligible Projects in conjunction with the responsible Ministry for the sector in question	All proceeds from Green Bond Issuances are set aside and placed in a separate "Green Cash Account" for funding projects exclusively in the Eligible Sectors in accordance with the Green Bond Framework	Second external opinion on alignment with key features of Green Bond Principles from Sustainalytics NV. Minister of Development and Finance will report annually until full disbursement of proceeds. Where possible, reporting will include environmental and social impacts of relevant Eligible Projects	€750 million
France (Jan 2017)	Those that qualify under the Green OAT Framework, with the vast majority being in six sectors: – Buildings – Transport – Energy – Living Resources – Adaptation – Pollution and Eco Efficiency	Ministry of Finance and Ministry for Environment Interministerial Working Group based on six identified sectors and assets types	Tracking done by Ministry of Finance	Second opinion on Green OAT Framework from external Audit Firm Vigeo Eiris Annual reporting on allocation, performance indicators and ex post impacts Ex post reporting by new Green Bond Evaluation Council	€7 billion
City of Gothenburg (June 2016)	Lending for Eligible Projects defined as a selected pool of projects funded, in whole or in part, that promote the transition to low-carbon and climate resilient growth. Eligible Projects may include projects that target: (i) climate change mitigation; (ii) adaptation to climate change; or (iii) to a smaller extent (maximum 20 per cent of the net proceeds), projects which are related to a sustainable environment rather than directly climate related	Environmental Department and Treasury Department with City Council having final approval	Special budget account drawn upon quarterly following funding of a Project. Annual letter from the City	Annual letter from the City	SEK 1 billion
Province of La Rioja, Argentina (March 2017)	$170m to finance renewable energy project with the balance to finance other public works expected to have a positive environmental impact	Pre specified as to $170m; use of balance determined by the Province	Special local trust account agreement with renewable energy Project Company (funds may be invested in short-term instruments pending disbursement)	Best efforts to publish annual reports describing application of funds and (if reasonably feasible) environmental outcome of relevant projects	US$200 million



GLOBAL PERSPECTIVE
FRANCE

THE FRENCH GREEN BOND MARKET: FRANCE AT THE FOREFRONT OF SUSTAINABLE FINANCE IN THE DEVELOPED WORLD

"Make our planet great again," said newly-elected French president Emmanuel Macron in June 2017, in response to Donald Trump's decision to pull out of the Paris climate agreement. But for the French green bond market, this was nothing new. France has been at the forefront of the green bond market from the outset. The climate change conference in Paris in 2015, ("**COP21**") gave a considerable boost to green initiatives in France, including financial initiatives, such as the Climate Finance Day organised by Paris. In September 2016, France announced the first "jumbo" sovereign green bond, valued at EUR 7 billion (see The year of the sovereign green bond on page 53).

Why have these initiatives met with such success in France? We believe that one of the reasons is that France had started to be a favourable market for green bonds before COP21. Green bonds had already been issued by a number of regional and local authorities such as the greater Paris region ("**Région Ile de France**"), by public agencies such as AFD (Agence Française de Développement), as well as by corporates including EDF, Engie and Unibail-Rodamco. French market participants claim that Paris is ahead of other major European financial centres, such as London and Frankfurt, in this area.

Article 173

Before COP21, France adopted a number of regulatory initiatives, most notably Article 173 of the French energy transition law, law n°2015-992 dated 17 August 2015, and the previous Article 224 of the French national commitment for the environment (Grenelle II), law n°2010-788 dated 12 July 2010. These regulations aim at imposing on institutional investors (insurance companies and pension institutions, and French portfolio management companies licensed by the French Autorité des marchés financiers) reporting obligations as to how to take into account ESG criteria in their investment policies. This information obligation is made on a "comply or explain" basis and principally aims to place ESG criteria at the core of their investment decisions. As a consequence, French investors have been a driving force for the development of the French green bond market.

Methodology for green bonds in the French market

The majority of the green bonds issued in the French market are issuances of bonds under an existing EMTN programme, the final terms of which provide a specific use of proceeds. The approach so far has been to disclose to investors that the use of proceeds would be allocated to green purposes, with different detailed approaches for each issuer underlying this broad common methodology. In none of the cases has the issuer undertaken to comply with green covenants or undertaken contractually to apply the proceeds for the specified purpose. The current French market, consistent with that in other markets, is based solely on a disclosure basis, although the description of the use of proceeds varies depending on the issuer. For example:

- The green bonds issued by EDF provide that the net proceeds of the issuance will be allocated within the issuer's treasury liquidity portfolio to a sub-portfolio for investments in eligible green projects. Pending application of these proceeds to an eligible project, the issuer holds them, at its discretion, in cash or other liquid marketable instruments.
- The green bonds issued by Unibail-Rodamco do not specify that the proceeds will be placed in a specific account pending allocation. Rather, they provide that the proceeds will be allocated directly to eligible projects, whether existing or new.
- Local authorities, such as Région Ile de France, merely disclose that the net proceeds will be used for certain eligible projects. This terminology covers not only green aspects but also social projects, or projects linked to public transportation, education, sustainable and community developments. The specific issue for local authorities is the difficulty for them of segregating the funds and allocating them to specific projects, due to the laws and regulations governing public finance.

The current French market, consistent with that in other markets, is based solely on a disclosure basis, although the description of the use of proceeds varies depending on the issuer.

Monitoring and reporting

The various green bonds each have their own specific provisions as to the green criteria that are applied, how compliance with these is monitored, and what ongoing reporting is made available during the life of the bonds. These provisions vary considerably depending on the type of issuer and the allocation of proceeds, but have as a common theme the notion of "independent" third-party supervision. Here are a few examples based on the same selection of issuers:

- EDF has a Green Bond Framework available in the Green Bond section of its website, which annexes various environmental criteria with which the eligible green projects (essentially renewable energy projects operated by EDF Energies Nouvelles, a dedicated subsidiary of EDF, and hydro projects operated by EDF Hydro Division). One of EDF's auditors, Deloitte, issues an annual report covering, amongst other things, the compliance of the projects with the four pillars of the GBP.
- For Unibail-Rodamco, the key is for the eligible assets to have a high BREEAM rating, as well as meeting the criteria developed by Vigeo, one of the major independent "green" agencies. Auditors EY are also expected to issue a report in the company's Annual & Sustainable Development Report.
- In the case of the Région Ile de France green bonds, the projects for which the proceeds may be used are broadly defined. The disclosure simply states that they will meet criteria agreed with Vigeo and will be the subject of regular reporting by the issuer, certified by an external agency to be determined.

It is clear that it is essentially the issuer, in each case, which determines the level of constraints, transparency and ongoing monitoring of the green nature of the use of proceeds. There is a certain degree of accountability and independent supervision, although this is quite variable between issuers. The intention to follow the GBP is expressed in most issuances, but the range of clauses and their precision suggest that further harmonisation would be welcome.

New developments

At some of the green finance conferences held in Paris recently, investors asked whether issuers of green bonds were prepared to contemplate giving "teeth" to their green use of proceeds clauses, in the form of contractually binding covenants in favour of bondholders. The question tended to receive, at best, a lukewarm reception from issuers. In short, until issuers receive more favourable pricing for green bonds than for classic bonds, why should they tie themselves down with covenants?

In addition, concern was expressed in some quarters that the green bond market still needs to grow considerably, and that attempting anything too sophisticated might act as a brake on growth. Yet the question remains, and as the market develops and investors become more demanding and specialised, the demand for firmer commitments from issuers, or at least some financial *quid pro quo*, can only increase.

To this end, a leaf might be taken from the nascent green loan market. This market is far less developed than the green bond market, but the innovative pricing of the margin for the Unibail-Rodamco green loan referred to in more detail elsewhere in this briefing (with France again taking a leading position) could be an attractive way forward, as it provides the issuer with the financial incentive and the investors with more certainty. Perhaps this would remain a minority approach, offering certain pools of investors and certain categories of issuer with a more tailored product while the more established green bond market carries on as previously.


GLOBAL PERSPECTIVE
CHINA

THE DEVELOPMENT OF THE GREEN BOND MARKET IN CHINA

The Chinese Government and agencies have enthusiastically endorsed green financing in recent years.

Clear policy direction concerning the implementation of a green financial system within China was formally outlined under China's 13th five year plan, which was announced in late 2015. In support of the overall policy direction, various Chinese regulators have announced and implemented a number of guidelines to lay the foundations for a regulated green finance system domestically. In particular, in 2015 both the People's Bank of China ("**PBoC**") and the National Development and Reform Commission ("**NDRC**") published guidelines relating to green bonds (see below). In August 2016, the PBoC published its Guidelines for Establishing the Green Financial System. The guidelines were developed with the approval of the Chinese State Council and aim to "promote the sustainable development of the economy, establish a sound green financial system, improve the function of the capital markets in allocating resources….. and support and promote the development of an ecological civilisation". And in June 2017, China launched five pilot zones to promote green finance with financial institutions being given various incentives to provide funding for climate friendly businesses.

Clear policy direction concerning the implementation of a green financial system within China was formally outlined under China's 13th five year plan.

Key green bond policies and guidelines

PBOC Announcement [2015] No. 39（中国人民银行公告 [2015] 第39号）

In December 2015, the PBoC, China's central bank, established tangible definitions and guidelines on the eligibility of bonds being regarded as "green" domestically.

NDRC Green Bond Guidelines [2015] No. 3504 (国家发展改革委办公厅关于印发《绿色债券发行指引》的通知 [2015] 3504号)

In December 2015, the NDRC, the country's national policy management agency, published its guidelines for green bond issuance in China which provided tangible guidance on the eligibility of bonds being regarded as "green" domestically.

Both NDRC's Green Bond Guidelines of December 2015 and the PBoC's Announcement were published as complementary sets of guidelines covering different areas of the onshore green bond capital market. PBoC's guidelines are aimed at establishing guidance over green bonds issuances by financial institutions in the Chinese Interbank Bond Market; NDRC's guidelines regulate green enterprise bonds for the non-listed, state-owned enterprise sector.

CSRC Guidance on Green Bond Support and Development [2017] No.6 (中国证监会关于支持绿色债券发展的指导意见（证监会公告 (2017) 6号）)

In March 2017, the China Securities Regulatory Commission ("**CSRC**"), released a set of guidelines on the issuance of green bonds by PRC stock exchange-listed companies. As the main regulator supervising China's securities market, the CSRC oversees the issuing, trading, custody and settlement of equity shares, bonds and investment funds. The CSRC's guidelines supplemented the guidelines published by the PBoC and the NDRC, and also sought to encourage both the Shanghai and Shenzhen stock exchanges to build up dedicated green bond lists, indices and other instruments to facilitate green investment.

Key differences between domestic green standards and international green standards

There are certain key differences between the present domestic green standards and established international green standards. Key differences include: (i) the type of projects that would be recognised as being eligible as being "green"; and (ii) the restrictions over the use of bond proceeds. For example, projects involving "clean" coal, refitting of fossil fuel power stations and the mixed use infrastructure projects (e.g., involving both renewable energy and fossil fuels) would be regarded as being green eligible projects under the domestic green standards, but in most cases will not be recognised under international green standards such as the GBP. Further, guidelines such as the NDRC Green Bond Guidelines permit state-owned enterprise green bond issuers to use up to 50 per cent of bond proceeds to repay existing bank loans and invest in general working capital. In contrast, generally speaking at least 90 to 95 per cent of the bond proceeds would be required to be linked to green assets or projects before being eligible under the applicable international green standards.

Offshore green bond issuances

For PRC issuers seeking to raise capital via offshore green bond issuances, the focus has been to ensure that the bond issuance and the use of bond proceeds comply with established international market standards, primarily represented by the GBP. At present, there are only a limited number of offshore green bond issuances being undertaken in China. The majority of offshore issuances have come from large Chinese financial institutions, such as the Agricultural Bank of China and Bank of China, although we are beginning to see more issuance from PRC corporates, notably, Xinjiang Goldwind and China Three Gorges Corporation.

Onshore green bonds issuances

The majority of green bond issuances carried out by PRC entities have been made in the onshore PRC capital markets complying, since 2015, with the domestic green standards described above. Unlike offshore green bond issuances which are largely principles-based and self-regulated, onshore green bond issuances are regulated and require specific approval from applicable PRC regulatory authorities.

Given the overall policy support provided by the Chinese Government under the 13th five year plan, China has rapidly developed into having the world's largest green bond market. According to the China Green Bond Market 2016 Report, jointly published by the CBI and China Central Depository & Clearing Co. Ltd. (CCDC), green bond issuance from China increased in 2016 from almost zero to approximately CNY238bn (USD36.2bn), accounting for 39 per cent of global issuance in 2016.

Onshore green bond issuances by financial institutions

Agricultural Bank of China

In October 2015, the Agricultural Bank of China ("**ABC**") carried out an issuance of green bonds under its existing medium-term notes programme. This was the first-ever green bond issuance carried out by a PRC financial institution, and the second offshore green bond issuance by a PRC entity. ABC issued three series of notes under its existing medium-term notes programme which in aggregate totalled approximately US$1 billion. The issuance was assessed by Deloitte Touche Tohmatsu, ABC's independent auditors, to confirm its alignment with the key features of the March 2015 GBP. To support the issuance, Deloitte Touche Tohmatsu issued an independent limited assurance statement concerning ABC's green bond management statement.

On an ongoing basis, ABC undertook to ensure that the bond proceeds would be used exclusively for lending by the bank to borrowers to finance eligible green projects in support of environmental protection, energy conservation and greenhouse gas emission reduction. A management department in ABC's headquarters would be responsible for reviewing and approving the use of the bond proceeds and for maintaining a register of them. For so long as any of the relevant green bonds are outstanding, ABC will make annual disclosures relating to the use of bond proceeds in its annual sustainability report and confirm that the use of the bond proceeds conforms to its published green bond management statement.

Bank of China

- **Senior notes issuance**

  In August 2016, the Bank of China ("**BOC**") completed the largest offshore green bond issuance to date by a PRC entity in the international market. BOC issued three series of notes under its existing medium term notes programme which in aggregate totalled approximately US$3.03 billion. The issuance was assessed by Ernst & Young, BOC's independent auditors, to confirm its alignment with the key features of the June 2016 GBP. To support the issuance, Ernst & Young issued an independent limited assurance statement concerning BOC's green bond management statement, and assessed the social and environmental performance of the nominated eligible green projects to which the bond proceeds will be potentially allocated.

  On an ongoing basis, BOC undertook to ensure that eligible green projects are appropriately screened, with all approved projects recorded on a project list that would be reviewed quarterly by BOC's headquarters. For long as any of the relevant green bonds are outstanding, BOC will make annual disclosures relating to the approved projects, confirm on a quarterly basis that the use of the bond proceeds conforms with its published green bond management statement, and publish an audit report on an annual basis from Ernst & Young confirming that all bond proceeds are allocated in the manner conforming to the green bond management statement.

- **Covered bonds issuance**
  In November 2016, BOC carried out an issuance of US$500 million green covered bonds under its existing medium term note programme. A key feature of these bonds is that they were backed by assets consisting of a portfolio of onshore green securities traded on the CIBM which met certain eligibility criteria, including the requirement for such onshore securities to be part of the ChinaBond China Climate-Aligned Bond Index published by China Central Depository and Clearing Co., Ltd.

  The issuance was assessed by Ernst & Young, BOC's independent auditors, to confirm its alignment with the key features of the June 2016 GBP. To support the issuance, Ernst & Young issued an independent limited assurance statement concerning BOC's green bond management statement, and assessed the social and environmental performance of the nominated eligible green projects to which the bond proceeds will be potentially allocated.

  On an ongoing basis, BOC undertook to ensure that eligible green projects are appropriately screened, with all approved projects recorded on a project list that would be reviewed quarterly by BOC's headquarters. For so long as any of the relevant green bonds are outstanding, BOC will make annual disclosures relating to the approved projects, confirm on a quarterly basis that the use of the bond proceeds conforms with its published green bond management statement, and publish an audit report on an annual basis from Ernst & Young confirming that all bond proceeds are allocated in the manner conforming to the green bond management statement.

Offshore green bonds issued by PRC Corporates

Xinjiang Goldwind

In July 2015, Xinjiang Goldwind ("**Goldwind**") carried out an offshore issuance of US$300 million bonds with the benefit of a 'keepwell' deed from its parent company and the benefit of an irrevocable standby letter of credit provided by Bank of China Limited, Macau Branch. This issuance was the first-ever issue of bonds assessed under the GBPs carried out by a PRC-incorporated corporate. The issuance was assessed by DNV GL, an independent green assessment agency, confirming the alignment of the bonds with the 2015 GBP.

DNV GL issued its eligibility assessment, and noted that the use of the bond proceeds would be to finance Goldwind's general corporate undertakings. DNV GL further noted that Goldwind is a company whose purpose is to develop wind turbine generators and provide services related to wind energy, and as such Goldwind's operational activities tie in to the environmental benefits through low-carbon, wind-based electricity generation. A key finding DNV GL reached was that, given that over 90 per cent of Goldwind's consolidated revenues came from business activities considered to have clear environmental benefits, the intended use of the bond proceeds would therefore fall within green bond purposes.

China Three Gorges Corporation

In June 2017, China Three Gorges Corporation ("**CTGC**") carried out an offshore issuance of EUR 650 million bonds guaranteed by CTGC. The issuance was assessed by Ernst & Young, CTGC's independent auditors, confirming the alignment of the bonds with the key features of the June 2016 GBP. To support the issuance, Ernst & Young issued an independent limited assurance statement concerning the bonds issued and the green bond guidelines established by CTGC concerning the use of proceeds.

Under the CTGC's green bond guidelines, all the bond proceeds would be used to fund eligible green projects in the category of renewable energy, which includes solar energy, wind energy and biomass energy, in particular the production and transmission of renewable energy and the manufacturing of renewable energy appliances and products.

On an ongoing basis, CTGC undertook to ensure that eligible green projects are appropriately screened, and to carry out quarterly reviews of the projects approved. For so long as any of the relevant green bonds are outstanding, CTGC will disclose information on the use of the proceeds and the environmental performance of the eligible green projects on an annual basis on its official website, and through other channels where feasible, such as its annual reports or social responsibility reports. CTGC also expressed an intention to implement periodic reviews by a third-party verification body of the relevant green bond-related information.

GLOBAL PERSPECTIVE
INDIA

INDIA: THE GREEN BOND MARKET IS TAKING OFF

The UN Environment Programme India Inquiry Report "Delivering a Sustainable Financial System in India" was published in April 2016. This demonstrated the Indian Government's commitment to developing sustainable finance in the region. The report identified the existing legislative and voluntary initiatives already in place in India and the growing momentum behind such actions. These include 2011 national voluntary guidelines on the responsibilities for responsible financing, the Securities and Exchange Board of India's ("**SEBI**") 2012 comply or explain corporate governance reporting policy on ESG and the introduction of the 2013 Companies Act which mandates that 2 per cent of profits must be spent on corporate and social responsibility activities. In January 2016, India became the second country (after China) to publish guidelines for the issuance of onshore green bonds.

"I am glad that the FICCI UNEP Inquiry report for India highlights the steps that are being taken to harness India's financial system for clean energy, clean water and sustainable development as a whole. I fully support the call for a national green finance strategy to scale up these initiatives"

Hon. Jayant Sinha
Indian Minister of State for Finance 2016

India has established ambitious plans to triple renewable energy power capacity by 2022, as set out in India's Intended Nationally Determined Contributions under the United Nations Framework Convention on Climate Change. It is understood that the SEBI aims to link the development of its onshore domestic green bond market to these overarching clean energy objectives and plans. This provides the backdrop to India's issuers and regulators pursuit of sustainable financing policies in the offshore and onshore debt capital markets.

Onshore markets

While the SEBI Green Bond Guidelines do not specify a definition of green bonds, the SEBI has made the requirement for an independent third party reviewer or certifier of pre-issuance and post-issuance use of proceeds, project evaluation and selection criteria, optional. However, in order to qualify under the SEBI Green Bond Guidelines, it is mandatory for an issuer of domestic green bonds to specify the use of proceeds and list of projects to which the proceeds have been allocated in its annual and interim filings with the Indian stock exchange. It appears that the SEBI has taken a similar approach to the international green bonds market in leaving non-compliance with an issuer's green bond framework to market sanctions.

In July 2017, L&T Infrastructure Finance Company Limited issued the first domestic green bonds in an INR677 million placement (under the SEBI Green Bond Guidelines) to the International Finance Corporation.

Offshore markets

The SEBI Green Bond Guidelines do not apply to the offshore markets and Indian issuers of green bonds do so in accordance with market standards such as the GBP and the CBS. The CBI, in its Bonds and Climate Exchange – The State of the Market: India, 2016 ("**2016 Report**"), described Indian issuers as leaders in best practice in the green bond market, having the largest number of green bonds with a review or certification from an external body. Four out of seven green bonds from Indian issuers were certified by reference to the Climate Bonds Standard, with independent verification from KPMG, Emergent Ventures India and Sustainalytics.

This trend continued in 2017, with the Rural Electrification Corporation, ReNew Power, Jain International and Greenko all accessing sustainable financing markets through US dollar-denominated issuances, as well as synthetic Indian Rupee, or "Masala bonds," India's financial institutions have also sought offshore funding in the green bond markets, in order to provide financing to India's growing renewable energy power capacity.

Axis Bank Limited – issue of US$500 million 2.875% notes due 2021

Axis Bank's green bond issue in July 2016 (acting through its Dubai International Financial Centre Branch) was the first green bond issued by a financial institution in India to list on the London Stock Exchange. It also listed on the Singapore Stock Exchange.

The green bond was issued in accordance with Axis Bank's green bond framework. The bond was certified under the Climate Bond Standard and KPMG provided an independent limited assurance report in relation to the proposed use of proceeds, project evaluation and selection, management of proceeds and reporting. The net proceeds were allocated towards the financing of renewable energy projects (solar, wind and hydro), low carbon transport projects and low carbon building projects. Axis Bank will provide annual reports on the use of proceeds.

Under the Axis Bank green bond framework due diligence on, and nomination of, potential projects is undertaken by the bank's Corporate Credit Group. A Green Bond Committee established to approve nominations must unanimously agree on the eligibility of each project. Under the framework, Axis Bank will monitor the allocation of the proceeds for each issue. Unallocated funds are to be earmarked and invested in short-term money market instruments, treasury bills and government securities, pending allocation to an eligible project. The bank will also include a full report on the use of proceeds for the issue of any greed bonds under the framework through a dedicated section in its Annual Sustainability Report, published on its website.

Unlabelled climate-aligned bonds

In its 2016 Report, the CBI highlighted there being as much as US$15.7 billion of "unlabelled climate-aligned" bonds that are aligned with climate mitigation or adaptation objectives, but are not labelled as "green" under an appropriate international standard. This includes Rupee-denominated bonds issued by the Indian Railway Finance Corporation Limited in order to fund low carbon transport initiatives. This may be due to costs associated with an independent external review in order to achieve a green bond "label." We may, however, begin to see an increasing number of domestic issuers seeking formal certification and "labelling" of their green bond at comparatively lower cost in accordance with the SEBI Green Bond Guidelines. Indian issuers may also be able to apply under the Singapore Stock Exchange's Green Bond Grant Scheme to offset the costs associated with an external review and achieve formal recognition of their green bond issuance (see Global Perspectives: Singapore on page 75).

GLOBAL PERSPECTIVE
SINGAPORE

SINGAPORE: INNOVATION TO ENCOURAGE GREEN BONDS

The Monetary Authority of Singapore (the "**MAS**") regulates both the central bank of Singapore and the financial regulatory authority. Unlike regulators in some jurisdictions, it does not impose rules on how it defines green bonds, or how these may be issued in the domestic market. Singapore issuers of green bonds, or non-Singapore issuers seeking to raise green bond financing in Singapore's debt capital markets typically voluntarily comply with the GBP and CBS. Rather than imposing prescriptive standards, the MAS has adopted measures to incentivise the issuance of green bonds listed on the Singapore Stock Exchange ("**SGX**"), through the Green Bond Grant Scheme.

"MAS will also seek to promote the development of a wider range of sustainability-orientated benchmarks, funds and products to cater to growing demand. And we will start with green bonds. I think there is potential here to develop a green bond market"

Laurence Wong, Singapore Minister for National Development, March 2017

The MAS Green Bond Grant Scheme

In March 2017, the government announced the MAS Green Bond Grant Scheme which subsidises the cost of the external third party certification of green bonds. The MAS will meet the costs of an independent review for "qualifying green bond issuers" through a cash grant of up to S$100,000 (approximately US$74,000). In order to be a qualifying issuer, the issuer must issue green bonds that meet the criteria set out in the "Green Bond Grant Scheme Circular" as follows:

The "Qualifying Issuer" criterion

The green bond issuer may be any company or financial institution based or incorporated onshore or offshore. Sovereign issuers do not qualify as "Qualifying Issuers." Importantly, first-time and repeat issuers remain eligible to apply for the grant multiple times for different green bond issuances.

The "Qualifying Issuance" criterion

The green bonds issued by a Qualifying Issuer must meet the following requirements:

- The issue must qualify as a Qualifying Debt Security ("**QDS**") for the purposes of the Singapore Income Tax (Qualifying Debt Securities) Regulations 2001.[1] The impact of this requirement is that the issue must be "substantially arranged in Singapore" (i.e. by banks which have Financial Sector Incentive ("**FSI**") status in Singapore), thereby qualifying as QDS and being a Qualifying Issuance for the purposes of the Green Bond Grant Scheme Circular.

1 The "QDS" scheme is unique to Singapore, and provides a tax exemption (including for withholding tax) on certain qualifying income (including interest) derived by investors who are non-resident holders of debt securities which qualify under the regulations. In addition, the QDS scheme grants companies or bodies of persons in Singapore a 10 per cent concessionary rate on qualifying income derived from QDS eligible securities. While a detailed discussion of the QDS scheme falls outside of the scope of this work, suffice to say that qualifying securities for QDS purposes in Singapore may be essential from a withholding tax perspective; this is a significant marketing factor when bonds are marketed to investors in Singapore.

- The green bonds must have an external review or rating undertaken based on any internationally recognised green bond principles or framework, and where more than half of the gross revenue from the external review or rating undertaken is attributable to Singapore-based service providers. The external review may be a second opinion, verification or certificate done to support green bond status. Any "rating" must be the highest grade of a green bond rating by an international credit rating agency (i.e. S&P, Moody's or Fitch; for example, a bond must be assigned with a GB1 (Excellent) rating under Moody's Green Bonds Assessment Framework). The requirement is not prescriptive as to the universe of acceptable "internationally recognised" principles or frameworks, but the GBP and CBI are specifically referred to. Importantly, any Qualifying Issuer and its advisers will need to exercise care in ensuring that the external reviewer is undertaking the review "substantially" in Singapore, given the requirement for more than half of the gross revenue from the review or rating – i.e. the proceeds from the grant – to be attributable to an external reviewer based in Singapore.
- The minimum aggregate nominal amount of the green bonds initially issued must be at least S$200 million or its equivalent in another currency.
- The minimum tenor of the green bond must be at least three years from the date of issue.
- The bonds must be listed on the SGX;
- More than half of the gross revenue from "arranging"[2] the issue is to be attributable to FSI companies in Singapore. Note that this requirement is likely to be met where the green bonds qualify as QDS.
- There is no restriction on the type of currency in which the green bonds are denominated, provided these are issued in Singapore and listed on the SGX.

Eligible expenses criterion

Eligible expenses refer to the costs charged for the external review or rating based on an internationally recognised set of green bond principles or similar framework, and which are incurred by the Qualifying Issuer directly in relation to the Qualifying Issuance of green bonds. These expenses are subject to a per issue cap of the lower of the actual eligible expenses incurred or S$100,000 (excluding all applicable taxes in Singapore).

From a process perspective, any Qualifying Issuer must, prior to the issuance, appoint a lead arranging bank (which must be an FSI company), whose role is to work with the issuer to verify that the issuance will meet the criteria set out above. The Green Bond Grant Scheme Circular imposes an obligation on such bank to carry out appropriate due diligence to determine whether the criteria are met. Following issuance of the green bonds. the arranging bank is required to submit a completed application form to the MAS on the Qualifying Issuer's behalf, together with the invoices for the eligible expenses, no later than three months following the issue date.

2 "Arranging" for these purposes includes all functions typically associated with an arranger's or manager's mandate on a bond issue, including securing the mandate, originating and structuring the bond issuance; documentation and preparation of an offering circular and related transaction documentation; and the distribution and sale of the issuance.

As post-issuance applications for the grant are kept confidential, it is not clear how many green bond issuers in Singapore have taken advantage of the scheme. However, increasing interest in sustainable investment, coupled with the general dynamics of Singapore's bond market, means that there have been a significant number of green bonds in the Singapore market, with seven issuances totalling US$2.575 billion listed on the SGX, from issuers in India, Korea, Australia, the Netherlands, Hong Kong, and Singapore (to October 2017).

DBS Group Holdings Ltd – Issue of US$500 million floating rate notes due 2022

The DBS Group's green bond issue in July 2017 was the first green bond issued by a financial institution in Singapore, and the largest green bond in the ASEAN debt capital markets in 2017. The green bonds were offered to a broad investor base in Asia, Europe and the United States.

DBS Group's green bond framework was reviewed by Sustainalytics, who issued a framework overview and second party opinion to confirm alignment of the framework with the GBP. In addition, Ernst & Young issued an independent limited assurance report in relation to the proposed use of proceeds, project evaluation and selection, management of proceeds and reporting for the issue.

The net proceeds of the issue will be allocated to the financing of eligible green projects or assets (the "**Pool**") selected in accordance with the eligibility criteria and exclusionary criteria in the DBS Group's green bond framework. The first green assets are expected to include the DBS Group's financing of Marina Bay Financial Centre Tower 3, a commercial property in Singapore certified "Green Mark Platinum" by the Building and Construction Authority of the Singapore Government.[1]

The DBS Group will monitor the allocation of the proceeds and the Pool through internal information systems, and maintain a register to facilitate the monitoring and reporting of the issued green bonds and the Pool. Sufficient green assets or projects will be designated into the Pool to ensure that its outstanding balance always exceeds the proceeds of all green bonds issued. Additional eligible green assets or projects will be added to the Pool on every green bond issuance, if necessary, to ensure sufficient and timely allocation of the incremental net proceeds. Where the allocation of the proceeds is pending in the event that there are insufficient assets in the Pool, the DBS Group may deploy the proceeds (at its discretion) in cash or high-quality marketable instruments in accordance with its liquidity management strategy in the interim period.

While any green bonds remain outstanding, if the designated assets or projects cease to fulfil the eligibility criteria under its green bond framework, the DBS Group will aim to allocate the proceeds to replacement assets or projects that comply with the eligibility criteria as soon as is reasonably practicable.

1 The Building and Construction Authority's "Green Mark" is a green building rating system to evaluate a building for its environmental impact and performance. It provides a comprehensive framework for assessing the overall environmental performance of new and existing buildings to promote sustainable design, construction and operations practices in buildings. Under the assessment framework for new buildings, developers and design teams are encouraged to design and construct green, sustainable buildings which are more climatic responsive, energy effective, resource efficient, smarter and have healthier indoor environments.


GLOBAL PERSPECTIVE
AFRICA

GREEN FINANCING IN AFRICA

Green financing in Africa is diverse. It includes a developing green bond market, project financing for renewable energy projects, and climate-focused finance to support sustainability and natural resource management.

Africa's financial institutions are also moving towards more sustainable and green principles. In 2012, Nigeria adopted the Nigerian Sustainable Banking Principles which recognise the banking sector's role in delivering economic growth and development in Nigeria, whilst protecting the communities and environments in which they operate. The International Trade Centre (a joint agency of the WTO and the UN) has also organised conferences and training on green finance for management and staff of commercial banks in Côte d'Ivoire, Ghana, Kenya and Zambia as part of its Access to Finance for SMEs Programme.

Financing for renewable energy projects

Governments, multilateral agencies and development finance institutions are all developing programmes to encourage investment in the renewable energy sector through direct funding, procurement programmes and investment incentives to stimulate private investment. For example:

- The South Africa Renewable Energy Independent Power Producer Procurement Programme ("**REIPPPP**") is a rolling programme established by the Department of Energy to encourage private investment in renewable energy projects through targeted megawatt allocations. Projects covered by the programme include onshore wind, solar photovoltaic, concentrated solar power, biomass and small hydro.
- The European Bank for Reconstruction and Development ("**EBRD**") has established the Egypt Renewable Energy Framework.
- Green Africa Power (part of the Private Infrastructure Development Group) has launched a multi-donor facility funded by the UK Department for International Development ("**DFID**") and the Norwegian Agency for Development Cooperation ("**Norad**") to provide intermediate finance (subordinated debt or quasi equity) and contingent lines of credit to help stimulate private sector investment in renewable energy in Africa.
- Nigeria's Renewable Energy Programme, set up by Nigeria's Ministry of Environment in partnership with Nigeria Investment Promotion Commission, has put in place various investment incentives, including tax relief and a re-investment allowance, to encourage investment in renewable energy from within and outside of Nigeria.

Green bonds

The green bond market in Africa is nascent, and most issuances to date have been by development finance institutions such as the African Development Bank ("**AfDB**") and the Industrial Development Corporation of South Africa ("**IDC**"). The following are examples of non-DFI green bond issuances in the African market:

Case study – EBRD Egypt Renewable Energy Framework

In June 2017, the EBRD approved a US$500 million framework to support the development of private renewable energy projects under the Egyptian government's feed-in-tariff programme for wind and solar. The framework is expected to finance 16 projects, including a US$28.5 million loan for the construction of a 50MW solar plant in Benban, with a parallel loan of up to US$28.5 million provided by the Islamic Corporation for the Development of the Private Sector. This is the third project under the EBRD framework. The construction and operation of two further 50MW solar photovoltaic power plants in the Benban solar complex is being financed by EBRD and Proparco, with the two institutions together providing US$116 million of financing.

- Clifford Chance recently advised Banque Centrale Populaire ("**BCP**") on the first international green bond issuance in Euro in the African banking sector. The bond, subscribed for by the IFC and Proparco is for a total amount of €135 million with a 10 year maturity. The green bond was certified by the Green Investment Bank and the proceeds are for refinancing BCP's investments in selected renewable energy projects in Morocco.
- The City of Cape Town issued a R1 billion green bond in July 2017 under the City of Cape Town Green Bond Framework to finance projects to mitigate and adapt to climate change through investments in water and sanitation projects. The notes are certified by the Climate Bonds Standards Board.
- The City of Johannesburg issued the first emerging market green municipal bond for an amount of R1.46 billion in June 2014. The bond was to fund green projects in household and building energy efficiency, waste management, transport and renewable electricity and power.
- Nedbank issued a green retail bond in July 2012 for an amount of R4 billion, the proceeds of which were earmarked for renewable energy projects in South Africa.

AfDB has identified the African green bond market as a growth area and an alternative source of financing for African sustainability and climate finance initiatives. Advantages of green bonds identified by AfDB include access to investors from outside local or traditional markets, for example socially responsible investors ("**SRIs**") that have niche interests in sustainability and responsible investment; pricing advantages from the "green" label; and increased transparency and institutional accountability for projects through the involvement of SRIs and the development of green bond guidelines such as the GBP.

Climate focused finance

Climate finance in Africa is targeted at climate change mitigation and adaptation, providing African countries with access to financing for low carbon and sustainable development in sectors such as transport, energy and agriculture. In addition to green bonds and project finance, climate finance in Africa is growing through dedicated funds, such as Urban & Municipal Development Fund for Africa. For example, the International Trade Centre ("**ITC**") and the African Guarantee Fund have set up a partnership to expand access to climate-focused finance for small- and medium-sized enterprises ("**SMEs**") in Africa by introducing a specialised green-guarantee instrument for SMEs investing in low carbon, green growth and climate resilient development.

AfDB currently works with nine climate finance funds, including the Africa Climate Change Fund and the Agriculture Fast Track Fund as part of its strategy to finance climate-change resilient and low-carbon growth in Africa. AfDB also provides direct financing, and is increasing its annual climate financing to reach US$5 billion a year by 2020.

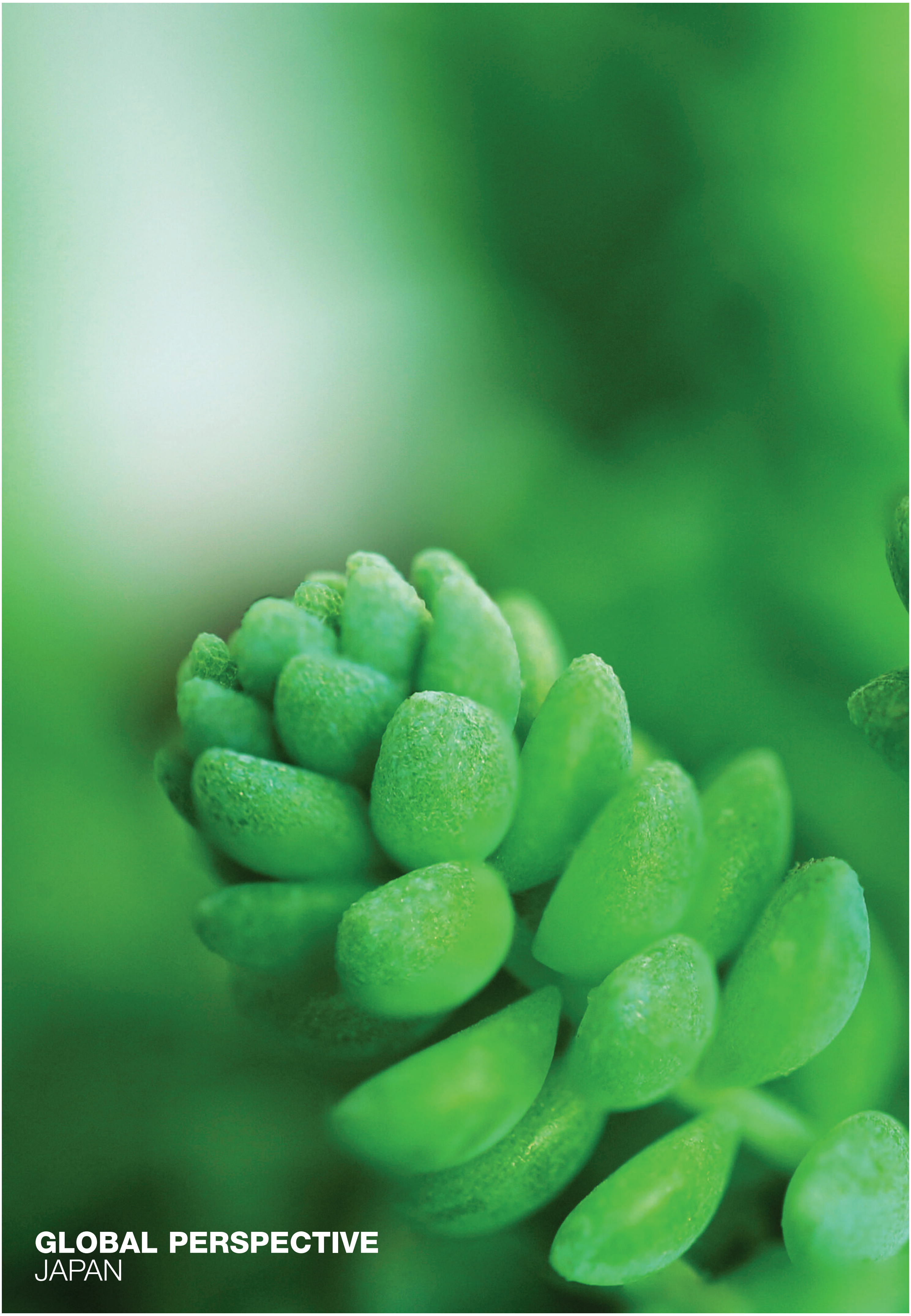
Case study – Green bond programs in Africa

The Kenya Green Bond Program was launched in 2017 to support domestic banks and corporates to better deliver green investments in Kenya. It is coordinated by the Kenya Bankers Association (KBA), Nairobi Securities Exchange (NSE), Climate Bonds Initiative and Financial Sector Deepening Africa. As part of the program FMO (the Dutch development bank) has signed an MOU with the KBA to develop the framework for the industry's first pooled green bond facility. The Kenya Green Bond Guidelines Background Document also identifies Kenya as one of the countries that will benefit from the IFC's Green Bond Cornerstone Fund, a green bond fund dedicated to emerging markets.

AfDB's Green Bond Program is a supra-national program that is part of the bank's Strategy for 2013-2022 to prioritise green growth through the financing of eligible climate change projects. AfDB has launched bonds in various currencies including USD, SEK and AUD with maturities of between three and 15 years. Examples of eligible projects include greenfield renewable energy generation, energy efficiency, conservation projects, waste management and urban development.

Case study – Urban & Municipal Development Fund for Africa

The Urban & Municipal Development Fund for Africa is being set up to support African cities and municipalities to better manage urban growth and climate-resilient development by improving governance and quality of basic services. The fund is financed by donors including AfDB and the Nordic Development Fund. The average grant size is expected to be between US$250,000 and US$1 million.


GLOBAL PERSPECTIVE
JAPAN

GREEN FINANCING IN JAPAN

Encouraging growth in its green bond market is one of Japan's key environmental priorities. In 2016 Japanese bond issuers were among the first to apply the Social Bond Guidelines issued by ICMA, and in March 2017 the Ministry of the Environment (*Kankyōshō*) (the "**MoE**") established the Green Bond Guidelines (the "**Guidelines**"). In February 2017 the Tokyo Metropolitan Government (the "**TMG**") published its Green Bonds Issuance Policy and, in the build-up to the 2020 Olympic Games, is working "to grow as a leading environmental city and as an international finance/economic powerhouse".[1]

The MoE's Green Bond Guidelines

Based on the GBP and adapted for the Japanese bond market, the MoE's Guidelines provide a general overview of green bonds, and the requirements and procedures for their issuance. This includes outlining characteristics and features that green bonds are expected to have to ensure they are internationally accepted as green bonds and to prevent "green-wash" bonds from being issued and invested in.[2] Although legally non-binding, the MoE hopes that the Guidelines will help establish the credentials of green bonds and reduce the cost and administrative burden on issuers. In doing so, the MoE believes this will increase green bond issuances and encourage investments into Japan.

"Tokyo is working to grow as a leading environmental city and as an international finance/ economic powerhouse"

Tokyo Metropolitan Government's "The Action Plan for 2020"

Tokyo 2020: A greener way forward

The TMG's Green Bonds Issuance Policy is part of its plans to transform Tokyo into a sustainable "Smart City", one of several goals outlined in its four-year "Action Plan for 2020".[3] The TMG has publicly identified green bonds as a means for investment both in Japan and internationally and has stated it must "assertively deploy environmental measures and undertake measures to create flow for the expansion and invigoration of the domestic Green Bonds market". Current projects set out in the Green Bond Issuance Policy and funded by green bonds include environmental measures for Olympic venues, the conversion of Tokyo streetlights and lighting systems in TMG facilities to environmentally-friendly LED lights and carbon neutral conversions for municipal buildings. In August 2017, the TMG obtained a second party opinion from oekom research in relation to green bonds issued pursuant to its Green Bonds Issuance Policy.[4] As of October 2017, over 20 Japanese investors, including banks, life insurance companies and asset management companies, have publicly indicated their support for the significance of the issuance of TMG green bonds and declared their intention to invest in such bonds.

1 Tokyo Metropolitan Government (2017). Green Bond Issuance Policy. [online] Available at: http://www.zaimu.metro.tokyo.jp/bond/en/tosai_news_topics/news_topics/greenbond_290222_2.pdf

2 https://www.env.go.jp/en/policy/economy/gb/summary2017.pdf

3 Tokyo Metropolitan Government (2017). The Action Plan for 2020. [online] Summary available at: http://www.metro.tokyo.jp/ENGLISH/ABOUT/PLAN/index.htm

4 http://www.zaimu.metro.tokyo.jp/bond/tosai_ir/gb/greenbond290920en_2.pdf

Recent Green Bond Issuances

Given the public statements and commitments of agencies such as the MoE and influential metropolitan governments such as the TMG, Japanese issuers have increasingly explored the option of domestic and international green bond transactions. Recent deals by Japanese issuers and/or in Japan have included:

- The TMG's offering of JPY5 billion of 5-year green bonds and JPY5 billion of 30-year green bonds, both issued in October 2017 and targeting institutional investors, and of AUD $117 million of 5-year green bonds, to be issued in December 2017 targeting retail investors resident in the Tokyo metropolitan area, in each case with the proceeds used for supporting the TMG's green projects in line with the GBP;
- Issue by Japan Railway Construction, Transport and Technology Agency ("**JRTT**") of JPY20 billion 10-year green bonds in November 2017. The JRTT green bond issue was the first "model issuance" chosen by the MoE as part of its "Green Bond Model Issuance Creation Project", aimed at disseminating information relating to examples of green bond issuances which meet the requirements of the Guidelines and which have model characteristics that may aid in the promotion of issuance of further green bonds in Japan. The second party opinion as to compliance with the Guidelines was issued by E&E Solutions with cooperation from Japan Credit Rating Agency and Sustainalytics;
- Issues by all of the "megabanks" of various series of green bonds, including Mizuho Financial Group's euro-denominated green bonds issued in October 2017 in line with both the GBP and the MoE's Guidelines, with a second party opinion provided by Sustainalytics; and
- Issue by Electricité de France of JPY26 billion of 12-year and 15-year green "samurai" bonds, in line with the GBP, in January 2017.

Other recent ESG-type issuances include the sustainability bonds issued by Development Bank of Japan Inc. ("**DBJ**") in October 2017 (see case study), and the renewable energy project bonds (with 23-year maturity) issued as trust beneficiary interests by Hitachi Capital Trust (arranged by Barclays) in August 2017, with proceeds used to finance the development of a solar power project in Kyoto.

Case Study: Development Bank of Japan Inc. Green and SRI Bonds

DBJ was the first Japanese issuer to issue green bonds in 2014, having issued euro-denominated green bonds with proceeds being lent to finance buildings with over a certain level of "DBJ Green Building Certification", with a second party opinion provided by DNV GL. It has subsequently issued socially responsible investment ("**SRI**") bonds each year, with a second party opinion provided by Sustainalytics, the latest issue being the US$1 billion bonds issued in October 2017, the largest SRI bond issued by a Japanese issuer to date. The five-year bond was issued under DBJ's Luxembourg Euro MTF-listed GMTN programme.

DBJ obtained a renewed framework overview and second party opinion from Sustainalytics in September 2017[5], which included a review of the use of proceeds, the project evaluation and selection process, management of proceeds and reporting. Sustainalytics considered that the DBJ SRI Bond was transparent and created credible impact, and concluded that it was aligned with the GBP and ICMA's Sustainability Bond Guidelines 2017.

The net proceeds of the bond issuance are being used exclusively to finance or re-finance existing and future eligible financings (the "**Eligible Financings**") which meet certain eligibility criteria. This includes the following:

- Loans to highly-rated companies under the DBJ Environmentally Rated Loan Programme, which uses a screening rating system to evaluate the companies' environmental management;
- Financing or re-financing highly-rated buildings under the DBJ Green Building Certification Programme, an environmental and social rating system to measure the environmental and social awareness characteristics of real estate properties;
- Financing or re-financing highly-rated companies, buildings, real estate properties or REITs under the Global Real Estate Sustainability Benchmark, which assesses the Environmental, Social and Governance performance of real assets and infrastructure;
- Financing or re-financing renewable energy projects; and
- Financing or re-financing clean transportation projects.

DBJ has established internal management systems to track the amount of funds allocated to each of the Eligible Financings, and will report annually on its website the following information: allocation in aggregate to each eligibility criterion, and number of businesses, assets or projects funded under each eligibility criterion; the estimate share of financing or re-financing; and the amount of unallocated proceeds and the investments in which these proceeds are held.

5 http://www.dbj.jp/en/pdf/ir/financial/second_opinion_2017_for_dbj_sustainability_bond.pdf


GLOBAL PERSPECTIVE
LATIN AMERICA

LATIN AMERICA – A GROWING GREEN MARKET

The total "climate-smart" investment potential in Latin America and the Caribbean is predicted to exceed US$2.6 trillion by 2030, accelerated by these countries' needs to finance their Nationally Determined Contributions ("**NDCs**") under the Paris Agreement and other commitments made to combat climate change and protect the environment. Green bonds could be likely to play an important role in bridging the gap between the investment needed to meet NDC commitments and current finance flows for climate projects funding these commitments.

The beginnings of a green bond market

The bond market in Latin America is not as mature as in other regions. Several barriers have affected the popularity of corporate bonds as a financing tool, such as the conservative investment profile of local investors, political and economic disruption, a much larger government bond market, weak credit ratings impeding potential issuers from accessing the market, and tax breaks for other types of products.

The first Latin American green bond was issued in 2014 by Peruvian wind farm operator Energía Eólica. While the number of green bond issuances in the region is only a tiny percentage of the total worldwide, the market has grown since then as issuers in Latin America become more comfortable with green bonds as a financing option (see 2016 and 2017 notable "firsts"). This has included a number of so-called demonstration bonds by well-known issuers, such as the Banco Nacional de Costa Rica and Mexico City, which have helped reassure other issuers as to the viability of the market. This type of issuance looks set to continue as Mexico City Airport intends to issue up to a further US$6 billion of bonds by 2018.

Investor appetite is growing

Private investors have been reassured by public investment in green bonds (for example, IFC was the sole investor in the Bancolombia and Davivienda bonds) and are beginning to enter the market themselves, seen in the heavily oversubscribed Banco Nacional de Costa Rica, Brazilian Development Bank, Mexico City and Mexico City airport bonds. Investors in the region have also demonstrated their commitment to environmentally-friendly investments in other ways. In May 2017, investors controlling over 20 per cent of Mexico's GDP demonstrated their commitment by signing a joint declaration in favour of financing green bonds and, in October 2017, capital markets investors managing BRL1.6 trillion of assets signed a Brazil Green Bonds Statement recognising the benefits, supporting initiatives and emphasising investor appetite for green bonds.

2016 and 2017 notable "firsts"

- The first high-yield green bond to originate in Latin America issued by the Banco Nacional de Costa Rica (April 2016)
- The first Brazilian Real-denominated green bonds by Suzano Pulp & Paper via a green securitisation known as a "CRA" (agribusiness receivables certificate) (November 2016)
- The first green bond to finance a new airport, the largest ever from Latin America and for a non-financial corporation worldwide, as well as being the first from an emerging market country to receive a new green bond grade from Moody's (Mexico City Airport Trust's US$2 billion green bond) (September 2016)
- The first green bond issued by a private financial institution in Latin America by Bancolombia (December 2016)
- The first Latin American municipality green bonds by Mexico City (December 2016)
- The largest green bond issue by a private financial institution in Latin America, by Colombia's Banco Davivienda (April 2017)
- The first issue of green bonds in the international market by a Brazilian bank, by the Brazilian Development Bank (May 2017)
- The first green bond placed in the Colombian local market, by Banco de Comercio Exterior de Colombia (September 2017)

Positive policy developments

Market drivers, including actions from banking regulators and associations, are also helping to develop the investment environment and promote the growth of sustainable financing opportunities in the region. For example, in 2016, the Brazilian Banking Federation and the Brazilian Business Council for Sustainable Development published a guide for issuing green bonds in Brazil. Since publication, the number of Brazilian green bond issues has increased, with more transactions in the pipeline. Environmental Finance awarded this publication "Initiative of the Year", and lauded it for "galvanising the concept" of the green bond market in the country and helping eliminate confusion amongst potential issuers, underwriters and investors. In 2016, Mexico's Stock Exchange launched a green bond segment. Additionally, a number of significant-sized funds have been established to develop private sector investment and deepen capital markets. BNDES has launched a BRL500 million green bond fund to spur the growth of the domestic Brazilian green bond market. The IFC launched a US$2 billion Green Cornerstone Bond Fund to buy green bonds issued by banks in emerging markets such as Latin America.

Spotlight on Brazil

Voluntary green protocols initiated by the Ministry of Environment and the National Bank for Economic and Social Development (Banco Nacional de Desenvolvimento Econômico e Social) were adopted by state-owned banks in 1995 and then by commercial banks in 2009. The Brazilian Central Bank (Banco Central do Brasil) has implemented sustainability criteria into the day-to-day practices of commercial banks. In 2014 it published a mandatory resolution on social and environmental responsibility for financial institutions, which requires banks to develop and execute a social and environmental responsibility policy.

By the end of 2013, around 11 per cent of Brazilian banks' total lending was directed to "new energy" and low-carbon agriculture. (Source: Centre for Sustainability Studies). This ties into a strong Brazilian focus on environmental policy – for example, Brazil already generates 80 per cent of its electricity from hydropower plants and the country's 10-year energy plan, approved in 2015, focuses on increasing the country's renewable energy usage and will invest BRL1.4 trillion in electricity, oil, natural gas and biofuels.

GLOSSARY OF COMMON TERMS AND FREQUENTLY REFERENCED REPORTS

GBP	Green Bond Principles
CBI	Climate Bond Initiative
CBS	Climate Bond Standards
HLEG	EU High-Level Expert Group on Sustainable Finance
G20 GFSG	G20 Green Finance Study Group
TCFD	Task Force on Climate-related Financial Disclosures
ICMA	International Capital Market Association
ESG	Environmental, Social and Governance
IFC	International Finance Corporation
EIB	European Investment Bank
OECD Input Paper	*Green Bonds: Country Experiences, Barriers and Options* prepared by the OECD, ICMA, the CBI and the Green Finance Committee of the China Society for Finance and Banking, December 2015
G20 Synthesis Report	G20 Green Finance Synthesis Report by G20 Green Finance Study Group, July 2017
HLEG Interim Report	*Financing a sustainable European Economy* Interim Report by the European Union High-Level Expert Group on Sustainable Finance, July 2017

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