

Environmental  
Finance

# Sustainable Bonds Insight 2020

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## 1 Introduction

## 2 Largest green and social bonds in 2019

## 3 Largest social and sustainability bonds in 2019

## 4 Top 5 largest issuing countries in 2019 in the green bond market

## 5 Top 5 largest issuing countries in 2019 in the social bond market

## 6 Top 5 largest issuing countries in 2019 in the sustainability bond market

## 7 A strategic approach to sustainable finance



## 10 The roadmap for KPI-linked bonds in 2020



## 13 Ambassador for greener capital markets



## 16 Financial markets move towards Transition financing



## 19 Annual issuance in the green, social and sustainability bond markets

## 20 Issuer types 2018 vs 2019

## 21 Bond issuance by quarter 2016 to 2019

## 22 Lead manager league table

## 23 External reviewer share of the green, social and sustainability bond market

## 24 Sustainable Development Goals

## 25 Supporting more shades of Green



## 28 A greater role for green bonds



## 31 Voicing its opinion



## 34 Green buildings and green bonds



## 37 Currencies used in 2018 vs 2019 in the green bond market

## 38 The European green, social and sustainability bond markets

## 39 The Japanese green, social and sustainability bond markets

## 40 The Emerging Markets green, social and sustainability bond markets

## 41 Countries joining the green, social and sustainability bond markets in 2019

## 42 From brown to green: financing the sustainability transition



## 45 Bringing transparency to green bonds in Latin America and the Caribbean



## 48 Nasdaq sustainable bond network



## 51 Sovereigns, sustainability and CRR: Looking ahead to 2020



## 55 The 2020s – The decade of sustainable bonds



## 58 Spearheading green finance in Asia and beyond



## 61 Market predictions for 2020



Peter Cripps, Editor, Environmental Finance

2019 was a pivotal year for the green, social and sustainability bond market.

The value of issuance for all three markets combined rose to \$321 billion in 2019, up 52% on the previous year.

Cumulative issuance is set to pass the \$1 trillion mark in 2020.

An online poll conducted by *Environmental Finance* suggested that the market is expected to continue to grow this year. Most respondents thought the value of issuance is likely to exceed \$350 billion.

But it is not the growth of the market that made 2019 a pivotal year. To my mind, what was noteworthy in 2019 was the change in the tone of discourse in the market.

There has been a vigorous – and in my view very healthy – debate in the market, asking: “What is the market trying to achieve, and what is the best way to achieve it?”

This has manifested itself in numerous ways. Axa Investment Managers in June drafted a set of guidelines for transition bonds. The asset manager argued that this type of label may be needed to accommodate issuers from ‘brown’ sectors, such as oil and gas, which lack the green assets to issue a green bond, but which nonetheless have an important role to play in the transition to a low-carbon economy.

This comes after a number of issuers from such sectors, including Repsol and Snam, tapped the green bond market but attracted a mixed response from investors.

The discussion on transition bonds is still going on, with a working group on ‘climate transition finance’ established by the International Capital Markets Association (ICMA), which administers the Green Bond Principles (GBPs).

Credit Agricole in November issued a transition-labelled bond, in a private placement that was bought by Axa IM. The European Bank for Reconstruction and Development also issued a green transition bond.

But others in the market think that no such label is needed, and that the green label should accommodate these issues.

Another important event in the market’s development came when Italian utility Enel in September issued a bond that bears a ‘Sustainable Development Goals-linked’ label.

The transaction was significant because in recent years Enel has issued numerous bonds with a green label, with the use of proceeds allocated to green projects, as recommended by the GBPs.

But this time it chose a different format – one in which the proceeds were used for general corporate purposes, rather than being allocated to dedicated green projects. And the coupon will rise by 25 basis points if the company fails to hit a target of generating 55% of its capacity from renewables by the end of December 2021.

The format of the bonds is similar to that seen in the flourishing sustainability-linked loans market, where the interest rate on a loan hinges on some kind of predetermined sustainability target.

As readers of *Environmental Finance* will know, Enel’s issue received a mixed reception in the green bond market. For example, one green bond fund manager labelled it as greenwashing, describing it as “an option on Enel failing to meet its renewables targets”.

But others were more welcoming. They see this format as exciting because it directly links an issue with the issuer’s sustainability goals, which can help incentivise it to make the transition to a low-carbon business model.

ICMA in January 2020 set up a working group to explore the concept of ‘sustainability/key performance indicator-linked bonds’.

So, 2019 was an interesting year for the market. But I think 2020 will be even more interesting.

The market has achieved much over the past decade, mainly in terms of building awareness and knowledge about green concerns with the financial community, including what are appropriate projects, targets and metrics.

But there is growing consensus that, as the climate emergency deepens, there needs to be urgent transition towards a low-carbon economy, and the green bond market needs to lead this, if it is to stay relevant and meaningful.

I am pleased to see that, at least, the right questions are being asked and there is appetite for reform. ■

For enquiries about the data in this Insight,  
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The largest deal and issuers of the year  
in the green bond market

### Largest Single Green Bond



**State of the Netherlands**  
Value: €5,985 M (\$6,680 M)

### Largest Issuer



**Fannie Mae**

**Fannie Mae**  
Value: \$23,782 M

### Largest Agency



**Fannie Mae**

**Fannie Mae**  
Number of Deals:  
993

### Largest Sovereign



**State of the Netherlands**  
Number of Deals: 1

### Largest Supranational



**IBRD**  
Value: \$4,009 M

### Largest Corporate



**Engie**  
Value: \$4,666 M

### Largest Financial Institution



**ICBC**  
Value: \$5,966 M

### Largest Municipal



**Federal State of NRW**  
Value: \$2,767 M

The largest deal and issuers of the year  
in the social bond market

### Largest Single Social Bond



**CAFFIL**  
Value: €1,000 M  
(\$1,131 M)

### Largest Issuer



**Nederlandse  
Waterschapsbank NV**  
Value: \$2,280 M

### Latest Agency



**Nederlandse  
Waterschapsbank NV**  
Number of Deals: 3

### Largest Supranational



**Council of Europe  
Development Bank**  
Value: \$560 M



The largest deal and issuers of the year in the sustainability bond market

### Largest Corporate



**East Nippon Expressway**  
Value: \$1,387 M

### Largest Municipal



**California Health Facilities Financing Authority**  
Value: \$500 M

### Largest Financial Institution



**Cassa depositi e prestiti Spa**  
Value: \$849 M

### Largest Single Sustainability Bond



**Federal State of NRW**  
Value: €2,250 M  
(\$2,547 M)

### Largest Issuer



**IBRD**  
Value: \$3,705 M

### Latest Agency



**T Corp**  
Value: \$1,230 M

### Largest Sovereign



**Republic of Korea**  
Value: \$500 M

### Largest Supranational



**IBRD**  
Value: \$3,705 M

### Largest Corporate



**Enel**  
Value: \$1,500 M

### Largest Financial Institution



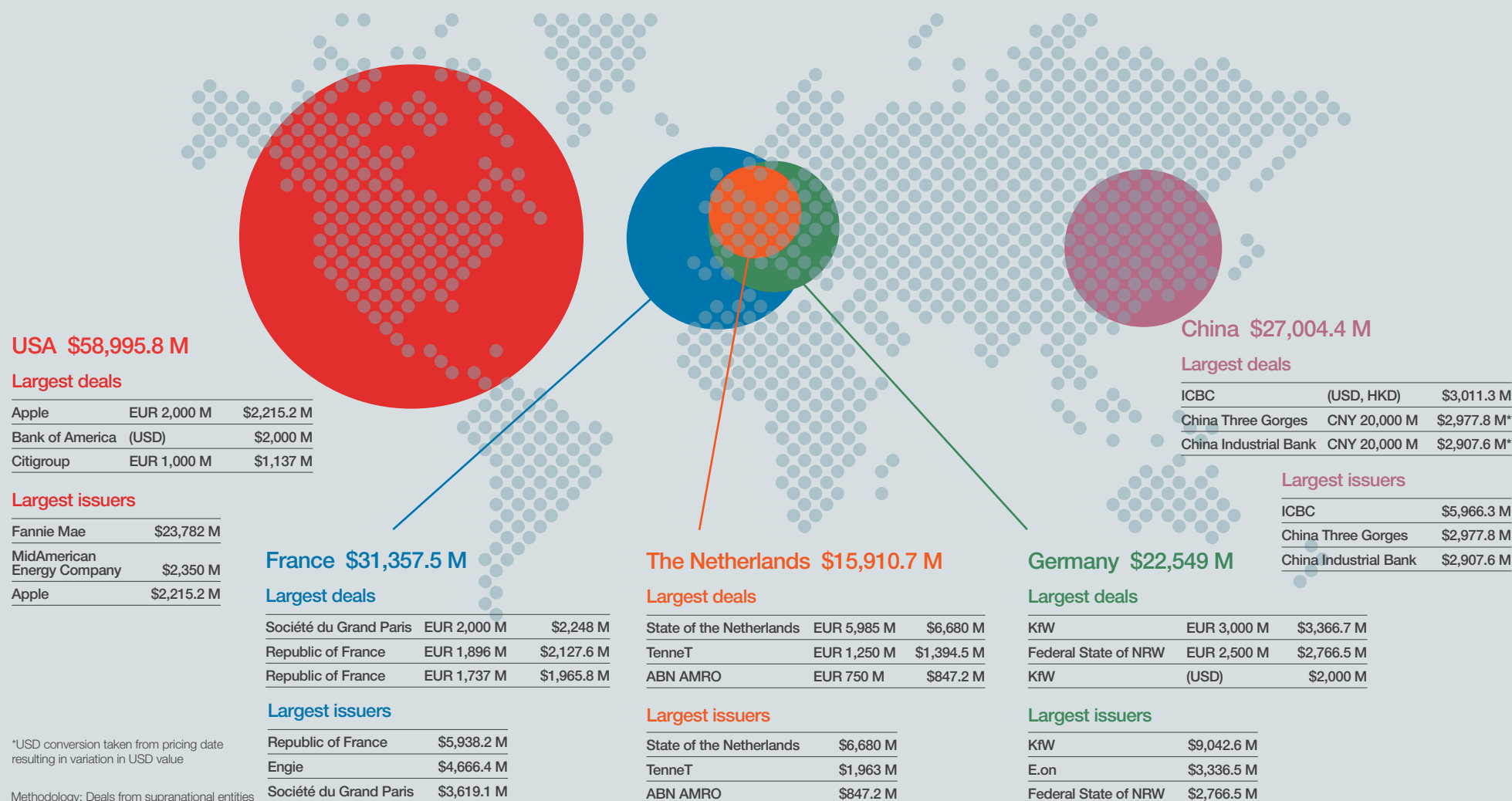
**BNG Bank**  
Value: \$1,831

### Largest Municipal



**Federal State of NRW**  
Value: \$2,547 M

For the third consecutive year, the US, France and China were the three biggest issuing countries.

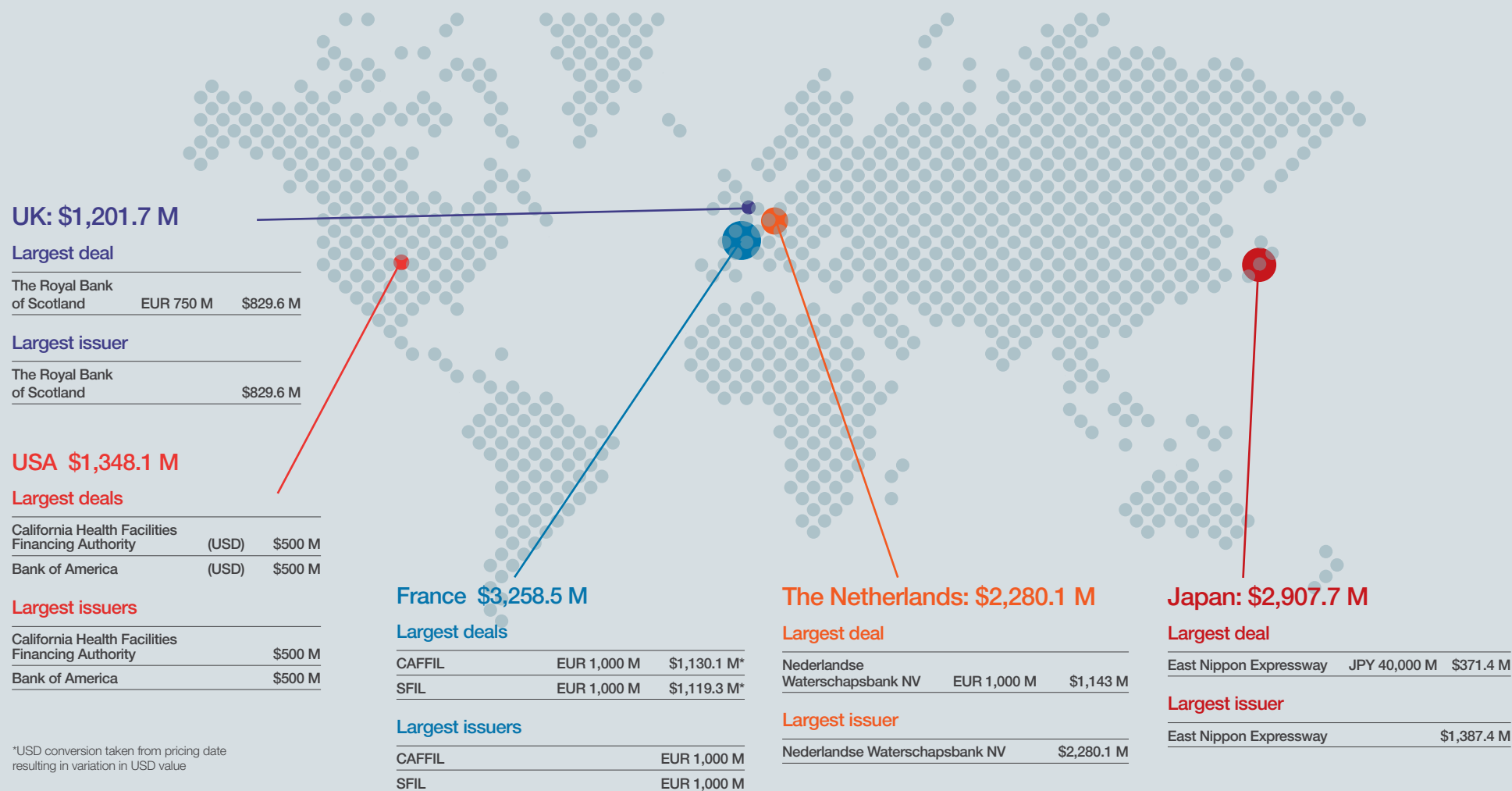


\*USD conversion taken from pricing date resulting in variation in USD value

Methodology: Deals from supranational entities have not been included in individual countries.

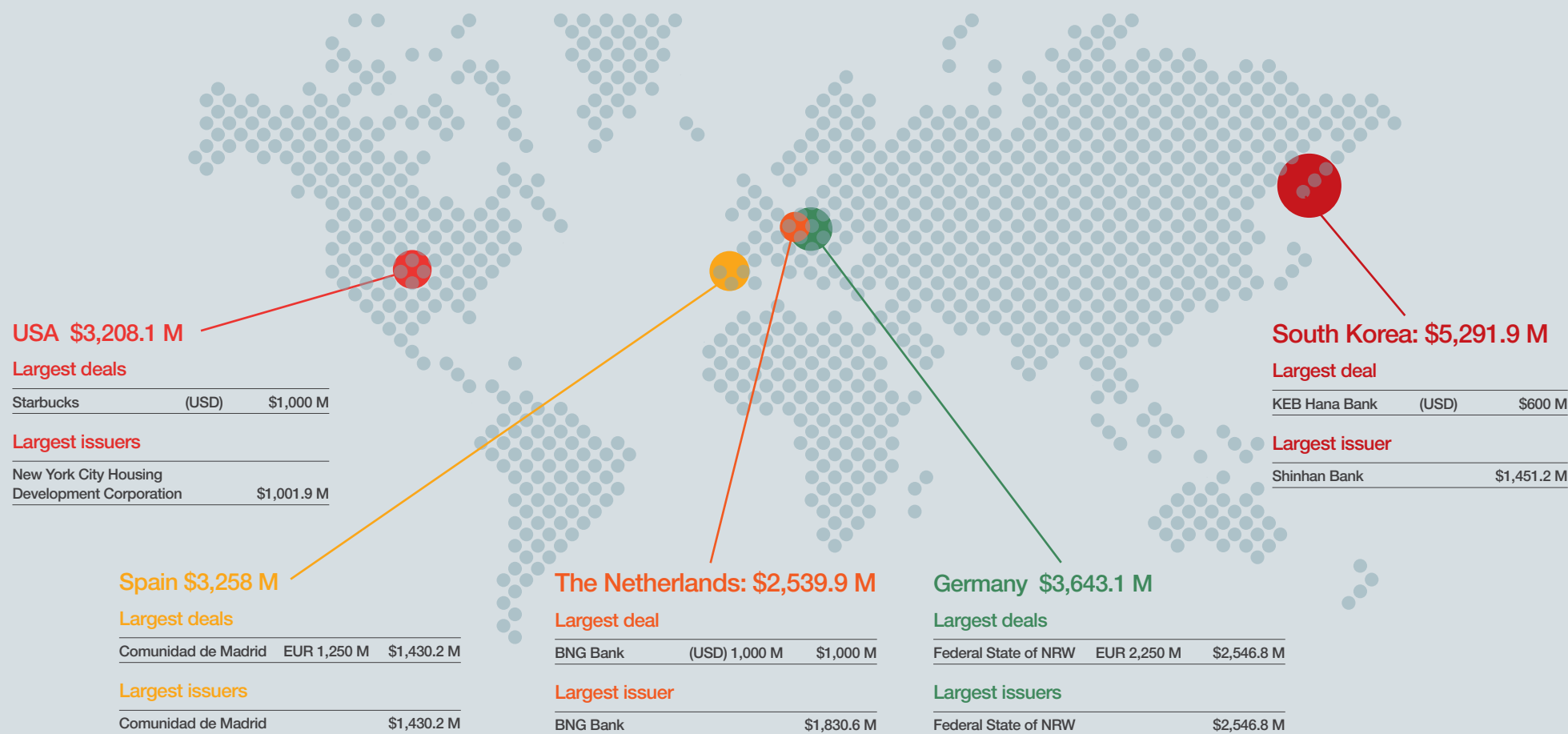
# Top 5 largest issuing countries in 2019 in the social bond market

France, Japan and the Netherlands are the three biggest issuing countries in the social bond market.



# Top 5 largest issuing countries in 2019 in the sustainability bond market

Korea, Germany and Spain are the three biggest issuing countries in the sustainability bond market.



\*USD conversion taken from pricing date  
resulting in variation in USD value

Methodology: Deals from supranational entities  
have not been included in individual countries.

# A strategic approach to sustainable finance

Sustainable finance is a strategic priority at BNP Paribas. Its bankers explain how it is changing the investment landscape – and creating opportunities for investors and issuers alike.

**Environmental Finance:** The sustainable finance market has been evolving rapidly recently: how are your corporate clients approaching the market?



Agnès Gourc, co-head of Sustainable Finance Markets

**Agnès Gourc, co-head of Sustainable Finance Markets:** It varies depending on the sector, but the big change over the last 18 months has been growing interest from issuers in more resource- or carbon-intensive sectors. They are starting to understand that ESG is something that is becoming a real consideration for the investor base, and that there is going to be a capital reallocation as a result of the risks caused by climate change. This is a fundamental shift that our issuers are increasingly understanding.

The first question they ask isn't whether to do a green bond or a sustainability loan – it's what does this shift mean for my funding profile going forward? The answer requires the company to define and set out its sustainability strategy and, very often, consider what that means for how the company is going to have to shift its business model. From that point, then there's a conversation about the right structure.

But certainly, this is a much more holistic discussion than before. Issuing a sustainability bond was always a big strategic decision but, now, issuers are putting it into the wider perspective of what is happening in 'ESG land' and how that will affect their funding in the future. That's a new question.

**EF:** For these types of clients, are sustainability-linked loans, or now bonds, more suitable than traditional green bonds?

**Cécile Moitry, co-head of Sustainable Finance Markets:** Sustainability-linked loans [SLLs] open the door to other types of discussion, and other types of company. The success of the green bond is that it involves looking at green assets and green capex, but some companies that are at

the forefront on sustainability were not able to reflect that due to the lack of volume of green capex.

For some companies, it makes sense to start with an SLL and then think about a sustainable bond. The approaches are very complementary; there is no contradiction between the two instruments nor cannibalisation.

**AG:** I agree they are complementary, and they serve different purposes; in the future, they are likely to appeal to different issuers, depending on their state of development, and also to different investors. The EU work on disclosure, the EU Taxonomy and EU Green Bond Standards will also be key



Cécile Moitry, co-head of Sustainable Finance Markets





drivers of the development of sustainable finance, improving transparency in the EU, and for any issuers wanting to tap that market. For investors who want to know how the funds are deployed, and want metrics linked to particular fund deployment, then sustainability-linked loans or bonds don't serve that purpose.

On the other hand, sustainability linked loans or bonds can deliver an ESG product in large volumes, and that's what mainstream investors need. The success of this market will be about placing all the various pieces of the jigsaw together in a coherent manner.

**EF: Where do transition bonds – where 'non-green' issuers raise bonds to reduce, but not eliminate, environmental impact – fit into the sustainable finance jigsaw?**



Trevor Allen, sustainability research analyst, BNP Paribas Markets 360

**Trevor Allen, sustainability research analyst, BNP Paribas Markets 360:**

There is going to be some amount of carbon that we will continue to expel into the atmosphere while we make the low-carbon transition. For example, if a cement company is going to issue a bond to make lower-carbon cement, there is still carbon involved, so it would be erroneous to label that as a green bond. Transition bonds can help high-carbon emitters become lower-carbon emitters, but not necessarily to become green.

Part of the challenge is that, unlike with green bonds, there is no standard definition of what a transition bond actually is. One approach might be to introduce a taxonomy of economic activities and agree specific metrics that could

dictate whether transition bond proceeds could be used for a particular activity – such as a carbon-intensity target for energy or cement production. Transition bonds should also be of a shorter duration than green bonds (which typically are issued for eight to 10 years) to maintain the emphasis on transitioning quickly and allow for any penalties to be enforced, if necessary.

This is an essential new asset class to really help companies transition to a lower-carbon future. We want to open this up as much as possible and see transition bonds overtake green bonds by 2025.



Chaoni Huang, head of sustainable capital markets, global markets, for Asia Pacific

methodologies have been developed, it will really help these issuers access the capital they need to make their businesses sustainable.

**EF: The US, meanwhile, has traditionally lagged behind Europe in terms of the sustainable finance market. Do you see this persisting in 2020?**

**Hervé Duteil, CSR head Americas:** We've been saying this year after year over the last five years, but it's my conviction that we won't be saying it this time next year. There are cultural reasons, such as Europe's recent history of shortages and resource scarcity during the last century, and perhaps more of

**Chaoni Huang, head of sustainable capital markets, global markets, for Asia Pacific:**

We expect to see Asian issuers looking to take advantage of the emerging transition bond market. Asia is full of transition opportunities – heavy industry, manufacturing, textiles. These are heavy impact sectors that have been excluded, for good reasons, from the deep green bond market. When robust



Hervé Duteil, CSR head Americas

methodologies have been developed, it will really help these issuers access the capital they need to make their businesses sustainable.

The US fixed income markets are, of course, much larger than the European ones; so I think over time we'll see the US accounting for greater volumes of ESG fixed income paper, but maybe product innovation will continue to be led by Europe.

**EF: What about the picture in the Asia Pacific? How is the regulatory and policy landscape likely to support sustainable finance markets in 2020?**

**CH:** For 2020, I expect to see more leadership from Asia to tackle the climate emergency, and we are seeing mainland China, Hong Kong and Singapore addressing their respective financial systems to incorporate environmental assessment,

a focus in the US on seizing near-term opportunities rather than worrying about longer-term considerations. There are also legal issues around potential liabilities surrounding disclosure in the US, and perceptions – which we believe are misplaced – that fiduciary rules require investors to focus only on financial returns.

So what's changing? We are at inflexion point on climate change; and for pragmatic American investors and issuers, it means it is time to move. There are also signs of cultural and regulatory shifts, such as the Business

with more emphasis on climate change, in addition to the existing focus on pollution prevention and control. With this kind of regulatory support, these efforts will trickle down to the private sector in terms of issuance and investing.

Regulators are also acting as catalysts as investors themselves. The Monetary Authority of Singapore has just set up a \$2 billion green investment programme to accelerate the growth of Singapore's sustainable finance ecosystem. Similarly, the Hong Kong Monetary Authority, which manages HK\$4 trillion of reserves, has made a public commitment to integrate ESG into its investments and it is keen to buy green bonds.

This will help to accelerate growth in issuance in the region: it's grown very fast, at an annual average of 48% from 2016 to 2019, admittedly from a low base. The issuer mindset has shifted: the key motivation to issue sustainable bonds has shifted from the 'green halo' reputational driver, to the strategic targeting of investors. It's now embedded within issuers' investor relations strategies, to use the sustainability bond label to diversify their investor base across borders, taking advantage of the ESG liquidity in Europe and the US.

Issuers in the region have also noticed the better performance of Asian sustainable bonds during the US-China trade tensions during the second half of 2019. In terms of liquidity and secondary market pricing, their performance held up better than their conventional equivalents; ESG bond investors tend to be 'sticky' and less likely to sell out during periods of market volatility.

**EF: What about market size? What's BNP Paribas's estimate for 2020?**

**TA:** We think both the number of transactions and the average deal size are both set to grow this year. The latter has been an average of around \$275 million for a few years now, and I think we're going to see some growth there. For the sustainable bond market – green bonds, social bonds and sustainability bonds – will be somewhere between \$360 and \$400 billion by the end of this year, a 30-40% increase in volumes. There's a lot of momentum behind the market. ■

### BNP Paribas's sustainable finance journey



Constance Chalchat, head of corporate engagement, BNP Paribas CIB

There are two "transformation levers" facing BNP Paribas, explains Antoine Sire, the head of the French bank's Corporate Engagement department. "One is digitalisation; the other key transformational driver of the company is sustainability," he says.

"We believe that the future of finance is sustainable finance," he says. "Concerns about climate, biodiversity, social inclusion and territorial imbalances means that we will have to integrate sustainability criteria in everything we do."

The bank has set out a leading position in sustainable finance. In 2011, it made fighting climate change one of its priorities, and has carved out leading positions in renewable energy finance and green bond issuance. It is ranked number one in renewable energy project finance in Europe, the Middle East and Africa, and number three globally, according to figures from Dealogic, and is one of the top-three issuers of euro-denominated green loans.

"There is a genuine willingness from the very top to be a sustainable finance leader, and to mobilise resources that have a positive impact," says Constance Chalchat, head of company engagement, BNP Paribas CIB. "Green intermediation – to be a bridge between institutional investors aiming at positive impact and corporates transforming – is core to our strategy."

As examples, Sire notes that BNP Paribas's asset management division has decided to integrate sustainability criteria in its investment decisions for all its investment strategies by the end of 2020, and the bank is also working on systems that will allow it to calculate the carbon emissions across its entire credit portfolio.

In addition, it has begun calculating the volume of lending that it is directing towards the UN Sustainable Development Goals (SDGs). In 2017, the first year of the exercise, the figure came to €142 billion – last year, it had risen to €168 billion.

BNP Paribas was also one of the co-founders of the UN-backed Principles for Responsible Banking. Unveiled last September, the principles commit signatories to aligning their business with the SDGs and the goals of the Paris Agreement on climate change, as well as assess, disclose and set targets regarding their greatest sustainability impacts.

While there are opportunities to be had from sustainable finance and banking, such a shift also entails exiting some businesses. The bank has introduced sector financing policies that have led it to exclude a number of unsustainable activities, including ceasing lending to new coal-fired power plants in 2017, and tightening those criteria, to exclude utilities with coal-fired generation in the EU by 2030, and globally by 2040.

"When we've implemented these sectoral policies – such as coal, shale gas and tobacco – we renounced substantial revenues, and were able to reallocate resources to assets and projects that contribute to the UN Sustainable Development Goals," says Chalchat, who adds that the bank's shareholders are supportive of these moves. "Our shareholders are not only there for the short term ... Simply generating short-term revenue is not enough. We need to also safeguard the long-term profitability of the Group, and that means gradually shifting our portfolio to the sectors that are here for the long run ... These renunciations and shifts are what are making us a credible partner for clients on sustainability."

# The Roadmap for KPI-linked Bonds in 2020

Twelve years after the first self-labelled green bond issuance, the sustainable debt capital market continues its own constant transformation. The newest innovation is KPI-linked general purpose bonds with the utility ENEL sparking discussions by issuing the inaugural target-linked bond supporting the Sustainable Development Goals (SDGs). Environmental Finance talked with ISS ESG and ISS Corporate Solutions' sustainable product specialists on what lies ahead for this new instrument.

**Environmental Finance:** Are KPI-linked general purpose bonds a new form of greenwashing or the long-awaited entry point for sustainability-focused investors to issuers which have not yet an advanced ESG profile?

**Viola Lutz, Head of Investor Consulting Climate:**

Financing the transition of the entire economy is now, more than ever, necessary to achieve the goals set by the Paris Agreements. With fires ravaging Australia in 2020 and after the UN Climate Change Conference of 2019 reported no progress, KPI-linked bonds are a promising innovation to sharpen investors' focus on supporting the transition strategies of entire companies. They differ from classical green and sustainability bonds in that they allow financing outside of specific projects or use of proceeds categories. At the same time, tracking the achievement of specific KPIs – in the case of ENEL increasing its renewable energy capacity to at least 55 percent of its total by 2021 – introduces an element of specific accountability.

**Federico Pezzolato, Sustainable Finance Business Development Manager:**

We are facing a potential paradigm change and it is understandable that very different reactions occur from different players and investors. Use of proceeds



Viola Lutz, Head of Investor Consulting Climate



Mélanie Comble, Head of SPO Operations



Federico Pezzolato, Sustainable Finance Business Development Manager

products are well accepted by the market, they are in line with the International Capital Market Association (ICMA) Green and Social Bond Principles, well-established with a number of very well received green bonds issued to date following this model. Assuming the issuer will abide by the commitments undertaken in its framework, the reputational risk connected to such products is relatively low. On the contrary, KPI-linked products present so far, a limited track record, at least regarding bonds, and the market is divided, with some investors having strong reservations because of the potential of greenwashing related to the lack of review of materiality of KPIs, while some others appreciate the clear link to a KPI and to the overall strategy of an issuer. Currently, we do not have any reference point as to what would constitute a “good” KPI-linked bond versus a “bad” one, and KPI-linked products seem to better address the needs of an issuer with a clear sustainability strategy in place and resources to manage a general-purpose portfolio.

**EF: But what comparison point is a company’s transition or ESG improvement strategy measured against if its ambition-level is entirely self-proclaimed? And what assurances exist that, for instance, while the expansion of renewable energy capacity happens, the use of fossil fuels decreases in absolute terms?**

**Mélanie Comble, Head of SPO Operations:** Transparency and accountability must indeed remain central to the sustainable debt capital market’s evolution. KPI-related bonds operate outside of the Green, Social and Sustainability Bond Principles that so far have been the key driver for transparency in the market and an inspiration for the EU Green Bond Standard. In the absence of a commonly acknowledged guideline, the KPI-linked bond market should maintain high standards for keeping innovation in line with climate and sustainability objectives as enshrined in the EU Sustainable Finance Action plan and the Paris Agreement.

**EF: So how would you go about establishing such transparency and accountability?**

**VL:** External reviews have helped the green bond market



## PART 1 GREEN / SOCIAL BOND PRINCIPLES ALIGNMENT

- ☒ Following the International Capital Market Association's (ICMA) Green / Social Bond Principles
- ☒ Based on the issuer's Green / Social Bond Framework



## PART 3 ISSUER ASSESSMENT

- ☒ Based on ISS ESG Corporate Rating
- ☒ Summary included in the SPO report



## PART 2 ASSET SUSTAINABILITY QUALITY

- ☒ Assessment per project category based on KPI sets defined by ISS ESG
- ☒ Project evaluation, controversy assessment & expected impact analysis



## SECOND PARTY OPINION

- ☒ Overall evaluation
- ☒ Assessment summary
- ☒ Contribution to the UN Sustainable Development Goals (SDGs)

Table 1: Overview of External Review Approach for Use of Proceeds Products

to flourish, and they remain in our view key to ensuring integrity and credibility for this new branch of the market. Transparency concerns will need to be addressed by making the following perspectives part of external reviews:

- **Sustainability strategy of the issuer:** analyse the level of ambition and overall ESG credentials to ensure alignment with the Paris Agreement.
- **KPI selection:** assess the relevance and ambition of the KPIs selected for tracking the issuer’s progress over time.
- **Governance:** analyse the stringency of processes for tracking progress and the materiality of associated coupon adjustment.

**EF: What factors into analysing the level of ambition of the sustainability strategy of the issuer?**

**MC:** To capture the sustainability strategy of an issuer and the relevance of its ESG improvement objectives, ISS ESG considers for example:

- The existence of sustainable alternative activities and mature technologies relevant for the issuer’s operations;
  - The contribution of the issuer’s products and services to the transition of the global economy toward a more sustainable one; and
  - The specific geographical context in which the issuer operates, e.g. local energy mix, available technologies.
- Based on ISS ESG expertise in both ESG corporate ratings as well as second party opinions, we are ready to deliver SPOs on transition KPI-linked products to assess the ambition of an issuer’s ESG strategy and the soundness of KPIs defined and associated targets.



EXTERNAL REVIEW: OPINION ON KPI-LINKED PRODUCTS		
Issuer Sustainability Strategy	KPI Selection	Governance
<ul style="list-style-type: none"> <li>• <b>Current ESG performance</b> – Does the issuer address key ESG challenges related with its activities?</li> <li>• <b>Sustainability strategy</b> – Is the issuer’s strategy ambitious, measurable and relevant to its activities’ core climate/ sustainability challenges? A transition strategy should be assessed against international agreements: <ul style="list-style-type: none"> <li>• The Paris Climate Goal (i.e. 1.5/2°C alignment)</li> <li>• The United Nations Sustainable Development Goals</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• <b>Materiality</b> – Are the KPIs selected material to the issuer’s sector and business model?</li> <li>• <b>Holism</b> – Do the KPIs selected capture the key challenge the product intends to address in a holistic way?</li> <li>• <b>Ambition</b> – Are the targets linked to the KPI ambitious, both in terms of timeline and magnitude?</li> <li>• <b>Measurability</b> – Are the KPI quantifiable and objective (e.g. referencing established methodologies)?</li> <li>• <b>Action plan</b> – Are the means mobilized by the issuer to reach those targets sufficient to reach the KPI-associated targets?</li> </ul>	<ul style="list-style-type: none"> <li>• <b>Transparency</b> – How will the company report on progress on achieving the KPIs and following the transition pathway defined?</li> <li>• <b>External review</b> – To what extent will the progress on KPIs and their impact be verified?</li> <li>• <b>Financial incentive</b> – Is there a coupon adjustment linked to succeeding or failing the targets?</li> </ul>

Table 2: Overview of External Review Approach for KPI-linked Products

**EF: Given all this – how do you see the roadmap ahead for KPI-linked bonds?**

**VL:** The imperative for sustainability action remains high – if KPI-linked bonds manage to establish similarly high levels of transparency and integrity as green bonds, we should see this instrument gain increased traction in 2020 to complement the “use of proceeds” approach currently dominating the market and allowing issuers more options. So rather than putting the new instrument on the defensive, let’s collectively learn from the criticism to help establish this new instrument, to achieve continued growth of the market, and ultimately, a successful low-carbon transition.

The structure of the SPO as we know it is destined to change, as KPI-linked products pose new challenges and question market participants on the robustness of the new types of sustainable finance operations. Table 1 shows the content of the SPOs provided by ISS ESG for use of proceeds operations: three equally weighted pillars assess the issuer ESG strategy, the compliance of the framework with the ICMA Principles and the quality of the assets financed.

The SPO presented in Table 2 for KPI-linked bonds is slightly different: the issuer ESG strategy keeps its centrality but then the quality of the KPIs selected and their governance are considered, to assess (and challenge) their materiality, their ambition and the accountability of the issuer on those KPIs. ■



# European Investment Bank (EIB): Ambassador for Greener Capital Markets

A notable landmark in the evolution of the global green bond market was passed in December when European member states endorsed legislation on the Taxonomy of Sustainable Economic Activities. The passage of the new law is regarded as ground-breaking for the green capital market because it clears the way for the establishment of common definitions of sustainability which have long been regarded as the missing piece in the market's jigsaw.

The pressing need for a broadly recognised classification system for sustainable activities was clearly articulated in June 2019 with the publication by the EU Technical Expert Group (TEG) of a report clearly setting out the basis for a future EU Taxonomy to be enshrined in EU legislation. This advocated the establishment of technical screening criteria for economic activities that can make "a substantial contribution to climate change mitigation or adaptation", while safeguarding against "significant harm" to a range of other environmental objectives.

Few welcomed December's announcement with more enthusiasm than Aldo Romani, Head of Sustainability Funding at the EIB, who has been calling for more transparency and clarity across the market for green finance for several years. "Many people did not believe that it would be possible to establish consensus-driven criteria for an EU-wide taxonomy," he says. "The agreement of December 18th makes it clear that one year from now, all market participants who want to benefit from an EU green label will be required to follow the same core technical screening criteria as the basis for analysing the contribution to climate change mitigation of all their activities and of the products used to finance them."

Romani says that he and his sustainability funding colleagues at the EIB (see picture) derive considerable personal satisfaction from December's agreement. Justifiably so, because since it launched its first Climate Awareness Bond (CAB) in 2007, the world's first green bond, the EIB has been at the forefront of the development of the global green, social and sustainability bond market, which has now seen total cumulative issuance of more than \$1 trillion.

While issuance has been embraced since 2008 by an increasingly diverse range of sovereign, supranational, financial and corporate borrowers, the EIB has remained the standard-bearer for green bonds. Aside from issuing close to €29 billion in 13 currencies by the end of January, the EIB has won consistent recognition for innovation and best practice, acting – as Romani puts it – as "de facto ambassadors" for greener capital markets.

"The EIB has clearly made an important contribution to the market," he says. "We have consistently developed an explicit and externally verifiable link between use of proceeds and allocations to certain types of projects, giving substance and transparency to the market. This is developing into best practice."

## The Private Investment Challenge

To grasp why the pursuit of transparency, clarity and commonly understood and accepted definitions are so critical for the green capital market, it is important to recognise the magnitude of the financing challenge that will need to be overcome to support the global transition to carbon neutrality.

According to the TEG report on EU taxonomy, Europe

needs to attract an additional €175 to €290 billion annually of private investment to meet climate goals alone. "High levels of public debt constrain governments' investment capacity, which is why private capital is required," says Romani. "This in turn is why mainstream capital markets have a pivotal role to play in mobilizing this investment."

The problem, Romani adds, is not the sourcing of this capital, given that there is no shortage of private money hunting for sustainable investment opportunities. The challenge, he says, has been in ensuring that this capital is deployed effectively. As long as there is little consensus on the core definition of green or sustainable finance, capital markets are unable to fulfil their potential as a mechanism for responding to the demonstrable threats posed by climate change. "This is why the EC and the EIB have been so vocal in emphasising the need for a shared interpretation of core aspects of sustainability," says Romani. "It is impossible to sustain fair competition in the market if everybody is free to define what they regard as green or sustainable according to their own tailor-made requirements."

The introduction of rules-based definitions sweep away these inefficiencies by establishing a clear procedure for allowing the market to monitor what is compliant with the EU's core policy objectives using universally observed and therefore comparable criteria.

## Linking the Capital Market and the Real Economy

Romani says that the practical impact of the taxonomy agreement will be significant at a number of levels. Perhaps the most important of these is that by establishing standards



Sustainability Funding Team [L-R] Dominika Rosolowska, Tomomitsu Maruta, Alexander Krauss, Aldo Romani

observed both in fund raising and investment, it will create a visible and quantifiable link between the capital market and the real economy.

From the perspective of the EIB, the link between financing and civil society is especially important; the new energy policy announced by the Bank in November 2019 commits the lender to phase out support for unabated fossil fuel projects from the

end of 2021. In its capacity as the EU's climate bank, the new policy also pledges to unlock \$1 trillion of climate action and environmental sustainability investment this decade, inter alia in support of the EU's objective of increasing the share of renewables in its energy mix to 32% by 2030.

Romani says that by endorsing taxonomy legislation to be applied uniformly across all product and market segments

(e.g. green bonds and green loans), the agreement of December 18th strengthens a key pillar of the EU Green Bond standard by unequivocally linking a bond's proceeds to projects officially recognised as sustainable. Critically, this recognition applies at a cross-border level. "So if a national regulator is required to rule on what constitutes a sustainable project in Italy, say, it will have to do so in accordance with the EU-wide taxonomy," says Romani.

### Fostering cross-border Capital Flows

Romani believes that this taxonomy will also increasingly win multinational support as legislators, investors, borrowers and intermediaries beyond the EU's borders recognize the benefits that are to be derived from cross-border comparability. "Perhaps the most useful component of the taxonomy is the structuring element that this classification system will bring to the dialogue on the green capital market and the green economy at an international level," Romani explains.

Within the capital market, there has been compelling evidence over the last 12 months that the existence of comparable definitions and a universally recognised taxonomy can be very powerful in greasing the wheels of cross-border capital flows. Building on its track record as a pioneer in the international green bond market, for example, in May 2019 the EIB issued a new A\$400m five year climate awareness bond (CAB). This was the first time that the EIB had targeted Australian and Japanese investors with a new green transaction supported by documentation which had been revised to align the use of proceeds with the evolving EU sustainability legislation.

Another example came the following month, when the EIB returned to the Danish kroner market for the first time since 2009 with a Dkr3 billion 12 year CAB which broke new ground as the first green bond from a sovereign, supranational and agency (SSA) borrower in kroner. Local investors gave the transaction a very warm response, with ATP's Senior Portfolio Manager, Lars Dreier Kristensen, saying that ATP valued EIB's bonds for the "transparency and accountability" they generated in sustainable finance. "We acknowledge EIB's effort to align with the EU Green Bond Standard via linking to

the EU Sustainability Taxonomy and the external verification of both allocation and impact reports.”

A similarly significant CAB met with positive reception in the sterling market in July 2019, when the EIB sold its largest green transaction ever in the British currency, increasing the size of the five year bond from the initially targeted £500 million to £800 million in response to an order book that exceeded in £1.4 billion. With this deal, again the EIB became the first issuer to inaugurate documentation tuned on the upcoming EU Sustainability Taxonomy in the UK market. The exercise was repeated successfully in the USD market with an SEC-registered USD global CAB in October, which was close to four times oversubscribed.

A more recent milestone came in January 2020, when the bank became the first borrower in the CAD-market explicitly to align its issuance documentation with the EU legislative framework agreed in December. This was a C\$500 million five year CAB, the proceeds of which will be allocated to activities contributing substantially to climate change mitigation. As the bank announced at the time, the EIB aims to extend its CAB loan eligibilities, so far focused only on renewable energy and energy efficiency, to other sectors in line with the upcoming EU taxonomy, which it will achieve “via progressive adaptation of eligibility criteria and establishment of the required procedures and IT infrastructure.”

### Supporting SDGs with SABs

In preparedness for the mainstreaming of EU policy objectives into a formal taxonomy, the EIB also ensured that

explicit alignment between use of proceeds and evolving EU legislation was incorporated into the documentation supporting its first Sustainability Awareness Bonds (SAB), issued in September 2018. SABs are allocated to projects supporting a host of social and environmental objectives beyond climate change mitigation that serve the Sustainable Development Goals (SDGs). The EIB’s maiden SAB was a well-received eight year €500 million bond, the proceeds of which were initially earmarked for high impact water projects contributing to two environmental objectives (water conservation and pollution prevention and control) and two social objectives (access to water and sanitation and natural disaster risk management). The scope has meanwhile been extended to health and education projects.

The momentum towards commonly accepted taxonomy across the EU and beyond, Romani adds, is also having a notable impact on the EIB at an internal level. This is especially relevant for the bank’s issuance of SABs, where the allocation of proceeds is de facto open-ended, as the EC has is yet to establish a taxonomy for a range of environmental and social goals other than the fight against global warming.

“Whereas the EC has been discussing the issue of taxonomy with official authorities worldwide, on the capital market side we have been engaged in a dialogue with the technical side of the bank,” Romani explains. “In other words, we have been asking the engineers within the bank’s project directorate to map our activities not just in the area of climate change mitigation but also in areas of sustainability where taxonomy

is not yet available and won’t be ready for some time. This implies a commitment to knowledge development, which will be valuable because it will help these concepts to become better understood by the capital market.”

### Turning Energy into Light

Already, says Romani, this knowledge development is being applied to areas such as health and education. And as other sectors falling under the more general umbrella of sustainability follow suit, so the potential for further expansion and diversification of the green and social capital markets (e.g. sustainability funding and lending) will gather momentum. “As the taxonomy is adopted and applied to larger portions of our balance sheet, this will feed through to larger volumes of CABs and SABs,” says Romani.

That will represent a notable personal achievement for Romani, who says that when the EIB kick-started the green bond market in 2007, he was disillusioned by the feedback he had from investors across the EU. Today, he says he is delighted to see theory on sustainability turning into practice - despite the challenges still associated with implementation, a process he describes as turning energy into light. Clean energy for sure. “The EIB is now acting as the core engine for delivering on the New European Deal on sustainable and inclusive growth that the Commission has been advocating and that public opinion is supporting,” he adds. “That is the beauty of working for an institution that is able to turn political statements into reality.”■

# Transparency and Purpose are key, when financial markets move towards Transition financing

In this text Christopher Flensburg and Hans Beyer (SEB) highlight important insights concerning Transition financing, describing their observations and concerns from two different perspectives

**A**s calls for and commitments to a solid engagement by investors into supporting transformation towards a more resilient society increases, so do the requirements for information. From the investor side, this information is necessary to build an understanding for both headline (reputational) risk and financial risk. And, as a consequence, this will have a major impact on how financial advisors can contribute value-enhancing services both to the providers and the users of funds.

“Transition finance” is the new focal point of ESG and financial markets. Through Transition finance, the concept of Sustainability finance moves towards focusing on positive change rather than identifying green assets.

This widens the economic scope dramatically and provides the investment community with a plethora of new opportunities – and challenges. A lot of focus is on the Climate challenge and, related to that of course, Energy production.

But those two are “only” one aim of the current effort. What we at SEB believe is imperative to understand as well are the two mega trends within the financial industry that

impact our ability to address those challenges: Transparency and Purpose.

Unless the financial markets are able to communicate how funds are allocated and for what purpose, the ability to amass the required investments will not be there.

These fundamental requirements in themselves require a lot of work. Transparency includes not only the name of a share or an issuer identity, but also information in relation to sustainable benchmarks and regulations in order for stakeholders to understand the effect of the investments.

Purpose includes not only direct impact of a certain investment but also that the investment is put into a societal context so that the embedded fiduciary mandate that comes through a financial investment is put into a wider context applicable to large-scale strategies.

In practice, this will require enhanced requirements on information provision. We believe the following five areas are among the most important ones where focus needs to be directed, no matter which role one has in tomorrow’s financial system:

- Fundamentally explaining the funding target’s societal role
- Clearly communicating its transition strategy
- Giving clarity around the choice of Benchmark(s) used to illustrate ambition level
- Credibly describing the funding target’s structure and internal governance to support the transition strategy, and
- Setting out the funding target’s structure for stakeholder dialogue on performance assessment.

## Re-pricing of assets

The financial implications of the above-mentioned trends and their implications should not be underestimated. We believe there is an inherited drift in asset prices due to the increased focus on Sustainability. But there are also important initiatives that both support and affect the informational issues involved and hence the potential re-pricing of assets. We believe the most notable to be:

- The Financial Stability Board’s Taskforce on Climate-related Financial Disclosures (TCFD), which has provided broad guidelines on the material impact of climate issues.





Christopher Flensburg, Head of Climate and Sustainable Finance (operational)

- The Central Banks and Supervisors' Network for greening the financial system (NGFS), which assesses regulators' roles on TCFD issues.
- The Principles for Responsible Investment, which has enforced TCFD disclosure among signatories (representing USD 85 trillion of assets).
- The European Banking Authority, which has addressed credit risk through enforced disclosure (June 2021 and June 2022) and systemic risk through proposing regulatory supporting factors (June 2015).
- The C40 Cities Climate Leadership Group, which drives



Hans Beyer, Head of FIC, Head of ESG (C-Level)

collaboration and best practice-sharing on sustainable city development.

At SEB we are convinced that being able to master the transformation to a large degree comes down to how a company masters the communication in combination with the company's strategy. And this is the same no matter if you're an investor or a borrower.

However, we see that at this moment in time the borrowing community probably needs to catch up with the investing community (who started much earlier), and banks and other

advisors are required to enhance their advisory capabilities in order for societies to avoid unnecessary disruptions related to asset re-pricing.

### Implications for advisors

By providing a structure in which investors and borrowers can communicate in terms of economic and environmental values, existing instruments such as green bonds have successfully pointed the way forward in meeting these challenges. Provided the next generation of instruments created to support the transition follow the same path, we should be on the right track. The difference between many of the current instruments and the ones supporting the Transition is the complexity and width of the latter. The financing techniques will be much more heterogeneous and the scope enormous in comparison. SEB's role is to assist our clients, within all sectors, in understanding and navigating this transition. To achieve this, risking accusations of green washing and name washing, we believe there is only one plausible way; through full transparency in respect to goals, strategy and governance – and to have transition targets assessed by qualified reviewers before moving to any external communication.

On this journey we will see lots of successes, and likely some failures, as future standards are established. SEB as an institution has unique insights into what this journey will entail, having advised more issuers than any other bank in establishing their green frameworks. We have also facilitated the highest number of individual transactions within the green bond market.

This experience convinces us to approach the challenges ahead with humility and a realisation that advice regarding Transition will have to be more bespoke than Green financing.

### Introducing Transitional in the context of a bank

At SEB, we have constantly tried to maintain high standards of sustainable classification, realising the embedded conflict in a profitable investment banking practice versus the way profitability is expressed by analysts, auditors and regulators.

As we stated above, if Green financing can be considered a practice that is in a sense 'static', financing already-existing



assets, Transitional financing is far more complex as it entails a movement measured against a baseline, with the movement and the baseline changing over time.

The balance sheets of medium-sized and large banks in the Western hemisphere reflect society as a whole. Assets could broadly be classified as already green (forestry), out of sync with a sustainable society (thermal coal); or potentially Transitional. And by Transitional we mean that the assets that today fund commercial activities which – with additional funding – can be transformed into having a more positive impact on society from a Sustainable perspective.

### Finding the appropriate pre-set trajectory and the foreseeable future

The challenge for the individual financial intermediary is finding the appropriate pre-set trajectory. As referred to before, there is currently a multitude of differing knowledgeable bodies providing intelligence in this field.

When giving advice or proposing financing, a bank has to navigate between too stringent trajectories, excluding many truly climate enhancing activities, versus too lax judgements, where ‘solid polluters’ could become eligible for funding without enough of a contribution to a sustainable society.

Advanced lobbying initiatives combined with potential loss of short-term business potential adds to the complexity and further illustrate the complexity banks face.

There is no panacea to this issue and we do not expect this to be solved solely through regulation. Rather, we believe that the dramatically increased Sustainability focus in the

investment community, combined with its rapidly increasing ability to assess how their investments contribute, is the real game changer going forward. This is very much in line with the purpose and transparency of the mega trends mentioned earlier.

In reality, this will materialise itself in transactions and public statements on who has been financing what and through this a standard will emerge. Banks can contribute through bringing the eligible borrowers to the market, as well as giving advice to those that are not eligible. Large asset managers (or asset owners), like AXA, have made clear statements of their preferences. These standards will hopefully drift towards Paris Agreement aligned targets, but most important is the everyday step taken towards a more resilient society. The pace of this movement will be controlled by the stakeholders of those large pools of capital amassed within the investment community.

### The challenges ahead are true opportunities

So far, much of the focus regarding transition has been on the equity market. From an impact perspective, the development concerning the debt markets is probably more of a game-changer. Most green financing has been itemised. Since transition financing is more centred on future investment decisions, communication and direction, it has thus far been focusing on the companies and how to assess them from an equity holding perspective. This is likely to be interesting from an IR perspective or maybe when issuing equity, but when the focus progresses into debt, it becomes a challenge for the corporations dependent on market-based funding. The

importance of correctly assessing and labelling debt structures can not be exaggerated, and CFOs and Treasurers, together with their advisors, have to do the homework. For banks this will over time drive the development of their balance sheet.

We believe banks can find the right operational distance between business decisions and sustainability (including credit risk) assessments, in order to play the important role they should in the transformation of society’s economic activities. The tone should be set from owners and C-suite executives, or it will lead to a very incoherent implementation. In our experience, unless credit institutions are attuned to the pace of change they face a potential double whammy of increased weighted average cost of capital (WACC) and increased irrelevance as stakeholders, investors and customers move towards more Paris Agreement aligned requirements.

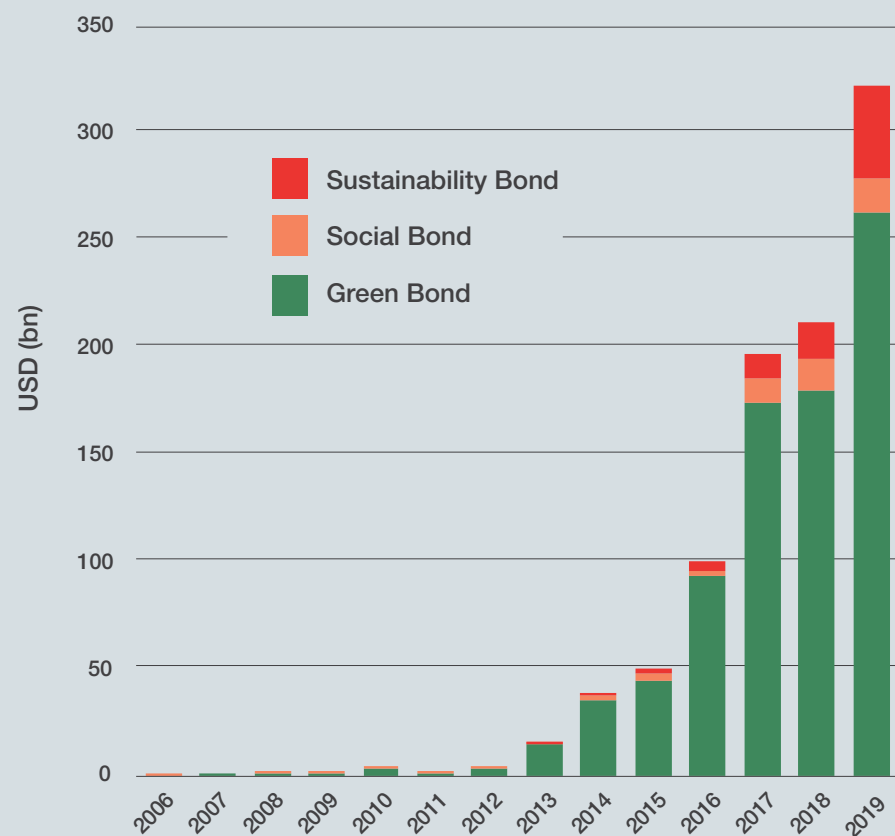
Strong indications of this are already apparent in certain parts of the world, and there is evidence of the replacement of banks for less transparent lenders – often based in jurisdictions where transparency requirements are low – or by weaker stakeholders with shorter horizons. It is our sincere hope that NGFS, TCFD and other great global initiatives, will help curb such short-termism.

Banks do play a pivotal part in society and can not just leave all of today’s funding commitments in preparation for a “possible tomorrow”. The transition towards a sustainable future is a fine balancing act where banks can play a conductor’s role if they succeed in balancing the mega trends with every day implementation. And when they do, the business opportunities are surely amazing. ■

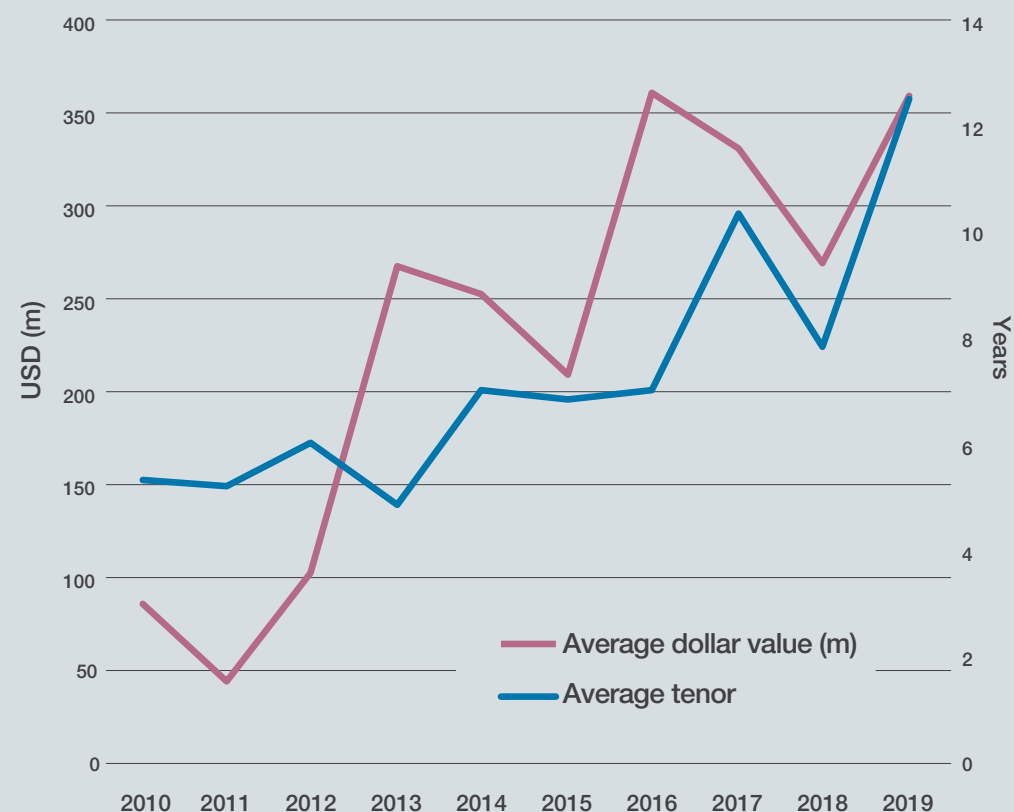
# Annual issuance in the green, social and sustainability bond markets

The sustainability and green bond markets saw significant growth in 2019 while the social bond market grew modestly. Average dollar value and tenor of issuances continue to follow an upward trend.

## Annual issuance



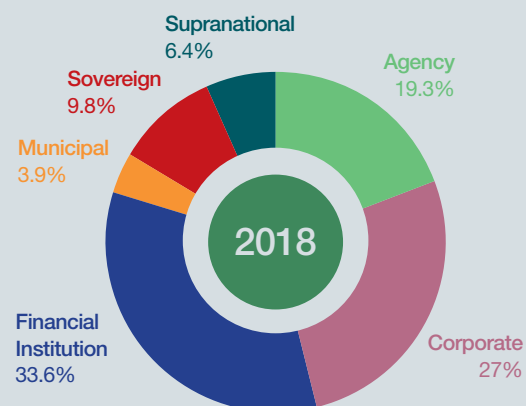
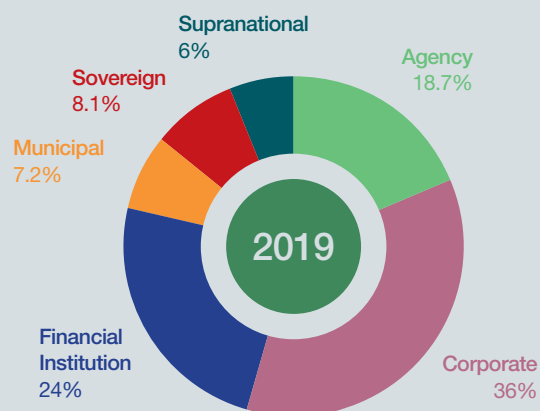
## Average dollar value vs average tenor of green, social and sustainable bonds each year\*



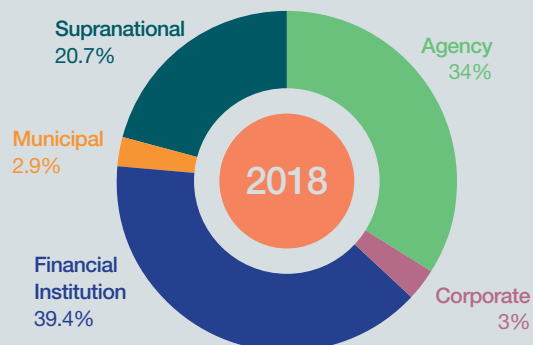
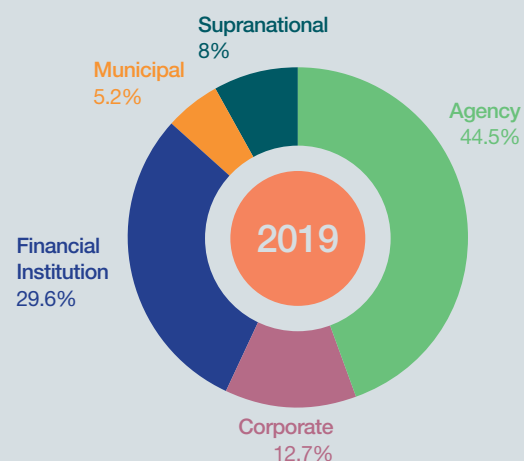
\*Excluding Fannie Mae

In 2019 the share of green bonds issued by corporates rose by 9% while agencies became the dominant issuer in the social bond market with a 10.5% increase in share in 2019 and corporates became significantly more active in the sustainability bond market, increasing their share to 25% in 2019 from 5.9% the year previous.

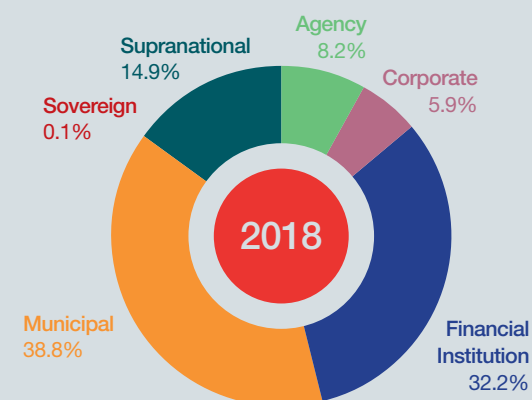
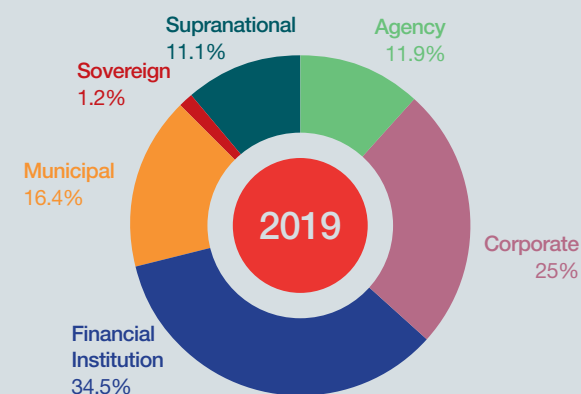
### Green bonds



### Social bonds



### Sustainability bonds



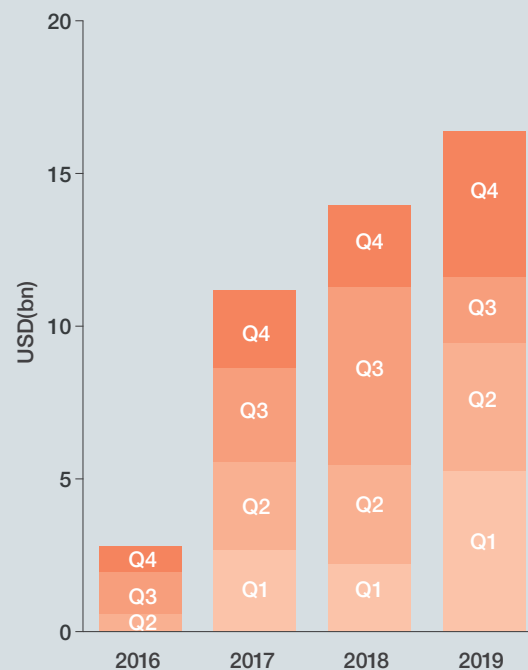
# Bonds issuances by quarter in 2016-2019

In the green and social bond markets, there has been a trend over the last three years, for the largest volume of issuances to be seen in Q4 and Q3 respectively. 2019 was the first year that the sustainability bond market followed a similar pattern.

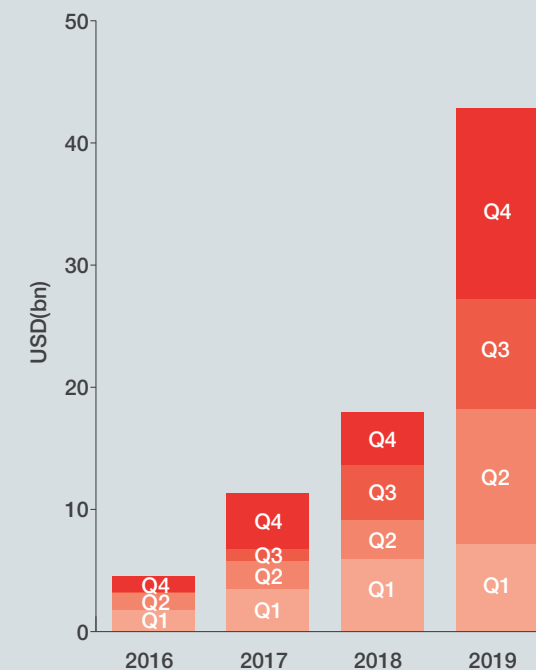
### Green bonds



### Social bonds




### Sustainability bonds




## Top 10 green bonds lead managers in 2019

Lead manager	Volume (\$M)
 HSBC	14,823
 Bank of America Merrill Lynch	13,974
 CRÉDIT AGRICOLE CORPORATE & INVESTMENT BANK	13,699
J.P.Morgan	11,790
 citi	11,750
 BNP PARIBAS	11,326
 BARCLAYS	7,344
 SOCIETE GENERALE Corporate & Investment Banking	6,919
Nordea	5,955
 Goldman Sachs	5,912

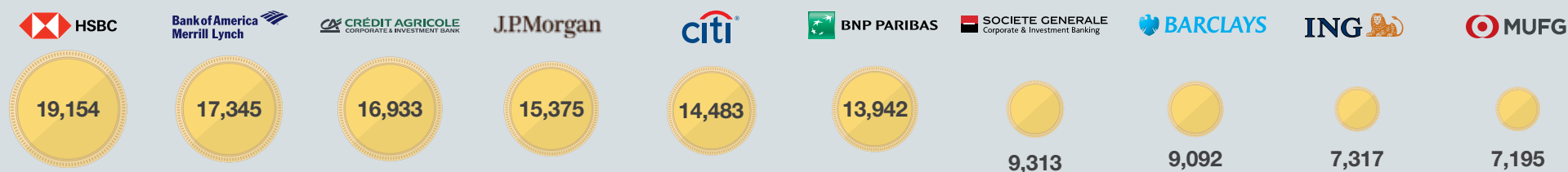
## Top 10 social bonds lead managers in 2019

Lead manager	Volume (\$M)
 MUFG	1,686
 MIZUHO	1,240
 Bank of America Merrill Lynch	1,117
 ING	765
 BARCLAYS	760
 NATIXIS GLOBAL ASSET MANAGEMENT	741
 CRÉDIT AGRICOLE CORPORATE & INVESTMENT BANK	693
J.P.Morgan	684
 SOCIETE GENERALE Corporate & Investment Banking	665
 BNP PARIBAS	653

## Top 10 sustainability bond lead managers in 2019

Lead manager	Volume (\$M)
 HSBC	3,858
J.P.Morgan	2,900
 CRÉDIT AGRICOLE CORPORATE & INVESTMENT BANK	2,542
 citi	2,411
 Bank of America Merrill Lynch	2,254
 BNP PARIBAS	1,963
 ING	1,734
 SOCIETE GENERALE Corporate & Investment Banking	1,729
 TD	1,436
Morgan Stanley	1,420

## Top 10 lead managers in 2019 all three markets combined (\$M)





# External reviewer share of the green, social and sustainability bond markets 2019 (by number of deals)

Sustainalytics has remained the largest provider of external reviewers, reviewing just under 35% of deals without Climate Bond certification. Issuances without an external review accounted for 13.8% by number however they only accounted for 8.7% of deals by value:



11.4% of deals using an external review are Climate Bond certified with CBI in turn using approved verifiers:



Methodology: The market share of external reviewers has been calculated by number of green, social and sustainability bonds issued in 2019 covered by each external reviewer. Data covers only deals where an external review has been published.

## Sustainable Development Goals across the three markets combined

The green, social and sustainability bonds aligned with the Sustainable Development Goals amounted to \$120.4 bn in 2019. 37.5% of green, social and sustainability issuances explicitly aligned with the Sustainable Development Goals in 2019, up 3.5% from the previous year. The three most covered SDGs are SDG 7 (Affordable and clean energy), SDG 11 (Sustainable cities and communities) and SDG 13 (Climate action)."



Methodology: Bonds that have been included in this infographic are those that have indicated that they contribute to one or more of the Sustainable Development Goals (SDGs) in their framework or external review. The figures represent the combined value of the bonds that align with each SDG. Several bonds have indicated that they align with more than one SDG.

# London Stock Exchange Group: Supporting more shades of Green

**T**otal issuance in the global green bond market is expected to reach the \$1 trillion mark imminently. While this represents an impressive rate of growth for a market which is little more than a decade old, total supply of fixed income instruments labelled as “green” or “sustainable” is still no more than a fraction of worldwide demand. At the last count, there were more than 2700 signatories to the Principles for Responsible Investment (PRI), representing assets under management (AUM) in excess of \$90 trillion.

In part, the increasing gap between supply and demand in the market for sustainable paper highlights the continued evolution of sustainable finance and the terms used to describe it. Just as the global fixed income market cannot be called simply “the bond market”, opportunities for exposure to sustainable finance can no longer collectively be referred to as “the green bond market”.

London Stock Exchange stands at the forefront of a movement designed to address this imbalance and has developed new opportunities to bring together issuers and investors who wish to create impact. These build on a well-established track record. London Stock Exchange, after all, was the first major global exchange to launch a Green Bond segment in 2015, which required an external review to certify the bonds were aligned to the International Capital Market Association’s (ICMA) Green Bond Principles.

As well as providing UK borrowers access to extensive pools of liquidity looking for responsible investment opportunities, this has played a decisive role in extending the global reach of green bonds. Several companies from China, India and the



Elena Chimonides, Product Specialist, Fixed Income Primary Markets



Shrey Kohli, Head of Debt Capital Markets and Funds

Middle East have since listed eligible bonds on the segment. More recently, Chile became the first sovereign issuer from the Americas to issue green bonds, listing its inaugural dollar and euro transactions on London Stock Exchange’s International Securities Market in 2019. This January, a Kenyan company listed the country’s first international green bond, partially guaranteed by GuarantCo, in London to fund clean, safe and energy efficient accommodation, and Chile tapped its 2019 issuance and listed a new green bond.

As innovation intensifies, with a broader universe of borrowers, use-of-proceeds and asset classes, historical definitions are being outstripped by developments. “A focus

purely on green bonds does not present the full picture,” according to Elena Chimonides, Product Specialist, Fixed Income Primary Markets at London Stock Exchange.

## The Launch of the Sustainable Bond Market

Responding proactively to these important shifts, London Stock Exchange undertook an extensive consultation process in the summer of 2019 asking stakeholders for their views on changes to accommodate a wider spectrum of borrowers and instruments. The result was the launch of London Stock Exchange’s Sustainable Bond Market (SBM) in October 2019, which establishes two distinct areas of eligibility for admittance.

The first is aimed at formalising the broadening use of proceeds classification, by adding social and sustainability segments alongside green bonds. These are labelled as such by observing principles and taxonomies established by ICMA, and other recognised equivalent local or regional standards such as the EU and ASEAN Green Bond Standards. As London Stock Exchange announced at the time, “these new segments further enable investors to distinguish between different types of sustainable bonds, based on independently verified frameworks and use of proceeds.”

## The Rise and Rise of Social and Sustainable Bonds

The wider segments reflect the increasingly pressing need to accommodate instruments from issuers from a broad cross-section of the economy. There were several notable examples of innovative transactions of this kind in 2019, led by the £350 million 22-year bond from Yorkshire Water in April, which was

### Sustainable Bond Market


**200+** debt securities admitted to Sustainable Bond Market  
(including over 130 certified green, social and sustainability bonds, as well as eligible bonds from green economy companies)



From over **55** issuers



Bonds in **18** currencies



**£37bn+** raised



the first sterling-denominated sustainability bond and the first of its kind from a UK corporate borrower listed on London Stock Exchange. It was also the 100th active green, social and sustainability bond listed on the London's Green Bond segment.

The following month, Co-Operative Group chalked up another first when it printed the first sterling-denominated sustainability bond from a UK retailer. An innovative feature of this £300 million five-year issue was that the proceeds were allocated for supporting the sale of Fairtrade products, thereby supporting farmers and artisan producers, chiefly in developing countries.

Another landmark issue for London last year was the inaugural Social Bond by Royal Bank of Scotland (RBS) issued in November 2019, which was the first of its kind by a UK financial institution. This ground-breaking €750 million (£650 million) senior unsecured transaction was the first to be launched under the bank's new framework forming the basis for issuance of green, social and sustainability bonds. Proceeds are earmarked for lending to SMEs in economically deprived areas of the UK economy.

#### The Issuer-level Segment

The second distinct area of eligibility for listing on the new SBM is an issuer-level classification. "Recognising that so many companies are starting to look holistically at their general

sustainability strategy, we launched a new segment catering to issuers whose core business activity is aligned with the green economy," Chimonides explains.

Shrey Kohli, Head of Debt Capital Markets and Funds at London Stock Exchange, adds that the eligibility criteria for admittance to the issuer-level segment were determined in close consultation with investors. "We asked green bond and specialist ESG investors about how they fill their green-linked portfolios," he says. "Many of them told us that with portfolios of \$1 or \$2 billion investing over 5-10 years, there are not enough assets available in the traditional green bond market."

"Investors said that they use taxonomy data from their own research or from external providers to identify issuers' green revenues," Kohli adds. "They are then comfortable with buying the plain vanilla debt of issuers whose green revenues are above a certain minimum threshold." While preferred minimums varied among respondents, London Stock Exchange has set the bar relatively high, admitting companies to SBM with more than 90% of revenues defined as green. Such issuers on SBM include, Severn Trent, United Utilities and Pennon Group – all being environmental infrastructure and water companies in the UK.

Protection for investors in the new market, meanwhile, has been strengthened with the introduction of mandatory post-issuance reporting requirements for issuers on SBM. Aside from providing investors with enhanced transparency on the

ongoing use of proceeds, this will verify continued eligibility for inclusion on SBM over the lifetime of eligible bonds.

"With 215 instruments admitted by the end of 2019 raising more than £37 billion, the success of SBM speaks for itself," says Chimonides. "The issuer-level segment will allow us to potentially admit sustainability-linked bonds in the future," adds Kohli referring the establishment of an industry working group on sustainability/ KPI-linked bonds.

#### Green Equities

A similarly flexible philosophy that underlies the establishment of SBM in the fixed income market has driven a key recent initiative announced by London Stock Exchange in the equity market. Dovetailing with the launch of SBM in October was the announcement of the new Green Economy Mark. This recognises issuers from all segments of the Main Market and AIM deriving 50% or more of their total revenues from products and services that contribute to the global green economy. "The 50% level ensures that the Green Economy Mark captures not just those in obvious areas such as renewable energy, but companies whose products and services directly contribute to a sustainable low-carbon economy across a wider range of sectors," says Chimonides.

Chimonides adds that in assessing which companies are eligible for inclusion in the Green Economy Mark, London Stock Exchange is harnessing the capabilities of the wider London Stock Exchange Group. These include data and index provider, FTSE Russell, which has developed key benchmarks such as the FTSE4Good, designed to measure the performance of companies demonstrating strong ESG practices, and the FTSE Climate-WGBI Index, which balances the World Government Bond Index based on sovereign climate risk.

Both in debt and equity, Kohli says that the requirements for issuers to comply with certified principles or green revenue methodologies consistent with globally recognised taxonomies provides investors with an important safeguard against the risk of greenwashing.

#### The Growth of Green Investment Funds

Another area in which London Stock Exchange is committed

### Growth of Green Fund Market



to expanding long-term opportunities for sustainable capital raising is in the investment funds sector. Kohli says that of approximately £7 billion raised in the market for closed-end investment trusts in 2019, about a third was accounted for by vehicles with specific green or renewable mandates. These include companies such as the Renewables Infrastructure Group (TRIG), which manages a portfolio of energy industry assets in Europe, and raised £530 million of further capital in 2019, and the Octopus Renewables Infrastructure Trust (ORIT), which specialises in wind and solar assets, which raised £350 million in its December IPO, a large component of which was from retail investors.

“Such funds recognise the importance of the need to channel long-term capital into projects which may require 15 or 20 years before they become cash-generative,” says Kohli. “At the last count, of 76 green economy companies listed in London, 23 are investment fund strategies focusing on areas such as renewables, energy efficiency and battery storage. As

these sectors mature, there is no reason why they shouldn’t attract more capital via structures other than debt, opening up new funding opportunities for corporate treasurers, and for investors looking for the right risk return premia.”

### Exploring the Potential of Transition Bonds

Underpinning its recent initiatives to accommodate more shades of green and brown is London Stock Exchange’s conviction that if the private capital required to address the climate change challenge is to be raised speedily and efficiently, investment support must not be confined to issuers operating purely in sectors perceived to be green. Kohli says that this is in line with the findings of an influential white paper published last summer by AXA Investment Management which called for the development of a new market for so-called transition bonds. “While green bonds are intended for issuers to use the proceeds to finance environmentally-friendly projects, we see a significant gap where investors could step in and deliver real

impact for companies which are not yet at this stage,” AXA explained.

“There is an opportunity to provide finance to companies, which are ‘brown’ today but have the ambition to transition to green in future,” it added. “This includes firms that are not able to issue green bonds today, due to a lack of sufficiently green projects for which they can possibly use bond proceeds.”

Kohli says that in its consultation with the market on the potential for transition bonds, London Stock Exchange proposed to define the instrument as an asset class based on three clear metrics. “Issuers would need to have a cogent sustainability strategy at the company level, some form of independent verification of that strategy and objective targets for measuring its results based on science-based frameworks,” he says.

### Transition: Not a Contradiction

Kohli adds that the responses London Stock Exchange received from more than 40 financial institutions to its paper on transition bonds suggest a recognition of the importance of transition, a key theme of the UNCCC COP 26 hosted by the UK in November, but that the jury is still out on how this asset class will evolve over the long term.

Nevertheless, the long-term trend of specialisation within sustainable finance supporting broader access is unmistakable. The establishment of a Climate Transition Finance Working Group through the Green Bond Principles is a recognition of this.

London Stock Exchange has already built an enviable track record in sustainable finance for green finance as well as other sectors. Twinned with its forward-looking initiatives aimed at deepening and diversifying the market, and anchoring sustainable finance at a strategic level for its listed companies, this means London Stock Exchange is ideally positioned to capitalise on its position at the heart of London’s vibrant financial hub to accelerate the transition towards carbon neutrality. “As one of the world’s largest financial market infrastructure groups, we are fully committed to supporting innovation in sustainable finance backed by the most robust standards of transparency and disclosure,” says Kohli. ■



# A greater role for green bonds

With green bonds becoming an ever-greater part of NRW BANK's funding programme, the German lender is diversifying into social bonds, and is considering a move to a portfolio-based issuance programme. Frank Richter and David Marques Pereira explain



David Marques Pereira, ESG Specialist, Investor Relations



Frank Richter, Head of Investor Relations

**Environmental Finance:** NRW BANK has now issued eight green bonds. How does green bond issuance fit in with the bank's broader funding programme?

**Frank Richter, Head of Investor Relations:** This year, we issued our eighth green bond. The green bond programme started, in 2013, as a small fraction of our overall funding, at around 2.5%. We were able to increase it to around 5% in the following years and, in 2020, I'm confident it will be closer to 10%.

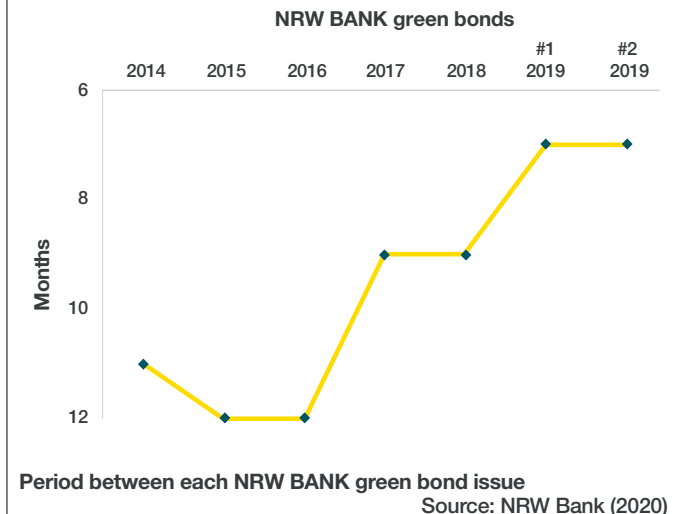
We are looking to develop our green programme further; one major cornerstone is to trigger more volume by offering

additional, interest rate-subsidised loans for green projects. As of the start of December, we have established an internal green refinancing curve in the bank, which means that environmentally friendly projects identified by our loan department qualify to be re-financed by the green financing curve. This product offers additional interest rate subsidies, somewhere in the single digit basis point range.

**EF:** NRW BANK's green bonds refinance the bank's underlying green loans – what is the focus on and outlook for this lending?

**FR:** Our preference is to be on the dark green side in terms of Cicero's Shades of Green methodology. That means issuing green bonds against mostly dark green assets as much as possible, as well as including some medium-green assets to allow us to reach the critical threshold of €500 million of assets in each green bond pool. Alongside climate mitigation projects, we have an adaptation component in the green pool bond, usually water-related projects, with the most prominent one being the re-naturation of the River Emscher.

What is and is not green is a critical question. The development of the EU Taxonomy, which sets out a list of economic activities that can be judged to contribute to climate mitigation or adaptation, has proved very useful in this regard. This process has led to a number of project categories being defined by the Commission's Technical Expert Group, which allows us to judge whether the project is green or not. For instance, regarding green energy, every form of generation is eligible assuming it emits less than 100 grams of carbon dioxide per kilowatt hour – that excludes coal, but can include



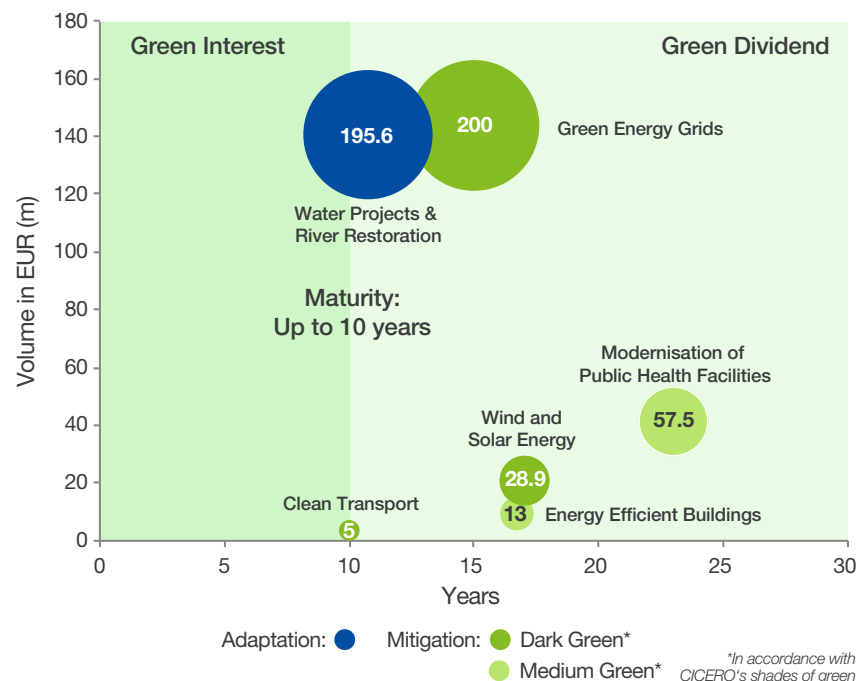
biogas and all kinds of renewable energy.

We are talking to our business development team with a view to putting these criteria into a development bank lending programme based on the EU taxonomy.

**EF:** What is NRW BANK doing to grow its green lending portfolio?

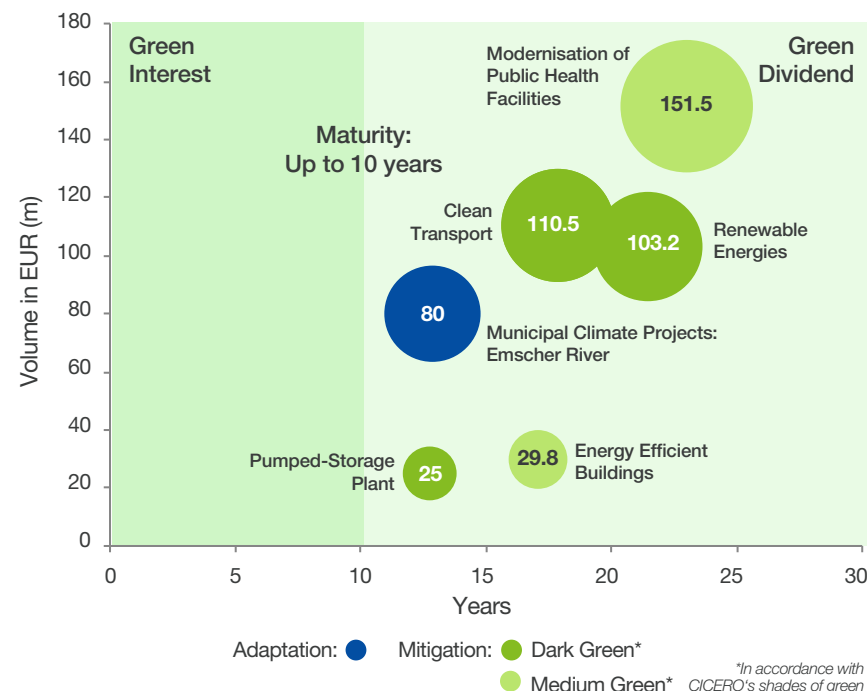
**FR:** Green lending in general has substantially increased; there's growing demand for green investments, with the German government agreeing on a climate package that has recently passed the two houses of parliament which, among

## Green Bond #1-2019



Source: NRW Bank (2020)

## Green Bond #2-2019



Source: NRW Bank (2020)

other things, will introduce a price on carbon in the transport and housing sectors. At the EU level, we have the Green New Deal from the new head of the European Commission. On the banking side, we are trying to follow this and give additional incentives in terms of our green re-financing.

**EF: How, if at all, has the mix of underlying projects changed? Have you included new project types?**

**David Marques Pereira, ESG Specialist, Investor Relations:** In the last couple of years, clean transport has become more prominent. We have seen municipalities in our

region taking measures to respond to their citizens' concerns about local air pollution. We are involved in financing the vehicles – trams, electrified trains and electric buses. About 80% of the clean transport refinancing goes to the vehicles themselves, with the remainder financing charging stations.

We have seen, for the first time last year, financing by NRW BANK of the transmission grid that is being built to carry electricity generated by renewables in the north of Germany to areas of high demand in southern Germany. We have helped refinance these assets through our green bonds.

Finally, we have refinanced lending to a pumped storage

plant in our state, which was refurbished to increase its electricity capacity from 690MW to 735MW. We have only two of these types of plant in North Rhine-Westphalia, and they will be essential for the energy transition in Germany – they provide the only option for large-scale storage of intermittent renewables.

**EF: NRW BANK has been a leader in impact reporting – how is its approach to the issue evolving?**

**DMP:** We have worked with the Wuppertal Institute since 2015 on our impact measurement. It calculates the carbon

savings from our climate mitigation projects, based on the energy mix of our federal state, which makes sense since most electricity in our region is produced and consumed locally. During our last roadshow, some investors approached us and suggested that some other benchmarks would also be useful, so we talked to the Wuppertal Institute and decided that, for our 2019 bonds, we will also calculate CO<sub>2</sub> savings from two other electricity benchmarks – the electricity mix in Germany, and the mix across all 28 countries in the EU. The idea is that the investor can choose the benchmark that fits their approach best.

In addition, we will adapt our impact reporting to align it with the proposed framework from the EU Taxonomy and the EU Green Bond Framework. It will include more scientific figures, but the main advantage for the investor is that there will just be one standard template, so investors won't have to read across from different tables.

Around 20% of our underlying asset pool is in climate adaption projects, where we are working with the Emschergenossenschaft, the body responsible for the re-naturation of the Emscher river. It provides economic and ecological key performance indicators – such as the number of kilometres restored, the monetary value of prevented flooding damage, and the number of plant and animal species coming back into the river.

We have also started to publish the regional distribution of the projects we re-finance. It is not a requirement in the Green Bond Principles, but some of our Dutch investors suggested to publish a map of the projects we refinance – many of our Dutch colleagues travel through the state, mostly in winter for the skiing season, and they like to see which wind farms are refinanced by NRW BANK! It is also recommended by the EU Taxonomy at the country level – we are doing it at the regional level.

**EF: Do you support the approach the EU has taken to developing its Taxonomy?**

**FR:** Yes, we're happy with the EU Taxonomy. It's certainly not a problem for German institutions. Germany is highly regulated, and we tend to exceed the minimum requirements

set by the EU Taxonomy. For example, it requires minimum energy efficiency standards for housing stock in line with the EU's 2014 Energy Efficiency Directive. We are currently working to the requirements of the 2016 directive, so all housing built now has to meet higher standards than are required by the EU Taxonomy. I don't have any concerns here.

**EF: What about the social bond market – is NRW BANK planning any social bond issuance?**

**DMP:** Alongside our internal efforts to strengthen our green lending programme, we also had a debate about the social assets that we have on our balance sheet, and whether we could refinance those. The answer was 'yes', and we are currently drafting a social bond framework. Based on this framework, we will issue a social bond later in 2020.

Going forward, we will therefore have two themes – green and social. It is important for us not to mix up both in one product, so we're not keen to do a sustainability bond. We see two separate groups of investors, and we don't see the benefit of attempting to mix them together: many investors have a clear green mandate.

With our framework, we are sticking closely to the Social Bond Principles. According to those principles, our social housing activities qualify, as does our lending to municipalities to enable them to provide basic services in the region. The third component is lending to small and medium-sized enterprises, as long as they are in line with our exclusion criteria, given that they are generating employment.

**EF: Are there any challenges in structuring social bonds in comparison with green bonds?**

**FR:** Most of the processes are already established in the bank. We will have intensive discussions with our business development department but, given that we have been issuing green bonds since 2013, we know how the internal processes work – it's just a question of adapting them slightly to social bonds.

**EF: What are NRW BANK's views of the market from the point of view of a green bond buyer?**

**FR:** The green bond market is improving. We're seeing new issuers and sectors entering the market, the sovereign market is growing well, and we expect to see the first German government green Bund this year. The market is developing quite nicely and we were able to increase our green bond investment portfolio this year by €100 million to about €300 million – we expect to grow it to €400 million by the end of 2020.

If you are an issuer, you love to see a 'greenium' in the market, allowing you to issue green debt with a slightly lower yield. From the buy side, of course, it is not so attractive! There's always a debate about prices. For us, supply and demand dynamics will determine the greenium.

**EF: What's next for 2020 and beyond?**

**DMP:** We are updating our green bond framework, and particularly we are excluding coal from our lending business. We also plan to sign the UN Principles for Responsible Investment and Responsible Banking.

Also, we are responding to investor demand for longer tenor bonds, given the general interest rate environment. Usually, we are limited to 10-year paper, due to a special call right of the underlying loans. That brings the yields of the bonds close to zero, or even, as with the last green bond, into negative territory. That's not something that investors appreciate.

So, we are planning to adjust our process going forward, moving away from the one-to-one approach where each bond refinances specific projects, instead issuing bonds on a portfolio basis. That will give us greater flexibility in terms of tenor and gives us the ability to offer green commercial paper, short-dated money market transactions linked to the green asset pool, as well as offering green debt in different currencies.

The first 2020 bond will probably be the last one based on the old regime, with projects linked directly to the bond. After that, our approach will change. We will commission a second party opinion based on the framework, and impact report at the end of each calendar year, reflecting the asset structure of the pool. That impact reporting will be relevant for all outstanding green bonds and commercial paper. ■

# Voicing its opinion

Vigeo Eiris helped pioneer the green bond market. It is a leading provider of second-party opinions, or SPOs. Paul Courtoisier, its Global Head of Sustainability Bonds, explains the value that SPOs bring, and how the firm is navigating the debates around transition bonds.



Paul Courtoisier, Global Head of Sustainability Bonds

**Environmental Finance: What role does Vigeo Eiris play in the green bond market?**

**Paul Courtoisier:** Our role is to provide market participants with independent reviews of bonds, performed by our teams in Paris, New York, London, Hong Kong and Santiago de Chile. We have been a leading provider of SPOs in the green bond market since its very early stages. We have delivered more than 260 SPOs and Climate Bonds Initiative verifications since 2012.

We deliver opinions for any type of fixed income instruments intended to be labelled green, social or sustainable – such as bonds, loans, residential mortgage-backed securities and asset-backed securities, among others.

While we perform second-party opinions, we do not provide advisory services for the development of green bond frameworks. Delivering both services could pose potential conflicts of interest, as explicitly mentioned in the International Capital Markets Association [ICMA] guidelines for external reviewers.

**EF: Could you talk me through the process by which Vigeo Eiris produces second-party opinions?**

**PC:** It's a six-stage process which is designed to be fast, flexible and issuer-friendly. Engagement is at the heart of our process and our team meets with the issuance managers

at several stages of the process. We remain very cautious in ensuring that our due diligence conforms with the issuers' expectations and our own independence requirements.

In a nutshell, we first arrange a kick-off meeting to ensure we have properly identified all the issuer's needs. We then collect and analyse information through questionnaires and interviews. We draft our SPO in a preliminary form which is presented and discussed with issuance managers before being finalised.

**EF: What are the benefits to issuers and investors of producing second-party opinions?**

**PC:** The diversity of issuers results in varied reasons for and requirements from SPOs when issuing green bonds. One of the main benefits for issuers of obtaining an SPO is to ensure that their green bonds are in line with market expectations and practices, thereby gaining credibility for their brand, green credentials and their offering among investors.

Thereby, obtaining an SPO is a powerful mechanism for issuers to demonstrate leadership in the sustainability agenda and to highlight their commitments in this space.

It is also a way for issuers to prove that they are managing their sustainability risks in an appropriate manner and can ensure they are properly managing reputational risks.

The green bond market is a self-designated market, and it



can be difficult for investors to have a clear view on the green quality of an issuance without an external review. We observe a steadily increasing demand for independent information on the sustainability credentials of green bonds. This demand comes not only from investors, but also from issuers, regulators and intermediaries. A number of investors, green bond indexes and green bond funds also require an external review in order for them to be able to invest in a particular instrument.

The market is heading in the direction of making SPOs and other external reviews mandatory, as outlined in the proposals for the EU Green Bond Standard.

**EF: What sort of information are investors looking for from SPOs?**

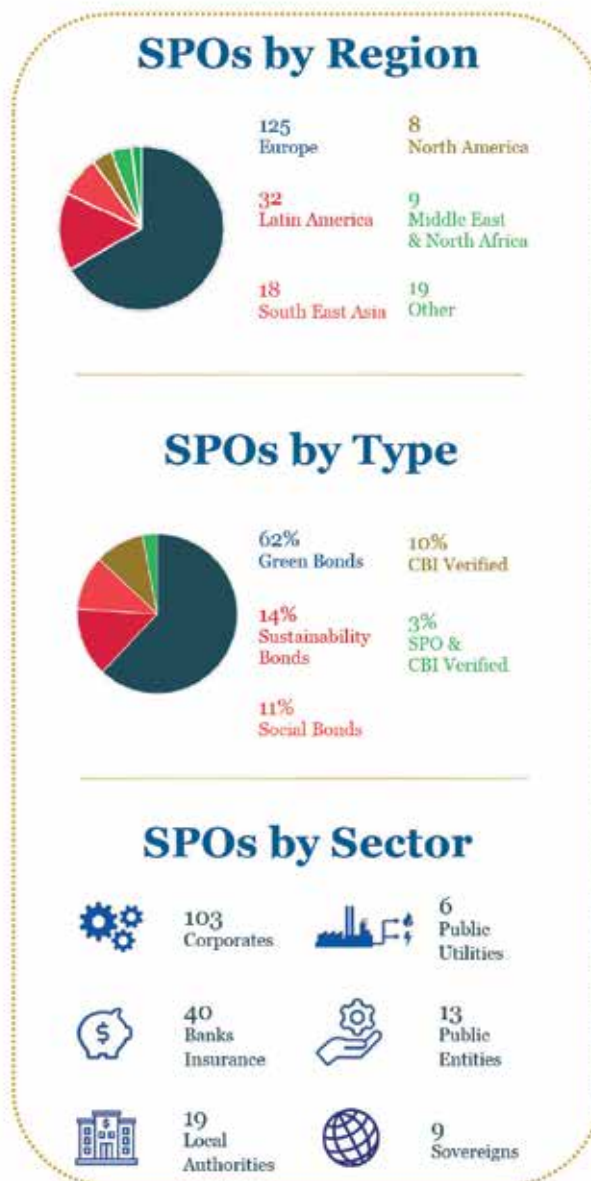
**PC:** Two types of information are of primary interest to investors. The first is whether or not the green bond is aligned with market expectations and standards and, in particular, with the Green Bond Principles. This is quite a basic need. The second piece of information is whether the bond is expected to deliver pre-defined environmental and/or social benefits.

The role of our agency is to bridge the information gap and provide accurate and timely green bond information to investors.

**EF: What about misconceptions? What do you find that investors and/or issuers don't understand about SPOs?**

**PC:** Investors are looking for comprehensible information, and it's very important – particularly with the growth of new bond categories such as transition bonds – that they are provided with appropriate and relevant detailed information on these bonds.

In order to avoid misconceptions, it's critical for us that our SPOs provide issuers and investors with the relevant context



to understand and analyse if and how a bond is in alignment with market standards, and how it contributes to specific sustainability issues.

**EF: Are all SPOs created equal, or are some more rigorous than others?**

**PC:** At Vigeo Eiris, we apply a rigorous and consistent approach to all our SPOs. More and more SPO providers are coming into the market around the world, and each one has its own methodology. We think that a quality SPO should capture all the features of the issuance, as well as the environmental social and governance [ESG] profile of the issuer. This approach provides critical information on the ability of an issuer to deliver positive impacts and can strengthen an issuer's credibility and legitimacy to tap into the market for sustainable finance. We firmly believe that this integrated sustainability analysis is crucial to provide a holistic view to investors, especially taking into account the role of issuers in the context of the global transition to a low-carbon and sustainable economy.

**EF: What are your views on the EU's proposed Green Bond Standard?**

**PC:** There has been a lot of discussion in recent years about the need to find a common language for the green bond market and the need for standardisation to support fair market growth, transparency and integrity.

The development of the EU Green Bond Standard will contribute to addressing this need. It largely relies on the EU Taxonomy for sustainable activities. The EU Taxonomy is the result of some very impressive work by the High-Level Expert Group on sustainable finance, set up by the EU Commission.

We are already using the EU Taxonomy screening criteria within our methodology. The EU Taxonomy includes a number of features that are also central to our SPOs and help us to identify recognised eligibility criteria and thresholds, as well as environmental and social risks as part of the "do-no-significant-harm" criteria.

To date, the EU Taxonomy only covers some sectors and EU sustainability objectives. We will closely track and monitor



the evolution of the EU Taxonomy and the related EU Green Bond Standard.

**EF: Are there any concerns you have about how the process is developing, or about risks that either the EU Green Bond Standard or the taxonomy could take the wrong direction?**

**PC:** One repeated concern that has been widely raised is that the EU Taxonomy might be a little bit too stringent in its thresholds. The EU Taxonomy is a strict vision of sustainable activities aimed at achieving the 2050 EU targets, which could be perceived as non-correlated to industry practices and performances. One could say that a rigorous standard might help to preserve the integrity of the market. However, instead, it might reduce market growth by restricting access to some issuers, especially in 'brown industries', even though the taxonomy did expand to include 'transition' and 'enabling' activities.

One of the key limitations we see is the global implementation of the EU Taxonomy. The notion of 'green' is very sensitive to a specific project and its context. A tick-the-box approach towards eligibility is not appropriate, and it's important to maintain flexibility in relation to the criteria to constantly define and redefine a green project at the end.

Moreover, it is essential to ensure that the appropriate expertise and judgement is applied to assess a project.

**EF: There is a fair bit of controversy in the market about transition bonds, which – depending on your point of view – either help unsustainable companies become green or use the green bond market to finance business-as-usual activity. What's your view?**

**PC:** It is very important to note that the transition is about more than climate. There are as many transitions as there are Sustainable Development Goals.

The market today is primarily focusing on the climate transition. We've been having lots of discussions with issuers and intermediaries about climate transition bonds. The debate is getting more and more intense.

High greenhouse gas emitting industries are obviously part



Vigeo Eiris team facilitate collaborative work throughout the SPO process

Source: Vigeo Eiris

of the equation to achieve the goals of the Paris Agreement. Market participants are looking to support companies that are transforming their business models to contribute to the transition to a low-carbon and a climate-resilient economy.

We are recognised as the first SPO provider to have supported what is now called a 'transition bond'. The 2017 Repsol green bond, which was issued to finance energy efficiency projects with the oil and gas company's operations, was essentially a transition bond, reducing the overall environmental impact of an activity which is fossil fuel-based.

For the time being, as long as there are no 'Transition Bond Principles', we continue to apply the same approach to transition bonds as for green bonds. We draw on our extensive research on carbon and energy transition projects to evaluate how issuers can align with a below-2°C temperature increase trajectory and deliver towards the significant improvements which are needed to meet transition and sustainable development goals.

**EF: What's your view on the ENEL sustainability-linked bond? Some market participants have raised concerns given that it is, unlike most green bonds, not linked to specific assets but rather to ENEL's overall sustainability performance.**

**PC:** Many market participants have recognised that the ENEL SDG-linked bond is a positive market development.

This issuance is an important evolution in the market, in particular because it is well-suited to so-called 'brown' industries, allowing them to demonstrate that they are delivering issuer-wide sustainability progression without targeting specific assets.

The ENEL deal is likely to bring additional sustainability-linked bond issuances in the future. This is something that we will be closely monitoring. We are already delivering SPOs for sustainability-linked loans and are prepared to do the same for bonds.

**EF: What are your expectations for the market in 2020?**

**PC:** We are seeing considerable efforts being made around the world to improve the infrastructure on which the green bond market relies.

Local standards are being developed by several stock exchanges, incentive schemes are being implemented by government authorities and market-based initiatives are being developed by private institutions. For instance, the Inter-American Development Bank is creating a 'Green Bond Transparency Platform', which was launched at COP25 in Madrid. It seeks to bring greater transparency to the Latin American and Caribbean green bond markets.

All these initiatives popping up across the globe will hopefully support the growth of a fair and transparent market, and we are fully supportive of these developments. ■

# Green Buildings and Green Bonds

In 2019 Berlin Hyp issued its seventh and eighth green bond – a Green Pfandbrief with an eight year tenor and a ten-year senior preferred bond. The total of eight benchmark-sized green bonds with an accumulated outstanding amount of EUR 4bn makes the bank remain the most active European commercial bank issuer of green bonds. All of these debentures have one thing in common. They follow Berlin Hyp's unified Green Bond Framework, established in 2016 and updated several times during the following years, making it stricter every time.

## Berlin Hyp's Green Bond Framework and eligible assets criteria

All eligible assets are loans for the acquisition, the construction or the refurbishment of green buildings on Berlin Hyp's balance sheet and are part of its mortgage cover pool in the case of Green Pfandbriefe. In addition, Berlin Hyp makes every effort to invest an amount equivalent to the net proceeds of the green bonds in new eligible assets and (in the case of Green Pfandbriefe) to include these into its mortgage cover pool. The eligible assets remain on the bank's balance sheet. Investors do not bear the credit risk of the assets and rank pari-passu with existing covered bondholders (in the case of Green Pfandbriefe) or senior unsecured bondholders. Berlin Hyp's green bonds are fully aligned with the Green Bond Principles and are included in the main green bond indices, such as Barclays MSCI, S&P, BAML and Solactive.

Eligible assets consist exclusively of loans for energy efficient, sustainable commercial real estate. In order to classify properties as green buildings, Berlin Hyp defined maximum energy demand levels for various building categories (see table on the right). These limits are subject to constant surveillance by the bank's own Green Building Commission. In April 2018 they have been re-defined, i.e. lowered and split into energy demand for heating/warmth and energy demand for electricity. The bank then was the first green bond issuer to divide energy efficiency into its single components. Compliance with the thresholds is proven by energy performance certificates (EPC) which the bank asks its borrowers to provide as an integral part

PROPERTY TYPE		Energy demand heating/ cooling kWh/(m <sup>2</sup> *a)	Energy demand electricity kWh/(m <sup>2</sup> *a)
Residential	New residential properties	60	-
	Old residential properties		
Office	Office buildings without air conditioning	100	80
	Office buildings with air conditioning		
Retail	Retail buildings (shopping malls, department stores)	60	75
	Other retail buildings		
Hotels		95	60
Logistics buildings		30	35

of the loan origination process. In addition, the bank asks its customers for sustainability certificates issued by re-known institutions such as LEED, BREEAM, DGNB and HQE. In order to be eligible for the green finance portfolio these have to reach a certain minimum (see table on next page). Finally

Berlin Hyp excludes various controversial businesses in its green buildings.

## Green Buildings – an important green bond category

As Berlin Hyp is a specialized commercial real estate financier,

### Eligible external sustainability certification

LEED	Gold or above
BREEAM	Very Good or above
DGNB	Gold or above
HQE	High Level or above

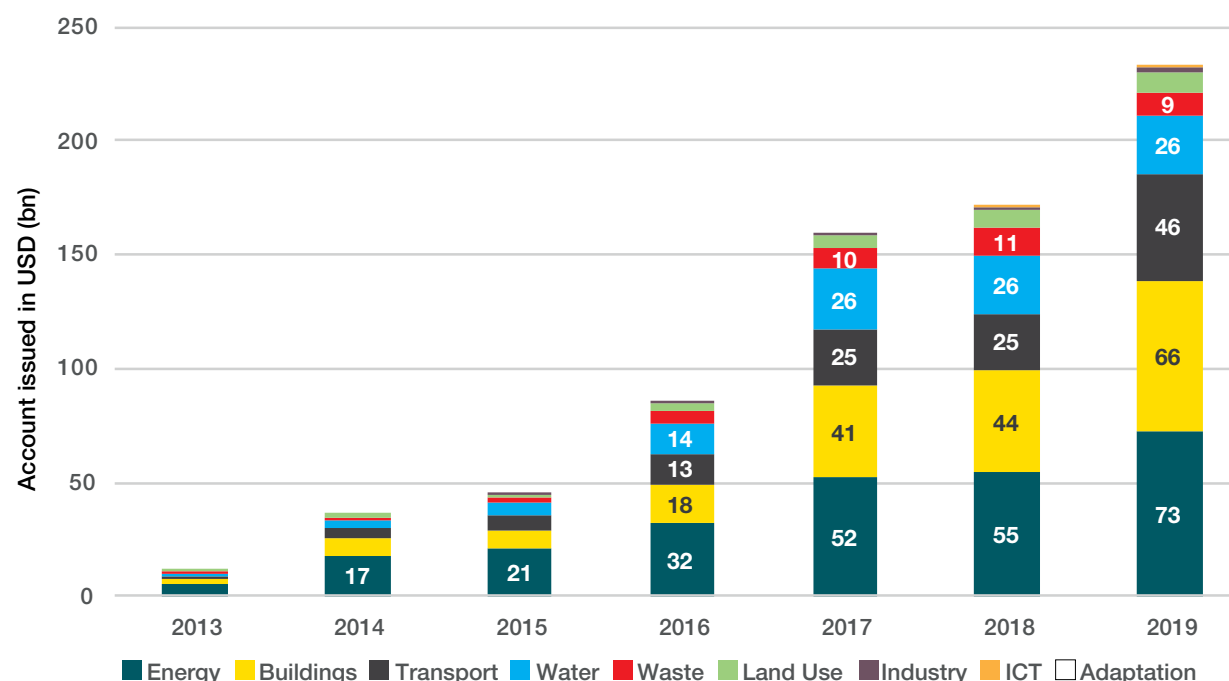
it is just consequent that loans for green buildings form the only eligible asset category used by the bank. Meanwhile, green buildings have developed to be one of the most important asset classes in the green bond market. According to data of UniCredit and the Climate Bonds Initiative (CBI) USD 66bn of green bonds have been used to finance or refinance green buildings or loans for green buildings in 2019. This number represents 28 per cent of the total 2019 green bonds issuance (USD 234.9bn).

Buildings are responsible for 30 to 40 per cent of all CO<sub>2</sub> emissions in Europe, depending on calculation methods employed. These numbers make clear why the asset class is such an important constituent of the green bond market.

### What is a green building?

In the context of green bonds, the term 'green building' is closely linked to energy efficiency. Sustainability certifications as the above stated ones, are predominantly relevant for commercial real estate and are often seen as additional eligibility criteria. Although the focus on energy efficiency is common to all green building related green bonds, there still isn't a single unified definition of what makes a property a green building. Anyway, the market seems to experience a process of harmonization.

In December 2018 the Energy Efficient Mortgages Initiative



Source: Climate Bonds Initiative, UniCredit Research, 14 January 2020

(EEMI), led by the European Mortgage Federation and the European Covered Bond Council, published a first definition of energy efficient mortgages. It stipulates that renovations must lead to a decrease of energy demand or consumption of at least 30 per cent for the mortgage loan financing this renovation to be considered energy efficient. At the beginning of 2019 Berlin Hyp transferred its Green Pfandbrief trademark to the Association of German Pfandbrief Banks (vdp) with the aim to enable more issuers to come to the market on the basis of common criteria. In summer 2019 member banks agreed on a common minimum standard that includes different approaches and gives certainty to green

covered bond investors what they can expect when they buy a green German covered bond (=Green Pfandbrief), no matter who is the issuer:

The reference to the top 15 per cent is also a key aspect for the CBI. Its low carbon building criteria only accepts those 15 percent with the lowest carbon intensities in a regional market. City-baselines developed by the CBI are trajectories that also include the term of a green bond (re-)financing green buildings. The longer the term of the bond, the lower is the maximum allowed carbon intensity. This approach aims to ensure that a green, energy efficient building represents the top 15 per cent in its local market at least until the maturity

### vdp minimum standards for Green Pfandbriefe

COMMERCIAL REAL ESTATE	RESIDENTIAL REAL ESTATE
<b>New construction financing:</b> <ul style="list-style-type: none"> <li>At least the statutory energy standards for new buildings at the time of financing</li> </ul>	<b>New construction / acquisition of existing properties:</b> <ul style="list-style-type: none"> <li>Energy efficiency class B or better, or</li> <li>Energy demand no greater than 75 kWh/m<sup>2</sup>, or</li> <li>Project is co-financed by KfW funding programs for energy efficient construction or renovation, or</li> <li>Top 15 per cent of national residential property stock with regard to energy consumption/demand</li> </ul>
<b>Acquisition of existing properties:</b> <ul style="list-style-type: none"> <li>Compliance with comparative values published by the German Federal Ministries for Economic Affairs and Energy, and for the Environment, Nature Conservation, Building and Nuclear Safety on 7 April 2015, or</li> <li>Sustainability certification top category (LEED, BREEAM, DGNB etc.), or</li> <li>Top 15 per cent of national commercial property stock with regard to energy consumption/demand</li> </ul>	
<b>Renovation/refurbishment:</b> <ul style="list-style-type: none"> <li>Reduction in energy demand/consumption of at least 30 per cent and</li> <li>New energy demand/consumption in line with EU climate objectives</li> </ul>	<b>Renovation/refurbishment:</b> <ul style="list-style-type: none"> <li>Reduction in energy demand/consumption of at least 30 per cent and</li> <li>New energy demand/consumption in line with EU climate objectives</li> </ul>

date of the bond. Unfortunately, it faces difficulties to be applied by European lenders as it only allows the use of real consumption data whereas European EPCs in many cases provide demand data, which makes them independent from user-specific energy consume behavior.

Although the above explained criteria and minimum standards are to be seen as important steps to more harmonization of green building definitions they still leave room for different approaches and qualities. It is one of the expectations in the market that the new EU Taxonomy will provide more clarity and encourage a more common understanding. This will only be possible, if it sets a unified standards which takes regional differences into consideration, is strict enough to support the EU climate targets, and at the same time is feasible for lenders. A science based approach like the one of CBI is desirable, if it allows for using available

data in order to determine quality and impact, i.e. demand or consumption figures.

#### Calculating Impact

As shown, definitions on what is a green building reveal differences, and so do approaches to determine their impact. The Green Bond Principle's Handbook on a Harmonized Framework for Impact Reporting from June 2019 provides guidance for reporting on the impact of green buildings and energy efficiency. But assumptions and calculations by green finance lenders differ from each other. For this reason, an energy efficient green building financed by a syndicate of two different lenders can produce different carbon avoidance figures in their impact reports.

While impact reporting for financed renovations should always compare a building's energy performance and

carbon emissions before and after the renovation, financing the construction or acquisition of a green building asks for more complex calculations. Berlin Hyp is the only issuer in the green bond market that measures the carbon avoidance through its green bonds by employing two different baselines, one representing the European average of existing commercial real estate, the other one being derived from the reference values given by the German energy savings regulation (EnEV). In 2019 the CO<sub>2</sub> avoided by an investment of EUR 1mn in a Berlin Hyp green bond was between 12.6 and 38.8 t/p.a., depending on which baseline investors choose and whether they want to base calculation on the whole financed property or solely on Berlin Hyp's initial LTV. The bank's methodology has undergone constant refinements during the last years, making it more and more precise. The 2019 reporting for the first time contained individual calculations of carbon emissions avoided due to the energy demand for electricity and the energy demand for heating of green buildings. Moreover, due to increased data requirements, with the addition of information on the energy source for heating in each individual building the bank has become able to apply building-specific factors for the conversion of energy savings into avoided carbon emissions depending on a building's individual energy source. This way of reporting is seen as best-in-class by many in the market, and Berlin Hyp has been awarded three times in a row "Best Green/SRI Issuer for Post-Deal and Impact Reporting" by Global Capital in 2017, 2018 and 2019.

More convergence of calculations of carbon avoidance by energy efficient green buildings will be one of the big tasks of the coming years. Together with ongoing harmonization of definitions this will lead to more clarity among real estate lenders and green bond investors, and thus, support the market and the asset category. ■

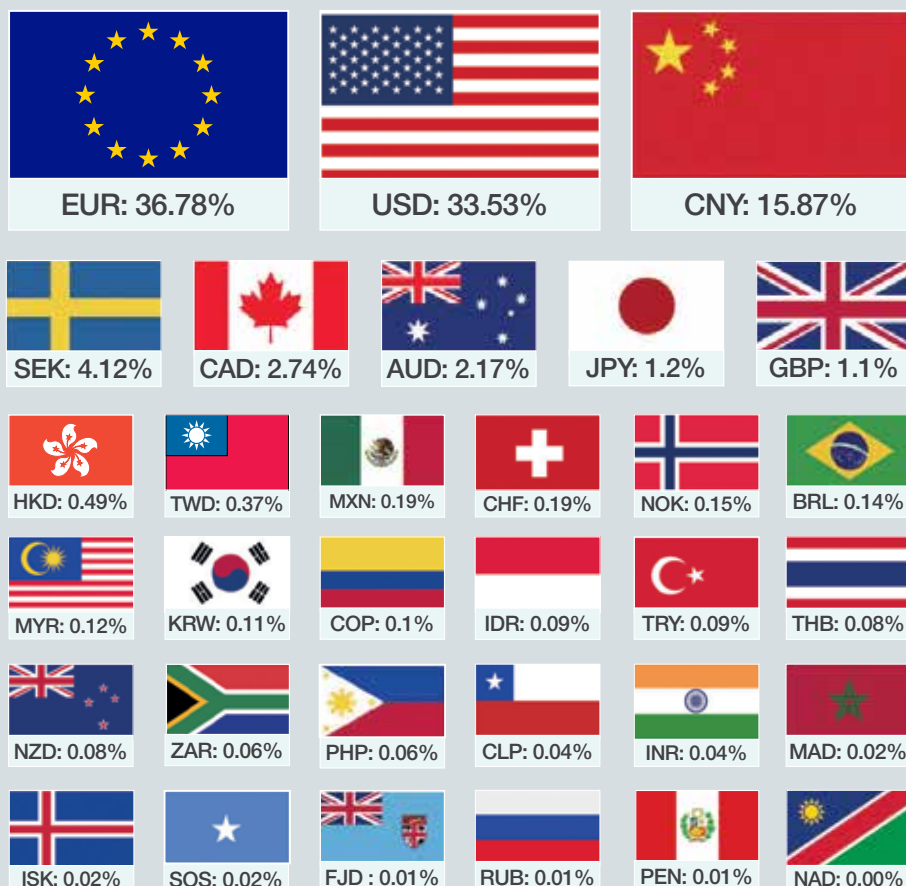


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# Currencies used in 2019 compared to 2018 in the green bond market

In 2019, issuances in EUR continued to grow as the dominant currency in the green bond market. The number of currencies used to issue green bonds remained the same as in 2018 at 32 currencies. It is the first time Danish Krone (DKK) and the Kenyan Shilling (KES) have been used to issue green bonds.

## 2018



## 2019

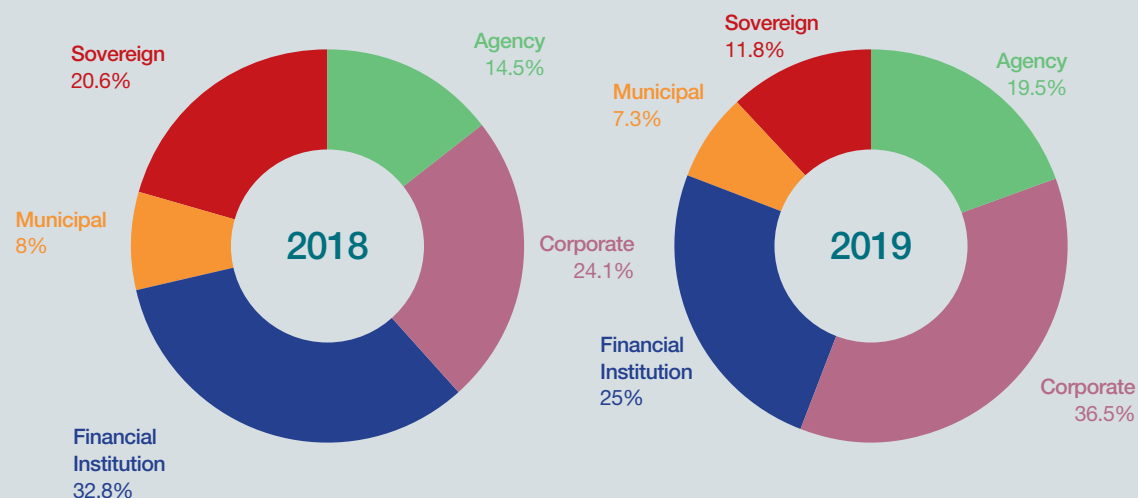




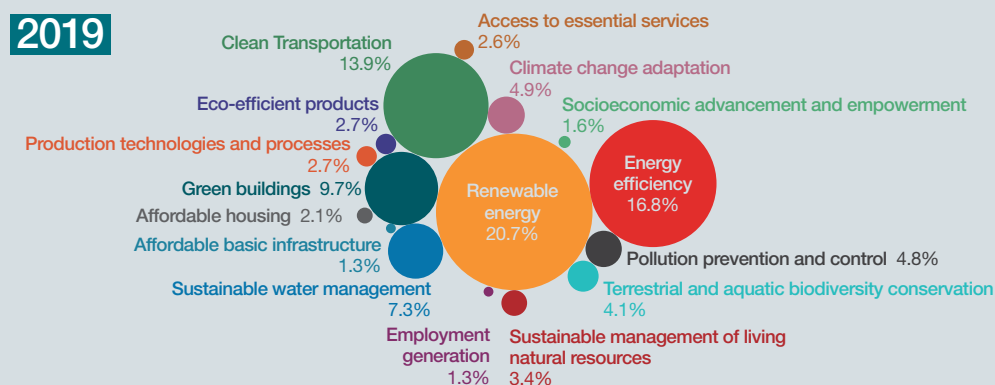
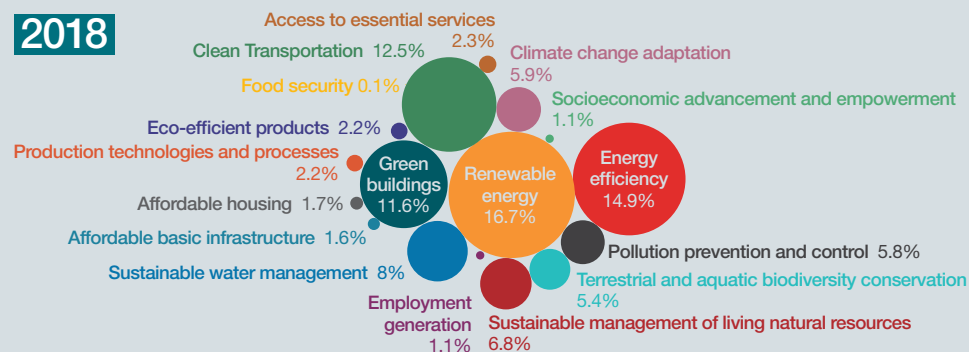
## The European green, social and sustainable bond market



## Comparison of issuer types in 2018 vs 2019 in the European green, social and sustainable bond market.



## Use of Proceeds comparing 2018/2019



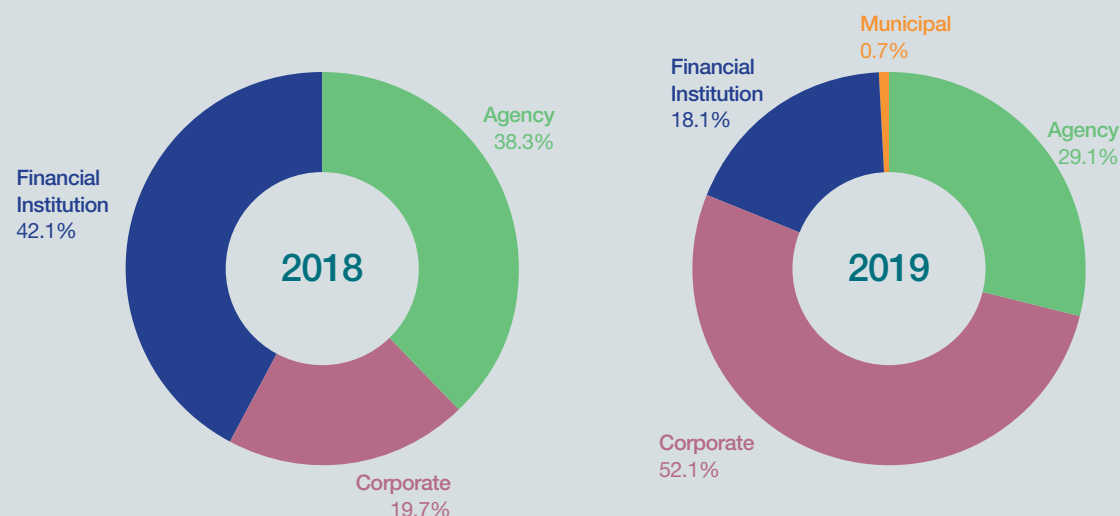
Methodology: When bonds have more than one 'use of proceeds' the whole value of the bond is counted for each 'use of proceeds'.

# The Japanese green, social and sustainability bond markets in 2019

### The Japanese green, social and sustainable bond market

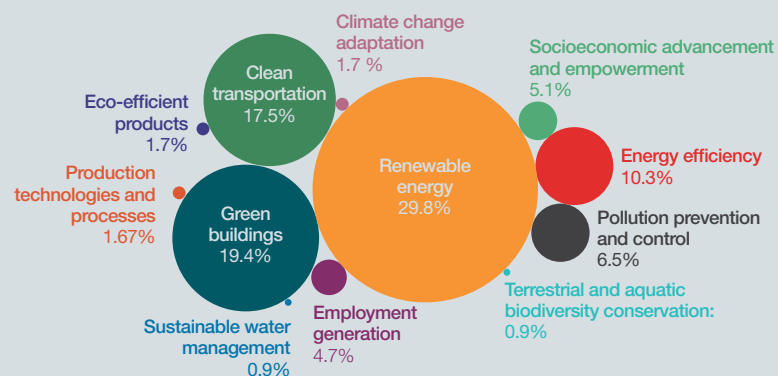


### Comparison of issuer types in 2018 vs 2019 in the Japanese green, social and sustainable bond market.

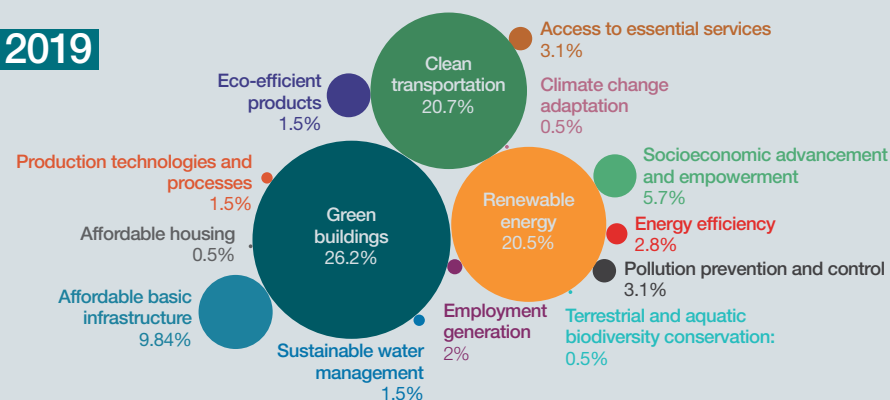


### Use of Proceeds comparing 2018/2019

2018

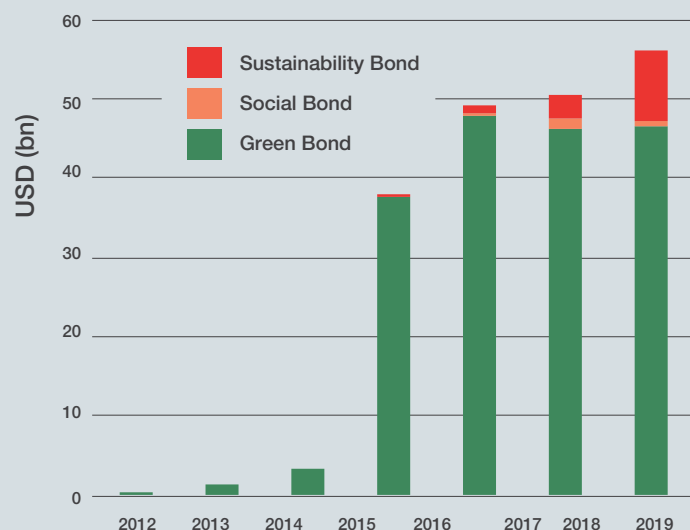


2019

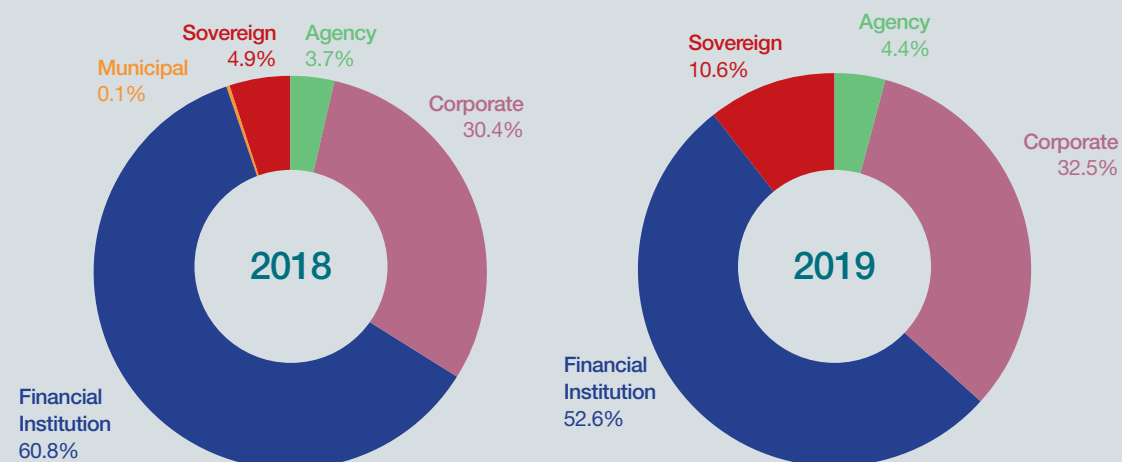


Methodology: When bonds have more than one 'use of proceeds' the whole value of the bond is counted for each 'use of proceeds'.

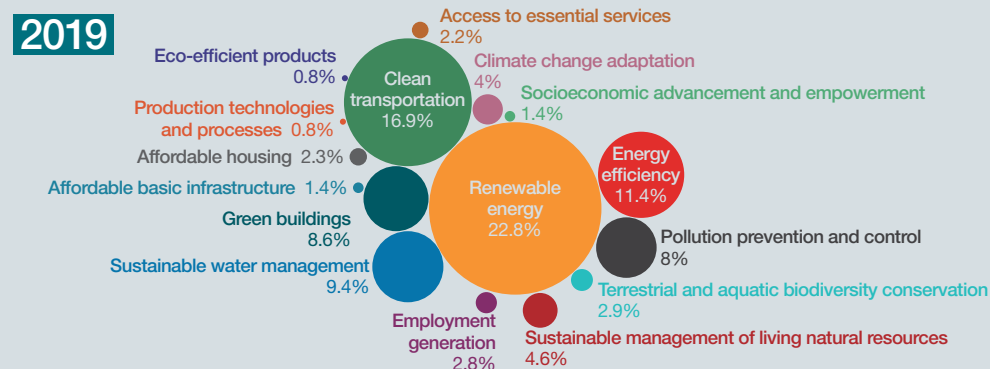
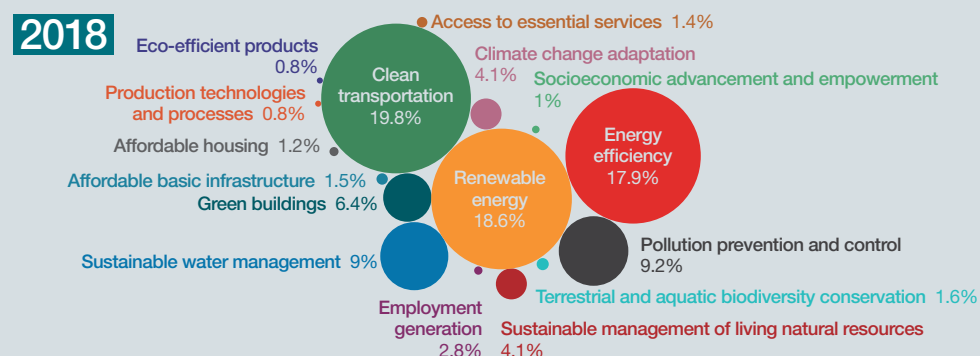
## The Emerging Markets green, social and sustainable bond market



## Comparison of issuer types in 2018 vs 2019 in the Emerging Markets green, social and sustainable bond market.



## Use of Proceeds comparing 2018/2019



Methodology: When bonds have more than one 'use of proceeds' the whole value of the bond is counted for each 'use of proceeds'.

# Countries with issuers joining the green, social and sustainability bond market in 2019

### First timers in 2019:

#### Green:

Ecuador  
Greece  
Kenya  
Saudi Arabia  
Turkey

#### Social:

Mauritius

#### Sustainability:

Austria, Brazil,  
Canada, Chile,  
Colombia, Luxembourg,  
Malaysia, New  
Zealand, Philippines,  
Switzerland

### Repeat issuers in 2019:

#### Green:

Australia, Belgium,  
Brazil, Canada, Chile, China,  
Denmark, Finland, FranceM  
Germany, Hong Kong, Iceland, India,  
Indonesia, Ireland, Italy, Japan, Korea,  
Luxembourg, Malaysia, Netherlands,  
New Zealand, Nigeria, Norway, Peru,  
Philippines, Poland, Portugal, Russian  
Federation, Singapore, South Africa,  
Spain, Sweden, Switzerland, Taiwan,  
Thailand, United Arab Emirates,  
United Kingdom, United  
States, Venezuela

#### Social:

Australia,  
France, Germany,  
Italy, Japan, Korea,  
Netherlands, Spain,  
United Kingdom,  
United States

#### Sustainability:

Australia, Germany,  
Spain, France, United  
Kingdom, Indonesia, Italy,  
Japan, Korea, Mexico,  
Netherlands, Sweden,  
Singapore, United  
States

# From brown to green: financing the sustainability transition

There is much more to sustainable finance than helping companies issue green bonds, UniCredit's Antonio Keglevich tells *Environmental Finance*

**Environmental Finance:** UniCredit has a long pedigree in sustainable finance, but last year launched a Sustainable Finance Advisory team. What was the thinking behind the new approach?

**Antonio Keglevich, global head of sustainable finance advisory:** This is an initiative designed to enhance the quality of our strategic dialogue with clients, mainly around sustainability-related topics. The mission of the team is to advise on the development and execution of sustainability strategies and frameworks, as well as potential sustainability-related financing solutions.

The team helps our clients to define their current and near-term ESG-related challenges and opportunities, before leveraging our resources with a product-agnostic approach. Our Equator Principles team is an integral part of the new set-up, as it brings deep experience in the key financial industry benchmark for determining, assessing and managing environmental and social risks in projects. Both teams will work in alignment to define eligible project categories.

**EF:** You note that the approach is product agnostic – what is the range of solutions you offer clients?

**AK:** This is not only bond-related; we are happy to support our clients in defining, for instance, green, social or sustainability bond frameworks. However, if the alternative is more suitable for the prospective client, we will advise them to go into the

loan market with, say, either an ESG-linked or KPI-linked loan or even a green loan, which is basically the parallel to the green bond product.

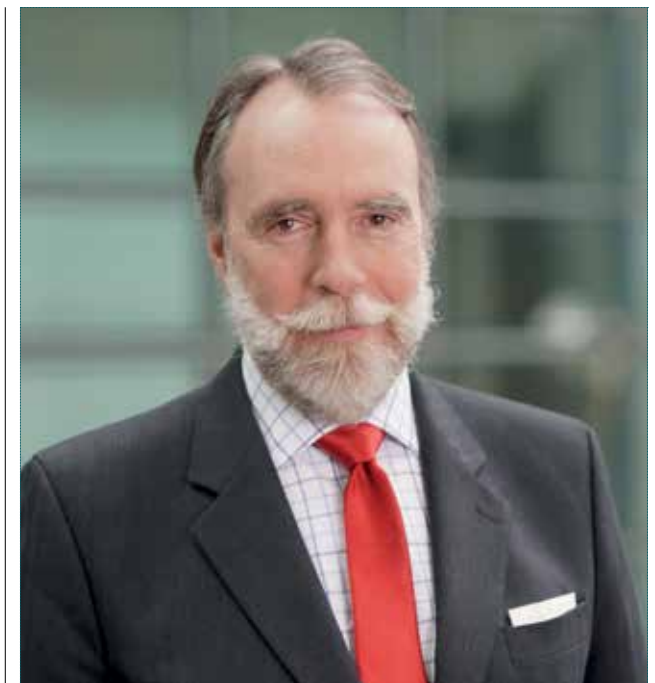
We also consider all sorts of conceptual ideas around how we can integrate sustainability scopes within other products, such as hedging instruments, exchange-traded funds [ETFs] or investment products that the bank offers to its private clients. This is really an ESG-wide approach to banking products.

**EF:** What advantages does this approach offer to the service you can offer to clients?

**AK:** I think it's important to understand that the DNA of green finance at UniCredit comes from the green bond market, given that that's where everything started and where our coverage was originally concentrated.

This new approach reflects that ESG conceptually is not only a question of bond financing, so we decided to transfer the activity from a product-driven approach into an overall advisory function. This enables us to bring in the product experts whenever we deem them to be the right partner and to ensure that the ESG concept is embedded in the underlying product.

**EF:** UniCredit is involved in advising clients on 'brown to green' transition strategies. Can you give examples of this sort of work?



Antonio Keglevich, global head of sustainable finance advisory



**AK:** As long as the use of proceeds from green bonds are exclusively applied to projects that are aligned with the four core components of the Green Bond Principles, then yes, brown issuers can raise green finance.

The last edition of the principles, in 2018, made a slight amendment in the second component, which deals with the selection process. In that component, the principles state that issuers should communicate their process for project evaluation and selection, to put their use of proceeds definition into context with their overall environmental/sustainability objectives and strategies.

But, essentially, green bonds apply to companies who already have project categories or assets that qualify as green.

Now, for those who have the ambition to transition to green in the future, the green bond market is basically closed, and this is where the transition bond comes into play; we welcome initiatives that try to address rules of engagement to create credible instruments to help finance this transition.

It's important to understand that 'brown to green' has a higher positive environmental impact than financing companies that are by definition already green. This is something that we really need to address because, if we are not able to deliver on that sort of solution, we will find it extremely difficult to achieve the goals of the Paris Agreement to hold the rise in average global temperatures to no more than two degrees above pre-industrial levels.

The challenge here is to avoid greenwashing and make sure that the integrity of the underlying instrument is being upheld.

**EF: UniCredit has been a leading player in the sustainability loans market. What are the relative advantages for borrowers of tapping this market rather than issuing green bonds?**

**AK:** The vast majority of sustainability loans are linked to overall corporate KPIs or ESG indicators, rather than specific green projects, which enable the borrower to use the proceeds for general corporate purposes. There is no need to define a framework or undertake an external review in the form of a second-party opinion.

The issuer does not need to produce a yearly allocation

report, and there is more flexibility in defining KPIs – as they can cover not only environmental but also social and governance factors.

This instrument is basically aligned with the overall sustainability strategy of a company, bringing the client's needs into a sustainability context. We are seeing huge demand for the product.

The disadvantage is that, if the borrower fails to deliver on the KPIs, or if its ESG score goes down, it will have to pay a higher interest rate. Such loans incentivise borrowers to work on their sustainability strategy through a connection to their financing.

**EF: UniCredit was joint-bookrunner for the ENEL sustainability linked-bond, which represented a kind of migration of the sustainability loan approach into the bond market. How was the bond received by investors?**

**AK:** The ENEL bond was extremely well-prepared and the company made sure that the market understood the concept before they offered it.

Talking to ESG investors, what they liked about the concept is that issuers are penalised if they do not deliver. In the green bond market, if you fail to deliver on the use of proceeds promise, then nothing happens. The bond continues to exist and the harshest repercussion faced by the issuer is a reputational one.

ENEL announced a meaningful and ambitious sustainability target, for instance the increase of renewable energy generation to 55% of the total within two years from 46%. If it fails to deliver, it pays out a higher coupon. From the point of view of the investor, they are rewarded for the failure of the target, which is somewhat counterintuitive.

Notwithstanding that potential contradiction, we found, when we analysed the order books that a great number of investors participated because of the ESG scope of that bond. Now, the big advantage of this type of bond, as in the sustainability loan market, is that the issuer doesn't need a green bond framework, or second-party opinion, etc. The issuer just has to ensure that its auditor gives the correct information to the market. It is a slightly more straightforward product – we are discussing with other issuers about similar transactions.

**EF: What are your thoughts on the EU Sustainable Finance Taxonomy? Do you think it will help to direct greater volumes of finance to the green economy?**

**AK:** There is still a lot of misunderstanding around the Taxonomy. It does not define sustainable industries or sectors, but instead presents a list of economic activities that are regarded as sustainable. That is extremely important to understand.

The regulation has identified six environmental objectives for the purpose of this taxonomy and, to qualify as a sustainable activity, it has to address at least one of those six environmental objectives, whilst at the same time not do any harm to the remaining five. This list of economic activities is not exhaustive and additional activities will be added in the future.

Conceptually, the report that sets out the Taxonomy is really a masterpiece because it systematically describes sector classifications and activities, defines criteria in the form of principles, technical metrics and thresholds, and every activity is subject to this do-no-significant-harm assessment.

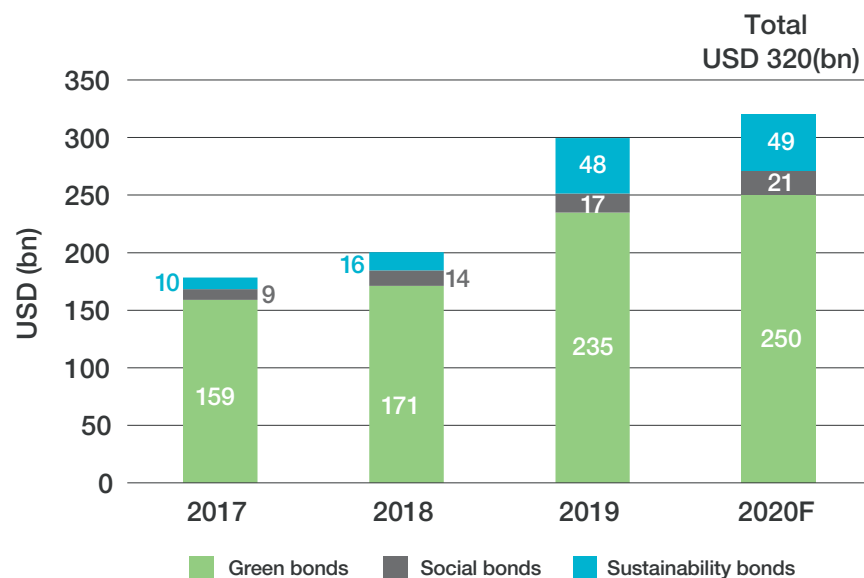
The potential caveat, however, is that it tries to be a one-paper-fixes-all concept and does not really take into account specific local situations in Europe. For example, waste to energy is not regarded as a sustainable activity, mainly because the Commission concentrated on the incineration process.

This raises a number of questions around the alternatives, such as landfill, or the climate benefits that can be generated by waste-to-energy projects. Equally, some of the technical metrics are so strict that it is going to be very difficult to define some sustainable activities under the pure definition of the taxonomy.

**EF: In terms of the buy-side, what patterns of demand are you seeing from investors?**

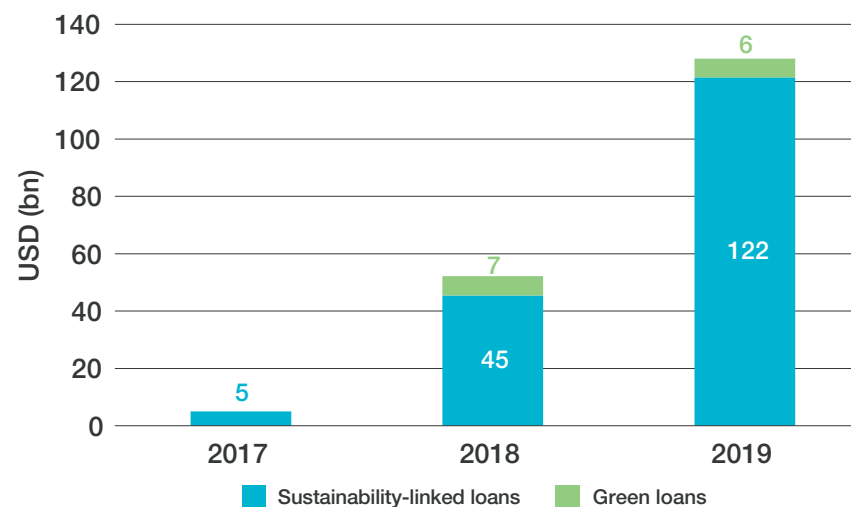
**AK:** It's fair to say that demand is by far larger than supply. The Global Sustainable Investment Alliance, in its last report, found that almost every fourth dollar globally is being invested using some kind of ESG criteria. The corresponding number is \$31 trillion. The most commonly used ESG strategy is exclusionary screening (for sectors such as tobacco, alcohol

Green, social and sustainability bonds in USD (bn)



Source: Climate Bonds Initiative, Bloomberg, UniCredit Research; as of 7 January 2020

Sustainability linked and green loans in USD (bn)



Source: Climate Bonds Initiative, Bloomberg, UniCredit Research; as of 7 January 2020

or gambling). But what we see from investors who are focused on sustainability solutions is the call for a wider variety of use-of-proceeds categories: they don't want to concentrate only on renewable energy and energy efficiency which, in the green bond market, constitutes almost two-thirds of outstanding issuance. They are calling out for opportunities in other areas: transportation, the circular economy, climate change adaptation and biodiversity, for example.

We also see many investors who are interested in the concept of transition bonds, because they realise that the impact of these investments is potentially higher from an environmental point of view compared to investing in companies that already

have a considerable amount of green assets or projects. They are looking forward to rules of engagement emerging around transition bonds.

**EF: Is there an adequate range of products allowing investors to gain exposure to green and sustainability debt?**

**AK:** We are certainly seeing continued innovation in this area. For example, UniCredit worked with MSCI ESG to launch the world's first exchange-traded fund on European green bonds (ISIN:LU1899270539) at the end of 2018. The product offers all investor groups a low-cost means to access

a broadly diversified range of liquid euro-denominated green bonds from European issuers. Since its launch, it has attracted a lot of attention among investors and media and has shown a strong positive performance over the last year.

We are also expanding the range of opportunities for our private client base – we're seeing considerable interest from that part of the market in green and sustainability products. Across the board, there is great and growing investor enthusiasm for solutions to the sustainability challenges we face and we are working hard to match the financing needs of solutions providers with the capital that our investor clients want to put to work. ■

# Bringing Transparency to Green Bonds in Latin America and the Caribbean

**T**he good news for green bonds in Latin America and the Caribbean (LAC) is that issuance volumes are expanding at a much faster rate than in the international market. This growth has come from a low base, with new issuance rising to \$6.13 billion in 2019, compared with \$2 billion in 2018, according to figures from the Climate Bonds Initiative (CBI). This three-fold increase lifted cumulative issuance to just over \$15 billion from 68 individual issues by the end of last year.

There have also been encouraging signals over the last year that issuance from across the region is becoming more diversified. Unsurprisingly, the lion's share of primary market volume has been contributed by Brazil, which at the end of 2019 accounted for 38% of total issuance, with Chile generating 21% and Mexico almost 13%. Elsewhere in the region, however, the first Uruguayan green bond was issued in 2018, while Barbados and Ecuador both saw certified green issuance for the first time in 2019.

According to the CBI's data, energy is the most funded sector in the Latin American green bond market, with about half of total proceeds to date targeting renewable projects, chiefly in the wind and solar sectors.

## Encouraging growth prospects for Latin American Green Bonds

The IDB has been a strong believer in the development of green bond markets in LAC and over the last five years has supported over 30 of these issuances from banks, corporates and projects. It has also promoted financial innovation and risk-sharing mechanisms (guarantees and investment anchoring), and enabled regulation and financial market

dialogues in countries such as Brazil, Chile and Mexico to be scaled up.

In 2019, among other initiatives, IDB supported a notable landmark for LAC's sustainable capital market when Chile printed the first sovereign bonds from the region. The government's successful transactions in dollars and euros, analysts believe, may serve as useful benchmarks for other Chilean borrowers, further catalysing accelerated growth and diversity in green bond issuance in LAC.

"The overall diagnostic is that although the LAC region made a relatively late start, the recent growth in the region's green bond market suggests that the outlook is very positive," says Juan Antonio Ketterer, Chief of Connectivity, Markets and Finance at the Inter-American Development Bank in Washington. "The feedback we are getting from sovereigns, banks and utilities across the region indicates that there is a growing pipeline of issuers preparing to access the market."

That is just as well, because recent estimates suggest that \$40-\$50 billion of investment will be needed annually if Latin America is to address the challenges of climate change. Additionally, Ketterer says that the region needs to plug an annual infrastructure deficit of some \$150 billion.

Ketterer says that there is no shortage of investment liquidity available across the region to satisfy much of this requirement. "The region has huge pools of savings, mainly in the form of pension funds, which are looking for opportunities in fixed income markets away from government debt," he says. "They are very interested in diversifying into infrastructure, and especially into green or climate projects."

The less positive news, for green finance in LAC, is that



Juan Antonio Ketterer, Chief of Connectivity, Markets and Finance

much of the potential investment demand for green bonds, be it local or international, has been held back by the overall shortage of knowledge among investors of green investment opportunities. It has also been hampered by the lack of transparency and good practice in reporting the use of proceeds and impact of green bonds issued so far.

According to a recent analysis supported by IDB and CBI, globally less than half (47%) of surveyed issuers of green bonds report both on how the proceeds of their deals are allocated and on their environmental impact. In Latin America and the Caribbean, this number is little over half (53%). The same analysis found that 27% of issuers have chosen to certify their bonds under the CBI standard, while only 1% provided the market with post-issuance assurance on their use of proceeds or on their impact.

### Enhancing LAC Green Bond Potential through higher Transparency Standards

In order to scale up further the potential of LAC green bond markets, IDB is committed to attract investors to the opportunities from the underlying investments and programmes resulting from the green bonds issues to date. It is also helping issuers to better navigate green bond methodologies and report on their initiatives.

In order to enhance efficiencies and more robust reporting standards in the market, IDB has launched a Green Bond Transparency Platform (GBTP). Supported by a who's-who of 30 regional and international issuers, external reviewers, standard setters, financial intermediaries, investors and asset managers, and donors engaged in the development of the global sustainable capital market, this ground-breaking initiative was announced in December 2019 at COP25 in Madrid under Chile's presidency. "The region's green capital market is in urgent need of a platform offering unrestricted access, which provides clear and harmonized data on use of proceeds and environmental impact reporting aligned with best international practice," Ketterer explains.

Currently in its piloting stage and set for official launch in the fall of 2020, GBTP will be open to all labelled green bonds issued in the LAC region, and has three broad objectives. The

first is to encourage and facilitate high quality disclosure on how the proceeds of each new green bond are allocated through the provision of secure pre- and post-issuance reporting.

The second objective is to provide investors with updated progress reports on the environmental performance and impact of the projects financed by each green issue. This will not only reduce the costs incurred by investors in researching each new issue and allow them to make more informed investment decisions based on environmental performance criteria. As Alexander Vasa, Green Finance Advisor at the IDB points out, it will also help investors to make more meaningful comparisons between individual issuers in the region's green capital market. "Today, one of the main challenges facing investors in the green bond market is the time-consuming process of sifting through issuers' reports to extract comparable data from them," he says. "By encouraging issuers to upload data onto a trusted and accessible website, we are aiming to ensure that issuers in the same sector provide data in a standardized format and with comparable levels of granularity."

A third goal of the GBTP is that it will facilitate the provision of external review services for issuers; and a fourth is that by being open to all, the platform will keep the public more closely informed about the methodologies used by issuers in the green bond market, thereby promoting greater awareness about the long-term threats associated with global warming.

Issuers listing their bonds on the platform are under no obligation to secure external reviews. However, IDB hopes that such reviews may eventually result in a pricing advantage and become an incentive for more issuers in the green bond market to ensure that their funding programmes are endorsed by reputable external reviewers.

While the platform is clearly designed to foster an improvement in reporting standards across the region's green bond market, it will seek to be taxonomy and methodology neutral. "Rather than declare which bonds are green and which are not, the GBTP will require the individual issuer to clarify which standard it is aligned with," says Vasa. "This could be the International Capital Market's Green Bond Principles, for example, the CBI Standard or the ISO 14030 Environmental

performance evaluation for green debt instruments which is currently under development."

A striking and innovative feature of the IDB's initiative is its plan to use Blockchain as a means of enhancing the efficiencies of the platform over the long term. "As the platform grows and we attract a much wider diversity of issuers, Blockchain methodology will play an important role in scaling it up," says Ketterer.

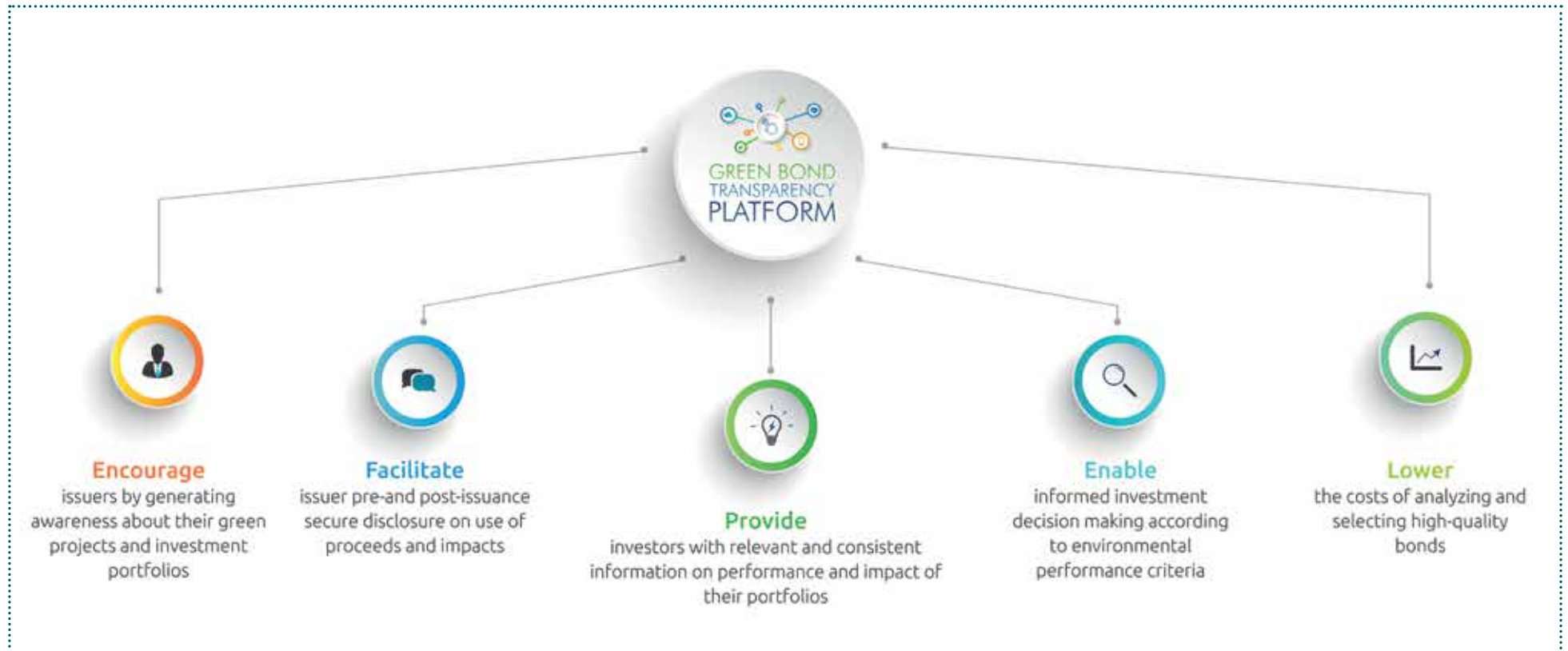
Today, adds Vasa, the platform's developers are currently in the prototyping phase, testing the system by uploading data from 15 green bond issues from 10 pilot issuers. "If this process continues to go smoothly, we believe that the platform will be ready to be formally launched by the end of August 2020," he says. "Our target is that by 2021 at least 80% of all green bond issuance in Latin America and the Caribbean will be represented on the GBTP."

The IDB hopes that this level of participation will have the effect of kick-starting a virtuous circle of improved reporting standards, incentivizing other borrowers in the bond market to consider issuing green bonds, and to encourage the endorsement of issued green bonds by external reviewers, eventually promoting improved pricing in the market.

### The next step: collateralizing green bonds in Latin America?

Ketterer says that while he is optimistic that the platform's targets can be reached on schedule, there is plenty more that the industry could do to enhance transparency and thereby strengthen investor confidence in the region's green bond market. One priority, he says, should be the tightening of regulatory oversight to ensure that issuers' prospectuses provide much more detailed information on how the funding is allocated.

Ketterer believes that the region's green bond market could take this process one step further, by pushing for a more direct and verifiable connection between bonds' repayment terms and the underlying assets financed by their proceeds. "By definition, the proceeds of a genuine green bond should be clearly identified and irrevocably linked to a particular set of assets," he insists.



Green Bond Transparency Platform

Source: IDB

In order to further reinforce this link, Ketterer says that the IDB is working on a new initiative aimed at collateralizing issuance in the Latin American green bond sector based on methodologies familiar to borrowers and investors in the European covered bond market. Covered bond issuance in Latin America dates back to 2012, when the first transaction was launched in Panama, since when a covered bond sector has also been launched in Chile. Elsewhere in the region, legislation has been passed in Brazil on Letras Imobiliárias

Garantidas ("LIG"), which are very similar to European covered instruments.

"Although covered bonds continue to evolve in Latin America, there are a number of risks associated with their issuance, which is why we are working closely with central banks, regulatory authorities and securities commissions throughout the region on the development of collateralized green bonds," says Ketterer. While this may appear to be a formidable challenge, given the number of individual capital

markets across Latin America, Ketterer says that the similarity of legal frameworks in the region's main markets should make scaling up the market across the LAC region achievable.

Encouragingly, the IDB has already identified potential issuers to act as a pilot for this initiative, with Ketterer hopeful that the regulatory framework will be ready to support a maiden collateralised green bond issue by early 2021. This in turn should help to encourage further issuance in the region's nascent green bond market. ■



# Nasdaq Sustainable Bond Network (NSBN)

## Setting new Standards for reporting in the Sustainable Bond Market

It is generally recognised that the Nordic region has been a standard-bearer for good environmental practice and for the development of the sustainable bond market over the last decade, with the World Bank's first green bond, in November 2008, denominated in Swedish krona and led by SEB. Among borrowers from the region, while public sector issuers such as the Nordic Investment Bank (NIB) and Norway's KBN Kommunalkredit were among the earliest issuers of green bonds in 2010, the Swedish real estate company, Vasakronan, has made history in the market twice. Having issued the world's first green bond from a corporate borrower, in November 2013, it also launched the first ever green commercial paper (CP) programme in 2018. Gothenburg, meanwhile, registered a notable first in 2013 when Sweden's second largest city launched the first ever green bond by a municipal authority.

More recently, Nordic-based green bond issuers have continued to act as world leaders in the green bond market. In 2019, green or sustainable bonds accounted for 12% of new issuance in the region's bond market, compared with a global average of 5%.

Over the last five years, the Stockholm-based Nasdaq has also been at the forefront of the green capital market's development, with many of its pioneering initiatives spearheaded out of its European HQ in Stockholm. In 2015, it launched the Nasdaq Sustainable Debt Market, which was then the first market for sustainable bonds in the world, and it has since been among

the world's most successful dedicated green bond segments, with volumes growing in double digits since inception. By the end of 2019, there were 222 instruments listed on the market, valued at €13.5 billion, compared with 149 worth €8 billion a year earlier.

## Nasdaq's commitment to transparency

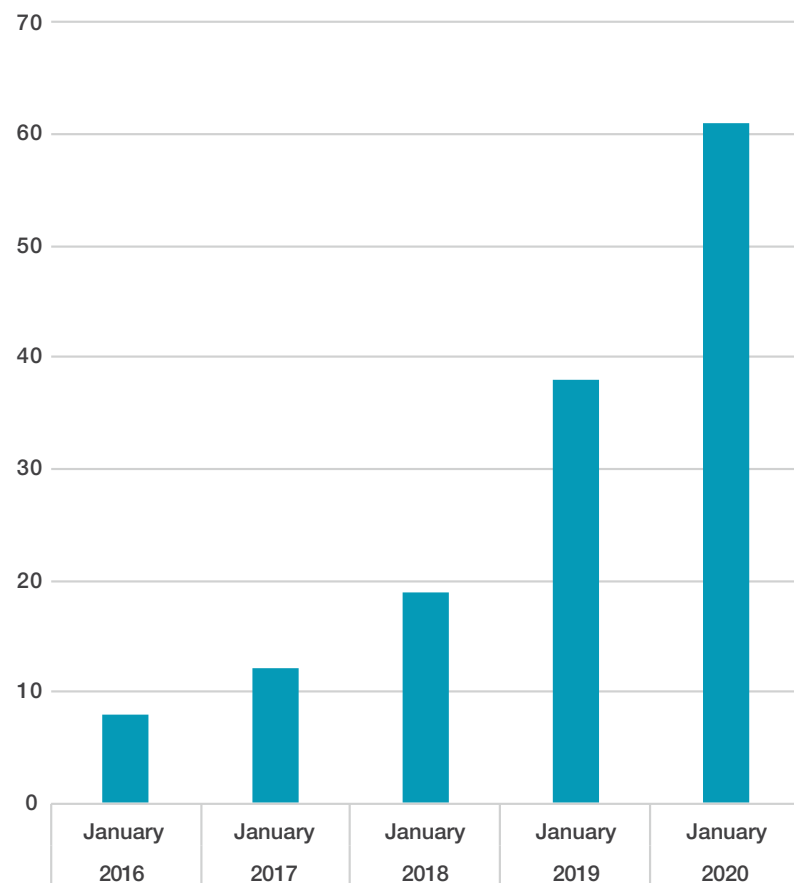
A separate and more recent initiative has been the launch in December 2019 of the Nasdaq Sustainable Bond Network (NSBN), an innovative platform harnessing Nasdaq's unrivalled technological and data capabilities to improve the transparency of the market. Ann-Charlotte Eliasson, Head of European Debt and Sustainable Bonds at Nasdaq in Stockholm, says that for issuers and investors, the benefits of enhanced standards of transparency across the market for green, social and sustainable bonds are extensive. "From the perspective of issuers, there are several hurdles associated with funding through the sustainable bond market," she explains. "Reporting is time-consuming and the information needs to be dispersed across a wide community of interested parties."

The process of investing in sustainable bonds can be equally labyrinthine. "The investors we've spoken to have been quite outspoken in telling us that it is very difficult to draw meaningful comparisons between issuers in the green bond market," says Eliasson. "Because issuers make different assumptions about the impact that their use of proceeds will have on climate change, for example, it is impossible for investors to make informed and confident calculations quantifying their own contribution to decreasing CO<sub>2</sub> emissions."



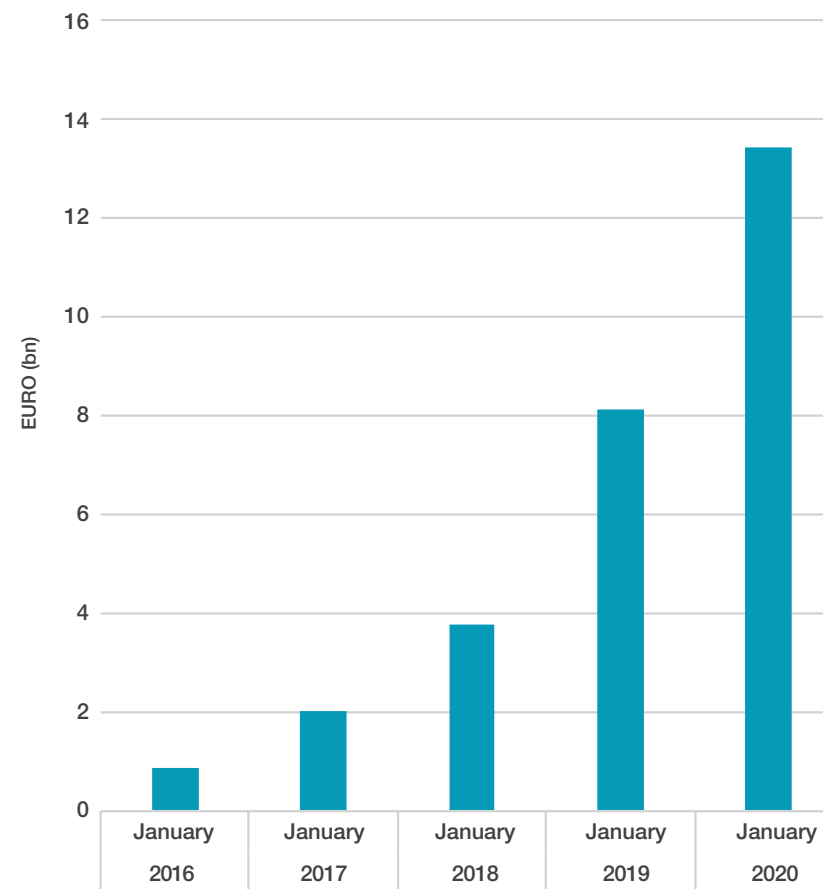
Ann-Charlotte Eliasson, Head of European Debt and Sustainable Bonds

## Nasdaq Sustainable Debt Listings



Number of Issuers – Nasdaq Nordic & Baltic

Source: Nasdaq (2020)



Listed Sustainable Debt Volume - Nasdaq Nordic & Baltic

Source: Nasdaq (2020)

Eliasson says that this challenge is compounded outside Europe. Most European exchanges, she explains, now have dedicated sustainable market segments which provide investors with relatively easy access to the green bond frameworks governing the issuance of sustainable instruments. In the US, however, the majority of bonds remain unlisted, which means that reporting standards can be weak. “In the case of unlisted bonds, investors looking for information about use of proceeds have little option but to visit each issuer’s website,” says Eliasson. “In other words, institutions or individuals wanting to invest in alignment with the Social Development Goals (SDGs) have to do an enormous amount of independent research.”

This can be doubly frustrating for investors aiming to build portfolios of sustainable instruments that are well-diversified geographically, and which lend themselves to consistent and transparent comparative metrics. Eliasson says that this is an especially important consideration for investors in the Nordic region, where many institutional and retail accounts are eager to reduce the local concentration of their exposure without compromising on their SRI objectives. The volume of new issuance from Nordic borrowers is, however, inevitably limited by the relatively small size of the region’s economy.

### Lowering hurdles for issuers

Nasdaq’s response to these conundrums has been the launch of the NSBN. This is designed simultaneously to lower or eliminate hurdles for issuers, and to provide investors with the transparency they need to ensure they are comparing like with like in the sustainable bond market, and thereby meeting their due diligence obligations.

Eligibility for inclusion on NSBN is based on a number of key criteria aimed at maintaining comparability and safeguarding against any suggestion of greenwashing among issuers represented on the platform. Aside from identifying which green, social or sustainability standards it complies with, each issuer is required to submit for publication a document clearly detailing how it plans to allocate the bond’s proceeds. This so-called Framework must be reviewed externally by an independent agency, updated at least annually and until the proceeds have been fully disbursed, and clearly amended in the

event of any changes to the original Framework.

Once they have been approved for inclusion, NSBN will display all the issuer’s documents, data and qualitative information on its open-to-all website. This information is then disseminated in a machine-readable format through proprietary market data feeds easily accessible by investors.

Eliasson says that the reporting structure chosen by the NSBN leverages methodology tested in the Nordic region which has already won widespread recognition for its transparency. Originally introduced by Nordic public sector issuers, this was given a ringing endorsement in a report published on the region’s sustainable capital market by the Climate Bonds Initiative (CBI) in 2018. The CBI analysis observed that “the very high use of external reviews across the region contribute to improving market integrity and are setting standards for others to emulate.”

### A flexible platform

As a comprehensive information portal still in its infancy, the NSBN is highly flexible, allowing issuers to provide material to support the validity of the information included in their basic framework. As Eliasson says, a company channelling the proceeds of a green bond issue into, for example, a solar plant in China, can use the network to distribute progress reports in photographic format, audit reports or other verification channels that can add value for investors.

Eliasson emphasises that the network’s flexibility will allow it to evolve in step with the broader global sustainable bond market. This reflects the practical expertise and day-to-day influence on the market’s development of the NSBN’s global Advisory Board, which is made up of a virtual who’s-who of participants across the sustainable capital market. This encompasses investing institutions such as Allianz Global Investors, regular and innovative issuers ranging from the Nordic Investment Bank (NIB) to the San Francisco Public Utilities Commission, longstanding market intermediaries including SEB and Bank of America, and respected climate research groups such as Cicero.

NSBN’s Advisory Board will meet regularly and provide feedback on any necessary extension or adaptation of the

Network. “It is important to recognise that we are still at a very early stage in the development of the platform,” says Eliasson. “The Advisory Board will play a key role in shaping the evolution of the network by continuously assessing if we are collecting and distributing the right data and if there are other services we need to build into the platform.”

### A truly global initiative

Although the platform is still at a formative stage of its development, more than 4000 issues have already been confirmed for entry to the NSBN from a wide range of borrowers, with European issuers accounting for about 75% and those from the US for 25%.

“The benefit for issuers is that the network supports them in reaching out to a global investor base, while for investors it gives them the information they need to build more diversified portfolios,” says Eliasson. “While we started off with European and US issuers, we are now engaged in constructive dialogue with issuers from other regions, and we are hopeful that a number from Asia will come on board soon.”

The expansion of the geographical reach of issuers represented on the platform can be expected to kick start a virtuous circle for the global green capital market, promoting further growth of the investor base and thereby supporting rising inflows of liquidity into the green bond market.

### Towards a New Normal in the International Bond Market

Underlying the expansion of the NSBN will be an unequivocal commitment to transparency and to increasing visibility on the use of proceeds. As Eliasson says, this will represent something of a new departure for the global fixed income market, where investors have historically been kept in the dark as to how their investment has been used. The transparency provided by international standards such as the Green Bond Principles and championed by initiatives such as the NSBN may point the way towards a revolution in the international bond market. Under this new normal, borrowers that in the past have routinely assumed that investors will accept that proceeds are for “general purposes” will be required to pay an increasingly hefty premium for their opacity. ■

# Sovereigns, sustainability and CRR: Looking ahead to 2020

The ESG bond market is set to continue its strong growth in 2020, says BBVA, with sovereigns and financials leading the way, while the market grapples with the challenges and opportunities of sustainability linked bonds. BBVA, as a frontrunner in the sustainable and green bonds space, helped underwrite 30 green, social and sustainable bonds in 2019, and is the most active issuer among Spanish financial institutions.



Michael Gaynor, Financials, ESG and Covered Bonds Analyst, BBVA Global Markets Research



Patricia Cuenllas, DCM, Sustainable Bond Group

**Environmental Finance (EF): Last year you predicted \$220 billion in green bond issuance in 2019, which was a bit of an underestimate, in the end. What's your figure for 2020?**

**Michael Gaynor, Financials, ESG and Covered Bonds Analyst, BBVA Global Markets Research:** When we came up with our \$220 billion figure, we were actually above market consensus by quite a long way – and the year itself surprised on the upside. Our numbers suggest just under \$250 billion globally in ESG bond issuance. What drove that surprise was more issuance from western European issuers than we expected.

Looking forwards to 2020, we expect global issuance of ESG bonds to reach around \$320 billion. That growth is coming from two major sources: European financial institutions and sovereigns. The former are subject to the second iteration of the Capital Requirements Regulations. CRR2 is basically introducing a more stringent set of capital requirements to European institutions, the upshot of which is that banks need to issue more capital instruments over the next three to four years, and more banks are interested in doing this in an ESG-labelled format.

The second thing that's piqued our interest is the role that sovereign issuers are going to play in 2020. A number of sovereigns are already catching our eye: Spain, Germany, Sweden, Denmark and Italy – we expect all of these names to come to the market in 2020, as well as Portugal, potentially. We see Europe as the main driver again for the market this year.

**Looking forwards to 2020, we expect global issuance of ESG bonds to reach around \$320 billion**

Within the corporate space, we expect to see issuance from the telecoms sector, but also continued issuance from utilities as companies continue to take advantage of strong investor demand for ESG-labelled paper.

**EF: What's behind greater interest from sovereigns in tapping the market?**

**MG:** Investor demand is the key thing. The French sovereign bond was very well received, and other sovereign issuers have done well in terms of the demand side. Investors are looking for a more diverse issuer set that would, in turn, provide more opportunities for trading, more volatility and more opportunities to exit positions. Clearly, it would be helpful to these guys to have more ESG bonds in their sovereign portfolios.

You have to remember that it's the investors who have driven this market. Whether in terms of demanding disclosure from issuers, data from the data providers, interventions from the regulators, they've really driven a large number of the initiatives that we've seen in the green bond market so far, and that's true in the sovereign space as well.

In our conversations with some of the sovereigns that first approached the market, they faced budgetary or even constitutional issues regarding their ability to ring-fence proceeds from individual bonds for green purposes. These issues have been resolved, and ring-fencing isn't the issue that it was in the past.

There have also been some issues on the buy side: while investors have quite advanced ESG scoring methodologies for corporates, for sovereigns, ESG second-opinion providers have found it more difficult to provide ESG scores for countries. What is the right way to determine if an ESG bond from one country is better than another? Hopefully, with more sovereigns joining the queue, and with the World Bank planning to launch a portal with country-level information, we are seeing some progress here.

**EF: What are you seeing in terms of how corporate and financial issuers are approaching the green bond market?**

**Patricia Cuenllas, DCM, Sustainable Bond Group:** They may be on the smaller side in terms of capacity compared with sovereigns or financials, and following a record year in terms of issuance, but we are perceiving increasing interest, with a large number of companies from a range of sectors

looking into these markets.

We're really moving from a niche market into the mainstream. Senior management are asking their financial departments to look into the sustainable bond market to see what opportunities there are. We've seen more and more corporates reaching out for meetings, wanting to know more about the market, to understand the options available, whether they have the appropriate projects and assets to allow them to participate. There is also a presentational driver: companies want to use the green bond market to demonstrate, both internally to their staff and externally to investors, regulators,

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**BBVA is very committed to these markets, and we plan to continue to be active in the green and social bond market arena, both as an issuer and as partner for our corporate and institutional clients**

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etc. that they are undertaking projects and investments that have a positive environmental impact and to underline the alignment of their funding strategy with their sustainability strategy and objectives.

Companies are increasingly aware that the ESG bond market opens them to a different investor base. On the other hand, it's also true that they are aware that they need to be very careful when tapping the market, in that they don't want to expose themselves inadvertently to reputational risks as a result of triggering some controversy. It's not just a question of setting up the appropriate framework and commissioning a second-party opinion, there can be complexities with the various categories of green bond. With energy efficiency, for

example, it's not immediately clear which way investors look at projects in this category; issuers need to be sure there's not going to be any controversy attached to these issues, in how the project is presented, how it is developed, and how it fits with the company's broader sustainability strategy.

We are optimistic about this year for sure in the corporate and financial space. With the corporates, we have seen that this year the issuers will have spent time on their structuring processes; they realise that quick exercises are not typically sufficient to explain long-term company strategy. Issuers are willing to spend time on this structuring, in order to be able to launch a green bond framework that will work in front of the investor community.

We are also very optimistic about categories of bond linked to the circular economy. We expect to see corporates looking to explain how they and their products support the circular economy. We will also see new ICT issuers, given the success of issues from Vodafone, Verizon and Telefonica.

Moving to currencies, we've seen how big US dollar investors are really starting to set out their strategies around ESG, which will drive increased demand for US dollar green bonds. So we expect to see not only US dollar ESG bonds from US corporates but also from European issuers looking to tap the US dollar market.

Last but not least, we expect Latin American issuers to be more active in 2020. Market conditions were tough in 2019, but we've been in active dialogue with clients in the region. Public issuers, in particular, are keen to support local ESG bond markets and help them grow, but we also anticipate Latam companies to issue hard currency-denominated green and sustainability bonds.

**EF: What about sustainability-linked bonds? What impact do you see them having on the market?**

**PC:** Unlike the loan side of the market, green bonds have tended to follow the use-of-proceeds model, rather than being linked to a company's broader sustainability objectives, but this year for the first time we've seen a sustainability-linked bond [from Italian utility ENEL]. Market participants, including issuers and investors, sustainability agencies and



even the Green Bond Principles, are analysing the impact of this new bond class, and are considering their positions. So, we are hearing many voices for and against this format and, for sure, this year is going to be key in terms of how that part of the market develops.

**EF: What advice would you give to a client that came to you with a view to structuring a sustainability bond?**

**PC:** We certainly have the capacity to support our clients in their transition to a low-carbon economy and the transformation of their businesses, so we would sit down with them and analyse and assess what their expectations are, and what investors are willing to see in the fixed-income ESG market. We obviously have our own internal assessment about this new format, and our priority is to maintain the environmental integrity of the market.

The green bond market has been built on the pillars of transparency, environmental integrity, monitoring and reporting. Investors in the sustainability bond market continue to have those expectations, meaning that clients have to be transparent in the approach they take, to explain the exercise, to explain their strategy going forward and how it fits with the sustainability financing arena.

We expect some guidance on this question to emerge from market participants. For this part of the market to grow, everyone will need to work according to this format. So we expect that this type of bond can complement issuers' funding needs, but the market needs more time to reach consensus on the way forward. For example, as members of the executive committee of the Green Bond Principles, we are looking at the possibility of being involved in the discussion somehow.

**MG:** From a research standpoint, when I saw this structure come out in September, it was incredibly ambitious from the issuer perspective, and it raised a lot of interesting questions from investors as well. It is a whole different view of this marketplace. This market was built on the very transparent reporting around use of proceeds, which is exactly what we don't have with regard to this kind of instrument.

The issuer in this case is a well-known company in terms of its ESG standpoint, meaning that investors could get

comfortable with this structure. Potentially, we're going to see issuers that aren't well-known in this space look to issue sustainability-linked bonds. In the short term, we think that these types of issuances are going to complement use-of-proceeds bonds: they'll form a part of this marketplace rather than cannibalise it.

But it's interesting from our perspective to see these innovative structures come forward, the feedback was good, and investors do want to see instruments of this kind, because what they do is they align corporate strategy with sustainability goals, pinning wider corporate objectives to sustainability targets.

## Companies want to use the green bond market to demonstrate that they are undertaking projects and investments that have a positive environmental impact

This is attractive to dark green investors, who want to see that level of commitment from issuers. We expect more of these types of bonds to come forward this year.

**EF: Moving on to the EU's sustainable finance taxonomy, are you supportive of the approach the EU has taken, and what impact do you expect it to have on the market?**

**MG:** We're 100% supportive. We were encouraged by the initial drafts, and the final report itself was a positive surprise. What surprised us was first the level of detail. This was a vast piece of work, in terms of the sheer number of pages and the technical detail that it went into. The signal that conveyed to the market was that this is a very ambitious, very detailed and incredibly serious project that has been undertaken. So we're

optimistic, and we're looking forward to what is to come.

There are some wavering concerns, I would say. The key thing for us is the legislative vehicle by which the taxonomy will be placed into European legislation – how will this become binding in European law. The European Council, Parliament and Commission have arrived at the basis of an agreement following months of negotiations. However, there is still some way to go in having a fully implemented Taxonomy. There is also still a lot more work to do; the taxonomy so far has only addressed two of the six environmental objectives [climate change mitigation and adaptation] – the remainder will take time. We're optimistic, we're happy with what we've seen so far, but let's keep up the good work.

**EF: Moving on to BBVA itself, you issued your second sustainability bond last year, how was it received by the market – and what's next for bond issuance from the bank?**

**PC:** We used the same SDG bond framework that the bank published in 2018 [which allows proceeds to be directed towards projects which promote one or more of eight of the Sustainable Development Goals]. We are very happy with the outcome, in that we have seen increased diversification in terms of green investors coming onto our books. We used the SDG framework to issue from Spain, with two euro bond transactions, from Mexico, with BBVA Mexico issuing a \$300 million bond last year, and from Turkey, with a \$50 million dollar private placement this year.

Our commitment is to issue at least once a year in this market, so the bank is analysing our balance sheet for opportunities. To be able to tap this market, you have to have sufficient underlying business to which to direct ESG bond proceeds. We are always talking to our origination teams, from finance, energy, real estate, even retail, all analysing how we can promote sustainable finance to our clients.

As a general comment, BBVA is very committed to these markets, and we plan to continue to be active in the green and social bond market arena, both as an issuer and as partner for our corporate and institutional clients in their sustainable journey. ■

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# The 2020s – The decade of Sustainable Bonds

## Welcome to a new decade of finance

Our blue marble faces long-term environmental and social challenges that are far more pressing than most economic topics discussed in the daily press. And time is running out. The point of no return is approaching.

Climate change is not fake news. It is very real. In the last twelve months, climate change and the destruction of nature have become impossible to ignore. The latest climate science tells us that the window to halt the dramatic changes that threaten our civilisation is shorter than we had hoped. Climate change is happening faster than the world's leading scientists ever predicted. And it's going to be expensive: If climate change continues unabated, its impact will cost humanity around 7% of global per capita income by 2100.

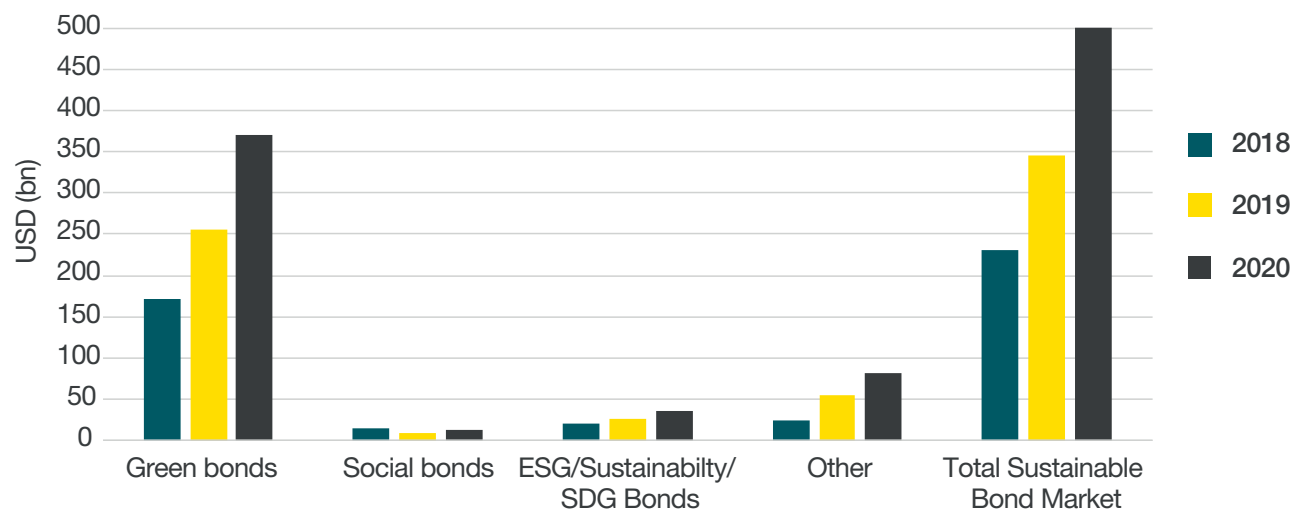
In addition, many of the Sustainable Development Goals are currently lagging far behind in their implementation since they were adopted back in 2015. The world is off-track to meet most of the targets linked to hunger, food security and nutrition for example.

Overcoming these challenges, which will mean trillions in investment, knows no borders. It's a global challenge.

According to our calculations, we need at least 500 billion US-Dollar per year to close the climate financing gap in the next ten years. Considering the costs of inaction, it might even increase in the coming years. The United Nations estimate the gap in financing to achieve the Sustainable Development Goals at 2-3 trillion US-Dollar per year in developing countries alone.

Hence, it is not enough to sail across the Atlantic alone. The capital market must be on board.

The road towards a sustainable economy is unthinkable without the participation of the capital markets. Public money will not be enough. Fortunately, investors have started to recognize the sign of times realising that finance was one of the missing links on the sustainability agenda.



Sustainable Bonds: Market Forecast 2020

Source: DZ Bank (2020)

We are entering a new decade of finance. We are in a sustainability investment race; to attract the trillions in private capital needed for the sustainable transformation.

## The role of capital markets

The global fixed income market plays a key role in this transformation process. With an estimated volume of more than 100 trillion US-Dollar, it bears huge potential for facilitating the transition to a sustainable future.

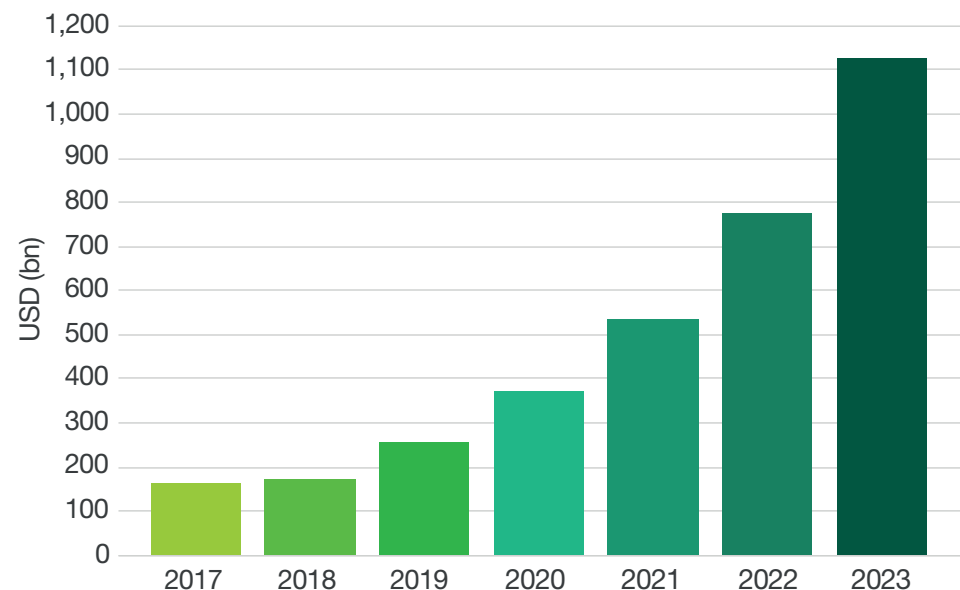
From our point of view, one of the most promising investment vehicles helping to close the sustainable financing gap are Sustainable Bonds as they facilitate re-allocation of capital flows towards sustainable projects, and hence allow investors to

attach purpose to their investments, reconnecting finance with hard assets in the economy.

## Sustainable Bond market: the diversification continues

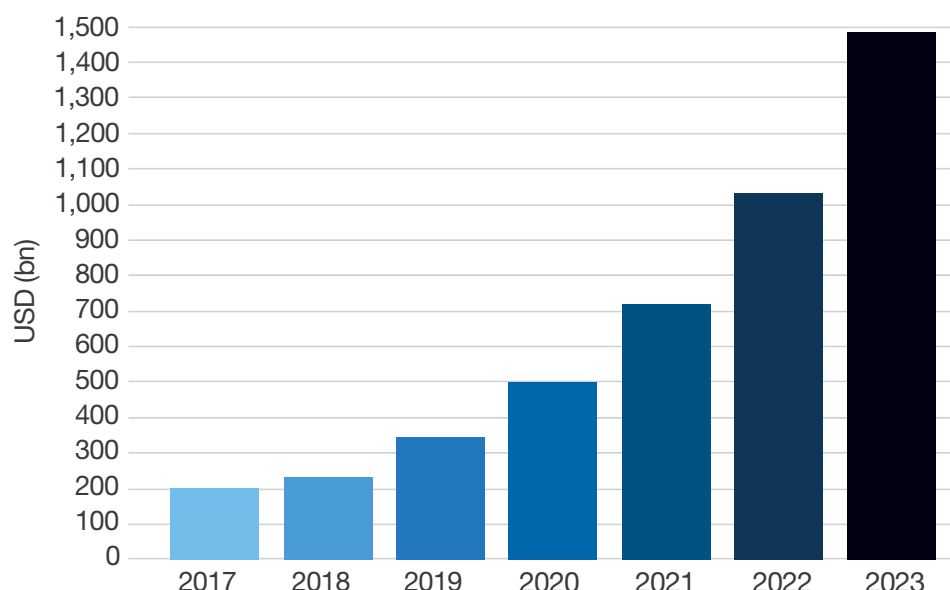
In 2007, the European Investment Bank (EIB) pioneered the Green Bond market by issuing the world's first Climate Awareness Bond (CAB). Thirteen years later, everyone is talking about Green Bonds. Initially regarded by many as a marketing tool, they have developed from niche to serious mainstream.

2019 marked another record year for Green Bonds. According to statistics of the Climate Bond Initiative (CBI) global annual Green Bond issuance increased by 49% from



Green bond market

Source: DZ Bank (2020)



Sustainable bond market

Source: DZ Bank (2020)

171.1 billion to 254.9 billion US-Dollar. For the first time in the history of the Green Bond market, the new issue volume already broke through the 100 billion US-Dollar mark in the first half of the year. In September, new issue volume surpassed previous year volume and in October, it exceeded the 200 billion US-Dollar mark.

In addition, the trend “Green goes rainbow” which we have highlighted in last year’s edition of Environmental Finance Sustainable Bonds Insight continued. More and more issuers are going beyond the pure environmental perspective when issuing sustainable bonds. While the Social Bond segment took a slight breather in 2019, new issuance of ESG, Sustainability and SDG Bonds continued to support the growth of the overall Sustainable Bond market.

2019 was also the year of new labels like Sustainability-linked Bonds and Transition Bonds (Transformation Bonds),

allowing investors to make more bespoke choices.

Considering the ongoing diversification, the overall Sustainable Bond market (according to DZ BANK definition) grew by around 50% from 230 billion US-Dollar in 2018 to 345 billion US-Dollar in 2019.

### Billions are not enough to address the sustainability challenges

Although the Sustainable Bond market has shown impressive growth in recent year, we have to admit that a 350 billion US-Dollar market is by far not enough to address the global sustainability challenges and provide the capital at scale urgently needed for the necessary transformation. Compared to 100 trillion US-Dollar global fixed income market the sustainability bond market is still a small but shiny light.

Approaching the first trillion in annual issuance is now

critical. Hence, we need more investors making their sustainable investment demand visible to encourage potential issuers to come to market with more deals.

The growth in the number of dedicated Green Bond funds as well the emergence of more and more Social Bond and SDG Bond funds demonstrates the increasing demand for sustainable fixed income products, which should encourage issuance. Especially in the non-financial corporate world, there is quite a large number of potential issuers sitting on a pool of eligible sustainable assets without knowing it.

The race for the trillions is supported by regulation and numerous sustainable finance initiatives, which are luckily now happening at a higher level than ever before opening new pathways to achieve the critical sustainable investment goals. The EU, which has a very important asset – the single market, which will incentivize investors to scale up their sustainable

investments across the union and outside - is currently working on the metric system of the 21st century. The so-called EU Taxonomy represents one of the single largest steps yet in reorienting basic economic activity towards sustainability.

### The 2020s- The decade of Sustainable Bonds

As 2020 marks the beginning of a decade of urgent climate and sustainability action, we expect strong pick-up in investor demand for Sustainable Bonds.

We forecast that the strong growth momentum in Green Bond issuance will continue in the current year. We expect the Green Bond market to grow in 2020 by around 45% to 370 billion US-Dollar, hence exceeding the 300 billion US-Dollar mark for the first time.

While SSAs in general will remain the guarantors for quality in the Green Bond market, sovereign issuers will be one of the growth drivers. In 2019, Sovereign Green Bonds accounted for around 10% of total issuance for the year. Since Poland has pioneered the market in 2016, twelve nations came to the market. In 2020 countries like Germany, Austria, Italy, Sweden and Spain are expected to debut on the Green Bond market while pioneers like France and 2019 debutants like the Netherlands are expected to return to the market again.

The diversification of the market in terms of both issuers and bond types will continue in 2020 and the following years. New issuance of ESG, Sustainability and SDG Bonds as well as Social Bonds will continue to support the growth of the total Sustainable Bond market. The number of Sustainability-linked Bonds will rise encouraging outcome-focused sustainable finance. Transformation / Transition Bonds have the potential to become an own asset class as an increasing number of non-financial corporates are transitioning to more sustainable business models seeking to use bonds as a tool to finance their transition strategies.

Hence, we forecast new issuance in the overall global Sustainable Bond market to grow by around 45% in 2020 surpassing the 500 billion US-Dollar mark.

We are expecting to reach the critical 1 trillion US-Dollar mark in the overall Sustainable Bond market by the end of 2022. The Green Bond market will most likely see the first

trillion in annual issuance by the end 2023.

### Sustainability-linked Bonds: boon or bane for the Sustainable Bond market?

The emergence of new labels in the sustainable fixed income world sparked controversies among investors in 2019.

One of the labels that stood in the crossfire were Sustainability-linked Bonds, which allow for more outcome-focused sustainable finance. While proceeds from Sustainable Bonds (Green Bonds, Social Bonds and Sustainability Bonds) are earmarked for sustainable projects, Sustainability-linked Bonds are non-earmarked standard bonds whose financing cost may be increased in the event of failure to achieve a sustainable performance objective.

The criticism from many investors focuses on the fact that the issuer will be free to spend proceeds. However, Sustainability-linked Bonds open sustainable funding opportunities for issuers that so far have been unable to issue Green, Social or Sustainability Bonds because they cannot identify sufficient eligible assets / expenditures connected to sustainability. This especially holds through for a large number of small- and medium-sized corporates. Issuing target-link structures allows them to contribute to the global sustainable finance agenda by focusing on a broader transformation rather than focusing on specific projects. Finally yet importantly, Sustainability-linked Bonds offer sustainability-oriented investors a wider range of investment opportunities.

### The rationale behind Transformation Bonds

The shift to a low-carbon economy which requires significant investments is currently a much and controversially discussed topic.

Honestly speaking, we have to admit that a decarbonized world won't be reached by solely focusing on companies which are already 100 percent "green". Furthermore, many sustainable companies still depend on energy and resource intensive materials and processes.

In order not to stray from the sustainable path, we must not exclude anyone from sustainable funding. Hence, providing finance to processes, sectors and companies, which are "brown"

today, but have the ambition to transform to more sustainability in the future is critical to achieving the Paris goals.

In our view, bonds are a suitable financing vehicle to support those transformation strategies. A transformation funding market will allow carbon-intensive companies and industries to finance their gradual shift away from fossil fuels for example. Proceeds could be also used to finance transformation technologies, such as less carbon-intensive alternatives, allowing for a shift to a more sustainable business model. It will encourage "dirty issuers" to transform their business model in line with the Paris Climate Agreement.

Hence, transformation bonds have the potential to become an own asset class. A clear distinction between Green Bonds and transformation bonds is very much welcomed as it would help to prevent greenwashing. Moreover, let us not forget that there is also a social transformation. Like Sustainability-linked Bonds, transformation bonds open up broader investment opportunities for sustainability-oriented investors.

### The 2020s: A crucial decade for Sustainable Finance

The current decade will be a crucial period for sustainable finance. The role of the financial sector in transforming our economy toward sustainability had been overlooked for too long.

Fortunately, capital markets have taken the right path to support the sustainable transformation of our economy. Some years ago, sustainable finance used to be a small niche. But today it is becoming a transformational force. This is where the opportunity lies for the financial sector: in channeling private sector capital towards the "right" sustainable projects.

However, there is the need for speed! ■



Marcus Pratsch, Head of Sustainable Bonds & Finance, DZ Bank



# Nomura: Spearheading Green Finance in Asia and beyond

2019 was a busy and successful year for Nomura both in the Japanese and the global ESG market. Jarek Olszowka and Nick Dent of the bank's London office explain why.

**Environmental Finance:** In December, Nomura rounded off a very busy year in the sustainable capital market by announcing the proposed acquisition of the boutique investment banking firm, Greentech. What is the rationale behind this acquisition, and how will it help Nomura to strengthen its position in the global market for green finance and investment?

**Jarek Olszowka (JO), International Head of Sustainable Finance:** The acquisition of Greentech is still pending final regulatory approval, but it is big news for us. Greentech is a leading US-based investment banking firm which was established in 2009 and has 75 professionals, which gives it very deep expertise in the ESG market. It specializes mainly in M&A advisory services and private capital placement in sustainable energy technology, sustainable infrastructure such as advanced transportation, and industrial and environmental services. It is US-focused, principally in New York and San Francisco, but it also has people on the ground in Europe.

Having been involved in three times as many transactions as its closest competitor in recent years, Greentech is ranked as the number one in sustainable M&A by Bloomberg.

From our perspective, the acquisition will help us to deliver Greentech's deep expertise to our existing clients. Greentech, meanwhile, will benefit from the debt financing



Nick Dent, Head of Debt Syndicate, Nomura



Jarek Olszowka, International Head of Sustainable Finance, Nomura

our balance sheet allows us to make available, as well as from the sophisticated solutions we will be able to structure for its clients.

Our extensive franchise across Asia and elsewhere means we can also help Greentech to expand internationally, so there are considerable synergies to be generated from the deal.

**EF:** What were the other highlights of 2019 for Nomura in the global sustainable bond arena?

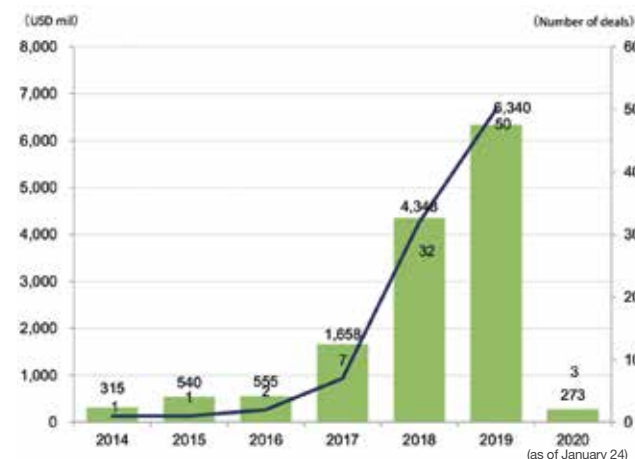
**JO:** It was certainly a successful year. We were chosen as one of only five underwriters appointed to ICMA's new Green Bond Principles and Social Bond Principles Advisory Council. We were also runner-up in GlobalCapital's awards for most impressive Asia-Pacific bank for green and SRI capital markets.

In Japan, we launched a new ESG sub-index. This is an SDG version of the Nomura Bond Performance Index (NOMURA-BPI) which is one of the most widely followed benchmark in the domestic bond market. We have also set up a new sustainability research centre in Japan, and we published a 230-page book on the Age of Sustainable Finance which for a week was the best-selling business book in Tokyo.

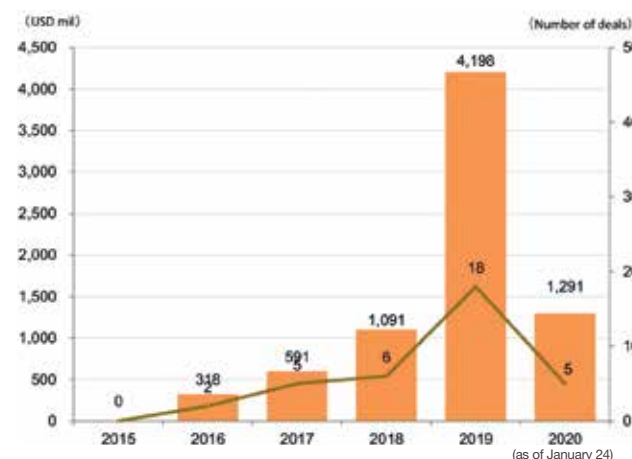
Internationally, one highlight of 2019 was the role we played in taking North-Rhine Westphalia on a roadshow to Tokyo in preparation for its €2.25bn 15 year issue in March. This was the largest sustainability bond ever issued, and generated interest and additional demand from Japan.

**EF:** Looking more specifically at the Asian market for ESG investment, the presentation accompanying

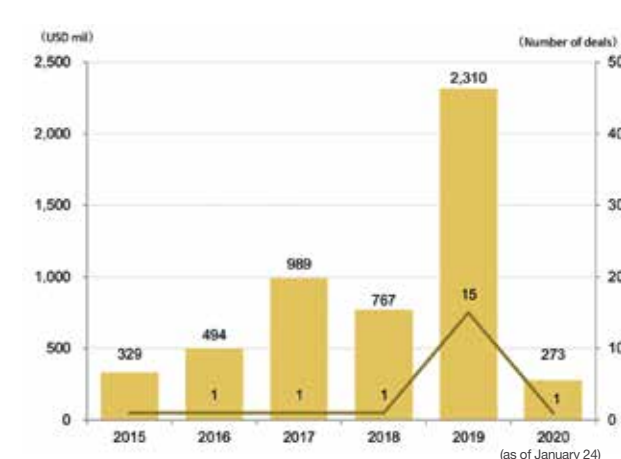
### Annual issuance record by Japanese issuers: green bonds



### Annual issuance record by Japanese issuers: social bonds



### Annual issuance record by Japanese issuers: sustainability bonds



Source: Nomura

**Nomura's acquisition of Greentech notes that "Asia will be the largest and fastest growing region for sustainable investment." Presumably this will be led by China and India?**

**JO:** True, in the sense that the expansion in ESG is a function of rapid economic growth. But demand for renewable energy and clean technology won't be confined to China and India. There will also be rising demand in other economies with fast-growing populations which require huge investment in infrastructure such as the Philippines, Indonesia and Vietnam. It is imperative that this infrastructure is delivered in an energy-efficient and climate-resilient manner, because without the commitment of Asia it will be virtually impossible to meet any of the ambitious global climate change targets agreed in Paris.

**EF: Is Nomura active in the Chinese market?**

**Nick Dent, Head of Debt Syndicate:** Yes. We were among

the first few overseas financial institutions to be awarded a licence in China for a majority-owned securities joint venture.

On the green bond side, we were one of the arrangers of a green ¥30 billion Pro-Bond in November 2018 for Bank of China, and we believe we are well-positioned to support further international sustainable bond issuance from China going forward.

There is considerable potential for sustainable bond issuance in the Samurai market. In 2018 we led two social bonds in senior preferred and senior non-preferred format for BPCE of France. Unlike in many countries, instead of being focused purely on green issuance the Japanese market is highly diversified, with a much higher percentage of the overall ESG bond market accounted for by issuance in social and sustainability format.

**EF: Was this historically driven largely by retail demand for so-called Theme Bonds in the Uridashi market? Are**

**Japanese institutional investors now more active in the sustainable bond space?**

**ND:** There has traditionally been very strong demand from Japanese retail investors for instruments such as water bonds and vaccine bonds in Uridashi format besides green bonds. Strong social awareness among retail investors allowed a number of supranational borrowers, for example, to issue in sizes up to \$50 million advertised in banks' local branch offices. This formed the basis for the next stage of the market where borrowers started to move to benchmark size.

**JO:** According to data published by the Bank of Japan, as of the end of March 2019, 53% of individuals' financial assets, or about ¥1,835 trillion, is still sitting in bank deposits, so the Uridashi market has been an attractive alternative for investors looking to diversify their currency exposure and earn a higher return. Up to 2014, this market was mainly driven by SSA issuers such as the Asian Development Bank, IADB, World Bank and others.

This was before ICMA established the Green Bond Principles, which turbocharged issuance of institutionally-targeted green bonds. But it certainly demonstrated that there was strong awareness of these issues in Japan.

Now the market is increasingly moving away from theme bonds and towards more properly-structured issuance. This has been supported by a strong push from the Japanese government and the Ministry of the Environment which published its Green Bond Guidelines in 2017. The result of this has been that second party opinions and post-issuance impact reporting have become completely standard in the Japanese bond market.

A key driver of rising demand in Japan has been the Government Pension Investment Fund (GPIF), which with about ¥150 trillion (\$1.4 trillion) of assets under management is by most measures the largest pension fund in the world. The GPIF has made a big pivot into ESG fixed income in the last 12 months. It has significantly adjusted its position and is currently a very vocal supporter of the market, signing official partnership agreements with 10 leading Multilateral Development Banks from around the globe in support of ESG financings.

In 2019 alone, the GPIF invested over \$3 billion in green, social and sustainability bonds, which in the context of total issuance of \$240-\$260 billion is a significant share for a single institutional investor.

Additionally, the GPIF has publicly announced that it will no longer award any mandates to asset managers unable to demonstrate very strong ESG credentials or to prove that sufficient ESG integration is embedded into their investment processes.

After subjecting its portfolio to a rigorous climate stress test, the GPIF no longer talks about the long-term, which for many capital market participants implies an investment horizon of between one and five years. As a pension fund with a 15 or 20 year time horizon, it now prefers to talk about “cross-generational investing”.

**ND:** Internationally there seems to be a wider variance of opinions on ESG and approaches to embedding it in the investment process across the buy-side than in Japan, where the majority of asset managers share the views of the GPIF, and

at this stage do not have hugely divergent approaches. If you meet 10 investors in London you'll get 10 very different views, but that is not the case in Japan. So we are seeing institutional demand for exposure to sustainable bonds increasing rapidly across the board.

**EF: What about Japanese issuance? Nomura has played a pivotal role in supporting growing diversity in the sustainable capital market. It led a new issue for Obayashi Corporation in October 2018 which was the first green bond for a general construction company, and in January 2019 it arranged a notable deal for Japan Housing Finance Agency (JHF), the proceeds of which were earmarked for financing energy-efficient homes. Do you anticipate further growth in the market this year?**

**ND:** Issuance in the green bond market in Japan was originally driven mainly by government-guaranteed borrowers such as Development Bank of Japan (DBJ), which are taking sustainable issuance extremely seriously. There has already been plenty of issuance in this sector and we will see more in the future.

On the sell-side as well as the buy-side, Japan is a very consensus-driven society, and interest in the green bond market is clearly filtering quickly down into the corporate and FIG communities as well. When the new financial year begins in April, I would expect to see more issuance from borrowers outside the government-guaranteed sector.

**EF: What other themes do you expect to evolve in the Japanese market for sustainable finance over the next 12-18 months?**

**JO:** One of the areas being most widely discussed is the potential for transition bonds. Another is the likely growth in sustainability-linked instruments such as the recent issuances for Enel, where the bond proceeds were for general purposes but where a coupon step-up is triggered if certain environmental KPIs [key performance indicators] fail to be satisfied.

These are both very much on the radars of the Japanese FSA

and the Ministry of Environment. Many of Japan's leading corporates are from the automobile, electronics, steel, iron, pharmaceuticals, bioindustry, shipbuilding, textiles, aerospace and petrochemical industries. A number of issuers we have met during multiple recent visits to Japan have wanted to issue green bonds but have struggled to identify immediately eligible green assets which conform with CBI's Climate Bond Standards, the draft EU taxonomy or the ICMA GBPs.

These issuers are fully aware of global trends, they want to participate in the sustainable capital market and they see the benefit of issuing green bonds, but don't necessarily have the assets they need to be able to issue in liquid format. Transition bonds are a perfect concept for them. So I'd expect to see more activity from companies which are brown today but have an ambition to transition to green, or at least to less brown.

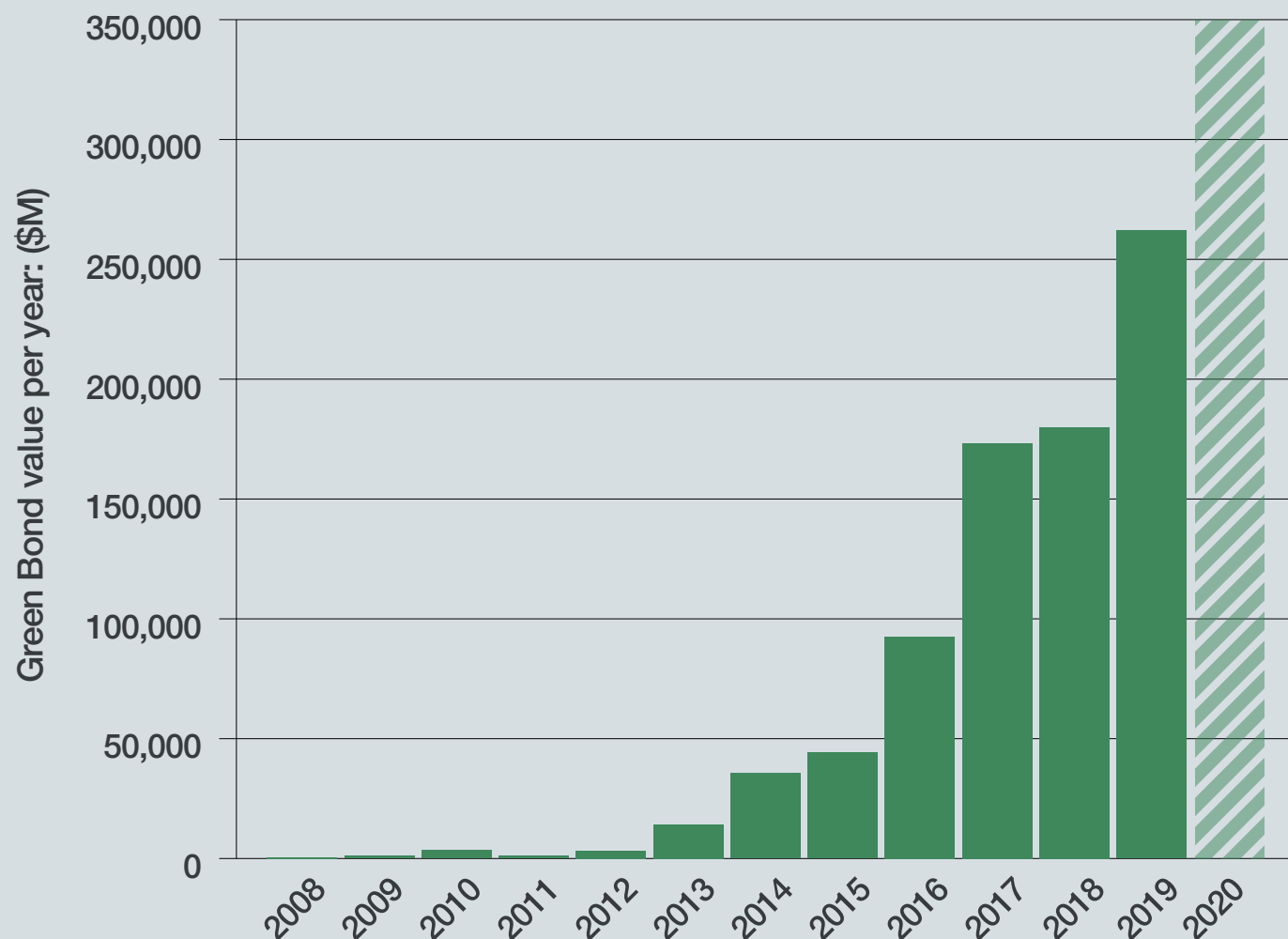
There's a co-ordinated discussion globally about how to structure this new sub-asset class, and as part of ICMA's Climate Transition Finance Working Group we are an active participant in this dialogue.

For the same reasons, these borrowers are looking carefully at the precedent established by the world's first Sustainability bond issued by Enel in September 2019.

**ND:** Another theme to watch will be how the market deals with the inevitable growing pains that will accompany the accelerated growth of the global sustainable capital market. The market itself has clearly developed the self-policed framework it needed to bring issuance volumes to where they are today. But there are a number of people who are yet to be convinced about green finance, so as we move on to the next stage in the maturation of the market, it's important that we address areas such as the dynamics between pricing and liquidity if the market is to develop in parallel with the global fixed income market.

Another challenge is that while the green bond frameworks are well-developed and widely accepted, there is still a multiplicity of definitions of other asset classes such as social bonds.

They have become such a large part of the market that more discussion will probably be needed in order to establish an equally well-recognised framework for these instruments. ■



Predictions for the green bond market in 2020:

Climate Bonds

\$375 B

SEB

\$350 B

Environmental Finance

\$350 B

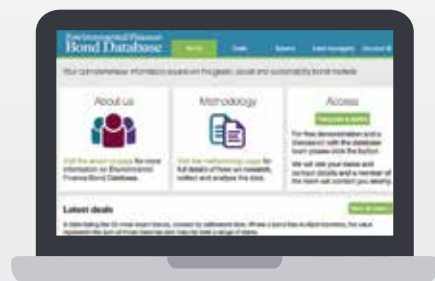
Moody's  
INVESTORS SERVICE

\$300 B

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