

Environmental  
Finance

Sustainable Bonds Insight 2026














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# Sustainable Bonds Insight



Author: Ahren Lester, assistant editor,  
*Environmental Finance*

For enquiries about the data in this Insight, or about [efdata.org](https://efdata.org), please contact [ashton.rowntree@fieldgibsonmedia.com](mailto:ashton.rowntree@fieldgibsonmedia.com)

After returning to more than \$1 trillion in annual issuance in 2024, the green, social, sustainability, sustainability-linked, and transition bond market took a step back from that milestone in 2025, as widespread US issuer caution compounded global slowdown trends.

But lower volumes have not resulted in lesser vitality. Market participants have been active in driving forward ambition and innovation.

For example, we saw fresh guidance published on [nature bonds](#) and [methane abatement bonds](#) as well as [updated guidance for blue bonds](#). Meanwhile, debate around defence and sustainable finance was reignited by the [rise of 'defence bonds'](#).

Yet, the biggest development was the launch of the [climate transition bond \(CTB\) guidance from the influential International Capital Market Association \(ICMA\) in November](#).

After years of discussion around the difficult-to-define – and, for some, difficult-to-justify – sustainable bond label, the emergence of transition bond guidance opens the door to effectively-excluded issuers and places a greater focus on issuer-level transition plans.

But until we see transactions emerge, there remain diverse opinions about how big an influence transition bonds will have. This will be a closely watched theme for 2026.

Unsurprisingly, transition finance will be a prominent and recurring theme throughout this 12<sup>th</sup> edition of the *Sustainable Bonds Insight* alongside fascinating expert comment on a wide range of the other hot topics – including blue finance, adaptation and resilience, and taxonomies.

Beneath these headline-grabbing novelties, sustainable bond markets are not standing still. For example, sustainability bonds saw another strong year of issuance in 2025 as issuers look to tackle social and 'just transition' themes alongside their green projects.

Despite the slowdown, cumulative sustainable bond issuance is on course to cross the \$7 trillion mark early in 2026.

Of course, it is hard to ignore the headwinds that stopped 2025 issuance from extending two years of annual growth, in 2023 and 2024. The US was a particularly disappointing market in 2025, but it was also clear that no market could claim to be immune to the challenges and caution wrought by geopolitical conflict and the 'Anti-ESG' backlash.

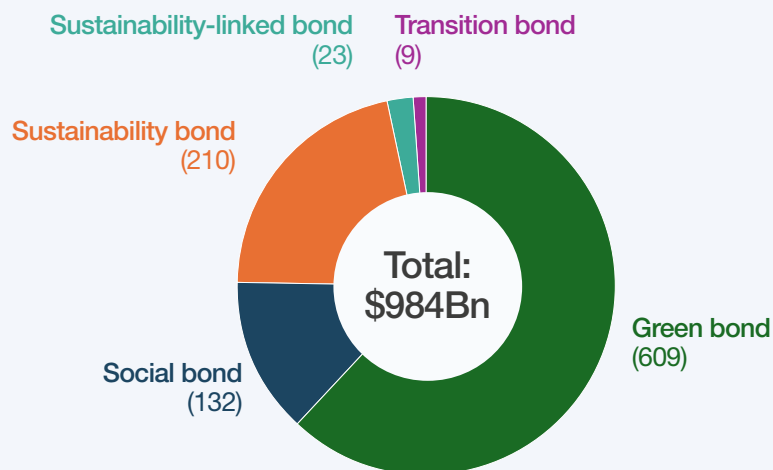
In this context, it is perhaps hard to look at 2026 without some degree of trepidation. Sustainable bond markets are likely to have to navigate a panoply of new and renewed risks. But recent years have proven that the sustainable bond market is capable of combining resilience with revolution to find impactful ways forward, which is why it has been a sustainable finance pacesetter for many years.

And for the optimists among us, 2026 has already provided robust foundations on which to build hope. We have already seen strong examples of what can be delivered – from ['Amazonia Bonds'](#) to [gender-focused 'Orange Bonds'](#), and from ['digital inclusion' bonds](#) to a growing list of blue bond issuers.

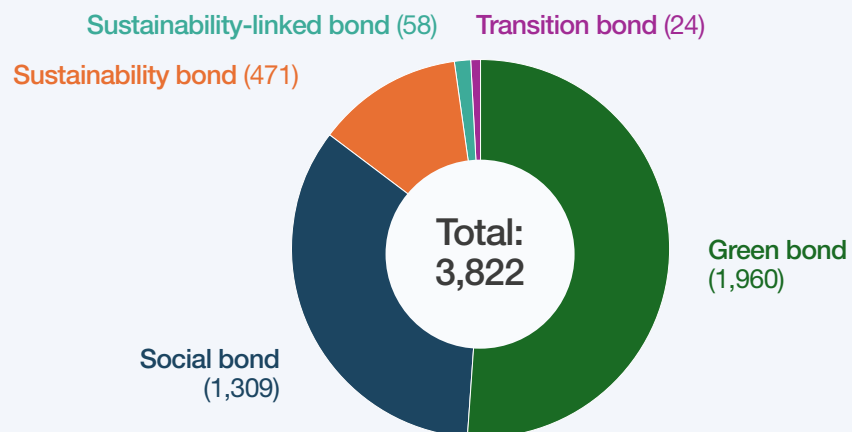
The appetite among issuers to adopt the ground-breaking EU Green Bond Standard (EU GBS) has also been encouraging. Rather than cautiously responding to the first regulated green bond label, European issuers have taken up the structure far more quickly than most anticipated. This suggests issuers in the largest sustainable bond market in the world are confident in the value of these instruments.

Whatever 2026 brings, issuers and investors alike must rally around the potential of sustainable bonds to achieve their environmental and social goals – if they do, this resilient market will lay down even stronger foundations for further scale and impact for years to come. ■

### 2025 Sustainable bond issuance volume breakdown (\$Bn)



### 2025 Sustainable bond issuance number by label



### Top 10 biggest issues of 2025 by USD\*

Issuer	Label	Value (M)	Currency	Value (\$M)
THE WORLD BANK	Sustainability bond	6,000	USD	6,000
THE WORLD BANK	Sustainability bond	6,000	USD	6,000
European Investment Bank	Green bond	5,000	EUR	5,884
	Sustainability bond	108,770	MXN	5,857
European Investment Bank	Green bond	5,000	EUR	5,708
	Green bond	5,000	EUR	5,698
	Green bond	5,000	EUR	5,688
	Green bond	5,000	EUR	5,191
European Investment Bank	Green bond	5,000	EUR	5,191
	Green bond	5,000	EUR	5,156

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

Largest Single Green Bond

 **European Investment Bank**  
Value: \$5.9Bn


Largest Issuer

 **European Investment Bank**  
Value: \$25.3Bn

Largest Agency

 **KfW**  
Value: \$14.9Bn

Largest Sovereign

 **United Kingdom**  
Value: \$14.7Bn


Largest Supranational

 **European Investment Bank**  
Value: \$25.3Bn

Largest Corporate

 **EDF**  
Value: \$6Bn

Largest Financial Institution

 **Industrial Bank Co**  
Value: \$11.4Bn

Largest Municipal

 **California Community Choice Financing Authority**  
Value: \$5.4Bn

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

Largest Single Social Bond

 **CADES**  
Value: \$2.8Bn

Largest Issuer

 **Korea Housing Finance Corporation**  
Value: \$13.5Bn

Largest Agency

 **Korea Housing Finance Corporation**  
Value: \$13.5Bn

Largest Sovereign

 **Czech Republic**  
Value: \$800M

Largest Supranational

 **IFC**  
Value: \$5.2Bn


Largest Corporate

 **NEXCO**  
Value: \$3.3Bn

Largest Financial Institution

 **Industrial Bank of Korea**  
Value: \$4.8Bn

Largest Municipal

 **Massachusetts School Building Authority**  
Value \$2Bn

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

#### Largest Single Sustainability Bond

 **IBRD**  
Value: \$6Bn


#### Largest Sustainability Bond Issuer

 **IBRD**  
Value: \$54.4Bn

#### Largest Agency

 **Agence Francaise de Developpement**  
Value: \$5Bn

#### Largest Sovereign

 **United Mexican States**  
Value: \$7.2Bn

#### Largest Supranational

 **IBRD**  
Value: \$54.4Bn

#### Largest Corporate

 **Yorkshire Water**  
Value: \$3Bn

#### Largest Financial Institution

 **ANZ Bank**  
Value: \$2.1Bn

#### Largest Municipal

 **South Australian Government Financing Authority**  
Value: \$3.2Bn

### The largest deals of the year in the sustainability-linked bond market

#### Largest Single Sustainability-linked Bonds



**Enel**  
Value: \$2.1Bn



**Snam**  
Value: \$2Bn



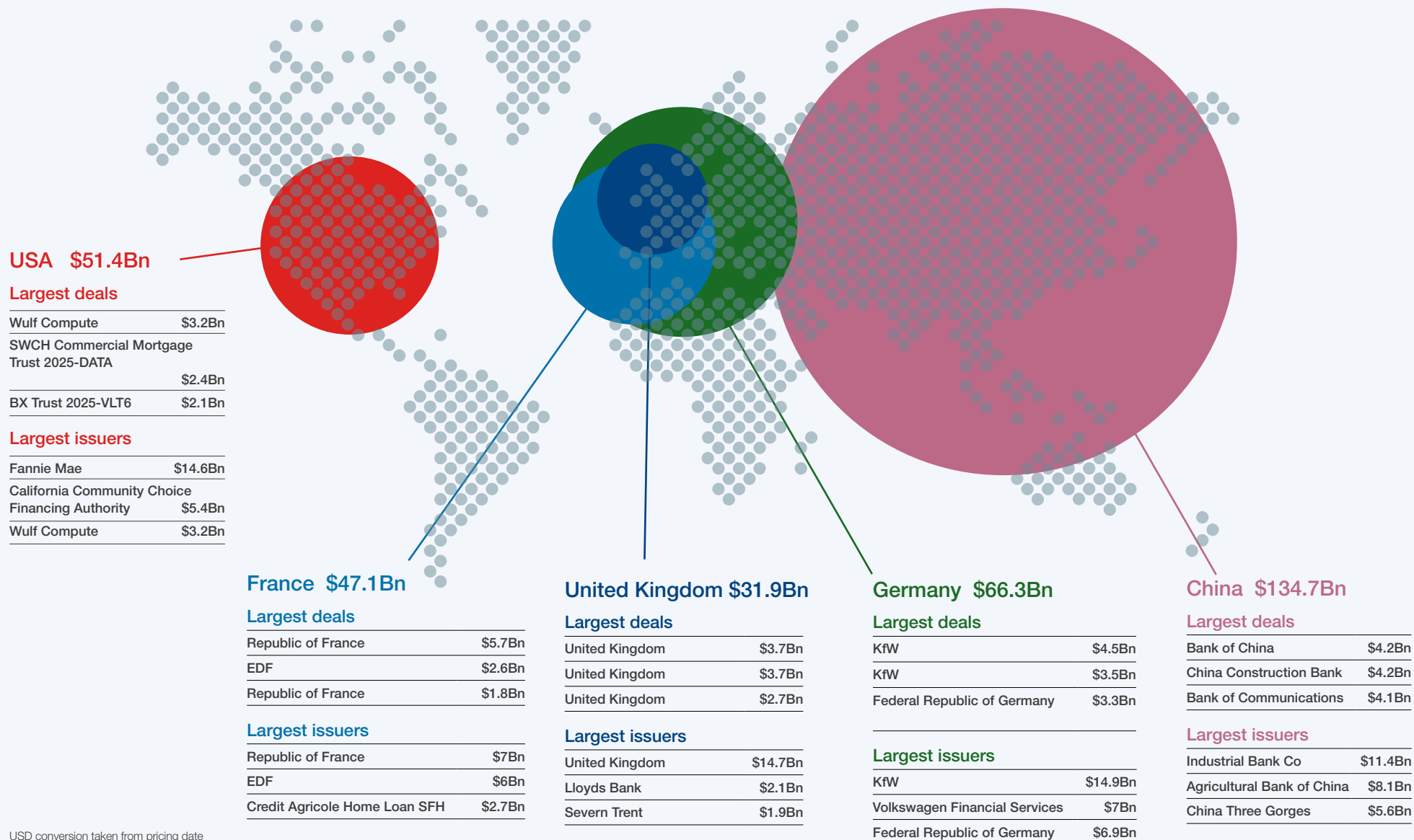
**Republic of Slovenia**  
Value: \$1.2Bn



**Infrastrutture Wireless Italiane**  
Value: \$1Bn

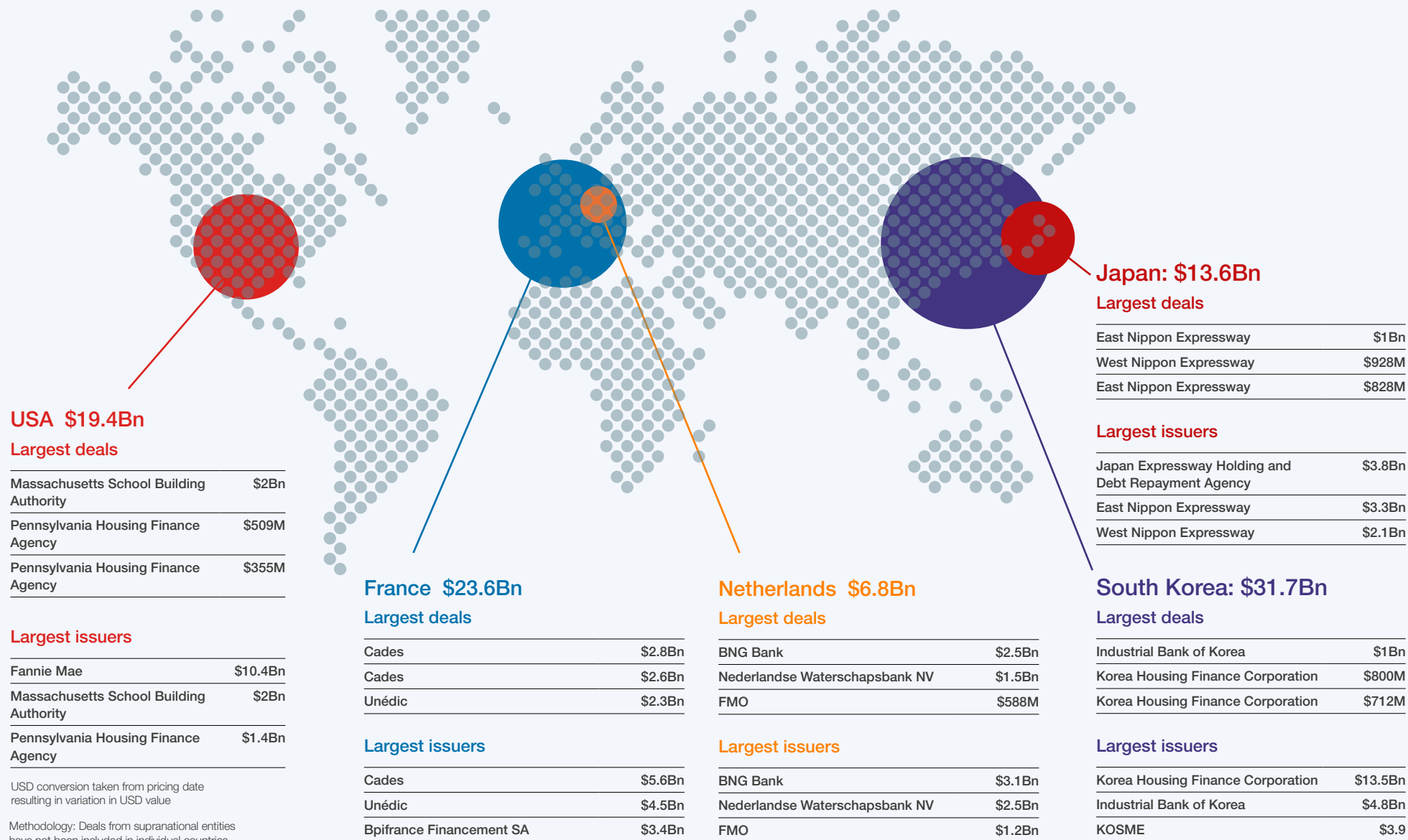


**Kingdom of Thailand**  
Value: \$800M



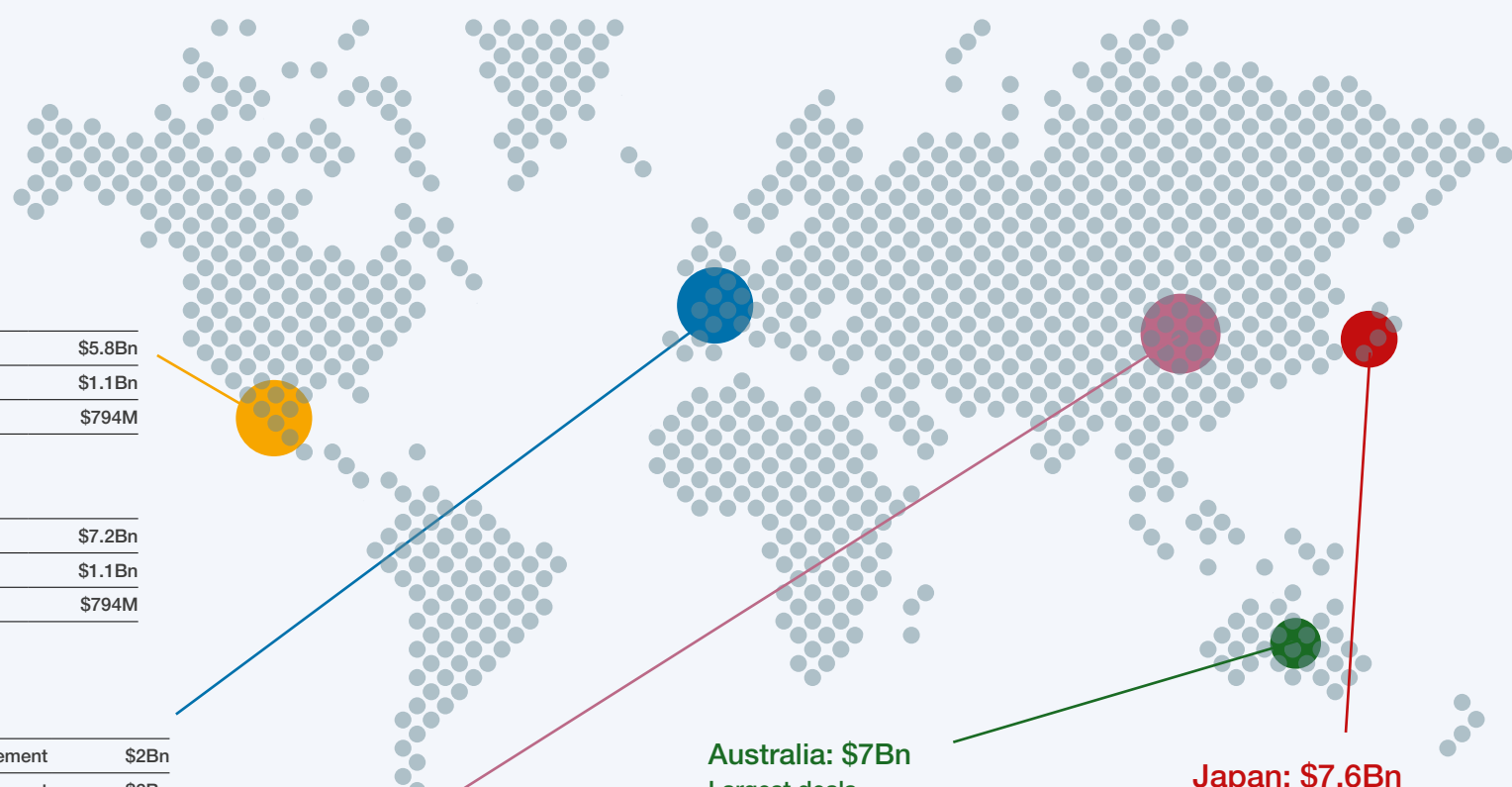
USD conversion taken from pricing date resulting in variation in USD value

# Top five largest issuing countries in 2025 in the social 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.



**Mexico: \$10.2Bn**  
Largest deals

United Mexican States	\$5.8Bn
Banobras	\$1.1Bn
Bancomext	\$794M

Largest issuers

United Mexican States	\$7.2Bn
Banobras	\$1.1Bn
Bancomext	\$794M

**France \$10.2Bn**  
Largest deals

Agence Francaise de Developpement	\$2Bn
Agence Francaise de Developpement	\$2Bn
Action Logement Services	\$1.2Bn

Largest issuers

Agence Francaise de Developpement	\$5Bn
Action Logement Services	\$1.2Bn
Caisse des Dépôts et Consignations	\$1.2Bn

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

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

**China \$10.7Bn**

Largest deals

Bright Food International	\$938Bn
Zhengzhou Urban Construction Investment Group	\$700Bn
Shanghai Construction Group	\$600Bn

Largest issuers

Bright Food International	\$938Bn
Shanghai Construction Group	\$600Bn
Fujian Zhanglong Group	\$500Bn

**Australia: \$7Bn**  
Largest deals

South Australian Government Financing Authority	\$1.2Bn
ANZ Bank	\$1Bn
South Australian Government Financing Authority	\$977M

Largest issuers

South Australian Government Financing Authority	\$3.2Bn
ANZ Bank	\$1.6Bn
NSW Treasury Corporation	\$928M

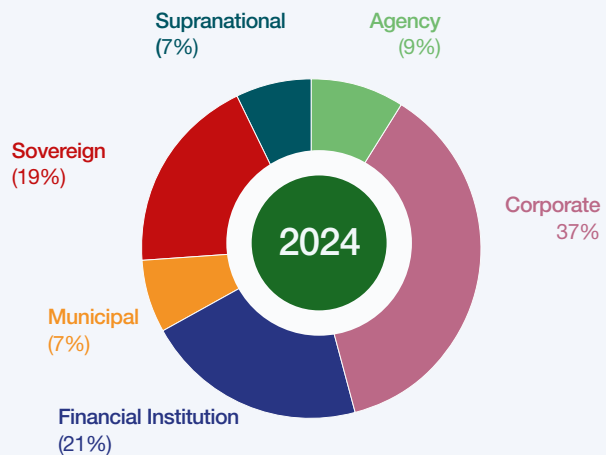
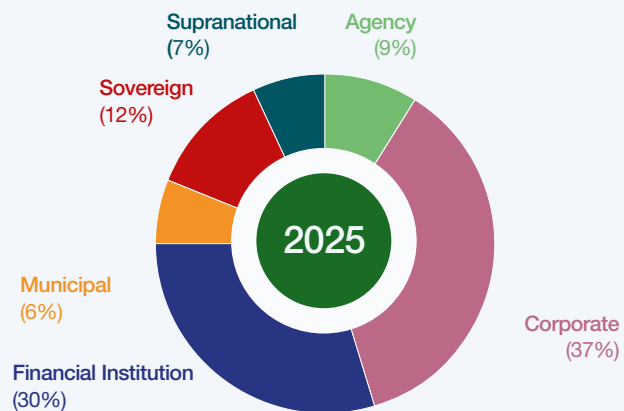
**Japan: \$7.6Bn**  
Largest deals

Toyota	\$1.5Bn
Japan International Cooperation Agency	\$1Bn
Development Bank of Japan	\$697M

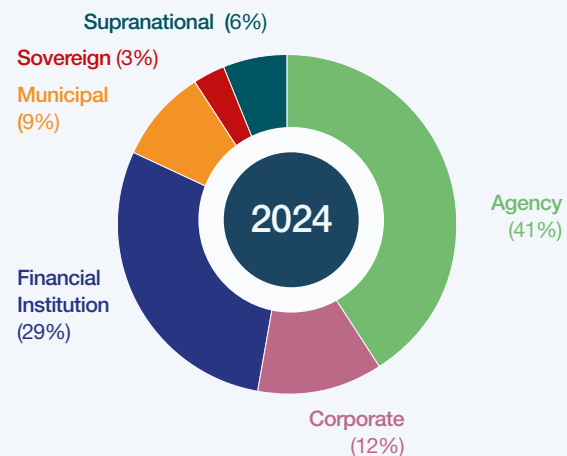
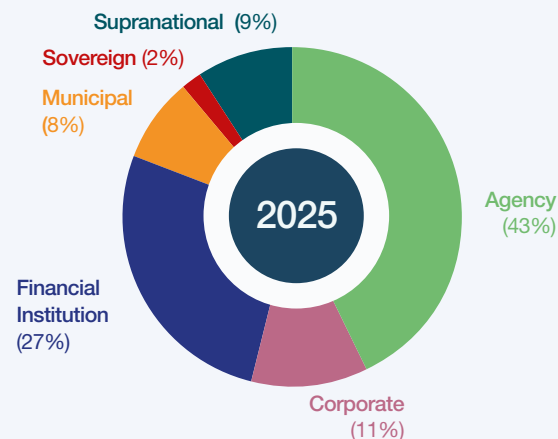
Largest issuers

Toyota	\$1.8Bn
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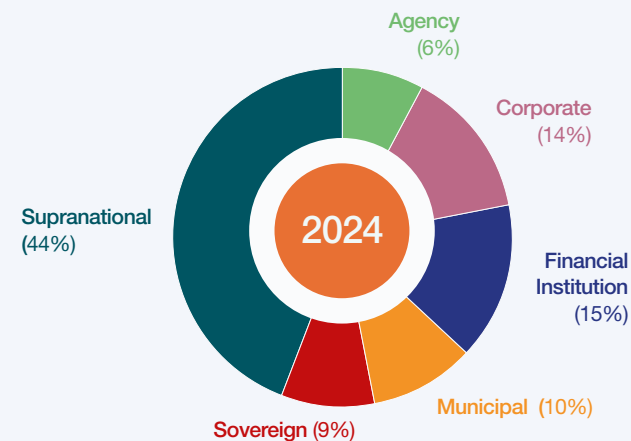
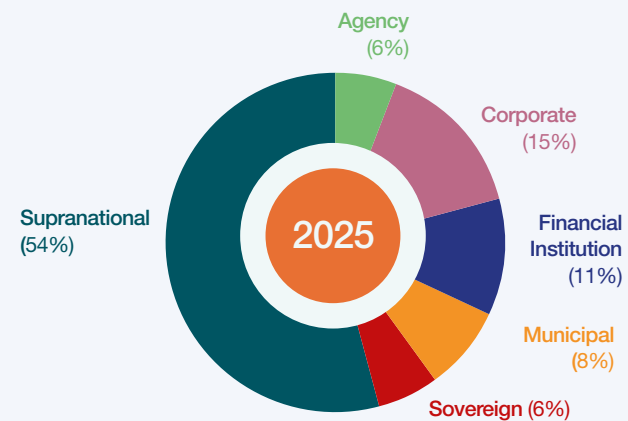
### Green bonds



### Social bonds



### Sustainability bonds





# Resilience and rebound

The sustainable bond market has been more resilient in 2025 than many believe, say Agnès Gourc, Franck Rizzoli and Frederic Zorzi at BNP Paribas. AI-related infrastructure is likely to drive the market forward in 2026

## **Environmental Finance: What do you see as the main drivers of issuance in the sustainable bond market in 2026?**

**Agnès Gourc:** First, it is important to stress that the market for sustainable bonds and loans was more resilient in 2025 than many believe. Our data shows global sustainable bond issuance of a little under \$890 billion last year, around just \$75 billion less than in 2024. The market had been anticipating a bigger drop.

There is also a very large volume of bonds, the original green bond vintage, if you like, that are coming up for refinancing this year. We haven't seen this phenomenon as much in earlier years. There is going to be a lot of discussion in the market as to the behaviour of the dedicated green bond funds – which are a very important source of demand in the market – regarding reinvestment in the refinancing of those original green bonds.

We expect green bonds to remain the market's 'go-to' product – that's where the bulk of issuance will continue to be. In Europe, regulation is very conducive to green bond supply. That remains the case under the contemplated version 2.0 of the Sustainable Finance Disclosure Regulation.

Admittedly, we aren't anticipating a jump in issuance in sustainability-linked bonds (SLBs), but where we absolutely do see potential for growth is in the sovereign segment. In 2025, we arranged a debut SLB for Slovenia – the first from a European sovereign, although we've done a number in the Americas. We expect to see more interest in this segment in 2026.

Another factor that could drive new demand is the uptake of new types of instruments, such as transition bonds. Last year, we contributed quite extensively to both the transition bond and loan guidelines, from the International Capital

**It's also important to recognise that, despite much of the discourse, ESG is not dead, and many large investors continue to look to have a positive ESG impact. It all comes down to investors' investment horizons**

Market Association and the three loan market associations, respectively. These are key documents that help issuers and investors alike with a baseline of what use-of-proceeds instruments should look like: that has been missing to date.

## **EF: What are investors asking for in the current environment?**

**Franck Rizzoli:** As Agnès mentioned, we do expect green bonds to remain the focus in 2026. Asset managers are well-versed when it comes to green bonds: they know the standards, they understand how they work and, critically, they understand how green bonds provide them with impact. That makes it very easy to sell to their own investors or clients and to allocate the bonds to different strategies. It also helps that, despite talk of a backlash, the climate transition remains a topic that draws demand from a diverse set of investors.

This is especially true given the significant expansion in infrastructure investment needed to support data centre build-out. Much of this work could, by its nature, be eligible for green bond issuance as it will fund building out power grids and green energy supply. That should provide really good momentum in terms of supply next year, and in the years beyond.

It's also important to recognise that, despite much of the discourse, ESG is not dead, and many large investors continue to look to have a positive ESG impact. It all comes down to investors' investment horizons. In terms of alpha generation, you might spend a bit of money on ESG today, but in five, six or seven years, you may well end up outperforming the market. If you're a pension fund or insurer, you're here for the long run.

## **EF: What are your thoughts on the uptake of bonds following the introduction of the EU Green Bond Standard (EU GBS)?**

**AG:** There have been around 30 tranches issued so far in EU



Agnès Gourc



Franck Rizzoli



Frederic Zorzi

GBS formats, with a couple of repeat issues already. While the numbers aren't huge, this time last year nobody was expecting the market to have grown so quickly. It's been a very good start.

In terms of the type of issuers, it's across the whole market – corporates, sovereigns, supranationals and agencies (SSAs) and financial institutions. Among corporates, European Green Bonds (EuGBs) have not only been issued by utilities – which were expected to be the main sector taking advantage of the format – but also by transportation infrastructure, real estate and financial services, among others. It shows that various types of issuers can execute an EuGB – from that perspective, the format has been a success.

Part of its success has been that issuers had already done much of the work necessary – in terms of demonstrating the taxonomy alignment of their business, and their green bonds in particular – so they were well set up. It meant they just had to take one step forward to position themselves as leaders by issuing an EuGB.

**Part of the success of the EU Green Bond format has been that issuers had already done much of the work necessary in terms of demonstrating the taxonomy alignment of their business and of their green bonds**

Towards the end of the year, the European Commission published an FAQ that has unfortunately generated further

questions and put a few transactions on hold. But further clarifications should release the backlog and spur further issuance, meaning that 2026 is likely to be another good year for EuGBs.

**EF: The blue economy was a big topic for 2025. How do you see that market segment developing in 2026?**

**FR:** The United Nations Ocean Conference last year in France was a big driver of interest in blue-labelled bonds. We arranged a €100 million (\$118 million) blue bond for CAF, and a €30 million issue of CABEL, the Central American Bank for Economic Integration, to finance the restoration of Lake Yojoa in Honduras. We also issued three blue private placements, worth a total of €75 million, against our own updated Green Bond Framework.

There is really good appetite from investors for blue bonds, and there is interest from issuers. But it is a small subset of the green bond universe. We expect it to continue to grow, but it will remain a relatively small part of the overall green bond market.



**EF: What are you seeing from the SSA part of the market?**

**Frederic Zori:** The SSA segment continues to underpin the sustainable debt market and is likely to remain the largest source of issuance. SSAs have been particularly active in sustainability and social use-of-proceeds formats, where they benefit from clear policy mandates, established frameworks and strong investor alignment.

In 2025, SSA issuers provided much of the backbone of sustainable issuance, representing over 50% of sustainable bond market volumes, helping to sustain market depth and liquidity during periods of volatility. This consistency has been an important source of confidence for investors and has reinforced the role of the public sector as a stabilising force in the market.

Looking ahead, themes such as climate adaptation and resilience are expected to feature more prominently, reflecting the growing focus on physical climate risks and inclusive transition objectives. On this basis, we would expect the SSA sector to continue to play a leading role in sustainable debt issuance into 2026

**EF: What are the priorities for transition finance in the Asia-Pacific (APAC) region in 2026 and what can the rest of the world learn from this?**

**AG:** While Japan has been leading the way in transition finance, particularly with sovereign issuance, there is a keen interest in the theme across the region. Investments in APAC are well suited to what we call ‘amber’ taxonomies – not the typical ‘near-zero’ projects you get in green bonds, but projects that are still very useful to help put companies or sovereigns on a net-zero trajectory.

What Japan has done has been to put a high-level framework in place at the governmental level. It provides a roadmap for the decarbonisation of its economy and for the technologies that the country wants to prioritise for its transition. The government is also providing incentives for funding the necessary projects. That means it is quite easy for investors to understand where to invest for Japan’s decarbonisation and for companies to fund and implement those projects.

Outside Japan, it’s a bit chicken and egg, however. We need an investor base that is prepared to buy transition paper, and who value the extra transparency that labelled transactions provide. Investors need to get a good sense of what they are buying, where it fits in their portfolios, and what it brings versus conventional bonds.

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**Themes such as climate adaptation and resilience are expected to feature more prominently, reflecting the growing focus on physical climate risks and inclusive transition objectives**

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Issuers, meanwhile, want to know that this is recognised by investors and that there is real demand for them to go through the work to produce a credible transition bond offering. Being among the first movers in a segment has this challenge, and we would expect increasing investor engagement to progress this over time. It is always a work in progress with new instruments.

**EF: Are there any bright spots for labelled issuance in North America?**

**FZ:** Activity has been subdued across most corporate sectors in the US over the last few years, not just in 2025. But where we see a rebound is around data centres – whether that is investment in the grid, energy consumption of data centres, or water stress management.

We should also highlight that Latin America has been very

active last year, accounting for 8% of global sustainable bond issuance in 2025 (compared with 3% in 2024) and is a strong geography when it comes to blue and social thematic.

**EF: Finally, what innovations do you expect to see in the market in 2026?**

**KR:** As Fred outlined, we expect the adaptation and resilience theme to gain some traction this year, but exactly how that translates to issuance is still to be determined. As discussed, there will be more consideration of transition finance and how it can deliver meaningful impact. We are also watching nature and biodiversity, though it remains a complex area to find clear financial outcomes.

**AG:** We do expect to see more activity around outcome bonds, where investors take on the bonds’ social or environmental performance risk. Here, every transaction is still very tailored, which means the deal flow is rather slow. But for those projects that can generate credits, in particular carbon credits, accessing funding in this way can be transformative.

This year may be one of consolidation rather than innovation. It is important that the market continues to take sustainability risks and opportunities into account in the short term, as over the medium term the topic will inevitably reach the top of the priority list again.

**FZ:** It’s important to emphasise that the scale of investment we are expecting across AI infrastructure will doubtless shape some of the financing solutions we see. Global infrastructure investment needs will be in the tens of trillions of dollars, which eclipses the level of infrastructure investment we saw over the last 20 years. This comes on top of the drive for investment in renewable power that we have already seen. It is key that it is taken as an opportunity to invest for the future. ■

**Agnès Gourc and Franck Rizzoli are co-heads of sustainable capital markets solutions, and Frederic Zorzi is global head of primary market, at BNP Paribas.**

For further information, see: <https://cib.bnpparibas>

# Why attention is turning to transition finance

New guidance from industry standard setters and a new methodology from second-party opinion provider ISS-Corporate have set the stage for transition finance to flow. **Marie-Bénédicte Beaudoin, Marta Farina and Claudia Muñoz Carmona** explain

## **Environmental Finance: What is the current state of the market for transition finance?**

**Marie-Bénédicte Beaudoin:** There have been efforts to integrate transition finance within the labelled bond market since the early 2010s. It began with Japan emerging as the leading jurisdiction in terms of issuance volumes – *Environmental Finance Data* shows that there have been 96 transition-labelled bonds from Japan since 2017. The strong momentum there can be attributed to the development of domestic guidelines on climate transition finance, published in the early 2020s and updated at the start of 2025.

The narrative around transition finance shifted following COP28 in Dubai in 2023. From that point, transition became a central theme in global climate finance discussions. Market participants increasingly came to recognise that existing frameworks – notably the Climate Transition Finance Handbook from the International Capital Market Association (ICMA) – did not sufficiently capture the complexity of transition financing, particularly as it focused at the level of the issuer’s transition strategy, rather than at the activity level.

Since COP28, market participants have engaged in the topic with greater intensity. At ISS-Corporate, we have developed our own methodology to assess transition-related frameworks, which we released in November 2024. We welcomed the publication, a year later, of ICMA’s new Climate Transition Bond Guidelines and the loan market associations’ Guide to



Marie-Bénédicte Beaudoin

Transition Loans. These two documents now provide the cornerstone of the transition finance labelled market.

## **EF: What methodology does ISS-Corporate apply to assess transition finance?**

**MBB:** Our methodology is very much aligned with the principles established by ICMA and the loan associations. It looks at the approach taken at both the entity and activity level.

At the entity level, we consider the issuer’s transition strategy, its action plan, the milestones it has set, and the commitment to 1.5°C it has in place. Then we look in depth at the activity itself, what frameworks or benchmarks the issuer is leveraging, what alternative activities exist and how the entity is managing the risk that the activity will lock-in future carbon emissions.

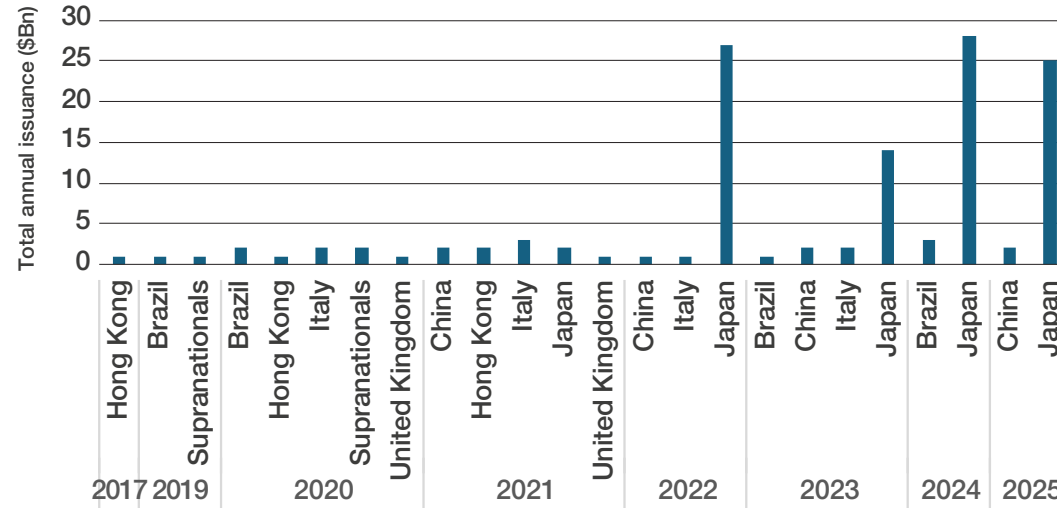
There are two layers, but they are very much interconnected – our approach is to understand how the activity feeds into the issuer’s transition strategy.

For financial institutions, we can also review the classification systems they are using to categorise their transition-related financing, analogous to those they are using to demonstrate how they are meeting sustainable investment financing goals. That review process is not issuance based, but it looks at the robustness of those classification systems, examining how they identify the financing products that are relevant to transition finance and the criteria they use.

We marked a milestone here last November, when we published our first publicly available external review, of Deutsche Bank’s transition finance framework. Among other things, that review benchmarked the framework against market practice, assessed the soundness of its eligibility criteria, and the consistency of the framework with its sustainability strategy.

Transition-labelled debt since 2017

Source: efddata.org



**EF: How have ICMA and the loan associations approached transition finance with their new guidelines?**

**Claudia Muñoz Carmona:** We have been very active in helping ICMA, in particular, as participants in the working group creating its new climate transition guidelines. Both ICMA and the LMA have maintained the dual focus on the assessment required – assessing the issuer’s transition strategy as well as the safeguards in place at the project level.

ICMA, for example, decided to complement its Climate Transition Finance Handbook by creating a framework for issuers, specifically in hard-to-abate sectors that are seeking to finance a credible transition strategy with transition projects that are not entirely green.

So ICMA has kept the four pillars that underpin its Green Bond Principles. It sets out requirements on: the use of proceeds; the process for project evaluation and selection; the management of proceeds; and reporting. In addition, the guidelines also include specific safeguards under the use of proceeds section.

The loan associations’ guidance has followed a similar structure to its existing guidance, but it includes an additional pillar – the entity-level approach to transition. Unlike ICMA, which retains its four pillars, the loans associations’ guidance has included an introductory fifth pillar, covering the entity-level transition strategy.

Both types of industry guidance consider their new transition labels to be complementary to existing green, social and sustainability labels. They see them as additional tools to bring companies that have been largely left out into green financing markets.

**EF: What makes specific transition activities both credible and eligible under the industry guidelines?**

**CMC:** Both sets of guidelines put safeguards in place to try to ensure environmental integrity. For an activity to be credible and eligible, the issuer must demonstrate that the activity leads to quantifiable and sustainable greenhouse gas (GHG) emission reductions, that it is aligned with relevant taxonomies

and sectoral decarbonisation pathways, and that it avoids locking in emissions. The entity must also provide evidence that there are no low-carbon alternatives to the project that it is financing.

**EF: What are the challenges for issuers seeking to align with the new guidelines?**

**Marta Farina:** This new label will really show which companies have laid the groundwork over recent years and which have not. Its requirements are quite ambitious and it is a very complex structure. The first companies that will be able to seize opportunities and issue in this space will be the ones that have prepared and done their homework on their transition plans and that have really integrated sustainability into their businesses and operations. Others will need to take a bit of time, work and investment to get to the point where they could issue.

**CMC:** A particular challenge is that it will be difficult to provide sources, such as credible studies, that demonstrate that the activity will not lead to carbon lock-in, because the information is not very clear and it changes constantly. It’s the same with low-carbon alternatives. New studies are regularly produced that show the viability of an alternative technology that might not have been viable 12 months ago. So, for issuers, it will require them to regularly review their assumptions.

**MF:** The fact that both the transition finance market and the technology that it is financing are evolving so fast means that second-party opinions will provide investors with a lot of value. By their very nature, they enable greater transparency and disclosure, and this will be very important for investors as things change.

**EF: How does the industry guidance address climate resilience and adaptation efforts?**

**MF:** There’s not a great deal in either the ICMA or loans associations’ guidance on adaptation and resilience as such. However, we are seeing growing interest in adaptation in the market, especially given the focus on it at COP30 in Belem.

We think there are connections between transition and



Marta Farina

adaptation, because some climate adaptation solutions also have a transition component – such as an adaptation project that also entails a reduction of GHG emissions and that is able to meet all the additional safeguards that are required to qualify for transition-labelled issuance.

More broadly, companies working on transition plans naturally touch upon climate adaptation and resilience, because these three things are interconnected. We see from events we attend and from contacts we talk to that the market is increasingly seeing the need for a holistic approach to the topic, which will present intertwined opportunities to address transition and adaptation at the same time.

**EF: How do you expect the new transition label to develop in the near future?**

**MF:** There is significant interest from financial institutions,

because we've seen green, sustainability and social issuances reaching something of a plateau. Banks have set sustainable financing targets and they need more projects to finance to meet these targets. They know that there is a lot of untapped potential and that there are many sectors that have struggled to access financing, but which could have significant positive climate impacts if they have a proper transition plan in place and the necessary funding.

It seems that there is indeed interest, and that these guidances could be a big boost to the transition finance market, which has until now been held back by uncertainty and the complexity of the topic.

**MBB:** We expect emerging market issuers to be the main driver for these types of transactions. But within developed economies, hard-to-abate sectors such as steel and manufacturing could also leverage this new label.

And using the new label will also enable financial institutions to demonstrate how they are engaged in their own transitions, notably vis-a-vis their financed emissions: issuing transition finance bonds could allow them to reduce the financed emissions they are reporting.

**EF: Do you expect labelled transition bonds and loans to replace sustainability-linked bonds (SLBs) and loans (SLLs)?**

**MBB:** In the past, issuers in hard-to-abate sectors have relied on sustainability-linked instruments, given that it's been difficult for them to access the green bond market. But these instruments have faced a lot of scrutiny and criticism in recent years, leading to a marked decline in transaction volumes. The transition label clearly offers an opportunity for hard-to-abate sectors to enter the labelled market.

However, I think there will be continued interest in issuing sustainability-linked instruments. The two labels will exist side-by-side, because they serve different purposes. SLBs and SLLs are for financing issuers' general corporate purposes, while transition labelled instruments will be used to finance specific activities.

Investors will also have their say. If they are prepared to



Claudia Muñoz Carmona

pay a 'greenium' for one or the other instrument, then issuers will naturally prefer that. The proposed creation of Article 7 funds under the Sustainable Finance Disclosure Regulation – specifically for investments that are focused on a credible climate transition – could also create demand for transition finance labelled debt. ■

**Marie-Bénédicte Beaudoin is executive director and global head of sustainable finance business development, and Marta Farina is an associate vice president in sustainable finance research, for ISS-Corporate, based in Paris. Claudia Muñoz Carmona is a senior associate, based in Stockholm, also for ISS-Corporate.**

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# Sustainable bonds 2026: welcome to the new reality

Marcus Pratsch, managing director, global head of sustainable bonds & finance at DZ BANK, says sustainable finance is reaching a turning point – with cause for optimism



Marcus Pratsch

## Sustainable finance in the crossfire

In 2025, sustainable finance faced a great deal of headwinds. The main reasons were, among other things, the backlash for sustainable finance in the US, ongoing geopolitical and economic uncertainty around the world, the question of how to reconcile sustainable transformation and competitiveness in Europe, and a regulatory environment

that remains too complex and difficult to understand.

This had a noticeable impact on the global sustainable bond market, which had enjoyed almost uninterrupted success until then, causing it to take a little breather.

While much of the criticism of sustainable finance is exaggerated, some of it is certainly true. Is this a cause for concern? Or even the sword of Damocles? The good news is, after the storm, the all-clear can be given.

Rather than being at a crossroads, sustainable finance is reaching a turning point. Currently, it is undergoing a necessary evolution that we should view less as doom and gloom and more as an opportunity. These opportunities will gradually become

apparent in the sustainable bond market.

## ESG is 'dead' – sustainable finance is here to stay!

Nevertheless, it is time for a brief moment of silence, as ESG as we knew it is 'dead'.

There are three main reasons for this. Firstly, the traditional ESG view neglects the economic dimension of sustainability. Therefore, a more effective approach would be 'EESG'. When making decisions in the capital market, it is essential to consider the interdependent interactions between the four dimensions of sustainability: Economic, Environmental, Social and Governance.

Secondly, the traditional ESG approach was often backward-looking and reflective of the status quo. However, as in traditional financial analysis, it is important to consider the future. Sustainability in capital markets is neither a snapshot nor a rigid construct. Hence, there is an increasing focus on identifying tomorrow's sustainability champions. This becomes particularly clear when we consider sustainable transformation. This is accompanied by the credo 'Transform rather than divest', which is gaining popularity among an increasing number of investors.

Thirdly, in some regions of the world, the term 'ESG' has disappeared or will do so in the future.

But that's no reason to bury our heads in the sand. One thing is clear: ESG as we knew in the past is 'dead', but sustainable finance is here to stay. It is no longer a niche, but a transformative force and will emerge from the trough of disillusionment and

reinvent itself on a healthy plateau of productivity.

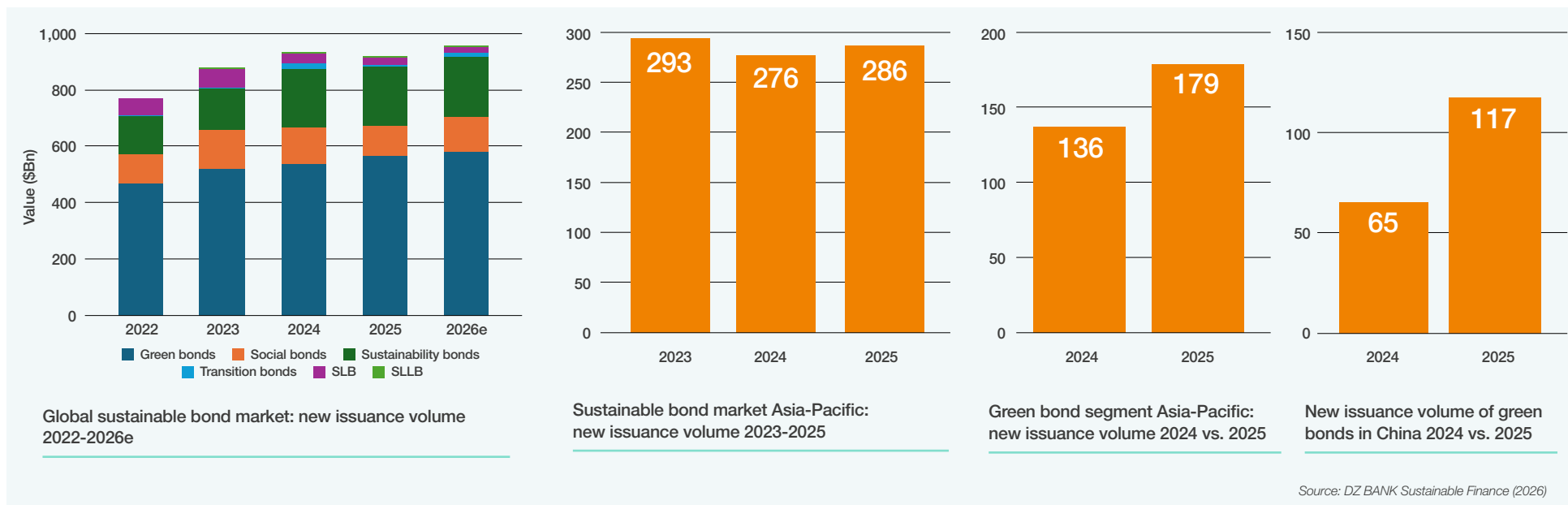
## Sustainable Finance 2.0: shaping the architecture for further growth in the sustainable bond market

Sustainable finance is maturing and evolving, as are discussions in the sustainable bond market.

Enormous funding is required to address the global sustainability agenda. In fact, the funding gap has even widened in recent years. 2025 was the third warmest year on record. Without protecting nature, there is no way to tackle climate change. Hence, there will be no net-zero without nature-positive. Furthermore, building an efficient adaptation economy is a critical component of the long-term global response to climate change. Global progress towards the Sustainable Development Goals is also alarmingly off track.

Thinking in extremes will not get us anywhere. The journey is often the reward (not a radical change). Black-and-white thinking is unhelpful. Transition is key. We must be open to technologies (both established and new) and willing to discuss new (sometimes controversial) topics. Sustainability cannot be reduced to a simple 'yes/no' analysis; it is an ongoing process.

Competitiveness and sustainability are not mutually exclusive. Sustainable transformation is a major opportunity for the real economy. And it is not irreversible. The leading corporates of tomorrow will be the ones who successfully leverage sustainability as a competitive advantage. And that also applies to financing and funding.



However, the concerns of the business community must be addressed, and bespoke solutions must be established. This is particularly important for small and medium-sized enterprises (SMEs), which form the backbone of most economies. There is no one-size-fits-all solution. Sustainability always has a cultural component that we must consider. Transition does not happen overnight. Less or simplified regulation does not necessarily mean less ambition. If regulation is applied, it should promote market growth rather than hinder it.

**The market cannot afford to turn a blind eye to the new reality**

Given the new geopolitical reality, an evolving sustainable finance agenda must acknowledge what is happening in the real world.

For several years now, the letters ‘EESG’ have also represented topics such as economic resilience, energy, security and geopolitics. In this changing world, defence, security and resilience are key as they give us the ability to survive. Therefore,

the debate on sustainable finance must address these themes objectively.

One thing is clear: sustainable bonds will continue to be ruled out as a means of financing controversial or weapons of mass destruction in the future. However, it is important to objectively examine which aspects of the broad field of defence, security and resilience will be compatible with sustainable funding.

**Sustainable bond market – what next?**

Despite its remarkable success and resilience over many years and new records in the green bond segment, the global sustainable bond market was not immune to the challenges facing sustainable finance last year. Nevertheless, after facing a small ‘valley of tears’ in 2025, it will emerge in the medium term and resume a path of healthy, qualitative growth. However, this will require a bit of patience.

As sustainable finance is currently reaching a turning point and is on the verge of further development, we do not expect any

quantum leaps in 2026. We forecast a global new issuance volume of around \$950 billion in 2026.

With the largest number of sustainable and responsible investors in the world, Europe will remain at the forefront of new sustainable bond issuance, accounting for an estimated 42% of the new issuance volume in 2026. As new records in sustainable bond maturities are expected in the coming years, particularly in the green bond segment, European issuers in particular will face enormous refinancing needs.

In addition, the Asia-Pacific region has emerged as a key market for sustainable finance, becoming the second largest source of sustainable bonds after Europe. Consequently, global institutional investors are increasingly targeting the region for sustainable and responsible investments. The Asia-Pacific region boasts a robust sustainable finance ecosystem, with several major sustainable finance hubs having emerged. Taxonomies form a key part of this ecosystem.

In 2025, the Asia-Pacific region proved itself to be a reliable

source of sustainable debt. While the global market saw a decline in issuance volume, the Asia-Pacific market remained robust, growing by around 4% year on year

The green bond segment set new records with growth of 31% compared to the previous year. It accounted for around

63% of the total new issuance volume in the Asia-Pacific sustainable bond market. This was largely due to China's strong performance, with the volume of new green bond issuances almost doubling in 2025 compared to 2024. Consequently, China accounted for around two-thirds of the total volume of

new green bonds issued in the Asia-Pacific region. ■

To find out more about DZ Bank's services, <https://www.dzbank.com/content/dzbank/en/home/products-and-services/institutional-customers/Sustainable-finance.html>

## Bonds: digital and sustainable – a perfect fit



**Frank Scheidig, managing director, global head of senior executive banking, DZ BANK**

The digital transformation is an important element of the sustainable transformation. The growing adoption of Distributed Ledger Technology (DLT) in financial markets is transforming sustainable finance, leading to the emergence of digital sustainable bonds and other sustainable capital market instruments.

Digitalisation can provide the sustainable bond market with several significant advantages. Digital sustainable bonds, leveraging cutting-edge technologies like blockchain and DLT, are poised to significantly transform and enhance the sustainable capital markets. They offer benefits in terms of security, transparency, efficiency, market accessibility and advanced functionalities for sustainable finance instruments.

### Enhanced security, transparency and trust

- **Fraud prevention:** The immutability of blockchain ledgers minimises fraud and unauthorised data alterations, creating a highly secure environment for sustainable bond transactions.
- **Transparency and accountability:** the decentralised ledger technology enables real-time tracking of sustainable bond proceeds, ensuring that funds are genuinely allocated to eligible sustainable projects. This increases investors' trust in issuers as they can continuously monitor how their invested funds are being allocated and utilised.
- **Prevention of greenwashing:** Since data is natively digital and can be traced in real-time, it becomes significantly harder to engage in "greenwashing". Investors can have a high degree

of confidence that their funds are being used appropriately, knowing that blockchain ensures full transparency and accountability.

### Increased efficiency and significant cost reduction

- **Automation:** Manual processes are automated and intermediaries are eliminated, leading to lower underwriting fees, administrative overhead, and transaction costs.
- **Faster processes:** DLT enables faster and more efficient transactions, as well as measurement, reporting, and verification processes. The reduction in manual steps and the automation of processes lead to a significant acceleration of the entire bond issuance process, making digital sustainable bonds a more agile and cost-effective option for financing sustainable projects.
- **Real-time settlement:** Real-time settlement reduces delays and counterparty risk.

### Greater market accessibility and enhanced liquidity

- **Fractional ownership:** Blockchain technology makes it possible to own a fraction of a sustainable bond, enabling smaller investors to participate in a market that was previously dominated by large institutional players.
- **Increased liquidity:** An expanded investor base and more efficient settlement processes foster market liquidity.

### Advanced features and automation for sustainable bonds

- **Versatility:** Digital bonds can be used for both use-of-proceeds and target-linked structures.
- **Real-time impact data and reporting:** Digital bond formats have the potential to provide sustainable bond investors with real-time impact data. Through blockchain-enabled hubs, investors can access live data and continuously monitor the sustainable impact of their investments.
- **Automation of sustainability-linked bonds (SLBs):** Performance-based features of SLBs, such as coupon adjustments, can

be automated through "smart contracts." This ensures the immediate and undisputed application of financial penalties for missing sustainability targets, which would be administratively cumbersome in a paper-based world.

These combined advantages make digital sustainable bonds a powerful tool for accelerating the financing of sustainable projects, fostering greater investor confidence, and driving the development of innovative sustainable finance.

The Government of the Hong Kong Special Administrative Region is one of the pioneers in the issuance of innovative digital sustainable bonds. The latest issuance of digital green bonds, which took place in November 2025, marked another important milestone in the government's journey towards bond tokenisation. This follows two successful issuances in 2023 and 2024.

The latest issuance retained the same innovative features as previous ones, including:

- **Digitally native format:** The bonds were issued in a fully digital format.
- **Access via traditional market infrastructure:** Investors continued to have the option to access the bonds through traditional market infrastructures.
- **Integration of green bond disclosures:** Green bond disclosures were integrated with the digital assets platform.
- **Furthermore, this issuance introduced new innovative features and achieved breakthroughs in the following areas:**
- **Expansion of the issuance volume, tenor, currencies and reach.**
- **The incorporation of digital money into the settlement process.**
- **Increased use of global standards and an expanded adoption of the International Capital Market Association (ICMA) Bond Data Taxonomy.** The latter aims to facilitate the consistent exchange of issuance information between the various parties and systems involved in traditional capital markets and the digital industry. This improves interoperability and enables end-to-end automation.

# Applying analytical rigor to a dynamic sustainable bond market

Moody's Ratings' analysts explore the evolving nature of transition finance, the role digital infrastructure could play in labelled bond markets, and what will unlock opportunities in sustainable bond issuance

## **Environmental Finance: What is your forecast for the sustainable bond market in 2026?**

**Matthew Kuchtyak:** We expect around \$900 billion in global labelled sustainable bond issuance in 2026, broadly flat compared with 2025. This includes use-of-proceeds green, social, sustainability and transition bonds, as well as sustainability-linked bonds (SLBs).

Issuance has hovered near the \$1 trillion mark for several years. While political headwinds and competing issuer priorities exist – including energy security concerns, defence spending needs and geopolitical tensions – the global adaptation and mitigation investment gap remains substantial and continues to support continued issuance.

Green bonds will remain dominant at roughly 60% of total issuance, or about \$530 billion. Renewable energy, energy efficiency, clean transport and green buildings will continue to be the most financed categories, with gradual diversification into transition activities, adaptation and digital infrastructure.

Social bonds are projected to be around \$115 billion. The segment remains structurally smaller due to fewer benchmark-sized opportunities and limited private-sector issuance. Many social projects are instead financed through sustainability bonds.

We expect sustainability bonds to reach approximately \$190 billion. Nearly 40% of our recent use-of-proceeds second-party opinions (SPOs) have been sustainability frameworks, reflecting issuer preference for use of proceeds flexibility and



Matthew Kuchtyak

benchmark-sized transactions that combine green and social use of proceeds.

Transition bonds will reach around \$40 billion, nearly doubling prior peaks, while sustainability-linked bonds are likely to remain the smallest segment, with no significant rebound expected in 2026.

## **EF: Turning to transition bonds, how do you expect that segment to evolve this year?**

**Swami Venkataraman:** Transition finance is not a new concept, but it is entering a new phase.

Moody's Ratings deems \$5.2 trillion of rated debt outstanding today as associated with elevated credit risk from transition exposure. At the same time, annual investment in the energy transition exceeds \$2 trillion. When contrasted with the global labelled bond market – still below \$1 trillion annually and only a share of this financing transition – the mismatch is clear.

Hard-to-abate sectors have historically struggled to access labelled markets, due to concerns about greenwashing or reputational risk. As a result, the sectors requiring the most capital for transition have had limited access to labelled finance.

The introduction of the Transition Loan Principles – jointly published by the Loan Market Association (LMA), Asia Pacific Loan Market Association (APLMA), and Loan Syndications & Trading Association (LSTA) – and the International Capital Market Association's (ICMA) Climate Transition Bond (CTB) Guidelines in late 2025 was therefore significant as it enables transition financing under a use-of-proceeds structure, establishing a transition label and structured safeguards.

As a result, we expect 2026 to mark the beginning of steady expansion in explicitly labelled transition issuance, particularly in hard-to-abate sectors. The label is also attractive to banks who are looking to demonstrate to regulators exactly how they

are supporting the greening of the broader economy.

**EF: You recently provided the first transition SPO aligned with the new guidelines for First Rand Bank. What made that transaction notable?**

**Adriana Cruz Felix:** The South African financial institution First Rand Bank was among the first to release a framework explicitly aligned with the ICMA and LMA/APLMA/LSTA transition guidelines. The framework featured tangible criteria on how this kind of financing can be applied.

First Rand addressed the different safeguards that are being recommended by the guidelines. At the entity level, it clearly articulated due diligence processes to assess its borrowers' transition strategies, including alignment with climate pathways and the other five project-level safeguards such as greenhouse gas reduction, management and disclosure of carbon lock-in, and confirmation that no feasible lower-carbon alternatives are available.

At the project level – spanning aviation, mining, cement, gas to power, and other sectors – safeguards were translated into specific criteria or measurable thresholds. The conversion of open cycle gas turbines to combined-cycle gas turbines financing, for example, was restricted to jurisdictions where renewable penetration remains below 25%, recognising gas as a transitional fuel in that context. A minimum 20% emissions reduction was required, and a defined sunset date of 2035 addressed carbon lock-in risk.

The framework underscored that transition finance must be contextual. What qualifies as credible in South Africa may differ from Europe. Regional specificity is critical.

Alongside our SPO, we published an explanatory comment detailing our approach to assessing transition-labelled debt. We gave specific examples on how each safeguard within the transition guidelines is translated into concrete analytical criteria in the framework – particularly around disclosure and transparency.

We also cited prior transactions in mining, aviation and cement where we had issued opinions aligned with the Green Bond Principles, but which reflected specific transition characteristics. This provided additional granularity to the



Swami Venkataraman

market on how transition analysis works in practice.

We expect the guidelines to promote growth in the segment. However, this is likely to be steady rather than exponential, with around \$40 billion of issuance, nearly double the record \$21 billion in 2024, and a gradual diversification beyond the historical market concentration in Japan. We see increasing potential across Asia-Pacific, emerging markets and parts of Europe as investors are increasingly calling for transition-labelled finance to support credible decarbonisation strategies in hard-to-abate sectors and address the \$2.4 trillion annual climate mitigation gap by 2030. The trajectory is one of gradual diversification and deepening credibility.

**EF: What would unlock faster growth in transition-labelled finance?**

**SV:** Two developments would be particularly impactful. First, more granular regional sector pathways. Sector pathways are helpful, but they must also reflect local realities. We are seeing demand – particularly in Asia – for such region-specific guidance. As such, we have developed differentiated regional pathways for advanced economies and emerging markets across utilities, steel, cement, aviation, shipping and other hard-

to-abate sectors in order to better capture different regional development trajectories.

Second, greater investor clarity would help. Transition bonds do not always qualify as green bonds, and investors are still determining where they sit within portfolio mandates. Impact funds have been mentioned as a possibility, albeit relatively limited in size. The eligibility of such instruments for Article 7 funds as part of the EU Sustainable Finance Disclosure Regulation (SFDR) 2.0 could significantly support the growth of the transition label. We note that both SFDR 2.0 and the transition-label safeguards focus on the presence of credible entity-level transition plans.

**MK:** A further variable, which will differ by region, is the underlying economics of the transition technologies themselves. The viability of assets such as low-carbon hydrogen, carbon capture, utilisation and storage (CCUS), and alternative low-carbon fuels remains heavily influenced by policy support and subsidy frameworks. In the US, for example, policy shifts in recent years have altered the support available to some of these technologies. As policy frameworks evolve, the project pipeline will likely evolve with them.

**EF: Could the emergence of transition bonds further weaken the SLB market?**

**MK:** It could be a factor. SLBs initially gained traction among non-financial corporates, particularly in carbon-intensive sectors, as a way to finance transition strategies without project-specific use of proceeds. However, the challenges facing SLBs predate the emergence of transition bonds. Early criticism around unambitious targets and insufficient financial penalties damaged credibility and deterred issuers.

**ACF:** Investor uncertainty around how to classify SLBs within investment portfolios has also played a role. There was never a particularly strong or unified signal from investors calling for a major expansion of the SLB segment.

The transition guidelines mention them, however. For entities that don't have enough use-of-proceeds projects, the idea is that sustainability-linked instruments could be utilised.

### **EF: Beyond transition, which themes stand out in 2026?**

**ACF:** Adaptation, resilience, nature and biodiversity finance remain underdeveloped but increasingly urgent. Despite ongoing challenges regarding bankability, there is a growing emphasis on addressing risks from severe weather.

Moody's analysis highlights the significant economic impact of physical climate risks, potentially leading to a global economic loss of 17% of GDP by 2050 if current policies persist. In 2025 alone, natural catastrophes resulted in \$135 billion in losses.

Public-sector issuers are expected to lead in adaptation projects, exemplified by Tokyo's issuance of the first resilience bond under the Climate Bonds Standard. This trend is mirrored in nature-related financing, with frameworks including marine- and coastal-related projects like China's green and blue finance framework and the Netherlands' including nature-based solutions in the Dutch Delta Program to combat flood risk exposure.

Together, adaptation and nature-related projects accounted for 22% of green and sustainability bond categories in 2025, up from 16% in 2020. Blue bonds – focused on water and ocean-related projects – continue to grow as issuers reference related ICMA and International Finance Corporation (IFC) guidelines.

The catastrophe bond market is also set to grow, driven by strong demand for risk transfer and attractive risk-adjusted returns.

Digital infrastructure growth, especially in data centres, is driving opportunities in sustainable debt. The International Energy Agency forecasts a rise in data-centre electricity consumption to 600 TWh by 2026. Energy and water efficiency are key to meeting investor scrutiny over their sustainability credentials.

Digital infrastructure companies have established green finance frameworks. Financial institutions and sovereigns are also engaging in this space. Financing approaches are also diversifying, with increased activity in labelled project finance and structured finance.

Additionally, digital credit markets are advancing sustainable bonds, as seen with Hong Kong's digital green bond integrating disclosures with a digital assets platform.



Adriana Cruz Felix

### **EF: How could data centres intersect with sustainable finance?**

**SV:** We expect roughly \$3 trillion in data-centre capital expenditure between 2026 and 2030. Developers are exploring green and sustainability-labelled instruments as part of diversified capital strategies – and we have produced several SPOs in this space already.

At the same time, data centres face scrutiny over energy consumption, water usage and community impacts. Operators are adopting more water-efficient cooling technologies, renewable power sourcing and mitigation strategies to address grid constraints and pricing pressures. As standards evolve, digital infrastructure assets may increasingly qualify for labelled financing, particularly in water-constrained regions.

**MK:** Labelled bonds from companies focused on digital infrastructure will grow in 2026 as the global data centre build out advances and operators respond to stakeholder scrutiny of sustainability considerations. We have already provided SPOs to several large companies which have published sustainable bond frameworks in recent years. These include Equinix and Switch in the US, Digital Edge (Singapore) in Asia, and Bulk Infrastructure Group in Europe. While corporate issuers

will make up a large share of activity in this space, other sectors – including financial institutions and sovereigns – will increasingly feature data-centre projects.

### **EF: Finally, how is the SPO market evolving in line with wider market conditions?**

**SV:** Aside from the emergence of transition finance, a major area of evolution for our analysis is the rise of local taxonomies and thematic standards. We have developed 18 supplementary opinions that we provide in addition to industry guidance alignment, that reflect more niche, thematic labels – such as blue finance, forestry, EU Taxonomy, sukuk or Methane Finance Guidelines – as well as tracking regional guidelines, such as those of Japan, Singapore, Hong Kong, Australia, Mexico, etc.

Another key evolution is the growing demand for post-issuance reviews. Investors increasingly want assurance that issuers are delivering on commitments, not just making them. This reflects a broader shift from intent to accountability.

**ACF:** Finally, emerging markets will remain a critical focus. In many regions, the definition of what constitutes a “green” or “transition” project is still evolving. Our role increasingly involves contextualising projects – recognising, for example, why diesel public transport might deliver meaningful sustainability benefits in certain African markets, even though it would not qualify in Europe.

This represents diversification rather than fragmentation, provided comparability is maintained. For example, our Sustainability Quality Score (SQS) ensures comparability – an SQS1 in France is equivalent to an SQS1 in Senegal – and highlights the added-value we can provide investors that are navigating an increasingly diverse market. ■

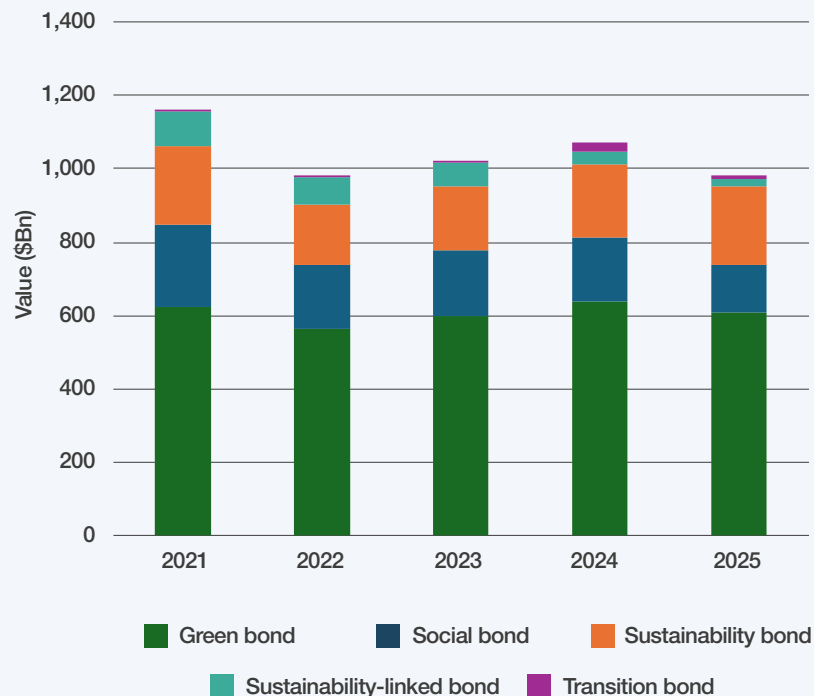
Adriana Cruz Felix is head of sustainable finance assessments, EMEA, based in Paris, Matthew Kuchtyak is head of sustainable finance assessments, Americas, based in New York, and Swami Venkataraman is global head of sustainable finance assessments, also in New York, for Moody's Ratings.

Learn more about the [Second Party Opinion](#) and how Moody's Ratings can support your [Transition Finance](#) journey.

Sustainable bond issuance declined slightly year-on-year in 2025, falling below the \$1 trillion mark for the second time since 2021. The sustainable bond market appears to have matured and has struggled to surpass its peak in 2021. While growth in this matured market may be more incremental it is also subject to more volatility - with higher interest rates, economic uncertainty, and political and regulatory backlash all contributing to a challenging year for the sustainable fixed income market.

In 2025, similar to 2024, green bonds accounted for nearly 62% of the sustainable bond market. However, overall green bond issuance was slightly down by \$30 billion from the 2024 all-time record of \$638.5 billion issued.

## Annual issuance of sustainable bonds by label

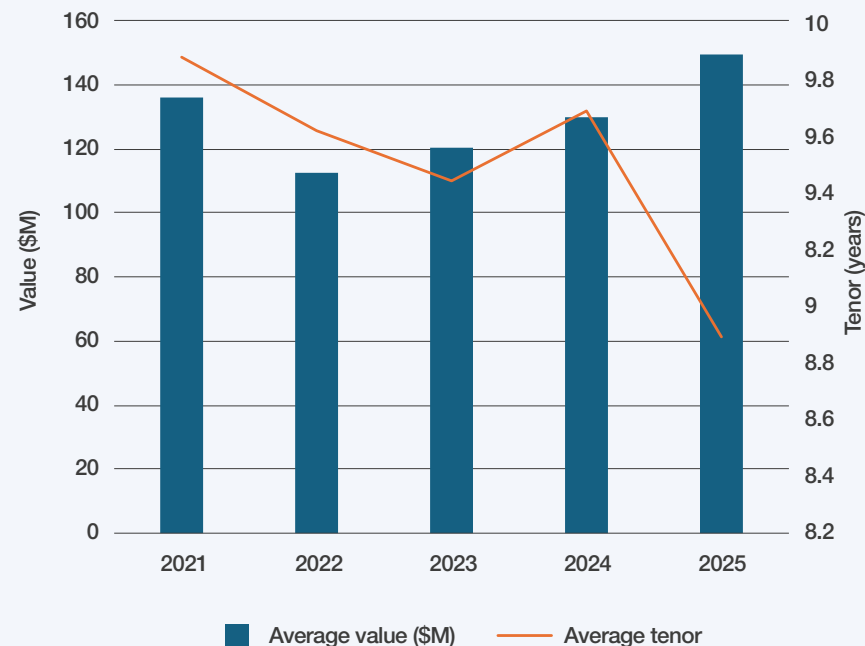


Social bond issuance also declined in 2025, with a large year on year contraction of \$40 billion. Sustainability bond issuance in 2025 was slightly up from 2024, as it increased by just under \$10 billion, but is still down from its 2021 peak.

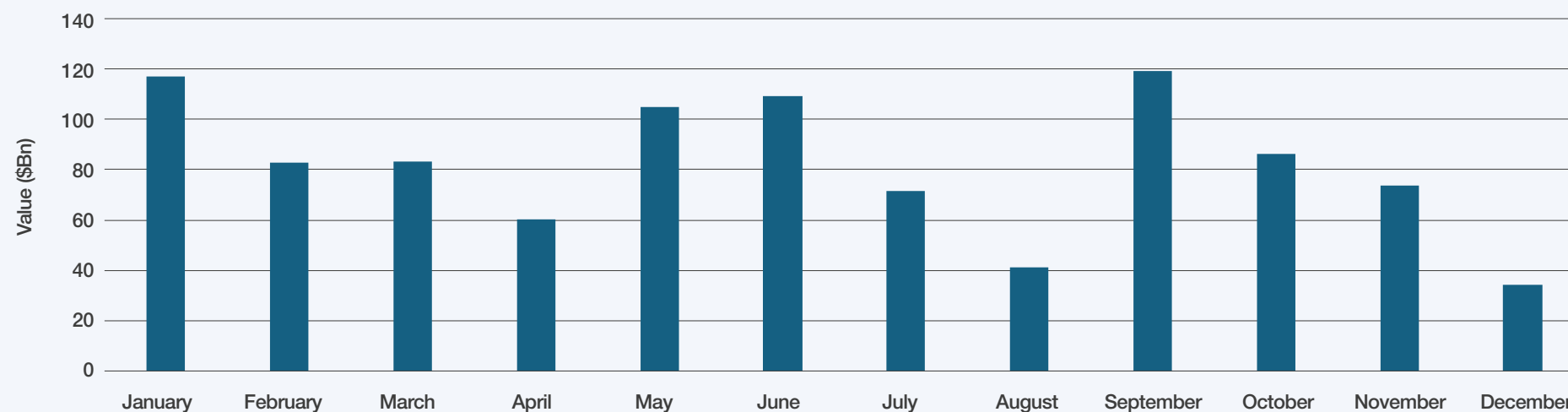
The high-water mark of sustainable bond issuance in 2021 has not been replicated due to unusual circumstances of 2020-2021 with increased investor demand and ESG focus following the covid-19 pandemic.

Transition bond issuance also weakened in 2025 with \$9.3 billion issued, less than half of the all-time peak in 2024 as Japan's sovereign transition bond program slowed down. However, the recent publication of the The Climate Transition Bond Guidelines by the International Capital Market Association (ICMA) may help to aid the further issuance of the label in 2026.

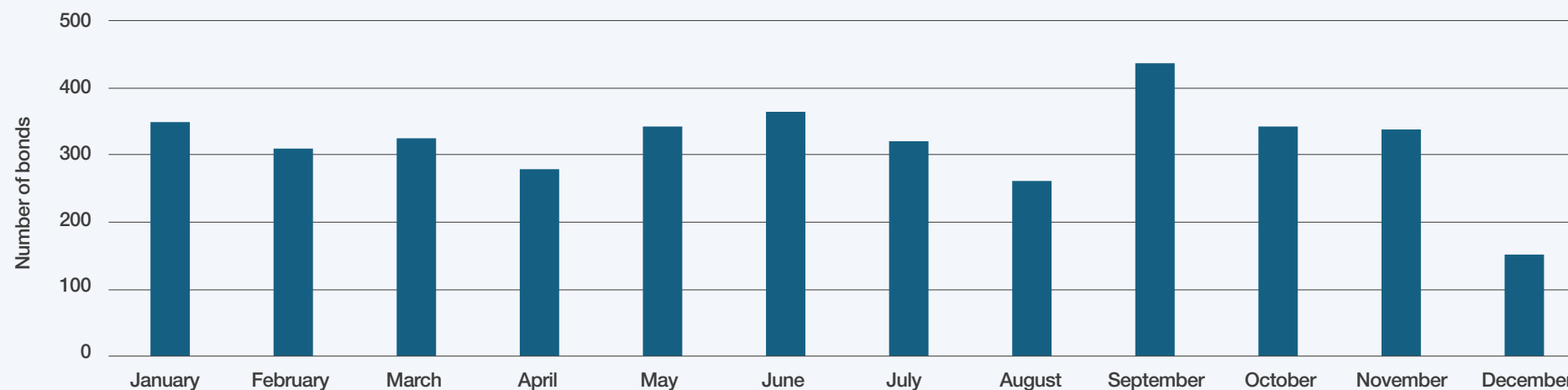
## Average value vs average tenor of sustainable bond tranches



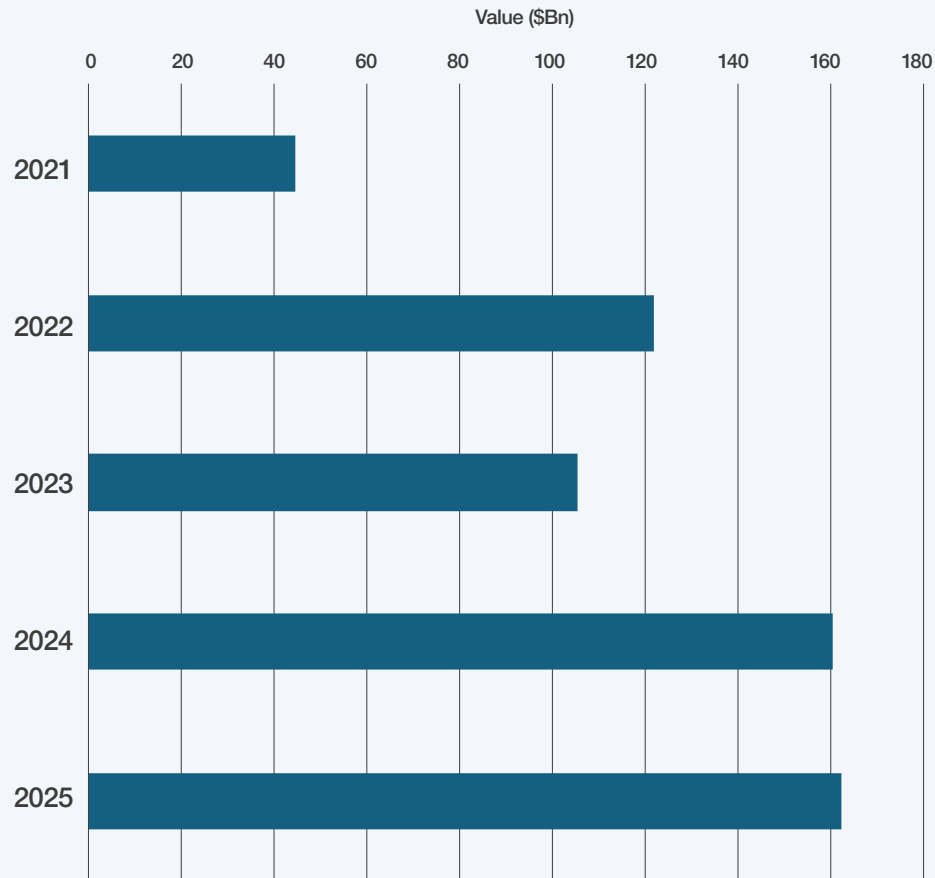
### Monthly value of sustainable bond issuance in 2025



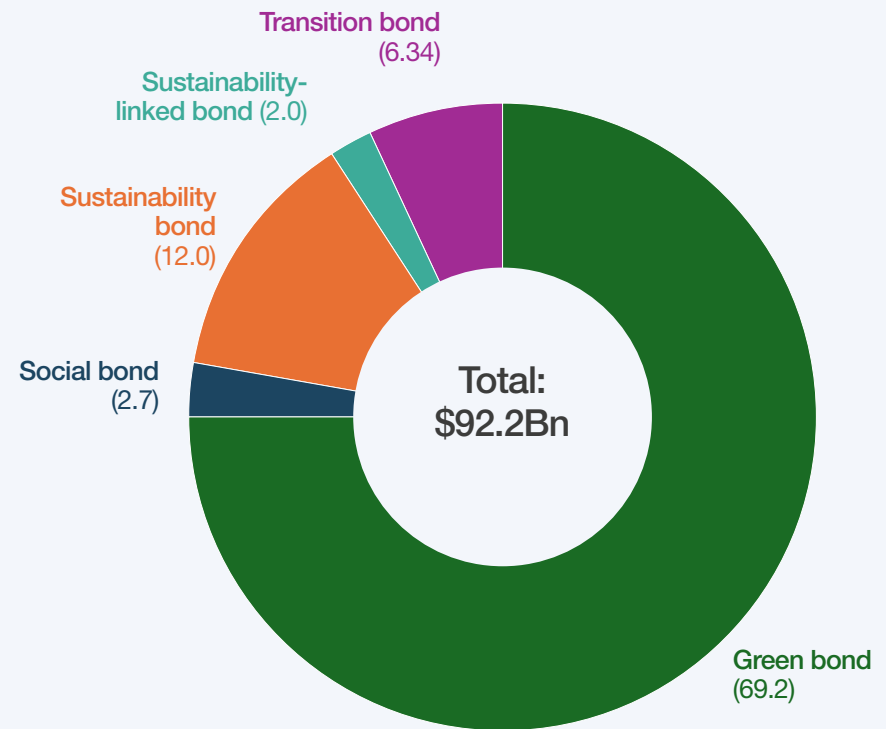
### Monthly number of bonds issued in 2025



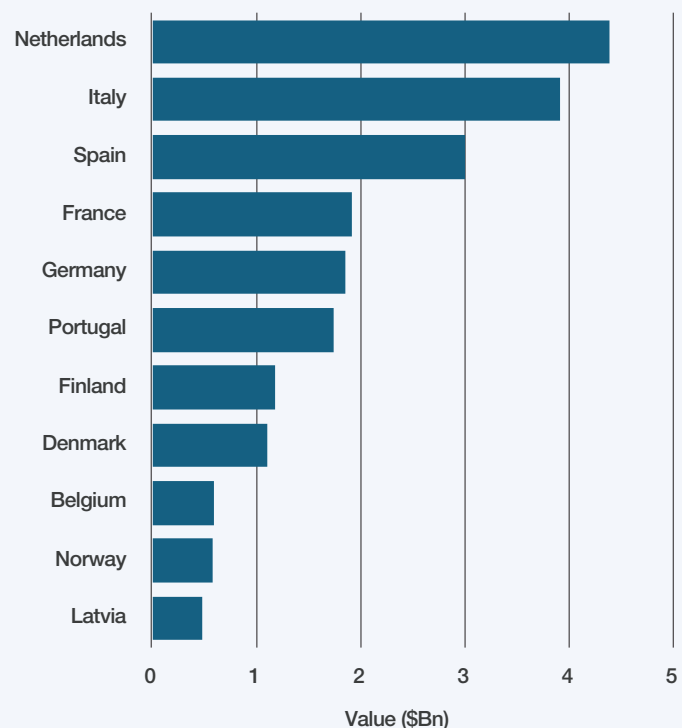
Sovereign sustainable bond issuance by year



Breakdown of sovereign sustainable bond market 2025 (\$Bn)



### European Green Bond issuance by country

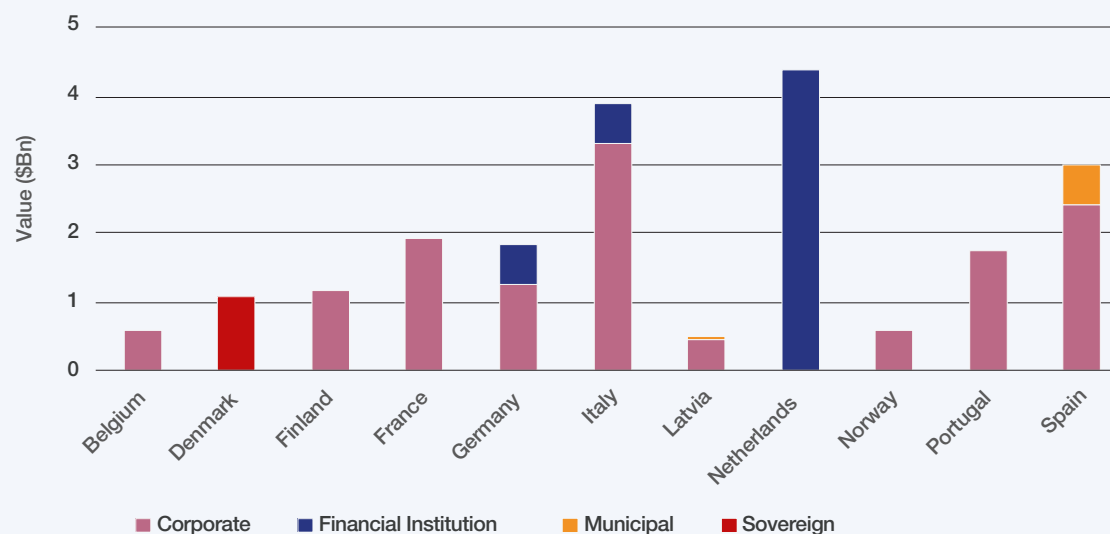


The growth of the European Green Bond (EuGB) label since its introduction in December 2024 has outstripped expectations. Nearly \$24 billion has since been issued across 25 issuers, with more EuGB factsheets being published by issuers every month.

The EuGB label has been described as the ‘gold standard’ and there is evidence that early transactions have attracted stronger orderbooks and pricing, according to *Environmental Finance*.

There were initial concerns that the high standards for reporting would slow

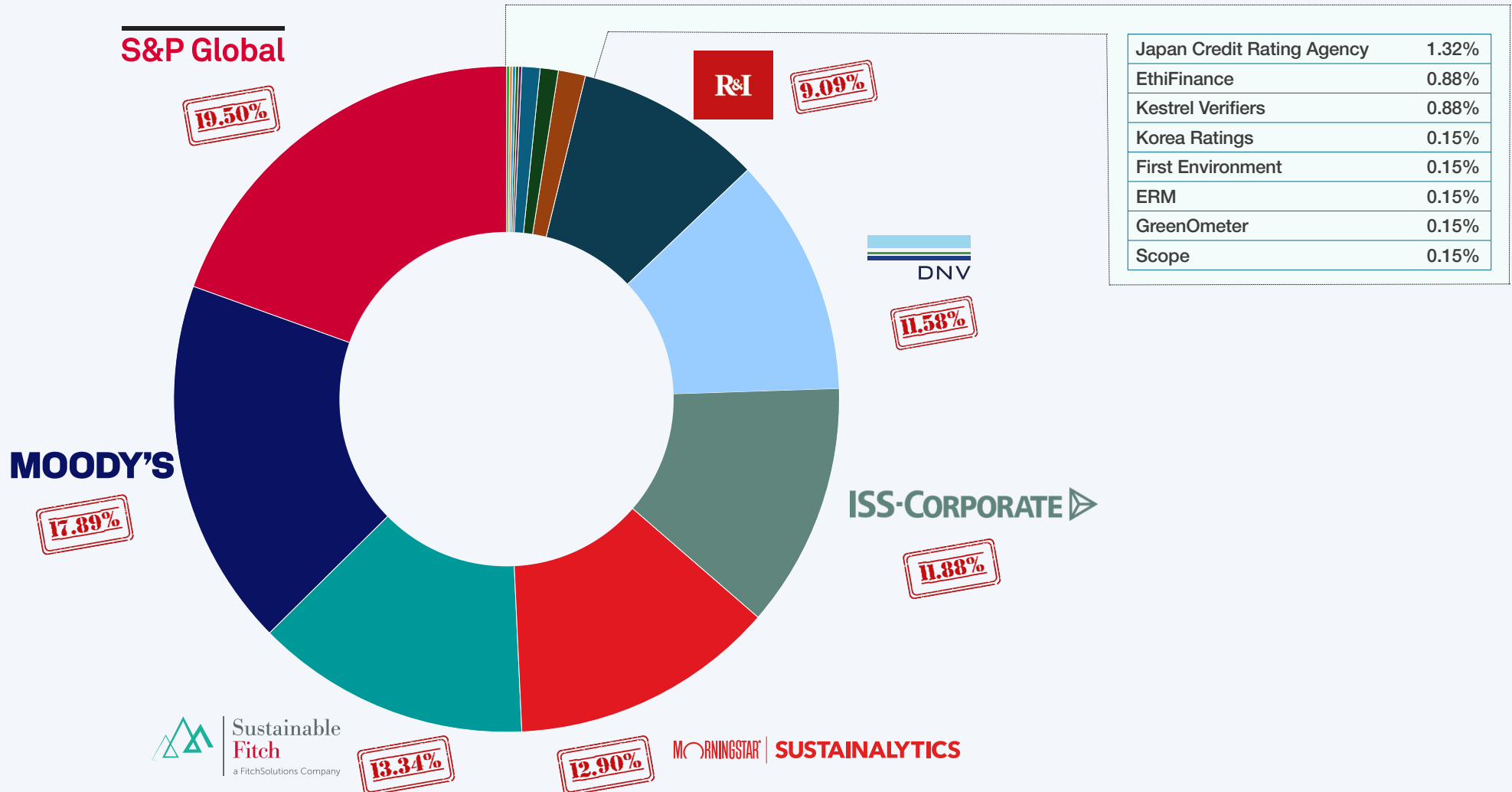
### European Green Bond by issuer type



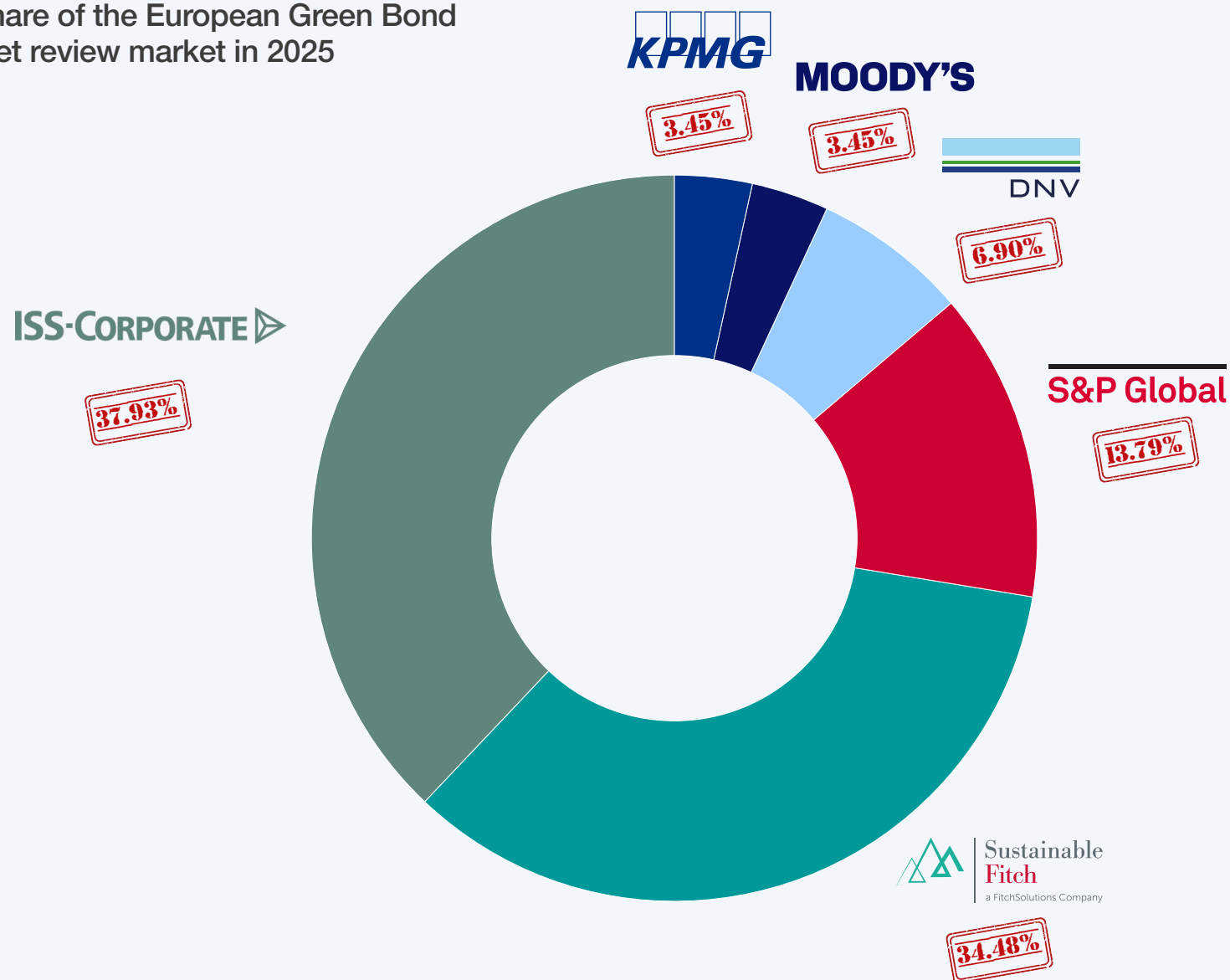
adoption, but a wide range of issuers have entered the market: sovereigns and agencies such as the Kingdom of Denmark, the European Investment Bank, and Comunidad Autonoma de Madrid, and financial institutions such as ABN Amro, Banco BPM, and Deutsche Kreditbank, and corporates such as Norsk Hydro and Eurogrid.

Towards the end of 2024, the European Commission published an FAQ that raised a few structural issues and put a few transactions on hold. Clarification of these factors should result in further issuance, and, under these circumstances, we expect continued growth for EuGBs in 2026.














Second-party opinion (SPO) providers share of the SPO market in 2025



SPO providers share of the European Green Bond (EuGBs) Factsheet review market in 2025








Top 15 lead managers of 2025




Lead manager	Value (\$M)
 CRÉDIT AGRICOLE CORPORATE & INVESTMENT BANK	47,280
 BNP PARIBAS	42,432
 HSBC	39,854
 Deutsche Bank	34,014
 citi	32,587
J.P.Morgan	31,179
 BANK OF AMERICA	27,134
Morgan Stanley	26,041
 BARCLAYS	25,656
 NATIXIS BEYOND BANKING	21,671
 Goldman Sachs	20,948
 ING	19,292
 TD Securities	17,887
 NOMURA	17,343
 NatWest	17,240

Methodology: the value of bonds with multiple lead managers was pro rated equally to each lead manager.





Top 5 lead managers for EUR-denominated bonds in 2025

Lead manager	Value (\$M)
 CRÉDIT AGRICOLE CORPORATE & INVESTMENT BANK	37,697
 BNP PARIBAS	28,252
 Deutsche Bank	25,473
 NATIXIS BEYOND BANKING	19,990
 ING	17,802

Top 5 lead managers for USD-denominated sustainable bonds in 2025

Lead manager	Value (\$M)
Morgan Stanley	15,676
 citi	15,096
J.P.Morgan	12,614
 BANK OF AMERICA	11,810
 HSBC	11,604

Top 5 lead managers for JPY-denominated sustainable bonds in 2025

Lead manager	Value (\$M)
 NOMURA	6,996
 MIZUHO	6,673
 Daiwa Securities Group Inc.	5,120
 SMBC SMBC NIKKO	4,699
Mitsubishi UFJ Morgan Stanley	4,473

### Top 15 lead managers for green bonds in 2025

Lead manager	Value (\$M)
Credit Agricole CIB	27,672
BNP Paribas	25,601
Deutsche Bank	18,992
Morgan Stanley	17,809
HSBC	17,158
ING	15,407
Goldman Sachs	15,249
Citigroup	14,552
JP Morgan	14,170
Barclays	13,197
Natixis	12,423
Bank of America	10,905
SEB	9,920
Santander	9,825
NatWest	9,777

### Top 15 lead managers for social bond issuance in 2025

Lead manager	Value (\$M)
Credit Agricole CIB	9,169
Natixis	6,078
Deutsche Bank	6,060
Nomura	5,910
Bank of America	5,741
JP Morgan	4,026
Barclays	3,671
Royal Bank of Canada (RBC)	3,504
HSBC	3,497
BNP Paribas	3,487
Mizuho Securities	3,351
Citigroup	3,165
NatWest	2,747
Daiwa Securities Group	2,621
SMBC Nikko	2,510

### Top 15 lead managers for sustainability bond issuance in 2025

Lead manager	Value (\$M)
HSBC	18,852
Citigroup	13,632
JP Morgan	11,950
BNP Paribas	11,829
TD Securities	10,868
Bank of America	9,810
Credit Agricole CIB	9,055
Deutsche Bank	8,438
Barclays	7,804
Morgan Stanley	6,422
BMO Capital Markets	6,361
Nomura	6,208
Scotiabank	6,168
Wells Fargo	5,685
Royal Bank of Canada (RBC)	5,503

### Top 5 lead managers for sustainability-linked bond issuance in 2025

Lead manager	Value (\$M)
Credit Agricole CIB	1,588
BNP Paribas	1,514
Santander	1,249
Citigroup	1,238
JP Morgan	1,031

### Top 5 lead managers for transition bond issuance in 2025

Lead manager	Value (\$M)
Mizuho Securities	643
Nomura	618
Daiwa Securities Group	446
Mitsubishi UFJ Morgan Stanley Securities	318
SMBC Nikko	288

# Setting the benchmark: the EIB on EU Green Bonds and global standards

As the lending arm of the European Union, the European Investment Bank is the one of the biggest multilateral financial institutions in the world and one of the largest providers of climate finance. Its head of investor relations and sustainable finance, **Peter Munro**, outlines how the bank's sustainable funding activity continues to play a pathfinder role for markets; notably, leading by example in making positive use of gradual alignment with EU regulations, while incorporating and promoting the interoperability of standards globally

## **Environmental Finance: How would you characterise the current state of the green bond market?**

**Peter Munro:** According to *Environmental Finance Data*, as of today, cumulative use-of-proceeds issuance reached around \$6.5 trillion. The run rate has reached broadly around \$1 trillion a year. Also, Europe continues to be by far the largest source of labelled issuance and in the vanguard of demand. That supports the role of green bonds as a mainstream asset class and underscores European leadership.

One interesting question is how that notion of “mainstream” can align with conventional bond merits. For several years now, the European Investment Bank (EIB) has been issuing benchmark-sized green bonds that echo financial features of conventional benchmark bonds. From an investor's perspective, that has benefits in reconciling key financial features such as liquidity with sustainability.

EIB has set a reference for integrity at scale, as the largest sovereign, supranational, and agency (SSA) issuer of labelled bonds with reasonable assurance, and by employing the EU Green Bond Standard (EU GBS). The Bank has issued over €130 billion (\$154 billion) in green and sustainability bonds to date, and 2025 was a record year – with almost €28 billion issued. It included EIB's first, and the market's



Peter Munro

largest, European Green Bond (EuGB) of 2025, at €3 billion. It highlighted the merits and strong appeal of this new EU standard in terms of Taxonomy and non-Taxonomy features. This EuGB built on the fruits of a longstanding strategy of gradual alignment of EIB green and sustainability bonds with the EU Taxonomy – which continues for EIB's traditional green and sustainability bonds.

Meanwhile, there has been a general move to alignment of such EIB bonds with the non-Taxonomy features of the EuGBS, offering markets a benchmark for what to expect, regarding the issuance framework, reporting and verification.

## **EF: What is driving that demand?**

**PM:** While bond market conditions more broadly have been conducive, we believe strongly that investors are responding to a consistent overall funding strategy combined with EIB's strategy and reputation for quality in sustainable finance. This is characterised by transparency and accountability, leveraging gradual, pragmatic alignment with EU regulations.

Such results do not emerge overnight. It's the result of years of work. From what we hear, investors value the level of transparency and standardisation offered by EIB's issuance framework, reporting and high standards of assurance,

### Selected EIB projects with EuGB allocations



Czech Republic: Modernisation of ČEZ's distribution grid and connection of new renewable energy sources



Denmark: EIB finances Danish railways by replacing diesel-powered trains with electric units



Spain: Supported the development, modernisation and digitisation of Iberdrola's electricity distribution networks, a project with an impact on twelve Spanish regions

referencing clear EU standards.

Order books illustrated this lately. The EIB EuGB was 13 times oversubscribed, while EIB's traditional green bonds included the largest ever five-year order book, at over €50 billion.

**EF: Some market participants were cautious about the uptake of European Green Bonds. How do you see that sentiment evolving in 2026?**

**PM:** In its first year, the market already moved well into double-digits for the number of issuers adopting the EuGB label, exceeding some expectations. What is particularly noteworthy is the diversity of eligible economic activities selected by the issuers. The so far published EU Green Bond Pre-Issuance Factsheets span more than 30 economic activities across three taxonomy objectives. There are also signs of further traction for EuGB issuance going into 2026 – it seems such bonds are highly appealing for investors, including the standardisation,

clarity and comparability of data delivered.

**EF: What lessons have you learned from issuing a green bond aligned with the EU GBS?**

**PM:** One of the main lessons is to plan according to organisational readiness, with gradual onboarding of the EU GBS. We have found that gradual alignment delivers results.

Some counterparties are more advanced than others. Therefore, the data landscape is not homogenous. As such, EIB was selective. Rather than trying to cover our entire portfolio, we focused on a limited number of sectors and clients, considered as most practical in a first phase.

That progressive approach proved to be a successful strategy. It also supported learning across the organisation.

**EF: What is the EIB's overall strategic framework for climate finance?**

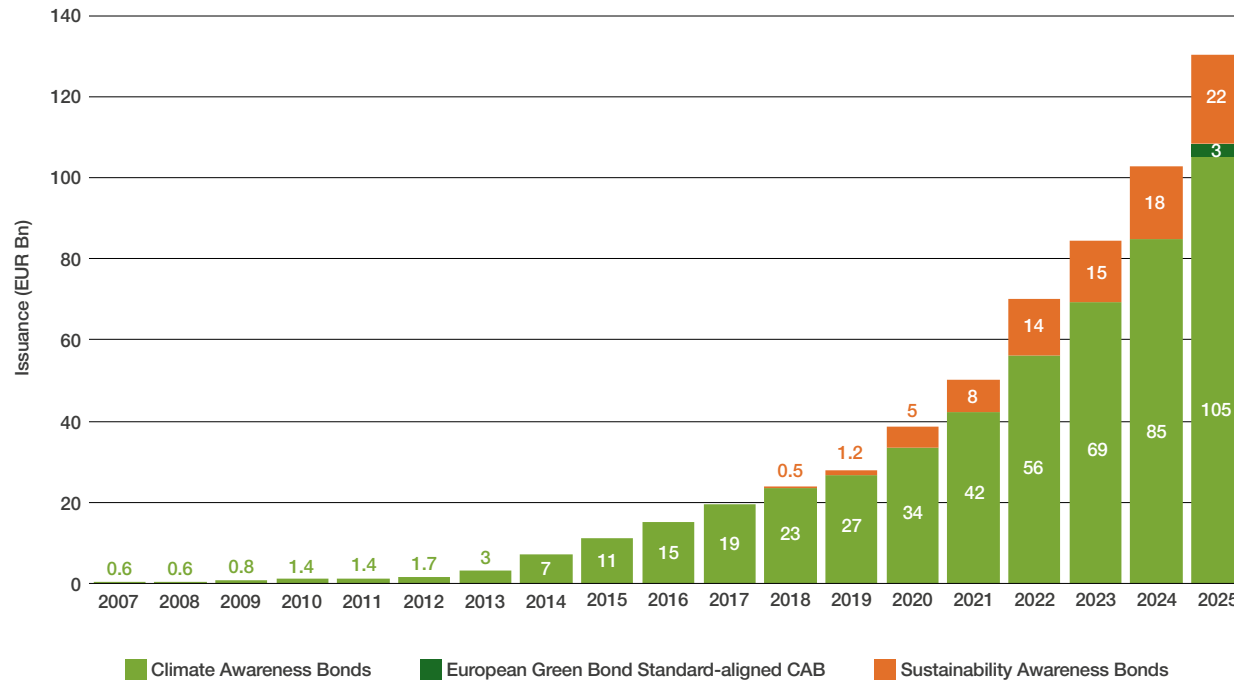
**PM:** The EIB's Climate Bank Roadmap 2.0, published in the

autumn of 2025, provides the overall framework for the next five years. The roadmap offers three relevant pillars for capital markets. The first is staying the course on climate, which is particularly important in the current environment. The second is pragmatic, gradual alignment with EU sustainable finance regulations. The third is leveraging simplification for enhanced scalability.

**EF: How is EIB's broader climate strategy being reinforced?**

**PM:** Among the other initiatives welcomed by credit rating agencies and markets more generally has been to introduce the evaluation of climate risk – since 2020. In addition, EIB has been applying carbon pricing to project economics for much longer. Also, since 2021, new projects must generally be Paris-aligned under the Bank's PATH framework. Under this initiative, the EIB fosters a coherent decarbonisation strategy among higher-emitting customers.

Cumulative CAB and SAB issuance



We've even seen this start to influence credit rating agency assessments, particularly as climate and biodiversity risks move up their agendas.

**EF: How is the EIB extending its range of activities as part of the updated Climate Bank Roadmap?**

**PM:** There's a stronger emphasis now on adaptation, resilience, biodiversity, and just transition. EIB has a target of €30 billion for adaptation alone during 2026-30.

Overall, we aim to support at least €1 trillion in green investment over the decade. That doesn't mean we finance it all ourselves, but we aim to enable it.

**EF: Looking beyond climate, what progress did EIB make recently on social and other environmental criteria?**

**PM:** On the social side, a key milestone in 2025 was the Bank's expansion of eligibility for Sustainability Awareness Bonds (SAB) to cover two new social objectives: gender equality and women's economic empowerment. As a consequence, proceeds can now be allocated to projects fostering access to finance for areas such as female entrepreneurship and promoting gender equality.

More recently, the EIB also published its updated SAB Framework, further aligning its approach beyond climate,

notably by embracing Technical Screening Criteria of the Taxonomy for Substantial Contribution and Do No Significant Harm (DNSH), as well as Minimum Safeguards criteria, for a relevant sample of projects.

**EF: Looking ahead, does EIB plan to maintain the mix of alignment with International Capital Market Association (ICMA) and EU standards? Also, do you see room to further develop and integrate sustainable bond markets, and can you point to relevant EIB initiatives and partnerships with the market?**

**PM:** Yes, on all counts. ICMA offers a global common denominator. EU regulations are more ambitious, provide a more granular playbook, but also offer an underlying logic and principles that can be replicated globally.

Therefore, to support further development and integration of EU and global markets, two initiatives involving EIB leadership are worth noting. The first is work with the ICMA Principles. There, the EIB is co-chairing a new Task Force on "Official Standards and the GBP". Together with co-chair Crédit Agricole, we aim to lead work to promote interoperability, starting with attention to the EU GBS and focusing on non-taxonomy aspects. Market participants, including investors, as well as expert observers, have emphasised the utility of interoperability to facilitate smoother and more scalable cross-border green capital flows.

A second initiative was a report that EIB coordinated for the EU Platform on Sustainable Finance, on best practices in the gradual application of the EU sustainable finance regulations. It provided evidence that the gradual implementation approach - taken by EIB as well as several other public-sector green bond issuers - enjoys broad support and yields benefits.

The mix of leading by example and putting experience at the service of the market has been a recurring feature of EIB's contribution. EIB's policies continue to combine pragmatism with ambition. EU regulations, such as the Taxonomy, remain a North Star. ■

For more information, see: [www.eib.org](http://www.eib.org)

# The 'Four Rs' of sustainable finance: how growth, risk and resilience are reshaping the sustainable bond market

Lloyds Corporate & Institutional head of sustainable finance and transition **Hannah Simons** explains how the 'Four Rs' – revenue growth, risk management, resilience and reputation – are shaping issuance strategies, investor expectations and the next phase of market evolution

**Environmental Finance:** The sustainable finance industry is increasingly framing sustainability around the 'Four Rs'. How is that driving the sustainable bond market today, particularly when engaging with issuers?

**Hannah Simons:** At its core, sustainability strategy is business strategy. So, looking at the first 'R' – revenue growth – companies that embed sustainability across their strategy are better positioned to identify and capture new revenue opportunities reflecting shifting customer expectations. Within the context of sustainable bonds, issuers that can clearly articulate their sustainability objectives – and demonstrate how those objectives are embedded in their business model – are able to differentiate themselves and broaden their investor base.

Risk management – the second 'R' – has become increasingly critical. Companies are operating in a rapidly evolving regulatory landscape, and supply chains are longer and more complex, alongside heightened physical and transition climate risks. Sustainable bond frameworks help organisations articulate how they are identifying, managing and mitigating those risks. Importantly, they also bring stronger governance and transparency. Data collection, to facilitate the reporting obligations, together with the assurance requirements associated



Hannah Simons

with labelled bonds materially strengthen internal decision making and risk oversight.

Next, resilience is about future-proofing the business. Whether through investing in more resilient infrastructure, strengthening supply chains, or transitioning to cleaner and more secure energy sources, sustainability-aligned investment supports long-term operational resilience.

Finally, reputation. Sustainability can be a powerful – but also challenging – dimension of corporate reputation. A credible sustainability strategy, consistently communicated through financing instruments such as sustainable bonds, helps build trust with all stakeholders including investors, regulators, employees, customers and communities. That trust underpins a company's licence to operate and its ability to demonstrate leadership in sustainable business practices.

**EF:** Are investors increasingly assessing sustainable bonds through this 'Four Rs' lens as well? How is that influencing issuer behaviour and structuring decisions?

**HS:** Investors typically assess sustainable bonds through two complementary lenses. First, they scrutinise the bond itself: the use of proceeds or the key performance indicators (KPIs),

eligible activities and alignment with recognised standards such as the International Capital Market Association's (ICMA) Green Bond Principles. But, just as importantly, they assess the issuer at the entity level. Investors want to understand the broader corporate strategy: how sustainability is embedded across the business and how the company is transforming over time. It is at this issuer-level assessment where the 'Four Rs' really come into play.

This two-tier approach is not new, but it has become more pronounced. Investors are placing greater emphasis on long-term business strategy, transition planning and resilience. For issuers, this means that a labelled bond is no longer just a funding decision; it is also a strategic signalling tool.

A sustainable bond framework allows issuers to signal clearly that they are committed to sustainable growth, proactive risk management, enhanced resilience and strong governance. That signal can attract new and different investors – including those who may not have participated in an issuer's conventional bond offerings.

We consistently see that labelled issuance can expand and diversify the investor base. Even amid regulatory evolution, including changes to sustainable finance disclosure regimes, demand for sustainable investment remains strong. Issuers that articulate a clear and credible sustainability ambition through their frameworks are better positioned to benefit from that demand.

**EF: Taking each 'R' in turn, how are sustainable bonds actively supporting growth strategies for issuers today?**

**HS:** There is a persistent misconception that sustainability and growth are in tension. In reality, when executed well, they are mutually reinforcing.

Many sustainability initiatives require significant upfront capital. By driving business growth, companies generate the resources needed to reinvest in those initiatives.

Sustainable bonds play an important role in this cycle. They enable issuers to access high-quality, long-term capital that is aligned with their growth strategy. Clear growth signals, in turn, strengthen investor confidence and can further enhance access to capital.

There is also strong evidence that sustainable products and services themselves are in demand. Numerous consumer studies continue to show appetite for offerings that reduce environmental impact, improve resource efficiency and uphold ethical labour practices.

Companies that integrate sustainability into product design and operations often see both cost efficiencies – such as reduced waste – and increased product attractiveness.

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**Investors are placing greater emphasis on long-term business strategy, transition planning and resilience. For issuers, this means that a labelled bond is no longer just a funding decision; it is also a strategic signalling tool**

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**EF: Does the broader universe of conventional bond issuers understand how sustainable bonds can help address transition, physical and regulatory risks?**

**HS:** Companies that are already well advanced on their sustainability journey – often evidenced by repeat issuance – generally understand the benefits very clearly. Use-of-proceeds bonds, for example, can demonstrate directly how capital is being deployed to reduce transition risk through low-carbon investments. Sustainability-linked bonds (SLBs), meanwhile, allow issuers to link financing costs to performance against decarbonisation or transition-related KPIs.

Where hesitation sometimes remains is among issuers who believe their strategy is already well understood by the market. In those cases, the value of a sustainable bond framework can

be underestimated. However, the framework forces clarity. It requires issuers to articulate, in a structured and transparent way, how the business is transforming and how capital allocation supports that transformation.

**EF: How can issuers design their frameworks to explicitly strengthen resilience, rather than simply meeting minimum disclosure requirements?**

**HS:** This is an evolving area, but recent market guidance offers useful direction. One important development is the growing emphasis on transition planning. The latest climate transition finance guidance from ICMA, alongside the Guide to Transition Loans, jointly published by the Loan Market Association (LMA), Asia Pacific Loan Market Association (APLMA), and Loan Syndications & Trading Association (LSTA), highlights the importance of forward-looking plans, milestones and governance processes that show how a business is adapting over time.

Embedding these elements into a bond framework strengthens resilience by linking today's investments to long-term strategy.

Another key area is resilience and adaptation. Recent updates to the ICMA's Green Bond Principles place greater emphasis on nature-related investments, such as water stress management and nature-based solutions. These categories allow issuers to address physical climate risks and ecosystem dependencies more explicitly within their financing frameworks.

**EF: How do issuers strike the right balance between ambition and credibility?**

**HS:** Balancing ambition and credibility is critical, particularly given heightened regulatory scrutiny and greenwashing risk. It comes down to clearly articulating the targets that have been set, alongside transparent disclosures that demonstrate how those targets will be delivered and how progress will be tracked.

Ambition needs to be grounded in materiality. Issuers should focus on the environmental and social issues that are most relevant to their business model and risk profile. KPIs and eligible categories should be intrinsically linked to core operations.

Credibility is reinforced through robust disclosure, clear methodologies and accountability. Both use-of-proceeds bonds and SLBs require issuers to collect data, report on outcomes and often obtain external verification or assurance. That discipline improves data quality and strengthens trust with stakeholders.

**EF: Turning specifically to security themes within the risk and resilience piece, how are you approaching issues such as energy security and cyber resilience within the sustainable bond context?**

**HS:** These topics are still relatively early-stage discussions within sustainable bond frameworks. At present, the focus is more on understanding these risks and how companies are adapting, rather than defining entirely new eligible categories.

Energy security is the most established of these themes. Investments in renewable energy and energy efficiency – already core green bond categories – can also enhance security of supply by reducing reliance on imported fuels and improving system resilience.

Cyber resilience is newer but growing rapidly in importance. As businesses become more digitally dependent – through smart grids, digital reporting platforms and data-driven operations – cyber security becomes integral to business continuity. Over time this may translate into financing frameworks as capital investment in cyber resilience increases.

**EF: Defence and national security are increasingly prominent topics. How is the market navigating the intersection between national security priorities, investor expectations and sustainable bonds?**

**HS:** Firstly, it is important to be clear that we are not talking about controversial weapons prohibited under international treaties here. The discussion here is about conventional defence activity and how it may feature within broader financing strategies.

Secondly, from a regulatory perspective, both the UK and the European Union have been explicit that investment in the defence sector is not inherently incompatible with sustainability-related regulation. In the UK, for example, the Financial Conduct Authority has clarified that its Sustainability

Disclosure Requirements do not prohibit investment in defence companies.

That said, investor expectations vary. ICMA has stated that the Green and Sustainability Bond Principles are not inherently incompatible with defence-related issuers, but it also highlights the importance of understanding investor preferences and appetite.

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**Credibility is reinforced through robust disclosure, clear methodologies and accountability. Both use-of-proceeds bonds and SLBs require issuers to collect data, report on outcomes and often obtain external verification or assurance. That discipline improves data quality and strengthens trust with stakeholders**

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Meanwhile, defence companies have continued to access capital markets effectively through conventional bonds and other financing solutions. The question, therefore, is not whether defence issuers can access sustainable finance, but whether doing so meaningfully advances their strategy and aligns with their investor base.

**EF: Do these newer and harder-to-define risk areas lend themselves more naturally to SLBs rather than the use-of-proceeds structures?**

**HS:** SLBs are particularly well suited to emerging risks and opportunities where transformation is strategic rather than project specific. They allow issuers to articulate how the business is evolving – whether around transition planning, nature, cyber resilience or broader operational transformation – before capital expenditure is fully mapped. As strategies mature and investment pipelines become clearer, issuers often evolve towards use-of-proceeds bonds.

In that sense, the recent decline in SLB issuance in some sectors could be seen as a sign of progress: companies moving from narrative into execution.

**EF: Finally, how do you see the sustainable bond market evolving as these security and resilience themes continue to emerge?**

**HS:** Looking ahead, I see the continued evolution of the sustainable finance market. Over the past year alone, the market has seen the development of blue bond guidelines, deeper integration of nature into green bonds and further refinement of transition finance guidance. An example of this is the blue bond issued by Tideway (Bazalgette Finance), marking a milestone in the UK's evolution of sustainable finance with this being the first-ever blue bond issued by a UK corporate in sterling. Lloyds acted as global coordinator. Security-related themes could follow a similar trajectory.

What will remain constant is the importance of credibility, transparency and alignment with long-term sustainability goals. Sustainable bonds are at their most powerful when they clearly demonstrate how today's capital allocation supports tomorrow's resilient, competitive and sustainable businesses. ■

For more information, see: [lloydsbank.com/thesource](https://lloydsbank.com/thesource)

Lending is subject to status. Eligibility criteria apply.

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# Celebrating a decade of milestones and momentum

As the London Stock Exchange marked the 10-year anniversary of its Sustainable Bond Market, Kelly Gregory and Baylie Thompson discuss the platform's evolution, key milestones, and what lies ahead for sustainable debt markets in 2026 and beyond

**Environmental Finance: The Sustainable Bond Market (SBM) marked its 10-year anniversary last June. Looking back, what key insights or milestones stood out to you, and how would you characterise the market's evolution through 2025?**

**Kelly Gregory:** The 10-year anniversary was a major milestone for us. It marked a decade since we first established dedicated green bond segments on the London Stock Exchange (LSE), which later evolved into today's SBM.

In the decade since its launch, over 190 entities have placed 971 issuances, raising almost \$466 billion. That scale reflects the role the LSE plays within the broader sustainable finance ecosystem.

To mark the anniversary, we brought the ecosystem together at our London headquarters, creating a moment for the key figures behind what started as the Green Bond Principles, and issuers, investors and partners to connect, reflect and look ahead.

An [accompanying blog](#) continued this conversation, exploring how the market has evolved and how use-of-proceeds capital is shaping real-world outcomes.

The breadth of impact is noteworthy, with financing raised through the SBM having supported energy efficiency, natural



Kelly Gregory

resource management, sustainable land use, renewables, green buildings and clean transportation. These categories account for a significant share of the capital raised on the SBM and

demonstrate how environmental and social priorities have become embedded in global funding strategies.

One of the most notable aspects of the SBM's development has been its international reach. Around 39% of the total amount raised has come from offshore issuers as well as 20% from supranational issuers. Since launch, there have been 25 unique currency denominations on the SBM. For those with smaller domestic capital markets, London provides access to a diversified global investor base seeking high-quality sustainable debt. At the same time, issuers benefit from alignment with recognised principles such as the International Capital Market Association (ICMA) guidelines and robust disclosure standards. That combination remains a major draw.

Despite global sustainable bond issuance softening somewhat in 2025, activity on the SBM remained broadly consistent with previous years. We also saw several noteworthy transactions:

In February, the Council of Europe Development Bank (CEB) celebrated a dual milestone: the first sterling-denominated sovereign, supranational, and agency (SSA) social bond listed in London and its first-ever sterling social bond issuance. That marked an expansion beyond its traditional euro issuance and highlighted continued growth in



Baylie Thompson

the social segment with investors.

In May, Dubai real estate developer Omniyat raised \$500 million through its debut green sukuk. The three-year sukuk, priced at 8.375% semi-annual coupon, was oversubscribed, with order books exceeding \$1.8 billion. The transaction marked Omniyat's first entry into the international debt capital markets.

Then, in October, Korea Housing Finance Corporation issued its inaugural sterling covered bond, raising \$300 million. It was the first public sustainability-labelled sterling covered bond by a non-UK issuer on our market.

The SBM also often opens doors for conversations with issuers on how they can create impact outside the traditional labelled market. One such example was in September 2025, when the International Finance Corporation (IFC) completed its first \$510 million securitisation transaction as a new model to mobilise private capital into emerging markets.

By repackaging IFC-originated loans, the structure enabled asset owners and asset managers to scale exposure to emerging

market assets. Whilst the securitisation isn't labelled itself, the loan book covers a number of emerging markets countries and industries that are eligible for green and social bonds.

**EF: How is issuance activity shaping up so far in 2026, and what are your expectations for activity in the year ahead?**

**KG:** We've had a strong start to the year, with over \$14.6 billion raised in January alone.

We recently welcomed Standard Chartered to celebrate its inaugural green bond with a market open ceremony at the London Stock Exchange. In the SSA space, we've seen issuance from the International Fund for Agricultural Development, European Bank for Reconstruction and Development, Asian Infrastructure Investment Bank, IFC and CEB, alongside sovereign transactions from Mexico and Hungary. The diversity of instruments and issuers already has been encouraging.

Although the year is still unfolding, we are seeing a steady pipeline, with issuers continuing to favour use of proceeds formats as a clear way to demonstrate climate and social commitments and to sustain investor engagement. SSA issuance, historically a cornerstone of our market, is expected to remain a key driver of volumes, complemented by a growing cohort of corporate issuers embedding labelled debt into their long-term sustainability strategies.

**EF: Globally, a significant volume of sustainable bonds is scheduled to mature this year. Do you expect a similar 'maturity wave' on the SBM, and how are issuers approaching refinancing?**

**KG:** We expect the global refinancing trend to be reflected on the SBM. It will be interesting to see if issuers roll over into new labelled issuance and reaffirm sustainability commitments.

For many issuers, refinancing provides an opportunity to reaffirm sustainability commitments, update existing frameworks and, where relevant, refine KPIs. Rising investor expectations around continuity, impact reporting and transparency are also encouraging issuers to view refinancing not as a procedural exercise, but as a chance to strengthen their

**Although the year is still unfolding, we are seeing a steady pipeline, with issuers continuing to favour use of proceeds formats as a clear way to demonstrate climate and social commitments and to sustain investor engagement**

sustainability narrative and provide clearer disclosure.

An example is CAF – the Development Bank of Latin America and the Caribbean. Following a framework update and a maturing bond on the SBM, CAF issued its first €1.5 billion (\$1.7 billion) sustainability bond in September, building on an earlier blue bond that year. Investor appetite was very good, with demand exceeding €14.9 billion.

**EF: What feedback do you receive from issuers on the SBM?**

**KG:** Visibility is a major benefit. The SBM provides a platform to showcase their activities, be part of a peer group and attract investors. Market open ceremonies, for example, give issuers a moment to step back and celebrate the transaction – and the progress made.

**Baylie Thompson:** The additional exposure and enhanced visibility are especially valuable to debut and milestone transaction issuers, helping them to broaden and diversify their investor base. The SBM's alignment with industry standards, active oversight of issuers' post-issuance reporting and their commitment to transparent allocation and impact disclosure, and integration into our London Stock Exchange Group

Data & Analytics Platforms collectively helps to reinforce the credibility of transactions and strengthen discoverability.

**EF: Which structural or thematic trends are gaining the most traction this year?**

**BT:** We continue to see growing traction in the blue economy as investors recognise the link between ocean health, water climate stability and long-term economic resilience.

Increasingly, stakeholders expect use of proceeds to be materially linked to an issuer's wider sustainability strategy and core operations. That is one reason we are seeing issuance from sectors such as shipping, water infrastructure and other marine-related activities, where the environmental risks and opportunities are inherently material to operations.

A notable example is Tideway, which became the first UK corporate to issue a sterling-denominated blue bond, raising £250 million (\$339.4 million) in eight-year notes dedicated to marine and freshwater improvements. Known as London's "super sewer", the Tideway Tunnel had already diverted over seven million cubic metres of sewage from the River Thames prior to issuance.

Another important theme is sustainable sukuk, with issuance reaching nearly \$25 billion globally in 2025, accounting for 8.1% of all sukuk issuance in the same period. We expect continued growth and greater issuer diversification: previously dominated by corporates and financial institutions, the segment is now seeing increasing sovereign and supranational participation. For example, in October 2025, the Islamic Development Bank issued a \$500 million green sukuk on the SBM. It was five times oversubscribed, with a broad investor base.

**KG:** January saw the implementation of new Financial Conduct Authority (FCA) Prospectus Rules under the Public Offers and Admissions to Trading regime, alongside updates to our International Securities Market (ISM) rulebook. Under this approach, sukuk instruments guaranteed by sovereigns or central banks are now treated as prospectus-exempt, enabling a faster route to market and more streamlined issuance processes. This further strengthens London's position as a hub for sukuk activity.

**EF: Do you anticipate an uptick in transition bond issuance, particularly as frameworks and taxonomies continue to mature?**

**BT:** Interest in transition finance accelerated over the past year, and we expect momentum to continue into 2026 as policymakers and working groups focus on scaling transition-related capital flows and look at overcoming the challenges around classification, credibility, and how to assess transition pathways.

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**The SBM includes a dedicated transition bond classification to support issuers in carbon-intensive sectors with credible decarbonisation pathways. We believe high-quality benchmark issuances will be crucial in building investor confidence in labelled bonds**

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The Asia-Pacific region is likely to remain dominant, with Singapore, Hong Kong and India all launching transition-related taxonomies and frameworks, and Japan continuing to play a leading role.

The SBM includes a dedicated transition bond classification to support issuers in carbon-intensive sectors with credible decarbonisation pathways. We believe high-quality benchmark issuances will be crucial in building investor confidence in labelled bonds.

With the release of ICMA's Climate Transition Bond

Guidelines and updated Climate Transition Finance Handbook, the market does now have clearer guardrails and more consistent expectations for credible transition financing. We think these developments, alongside the work of the UK Transition Finance Council in developing entity level guidelines, should help to move transition finance from concept to reality.

We are also seeing growing attention on climate adaptation and resilience. A recent example was the Tokyo Metropolitan Government's €300 million issuance – the first certified under the Climate Bonds Initiative's climate resilience taxonomy – which was more than seven times oversubscribed. At the most recent COP in Brazil, governments agreed to triple adaptation finance from public sources by 2035, reinforcing this theme.

**EF: How do you see regulatory developments shaping sustainable finance in 2026 and beyond?**

**BT:** In Europe, the EU Green Bond Standard is expected to see increased uptake in 2026, although it will likely remain a niche segment due to its rigorous requirements. Since entering into force in 2024, momentum has been encouraging, with early-adopting issuers recording strong subscription levels and positive market reception.

Meanwhile, the EU's Sustainable Finance Disclosure Regulation 2.0 is expected to influence capital allocation as funds may recalibrate offerings to fit within the new categories. Transition and sustainability-linked bonds have previously struggled to fit into regulatory sustainable investment categories; the introduction of a new transition category in Article 7 funds may provide clearer positioning and drive both investor appetite and additional issuance. ■

**Kelly Gregory is a product manager, and Baylie Thompson is a senior associate, at the London Stock Exchange. They are both members of the Advisory Council to the Sustainable Bond Principles, 2025-26**

**To learn more about its Sustainable Bond Market, see [www.londonstockexchange.com/raise-finance/debt/ourproducts/sustainable-bond-market](http://www.londonstockexchange.com/raise-finance/debt/ourproducts/sustainable-bond-market)**

# Taking a holistic approach to sustainability integration

Labelled bond-market veteran NRW.BANK is continuing to refine how it mobilises sustainable capital for North Rhine-Westphalia's real-economy transformation, while advancing ESG integration in its own investment portfolio. Felix Baumann and Justin Pelka explain

**Environmental Finance:** NRW.BANK is a veteran of the sustainable bond markets. Can you introduce the bank and explain its approach to funding itself?

**Felix Baumann:** As the promotional bank of the German state of North Rhine-Westphalia, it is our role to support the state government as an economic policy instrument in achieving its structural policy objectives. To do this, we deploy various promotional instruments, primarily subsidised loans, but also increasingly grants – always tailored to the specific financing needs of our borrowers.

Although we are fully state-owned, we neither receive any funding from the state, nor do we pay any dividends or surpluses back to the state government. Instead, we refinance ourselves in the capital markets, raising about €11-13 billion (\$13-15.3 billion) per year across a broad set of instruments, tenors and currencies. Given that our promotional activities are closely linked to all three dimensions of sustainability, we have naturally developed into a consistent and reliable issuer of green and social bonds. As a key pillar of our funding strategy – alongside our conventional benchmark-sized issuances in euros and US dollars – we issue every year at least one green and one social bond in benchmark size, typically ranging from €1 billion to €1.5 billion each. To be able to provide subsidised loans, we generate surpluses through our investments.



Felix Baumann



Justin Pelka

**EF: You are about to publish an updated Green Bond Framework. What changes are you introducing?**

**FB:** Our main objective in updating our Green Bond Framework was to keep up with evolving market expectations and dynamics, mostly triggered by the increasing relevance of European Green Bonds. It is our ambition to align our green bond programme closer to the EU Green Bond Standard (EU GBS), for example, by voluntarily disclosing the share of Taxonomy-aligned assets for each bond.

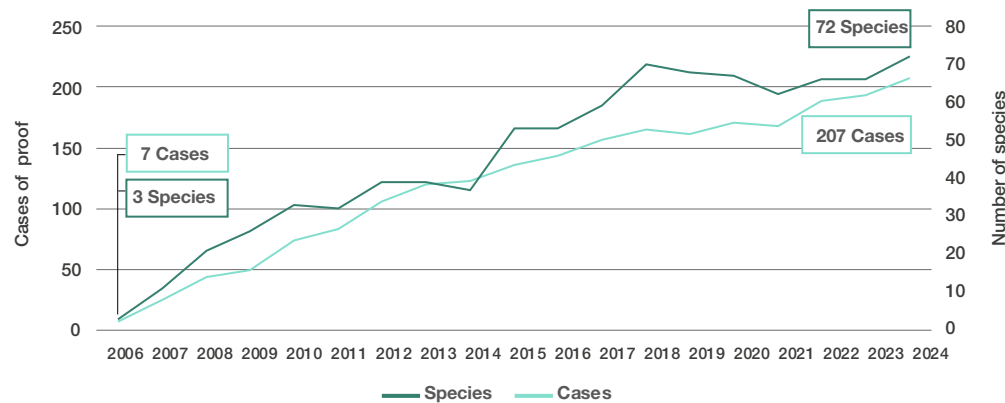
While the EU GBS represents the gold standard for green bonds and the EU Taxonomy provides a robust guideline for defining environmentally sustainable activities, NRW.BANK's mandate is more diverse and complex than the scope of the EU Taxonomy. Therefore, there will continue to be legitimate financing needs that don't align with it. Rather than maximising green issuance volume, our focus is on identifying the intersection between dark green promotional activities and investor demand.

Active investor dialogue is a core principle we have always lived up to and that enables us to continuously improve the quality, robustness and transparency of the impact delivered through our labelled products. Increasingly, investors mention the importance of social co-benefits associated with green investments. With the updated framework, we are therefore piloting a set of selected KPIs designed to capture the positive social and societal outcomes of green investments.

**EF: Can you elaborate on those co-benefits? How are you evolving your measurement and disclosure of impact?**

**FB:** We're in the fortunate position of working closely with a local partner, the Wuppertal Institute, one of Germany's leading research institutions focusing on environmental issues, which conducts the impact measurement for our labelled bonds. Given our long-lasting business relationship and the institute's regional

Emscher river biodiversity status improves significantly



presence, it has a deep understanding of our role and the impacts we seek to achieve with our promotional activities. It serves as an invaluable sparring partner, challenging, refining and strengthening the methodologies and rationales that underpin our impact measurement and reporting.

Impact is at the core of both our promotional mandate and our labelled issuances. A concrete example besides CO<sub>2</sub> emission reductions I enjoy highlighting is the financing for a flagship European nature restoration project, and part of our green bonds since 2013: the restoration of the Emscher river here in North Rhine-Westphalia (see chart). Once heavily polluted and used as an open sewage system, the Emscher has been transformed back into a thriving river ecosystem. Through our green bond programme, investors have supported the restoration of large parts of the river system, enabling biodiversity to recover and key species to return – including endangered ones.

Importantly, the benefits extend beyond nature. Communities along the river benefit from improved environmental conditions, for example, by enjoying increased climate resilience through nature-based flood prevention, the decrease of sewage-related air pollution as well as increased tourism. These benefits translate into tangible improvements in quality of life, illustrating how people benefit when nature benefits.

**EF: This follows your updated Social Bond Framework last year. How were those changes greeted by the market?**

**FB:** The NRW.BANK Social Bond Framework was introduced in 2020, so it is comparatively young next to our Green Bond Framework, which has been in place since 2013. Over recent years, we have experienced a steep learning curve, and have seen market expectations for social bonds increase, particularly with regard to transparency, target population definition and impact reporting.

With our Social Bond Framework update, we have evolved alongside these rising standards and have further refined our rationales and methodologies for measuring impact, especially when it comes to showing how our financing addresses disadvantaged or underserved parts of the population of North Rhine-Westphalia.

Social impact is inherently more contextual than, for example, the reduction in greenhouse gas emissions. Social impact must always be evaluated in relation to local conditions. This more nuanced perspective makes social impact more complex to capture and often less comparable – similar, in many respects, to biodiversity-related impacts.

One specific example is the structural transformation of the economy in North Rhine-Westphalia: from fossil fuel-based heavy industry, powered by lignite and coal, towards a more

diversified, service- and technology-oriented economy. Since the 1990s, parts of the region have faced significant challenges in this transition, including above-average unemployment, highly indebted municipalities and delayed investments in public infrastructure. NRW.BANK Social Bonds are designed to help alleviate these structural disparities in line with our mandate as a promotional bank. Whether financing education, healthcare, housing, small and medium-sized enterprises (SMEs) or municipal investments that deliver public goods, the common denominator is always supporting a disadvantaged target population: through employment generation in structurally weak regions, affordable housing in high-pressure urban markets, or safeguarding essential public services in financially constrained municipalities.

**EF: NRW.BANK subsidises its promotional lending with investment returns generated from the asset side of the bank. How do you integrate ESG considerations into those investments?**

**Justin Pelka:** First, I would like to highlight that we pursue a very conservative investment strategy in our investment portfolio, with the vast majority being public risks and a small exposure to covered bonds or senior preferred bank bonds, as well as corporate risk. NRW.BANK has been committed for a long time to integrating sustainability considerations into its investment activities, including comprehensive climate management measures. One central objective is to ensure that our investment portfolio is aligned with the overarching climate goals of our sole owner, the state of North Rhine-Westphalia.

In accordance with that, NRW.BANK's aim is to achieve a climate-neutral investment portfolio by 2045. To support our ambitions, we are using the Implied Temperature Rise (ITR) metric as a key element of the climate management approach within our corporate portfolio, along with a range of other measures defined in the bank's ESG Investment Framework. Broadly speaking, the ITR estimates the global temperature increase – from 1.3°C to 10°C – that would result if an issuer's emissions trajectory were applied to the entire economy.

As a result of our climate management approach, an issuer's ITR performance is considered in our internal risk assessment

with direct consequences to its limits. Over the past few years of applying our climate management approach, we have gained several important insights.

First, the ITR, like any forward-looking climate metric, is still relatively new and continues to evolve. It is therefore natural that providers refine their methodologies more frequently at this stage, for example in response to client feedback. In addition, the ITR calculation depends partly on the remaining global emissions budget and therefore on the broader global climate trajectory.

In practice, it has also proven essential to strike the right balance between climate ambitions and portfolio diversification considerations. While the ITR provides valuable guidance for our climate considerations, it is important not to place too much emphasis on the metric's complete precision and to continue assessing the issuer's overall profile. Finally, for the approach to be used effectively, it has been crucial that all relevant teams and stakeholders share a common understanding of the metric and its key influencing factors.

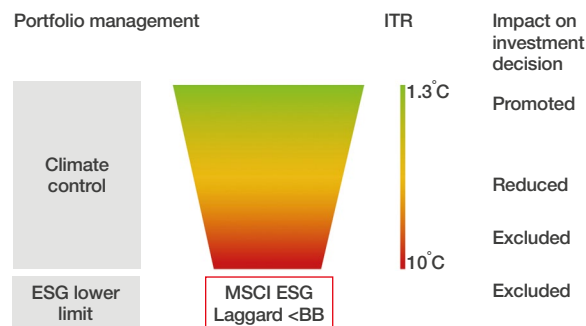
Building on our climate management experience on the corporate side, we are continuously looking to extend it to our entire investment portfolio. We are particularly interested in analysing how we can extend climate management to the public asset class, since it makes up the largest share of our investment portfolio. However, there are specific challenges associated with the application of climate management measures in this asset class – e.g., a naturally limited number of issuers (compared with the corporate investment universe) and difficulties with reducing exposure to (or replacing) certain issuers, such as reserve currency states.

There have been interesting developments in this area recently, with some of the leading data providers releasing climate management metrics for public issuers.

**EF: Specifically, what approach are you taking to climate accounting and reporting?**

**JP:** One thing to note is that, under German law, there is an exemption from the Corporate Sustainability Reporting Directive (CSRD) for promotional banks that have a balance sheet figure below a certain threshold. While this means that NRW.BANK

**ESG-related management of the corporate portfolio**



is currently not actually required to report under CSRD, we have chosen to voluntarily prepare and publish a report and will continue to do so, in order to help strengthen sustainability-related transparency in the financial markets. This also goes hand-in-hand with our broader commitment to comprehensive sustainability reporting to our investors and stakeholders.

Furthermore, it means that we report our financed emissions in line with the Partnership for Carbon Accounting Financials (PCAF) standard. As the PCAF standard and its methodologies continue to evolve, and as data availability improves, we will continue to enhance our internal reporting capabilities.

At the same time, it is important to acknowledge that there are still some challenges when it comes to PCAF reporting, such as limited data coverage and data quality concerns. Overall, however, we are confident that we are going to keep seeing improvements over time, for example, through collaborative efforts of policy makers, data providers and the reporting institutions themselves.

**EF: Looking forward, how is the context evolving for NRW.BANK's promotional lending and your investment portfolio?**

**FB:** Geopolitical dynamics do not stop at the doorstep of a regional promotional bank. As the industrial heartland of

Germany, North Rhine-Westphalia has been particularly exposed to the economic shocks over the past few years. The federal government's infrastructure package will provide urgently needed capacity for investment. Whatever shape the disbursement of funds will take and however it alters the promotional landscape in Germany, we are well positioned to complement and leverage these investments with our promotional programmes.

The encouraging news is that, even without the flow of funds having started yet, we see record demand for green infrastructure projects. While there is a perception of negative sentiment towards ESG investing, we don't see any decline in green and social lending – in fact, it's the opposite. That said, scepticism towards ESG has reinforced the importance of integrating social co-benefit impact reporting into our Green Bond Framework. It's an effective way to demonstrate that green investments deliver tangible social value and have societal materiality – without an ideological agenda.

Regardless of how the borrowers' needs evolve, we will remain a reliable partner – in providing impactful promotional financing for companies, municipalities and individuals, and in enabling investors all around the world to participate in these success stories.

**JP:** I can only agree on that from the investment side. It has been noticeable that ESG blowback has led to reduced publicly communicated ambitions in certain areas and the refocusing of reporting toward simplification and harmonisation. At the same time, it is encouraging that we see that many investors are maintaining their commitments to integrating sustainability into their business activities and their investment portfolios. At NRW.BANK, we continue to stand firmly with those investors, maintaining a strong sustainability focus, based on our mission and our mandate. ■

**Felix Baumann and Justin Pelka are both specialists in ESG and investor relations at NRW.BANK in Düsseldorf, Germany.**

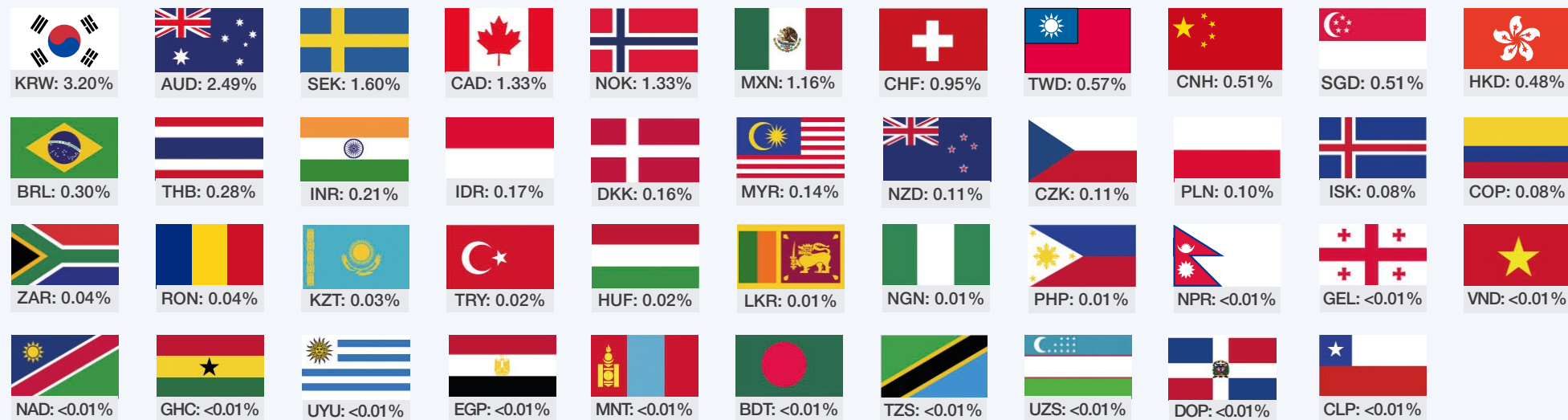
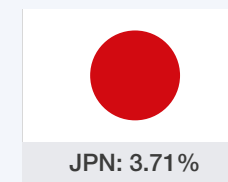
**For more information, see: [www.nrwbank.de/en/about-us/sustainability/sustainable-capital-market-business/index.html#Bonds](http://www.nrwbank.de/en/about-us/sustainability/sustainable-capital-market-business/index.html#Bonds)**

The euro and US dollar proved again to be the dominant currencies for sustainable bond issuance, with renminbi becoming the third most popular currency, spurred by a rapid expansion of domestic Chinese issuance.

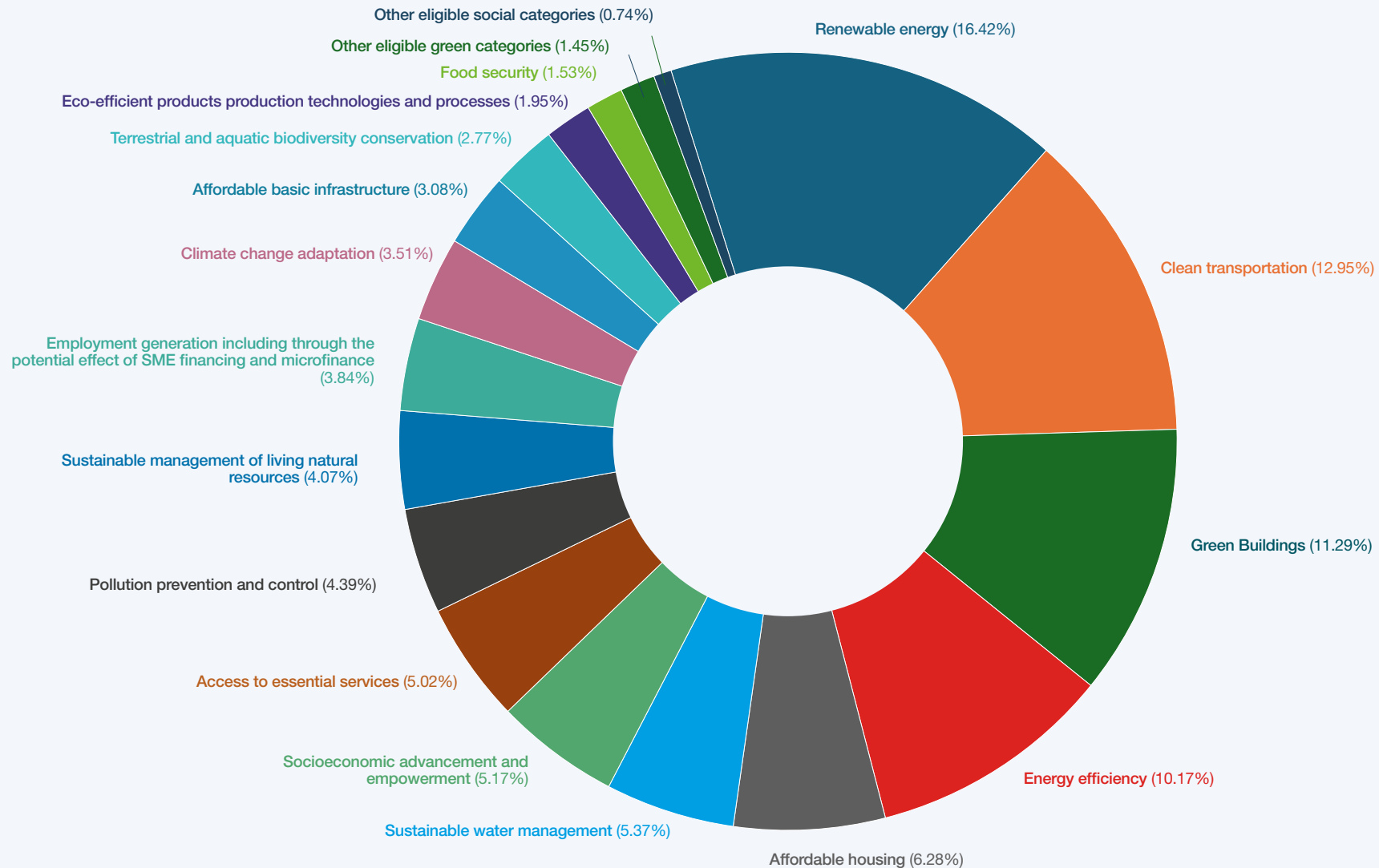
Sterling also had a strong year – coming fourth – helped by an active year for the UK government’s green bond programme, ahead of Japanese yen, which dropped to fifth place. Taken together, it shows issuer preference for issuing in

hard currencies allowing for easier access to capital.

A marked shift is renminbi issuance growing rapidly from 4.8% of the market in 2024 to 11.7% of the market in 2025, while the US dollar fell from 26.9% to 24.4%, highlighting China’s willingness to step-up its sustainable financing as the US steps back.



### Use of proceeds breakdown of bonds issued in 2025 by share of value

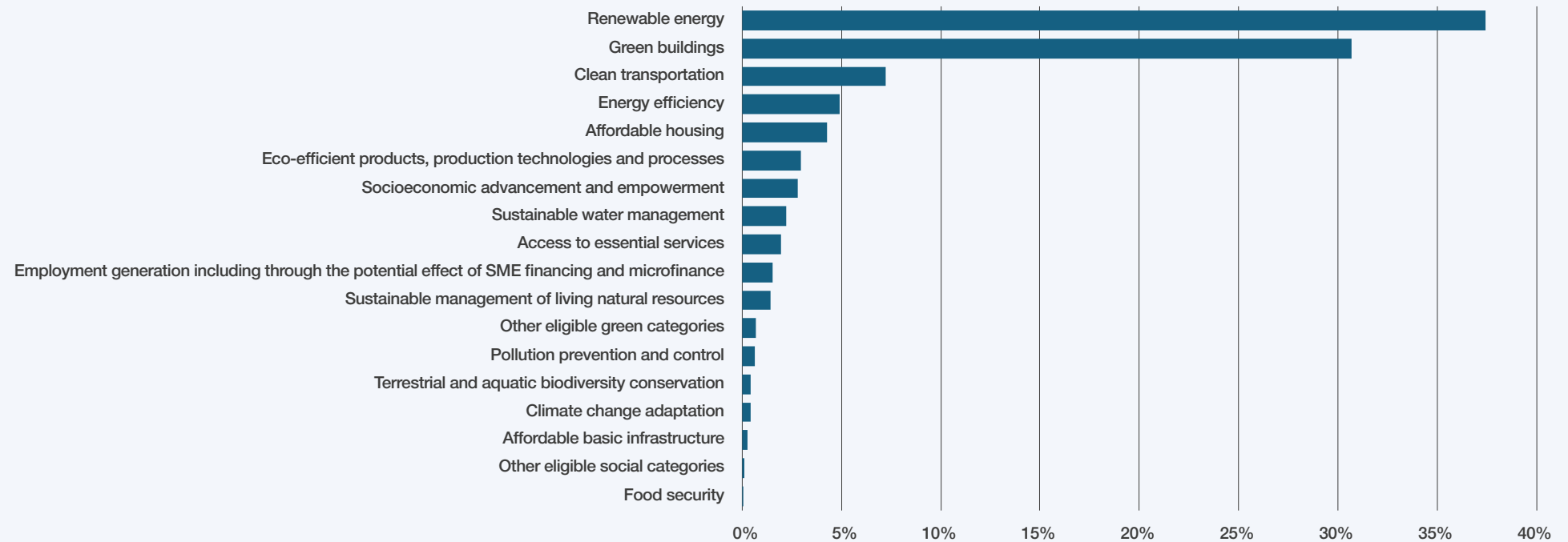


Methodology: the value of bonds with multiple use of proceeds was pro rated equally to each use of proceed.

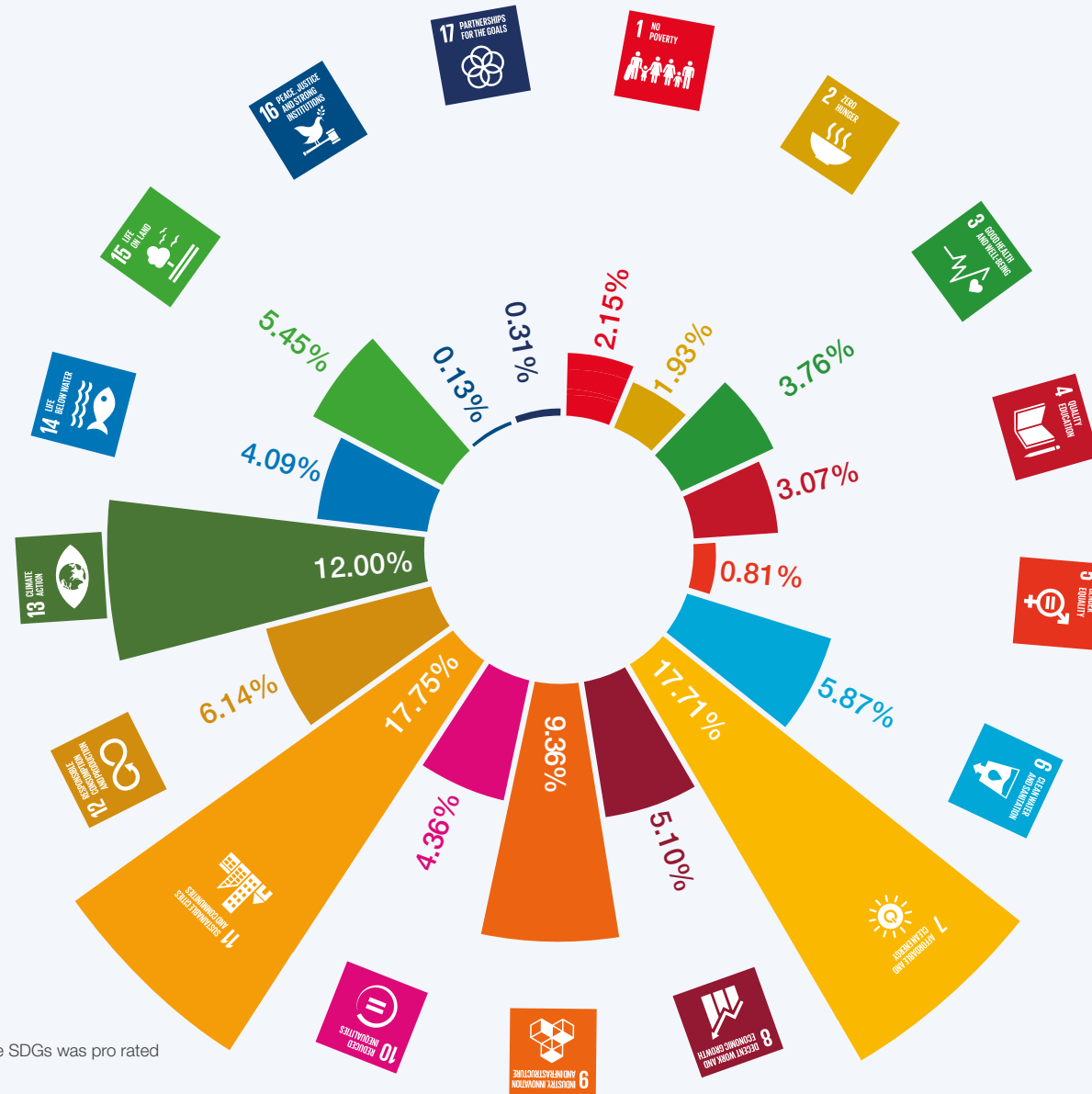
Sustainable debt issuers are not obliged to allocate to all framework use of proceeds equally, or at all. However, transparency for investors and issuers moves the market forward, and many issuers increasingly report on their sustainable debt activities with detailed reports on the allocation of bond proceeds.

Our all-time bond data shows that over 68% of the funds raised by sustainable bonds are allocated to just two use-of-proceeds, renewable energy and green buildings. Meanwhile 90% of all funds raised by sustainable bonds are allocated to only seven use of proceeds, with five of those being green.

Post-issuance allocation of use of proceeds bonds



# Breakdown of bonds aligned with the SDGs in 2025



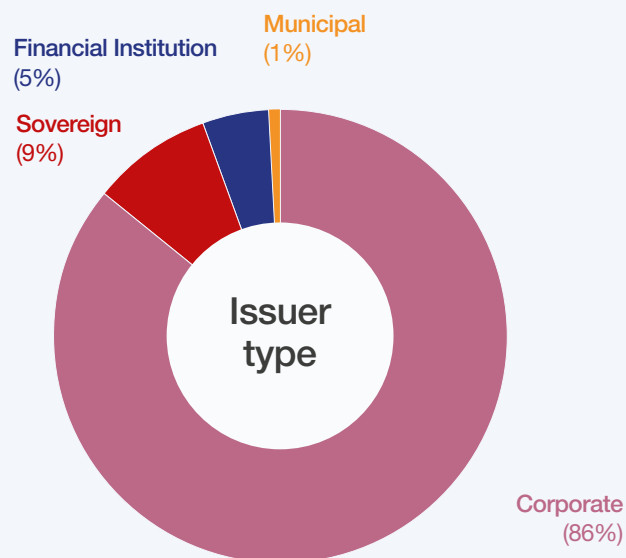
Methodology: the value of bonds with multiple SDGs was pro rated equally to each SDG.



Average of coupon	
2021	2.52%
2022	3.71%
2023	4.39%
2024	4.22%
2025	4.15%

Coupons in the sustainable debt market are inextricably linked to interest rates in the wider market. After peaking in Q3 2023 in response to covid-19-linked inflation and energy price shocks, coupons have been gradually trending down – with 2025 continuing this trend as inflationary pressures abate. This trend has put further pressure on the already diminished ‘greenium’.

### Issuer type breakdown of sustainability-linked bonds in 2025 by value

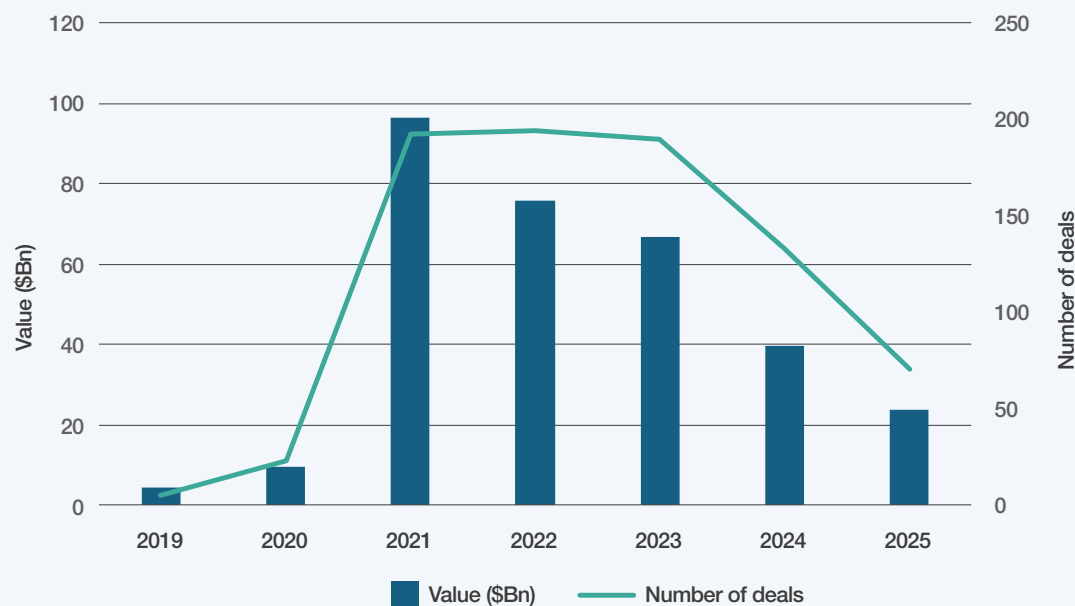


Methodology: the value of bonds with multiple KPIs was pro rated equally to each KPI.

Sustainability-linked bonds (SLBs) continued their steady decline in 2025 with only \$23.5 billion in issuance compared with the label's 2021 peak of \$96 billion, a decline of over 75%.

The label saw strong demand in 2021 after guidelines were formalised in 2020, however the market for SLBs has seen a confluence of challenges that have led to dwindling enthusiasm. Notably rising interest rates, high-profile target misses

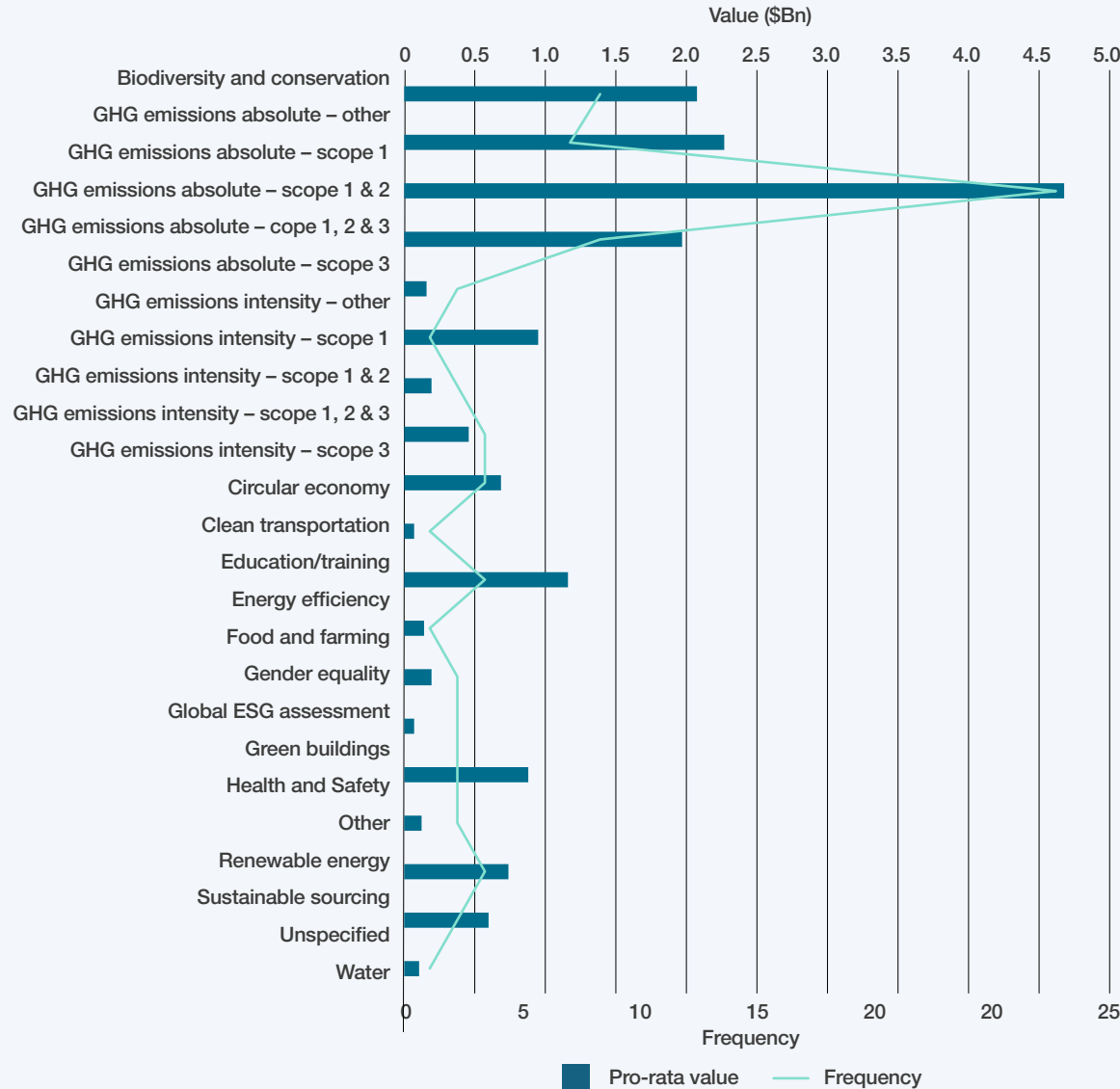
### Annual issuance of sustainability-linked bonds by value



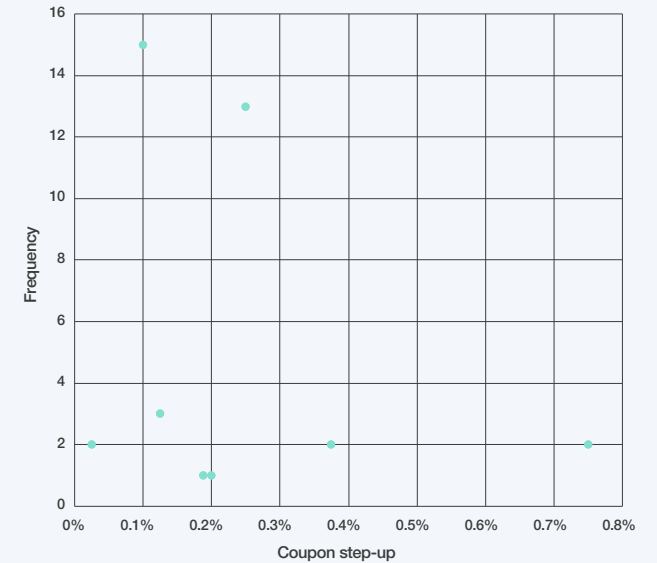
and the reputational risks that come with it, along with greenwashing and target ambition concerns.

Enel, the SLB market pioneer, ended its SLB programme in 2025 – the issuer stated that the programme ended after the performance-based instrument “worked perfectly” for supporting its transition journey.

Breakdown of sustainability-linked bond KPIs by value and frequency in 2025



KPI step-up frequency in 2025



Sustainability-linked KPIs revolve mainly around carbon and greenhouse gas emissions, in particular Scope 1 and 2, with absolute emissions set as targets far more frequently than intensity.

In terms of coupon step-ups, should organisations miss their targets, most issuers seem to settle in the range of around 100-250 basis points, with 100bps being the most frequently used step-up.

# Emerging market issuers navigate choppy waters

Last year was a challenging one for sustainable debt issuers in emerging markets. But a strong start to 2026 and innovation across nature, taxonomies and transition present promise, say **Beth Burks** and **Rafael Janequine** at S&P Global Ratings

***Environmental Finance:* What patterns of sustainable bond issuance did you see in emerging markets in 2025, and how do you expect them to evolve in 2026?**

**Rafael Janequine:** Everyone knows the past year was challenging for the sustainable bond market in general, and emerging markets were no exception. Nominal volumes for public bond offerings were down 30% in emerging markets, compared with a drop of 23% in developed markets. This was driven by geopolitical and trade uncertainties, which particularly affected emerging markets.

Windows for issuers to access the capital markets were narrower than usual, requiring some agility from investment bankers. And, whenever you need agility, issuers and bankers tend to go for plain vanilla rather than labelled debt.

One region that was an exception was the Middle East, where volumes actually increased, by 3%, in 2025: Saudi Arabia made a big contribution to that, on the back of significant investment-grade activity and good access to the capital markets.

For the past four years, emerging markets have represented 16-18% of global sustainable bond issuance. In 2025, this share dropped to 14%. Our forecast for 2026 will be around 10-15%, given that overall market uncertainty is likely to persist.



Rafael Janequine

Globally, issuance in 2026 will be sufficient to keep the stock of outstanding sustainable bonds steady. However, the picture for emerging markets is a bit more challenging: 31% of bonds will mature in 2026, compared with only 14% in developed markets. If issuers choose to refinance without a label, the pool of sustainable debt that investors are able to access will become less geographically diverse.

However, on a positive note, 2026 has started strongly. Already in January, we've seen the largest sustainable-labelled issuance from Mexico, at almost €5 billion (\$5.8 billion), as well as bonds from Chile, Saudi Arabia, the Philippines and Hong Kong. Despite the overall decline in 2025, this demonstrates the commitment from these issuers to the sustainable bond market.

We also produced more than 100 second-party opinions (SPOs) from emerging market issuers over the last two years. Not every SPO leads directly to issuance, but it does mean that entities are preparing to issue in the future.

**EF: What types of emerging market sustainable bonds are proving popular, and why?**

**RJ:** Green, sustainable and sustainability-linked structures have been the most popular instruments in emerging markets. The latter tend to particularly play a role in private transactions,

especially in Latin America and Africa – sustainability-linked loans have been used for transition finance, and by banks to better engage with clients. The use of the sustainable label is also more common in emerging markets, because it allows issuers to direct finance to social purposes as well as green ones – it gives them more flexibility in identifying eligible projects, helping them reach minimum ticket sizes.

There was also momentum around nature finance last year, related to COP30 in Brazil. There were a number of voluntary guidelines published on the theme, such as the nature bonds guide from the International Capital Market Association (ICMA), the World Bank's Amazonia bonds guidelines, and the International Finance Corporation's second version of its blue finance guidelines.

That helped trigger a number of SPOs and transactions. We produced an SPO for Banco Davivienda's biodiversity bond, and for pulp producer Suzano's biodiversity-focused sustainability-linked financing framework: it secured \$1.2 billion in syndicated loans with that SPO.

An interesting developing trend is sovereigns playing a role in nature finance. For example, Cote d'Ivoire published a framework last year with a KPI linked to forest-cover losses, which involved some stringent deforestation controls. And, at the start of 2026, Chile issued a \$1.5 billion 10-year bond with a KPI for the protection for forests: it's in line with Chile's 30% land conservation commitment under the Kunming-Montreal Global Biodiversity Framework, which provides an analogy with the Paris Agreement.

**EF: To what extent will sustainable debt issuance from emerging markets be able to address shortfalls in climate financing?**

**Beth Burks:** It's part of the story, because there's a large gap to fill to help emerging markets deliver on global transition goals. But there are a lot of structural constraints to scaling climate finance, related to debt, that are specific to emerging markets. Many emerging market sovereigns are already highly indebted, so adding to the debt burden is not always an option, particularly in frontier markets. There are also still issues around project preparation and pipeline, to make sure



Beth Burks

that there are projects that are bankable and well-structured.

However, green and social bonds do foster a lot of transparency in how money is being allocated, and it gives investors assurance on actual impact. They attract specialised investors, including multilateral financial institutions, thematic funds, etc., so they can serve as a catalyst for driving climate action.

There are also certain programmes around blended finance that have sustainability requirements where these instruments can be quite useful, especially when they're paired with credit enhancement mechanisms.

**EF: What about adaptation? To what extent are emerging market issuers able to issue bonds to raise finance for adaptation?**

**BB:** Almost all of the sovereign issuances that we've looked at address adaptation to some extent – but this is less the case in the private sector. Adaptation is often hard to segment and draw out as specific projects. Instead, it's usually a part of making the whole asset resilient. You therefore tend to see adaptation measures within the overall project or asset, while emerging market sovereigns are also frequently issuing social bonds.

**RJ:** I agree. But looking forward, we do see a trend towards investing in adaptation measures, given that we are not driving the transition fast enough. So, there is a consensus that adaptation will play a more and more important role each year.

In the private sector, we are starting to see multilaterals work with companies to build more specific adaptation frameworks. There are already some public examples, such as the work that the International Finance Corporation did with ENGIE Energía Perú to help to structure a KPI specifically for adaptation.

**EF: The publication of local market taxonomies can be a spur to increased issuance. Which emerging markets are you watching in this regard?**

**BB:** We're tracking more than 50 taxonomies globally that

are in various stages of development. They're very important to the sustainable debt markets: about a third of the SPOs that we look at have some project selection criteria borrowed from a taxonomy. However, I'm not sure whether or not they spur issuance – that's more to do with overall market conditions and the challenges for issuers to fully meet taxonomy criteria.

The reference case in emerging markets has really been China: they've had their green bond catalogue for a long time, and they updated that in October last year. A lot of issuance is related to that catalogue.

Asia-Pacific (APAC), in general, has been a hive of activity for taxonomies. We recently launched the ability to look at taxonomy alignment with some of these APAC taxonomies, such as China's, Singapore's and the Common Ground Taxonomy, produced jointly with the EU, as well as taxonomies from Brazil, Chile, Colombia and Mexico. We're responding as an SPO provider to this increased interest in taxonomies by issuers by being able to offer alignment assessments, and at the same time, providing a global view for investors with our Shades of Green approach.

**EF: How do sustainable bond investors look at emerging markets issuance? What considerations are front and centre?**

**BB:** Big picture, there's a recognition that global greenhouse gas (GHG) emissions growth is going to come from the emerging markets, and that investors' sustainability strategies need to tackle this. This is creating appetite among investors for bonds that deliver impact in terms of reducing emissions in developing economies.

We've seen a number of investor-led initiatives to support this, such as the Methane Abatement Guidance. That was launched last year and is intended to help spur sustainable issuance from national oil companies, particularly in emerging markets, which are typically large debt issuers. It aims to give a bit more assurance and credibility to that market and address greenwashing fears.

We've also seen that some sustainable bond issuances linked to Paris Agreement Nationally Determined Contributions (NDCs). Recent examples include SPOs we've produced

for Cameroon and Rwanda, who have been trying to tie their sovereign sustainable bond issuance to delivering on their NDCs. That's been seen quite favourably by investors who are looking to get impact from those bonds.

**There's a recognition that global emissions growth is going to come from the emerging markets, and that investors' sustainability strategies need to tackle it**

Currency also really matters for a lot of these markets. It works both ways. Some local emerging market investors are looking to hold assets in their local currency, while some issuers look to issue in dollars, euros or Swiss francs to help attract foreign capital and investors. To give an example, Metro de Santiago has issued a number of green bonds in Swiss francs. Conversely, in China, there are large volumes of green bonds issued in renminbi, given the large domestic investor base. Issuing in the local currency enables issuers to avoid the foreign currency risk created by issuing in offshore markets.

**EF: Every market is different, but emerging markets are, if anything, even more idiosyncratic than developed markets. How does your Shades of Green methodology capture these differing local contexts when grading sustainable bonds?**

**RJ:** Our Shades of Green analysis includes a specific 'jurisdiction' component. To assess that, we rely on local and regional analysts to capture the nuances of the local context. In assessing social projects, almost 100% of the analysis is understanding that context. But it is also a big component

of analysing green projects, especially for countries that have a very different transition context than, let's say, European nations.

A large element of the analysis is understanding how the technologies involved play a role in the pace of the transition. For example, hybrid vehicles would not be considered as green in many Scandinavian nations. But, in developing countries that lack the infrastructure for electric vehicles, they are likely to be assessed as Light Green in our methodology. Similarly, investing in new landfills is a no-go in most developed countries. However, in developing countries that still rely on illegal dumping, landfills are an important step towards improving recycling rates.

**EF: What are the key trends you're watching in 2026?**

**RJ:** We expect transition finance to be a theme globally, including in emerging markets. Many emerging markets still rely heavily on fossil fuels. In those countries, there are often large, quasi-sovereign public entities active in oil and other hard-to-abate sectors. Historically, the sustainable bond markets haven't tackled those entities – and a transition label starts to speak to investible opportunities there.

Just this month, we have launched our analytical approach to providing SPOs for transition alignment. This update is in response to the launch of the ICMA Climate Transition Bond Guidelines and the loan market associations' Guide to Transition Loans. The launch of these guidelines marks a meaningful evolution in the market, establishing 'transition' as a standalone label differentiated from 'green'. For emerging markets dependent on hard-to-abate sectors, this could be an important new development and label to enable access to finance. Transition finance is set to become a big part of the story in terms of tackling global emissions, and we want to help bring rigour and credibility to this part of the market. ■

**Beth Burks and Rafael Janequine are both directors in sustainable finance at S&P Global Ratings, in London and São Paulo, respectively.**

For more information, see: [www.spglobal.com/ratings/en/products/second-party-opinions](http://www.spglobal.com/ratings/en/products/second-party-opinions)

# Enabling Asia's transition

Singapore's DBS is positioning itself as 'Asia's transition bank'. Shilpa Gulrajani and Chen Xue explain how the bank is helping clients raise sustainable finance to enable the climate transition – while addressing social impact on the way

**Environmental Finance:** Last year was a challenging one for the sustainable bond market globally. How did the Asia-Pacific (APAC) market navigate those challenges?

**Shilpa Gulrajani:** Historically, and in contrast to Europe and the Americas, Asia has been a loan-market play in terms of sustainable finance. Sustainable bonds in APAC were driven by strong overall sentiment in the fixed income market and also by the growing maturity of issuers in embracing sustainable finance, as well as the scale of fundraising and some new thematics in the region, as well as the fall in volumes in the sustainability-linked loan market.

This growing maturity has seen corporates better able to define their capex, acquisitions or strategic assets as clearly green, sustainable or transition aligned, enabling labelled issuance.

**Chen Xue:** APAC has remained very resilient, with sustainable bond volumes either steady or slightly increased, depending on which data you look at. This resilience is partly due to a continued push by policymakers and regulators in the region to support the market, including with guidelines, taxonomies and disclosure requirements. It is also helped by the high number of sovereign issuances, from China, Japan and South Korea in particular, as well as by very robust investor appetite for sustainable debt and demand for good quality labelled bonds from emerging markets.

**EF:** What about DBS specifically? What trends and



Shilpa Gulrajani

**developments did you see in your sustainable bonds business during 2025?**

**SG:** Within technology, media and telecommunications, we have seen telcos very clearly embedding sustainability goals into their fundraising. We've seen several sustainable debt issuances related to data centres, addressing their energy efficiency, water efficiency and access to renewable energy. We've delivered multiple transactions this year linked to data centre sustainability.

We have also seen transactions to fund clean energy which go beyond simply building wind or solar capacity, and which package together renewables with battery storage and investments in grid stability. There's a growing recognition that you can't look at renewables in isolation – instead thinking about packaging generation assets with overall infrastructure, including storage and grid stability.

The third trend is among financial institutions, particularly in north Asia, raising funding linked to social impact.

**CX:** A couple of specific transactions we arranged illustrate these themes. Last year, we arranged two green bonds, totalling SGD1.15 billion (\$912 million) for data centre operator Equinix to fund its sustainability goals. The March issuance was the first green bond from a foreign corporate issuer in the Singapore dollar market. For these transactions, it was important that we took a deep dive into Equinix's sustainability strategy, how it measured up to its global peers, and into its capex strategy, with a regional context. The

issuance and tap were well received by the company and saw strong interest from high-quality bond investors: they were 2-2.5-times oversubscribed and achieved 25-basis point price tightenings.

We also worked with Indonesian bank BRI on its series of two- to five-year social bonds, totalling IDR5 trillion (\$298 million). The bond issuance took advantage of the bank's updated social financing framework (which DBS advised on), aligning to the latest international standards and focused on eligible social projects, specifically with respect to financial inclusion and affordable basic services, and economic empowerment. This closely aligns with the bank's micro-lending mandate. In addition, the updated framework also clearly defined target populations, supported by official statistics and measurable metrics, thereby adding credibility to the management of proceeds and reporting.

We are having a lot of conversations with other potential finance sector issuers to explore whether their business models and goals align well with social issuance. There is an increasing understanding among issuers that combining social and environmental aspects can be much more impactful.

**EF: The region has an enormous need for transition finance to help more carbon-intensive industries and companies decarbonise. Why has there been so little issuance outside of Japan, and what needs to change to enable that issuance?**

**SG:** Previously, there was limited guidance around identifying and categorising corporate transition efforts, especially in the Asian context. However, this has changed dramatically in the last few years. We have witnessed an evolution in creating alignment around the definition of transition, particularly for the hard-to-abate sectors where transition financing is most required – that includes the Singapore-Asia taxonomy and the ASEAN taxonomy, which lists its 'amber' transition category. Further guidance from bodies such as the International Capital Market Association and the Climate Bonds Initiative helps to boost investor confidence in deals.

A continuing challenge for corporates in Asia is that they often have a limited volume of assets that fall within the amber



Chen Xue

**Adaptation and resilience are naturally very much aligned with transition activities – adaptation finance is necessary to build resilient businesses over the long run**

category – and may struggle to reach the \$50 million threshold for bond issuance. So, rather than issue a bond, they tend to tap the loan market for transition projects. As examples, we have arranged loans for hydrogen-ready combined cycle gas turbines, which is a Singapore-Asia Taxonomy-aligned activity, and for sustainable aviation fuel production, which qualifies as an enabler of other sectors' transitions.

**EF: What about adaptation and resilience? What potential do you see for related issuance from the region?**

**SG:** DBS aims to be Asia's transition bank, and adaptation and resilience are naturally very much aligned with transition activities. To look at it strategically, adaptation finance is necessary to build resilient businesses over the long run.

Adaptation financing needs are estimated to be at around \$200-220 billion per year, of which only about 20% receives funding due to bankability challenges. Government support, together with robust de-risking models and structures involving development finance institutions, can help to attract private capital in the space.

In the private sector, companies increasingly recognise that their financial exposures to physical risk are significant and they need to assign an economic value to this risk. This is an emerging area of risk mitigation and we are engaging with a growing number of clients to help them assess physical climate risk.

For example, we are seeing multinational companies that are significant offtakers of agricultural commodities produced in the region investing in agroforestry and drip irrigation to increase the climate resilience of their supply chains. Another example is how data centres sited in water-scarce regions are raising finance to fund water recycling systems, as a forward-looking adaptation play.

**CX:** The issue is certainly on investors' radar. In our conversations with them, it's become one of the top three topics that they want to hear our thoughts on. We are also seeing physical climate risk potentially impacting sovereign credit ratings. For example, [Fitch published a report](#) in February warning that climate risk is set to become a major



DBS: positioning itself to help finance Asia's transition

sovereign ratings driver in the coming years. I think that will create increasing urgency for high-climate-risk markets to raise funds for adaptation infrastructure.

For sure, there are opportunities on the corporate side, and it is inevitable that a growing proportion of labelled bond proceeds will be devoted to making sure issuers are resilient to a variety of climate risks. Beyond this, we may see some specific adaptation labelled bonds in the longer term. However, in the near-term, issuers are more likely to be sovereigns, sub-sovereigns or multilateral development banks.

**EF: The Panda bond market – for Renminbi-denominated bonds from non-Chinese issuers – has been growing strongly over the last couple of years. What interest are you seeing among Chinese investors for sustainable Panda bonds?**

**CX:** DBS was recently awarded qualification as a Principal Underwriter for Debt Financing Instruments of Non-Financial Enterprises from the Chinese regulator, enabling us to undertake lead underwriting business for all categories of debt financing instruments in the interbank market. We are the first South-east Asia-based bank to secure this license and we see a lot of opportunities to support issuers both onshore and offshore in the China inter-bank bond market.

Given the size of the green bond market in China, we look to leverage our experience in Asia to help China's domestic investors access high-quality green projects from offshore issuers.

**EF: Generally speaking, what is your approach at DBS to working with issuers?**

**SG:** Sustainable finance is largely commoditised across the banking sector. Our response is client-centricity – ensuring that we put the client at the centre of the value chain. When we assess a client's sustainability profile, we need to understand its transition plans, the technologies it depends on, how they

### Companies increasingly recognise that their financial exposures to physical risk are significant and they need to assign an economic value to this risk

are maturing and the price points at which they make the transition plausible for that company.

We divide our sustainable finance team by sector verticals, so we can continuously enhance our sectoral knowledge and bring value to the client beyond simply talking about a labelled transaction. If we want to be a strategic financing partner with a long-term perspective, we need to better understand our clients, their value chains, their challenges and thereby link advisory and solutions. That resonates with our goal of being Asia's transition bank.

**EF: On the other side of the market, how is investors' appetite for labelled bonds from the region evolving?**

**SG:** We are working continuously to match investor demand to the financing needs of issuers. We regularly survey our

investor base, and carry out frequent one-on-one interviews with asset managers, insurance companies, asset owners and family offices – DBS has a strong presence in the wealth management sector, with family offices showing keen interest in investments which combine returns and impact.

These conversations provide us with often very granular information – such as an investor specifying, say, that it's looking for emerging market social impact from highly-rated financial institutions. This information helps us to matchmake very precisely.

**EF: Finally, what are your expectations for 2026 and beyond? What developments are you watching and where do you see opportunity?**

**SG:** In terms of thematic, as discussed above, we expect to see a growing focus on transition finance, social bonds and adaptation and resilience, as physical climate impacts increasingly affect the real economy.

Geographically, China will continue to generate strong volumes. An important development will be increased issuance from financial institutions in the region, especially in ASEAN countries. As emerging market corporates increasingly make sustainability commitments, and seek capital to meet those commitments, we expect to see financial institutions issuing labelled bonds in order to onward lend to these companies.

**CX:** We anticipate continuing strong investor demand for labelled bonds – with green bonds particularly likely to remain dominant. We're also expecting a high number of financial institutions from the Middle East coming to issue in the labelled market – we think there's a particular opportunity for them to issue green or social sukuk bonds. And finally, for this year and beyond, we are excited to be working with issuers to address more tailored climate resiliency financing solutions with a focus on social projects. ■

**Shilpa Gulrajani is head of sustainable finance, and Chen Xue is head of credit and ESG advisory, at DBS Bank in Singapore.**

For more information, see [www.dbs.bank.in/in/corporate/sustainability/our-sustainability-approach](http://www.dbs.bank.in/in/corporate/sustainability/our-sustainability-approach)

# Transition Finance 2.0: assessing the credibility of transition-labelled bonds and loans

As new global guidelines formalise a distinct transition label for bonds and loans, Sustainable Fitch experts discuss how credibility, carbon lock-in risk and entity-level transition plans will shape the next phase of climate finance – and why 2026 could mark a pivotal shift for hard-to-abate sectors and emerging markets



Maria Bazhanova

**Environmental Finance:** How will the recent guidelines and introduction of a separate transition label impact sustainable bond issuances in 2026?

**Maria Bazhanova:** With clearer definitions of climate transition projects, we expect labelled instruments to diversify beyond traditional green, social and sustainability bonds in 2026, although growth may be gradual as

issuers will need to enhance disclosures and build familiarity with transition frameworks, roadmaps and taxonomies.

While in Europe green bonds have been an established label for some time, we expect the transition label to be used particularly by entities in jurisdictions where technology, policy and/or market conditions do not yet support green activities at scale, or where overall project size is too small to justify large green bond issuances. This applies to emerging markets with large fossil fuel exposure.

Several jurisdictions already have building blocks for transition-labelled finance, either through taxonomies that include transition categories or through sectoral roadmaps and pathways.

Regional and national taxonomies, such as the ASEAN

and Singapore-Asia taxonomies, include amber categories, while Indonesia's green taxonomy has transition and enabling elements, providing a basis for classifying transition activities. In the Middle East, the UAE and Saudi Arabia have published net-zero strategies and sector decarbonisation programmes that function as transition pathways, even where taxonomies are still evolving. Because these markets already have definitions and established decarbonisation pathways, we are likely to see faster uptake in transition-labelled bonds there.

We have already seen interest in transition finance from financial institutions, as they aim to provide funding to support the transition of their corporate customers.

**EF: What are the additional requirements for issuers and where do you see potential challenges?**

**MB:** Both the International Capital Market Association's (ICMA) Climate Transition Bond (CTB) Guidelines and the Transition Loan Principles (TLP), jointly published by the Loan Market Association (LMA), Asia Pacific Loan Market Association (APLMA), and Loan Syndications & Trading Association (LSTA), require an entity-level transition strategy or disclosure of a set of indicators of transition to show how the financed projects support the issuer's overall emissions-reduction strategy and real-economy decarbonisation. Companies without an established strategy may need to develop one or demonstrate their commitment to transition by disclosing a set of indicators, requiring additional time and resources, and often board-level commitment.

In practice, this may include disclosure of transition governance and targets, capex alignment, implementation milestones, and sector-specific KPIs and performance thresholds demonstrating performance beyond business as usual. Issuers may also need to justify technology choices against best-available technologies and provide technical benchmarks, including how they will avoid lock-in and manage residual emissions.

Best-available technologies definitions and thresholds may vary due to contextual factors such as the sector, jurisdiction and market where the entities operate. The contextual factors are important considerations during the assessment of the transition projects' eligibility.

**EF: How do the new transition label guidelines overlap with the existing market standards?**

**MB:** Generally, transition-labelled instruments follow the same core principles as other labelled instruments to support transparency and integrity in debt markets, especially around proceeds management and reporting. However, the new guidelines impose additional requirements on issuers, particularly related to transition projects, the project evaluation and selection process, and contribution to the issuer's decarbonisation strategy.

The transition to a low-carbon economy can be financed through various existing instruments, such as green, sustainability, and sustainability-linked bonds or loans. Both ICMA and the loan associations note that 'transition' is a separate, distinctive

## Transition plans: recommendations included in selected frameworks and guidance

Organisation publishing guidance	Targets – 1.5°C alignment/ compatibility	Targets – Paris alignment/ compatibility	Decarbonisation levers/ actions	Investment plans	Governance body/ oversight	Transition-related reporting	Carbon lock in/ mitigation	Use of offsets/ credits	Engagement objectives and activities	Env/ Social risks and impacts
ICMA		✓	✓	✓	✓	✓	✓			✓
LMA, LSTA and APLMA		✓	✓	✓	✓	✓	✓		✓	✓
TPT		✓(a)	✓	✓	✓	✓		✓	✓	✓
ESRS and EFRAG	✓		✓	✓		✓	✓			(b)
GFANZ	✓		✓	✓	✓	✓			✓	
OECD	✓		✓	✓	✓	✓	✓	✓	✓	✓

Note: TPT – UK Transition Planning Taskforce; ESRS – European Sustainability Reporting Standards; EFRAG – European Financial Reporting Advisory Group; GFANZ – Glasgow Financial Alliance for Net Zero.

(a) Included in guiding principles.

(b) Note: governance, and other environmental and social risks and impacts are addressed in other ESRS standards.

Source: Sustainable Fitch, relevant standard setters/international bodies

label. In terms of eligible projects, as it currently states in the CTB Guidelines, if projects are financed by transition bonds, ICMA leaves the classification between green and transition projects to the issuer’s discretion. This allows some transition projects to be financed through green bonds, provided there are clear environmental benefits.

Under the TLP, however, the distinction is clear: unlike green loans, which fund activities that are already low-carbon or environmentally beneficial, transition loans support investments and projects that are not yet aligned with the Paris Agreement but enable a shift from a high-emissions baseline toward longer-term net-zero compatibility.

### EF: What is Sustainable Fitch’s approach towards transition finance instruments?

**Daniela Sedlakova:** Sustainable Fitch assesses transition finance instruments on the basis that they are designed to support decarbonisation in high-emitting and hard-to-abate sectors. Accordingly, assessments move beyond whether financed activities meet fixed environmental thresholds at present and instead focus on their alignment with a credible,

forward-looking transition pathway.

Transition instruments are evaluated against relevant market guidance, including the CTB Guidelines and the TLP. Sustainable Fitch analysis outcomes are expressed on an “aligned” or “not aligned” basis, with key strengths and areas to watch disclosed on the first page of the second-party opinion (SPO).

In addition to assessing the entity’s transition strategy, eligible transition projects are also assessed against predefined safeguards, including their contribution to greenhouse gas (GHG) emissions reductions, consistency with the entity’s transition strategy, prioritisation of lower-carbon alternatives, and avoidance of carbon lock-in. Where relevant, alignment with recognised taxonomies, decarbonisation pathways or roadmaps is considered.

Together, these elements aim to provide investors with greater assurance that transition-labelled instruments support genuine decarbonisation outcomes.

### EF: How will Sustainable Fitch evaluate transition projects and how does this differ from green bonds?

**DS:** Our approach to transition use of proceeds (UoPs) is grounded in the industry guidelines. Compared with green UoP assessments, the transition approach is more contextual and forward-looking.

For green UoPs, financed activities should demonstrate a positive environmental impact at the time of issuance and alignment with the relevant green finance principles. In contrast, transition UoPs are assessed against a set of safeguards derived from the CTB Guidelines and the TLPs.

These safeguards evaluate the extent of GHG emissions reduction, the contribution of projects to a credible transition strategy, the availability of lower-carbon alternatives, carbon lock-in risks, and, where applicable, alignment with science-based taxonomies, decarbonisation pathways and roadmaps. As such, the assessment of transition UoPs is inherently forward-looking and focuses on the extent to which financed activities support a long-term transition aligned with the goals of the Paris Agreement.

### EF: How does Sustainable Fitch assess carbon lock-in and best-available alternatives?



**DS:** Assessment of carbon lock-in risks and the availability of low-carbon alternatives are core components of our approach. When assessing eligible transition projects, we view investments in lower-carbon alternatives positively, while also considering the entity's specific operating realities, including sectoral characteristics, regional context and prevailing market practices.

Investments in lower-carbon alternatives may not always be feasible, particularly for activities related to existing fossil-fuel assets and infrastructure. Investments in these activities are therefore not automatically excluded. However, to be considered aligned with relevant guidelines, they should be linked to a credible asset-level transition plan. This plan should include defined sunset dates and/or a plan to switch to a low-carbon alternative over time, in line with recognised decarbonisation pathways and roadmaps, alongside other applicable safeguards.

By contrast, long-lived fossil-fuel expansion projects that lack abatement measures, credible transition pathways and viable low-carbon alternatives would be assessed as presenting a high risk of carbon lock-in.

**EF: What does the industry guidance require regarding transition plans? What does the requirement mean for smaller entities?**

**William Attwell:** Entity-level transition plans are integral to both sets of guidance. They are the conceptual anchor linking the transition-labelled debt instruments to broader entity-level decarbonisation. The purpose is to provide investors and other market stakeholders with confidence that, although the entities and/or projects being financed are not necessarily green at present, they are committed to a credible trajectory that is aligned or compatible with the Paris Agreement.

For transition bonds, the transition plan, or set of targets and indicators, this is the first of five safeguards within the use-of-proceeds component of the ICMA guidance and aims to ensure the integrity of the transition projects. Where projects relate specifically to fossil fuel infrastructure and activities, ICMA also proposes asset-level transition plans to provide an additional layer of credibility. Transition plans play a similar role in the guidance for transition loans, but here the loans associations make the requirement the first of five core components within



Daniela Sedlakova



William Attwell

the Transition Loan Principles exposure draft.

The guidance is somewhat flexible with regards to what the transition plans, planning process or indicators should cover. The ICMA guidance recommends alignment on a "best effort" basis with its Climate Transition Finance Handbook, which sets out recommendations on science-based targets, governance and reporting, among others.

For transition loans, the guidance emphasises that robust transition plans are typically science-based. Where a transition plan is unavailable, it says relevant indicators may serve as a proxy. The guidance highlights the core elements of the UK Transition Plan Taskforce's framework, but notes that entities can adopt other recognised international frameworks. While details of these vary somewhat, these transition planning frameworks and guidelines tend to consistently recommend disclosure of targets, implementation actions, and relevant governance and reporting (see table).

The loans association guidance makes special mention of smaller entities, emphasising their transition plans/equivalent indicators are tailored to their context, setting out targets and actions that are credible and feasible given their context and stage of development.

**EF: What approach does Sustainable Fitch take in its Transition Assessment (TA) and how does the TA relate**

**to Transition Finance SPOs?**

**WA:** The Sustainable Fitch TA is a separate assessment to the Transition Finance SPO and is focused at the entity-level. The outcome of the assessment positions entities on a scale ranging from "Minimal Transition" to "Transition Leader" and reflects entities' performance under our proprietary methodology for evaluating transition ambition and progress in high-emitting and hard-to-abate sectors.

TAs can complement SPOs related to transition and/or green frameworks by providing a further layer of independent scrutiny on the issuer/borrower. Our approach to evaluating the transition plan in our Transition Finance SPOs builds on our TA approach and draws on our climate transition expertise and track record assessing entities in high-emitting and hard-to-abate sectors.

In the TA, we evaluate entities' emissions-related targets, scoring the level of ambition set out in their targets against thresholds where top scores are consistent with emissions reductions we view as consistent with Paris-aligned pathways for the relevant industry. We also assess the credibility and completeness of emissions reductions targets, for instance, the GHGs covered and any notable exclusions from the organisational boundary.

Progress on implementation of an entity's transition strategy is a major focus for the TA. In addition to evaluating the entity's performance on decarbonisation, across both its operational and value chain emissions, we assess its transition-related capital and operational expenditures and the extent to which it is already generating revenues from low and lower-carbon activities.

Further adjustments can be made to the interim grading, reflecting factors such as high-impact decarbonisation levers, carbon lock-in, governance, carbon reporting and notable over- or underperformance versus industry benchmarks. ■

**Maria Bazhanova is EMEA co-head for ratings and opinions team, Daniela Sedlakova is an associate director, in the ratings and opinions team and William Attwell is director, research at Sustainable Fitch.**

**For more information, see:**

[Second-Party Opinions \(SPOs\) :: Sustainable Fitch](#)  
[Transition Assessment :: Sustainable Fitch](#)

# Diversification and transformation: how MENA is embracing sustainable finance

As the Middle East diversifies away from its reliance on fossil fuels, opportunities for sustainable finance abound, says Vijay Bains at Emirates NBD

**Environmental Finance: As a bank based in the Middle East, how are you seeing the appetite for sustainable debt issuance evolving in your region?**

**Vijay Bains:** The key words are diversification and growth. While renewable energy remains core, we're now seeing more investments and more issuances around water, with a number of successful blue issuances from logistics firm DP World as well as from Emirates NBD. Digital infrastructure is a big theme and we've also seen green buildings grow as well – the UAE is in the top five for green buildings globally, according to the US Green Building Council. There is growing interest in issuance linked to sustainable transport, with metro line expansions in Dubai and Riyadh, and the market is still very robust for electric and hybrid vehicles.

The region's economic transformation agenda also plays a big role – there's the Saudi 2030 strategy and Dubai's 2033 strategy as well. Broadly speaking, the economies in the region are diversifying away from fossil fuels. Last year, more of Abu Dhabi's GDP was produced from non-oil sectors than the oil sector for the first time. Sustainable debt is a natural financing instrument that is aligned with those strategies.

What's more, the investment base is deepening. Investors both within the region and outside it are showing growing demand for quality, sustainable paper from Gulf Cooperation Council (GCC) issuers.

**EF: What about further afield? Where else are you talking to issuers about sustainable debt transactions?**



Vijay Bains

**VB:** We're a regional bank so, looking around our region, we're seeing more transition finance in India, particularly infrastructure-linked finance. Sustainable bonds are becoming increasingly relevant, and India is very much on the pathway that China was on about 20 years ago, with a similar economic growth rate coupled with a robust and growing sustainability regulatory regime.

Türkiye is quite a hot market, especially this year, given that

it will host COP31. There, we're seeing local corporates and financial institutions actively exploring green and sustainability-linked funding. This is particularly the case with financing linked to multilateral financial institutions, who often encourage green financing. In Saudi Arabia, we're seeing a huge amount of renewable energy, hydrogen and infrastructure as green urbanisation grows. Finally, in Egypt, the focus is very much on social financing and the financial inclusion agenda.

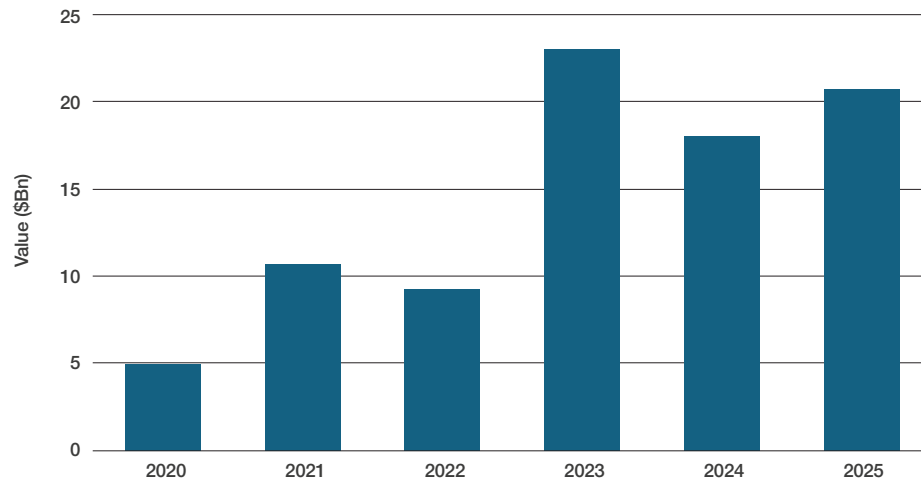
**EF: How is the regulatory picture supporting sustainable finance in the region?**

**VB:** We've seen Qatar integrating the International Sustainable Standards Board (ISSB) into its national reporting framework, following the path established by Türkiye, thereby ensuring companies report in a clear and transparent way, linked to auditable financial statements.

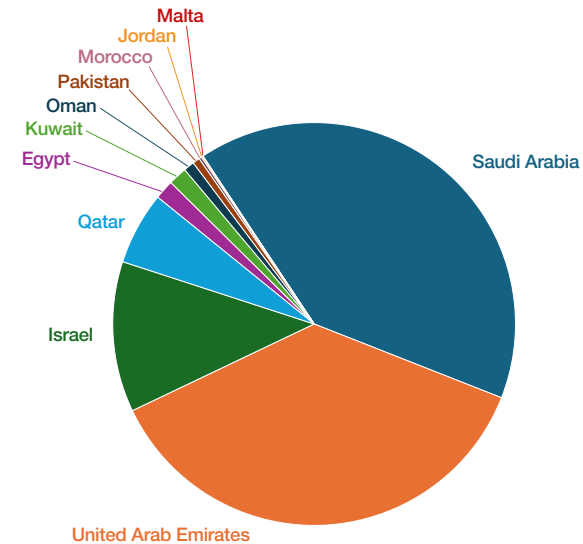
The UAE has updated its national net-zero commitments to align with Paris, and its Federal Decree Law no. 11 came into force in May, which requires companies to report on Scope 1 and 2 emissions. It's very interesting, when we've seen some countries pausing or revisiting their climate commitments, to see a country like the UAE continuing to push ahead on net zero. This shows the ambitions of the region in relation to sustainability.

In Saudi Arabia, its Capital Market Authority has introduced its Guidelines for Issuing Green, Social, Sustainability and Sustainability-Linked Debt Instruments, providing a framework for sustainable finance in Saudi. That is helping to make Saudi a powerhouse for sustainable finance.

Issuance of MENA sustainable bonds



Source: efddata.org



We've also seen regulators and exchanges in the region provide clear rules for transparency regarding listing rules and bond prospectuses. Some of these are world-leading. And, in counterpoint to many parts of the world, we haven't seen the dilution of those standards and regulations.

**EF: Talking about diversification, there is enormous investment underway in AI-related infrastructure in the Middle East. Do you see potential there for sustainable debt issuance?**

**VB:** There has been lots of investment from property and infrastructure developers in the region, as well as technology players like G42, which is based in Abu Dhabi, and in partnership with the likes of Nvidia, Microsoft and Google.

In terms of how data centre sustainability sits alongside that, we've seen increased interest in power purchase agreements for renewable energy. This is a region where you can add a lot of new renewable energy at a relatively low cost, because the

grid is new and very flexible, there's very reasonable Chinese-supplied solar equipment, and we have year-round sunshine. It's a winning recipe for low-cost renewable energy for data centres.

Water, meanwhile, is a core focus. Renewable energy is increasingly used for desalination, and it would be really welcome, not only regionally, but also globally, if we could use seawater for cooling – this would increase water efficiency.

Given higher temperatures in the region, operators need more energy for cooling. Power use efficiency is therefore going to be lower than in Europe. That means we need to judge data centre sustainability in a slightly different fashion.

**EF: How are the prospects looking for transition finance in the region? What will it take to kick-start that part of the market?**

**VB:** What we need is a GCC taxonomy to give us guidance as to what we can define as sustainable and what is transition-

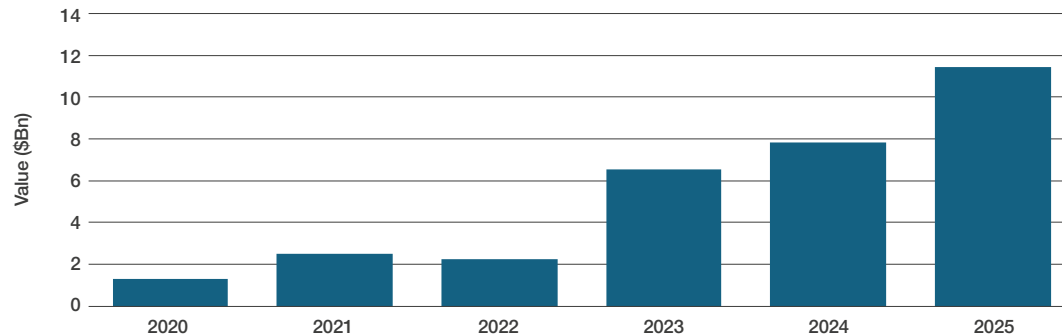
aligned. I say GCC because a lot of those economies have a very similar economic mix and are diversifying in a very similar fashion. If you look at their economic plans, they are already transitioning – a lot of that work is already being done, and in similar ways around the region.

Secondly, similar definitions for projects will allow international investors to come in and understand how activities are aligned with the region's transition. Currently, there's a little less comfort on transition compared with green, and some of that comfort would come from more precise definitions.

**EF: You issued your first green bond in 2023. What is your approach to sustainable debt issuance at the bank?**

**VB:** Since that first issuance, we've issued the world's first sustainability-linked loan financing bond using the International Capital Market Association (ICMA) guidance. Emirates Islamic has launched Sharia-compliant and sustainability-linked sukuk as well. We issued the largest blue-green bond in the world, again

Annual MENA sustainable sukuk issuance



using the ICMA guidance, and the largest public blue bond in the region.

We like to innovate with every issuance, because we can showcase the strength of the entire group, from our investment banking desk, our sustainable finance division through to our treasury and funding team. We've also come to market quite regularly since 2023 – we are issuing in the context of considerable growth. As issuances are expected to grow, this has a halo effect for the group. For example, following our blue-green bond, we saw more blue financing coming through.

**EF: What motivated the bank to issue your pioneering blue-green bond last year?**

**VB:** One of the key themes in the region is its shortage of water, and we've arranged related issuances linked to addressing water stress in the region, but mostly in the \$30-100 million range. We wanted to do a benchmark-sized issuance to show our clients and other financial institutions that you can do a benchmark-size blue-green bond. Issuing a blue-green bond gave us the flexibility to add it in some of our green assets as well.

So, for us, it's a real showcase. As a public bond, aimed at US-dollar global investors, it demonstrates our level of maturity in terms of our knowledge of the blue economy, the size of the projects we are financing, and our risk management approach to blue finance.

**EF: Emirates NBD was the first bank in the region to publish a report aligned with the ISSB standards. What was the thinking behind that, and what challenges did you face?**

**VB:** We spend a lot of time on reporting at the end of every year. There is a huge number of acronyms for the board and the senior managers to get used to. ISSB is, from a gaming point of view, the 'end boss'. It is everything we're going to consolidate up to. So for us, ISSB reporting provides economies of scale. It's also going to become the standard in every jurisdiction. What's more, it's integrated with our financial statement – that allows us to show why sustainability is important. It answers a huge number of questions from investors and regulators alike around where sustainability sits for Emirates NBD.

In terms of challenges, being the first meant that we couldn't copy from anyone else. For the same reason, it was challenging working with the assurance provider. But we're very happy on that front: they co-invested with us to develop their approach to ISSB reporting.

It turned out to be a great project, where everyone claimed success: our finance team, our legal team, our accounting team, they all did really well. And we're already seeing tremendous benefits: we're not spending anything on external consulting now, we're doing it all in-house. That's a tremendous step change compared with a lot of our peers in the market.

**EF: COP31 is taking place in Türkiye later this year. Do you expect to see any effects on issuance in the region?**

**VB:** We generally see a 20% uplift in terms of sustainable finance issuances, frameworks and strategy development from countries hosting a COP. There are a number of other factors driving sustainable finance in Türkiye: it's a very mature sustainability market, and there's a big story around alignment with the EU, regarding its Corporate Sustainability Reporting Directive rules, and with its Carbon Border Adjustment Mechanism.

Sustainable finance is of a different flavour in Türkiye: there, it is particularly orientated to social considerations, and it has a large agricultural sector as well. Hard-to-abate sectors also play a significant role in its economy. But, generally speaking, COP31 is going to encourage a lot of sustainability-focused investors to take the time to better understand the country's sustainability story.

**EF: How is the rest of this year shaping up for you at Emirates NBD? What are your expectations for 2026 and beyond?**

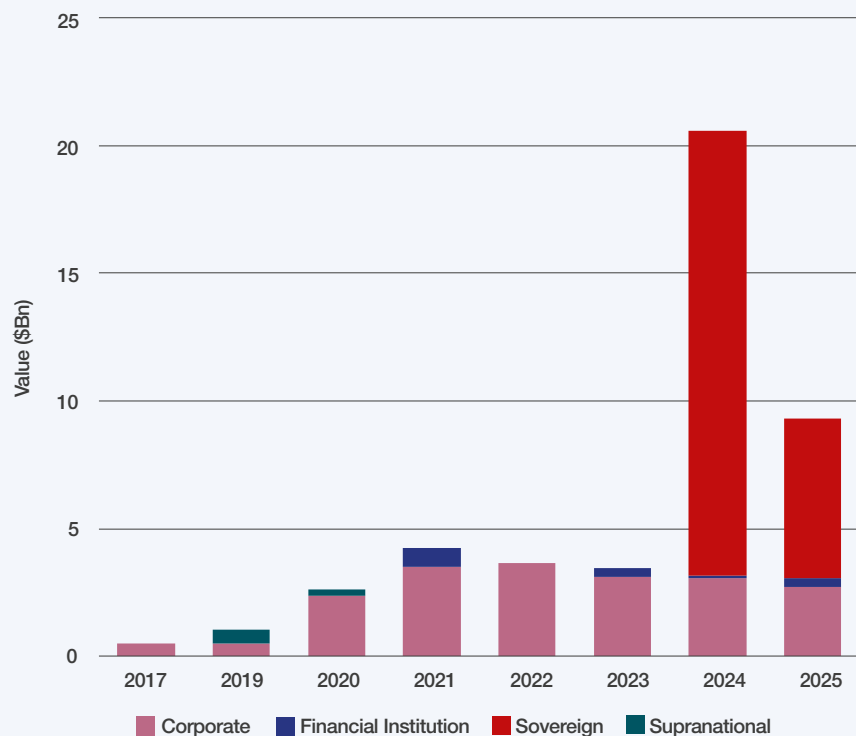
**VB:** I think this is transition finance's time. We have now seen methodologies from second-party opinion providers, and I think we're going to start to see issuers produce transition finance frameworks and some issuance from the region.

I also expect to see more pragmatism around sustainability. To give an example, I was recently at a sustainable aviation conference: we weren't only talking about zero-emissions sustainable aviation fuel, but also about a different blend of jet fuel which reduces emissions by between 10 and 20%. The engineering team hadn't thought about transition finance as an instrument, but it would qualify. Once we start to talk to issuers about these kinds of transition finance opportunities, the market will really start to take off. ■

**Vijay Bains is group chief sustainability officer and group head of ESG for Emirates NBD Group.**

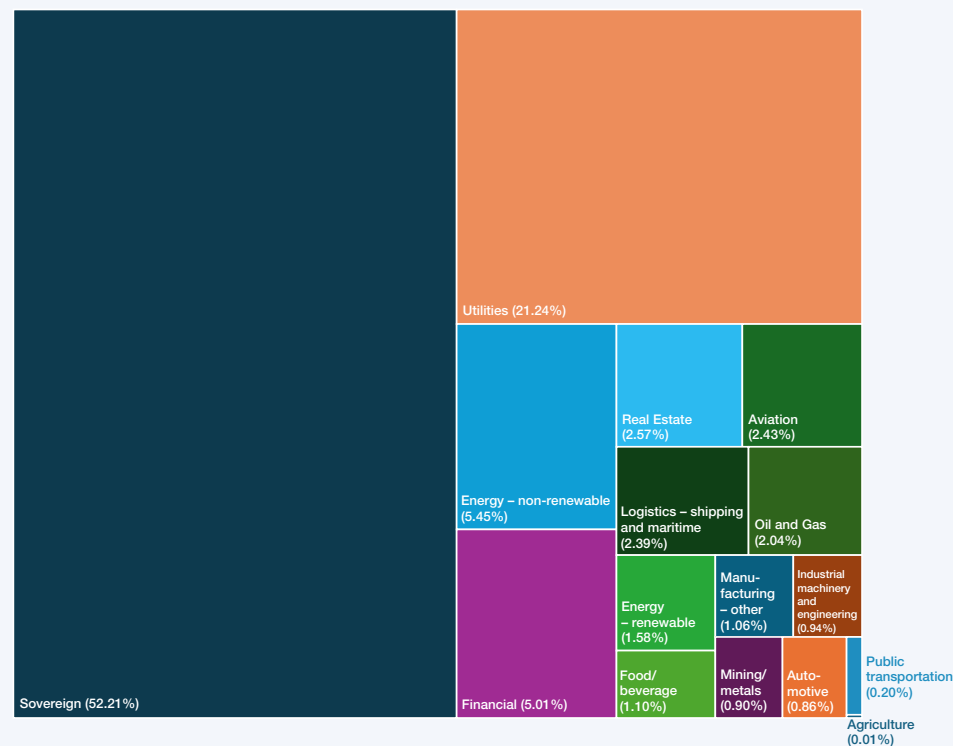
For more information, see: [www.emiratesnbd.com/en/about-emirates-nbd/sustainability/sustainable-finance](http://www.emiratesnbd.com/en/about-emirates-nbd/sustainability/sustainable-finance)

### Annual issuance value of transition bonds by issuer type



Transition bonds saw their largest year on record in 2024 with over \$20 billion issued, led by sovereign issuance in Japan. A reduction of sovereign issuance from the Government of Japan in 2025 drove a decrease of \$10 billion (50%) in overall issuance, however the market still showed signs of activity.

### All-time value of transition bonds by issuer sector



Sovereigns account for 63% of 2025 issuance, and more than 50% of all-time issuance. More than a quarter of all transition bonds are issued from hard-to-abate industrial sectors

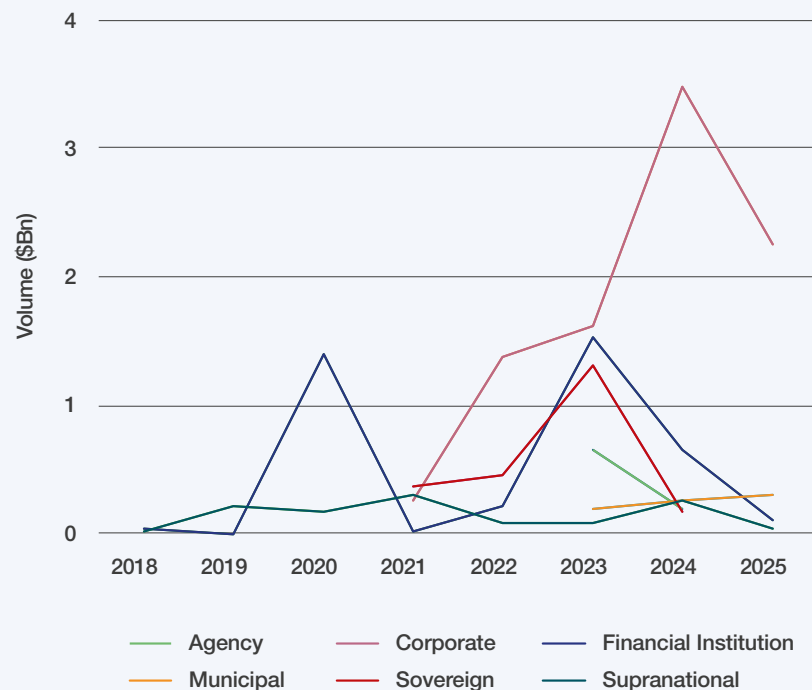
Blue bond issuance continued to slow in 2025, with no additional sovereign or agency issuances. This may partly be due to sovereigns instead choosing to incorporate blue themes in their sustainable issuances and as KPIs in their sustainability-linked offerings.

Niche bonds in thematic classes like blue bonds are less common than green use of proceeds. Limited liquidity and bankable projects have created some

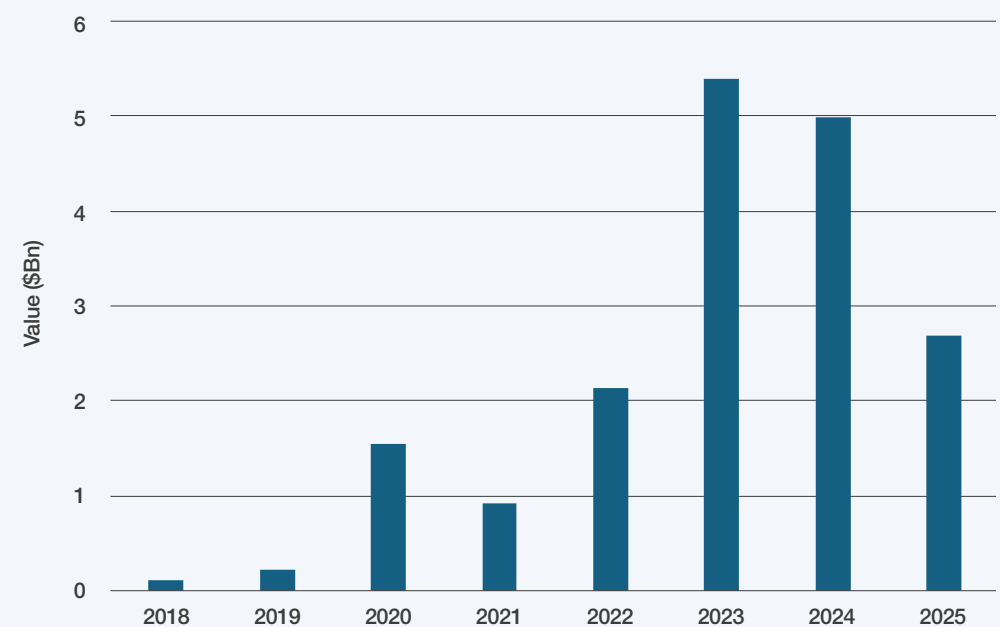
challenges. However, industry guidance from the IFC and ICMA is proving to support clarity for investors and issuers alike.

We anticipate continued issuance from sovereigns who face water stresses exacerbated by climate-induced weather extremes, and corporates in the technology and information infrastructure industries as data centres and related digital infrastructure put more pressure on water and wastewater management,

### Blue bonds year-on-year issuance by issuer type



### Blue bonds year-on-year issuance



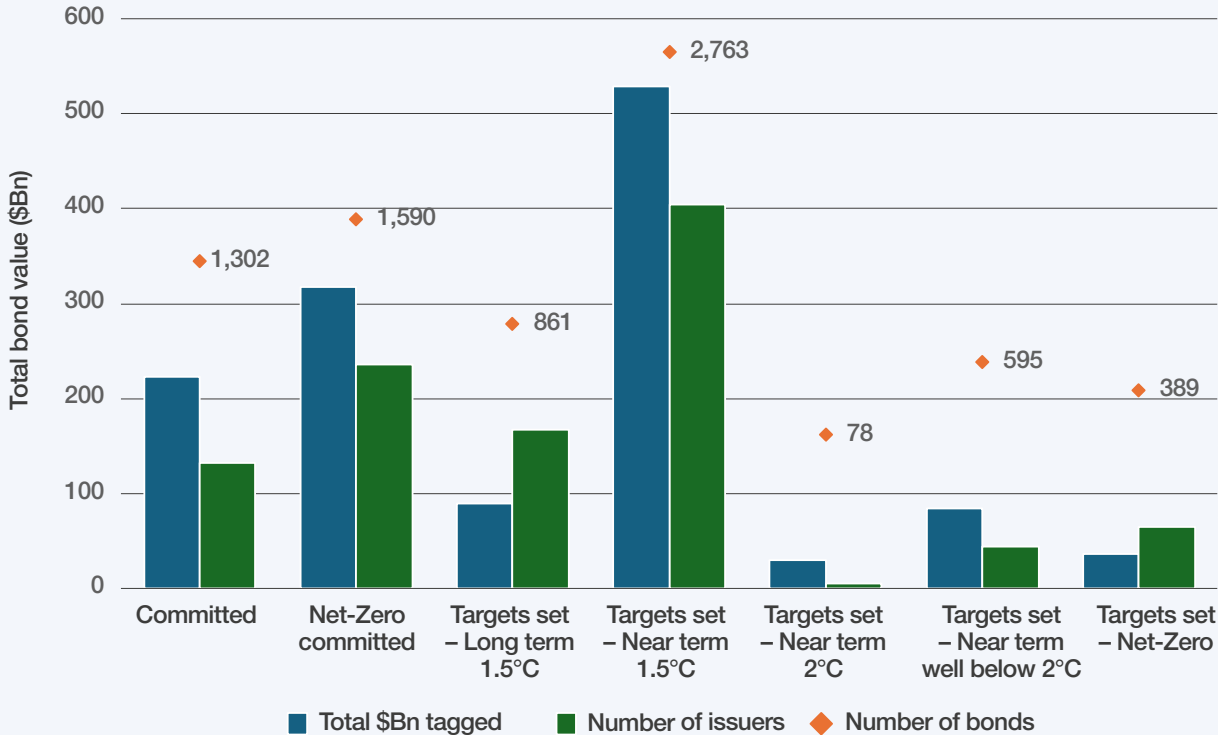
The Science Based Targets Initiative (SBTi) is an independent organisation that provides a scientific framework for setting near-term and net-zero greenhouse gas emissions reduction targets that organisations can voluntarily opt into and have validated through the SBTi.

Whilst SBTi-aligned targets are not a prerequisite to sustainable bond issuance it can be an indicator of an organisation’s commitment to sustainability. Just over

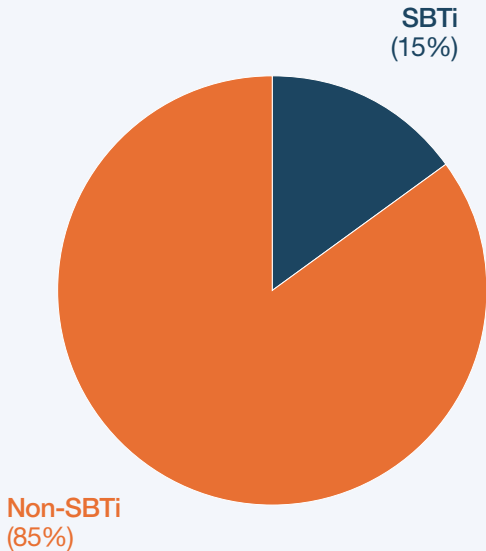
15% of sustainable bond issuers have SBTi aligned targets, representing 19% of the sustainable bond market by value.

Near-term targets are more prominent than long-term targets and there has been an upwards year-on-year trend of sustainable bond issuers with SBTi aligned net-zero targets

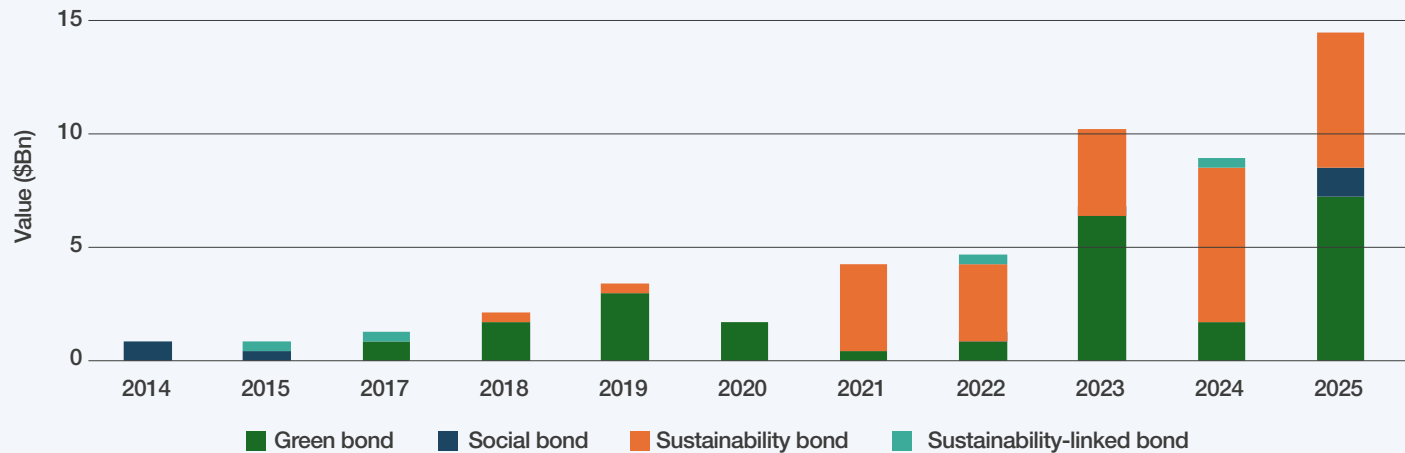
### Value of bonds issued by issuers with SBTi-aligned targets



### Share of sustainable bond issuers with SBTi-aligned targets



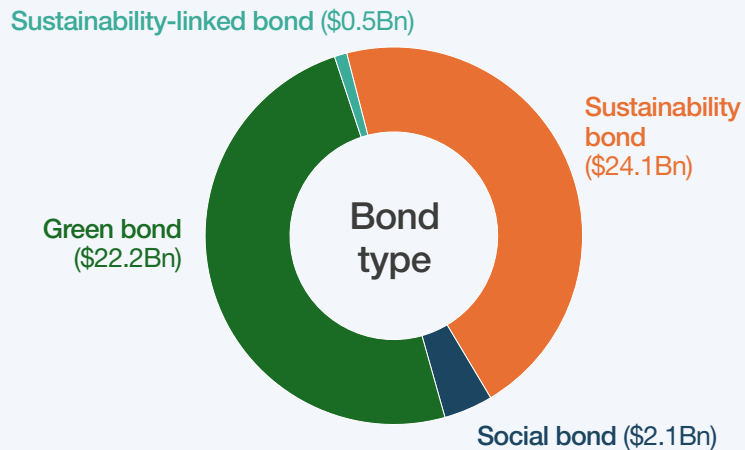
Sukuk issuance year-on-year by label



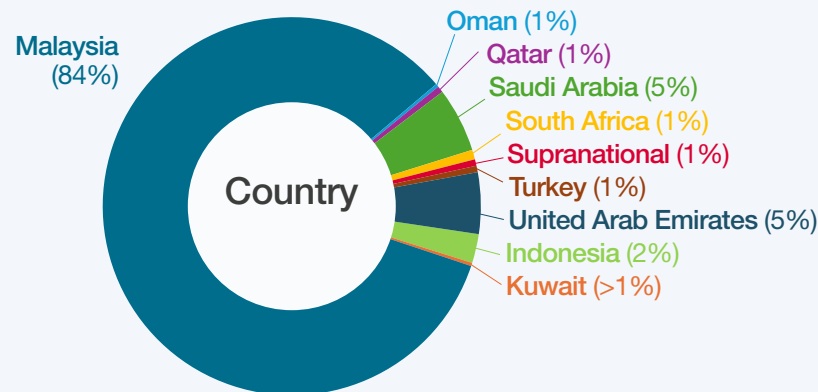
Sustainable sukus had their strongest year on record in 2025 with \$14.6 billion raised compared with \$8.9 billion in 2024 and \$10.1 billion in 2023 - the previous strongest year on record.

This growth in sustainable sukus has been led by Saudi Arabia and the United Arab Emirates, which mirrors the growth in the region for sustainable debt more broadly. We anticipate sustainable sukuk growth in the Middle East to continue as countries in the region continue to diversify away from oil, spurred on by the sustainable development agenda in the region.

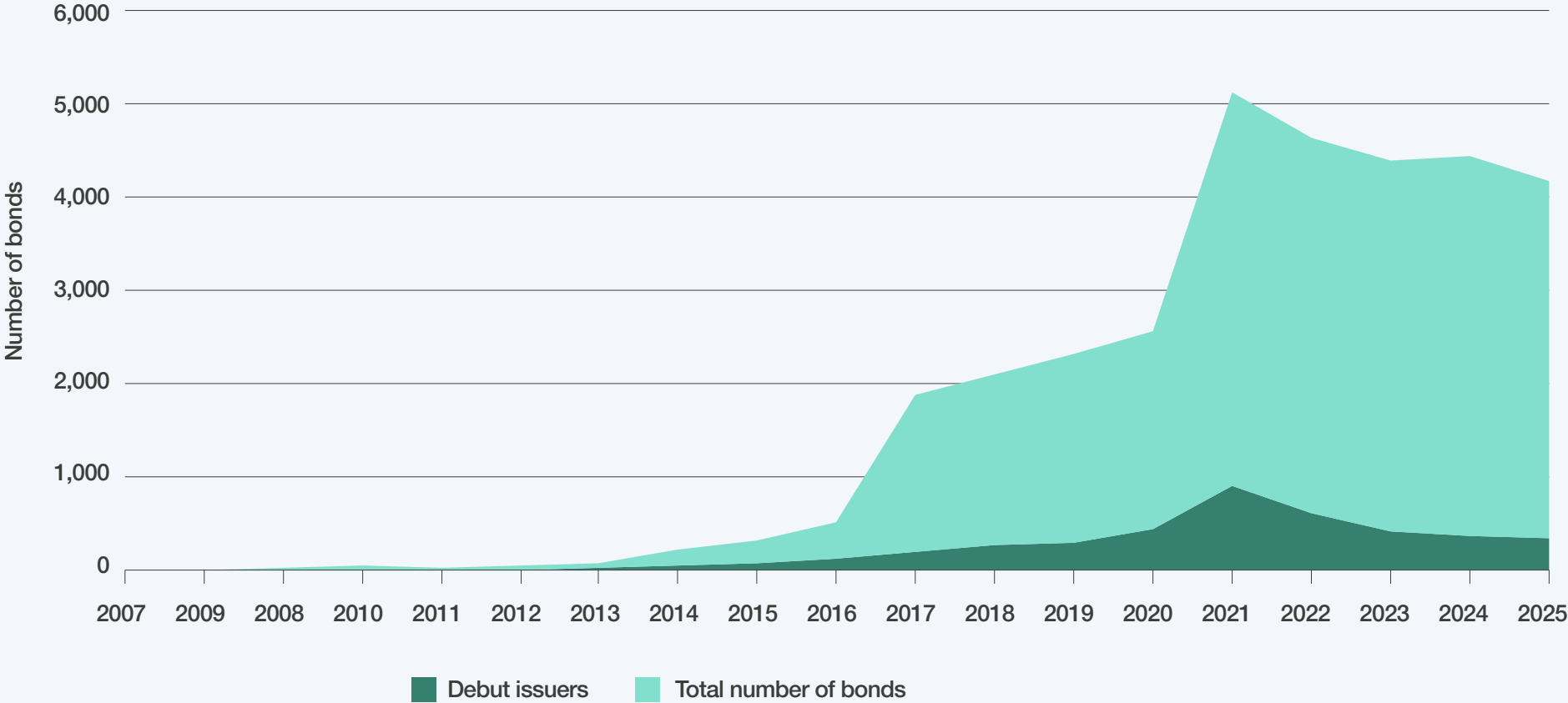
Breakdown of all time sukuk bond issuance by label

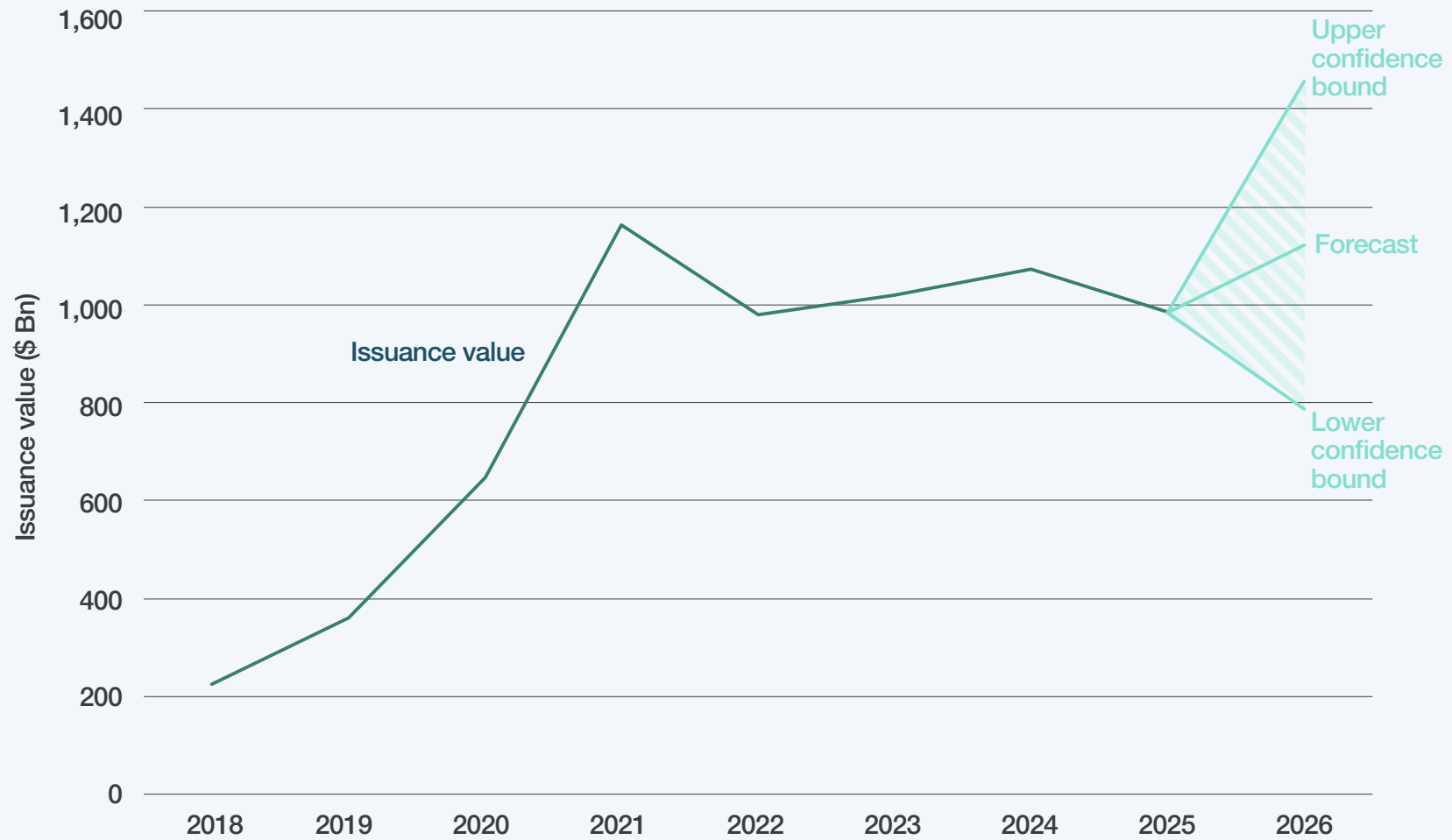


Breakdown of sukuk bonds by country



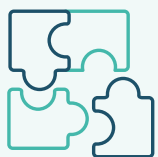
Debut issuers vs number of sustainable bonds issued annually





Note: Lower and upper confidence bounds are accounting for the headwinds and tailwinds of the market, for complete methodology of *Environmental Finance's* market prediction please visit [efdata.org](https://efdata.org)

## MORE DATA



**29,000+**  
bonds

**57,000+**  
bond tranches

**4,100+**  
issuers

**1,000+**  
lead managers

**6,700+**  
green and sustainability-linked  
loans

## MORE GRANULARITY



**40+**  
data points

**600+**  
sub data points

Interactive search  
criteria including:  
issuer, lead manager,  
label, standards,  
currency, country,  
use of proceed, KPI,  
SDG, issuer type,  
sector, SBTi alignment,  
and asset class

## MORE FUNCTIONS



- Allocation and impact data added
- Searchable resource library containing over **30,000+** documents including impact reports, frameworks, final terms and second-party opinions
- API data feed directly into your systems
- Customisable excel data export

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*Environmental Finance's* award winning journalism on the sustainable bond market available through the database
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Fully filterable and searchable to create your own league tables

\* More data added daily – (figures correct March 2026)