Sustainable bonds on course to top $1 trillion annual issuance in 2021

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Sustainable Finance – Global

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Summary

Green, social, sustainability and sustainability-linked (GSSS) bond issuance to reach combined $1 trillion for full-year 2021. Global issuance of GSSS bonds totaled $217 billion in the third quarter of 2021, up 25% from the third quarter of last year, but down 21% from the $273 billion issued during the second quarter of this year. Across the four segments, there were $115 billion of green bonds, $29 billion of social bonds, $52 billion of sustainability bonds and $21 billion of sustainability-linked bonds. Volumes across the four labels totaled $775 billion in the first nine months of 2021, nearly double the $402 billion issued in the first three quarters of 2020. With heightened market focus on accelerating climate action and realizing sustainable development objectives likely to underpin sustained momentum into the fourth quarter, full-year issuance of GSSS bonds is set to top a collective $1 trillion in annual issuance for 2021. Across the individual segments, we anticipate volumes will eclipse $500 billion of green bonds, $200 billion each of social bonds and sustainability bonds and $100 billion of sustainability-linked bonds.

The coronavirus crisis has catapulted social financing to the forefront of sustainable debt markets, a trend that is likely to endure long after the effects of the pandemic subside. Beyond pandemic-related financing, we also see opportunities for proceeds innovation and diversification in the areas of social justice and equality, which continue to rise up the agenda for investors, businesses and governments. We also expect that social issues will increasingly permeate other sustainable debt instruments such as use-of-proceeds sustainability bonds and sustainability-linked bonds. Regardless of the structure used, investors will increasingly consider the link between an issuer’s social financing and its overarching environmental, social and governance (ESG) credentials and sustainability strategy.

Successful delivery of COP26 objectives would further galvanize global sustainable debt markets. Negotiations in Glasgow are likely to focus on several important policy priorities, including a ratchet-up of country commitments towards a 1.5°C aligned future; a framework for international cooperation on carbon pricing; scaling up of climate finance for developing economies; and mobilizing capital for investing in climate resilience. Significant progress in these areas – while not assured – would further galvanize global sustainable debt market activity, particularly with respect to sovereign issuance, transition finance, emerging market (EM) activity and climate adaptation-focused green bonds.
Global issuance of green, social, sustainability and sustainability-linked bonds (GSSS bonds) totaled $217 billion in the third quarter of 2021, up 25% from the third quarter of last year, but down 21% from the strong $273 billion issued during the second quarter of this year (see Figure 1). Across the four segments, there were $115 billion of green bonds, $29 billion of social bonds, $52 billion of sustainability bonds and $21 billion of sustainability-linked bonds. The combined $217 billion represents the third-highest quarterly issuance of GSSS bonds on record, indicating that market momentum continues to be exceptionally strong. Volumes across the four labels totaled $775 billion in the first nine months of 2021, nearly double the $402 billion issued in the first three quarters of 2020.

With heightened market focus on accelerating climate action and realizing sustainable development objectives likely to underpin sustained momentum into the fourth quarter, full-year issuance of GSSS bonds is set to top a collective $1 trillion in annual issuance for 2021. Across the individual segments, we anticipate volumes will eclipse $500 billion of green bonds, $200 billion each of social bonds and sustainability bonds and $100 billion of sustainability-linked bonds (see Figure 2). This combined figure would represent a new annual record that would be 63% higher than the $614 billion issued in 2020. Despite the sizable increase in GSSS bond issuance in recent years, the market has ample room for further growth given the size of the sustainable investing universe, estimated at over $35 trillion in the latest report from the Global Sustainable Investment Alliance, and issuers increasingly aiming to link their sustainability and capital markets strategies.
**Green bond issuance of $115 billion in Q3 represents third-highest quarter on record**

Green bond volumes continued to be strong in the third quarter, coming in at $115 billion, 14% lower than the record $133 billion issued in the second quarter of the year, but 18% higher than the third quarter of 2020. The $380 billion of green bonds in the first three quarters of the year was 75% higher than the corresponding period last year, when the coronavirus pandemic led to a slowdown of economic activity and contributed to reduced green bond issuance. Given the record issuance levels observed in the first nine months of the year and our expectations that issuer interest in green bond financing will only increase with a rising focus on climate mitigation and adaptation projects, we believe issuance for the full year will top $500 billion.

European issuers continued to dominate green bond issuance in the third quarter, with $65 billion accounting for 57% of the global total (see Figure 3). Through the first nine months of the year, European green bonds account for 56% of the global total, slightly higher than the region’s share during all of 2020. North American and Asia-Pacific issuers followed Europe with 22% and 19% of global issuance in the third quarter, with the regions accounting for 19% and 21% of global issuance in the first three quarters of the year, respectively. The leading countries for green bond issuance through the first nine months of 2021 are the US with $61 billion (16% of the global total), Germany with $46 billion (12%), China with $45 billion (12%) and France with $32 billion (8%).

From a sectoral standpoint, nonfinancial companies held a leading share of green bond issuance in the third quarter, with issuance of $48 billion representing 42% of the global total (see Figure 4), down from a leading 51% in the second quarter. Following non-financial corporates, sovereign issuers accounted for $25 billion, or 22% of global green bond issuance in the third quarter, with debut issuances from Spain ($5.9 billion) and the United Kingdom ($13.7 billion) supporting the strong overall volumes. Financial institutions were also meaningful contributors to global green bond volumes in the third quarter with $24 billion of issuance accounting for 21% of the quarterly total. Through the first nine months of the year, non-financial corporates have issued $170 billion of green bonds, accounting for a leading 45% share of the global total. The two largest transactions from nonfinancial corporates in the third quarter included a €2 billion deal from Mondelez International, Inc. and a $2 billion deal from Walmart, both in September.

**Social bonds declined significantly to $29 billion in the third quarter as largest issuers wind down pandemic-related supply**

Social bond issuance declined significantly in the third quarter as some of the segment’s largest issuers brought lesser volumes to market. Issuance totaled $29 billion during the quarter, 47% lower than the second quarter of the year and 7% lower than the $31 billion issued during the third quarter of 2020 (see Figure 5). The decline in issuance was largely attributable to lower volumes from the market’s three largest issuers – the European Union (EU) and French public finance agencies Caisse d’Amortissement de la Dette Sociale (CADES) and UNEDIC – whose combined issuance totaled just $8 billion in the third quarter as the EU didn’t issue any social bonds following $107 billion of issuance under its Support to mitigate Unemployment Risks in an Emergency (SURE) program since
October of last year. Third-quarter issuance from these three issuers was significantly down from the $32 billion combined issuance in the second quarter and $70 billion issued during in the first quarter of 2021.

Total social bond issuance stands at $173 billion through the first nine months of the year, already eclipsing the $167 billion issued in all of 2020. We believe issuance will likely top $200 billion for the whole of 2021 despite the presence of a few large issuers contributing to a significant concentration in the market from a sectoral standpoint (see Figure 6). Going forward, we anticipate that social bonds will remain an instrument of choice for issuers across a wide swath of sectors, as highlighted further in the next section of this report.

**Figure 5** Social bond issuance declines as largest issuers wind down pandemic-related programs

![Social bond issuance declines as largest issuers wind down pandemic-related programs](image)

**Figure 6** Share of Q3 2021 global social bond issuance by issuer type

![Share of Q3 2021 global social bond issuance by issuer type](image)

*Sustainability bond issuance of $52 billion in the third quarter continues strong 2021 market trend*

Sustainability bond issuance totaled $52 billion in the third quarter, down a modest 4% from the second-quarter record issuance of $54 billion (see Figure 7). Third-quarter issuance was 26% higher than the $41 billion issued during the third quarter of 2020, and the $160 billion of issuance through the first nine months of the year was more than 61% higher than the comparable period last year. A greater focus on corporate sustainability and stakeholder capitalism will continue to support growth in sustainability bonds, with greater participation from a wide range of issuers aiming to highlight both their environmental and social objectives. As such, we believe sustainability bond issuance will exceed $200 billion during 2021, on par with social bonds, and maintain rapid growth in the future.

Supranational issuers continued to be the leading regional contributor to the sustainability bond market in the third quarter, with $21 billion of issuance accounting for 40% of the global total. European issuers brought $11 billion to market in the third quarter and accounted for 21% of the total. Asia Pacific issuers followed closely behind with $10 billion in issuance in the third quarter, accounting for 19% of the global total. Through the first nine months of the year, supranational issuers led with $65 billion (40% of the global total), followed by European issuers with $39 billion (24%), Asia Pacific issuers with $25 billion (16%) and North American issuers with $22 billion (14%). Issuance continues to be diverse from a sectoral perspective, with all six main sectors accounting for at least 7% of global issuance in the third quarter, led by supranational issuers, non-financial corporates and financial institutions (see Figure 8). Notable transactions in the third quarter included sovereign sustainability bonds from Mexico (€1.25 billion) and Benin (€500 million), both of which were labeled as “SDG bonds” aimed at advancing the country’s UN Sustainable Development Goal investments.

3 SURE: The European instrument for temporary Support to mitigate Unemployment Risks in an Emergency (SURE), European Commission.
Sustainability-linked bond and loan volumes remain strong as market interest surges

In addition to the strong issuance of use-of-proceeds green, social and sustainability bonds, sustainability-linked bonds and loans also exhibited strong volumes in the third quarter. These instruments are typically borrowings for general corporate purposes where the cost of capital can fluctuate based on whether certain enterprise-wide sustainability targets are achieved. Although these structures are newer than their use-of-proceeds counterparts, issuance levels have been very strong during 2021 as issuers increasingly view these instruments as viable structures that allow them to appeal to investors and banks with a sustainability focus, while maintaining the flexibility of debt issuance for general corporate purposes.

Sustainability-linked bond volumes dropped meaningfully in the third quarter, with $21 billion of issuance representing a 32% drop from the record $32 billion issued during the second quarter (see Figure 9). Nevertheless, these volumes still represent a significant increase above the $9 billion issued during the first quarter of the year, and the $62 billion issued during the first nine months of the previous is nearly seven times higher than the $9 billion issued during all of 2020. With the market’s exceptionally strong growth in recent quarters and growing market interest, sustainability-linked bond volumes could hit $100 billion for all of 2021.

Figure 9 Sustainability-linked bond issuance declined slightly in the third quarter but growth potential remains strong
Quarterly issuance of sustainability-linked bonds by region, US$ billions
European issuers have been driving volumes in the sustainability-linked bond market, accounting for a leading 67% share of issuance in the third quarter. Nearly all sustainability-linked bonds have been issued by non-financial corporates to date, with $58 billion of the $62 billion issued in the first nine months over the year attributable to corporate sectors. Notable third-quarter examples include utilities Enel and NRG Energy, which issued $8.1 billion and $1.1 billion, respectively, in the quarter. We expect diverse corporate participation will continue, as sustainability-linked bonds allow issuers the ability to select relevant enterprise-wide targets. This will enable companies in the early stages of transition, or those that might not have enough eligible green or social projects today, to participate in the sustainable debt markets.

The third quarter was also another strong quarter for the sustainability-linked loan market, where volumes have remained consistently strong throughout the year. Sustainability-linked loan volumes totaled $47 billion in the third quarter, roughly in line with the first two quarters this year (see Figure 10). Volumes through the first nine months of the year totaled $136 billion, already higher than the record $132 billion during 2019. Unlike other markets where European issuers continue to dominate, North American issuers have emerged as a force in the sustainability-linked loan market, with $24 billion of volumes in the third quarter accounting for a leading 51% share of the market.

Figure 10  Sustainability-linked loan issuance continues to stay strong in Q3 2021

Quarterly volumes of sustainability-linked loans by region, US$ billions

The coronavirus crisis has catapulted social financing to the forefront of sustainable debt markets, a trend that is likely to endure long after the effects of the pandemic subside

The onset of COVID-19 in early 2020 positioned social bonds to become one of the fastest growing segments of the use-of-proceeds green, social and sustainability bond markets – with global volumes reaching $173 billion for the first nine months of 2021, up 111% from the same period in 2020, and surpassing the record $167 billion issued during all of 2020. By way of comparison, global social bond volumes totaled just $18 billion throughout all of 2019. The surge in social bond issuance has primarily been in response to the challenges stemming from the pandemic.

While pandemic-driven issuance of social bonds has begun to recede, investor appetite to generate positive social impact will drive increasing innovation in labeled social financing, including diversification in terms of issuer and project types, as well as bond structures. Investors will also respond to evolving regulatory developments, such as the implementation of the Sustainable Finance Disclosure Regulation (SFDR)⁴ and the creation of social taxonomies, such as in the EU,⁵ which will necessitate better identification and measurement of social risk exposures and impacts. Issuers are also aiming to mitigate operational and reputational risks from structural social exposures, a key feature of the market that will persist in a post-pandemic world and support continued social bond issuance.

Social bond proceeds can be used for a wide variety of purposes, making the market a potentially significant force for effecting positive social change. Under the International Capital Market Association’s (ICMA) Social Bond Principles (SBP), eligible social

⁴ Regulation on sustainability-related disclosure in the financial services sector, European Commission.
projects (see Figure 11) address or mitigate specific social issues and/or seek to achieve positive social outcomes for a number of target populations, such as those living below the poverty line, undereducated or underserved persons, women and/or sexual and gender minorities and other vulnerable groups. Eligible social bond project categories include affordable basic infrastructure, access to essential services, affordable housing, employment generation, food security and sustainable food systems, and socioeconomic advancement and empowerment. The SBP have been updated over time to include a broader array of eligible project categories and target populations, and ICMA provided specific guidance on social bonds for COVID-19 pandemic relief.

Figure 11  Social bonds can finance a wide array of eligible project categories

Eligible categories under the Social Bond Principles (SBP)

<table>
<thead>
<tr>
<th>Category</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Affordable basic infrastructure</td>
<td>(e.g., clean drinking water, sewers, sanitation, transport, energy)</td>
</tr>
<tr>
<td>Access to essential services</td>
<td>(e.g., health, education and vocational training, healthcare, financing and financial services)</td>
</tr>
<tr>
<td>Affordable housing</td>
<td></td>
</tr>
<tr>
<td>Employment generation</td>
<td>(and programs designed to prevent and alleviate unemployment stemming from socioeconomic crises (includes SME financing and microfinance))</td>
</tr>
<tr>
<td>Food security and sustainable food systems</td>
<td>(e.g., physical, social, and economic access to safe, nutritious, and sufficient food; resilient agricultural practices; reduction of food loss and waste, etc.)</td>
</tr>
<tr>
<td>Socioeconomic advancement and empowerment</td>
<td>(e.g., equitable access to and control over assets, services, resources, and opportunities; equitable participation and integration into the market and society, including reduction of income inequality)</td>
</tr>
</tbody>
</table>

Sources: Moody’s ESG Solutions and International Capital Markets Association

In addition to the diversity and strong growth observed in the labeled social bond market, other sustainable debt instruments have experienced continued expansion in recent years, incorporating the heightened focus on social issues. For some issuers with broader funding needs or a shortage of social projects to issue a benchmark-size bond, other labels or structures may be alternative options, such as use-of-proceeds sustainability bonds or sustainability-linked bonds that have social targets as part of their structures. As investors have increasingly focused on issuers’ overall sustainability credentials and how their bond financings align with their broader sustainability objectives, issuers have begun to turn to both of these instrument types as a way to finance a broader suite of environmental and social projects. We expect this trend will continue as there is growing recognition of the complex interplay between social and environmental objectives that will be critical in realizing the 2030 Agenda for Sustainable Development. For example, the pathway to a net-zero global economy will require significant attention – and financing – to deliver a just transition for the most affected workers and communities.

One of the challenges facing social-related debt financing is accurate quantitative impact reporting with respect to financed projects. Investments in eligible social bond projects can often have multiple benefits, but the measurement of such benefits is often challenging. For example, construction of affordable housing directly provides homes for low-income persons, but can also contribute to better job security, health and educational outcomes. Attributing these secondary benefits to an individual’s housing conditions is difficult, however, and suggested impact metrics for affordable housing projects typically include more easily measured items such as the number of dwellings financed and the number of individuals benefitting from subsidized housing.

The complexity inherent in measuring the impact of social financing can, in turn, give rise to concerns around “social washing” – that is, when an issuer overstates or misrepresents the impact of social-related projects. The presence of “greenwashing” has been a challenge for some issuers in the sustainable bond markets, and investor scrutiny of issuers’ claims of social responsibility have similarly intensified as the importance of social issues becomes clearer. Despite the challenges inherent in reporting, issuers will

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increasingly be expected to justify the claims inherent in their social bond frameworks and reporting as appropriate measurement techniques come into greater focus.

We are gradually seeing innovation in impact reporting, including the use of granular project-level indicators and commitments to verification of post-issuance reporting. Issuers are leveraging the existing market guidance to define project eligibility and strive for impact metrics that are relevant, extensive and measurable. We anticipate that socially-centered impact reporting and debt structure innovations will continue and be enhanced by emerging regulatory initiatives around social classifications, such as the creation of social taxonomies which would help produce a common market language around eligible activities and criteria over time.9 Developments such as the EU’s taxonomy work could help bolster the breadth and liquidity of social financing in the debt capital markets, particularly with respect to facilitating the expansion of the market among prospective corporate issuers. It will help define what constitutes a substantial social contribution, how to define “do no significant harm” (DNSH) principles and identify what activities are socially harmful.

Successful delivery of COP26 objectives would further galvanize global sustainable debt markets

A year later than planned due to COVID-19 disruptions, the 2021 United Nations Climate Change Conference – or COP26 – in November represents a landmark opportunity to accelerate the global climate goals originally laid out in the 2015 Paris Agreement. Negotiations in Glasgow are likely to focus on several important policy priorities, including a ratchet-up of country commitments towards a 1.5°C aligned future; a framework for international cooperation on carbon pricing; scaling up of climate finance for developing economies; and mobilizing capital for investing in climate resilience. Significant progress in these areas – while not assured – would further galvanize global sustainable debt market activity, particularly with respect to sovereign issuance, transition finance, emerging market (EM) activity and adaptation-focused green bonds.

Ratchet-up of country commitments 1.5°C aligned future

Arguably the most important policy area under discussion at COP26 will be whether country climate pledges, or National Determined Contributions (NDCs), are tightened sufficiently to limit global warming to 1.5°C versus pre-industrial levels. The Paris Agreement had included provisions for NDCs to be reviewed every five years. While a number of major global economies, including the US, EU and China, have unveiled more ambitious climate targets over the past 12 months, collective goals will be nowhere near sufficient to meet the ambitions of Paris. According to the UN, total emissions reductions would fall by just 1% in 2030 compared to 2010 levels going by existing NDCs.10 Meanwhile, the International Energy Agency (IEA) estimates that the successful pursuit of all announced pledges would see only a 40% reduction in energy-related CO2 emissions by 2050 – well short of global net zero ambitions.11

More aggressive climate targets would likely lead to an acceleration in the phase-out of new coal generation capacity, increasing investment in renewable energy, lowering of fossil fuel subsidies (which stand at over $5.8 trillion, or 6.8% of GDP, today)12 and a ramp-up in sustainable infrastructure. Furthermore, investors are likely to mobilize financing for governments that bring climate ambitions to the capital markets via issuance of labeled bonds. Between Q1 2020 and Q3 2021, green and sustainability sovereign bond volumes totaled $104 billion – including debut offerings from both co-chairs of COP26, the UK and Italy – with approximately 94% of issuance covered by net zero country targets by 2050 or later (see Figure 12). However, it is also worth noting interim targets are less commonplace and more varied in nature. Furthermore, issuing countries account for just 12.5% of global greenhouse gas (GHG) emissions. As such, we see considerable potential for greater breadth and reach of sovereign issuance on the back of a successful COP26.

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9 The New Geography of Taxonomies, Natixis, October 2021.
10 “Climate Commitments Not On Track to Meet Paris Agreement Goals” as NDC Synthesis Report is Published, United Nations Framework Convention on Climate Change, September 2021.
International cooperation on carbon pricing

The second key area to watch will be progress on carbon pricing globally in accordance with Article 6 of the Paris Agreement. Carbon pricing, particularly in the form of Emissions Trade Systems (ETS), are not new – the EU ETS, for example, came into force back in 2005. However, such initiatives tend to be quite localized and limited in scope. According to the World Bank, only one-fifth of global GHG emissions are covered by some form of carbon pricing instrument. And while carbon prices have reached record highs in the EU, at over €60 per tonne (see Figure 13), the global carbon price may need to rise to between $75-$100 globally to realize the objectives of the Paris Agreement.

We therefore expect COP26 talks to center on both the scope and scale of carbon pricing schemes, including the deployment of innovative solutions to encourage global adherence. One such innovation is the EU’s proposed carbon border adjustment mechanism, which would mean that the EU's climate policies would have significant ramifications outside of the trading bloc. For heavy-emitting industries, global coordination on carbon pricing and other decarbonization policies would, to varying degrees, increase relative costs of production, erode demand for carbon-intensive products and services, and incentivize an acceleration in capital expenditure into greener products and services. We are already seeing the effects of carbon transition on the automotive sector, for instance, where manufacturers are aggressively financing investment in electric vehicle production. Other sectors, meanwhile, are investing in enabling technologies such as green hydrogen.

Sources: Moody's ESG Solutions, Environmental Finance Bond Database, World Bank global emissions data as of 2019, Energy & Climate Intelligence Unit, Climate Action Tracker, various national government sources

International Cooperation on Carbon Pricing

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<th>Sovereign issuer</th>
<th>Green/sustainability bond issuance, US$bn</th>
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<td>Mexico</td>
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<td>2050</td>
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<td><strong>Grand Total</strong></td>
<td><strong>$103.8</strong></td>
<td></td>
<td></td>
<td></td>
<td><strong>12.5%</strong></td>
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From a sustainable debt market perspective, this raises the opportunity for greater momentum around transition finance, whether through use-of-proceeds green bonds, dedicated transition bond labels or the use of SLBs. Sectors with elevated exposed to carbon transition have issued $329 billion of sustainable bonds since 2006, equivalent to around 47% of total issuance from all non-financial companies (see Figure 14). Utilities and autos & transportation – where low-carbon technologies can be generally deployed at scale today – unsurprisingly lead the way, accounting for 43% of issuance. On the other hand, shipping, oil & gas and metals & mining account for just 3% of labeled bond issuance. There may be significant room for growth in these industries as investors better appreciate, and look to finance, green capex plans that are aligned with viable transition pathways. Global harmonization of climate disclosure – including the widespread adoption of science-based methods for target setting – will be critical in this regard, particularly in ensuring transparency and integrity of sustainability performance targets and key performance indicators embedded into SLBs.

Scaling up of climate finance for developing economies

COP26 will provide renewed momentum towards achieving the Paris Agreement commitment of mobilizing $100 billion in annual climate financing from developed to developing economies by 2020. Latest data suggest that this level of financing has so far failed to materialize, with developed countries provided around $80 billion to developing countries in 2019. However, according to the UK COP26 presidency, developed countries will make significant progress towards the $100 billion goal in 2022, and will meet the target in 2023. Financing for developing economies is of paramount importance. They tend to be more highly exposed to the physical effects of climate risk. Furthermore, their ability to secure market financing can be constrained by shallow local markets, greater perceived country and regulatory risk and – in more recent times – weaker credit profiles due to the economic and financial fallout from the coronavirus crisis.

Even if the $100 billion annual milestone is achieved, this would only represent a tiny fraction of investment needed to meet low-carbon infrastructure needs in developing economies. According to the IEA, 70% of the $4 trillion in investment required to reach net zero must flow into emerging markets (EM) and developing economies. EM sustainable debt markets can help bridge this funding gap, although investing in capacity building, creating robust investable pipelines, and de-risking projects via blended finance mechanisms will be critical enablers. As shown in Figure 15, EM sustainable bond issuance has expanded and diversified this year in line global trends, with year-to-date volumes of $112 billion already double the $56 billion full-year outturn from 2020. However,
as a share of total global GSSS bond issuance, EM volumes remain relatively small at just 14%, and have also been on a relative declining trend since 2016.

Figure 15  Total EM GSSS bond issuance by region, 2014 - Q3 2021

Mobilizing capital for investing in climate resilience

While decarbonizing the global economy will inevitably take center stage during COP26 negotiations, there is also an urgent need to prepare economies and communities for increasing climate extremes. Indeed, the first part of the Intergovernmental Panel on Climate Change (IPCC) sixth assessment report underscores the reality that the physical effects of climate change are largely locked in over the next few decades, with the effects likely to be more severe and far-reaching than previously assumed.22

Elevated risk exposure brings the need to invest in resilience, which presents financing opportunities. Only 3% of green bond proceeds have been allocated to adaptation projects to date (see Figure 16). The lack of predictable longterm cashflows generated from adaptation projects is one of the reasons growth and development in this area is stymied.

Figure 16  Green bond issuance by use of proceeds category, % total

One group addressing this challenge is the Coalition for Climate Resilient Investment (CCRI), a private sector initiative committed to building climate resilience by promoting an efficient integration of physical climate risks into investment decision-making.23 The coalition will develop tools to help sovereigns and municipalities prioritize resilience investments within infrastructure portfolios, create a framework to integrate physical climate risk considerations into asset design and cash flow modeling, and create innovative capital market instruments combining insurance and credit risk to reward projects that integrate climate resilience into their design.

23 In October 2021, Moody’s joined 95 other members in the CCRI, including lenders, institutional investors, insurance, engineering & construction, governments, NGOs and others.
Appendix

Sustainable debt instruments defined
Throughout this report, we refer to a variety of sustainable debt instruments. These include: use-of-proceeds green bonds, social bonds and sustainability bonds, whose proceeds are typically earmarked to finance specific eligible environmental and/or social projects; and sustainability-linked instruments, whose proceeds can typically be used for general corporate purposes but whose interest rates are tied to the achievement of various sustainability targets. These instruments include:

» **Green bonds**: Bonds where the proceeds will be exclusively applied to finance or refinance new and/or existing eligible green projects, such as renewable energy, energy efficiency, clean transportation, sustainable water management and green buildings. Typically issued in accordance with the [Green Bond Principles](#).

» **Social bonds**: Bonds where the proceeds will be exclusively applied to finance or refinance new and/or existing eligible social projects, such as affordable basic infrastructure, access to essential services, affordable housing and food security. Typically issued in accordance with the [Social Bond Principles](#).

» **Sustainability bonds**: Bonds where the proceeds will be exclusively applied to finance or refinance a combination of new and/or existing eligible green and social projects. Typically issued in accordance with the [Sustainability Bond Guidelines](#).

» **Sustainability-linked bonds**: Bonds that incentivize the issuer's achievement of material, quantitative, predetermined, ambitious, regularly monitored and externally verified sustainability objectives through Key Performance Indicators and Sustainability Performance Targets. Typically issued in accordance with the [Sustainability-Linked Bond Principles](#).

» **Sustainability-linked loans**: Loan instruments and/or contingent facilities that incentivize the borrower's achievement of predetermined sustainability performance objectives. Typically issued in accordance with the [Sustainability-Linked Loan Principles](#).

Note on our sources
Our primary source for sustainable debt data throughout this report is the [Environmental Finance Bond Database](#), with such data referenced in this report downloaded as of 12 October 2021.
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