SUSTAINABLE DEBT GLOBAL STATE OF THE MARKET H1 2020

Climate Bonds Initiative

Prepared by Climate Bonds Initiative.

The world in 2020

2020 has been an exceptional year so far. The COVID-19 pandemic may have caught many off-guard, but the reality is pandemics are only one of the many negative impacts we can expect to occur with increasing regularity in the face of environmental degradation.

The COVID-19 pandemic is another confirmation of the inter-relationship between social and environmental issues, of the dangers we face as a species, and of our unpreparedness to deal with shocks in a robust and resilient manner.

But a crisis is also an opportunity. And what has become clear in the midst of this crisis is that it could also be a catalyst for systemic change to the global economy to address our most pressing environmental and social challenges.

About this report

Climate Bonds has been producing State of the Market reports focused on analysing the green bond market since 2011.[2] This report goes beyond previous reports in this series to cover the full range of social, sustainability and green labels for this first time. It is broken up into two parts:

Part 1 provides an overview of green, social and sustainability bonds. This includes a full analysis of green bonds issued in H1 2020 and an in-depth historic analysis of other debt themes – sustainability, social and pandemic bonds – from 2014 to H1 2020. This is made possible by the expansion of Climate Bonds' market coverage to include other debt labels, which will culminate in the launch of a separate database for such instruments still this year.

Part 2 presents a detailed overview of policy measures from around the world related to sustainable finance. These cover a diverse set of stakeholders, from governments to central banks to investors, and reiterate the need for a green and sustainable recovery globally in a post-COVID world.

The overall aim is to provide a more comprehensive overview of sustainable debt markets, connecting this with policy and related initiatives, and ultimately supporting the growth of sustainable finance.

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About the Climate Bonds Initiative

The Climate Bonds Initiative (Climate Bonds) is an international, investor-focused, not-for profit organisation working to mobilise the USD100tn bond market for climate change solutions.

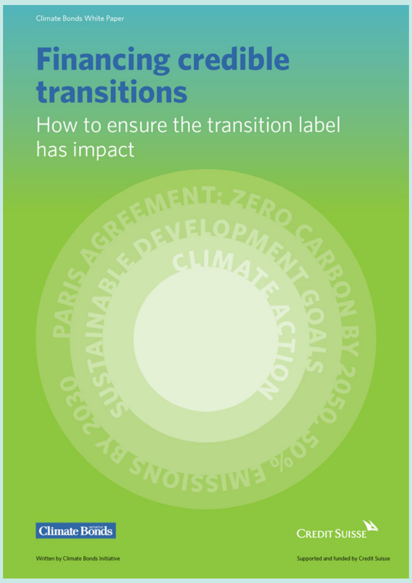
Our mission is to help drive down the cost of capital for large-scale climate and green infrastructure projects, including supporting governments seeking increased capital markets investments to meet climate goals.

Green Bond Data Playground

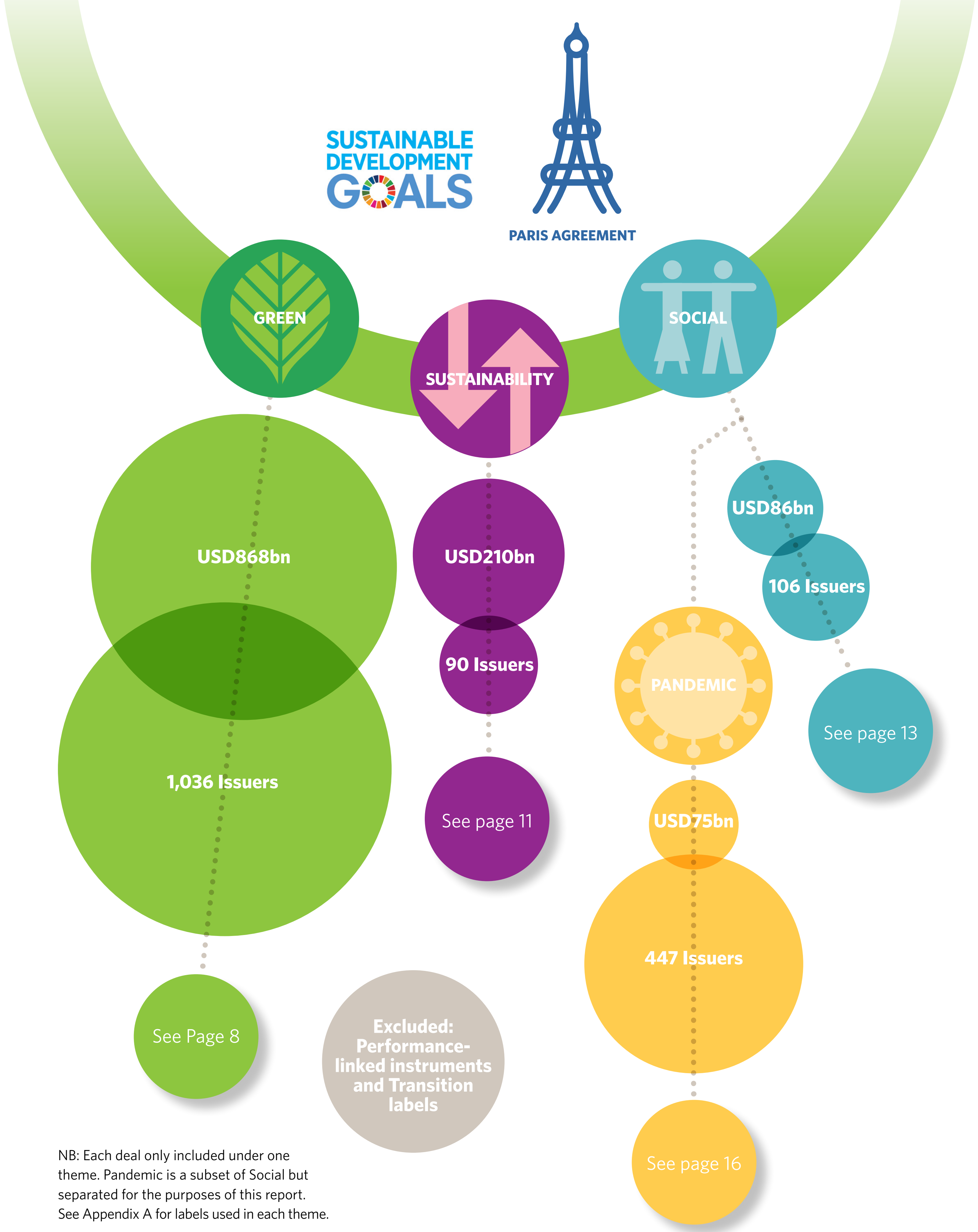
To complement this report, we have created a chart-based Green Bond Data Playground through which you can analyse and view the green bond market in various ways. It is available here – we invite you to spend some time playing.

Financing Credible Transitions paper

Climate Bonds recently launched this groundbreaking whitepaper,[1] partnering with Credit Suisse. Its two main purposes are: to define transition as a concept; and to put forward a framework for identifying credible transitions aligned with the Paris Agreement, for use of the transition label in practice.



This report covers the full spectrum of sustainable finance themes



NB: Each deal only included under one theme. Pandemic is a subset of Social but separated for the purposes of this report. See Appendix A for labels used in each theme.

Executive summary

Part 1: Sustainable debt market analysis

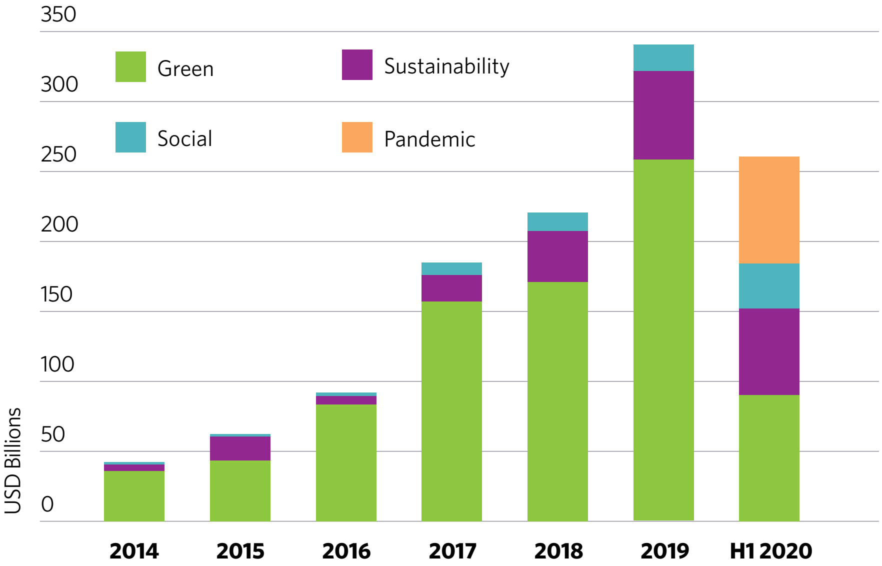
Overall

The sustainable debt market has been dominated by green, but the share of other themes has grown in recent years, both in terms of amount issued and number of issuers.

Overall, the market performed strongly in H1 2020, with over USD250bn issued versus USD341bn for the full year of 2019.

Due to COVID-19, however, the market's composition is noticeably different this year, with a much more even split between themes than previously. Further, the fact that a large part of social and sustainability bond issuance in H1 2020 financed COVID-19 response measures means that most non-green volumes – and likely around half of the total sustainable debt market – financed pandemic-related investments in H1 2020. (*See Methodology for more detail on our analysis process and definitions.*)

Most even thematic split in H1 2020



Highlights by theme

Green

- Green bond volumes were the most (negatively) impacted of all themes, but there were positive signs in the market that point to increasing demand and better performance of green vs. vanilla debt instruments.
- H1 2020 volumes dropped to below half of 2019 levels in every region, with the exception of Latin America due to continued sovereign issuance from Chile. The bulk, however, came from Europe, which represented more than half of the global total (55%) for the first time ever.
- Globally, issuance was less affected in developed versus emerging markets.
- Public sector issuers experienced a smaller decline than private sector ones, to some extent expected given their less flexible investment plans and lower vulnerability to market dynamics, particularly in the short-term.
- Increasing share of top 3 UoP categories: Energy, Buildings, and Transport. Transport was clearly the driver, led by rail investments from sovereigns and government-backed entities.
- Increased volume among the top currencies – most of which are hard – which may reflect the preference for 'safer' currencies in a time of market uncertainty.

Sustainability

- Sustainability bond volumes have been rising consistently. In H1 2020, they achieved a similar level as 2019.
- Supranationals represent most of cumulative issuance (58%), and over three-quarters (77%) of H1 2020 – their highest share since 2015. Otherwise, the top three domiciles are European: Germany, the Netherlands, and Spain.
- Development banks – mainly MDBs – are the dominant issuer type, largely driven by the World Bank. Corporates account for a much smaller share than in the green bond market.
- 95% of the volume denominated in hard currency, the same holding true for H1 2020.

Social

- Early impact investing strategies gave rise to social bonds in 2006, even earlier than their green counterparts. Driven by COVID-19 response measures, social bonds achieved far higher volumes in H1 2020 than any other full year.
- Issuance came exclusively from supranationals in early years, then expanding to issuers from Europe and, increasingly, Asia-Pacific. Nonetheless, both sovereign issuers are from Latin America: Ecuador and Guatemala.
- 40% of the cumulative volume has come from government-backed entities, mostly European.
- Similarly to sustainability bonds, relatively short tenors are used compared to the green bond market.

Pandemic

- Pandemic bonds emerged in China in February 2020 (according to our definition).
- Chinese issuers made up an overwhelming majority of pandemic-themed bond issuance, with nearly 90% of volume and 441 out of 447 issuers. Supranational issuance is the next most common.
- Issuance is dominated by non-financial corporates, with several industry sectors represented.
- Almost all volume is short-dated. 96% has a tenor of five years or less.

Part 2: Policy and market development

Evolving market

The sustainable debt market, including the breadth of instruments available to issuers and investors, is evolving. Labelled securities will continue to play a major role, and are already expanding their coverage beyond 'traditional' green, social and sustainability debt to capture more transition investments. They will be complemented by others, such as performance-linked instruments.

Linked to this, work to develop sustainable finance has intensified noticeably in the last couple of years, and this will likely accelerate given the ongoing pandemic and increased attention on sustainability themes.

Important breakthroughs have been made on the adoption of taxonomies to determine whether investments contribute to climate change mitigation or other environmental objectives. The EU and China, which collectively account for approximately 35% of global GHG emissions, respectively published the EU Taxonomy and PBoC Green Bond Endorsed Projects Catalogue (the latter originally launched in 2015 and updated and released for consultation this year). Such documents can serve as the blueprints for the net-zero GHG emissions economy we must rapidly transition towards.

Other players, such as stock exchanges, central banks and other regulators, are also increasingly involved around the world, including through the creation of collaborative networks to share knowledge and implement joint initiatives. One example is the Network for Greening the Financial System, and we cover many more in Part 2.

Even so, there is clearly still a need to do much more to structurally integrate 'sustainability dimensions' into the core of economic activities and decision-making.

An opportunity born out of necessity

If climate change and wider environmental degradation are not enough to motivate bolder action at scale, perhaps the immediate and global danger of COVID-19 will unite the international community under a shared understanding of the IPCC's 1.5°C report and its urgent call to mitigate (and adapt to) climate change.

The need to kickstart economies worldwide presents a valuable opportunity for change through the 'build back better' agenda. To achieve this, governments can use their own balance sheets or make efforts to reduce the cost of private capital through various forms of financial support and policy measures.

This may include an increased use of labelled debt among governments and other public sector issuers – by labelling debt, as several sovereigns have already done, governments could send a clear market signal while contributing to the development of domestic sustainable financial markets, and attracting a more diversified investor base.

Their ability to do so, however, will largely depend on fiscal constraints. For many DM countries, this should not pose a significant problem given record low interest rates and relatively strong debt affordability.

Furthermore, the pandemic has maintained or even reduced the already low interest rates at which many DM governments can borrow, while increasing the risk premium paid by private sector players as well as countries perceived as 'riskier'. EM countries are therefore likely to have it harder, which is exacerbated by the fact that emerging economies are also already suffering from severe drops in FDI as a result of the pandemic.

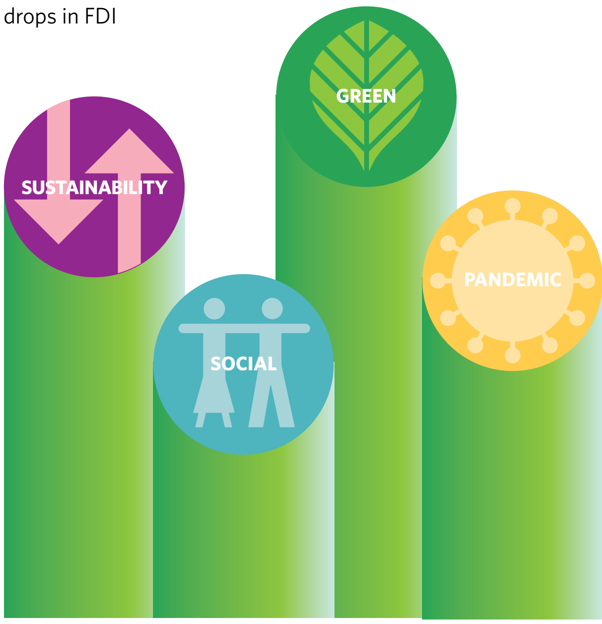
In any case, it is critical that recovery plans include alignment with long-term emission reduction goals, factor in resilience to climate impacts, slow or stop biodiversity loss, and increase circularity of supply chains. Green stimulus programmes could help to restart economies while reducing the risk of future recessions caused by climate change and/or degraded ecosystems (such as pandemics).

The bigger picture

Beyond stimulus measures, however, there is a clear need to 'think bigger' if we are to achieve the structural transformation required to align economic health with social and environmental health. One might argue the existing set up has fuelled success so far; in some ways this might be true, but a system that leads to its own destruction ultimately cannot be considered successful.

The wider policy landscape must evolve. Central banks, for example, must work closely with finance ministries to set a post-COVID recovery that integrates the 'build back better' agenda of green stimulus packages – for instance, through targeted purchases of 'green-resilient' assets and preferential loans complementing the progress being made on climate and other risk assessments. This will need to be supported by broader economic policy and initiatives by regulators, stock exchanges, financial institutions, and related networks.

Negative shocks such as COVID-19 are here to stay. The question is for how long, and to what extent. And that depends on our response.



Part 1: Sustainable debt market analysis

Introduction

The intensified perception of and concern for environmental threats has permeated the financial sector and given rise to a variety of financial instruments that provide environmental and social, benefits alongside financial returns. Such instruments demonstrate the potential for financial markets to fund solutions to global problems such as climate change and COVID-19.

The majority of this has come in the form of labelled debt, predominantly through bonds and loans. Within these, an array of labels and structures can and have been used, typically at the issuer's discretion. The diversity of labels continues to grow with COVID-19, for example, creating shifts in the use of sustainable debt instruments.

In the last ten years, Climate Bonds has worked almost exclusively on developing *green* finance. While we continue to focus on green, it is impossible to ignore the inter-relationships between environmental and social issues, even more so given the Sustainable Development Goals (SDGs).

In this context, we have been expanding our data coverage to other labelled debt instruments – particularly sustainability and social bonds – and a separate database covering these will be launched in 2020.

Scope of analysis

Due to this unprecedented year, we have brought forward an evaluation of the broader sustainable debt market (including all years) to supplement a deeper-than-usual interim analysis of H1 2020 green bond issuance.

We cover three overarching sustainable debt themes based on the projects/activities financed: **Green, Social, and Sustainable**. However, 2020 has seen the emergence of deal labelling related to the pandemic. Being health-related, this would normally sit under the Social theme, but given the scale of issuance and the significance globally, we consider **Pandemic** a separate theme for the this report.[3] We therefore use the following themes:

Green: dedicated environmental benefits (tracking began 2012)

Social: dedicated social benefits (tracking began 2020)

Sustainability: includes green and social (tracking began 2020)

Pandemic: deals with COVID-19 related labels

It is important to note that this paper analyses *labelled* debt financing. Unlabelled deals may also finance a range of sustainable projects but are not the focus here. Our upcoming report on climate-aligned issuers explores this topic for the green theme.

Finally, the comparison versus previous years for the green theme is only indicative. There may be seasonal variations which prevent full year on year comparability. For this reason, we have prioritised analysis in terms of relative changes in amount issued (i.e. % shares) over *absolute* changes.

For reference, the USD91.5bn issued in H1 2020 represents a 65% drop versus the USD258.9bn total in 2019 or a 28% drop versus H1 2019.

Methodology overview

For the purposes of our work and this report, the sustainable debt market is defined by debt instruments that (a) have a label, and (b) finance sustainable projects/assets.

Debt labels describe the type of projects financed or their benefits. 'Green', 'social' and 'sustainability' labels are the most common in each theme, but a wide range is used (*see Appendix A*).[4]

Green

All deals in green theme have been screened for 'greeness'. Screening is based on the Climate Bonds Green Bond Database Methodology[5] using the following two criteria:

- Deal must be labelled
- All net proceeds must meet Climate Bonds' definitions of green (*based on Climate Bonds Taxonomy*)[6]

Thus, for green debt instruments we review the green credentials of the activities financed.

Other

For other themes, the use of proceeds has not been screened. For now, the label is the only prerequisite. Which theme the deal is in depends only on the label, as follows:

Sustainability: label describes a combination of green and social projects. e.g. Sustainable, SDG, SRI, ESG, etc.

Social: label is exclusively related to social projects. e.g. Housing, Gender, Women, Health, Education, etc.

Pandemic: label is exclusively related to the COVID-19 pandemic. e.g. COVID-19, Fight COVID-19, Response, Pandemic, etc.

Thus, if a bond only finances green projects, it is included in the Green theme regardless of its label. On the other hand, a sustainability-labelled bond that only finances social projects is considered as Sustainability. Due to this, our analysis of other themes is merely an indicator of capital markets funding aimed at each theme, based on the deal label (*see Appendix B*).

There are two exclusions to the data

Performance-linked instruments

A recent development pushing the borders of sustainable finance beyond the use-of-proceeds model is the growth of performance- or KPI-linked debt instruments. As opposed to financing a specified pool of assets and projects, these instruments raise general purpose finance but the coupon/interest rate is tied to the issuer meeting predefined, time-bound KPIs.

CBI does not yet hold comprehensive data on performance-linked loans (only a handful of issuers have used the format in a bond so far), preventing analysis at this stage. We are planning to have full coverage of performance-linked instruments in 2021.

Transition labels

Transition finance refers to investments that are not yet low- or zero-emission (i.e. not green) but have a short-term role to play in decarbonising an activity or supporting an issuer in its transition to Paris Agreement alignment. This widely debated concept is built on the premise that "transition bonds" can fill a market gap by extending the labelling to a more diverse set of sectors and activities.

Many of the candidates are currently highly polluting, hard to abate, and do not fall within existing sets of green definitions but are key to meeting global climate targets. Examples include extractives like mining; materials such as steel and cement; and industrials, including certain types of transportation, e.g. shipping and aviation.

Sustainable debt market overview

The infographic on page 3 shows a sustainable debt market dominated by green. However, the share of other themes has clearly been growing, both looking at amount issued and number of issuers (*see below*).

2020 has seen the overall sustainable debt market growing, with a total half-year figure of over USD250bn versus USD341bn for the full year of 2019. However, its composition is noticeably different, with a more even split between themes than previous years. The pandemic theme, which only emerged this year, is the second-largest in 2020 and already almost as large as the entire social theme. The 447 issuers of pandemic bonds are also more than double the 221 green bond issuers in 2020.

Further, given that a large part a large part of social and sustainability bond issuance in H1 2020 financed COVID-19 response measures, it can be concluded that most non-green volumes – and likely around half of the total sustainable debt market – financed pandemic-related investments in H1 2020.

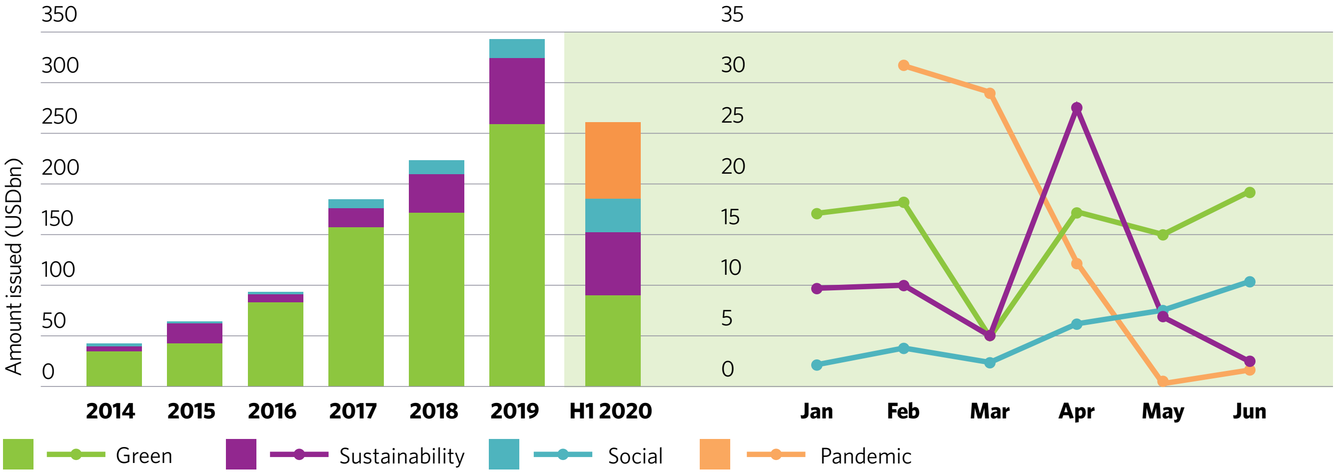
In 2020, the first pandemic bond was issued on 5 February, a RMB1bn (USD143m) deal by Zhuhai Huafa Group from China. Pandemic-themed issuance peaked in February and has declined since. Meanwhile, there were significant drops in all other issuance in February and March as COVID-19 spread, although volumes rebounded in April.

Green volumes were clearly impacted most of all. In H1 2020, issuance was well under half the size of 2019. The largest drop came in March, with monthly issuance subsequently failing to rise above pre-March levels. Even so, there were positive signs in the green bond market that point to increasing demand and better performance among green debt instruments. For example, our pricing research suggests that green bonds experienced record levels of book cover and spread compression in the primary market, and on average performed better than vanilla equivalents and indices in the secondary market (see the H1 2020 Green Bond Pricing report).[7]

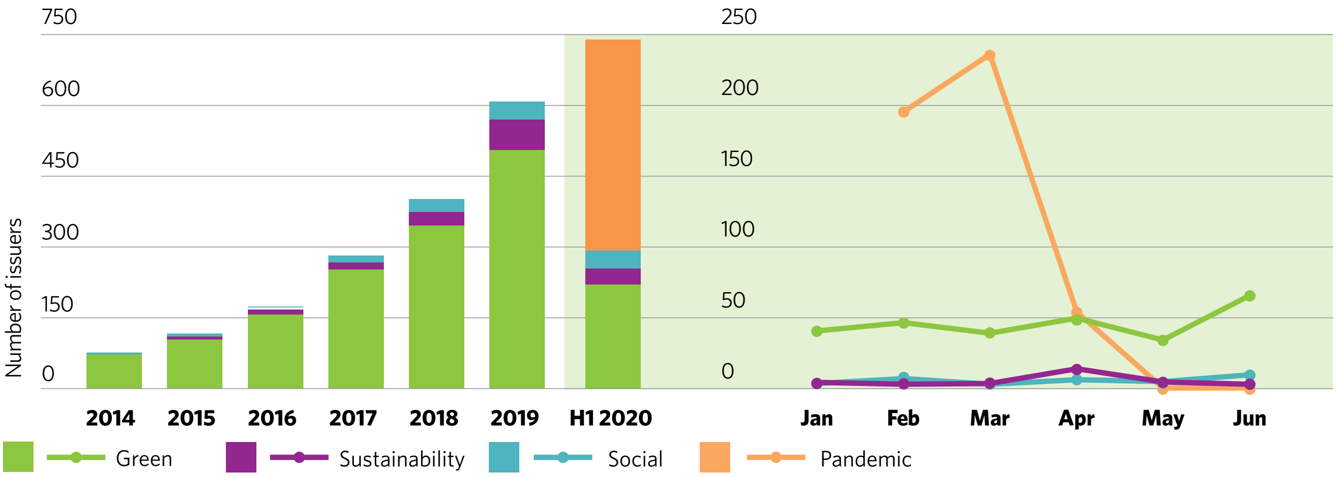
The spike in the **sustainability theme** in April was due to sizeable issuance by the World Bank (USD14.7bn from six deals) and a USD4.25bn deal by the Inter-American Development Bank (IDB). Among the World Bank's six deals was a record-breaking USD8bn issue, the largest ever deal across all themes. While labelled 'Sustainable Development' and included in the Sustainability theme, the proceeds were financing COVID-19 response measures; the same is true of the IDB's bond. The spike in Sustainability-themed bonds in April can be broadly attributed to COVID-19 investments *outside of China*. In China, more robust guidance on issuing pandemic bonds from the PBoC has led issuers to largely use pandemic-related labels to finance COVID-19 expenditures.

The World Bank and IDB deals are two good examples of financing for COVID-19 response measures not included under the pandemic theme due to the label used; another is the USD1bn social bond issued by Bank of America in May.

Most even split in H1 2020; Green volume fell most in March



Pandemic represents >60% of issuer count in H1 2020; Issuer count less volatile than volume



NB: 'Number of issuers' reflects the number of issuers in each individual theme. Some issuers 'appear' in more than one theme (see Methodology).

Thematic deep dives

Green

As covered in our recent Green Bonds Global State of the Market 2019, last year saw:

- Record issuance, topping USD200bn & USD250bn for the first time
- All regions and most issuer types and UoP categories growing
- 8 new issuer domiciles and 291 new issuers, including debut sovereigns from the Netherlands, Chile and Hong Kong
- Important market and policy developments, most notably further work on market harmonisation through the EU Taxonomy and Green Bond Standard

This dive into green is meant as an interim 2020 update in a markedly different year. It digs deeper than our usual H1 Summary and highlights the asymmetric impacts of COVID-19 on different market features.[8]

Regions

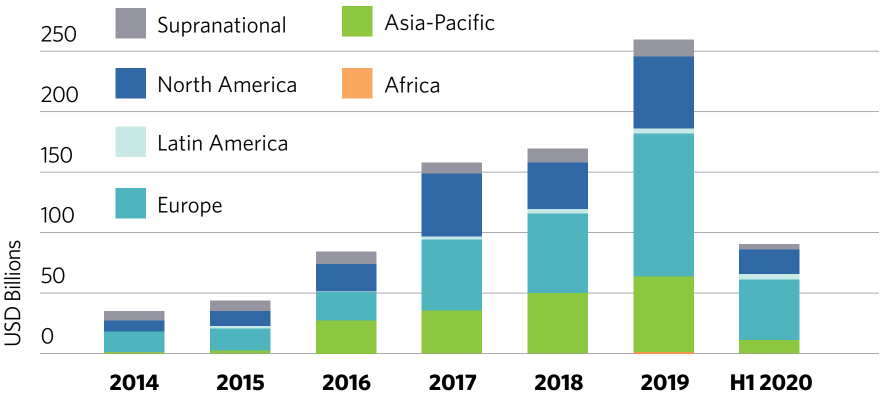
Volumes in H1 2020 dropped to below half of 2019 levels in every region. The exception was Latin America, whose USD4.5bn is very close to the USD4.7bn achieved in 2019 due to continued sovereign issuance by the Republic of Chile. Subsequent deals from LatAm in H2 have already taken issuance well above 2019 levels.

Overall, however, the bulk of issuance came from Europe. The region represented more than half of the global total (55%) for the first time ever. Two-thirds (63%) of European issuance stemmed from non-financial corporates and government-backed entities, more than the usual 40-45%.

North America remained relatively stable. Its 66% decrease was in line with the overall 65% decline and to a large extent driven by lower Fannie Mae (FM) issuance, which totalled USD2.6bn from 90 deals.

Apart from Africa, which had no issuance in H1 2020, Asia-Pacific was the weakest region, with only USD12bn compared to the USD64bn in 2019. Although this was mainly due to the large drop in Chinese issuance, various other countries in the region also experienced sharp falls. Australia, India, the Philippines, Singapore, South Korea, Hong Kong, and the UAE all had volumes decline at

Europe >50% of issuance for first time



least 80%, while issuers from Malaysia, New Zealand, Thailand, and Saudi Arabia have yet to come to market in 2020.

Green bond issuance was less affected in developed markets (DM) versus emerging markets (EM).[9] DM volumes reached their highest (81%, 72% in 2019) and EM their lowest (13%, 23% in 2019) shares yet, while Supranational issuance increased slightly to 6% (5% in 2019). This is somewhat expected given that pandemic-related expenditures take special priority in EM (including at the expense of green), whereas in several more mature DM markets green investment is 'stickier' and thus less vulnerable to shocks.

Countries

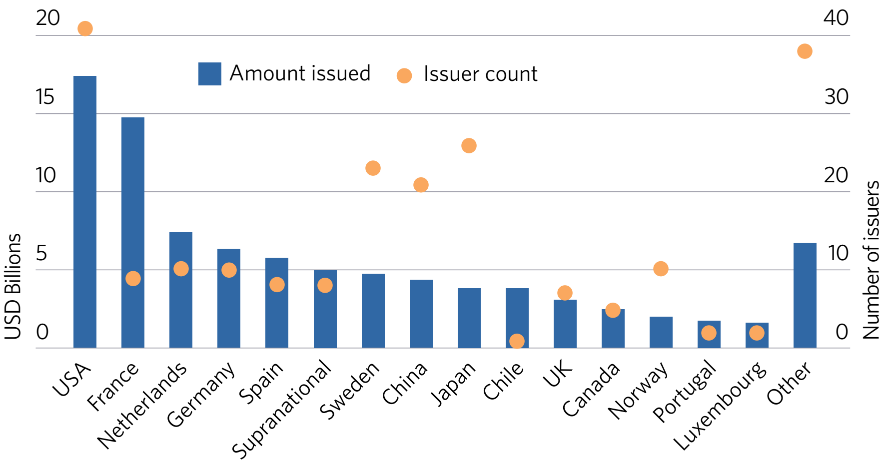
The USA and France comfortably make up the first two places in the issuer domicile ranking, although their volume is still less than half that of 2019. The most evident change in the ranking is the drop of China, which has fallen to 7th place (excluding Supranational). No doubt this is partly due to China having been hit by COVID-19 earlier than other countries, and thus also likely having spent relatively more on pandemic-related investments (at the expense of others, such as green).

Like previous years, Europe dominates the remaining top issuer domiciles, with the Netherlands and Germany followed by Spain, a top five for the first time. Spain derived almost half of its volume from deals by Iberdrola and Banco Santander.

The bottom half of the top 15 features some less expected countries. Chile, Portugal, and Luxembourg entered this group for the first time, respectively driven by issuance from the Republic of Chile (USD3.7bn), EDP (USD1.7bn), and CPI Property Group (USD1.3bn). The fact that the volume in each is still dominated by a single issuer suggests these countries' green bond markets still have much to develop, but these are certainly positive signs.

The comparison of amount issued with issuer count reveals striking differences between some countries. The USA, Sweden, China, Japan, and Norway have a relatively high number of issuers while France, Netherlands, and most notably Chile experience the opposite. Issuers from 'Other' countries tend to be relatively small, which makes sense given that the vast majority of large issuers are from countries with mature green bond markets.

European domiciles move up the ranking in H1 2020



Issuer types

Overall, public sector issuers experienced a smaller decline than private sector ones, which to some extent is expected given they often have less flexible investment plans and are less vulnerable to market dynamics, particularly in the short-term. A large rail project financed and developed by a state-owned enterprise, for example, is less likely to be postponed or cancelled due to COVID-19. Furthermore, some public sector issuers, namely government-backed entities, are dedicated entities operating in specific sectors, especially related to long-term infrastructure projects and unable to redirect their funding to other project types.

Indeed, government-backed entities have remained robust in the face of the pandemic, with USD22bn in issuance, well over half the USD35bn for the full year of 2019. SNCF (USD5.3bn), SNCF (USD1.4bn), and EUROFIMA (USD909m) were the largest issuers in this group, and all finance rail projects. If the trend continues, government-backed entities are set to comfortably achieve record green bond issuance in 2020.

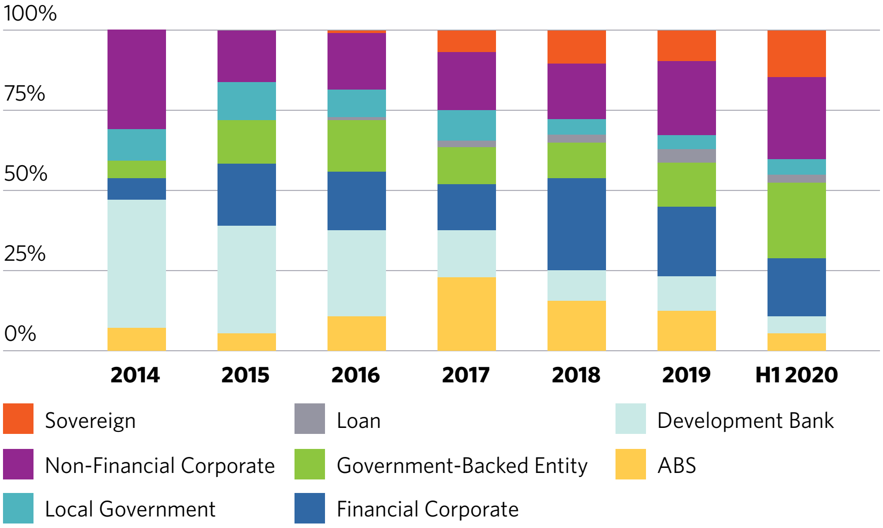
Sovereigns were the next most 'resilient' issuer type, also issuing more than half of 2019 volumes (USD13bn vs. USD25bn). France (USD5.1bn), Chile (USD3.8bn), and the Netherlands (USD3.4bn), Indonesia (USD750m), now a regular issuer, and Lithuania (USD53m), which returned to market after its 2018 debut, were the five issuers. After tapping its 2033 bond in 2019, Belgium hasn't returned to market this year.

Among private sector issuers, non-financial corporates proved less volatile than financials in H1 2020. Non-financials remained the top issuer type, increasing their share to 25% from 23% in 2019. Financial corporates, which dropped 71% driven by much lower issuance from Chinese banks, were among the most impacted issuer types.

Apart from securitised deals (ABS), development banks were the worst hit, falling 82% to attain a 6% share compared to 11% in 2019. However, this was largely driven by much lower volumes from national institutions over multilateral development banks (MDBs). Issuance by national development banks – such as KfW, FMO, Swedish Export Credit, China Development Bank, etc – fell dramatically from USD15bn (2019) to USD1bn (H1 2020), with no issuers from China or the rest of Asia coming to market.[10]

Finally, loans – almost always obtained by private sector entities – fell 73% to USD3bn while ABS experienced the largest decline (-86%) due mainly to a substantial drop in Fannie Mae (FM) issuance (USD2.6bn vs. USD22.8bn last year).

Public sector issuers increase share



The profile of issuer types may evolve in H2 2020. Changes could arise if private sector entities manage to rebound versus the public sector, and national and international recovery packages could also have an impact depending on when they materialise and how much of the debt is labelled green.

Use of proceeds (UoP)

In our 2019 report, we highlighted the increasing share of the top three UoP categories: Energy, Buildings, and Transport.

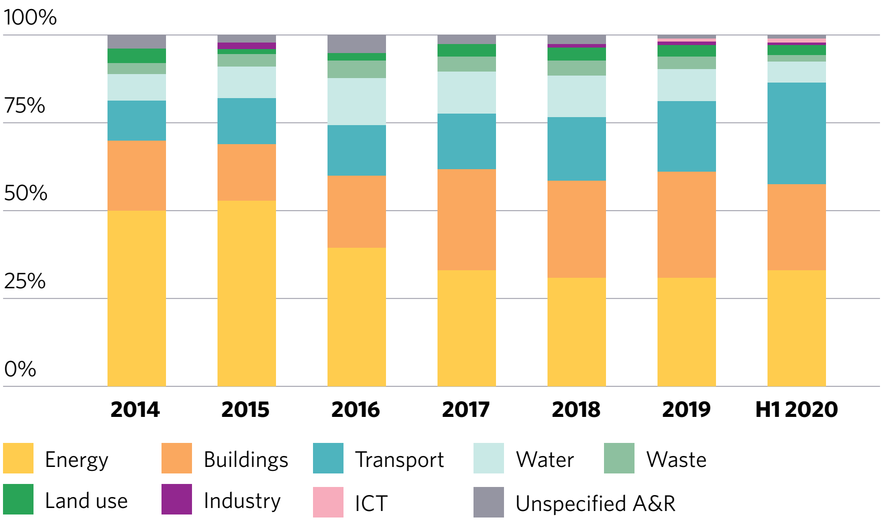
This consolidated in H1 2020, with the share of the top three increasing to a record 87%. Led by rail investments from sovereigns and government-backed entities, Transport was clearly the driver, achieving half of 2019 volumes (50% drop) while Energy and Buildings respectively fell 62% and 71%.

Large, long-term infrastructure projects – most Transport investments – are the least likely to be affected by a pandemic outburst, especially in the short-term and a continuing environment of very low interest rates. They are also more likely to involve long-term planning and be harder to postpone, and, in the case of Transport, are largely financed by state-backed entities less subject to market volatility. Similarly, but to a lesser extent, investments in renewable energy seem to have been hit slightly less than the overall market.

Financing for large infrastructure-based projects could therefore be affected more *the longer the impacts of COVID-19 are felt*, but we expect the greater understanding of links between social and environmental impacts, combined with various planned green recovery packages, to counter this effect.

Other UoP categories, although much smaller, experienced more significant drops of at least 70%.

Top 3 UoP categories reach record 87% share



Currency

The green bond market's currency profile remained broadly similar, but with increased volume among the most used currencies (most of which are hard). This may reflect the preference for 'safer' currencies in a time of market uncertainty.

The contribution of hard currencies increased to 87%, the highest level since 2015. The share of the top three – EUR, USD, and RMB – also grew versus 2019, from 81% to 83%, but this is below the 84%-90% achieved between 2015-18.

The strongest performer in this group was by far EUR, whose USD50bn was close to half the USD108bn of 2019 and 54% of the overall volume in H1 2020. This represents the EUR's highest ever share since 2007. Meanwhile, both USD- and RMB-denominated issuance dropped more than the overall market (respectively 73% and 78%). The substantial fall in USD volume was partly due to lower Fannie Mae issuance, whereas the decline in RMB is unsurprising given the very weak all-round volume from Chinese issuers.

The share of the top eight currencies share rose to 97% from 94% last year. Its composition was relatively unchanged, the only difference being the entry of NOK (8th place), replacing AUD (6th in 2019). AUD volumes fell from USD5.4bn last year to a mere USD113m in H1 2020, with only two Australian issuers coming to market – Queensland Treasury Corporation and Local Government Super – and no issuers from outside the country issuing in AUD.

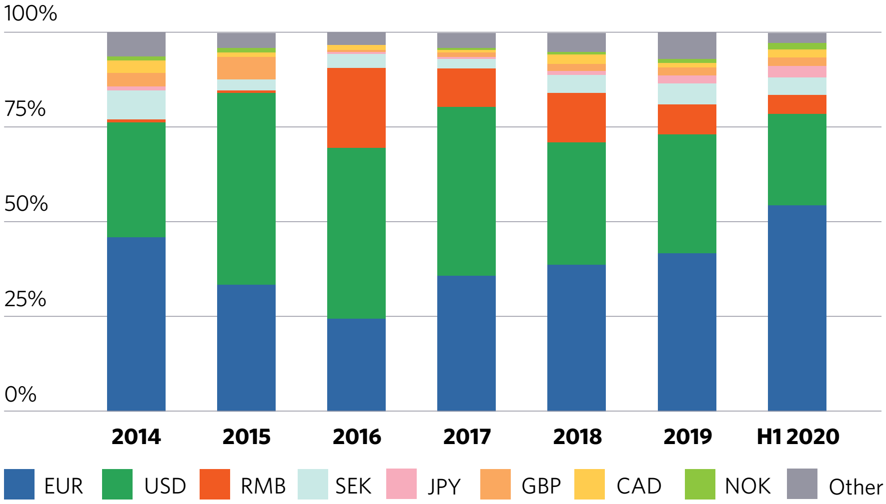
Deal size

The trend in deal size profile is a continuation of what we have seen in the last few years: a gradual increase in the share of larger, benchmark-sized deals (USD500m+). Versus 2019, the proportion of the USD500m-1bn and USD1bn+ ranges respectively grew from 32% and 28%, to 37% and 31%, while dropping for USD0-100m and USD100m-500m deals.

Curiously, this is coupled with decreasing average and median deal sizes. The comparison is not like-for-like given that the average and median exclude Fannie Mae, but it does suggest there is a growing number of small deals despite larger ones accounting for a greater share of the market (which seems to be driven by an increasing number of very large deals, especially from sovereigns and government-backed entities).

**Average and median deal sizes exclude Fannie Mae due to its high frequency of small deals, which skews figures.*

EUR rises while USD and RMB fall

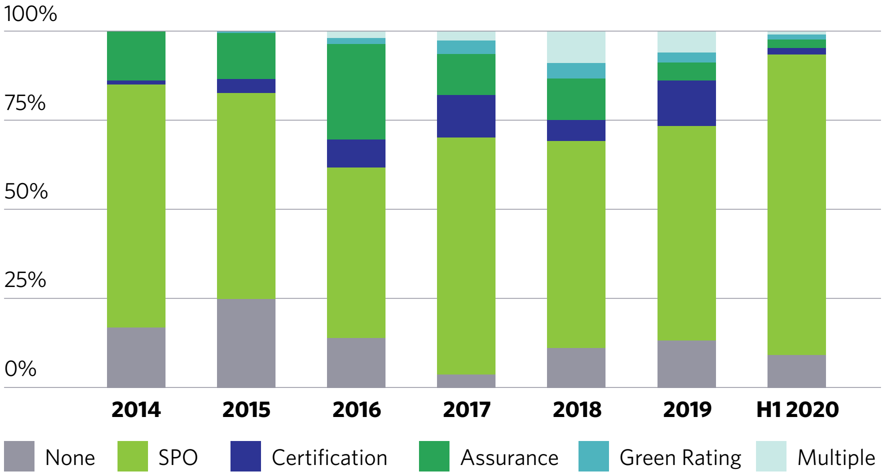


External reviews

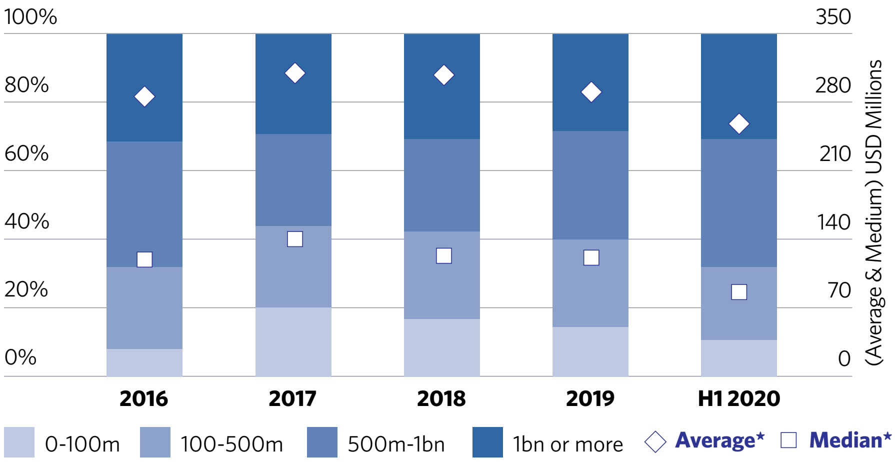
We see a changing profile of external reviews in 2020, with SPO clearly gaining share. They accounted for 83% of issuance in H1 2020 versus 60% in 2019 – itself a relatively high share – as they become the norm in a market that increasingly 'demands' some form of external review.

Monthly analysis suggests the share of SPO remained fairly constant throughout H1. On the other hand, there was an uptick in issuance with no external review after March, with 71% of the amount without external review (USD5.9bn of USD8.3bn) issued between April-June. This would make sense given the effects of COVID-19, including on the ability of external reviewers to provide a service.

SPO at highest share yet



Benchmark size keeps growing



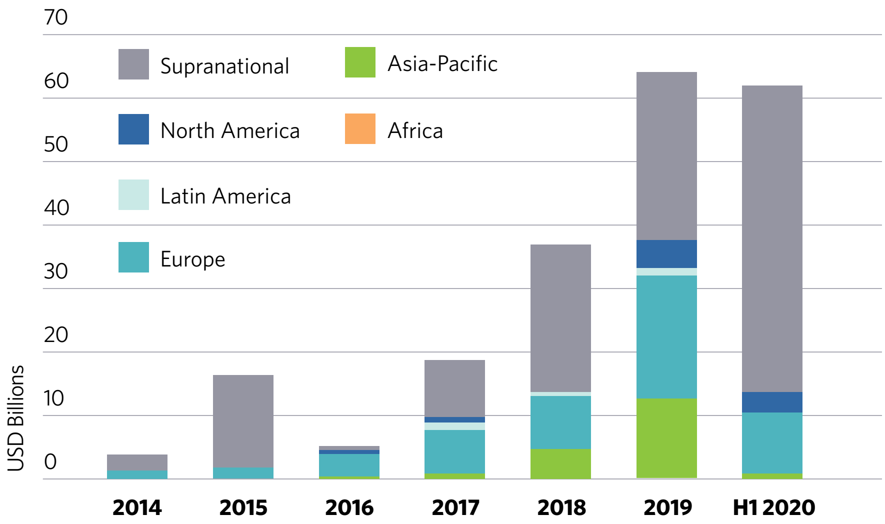
Sustainability

Sustainability bond issuance continues to reach new heights in 2020. The category encompasses a variety of labels related to a host of environmental and social objectives, often characterised by – and mapped against – the SDGs. The sustainability label is arguably more suitable for some issuers than its green counterpart due to the broader range of potentially eligible use of proceeds categories. Corporate issuers in a variety of industry sectors are leveraging this to meet overall company-level sustainability / CSR objectives, which often span issues like income (in)equality, decent work and livelihoods, and health and wellbeing throughout the corporate value chain.

Similarly, and most prominently, MDBs utilise sustainability bonds as a key financing mechanism to achieve environmental goals whilst simultaneously advancing human development. MDBs are responsible for more than half (58%) of all sustainability volume issued to the end of H1 2020, which amounts to a grand total of USD210bn.

The development of the sustainability segment of the market was marked by the release of the Sustainability Bond Guidelines (SBG) by ICMA in June 2018.[11] The SBG extend good practice recommendations around transparency and market integrity, drawing upon the green project categories of the Green Bond Principles (GBP) and the social categories of the Social Bond Principles (SBP).

MDBs step up sustainability issuance



Regions

Until 2014, sustainability bonds were issued exclusively by European entities, which now make up just over a quarter of the cumulative volume and six out of the top 10 countries discussed below. Supranational issuers joined the sustainability bond race in 2014 with volumes driven, for example, by landmark deals from the World Bank. They accounted for 77% of the total issuance in H1 2020. This is a reflection of MDBs stepping up their efforts to maintain the progress made on sustainability issues, especially given the myriad economic and social effects of COVID-19, including attempts to address the interlinkages between climate change and infectious diseases.[12]

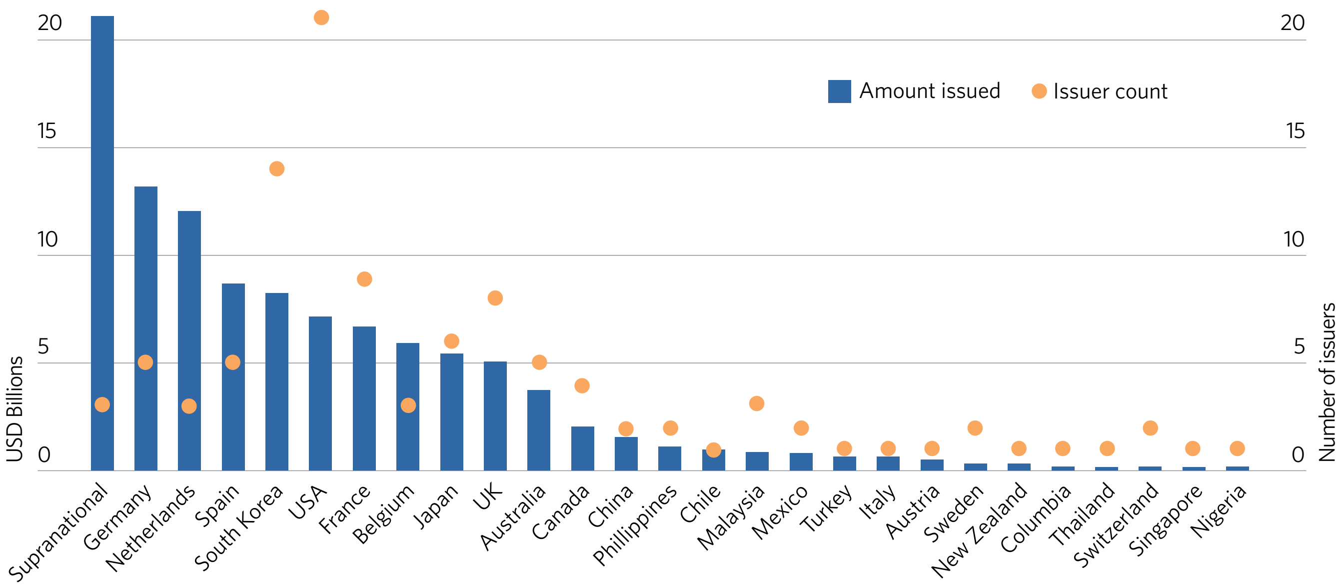
The Asia-Pacific (APAC) region has grown since the inaugural deal from the region in May 2016, a USD300m senior unsecured sustainability bond financing a mix of green and social categories by Turkish development and investment bank Turkiye Sinai Kalkinma Bankasi.[13] The Development Bank of Japan followed with a USD-denominated benchmark to finance on-lending to companies and building projects meeting a set of environmental and social criteria.[14] APAC now represents 10% of total sustainability volumes.

North America's share has been small to date, reaching a cumulative 4% as at the end of H1 2020. Despite its small deals, the region boasts an impressive 25 issuers (21 from the US, 4 from Canada). Close to half of these (12) are local governments or government-backed entities.

Countries

The top three sustainability bond issuing domiciles all hail from Europe: Germany (USD13.3bn), the Netherlands (USD12.2bn) and Spain (USD8.7bn).

European domiciles dominate again, but under different ranking



An interesting example from Germany is the large textile, homeware, and appliance retailer Otto GmbH & Co KG, whose total USD442m sustainability volume helping to finance the purchase of responsibly produced and sourced cotton and wood products.[15]

The largest deals from Germany come from the North Rhein-Westphalia (Land NRW) state government. Land NRW has issued a total of USD9.6bn (or just under 75% of overall German sustainability volume) to finance categories including education and research; inclusion and social coherence; and sustainable urban development.[16]

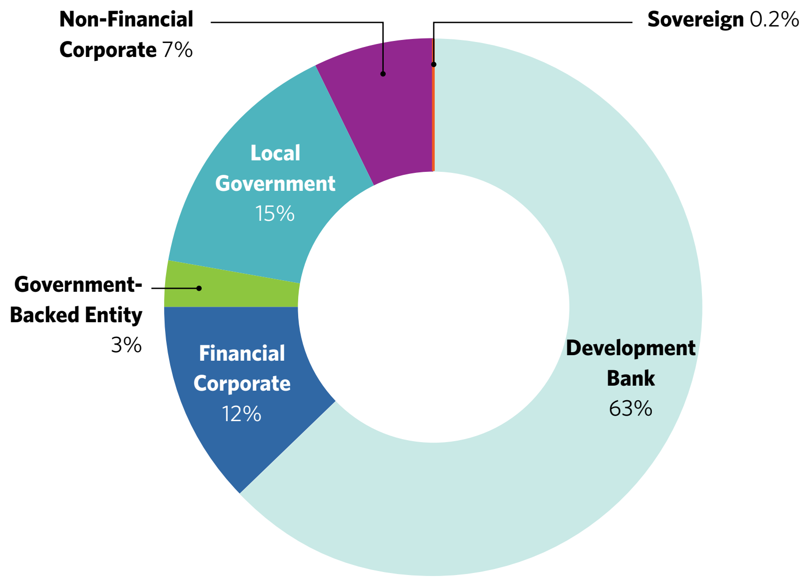
Notable Dutch issuers include, for instance grocery retailer Ahold Delhaize, which entered the market in July 2019 with a EUR600m/USD678m deal to fund the procurement of sustainably produced products, reduce the company's climate impact, and to promote healthier eating.[17] The largest sustainability bond issuer in the Netherlands is BNG Bank (NV Bank Nederlandse Gemeenten), a dedicated public sector lender, whose 15 sustainability bonds (total USD10bn) issued between 2015 and 2020 have financed projects adding to three main pillars of 'capital': ecological, social-cultural, and economic.

Spain's sustainability bond issuer pool to the end of H1 2020 was exclusively comprised of local governments. The Community of Madrid issued the most deals as well as the largest individual deal (eight deals, largest EUR1.3bn/USD1.4bn). Madrid's sustainable financing spans climate change mitigation and initiatives aimed at fostering social development in the Spanish capital's region.

The remainder of the top five country list branches out into other regions: South Korea ranks fourth, in part due to a USD500m sovereign sustainability bond issued in June 2019, which was the first of its kind. The remainder of South Korea's sustainability volume comes from financial corporates, including KEB Hana Bank, Kookmin Bank and Woori Bank – all within the five largest domestic banks in the country.

The US follows in fifth place, driven in large part by several large non-financial corporate issuers, including three-time sustainability bond issuer Starbucks (total USD2.3bn). The company's sustainability funding focused on categories including the sustainable sourcing of coffee, and loans to coffee farmers via the USD50m 'Global Farmer Fund'. The latest US corporate entrant – and the world's first biopharmaceuticals company to do so – was Pfizer in March 2020 (USD1.3bn). Its funding will be directed to improving underserved communities' access to medicines and vaccines, as well as natural resource conservation and waste reduction efforts.[18]

Share of corporates much smaller than in green



Issuer types

As noted, a substantial chunk of the cumulative sustainability volume comes from development banks. A prominent example is the European Investment Bank (EIB) – also a regular issuer in the green bond space through its longstanding Climate Awareness Bond (CAB) Programme – which began its Sustainability Awareness Bond (SAB) issuance programme in 2018. Although the only eligible projects for its SABs were initially in the water infrastructure and health and education categories, the framework's eligibility pool will be extended to allow lending to projects and assets related to a number of other categories in line with emerging EU legislation.[19] EIB's sustainability bond volume amounts to USD19.9bn equivalent.

The World Bank is the largest sustainability bond issuer, with USD96.3bn total volume. It has also issued the largest individual bond to date (USD8bn, April 2020), which carried a 'Sustainable Development' label despite financing the COVID-19 response and recovery via various health programmes. This demonstrates that the myriad labels and uses of proceeds can have considerable overlap, and that classifying instruments into different themes is not always straightforward.

The third-largest issuer in this category is the Inter-American Development Bank (IDB), with a cumulative volume of USD6.6bn.

Local governments follow with 15% of cumulative volume. The largest issuer is again Land NRW, whose March 2019 EUR2.3bn (USD2.6bn) deal is also the largest of the category. Other familiar names appear in the top three: the Community of Madrid and Ile de France are the second and third-largest issuers respectively with USD5.7bn and USD3.5bn, respectively. Headline sustainability bond issuers in the government-backed entity segment include, among others, the Japan Railway Construction and Technology Agency (JRTT), which is also a green bond issuer under the Programmatic Certification scheme of the Climate Bonds Standard.[20] JRTT's sustainability volume amounts to a total USD1.3bn equivalent. The largest deal, of AUD1.8bn (USD1.2bn), was brought to market in November 2019 by Australia's New South Wales Treasury Corp – another Certified Climate Bond issuer.[21]

In the corporate space, financials issue sustainability bonds slightly more than their real economy counterparts. Australia's ANZ issued the largest deal with its Tier 2 SDG bond, which came to market in late November 2019 (EUR1bn/USD1.1bn). BNG Bank – also the largest Dutch issuer – is number one in this category with USD9bn total volume. Among non-financial corporates, Pfizer's deal is the largest, whereas Starbucks boasts the most cumulative issuance volume.

Despite their small share in the issuer type mix to the end of H1 2020, sovereign sustainability bonds are gaining traction. After the Republic of Korea pioneered this instrument type in mid-2019, a total of USD3.6bn additional volume has followed from Q3 2020 deals by Thailand, Mexico and, most recently, Luxembourg, which issued the first European sovereign sustainability bond (these are not included in this report's figures).[22]

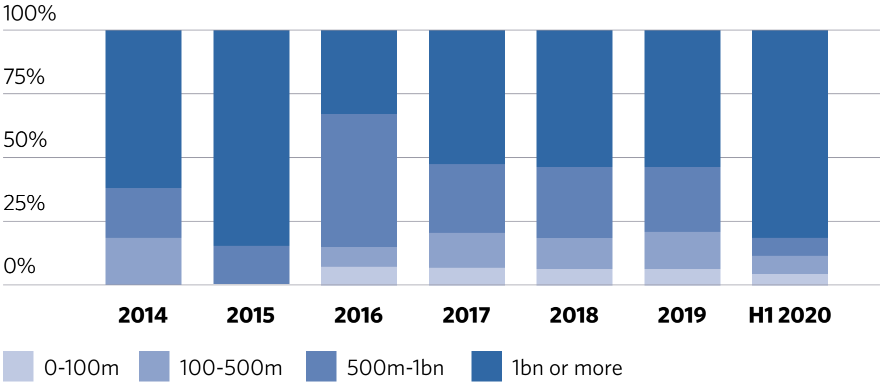
Currency

Cumulatively, 95% of all sustainability bond volume is denominated in hard currency, and the same holds true for H1 2020. USD and EUR are the most popular currencies, comprising nearly 80% of cumulative volumes. The largest USD-denominated deal is from Pfizer (USD1.3bn), whereas the top EUR deal comes from France's Action Logement Services (EUR1bn/USD1.1bn), financing energy efficient social housing projects across the country.

The next most popular denominations include GBP (8%), CAD (3%), and AUD (2%). The World Bank also shows up prominently in providing currency diversification to the sustainability universe, being responsible for the largest deals in all of the remaining top five currencies: GBP1.8bn (USD2.3bn, February 2020); three CAD1.5bn (USD1.1bn) deals (January – July 2019); and AUD2.6bn (USD1.9bn, February 2019).

The less frequently appearing currencies generally match those of the green bond universe with the exception of the Romanian Leu (RON), which is a new addition in this segment: the World Bank issued a RON denominated bond (20m/USD5m) in February 2018.

Many very large deals in H1 2020



Deal size

Most global cumulative sustainability bond volume (84%) has come to market via benchmark-sized instruments (USD500m or above). The largest category of USD1bn or more prevails, with just under two-thirds (64%) of cumulative issuance. This size bucket has so far been the most prevalent also in 2020, with a sizeable jump from around 50% in previous years to over 80% this year, driven by large development bank deals – most notably the USD8bn World Bank bond.

Smaller deals are rare, with the 0-100m and 100-500m categories combined only making up 16% of cumulative issuance.

Tenor

The sustainability labelled universe is characterised by shorter-term bonds: nearly half (47%) of the cumulative volume has a tenor of up to 5 years. A further 35% has a term of issuance has a term of between five and 10 years.

Longer-dated volume (10 – 20 years) comprises 12% of issuance to the end of H1 2020. The longest-tenor sustainability bond is a 43-year, EUR100m/USD113m deal from November 2018. The only perpetuals with a sustainability label come from South Korea's Kookmin Bank (total USD1bn, June – July 2019).

Social

With early impact investing strategies giving rise to the concept of ethical and 'socially responsible investment' (SRI), labelled bonds under the social theme have been around for even longer than their green counterparts. The inaugural deal of the social bond universe carried a 'vaccine' label and was issued by the supranational International Finance Facility for Immunisation (IFFIm) in November 2006 (USD1bn).

Other early movers also emerged from the MDB space: for example, IFC issued the first bond carrying a "social" label in November 2013 (TRY164m/USD81m) as it launched its Banking on Women (BOW) Bond Programme, focused on creating opportunities for women entrepreneurs in EM.[23] Spain's Instituto de Crédito Oficial followed in 2015 and again in 2016, with the two deals amounting to USD1.7bn equivalent and funding credit lines to eligible Small and Medium Enterprises (SMEs) in regions across the country.

The creation of ICMA's Social Bond Principles in 2018 fostered the expansion of social bond issuance globally across different issuer types by providing clarity on eligible project categories and a comparable transparency and disclosure framework to that of green bonds in the GBP. Prior guidance for social bonds had been released by ICMA in 2016, and instruments following the earlier guidelines are considered aligned with the SBP.

The largest social bond to date (EUR4bn/USD4.5bn) was brought to market by debut issuer Unédic Asseo, France's unemployment insurance management body, in June 2020. The bond's proceeds were allocated to extending unemployment programmes in France, but also to a special job retention scheme to subsidise part-time employment as part of the COVID-19 response – another example of overlap within the sustainability / social / pandemic themes.[24]

A total of USD86bn of social themed bonds have been issued to the end of H1 2020.

Social Bond Principles (SBP) - what is eligible?

The ICMA SBP are aimed at outlining guidance for issuers whose projects and assets are targeted to achieve positive social outcomes especially (but not exclusively) for a target population. The project categories include, but are not limited to, providing and/or promoting:

- **Affordable basic infrastructure** (e.g. clean drinking water, sewers, sanitation, transport, energy)
- **Access to essential services** (e.g. healthcare, education and vocational training, finance and financial services)
- **Affordable housing**
- **Employment generation** including through the potential effect of SME financing and microfinance
- **Food security**
- **Socioeconomic advancement and empowerment**

Regions

In the early years of the social bond segment, issuance came exclusively from supranationals, which still comprise almost a fifth (17%) of cumulative volume as at the end of H1 2020. The expansion of issuance from regions started in 2015 with European issuers. Like with green and sustainability bonds, Europe is a prolific issuing region, making up exactly half of cumulative social bond volume. It was especially prominent in the earlier years; the mix has since diversified with APAC's share growing to just under a quarter (24%), with big growth spurts in 2019 and the first half of 2020 – in part attributable to seeking relief against the effects of the the COVID-19 pandemic.

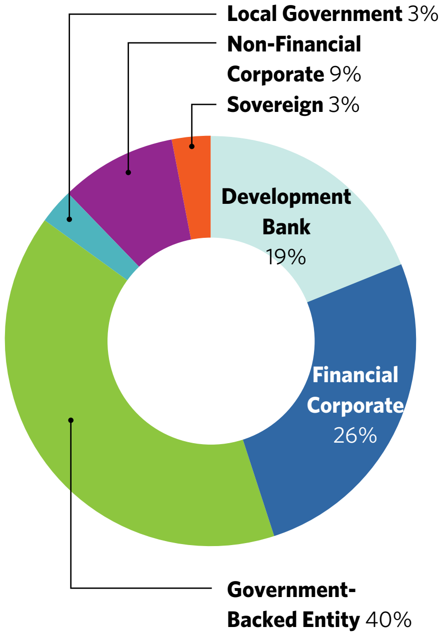
The Americas contribute a further 9% (LAC: 6%; North America: 3%). Notably, two Latin American sovereigns have issued social bonds: first Ecuador in January 2020 (USD727m), followed by Guatemala in April (USD1.7bn). Only one African issuer thus far has issued social bonds: Mauritius' Bayport Management (total USD340m).

Countries

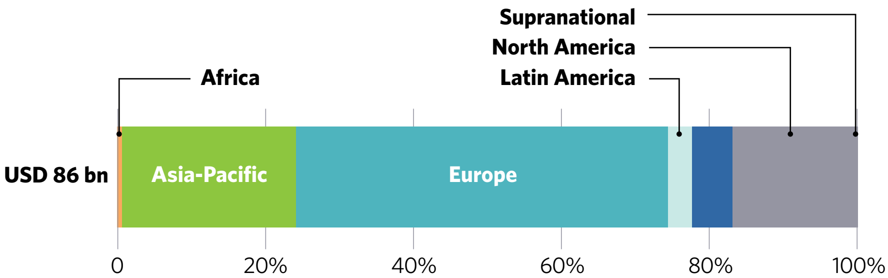
With a strong position in the market, France leads the country ranking in social issuance, with 18% of cumulative volumes. More than half of France's issuance comes from Unédic, whose two deals total USD8.9bn. The Netherlands follows in second place with USD11.2bn (13% of total) contributed exclusively by public sector funding institutions NWB Bank and BNG – both financing social housing. Japan comes in third with 10% of the total, brought to market by 13 issuers representing a mix of issuer types. The largest deal from Japan (JPY70bn/USD651m) was issued by East Nippon Expressway Co Ltd in April 2020 to develop safer and more accessible and resilient expressways, thereby stimulating local economies.

Spain and South Korea make up the remainder of the top five countries with USD6.4bn (7%) and USD5.6bn (6.5%), respectively.

Government-backed entities top issuer type



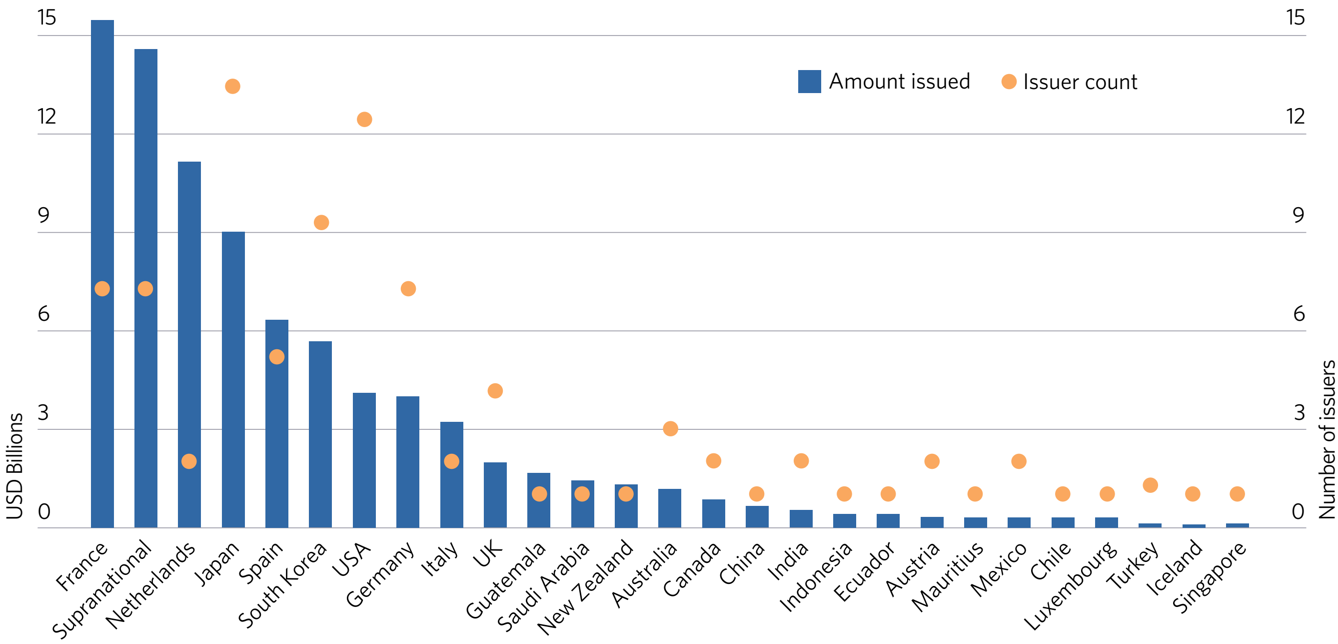
Europe dominating in recent years



Issuer types

Perhaps unsurprisingly given some social bond trends, the issuer type mix is dominated by government-backed entities at 40%. Besides Unédic, the Dutch public funding institutions, and Spain's Instituto de Crédito Oficial, the next largest deals come from France's local government funding agencies SFIL (EUR1bn/USD1.1bn – February 2019) and Caisse Francaise de Financement Local (EUR1bn/USD1.1bn – May 2020). NWB Bank is, in cumulative terms, the biggest government-backed social bond issuer, with USD8.8bn equivalent of volume.

Japan features highest number of issuers



Corporates contribute a further 35%, of which 26% comes from financials. The largest financial corporate issuer is France's BPCE Group – also a repeat issuer of green bonds – with USD2.5bn equivalent. The top individual deal comes from Saudi Arabia's Islamic Development Bank (USD1.5bn – June 2020) financing projects across five eligible categories aligned with the SBP.[25] On the non-financial side, the top issuer (USD3.7bn) and deal both come from Japan's East Nippon Expressway Co Ltd – the latter as outlined in the Countries section above.

The share of local governments stands at 9%, with issuers from the US and Japan prevailing. The top deal is from the City of Los Angeles (USD276m, July 2018) to finance shelters and facilities for the city's homeless population; the top issuer is Japan International Cooperation Agency (USD1.1bn cumulative).

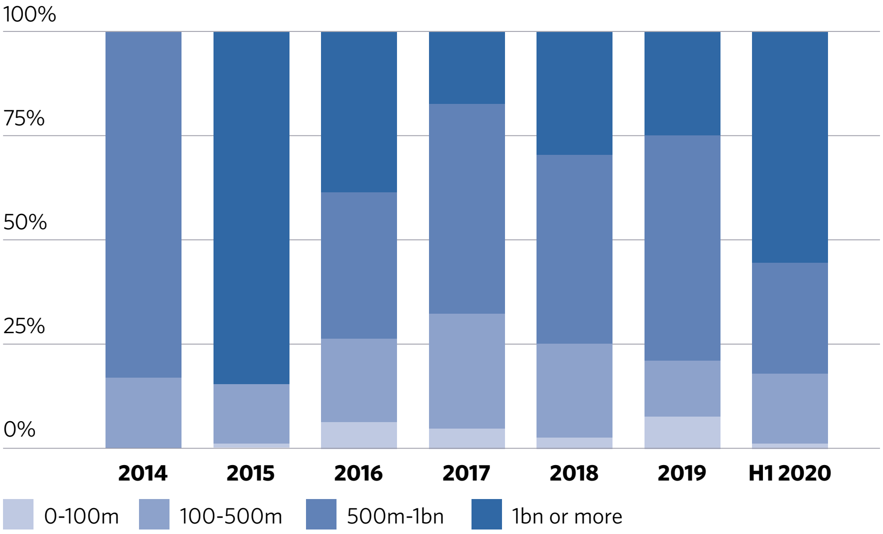
Ecuador and Guatemala are currently the only sovereign issuers of social bonds (two and three deals, respectively). The Ecuadorian sovereign is dedicated to advancing the country's affordable housing mortgage programme, whereas the Guatemalan framework includes a mix of COVID-19 mitigation and containment efforts as well as targeting social outcomes outside the context of the ongoing pandemic.

Currency

The vast majority of social bond issuance (94%) is denominated in hard currencies.[26] EUR leads the pack with a whopping 55% of total volume, followed by USD (19%) and JPY (12%). The top five is completed by AUD (3%) and GBP (2%), with the largest deals in these denominations coming from NAB (AUD500m/USD391m, March 2017) and Lloyds Bank (GBP250m/USD380m, June 2015).

The social-themed bond universe saw the set of currencies expand with a Macau pataca (MOP$) deal issued by the Bank of China as an offshore bond in March 2020 (MOP1bn/USD125m). The proceeds were earmarked for support to SMEs and microfinance for eligible companies and entrepreneurs.

Growing share of large deals, USD1bn+ >50%



Deal size

In keeping with the sustainability-themed universe, most social bond volume has come through larger instruments, with benchmark-sized transactions accounting for 72% of the total volume.

Large deals from Unédic and others tip the balance in favour of the largest range, and the 1bn or more bracket is indeed the most common (38%). On the smaller side, bonds between USD100m-500m contribute some 23% more, with examples from a multitude of issuers. In June 2020, for instance, National Housing Finance and Investment Corporation (Australia, AUD562m/USD386m), the Ford Foundation (USA, USD300m), and the Japan Student Services Organization (JPY30bn/USD278m) came to market. 2016 was the first year with issuance from supranationals as well as more than one region (APAC, Europe, and LAC).

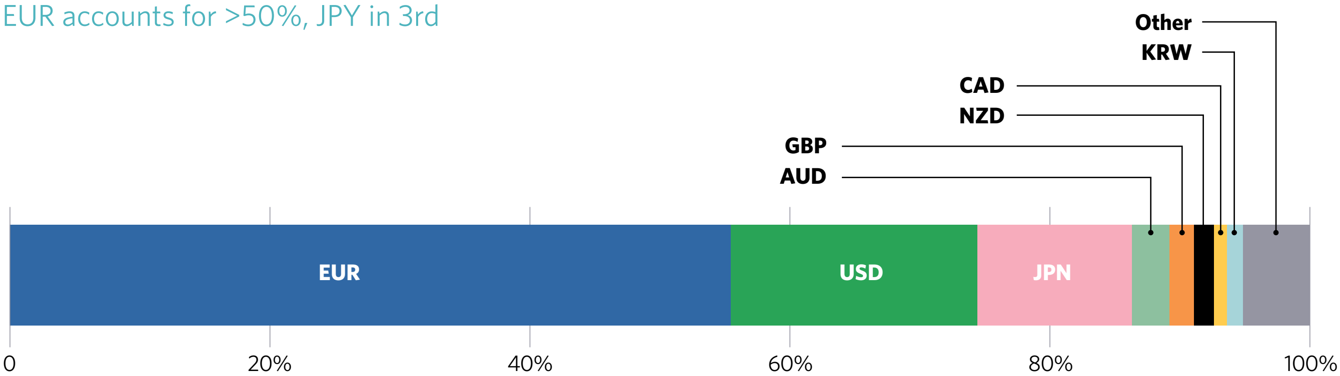
Tenor

Most social bond issuance is short-dated. Tenors of up to five years comprising just under half (46%) of the cumulative volume. As discussed below, a similar trend is visible with pandemic-themed bonds; both are likely due to a need to disburse funding more quickly than for large infrastructure projects and assets that make up a large part of the green bond funding sphere.

Bonds with 5-10 year maturities represent 42% and the remainder is split between 10-20 years (7%) and more than 20 years (5%). The shares have remained reasonably consistent since 2015.

As at the end of H1 2020 there were no perpetual social bonds; however, two with a more than 40-year tenor exist: the Ford Foundation (USD700m, June 2020 – June 2070; 50 years) and Reykjavik Social Housing (ISK6.4bn/USD53m, March 2019 – March 2066; 47 years).

EUR accounts for >50%, JPY in 3rd



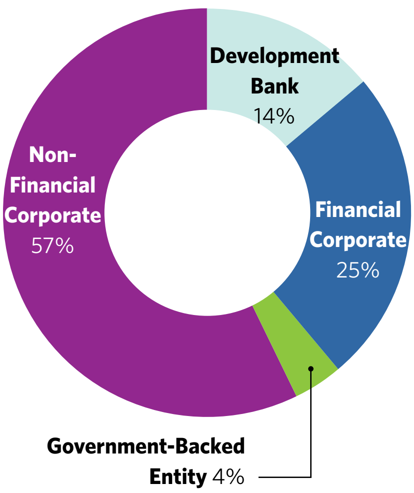
Pandemic

Leveraging bonds to fund pandemic responses was first seen in the World Bank's launch of the Pandemic Emergency Financing Facility (PEF) in 2017. The PEF is a type of insurance window – in part backed by a bond sale worth USD330m – aimed at providing risk mitigation and relief to the poorest countries in the event of a pandemic.[27] The Facility has come under scrutiny for the stringency of requirements that need to be met for funds to be released, which resulted in funding for the current COVID-19 pandemic being allocated through the mechanism only in late April 2020.[28]

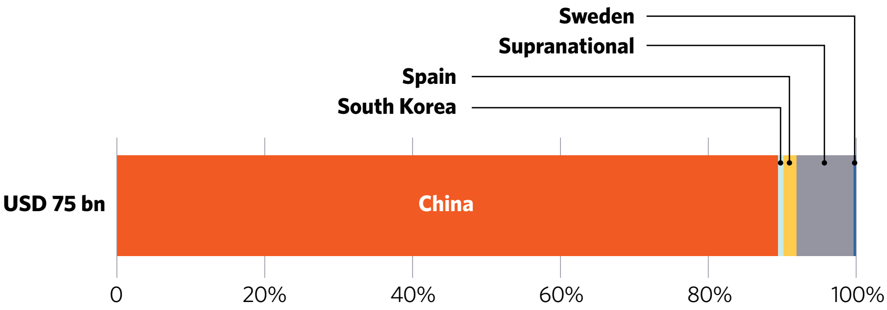
Using our definition of the pandemic theme (i.e. deals with a label related to COVID-19), pandemic bonds emerged in early 2020 as actors across the global economy organised themselves to facilitate an immediate, effective response to the COVID-19 outbreak and subsequent pandemic. The first half of the year saw a total of USD74.9bn of such thematic bond issuance centred around the mitigation and containment of, as well as recovery from, the virus.

The sustainable finance community reacted swiftly and showed its support: in late March 2020, ICMA published additional communication and guidance in the form of a Q&A for issuers to underscore the importance and direct applicability of thematic bonds – especially social labelled bonds – in weathering the variety of pandemic-induced societal storms across the globe.[29]

Corporates dominate, unlike social and sustainability themes



Almost all volume from Chinese issuers and MDBs



Regions and countries

The first issuers of pandemic bonds came from China – likely due to the virus's early epicentre in the country – with the initial deals recorded in February 2020. While the pandemic label is self-attributed, it follows early guidance from the PBoC.

Real estate developer Zhuhai Huafa Group was the first with RMB1bn (USD143m) raised to alleviate the liquidity pressure induced by the pandemic on the company and its subsidiaries, as well as to provide direct relief in the form of, for example, temporary hospitals. As of the end of H1 2020, Chinese issuers made up an overwhelming majority of pandemic-themed bond issuance, with nearly 90% of volume and 441 issuers out of a total of 447. The largest Chinese pandemic bond was the USD1.9bn deal from China Development Bank in February; China Import-Export Bank is the largest issuer overall.

Supranational issuance is the next most common (8% of total), exclusively made up of development banks. So far, at least the AfDB, the NIB and the Council of Europe Development Bank (CEB) have tapped into pandemic bonds.

Individual bonds from Spain (1.5%), South Korea (0.7%), and Sweden (0.1%) comprise the rest of pandemic issuance to the end of H1.

Spain's BBVA was the first private financial institution in Europe as well as the inaugural issuer to bring a pandemic bond to the EUR credit market with its early June EUR1bn (USD1.1bn) COVID-19 Social Bond. The instrument was issued under the bank's existing green, social and sustainable bond framework and will provide funding to alleviate the direct and indirect social and economic impacts of the pandemic with categories including healthcare, education, SME funding, and affordable housing.[30]

South Korea's Kookmin Bank issued a USD500m benchmark in early May, with most of the proceeds earmarked for lending to SMEs, home offices and other small businesses hit by the pandemic.[31]

Sweden's medical supplies manufacturer Getinge issued SEK1bn (USD106m) of COVID-19 commercial paper in April to expand its production of ventilators and other life-saving equipment.[32] So far it is the only non-Chinese medical supplies company to do so.

Issuer types

Pandemic bond issuance is dominated by non-financial corporates: more than half fall in this category. They represent several industry sectors, including pharmaceuticals and medical device/personal protective equipment (PPE) providers. Examples of the former include Sichuan Kelun Pharmaceutical Group and Jointown Pharmaceutical Group (both with RMB2bn/USD300m equivalent cumulative issuance) from China.

In addition, a host of essential infrastructure and industrial companies have utilised the pandemic label – usually as a combination of liquidity relief to mitigate the economic shocks as well as contributing directly to the virus response in the form of PPE, logistics and transport support, the construction of temporary field hospitals and shelter, etc. Some notable examples include the China Shipbuilding Industry Corporation (RMB5bn/USD715m, February 2020), the Power Construction Corporation of China, Ltd (RMB3.5bn/USD498m, February 2020), and Hunan Provincial Expressway Group Co., Ltd (RMB2.5bn/USD360m, March 2020). Several companies operating in China's domestic aviation sector, including Shenzhen, Sichuan, Spring and Xiamen Airlines, have also leveraged pandemic-labelled financing to combat the near-complete vanishing of air travel in China and beyond in the first half of the year.

Financial corporates, especially banks, make up a further 25% of volume. More than a fifth (21%) of this is contributed by China's Export-Import Bank. BBVA is the only non-Chinese financial institution active in this market segment. Another Chinese financial institution showing significant pandemic bond activity is Hua Xia Bank (RMB7bn/USD1bn cumulative) – also a green bond issuer.

Development bank issuance spans several continents, with AfDB in the lead due to its USD3bn deal from early April 2020. AfDB indicated it would spend the proceeds of its 'Fight COVID-19 Social Bond' on "access to health and to all other essential goods, services and infrastructure", including water and sanitation as well as a number of emergency lending initiatives to support job creation and maintain livelihoods.[33] China Development Bank is the largest Chinese issuer.

The Nordic Investment Bank issued its 'Response' bonds in April (EUR1bn/USD1.1bn; SEK4bn/USD423m). NIB's framework spanned lending to the public, financial and real economy sectors to support healthcare, social expenditures and on-lending by governments and financial institutions to support companies operating in essential industry sectors.[34]

Fellow development bank CEB debuted in April and returned with a second 'COVID-19 Response Social Inclusion Bond' in June (EUR1bn/USD1.1bn and USD500m, respectively). The deals fell under the Bank's existing Social Inclusion Framework, the use of proceeds focusing on micro-, small- & medium-sized enterprises (MSMEs) operating in the health sector to create and preserve jobs.[35]

Currency

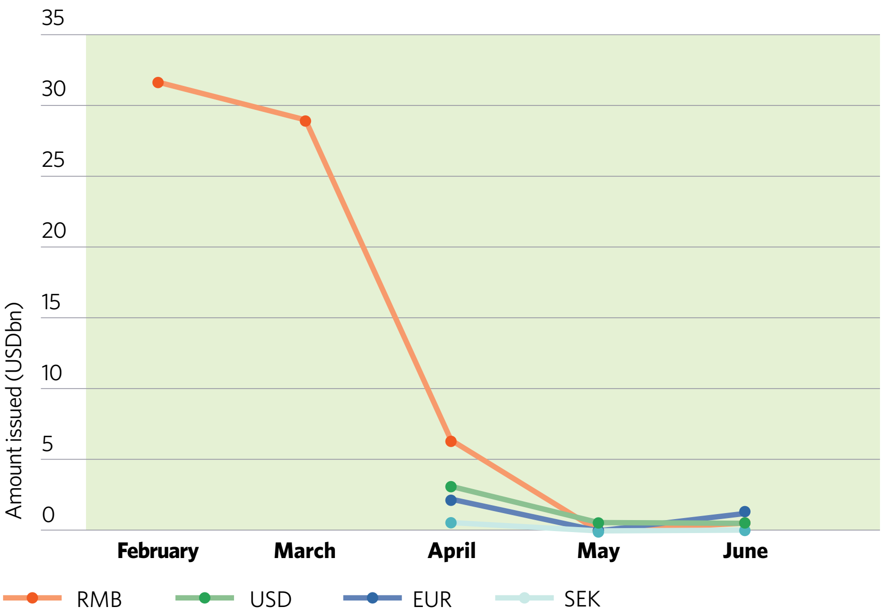
Unsurprisingly, RMB dominates pandemic bond currencies at 90%, with all issuance denominated in Chinese yuan during the first quarter of 2020. April saw entrants issuing in USD, EUR, and SEK, which respectively make up 5%, 4% and 1% of cumulative volumes. These deals come exclusively from the non-Chinese issuers – including supranationals – listed above.

The contrast of only 10% issuance in hard currency versus more than 90% for sustainability and 'traditional' social bonds again underscores the pandemic bond phenomenon primarily being a Chinese one. Possible changes in labels and further issuers tapping into the market as the fight against and recovery from the virus progress may see a more diverse set of currencies. Climate Bonds will continue to monitor these developments and report on them as part of our full 2020 coverage during the course of 2021.

Deal size

Deal sizes have varied across the first half of the year, with the early months seeing more smaller deals than May and June, on average. The cumulative shares across the first six months show the 100-500m bracket with 50% of total volume and 100m or less at 24%. The remainder is benchmark-sized split into 1bn or more (17%) and 500m-1bn (8%).

Lack of diversity driven by issuance from China



Contrasting AfDB's largest deal, the smallest until the end of H1 came from China's Suzhou High-Tech Zone State-Owned Assets Operation Company, at just RMB200m (USD28.5k, February 2020).

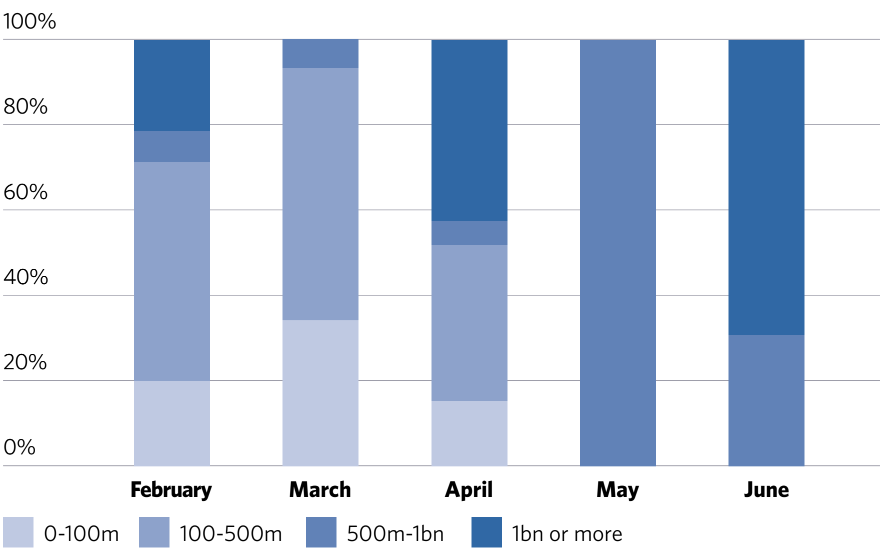
Tenor

Almost all the thematic pandemic issuance is short-dated, with 96% of volume having a tenor of less than five years – the shortest include commercial paper with a maturity of one year. The shorter tenors are logical given the urgency of disbursing funds at the active stages of the pandemic, although they are also relatively common in China (particularly among commercial banks). Only two of the deals issued in H1 will mature in more than 10 years: Baowan Logistics Holdings Co., Ltd. (RMB1.4bn/USD198m; 18 years) and Prologis Investment (Shanghai) Co., Ltd. (RMB1.9bn/USD271m; 17.8 years).

As the pandemic response progresses, the market may well witness more long-dated debt, especially from governments and sub-sovereign actors that are focusing on recovering from the longer-term impacts of the health and economic crises. It remains to be seen which labels issuers will adopt for these purposes.

Building resilience into societal and economic structures can be done via any number of labels falling under the current main themes of green, sustainable, and social – pandemic being a subset of the last. The perspective – and objectives – matter, and project selection will be key to this as more robust and comprehensive definitions of resilience emerge, and as the policy and recovery landscape evolves.

Earlier deals (from China) smaller



PART 2: Policy and market development

Part 2 of this report goes beyond the market figures in part 1 to give a detailed summary of the main policy developments from around the world that are shaping the evolution of sustainable finance. As well as governments, this includes initiatives by other actors, such as central banks and stock exchanges. First, however, we take a close look at the impact of COVID-19 on policy responses and recovery mechanisms.

COVID-19 and the climate crisis

COVID-19 and the ensuing global economic crisis have highlighted how vulnerable – and inter-related – our economic, social and environmental systems are globally. Due to the virus, the year of 2020 will see the first increase in global poverty in over twenty years, delaying the goal of ending poverty even further. The economic disruption and damage will persist as governments clamour to stimulate a recovery.

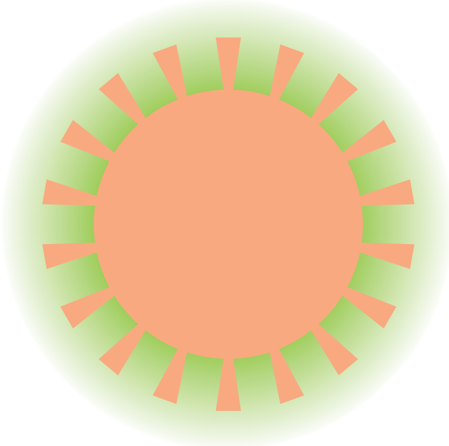
Tied to this, there is a risk that COVID-19 could impede efforts to decarbonise our economies, especially in the short-term as the priority is to stem negative health impacts and enable national health systems to handle the pandemic. The International Energy Agency (IEA), for example, has already announced that the pandemic is having a major impact on energy systems around the world, curbing investments and threatening to slow the expansion of key clean energy technologies; and this affects both developed (DM) and emerging markets (EM).[36,37]

Calls for a better, socially and environmentally responsible recovery are being heard at an exponential rate. Earlier this year, doctors and medical professionals from around the globe called on world leaders to stimulate a better recovery by investing in a low-carbon and resilient economy that would bring substantial health, social and environmental benefits.[38] In May 2020, the Energy Transitions Commission sent a letter to governments around the world to 'help the global economy recover while building a healthier, more resilient, net-zero economy'.[39]

Natural capital underpins economies and livelihoods all around the world. We will therefore not be successful in building healthy, green, resilient societies unless we tackle the issue head on, embedding respect for the planet and nature in all our activities.

An opportunity born out of necessity

Crises like COVID-19 affect a huge number of people and cause a great deal of suffering, but they invariably also present opportunities



– it is often at times of crisis that new, better ways of doing things are born.

The severe global financial crisis just over a decade ago presented a valuable opportunity to rethink our systems. Yet it was largely lost, with too few structural changes implemented as a result and many social and environmental problems persisting, if not reinforced.

If climate change and wider environmental degradation are not enough to motivate bold action at scale, perhaps the immediate and global danger of COVID-19 will unite the international community under a shared understanding of the IPCC's 1.5°C report and its urgent call to mitigate (and adapt to) climate change.

The pandemic presents opportunities for companies, and potentially policymakers, to implement 'back-to-work' strategies that align with these goals. For example, an S&P paper from April estimated that a 7% reduction in freight shipments in the shipping sector and 40% reduction in business travel in the aviation sector could help align the industries with a 2°C climate scenario by 2030, while a 3-day work-from-home policy in the professional services sector would align emissions from passenger transport over the next five years.[40]

Furthermore, digitalisation could help close the financing gap needed to fulfil the Sustainable Development Goals (SDGs), for example improving data availability and quality, enabling reduced transaction and intermediation costs, and fostering more innovative, efficient and circular business models.[41] A UN-mandated Task Force on Digital Financing of the SDGs recently warned of the need to develop principles to govern digital finance.[42]

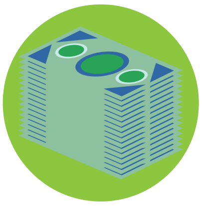
Building back better, together

To achieve this will require planning, collaboration, and vision. Governments have a responsibility to ensure that all recovery investments, grants, and other types of spending or fiscal support, contribute to meeting the Paris Agreement and the SDGs.[43] Overall, whether through regulation or voluntary commitments, governments must encourage transparency and drive sustainability throughout their public procurement activities, while also sending clear policy signals for the private sector to follow. Additionally, public recovery measures should leverage the private sector – particularly in emerging economies.

Alignment on definitions will be vital, and the taxonomic approach to setting criteria on whether investments are aligned with the Paris Agreement – established in China through the PBoC Green Bond Endorsed Projects Catalogue and the European Union through the EU Taxonomy – is gaining traction around the world. This will be supported by discussion of how to 'build back better' and related guidance, for example through the Principles for Recovery & Resilience developed by the EU's Technical Expert Group on Sustainable Finance (TEG).[44]

This report outlines various policy developments in the green finance space. In particular, we stress the importance of creating a financial system that is adapted and resilient to climate change and the physical, biological, and transitional risks it entails. Particular attention is given to key initiatives developed by market actors, namely central banks and stock exchanges.

Financing the stimulus



Pandemic-related financing has taken off in 2020, with our data and definitions showing USD75bn raised through Pandemic bonds and perhaps just as much from Social and Sustainability bonds as of end H1 (see Part 1). To quote another source, according to BloombergNEF, 'Coronavirus bonds' had raised USD163.5bn as of June.[45] The vast majority of this financed immediate response measures, especially in EM, but as the near-term health impacts become contained, the focus will be on planning and implementing a recovery that emphasises 'building back better'.

To drive this massive wave of investment, governments can use their own balance sheets, or they can make efforts to reduce the cost of private capital through various forms of financial support and policy measures.[46] Their ability to do so, however, will largely depend on fiscal constraints. Stimulus measures are set to sharply increase debt burdens as nominal GDP growth slumps and deficits widen.[47] The UK's debt, for example, exceeded 100% of GDP in June for the first time since 1963.[48]

For many DM countries, this should not pose a significant problem given record low interest rates and relatively strong debt affordability. Moody's expects debt burdens of advanced economies to stabilise at higher levels in 2021-22 if nominal GDP growth returns broadly to pre-crisis levels.[49]

Furthermore, the pandemic has maintained or even reduced the already low interest rates at which many DM governments can borrow, while increasing the risk premium paid by many private sector players as well as countries perceived as 'riskier'.[50]

EM countries will likely have it harder, given many developing economies (China excluded) started the crisis in a weaker position and therefore less able to absorb the fiscal cost. While DM governments can run substantial deficits without driving interest rates and inflation higher, most EM economies have tighter borrowing constraints, especially in an environment in which DM governments are also borrowing heavily. In the EU, the pandemic recovery fund may allow more indebted countries to recover with support from Europe's larger economies, but the lack of such a bloc globally means that other mechanisms are needed to prevent meltdowns in many developing countries.

This is exacerbated by the fact that emerging economies are also already suffering from severe drops in foreign direct investment (FDI) as a result of the pandemic. According to a recent UNCTAD report, "global FDI flows are expected to fall sharply from 2019 levels of USD1.5tn, dropping well below the trough reached during the global financial crisis."[51] Flows to EM have been hit especially hard due to export-oriented and commodity-linked investments being among the most affected. To make matters worse, the analysis also showed that international private sector flows to four out of ten key SDG areas have failed to increase substantially since the adoption of the goals in 2015.

Development finance institutions can play a crucial role in ensuring that such action extends to developing countries facing higher risk premiums. Initiatives like the EBRD's EUR21bn Solidarity Package can be complemented by others that integrate the private sector, such as the USD1bn Impact Rescue Facility targeting SMEs in Africa, Latin America and Southeast Asia.[52,53] These can be effective, especially in the short-to medium-term, but are still likely not to be enough and will need to be supplemented by more robust longer term solutions (potentially including debt restructuring).

Greening the stimulus

A recent OECD report highlights the need for 'build back better' agendas to include alignment with long-term emission reduction goals, factoring in resilience to climate impacts, slowing biodiversity loss and increasing circularity of supply chains.[54] Green stimulus programmes could help to restart economies while reducing the risk of future recessions caused by climate change and/or degraded ecosystems.

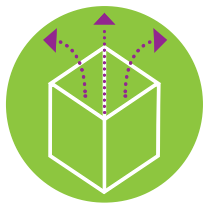
In the Philippines, for instance, where the central bank is the newest member of the Network for Greening the Financial System (NGFS), the government's recovery plan has been criticised for not incorporating renewable energy policies.[55] It is a missed opportunity to provide cleaner – and likely more secure – energy in the country.

Governments around the world must work to achieve this with a renewed mindset and closer engagement from market actors and civil society alike.[56]

Green securities could play a major role. By labelling debt as 'green' (or 'sustainable'), as several sovereigns have already done, governments could send a clear market signal while contributing to the development of domestic green bond markets, and attracting a more diversified investor base. These and other potential benefits of issuing 'green' are covered in our inaugural *Green Bond Treasurer Survey 2020*.[57]

Green recovery measures and packages

EU Recovery Plan



The European Union is leading the green recovery, at scale. In May, the European Commission proposed a major plan – Next Generation EU – that aims to ensure the COVID-19 recovery is sustainable, even, inclusive and fair for all Member States.[58] Composed of several facilities, it is based on three pillars:[59]

1. Supporting Member States to recover

2. Kick-starting the economy and helping private investment

3. Learning the lessons from the crisis

30% of the EUR750bn recovery fund – the world's largest ever green recovery pledge – will be earmarked for climate-related expenditure and guided by the EU Sustainable Finance Taxonomy, which will be covered.[60]

This could entail EUR225bn in green bond issuance, which would represent an 87% increase in the green bond market versus 2019 levels. [61]

The decision on how governments spend money is typically a political one, even more so in so in an environment of high indebtedness and tight fiscal space. Since green bonds specifically address the issue of responsible finance and long-term sustainability, they may help to increase the acceptance and willingness for an increase in debt levels as a way to stimulate growth, especially in countries where the topic is more sensitive.

Overall though, major EU bond issuance, including a boost in EU green bond supply, could encourage more green bonds from a broader set of issuers, helping to deepen and diversify the market.[62] This would come at the same time as the ECB puts green policy at the top of its bond buying agenda with aggressive asset purchasing, in favour of green assets.[63]

The pandemic recovery fund could transform the investment landscape because fiscal co-ordination at the core of the plan may effectively create a sovereign fixed-income market for the eurozone worthy.[64] European bonds, currency and stocks could become much larger features of international portfolios, with bonds benefiting particularly.

Currently, less than a quarter of European sovereign and supranational bonds carry triple-A ratings – the recovery programme could increase this amount to around EUR1.4tn. Europe's riskier sovereign bonds might also become sturdier investments, not least if the recovery fund were to succeed in sharing the costs of economic reconstruction and easing the pressure on the most indebted nations. If so, southern European government bonds could become core holdings for a broader circle of investors. A more stable Europe and a deeper bond market would also boost the Euro's standing among international investors and central banks. [65]

The EU's long-term budget, the 2021-2027 Multiannual Financial Framework, was proposed in 2018 and reinforced in July 2020 in response to the COVID-19 crisis. It is now boosted by the Next Generation EU fund, reaching a record high EUR1.8tn.[66] It is designed to support the recovery while investing in a green, digital, and resilient Europe.

Both the Multiannual Financial Framework and the Next Generation EU fund provide an opportunity to decouple economic prosperity from environmental degradation by applying the Do No Significant Harm (DNSH) and Minimum Safeguards required by the EU Taxonomy to all investments, i.e. not just those specifically linked to climate spending.[67]

Others from around the world

A somewhat different scenario is unfolding in the **USA**, where the Federal Reserve is set to have the world's largest balance sheet at USD9-12tn after emergency measures (greater than that of Blackrock, currently the largest investor globally). The Fed announced measures to relieve strain in the trading of US Treasuries, agency mortgage-backed securities and commercial paper, as well as municipal and corporate bonds – but lacking fossil fuel screens, such emergency measures are not only failing to grasp the opportunity to build back better, but also reinforcing associated systemic risks at the heart of the system.

The **UK's** economic recovery plan includes a GBP3bn green investment package which aims to support around 140,000 green jobs, upgrade buildings and reduce GHG emissions by 65m kg CO_2e.[68,69] Efforts are being made to incorporate climate mitigation into the recovery. For example, a GBP2bn Green Homes Grant scheme will allow homeowners and landlords to apply for vouchers to pay for green housing improvements such as loft, wall and floor insulation, and low-carbon heating installation that could save some households hundreds of pounds a year on energy bills, while creating thousands of jobs. The package also includes a GBP900m Getting Building Fund for projects such as town centre regeneration and green infrastructure provision.[70]

Canada has set up a Large Employer Emergency Financing Facility (LEEFF) to provide short-term liquidity assistance in the form of interest-bearing term loans to large Canadian employers affected by COVID-19. The aim is to provide bridge financing to large companies to keep their operations going and avoid bankruptcies of otherwise viable firms.[71,72] However, the funding is contingent on several conditions. In particular, recipients are required to publish annual climate-related disclosure reports consistent with the Task Force on Climate-related Financial Disclosures (TCFD), including how their future operations will support environmental sustainability and national climate goals. This could offer a much-needed nudge to the many oil and gas companies operating in Canada, which would now be forced to report if applying for bailout funding.

In **South Korea**, the government has announced it will invest USD61.9bn by 2025 to strengthen digitalisation, eco-friendly growth and social safety nets – this follows a USD1.5bn sovereign deal from 2019 which contained a USD500m green and sustainability tranche.[73] Earlier this year, South Korea became the first Asian nation to make a net zero GHG emissions pledge – by 2050 – under a newly adopted Green New Deal.[74] The pledge is reflected in the latest green bond by the Export-Import Bank of Korea (KEXIM), a EUR700m deal issued in April.[75] The export-focused state development agency already had a green bond issuance programme, with five issued between 2013-19 amounting to USD1.4bn, but this is its biggest yet.

Also in Southeast Asia, **Thailand** recently issued a THB30bn (USD988m) sovereign sustainable bond as part of its COVID-19 response measures. Containing various eligible environmental and social categories, the 15-year deal is expected to allocate approximately two thirds of the proceeds towards COVID-19 support measures, with the rest financing green projects.[76]

Norway's recovery measures include a NOK3.6bn green investment package.[77] It is chiefly aimed at hydrogen, battery technology, offshore wind, and low-emission shipping. The funding will be delivered through a combination of public and public-private mechanisms, primarily to medium-to-high Technology Readiness Level (TRL) activities supporting industrial competitiveness in emerging solutions. Norway's hydrogen strategy recognises the importance of innovation to support the decarbonisation of hard-to-abate, energy-intensive industries. The high energy density of hydrogen could allow the electrification of carbon intensive sectors such as the heavy goods industry.[78]

The **EU's** hydrogen strategy similarly cites the manifold possible applications of hydrogen technology so as to facilitate carbon neutrality by 2050, projecting growth from the current less than 2% to 13-14% of the EU energy mix by 2050.[79]

The **Nigeria** Economic Sustainability Plan (NESP) creates a stimulus package that includes installation of Solar Home Systems (SHS), targeting five million households and serving approximately 25 million individual Nigerians who are currently not connected to the National Grid.[80] Solar equipment manufacturers will be required to set up production facilities in the country, supporting the local labour market. President Muhammadu Buhari has also taken the crash in oil prices as an opportunity to cut at least USD2bn in annual fuel subsidies. [81]

A similar policy has been adopted in **India,** where the government has increased petrol and diesel prices by Rs 3 (USD0.04) per litre each to garner about Rs 39,000 crore (USD5.2bn) in additional government revenue. According to the Hindustan Times, the revenue generated from these duties will be used for infrastructure and other developmental items of expenditure.[82] With coronavirus causing estimates for reaching 'peak oil' to be revised ever closer, such policies are likely to be further embraced, to the extent that oil consumption may not surpass 2019 levels again.[83],[84] The European Commission is considering similar policies, for example the long called for tax on kerosene alongside sustainable fuel quotas, aimed at reducing the climatic impact of aviation.[85]

To avoid unproductive propping up of incumbent heavy-emitting companies, governments should coordinate efforts to promote a green recovery in competitive and hard-to-abate sectors – in particular commercial aviation. This would enable more effective resistance against pressures to unconditionally address job security and other economic impacts without tying support measures to satisfactory performance on environmental (and social) metrics. According to Transport & Environment, only Austrian Airlines and Air France have agreed to some type of climate conditions under their bailout packages.[86]

We are in this together

Ultimately, cooperation and alignment on recovery packages, with a holistic mindset, will be critical. More efforts such as Global Citizen's mobilisation of USD6.9bn (USD1.5 bn in cash grants and USD5.4bn of loans and guarantees), involving pledges by numerous governments from around the world, will most likely be needed to get the world on track to meet the SDGs.[87] The EBRD coronavirus Solidarity Package, which will provide EUR21bn covering both emergency liquidity and long-term resilience and infrastructure investment to developing economies, is another effort aimed at preventing COVID-19 from exacerbating global inequalities, addressing multiple SDGs.[88]

In a world that is increasingly turning to capital markets to finance climate projects and more recently the recovery, green bonds can be an important tool to achieve greater economic and financial resilience and reduce disruptions from both chronic climatic change impacts and acute climatic shocks like the COVID-19 outbreak. And they can, of course, be useful both to public and private sector issuers.

Likewise, other labelled instruments – social and sustainability bonds and loans, performance-linked instruments, and potentially others – can also play a role. Earlier this year, ICMA released Sustainability-Linked Loan (SLL) Principles and updated its Social Bond Principles (SBP), expanding the eligible social bond categories and the definition of target populations to a global population, in line with recent guidance for social bonds addressing the COVID-19 crisis.[89],[90],[91] The trade association also revised its impact reporting guidelines to include biodiversity and an impact reporting framework for social bonds, as well as publishing guidance on mapping green, social and sustainability bonds to the SDGs.[92]

Framework, harmonisation, and common definitions

Setting standards: being 'green enough'

Green bond standards introduce finance-friendly metrics, performance measurement, transparency and validation that enable investors to make decisions efficiently and allocate capital where it is needed (and where it will create returns), while holding issuers accountable for their market practices. Underpinning these standards is a need to align definitions for what is considered 'green'. Taxonomies provide a common language that informs issuers, investors, and policymakers about whether an economic asset or activity is aligned with the Paris Agreement, preventing proposals from lacking ambition and greenwashing.

2020 has been a breakthrough year for the adoption of taxonomies as means of determining whether an investment contributes to climate change mitigation or other environmental objectives. The EU and China, which collectively account for approximately 35% of global GHG emissions,[93] respectively published the EU Taxonomy and PBoC Green Bond Endorsed Projects Catalogue (latter originally launched in 2015 and updated and released for consultation this year).[94,95]

Generally speaking, both the EU Taxonomy and the PBoC Catalogue outline the environmental performance criteria that economic activities must meet to be considered as making a substantial contribution to climate change mitigation or other environmental objectives. Complementing these, the World Bank recently produced guidance on how to develop green taxonomies in EM – as of yet, it is not closely tied to climate science and therefore raises questions on the stringency of resulting local/regional taxonomies and harmonisation with other taxonomies.[96]

Such documents can serve as the blueprints for the net-zero GHG emissions economy we must transition rapidly towards. It now falls on national governments and sub-national actors to align their fiscal expenditures and priorities to these taxonomies.

Enabling the green transition

Encouraging GHG-intensive industry sectors – such as materials, chemicals, shipping and aviation – to shift to 'greener' business models is key to the global effort of keeping the increase in the global average temperature to well below 2°C. Yet there has been limited engagement of these sectors in the green bond market to date. Global green finance markets have scrambled to explore the potential to facilitate -green transitions for highly polluting sectors through bond issuance.

Transition bonds, an emerging new labelled debt instrument, are targeted at emission-intensive industries. There is no single definition on what a transition bond can finance – raising some concerns around greenwashing – but there is now an emerging consensus that any labelled transition bond should be ambitious, not light green.

This means making deep emissions cuts to existing activities in the short term while transitioning whole entities to a pathway consistent with the Paris Agreement. Transition bonds can allow companies in emissions intensive industries to raise capital with the goal of decarbonising their value chains at the speed required by the Paris Agreement. Examples include investment in green hydrogen, early decommissioning of fossil fuel power plants and retrofits of airline fleets to operate with maximum biofuel or synfuel content. The share of issuance and investment made in emerging economies like China, India and Indonesia is crucial.

Climate Bonds Initiative is working with regulators, investors and other key market stakeholders to activate transition finance for segments that have largely been absent but offer huge emission reduction potential. To this end, we have just released a ground-breaking Financing Credible Transitions white paper which clearly defines transition as a concept and presents a framework for identifying credible transitions aligned with the Paris Agreement.[107]

The EU Taxonomy can guide recovery efforts

The recommendations of the EU Technical Expert Group (TEG) on Sustainable Finance provide an updated set of sustainability criteria for 70 economic activities under the EU Taxonomy.

This lays the groundwork for identifying activities that provide a substantial contribution to climate change mitigation and/or adaptation, and sets out minimum 'Do No Significant Harm' (DNSH) thresholds for each of the EU's six environmental objectives: mitigation, adaptation, water and marine resources, circular economy, pollution prevention and control, and biodiversity and ecosystems.

Under the EU Taxonomy regulation, which comes into effect in 2021, investors and companies must disclose the environmental performance of the activities they invest in. As such, and albeit from a binary 'in or out' standpoint, the EU Taxonomy may be a powerful tool to help investors assess the impacts of their holdings based on taxonomy alignment, and for policymakers to assess potential expenditures, asset purchases and other investments with a similar rationale. In effect, the EU Taxonomy can be seen as a procurement plan for a green economy.

This should support transparency and comparability in the financial sector as well as expand the offering of sustainable, ESG and impact investment options, and ultimately help to direct more financial flows to such assets and projects.

ESG factors are increasingly integrated in investment processes, and crucially among institutional investors. For instance, members of the Net-Zero Asset Owner Alliance – which represent some of the world's largest investors and a combined USD5tn in assets – recently pledged to implement GHG emission reductions in their portfolios of between 16% and 29% over the next five years as well as carbon neutrality by 2050, in line with the IPCC's target of limiting global warming to 1.5°C.[97]

But there is still a need to do much more, especially within some lagging groups. A recent AIMA and KPMG study, for example, showed that 85% of hedge funds have made little or no effort to incorporate ESG into their strategies.[98] Hedge funds may represent a relatively small share of global AUM, but only a consistent and coherent approach will enable the true evolution – or revolution – of finance.

Technical aspects

The first company reports and investor disclosures using the EU Taxonomy are due at the start of 2022. In the meantime, the EU can be expected to maintain and expand the EU Taxonomy to include further economic activities via the International Platform on Sustainable Finance (IPSF), covered in more detail on page 24.

While EU Taxonomy alignment is primarily intended to be assessed based on company revenues, it could also use turnover or expenditures allocated to each taxonomy-related activity.[99] In addition, the approach could be extended to communicate contributions to SDGs, for instance among impact investor portfolios. This would depend on the availability and reliability of data.[100]

In this context, FTSE Russell released a report in September summarising the development of and approaches taken by the EU Taxonomy and the FTSE Russell Green Revenues Classification System (GRCS), examining the overlaps and differences between the two. It also provides a useful overview of how the GRCS dataset can provide a stepping stone for investors to comply with the requirements of the EU Taxonomy regulation, and how the alignment of business revenues can be determined.[101]

The EU Taxonomy report is complemented by the Usability Guide for the EU Green Bond Standard (GBS), which aims to ensure that investments contribute to the EU environmental objectives by following the criteria outlined in the Taxonomy. The European Commission closed a three-month public consultation period on the GBS in October 2020 and is expected to decide how to take it forward in Q4 2020.[102]

China strengthens Green Bonds Endorsed Projects Catalogue

The People's Bank of China (PBoC), the China Securities & Regulatory Commission (CSRC), and the National Development & Reform Commission (NDRC), have jointly updated their Green Bonds Endorsed Projects Catalogue (PBOC Catalogue), which governs China's green bond market. It was released for public consultation in July 2020 and an unofficial English translation can be found on our website.[103]

The PBoC first issued green bond regulations in December 2015,[104] followed by the NDRC in January 2016,[105] and CSRC Guidelines in March 2017.[106] However, each regulator adopted separate approaches, meaning that for example state-owned enterprises were governed by a slightly different taxonomy to banks and other corporates.

While addressing climate change has been a feature of China's national policy for the past ten years, the domestic focus of green finance was previously on cleaning up pollution, starting with air pollution. The original PBoC catalogue includes investments in 'ultra-supercritical' coal-fired power. Ultra-supercritical coal power dramatically reduces particle pollution (i.e. air pollution) in places like Beijing, however, it only reduces CO2 emissions by around 25% compared to older coal-fired power plants, whilst global climate goals depend on much steeper emission reductions

The updated 2020 PBoC Catalogue not only excludes coal, but there is no mention of production or utilisation of natural gas either. It also adds hydrogen, sustainable agriculture, green consumer finance, and a host of other useful sectors like green services and manufacturing.

The proposed change, while not yet approved, is arguably one of the most important recent developments from China, marking a milestone for global harmonisation efforts on green guidelines and criteria. It also makes an important contribution by harmonising guidelines domestically. Previously, and as noted, different issuer types used different green definitions depending on the applicable regulator (e.g. PBoC for financial institutions, NDRC and CSRC for corporates). If the proposed changes are approved, any bond can be recognised as green if it meets the criteria of 2020 PBoC Catalogue, no matter which market it is issued in or what type of bond it is.

Cooperation on taxonomies

If green finance is to fulfil its role in helping to meet the goals of the Paris Agreement then it is important that all global, regional and national green guidelines are also consistent with the Paris Agreement – i.e. that they prioritise assets and projects that substantially contribute to climate change mitigation and adaptation.

The EU and China have the most advanced taxonomies, each with slightly different focus areas and resultant green definitions. The EU Taxonomy, for example, has focused initially on the first of its six environmental objectives – climate change mitigation – while the Chinese Catalogue has a broader focus across three objectives – resource efficiency/conservation, environmental improvement, and climate change.

The PBoC's Catalogue also focuses on projects with substantial environmental benefits and in line with industrial policy guidance and tries to solve a series of challenges such as serious domestic environmental pollution, increased resource constraints, and ecological degradation. The inclusion of clean coal projects to reduce local air pollutions has already been mentioned as one discrepancy that may disappear.

A more harmonised taxonomy internationally would help ensure robust definitions of 'green' that adequately address environmental challenges while also supporting a country's engagement in global green initiatives.

Differences in definitions of 'green' reflect the distinct challenges faced by countries and regions, but there are many efforts to improve coordination, in particular the IPSF (*see next page*). Furthermore, taxonomy alignment is an opportunity to ensure that both the EU and China pursue and promote mutually sustainable growth and an inclusive green recovery. Both sides have made great strides over the last few years and have shown a commitment to maintaining environmental objectives. A comparison between the EU and China taxonomies is due for publication in 2021.

China and the EU are not alone in their efforts to develop taxonomies that can ultimately guide public and private sector procurement strategies. Countries around the world are beginning to look towards taxonomy development as a vital tool for strategic decisions on green and sustainable finance.

Wider sustainable finance developments in major regions

We cannot fulfil the SDGs with green and sustainable bonds alone, but used correctly, such investments provide competitive financing for large scale investments from the public and private sectors. Further, while investors may be eager to buy such products, there is an equally important need for governments to stimulate such climate-aligned investing. The following sections highlight key developments in Europe, China and the USA, providing some context on where the world's largest economies are heading on the sustainable finance agenda.

Europe

The European Green Deal

On 14 January 2020, the European Commission presented the European Green Deal Investment Plan, set to mobilise at least EUR1tn of sustainable investments over the next decade.[108] The European Green Deal provides a framework to facilitate public and private investments needed for the transition to a climate-neutral, green and competitive economy by boosting the efficient use of resources and moving to a clean, circular economy, while restoring biodiversity and cutting pollution.[109] It outlines the investments needed and financing tools available, including how to ensure a just and inclusive transition.[110]

In order to achieve the EU's goal of carbon-neutrality by 2050, the proposed European Climate Law aims to turn this ambitious political commitment into a legal obligation and a trigger for investment at scale.[111]

Reaching this target will require action among all sectors of the European economy, including investment in environmentally-friendly technologies, innovation, cleaner and healthier transport solutions, decarbonisation of the energy sector, energy efficiency in buildings, and strengthening international partnerships to improve global environmental standards.

Just Transition Mechanism

As part of its Green Deal, the EU has created a Just Transition Mechanism through which it will provide financial support and technical assistance to help the people, businesses and regions most affected by the move towards the green economy.[112] This will mobilise at least EUR100bn over the 2021-27 period, seeking to overcome the economic and social costs of the climate transition in the most vulnerable carbon-intensive regions and sectors. The mechanism employs a Just Transition Fund, the InvestEU Just Transition Scheme, and a European Investment Bank (EIB) public sector loan facility. It is imperative that the Just Transition Mechanism is aligned with the EU Taxonomy.

Renewed Sustainable Finance Strategy

With the recovery from the economic consequences of the COVID-19 crisis requiring greater investment across all sectors, financing frameworks – both public and private – must support this overall policy direction. To further meet this need, the EU launched a Renewed Sustainable Finance Strategy to provide policy tools to ensure that financial systems genuinely support businesses with a sustainable recovery.

The renewed strategy will contribute to the objectives of the Green Deal Investment Plan, in particular by creating an enabling framework for private investors and the public sector to facilitate sustainable investments.[113]

International Platform on Sustainable Finance

The EU has also launched the International Platform on Sustainable Finance (IPSF) to coordinate market developments globally and provide a multilateral forum for facilitating exchange. It will enable a comparison and coordination of efforts on initiatives and approaches to environmentally sustainable finance while respecting national and regional contexts.

The platform is an advisory body composed of experts from the private and public sector. This group, which is planned to succeed the TEG, will advise the European Commission on the technical screening criteria for the EU Taxonomy and sustainable finance more broadly. In addition, the IPSF will serve to monitor and report on capital flows towards sustainable investments.

IPSF Members: Argentina, Canada, Chile, China, EU, India, Indonesia, Kenya, Morocco, New Zealand, Norway, Singapore, Switzerland, Senegal.

Combined, these represent:

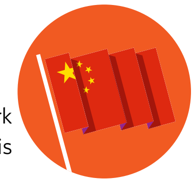
- 50% of global GHG emissions
- 45% of global GDP
- 50% of world population

EIB Energy Lending Policy

In November 2019, the European Investment Bank (EIB) launched its new Energy Lending Policy which will cease all fossil fuel energy financing would cease after the end of 2021, with all financing activities aligned with the Paris Agreement by the end of 2020. This is aligned with the Just Transition Fund, which is planned to finance up to 75% of investments in new energy projects in the 10 most vulnerable EU countries.[114]

China

National Policy on Green Finance



China has developed a comprehensive framework for green finance, which is expected to support the country in reaching its recently announced target of carbon neutrality by 2060.[115] The government's regulatory administration and stock exchange have played a crucial role in promoting the development of green finance in the country.

The main pillars of this framework include:

Green Credit Guidelines for the banking system, which were formulated by the China Banking Regulatory Commission (CBRC) and include a statistical system for measuring and evaluating green credits.[116,117] The guidelines set out how banks should address environmental issues at the board/management level and how to integrate environmental considerations into lending processes.

Guidelines for Establishing the Green Financial System, released in 2016, which consists a series of policy measures to support and incentivize green investment. These incentivise include, among others, re-lending operations by the People's Bank of China, specialised green guarantee programs, interest subsides for green loan-supported projects, and the launch of a national-level green development fund.[118,119]

These two guidelines outline the important role of the securities market in financing green investment, require a unification of domestic green bond standards, support qualified green companies to raise funds via IPOs and secondary placements, assist the development of green bond indices, green equity indices and related products, and require a gradual establishment of a mandatory environmental information disclosure system for listed companies and bond issuers. This followed the inclusion of a 'green financial system' in the ecological civilisation construction strategy of China's 13th Five-Year Plan.[120,121]

A Revised Code of Corporate Governance for Listed Companies in China was released by the China Securities Regulatory Commission (CSRC). It requires listed companies to take actions based on green development, to integrate ecological and environmental protection into development strategies and corporate governance processes, and to disclose related information.[122]

The Green Investment Guidelines were released in 2018 by the China Securities Investment Fund Industry Association to encourage fund managers to pay attention to environmental sustainability, strengthen their awareness of environmental risks, and clarify the definition and implementation methods of green investments. They aim to promote green investment in the fund industry, improve the environmental performance of investment activities, and more broadly contribute to green and sustainable economic growth.[123]

The Green Industry Guidance Catalogue (2019 Edition) clarified green definitions through a taxonomy of green industries and projects.[124] This forms the basis for introducing policies and initiatives in finance, pricing, taxation and others, providing a strong reference for green investments.

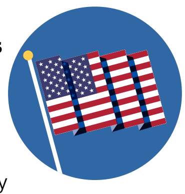
Local Policy on Green Finance

One feature that is unique to China is the ambition with which local governments at all levels are actively formulating their own plans to develop green finance in their respective regions. As of 2019, more than 500 green finance policies were issued by provincial and sub-provincial governments nationwide, including more than 300 specific administrative measures to promote the development of green finance within jurisdictions. Green bonds have been a major focus of these local plans. For example:

- **Beijing** issued a Memorandum in 2015 and began to promote the issuance of green bonds overseas.[125] In 2017, *Implementation Measures* were released to advance Beijing's goal of developing a market for green bonds and green ABS (securitised) products.[126] These endorse green bond standards, support financial institutions in issuing green financial instruments, and advocate third-party assessment. The measures also uphold green finance in government procurement, direct investments, and public-private partnerships. For example, in 2019, the Zhongguancun Science Park released related policies to promote green bonds, and single issuers can apply for subsidies worth up to RMB1m (USD146k) annually.[127]
- **Jiangsu Province** formulated a trial policy whereby 30% of the effective annual interest paid by non-financial corporates issuing green bonds is reimbursed for two years.[128] For a single issuer, the maximum reimbursement is RMB6m (USD877k) per year.
- In 2019, **Lanzhou New District** introduced the integrated plan for the construction of a Green Finance Reform and Innovation Pilot Zone, making it the ninth green finance pilot area in China.[129] The policy proposes the use of green bonds to finance investment in green industries, particularly for underdeveloped western regions of the country.
- Another development plan released in 2019 defines the goal of building a green finance centre in the **Guangdong-Hong Kong-Macao Greater Bay Area**. This takes advantage of Guangzhou as a green finance pilot area, supporting the development of green finance in districts and cities in the area while working with Hong Kong and Macao to build an international financial hub.
- The Integrated Plan for the **Yangtze River Delta** region puts forward the strategic goal of green innovation and development.[130] Through the development of green finance capabilities, financial institutions and enterprises are encouraged to issue green instruments – such as green bonds – and to explore the establishment of a market-oriented mechanism to attract social capital towards ecological and environmental protection.

USA

Climate-Related Disclosure Requirements



CFTC Climate-Related Market Risk Sub-Committee

In July 2019, the Commodity Futures Trading Commission (CFTC) announced the creation of the Climate-Related Market Risk Subcommittee, a group tasked with examining the risks that climate change poses to the financial system and identifying what future actions policymakers and market participants must take to mitigate these risks.[131]

While the threat to financial stability posed by climate risk is widely accepted, US regulators have been slow to move on concrete measures to embed climate risk at the core of financial decision-making and market activity. This positions the US as a potential 'rule-taker' while regulators overseeing the rest of the world's largest financial markets move swiftly on climate-related disclosure requirements and stress testing.

Nonetheless, the subcommittee has just published a report entitled Managing Climate Risk in the U.S. Financial System, which addresses several topics, including challenges in the evaluation and management of climate-related risks to the financial sector and markets, how market participants can improve integration of climate stress tests, and recommendations for regulators and policymakers to improve climate-related disclosure and risk management.[132] These findings will be reported to the Market Risk Advisory Committee within the CFTC for future action, but for now US financial markets remain in somewhat of a 'holding pattern'.

Ongoing SEC Debates over Climate-Related Disclosure Guidelines

While tangible steps to mandate and clarify climate-related disclosure requirements – in line with TCFD – are taken elsewhere, significant debate remains in the US about the role of regulators in doing so. In January 2020, the Securities and Exchange Commission (SEC) put forth a series of amendments to current disclosure rules but maintained its long-standing position that climate change disclosure should be rooted in materiality. Questions are still floating among the SEC on whether climate-related disclosures truly meet this standard.[133]

ESG Investing

SEC Movements to Clarify ESG Fund Labelling

There is growing momentum from the SEC on setting standards for ESG funds, with the aim of eliminating greenwashing and pushing asset managers towards an industry standard on what it takes to label a fund or product as 'green'.[134]

As sustainable investment funds continue to see record inflows in the US, the SEC has become increasingly focused on transparency of information in the market so that investors – particularly retail consumers – are able to make well-informed investment decisions and accurately compare options.

The regulator is specifically looking to determine whether such funds are complying with the Names Rule 2 under the Investment Company Act of 1940, which was designed to help ensure that investors are not misled or deceived by a fund's name. At the moment, there is the possibility that asset managers use 'ESG' or 'sustainable' labels as a signal to attract flows into their investment vehicles (given the increase in demand for such products), but then fail to meet minimum standards for ESG considerations when making investment decisions within funds. As of yet, however, the SEC has still not made any formal movements to implement the recommendation. [135]

Department of Labor Proposed Rule on ESG Investing for ERISA Plan Fiduciaries

In June 2020, the US Department of Labor (DOL) proposed a rule to update and clarify the DOL's investment duties regulation, in a move intended to provide clearer regulatory guidelines for Employee Retirement Income Security Act of 1974 (ERISA) plan fiduciaries given the increasing demand for prioritisation of ESG factors in investment decision-making.[136] ERISA is a federal law that sets minimum standards for most private voluntarily established retirement and health plans in private industry.[137]

The proposed rule, which states that ERISA plan fiduciaries cannot sacrifice returns or take on additional risk by incorporating ESG factors into investment decisions, has many fearing that environmental, social and governance dimensions will be deprioritised. Investors are increasingly focused on placing ESG factors at the core of investment mandates, and there is growing evidence that these are material financial determinants that must be at the core of prudent investment decision-making. Further, major ESG funds have outperformed the S&P 500 during COVID-19, illustrating their propensity to provide stable returns even in volatile environments.[138]

It is indisputable that environmental factors like climate risk will have a detrimental effect on asset prices and the stability of financial markets if they are not addressed, so it stands to reason that ERISA plan fiduciaries should consider these factors – just as they would any other material ones – in investment decisions. Moreover, the proposed rule is misaligned with the growing systemic integration of climate risk into risk management frameworks, as an increasing number of institutional investors recognise the potential for climatic impacts to erode returns and add risk to portfolios.

As the comment period comes to a close, whether or not the proposed rule will move forward remains on standby.

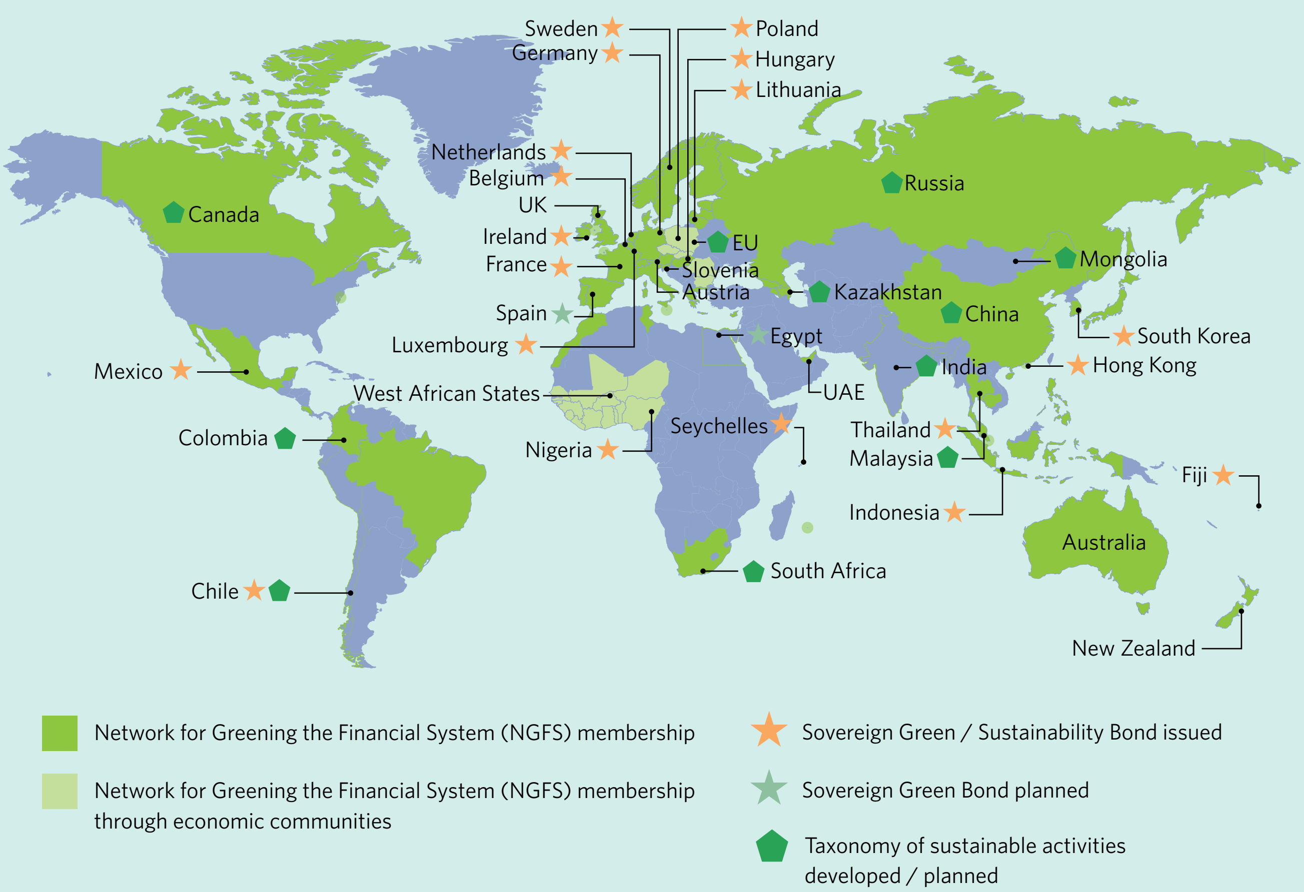
Ceres Accelerator for Sustainable Capital Markets

Launched in October 2019, the Ceres Accelerator for Sustainable Capital Markets targets the policies and practices that govern capital markets in order to address the urgency of climate change more effectively. The Ceres Accelerator is designed to be a catalyst for action on systemic financial risks associated with the climate crisis and other sustainability threats, helping to drive large scale change by achieving Paris Aligned portfolios, regulating climate as a financial risk, financing a net-zero economy and through board governance for a sustainable future.

Rocky Mountain Institute's Center for Climate-Aligned Finance

Launched in July 2020, Rocky Mountain Institute's Center for Climate-Aligned Finance was established as an 'engine room' to help financial institutions partner with their clients, industry leaders, and key buyers, to develop practical and scalable solutions to the barriers to climate alignment. Climate alignment is a powerful theory that could provide a definitive approach for the financial sector to drive long-term, multi-sector decarbonisation.

Taxonomies, Sovereign GBs and NGFS globally



NB: *Ecuador and Guatemala have issued Sovereign Social bonds.*

Central banks playing a bigger role

Over the last couple of years, many central banks have maintained and extended efforts to analyse and manage climate risk.[139] However, as with other public institutions, COVID-19 has prompted monetary authorities from around the world to focus their efforts on stimulating the economy. Targeting short-term economic boosts, these have often been tangential to the green agenda, focusing instead on health, social and economic priorities.

For example, several central banks have recommenced quantitative easing (QE) programmes by purchasing corporate and sovereign bonds, reducing repurchase agreement (REPO) interest rates, or providing banks with credit lines to provide short-term liquidity and support distressed loans. Many commentators have called for a greening of such stimulus packages, but asset buybacks to date have largely involved buying vanilla and green instruments indiscriminately.

Looking ahead, central banks and other financial supervisors are likely to strengthen their focus on long-term risks with exponential characteristics, leading to a more granular assessment of climate and other environmental risks.[140] Complementing this assessment, it is also crucial that they incorporate it into asset purchases and support mechanisms.

European Central Bank (ECB)

The ECB is already moving in this direction. Under the Corporate Sector Purchase Programme (CSPP) of its Asset Purchase Programme (APP), which is part of its QE activities, the ECB had purchased around 20% of the EUR31bn eligible universe of green, investment grade, EUR-denominated corporate bonds – and 24% of eligible public sector green bonds – as of the end of 2019.[141] Sustainability-linked bonds were recently announced to be eligible as collateral and for its asset purchase programmes from 2021.[142]

There has been intense debate about whether the ECB's EUR750bn Pandemic Emergency Purchase Programme (PEPP) should be targeted towards green assets, for instance by purchasing more bonds issued by the EIB, a large part of which fund green infrastructure projects.[143] ECB's (self-imposed) rules restrict its purchases to the secondary market and require it to operate in a market neutral way, open to any issuer that meets the criteria for credit quality and liquidity without favour.

Nonetheless, the ECB's President, Christine Lagarde, who has been spearheading a global drive to make the environment an essential part of monetary policymaking, recently declared climate risk to be a mission-critical goal for the central bank. She promises to examine changes to all of the central bank's operations in the response to climate change.[144]

Further, Isabel Schnabel, one of the ECB's Executive Board Members, has announced that, through its supervisory arm, the ECB could require banks to provide climate risk assessments, which could affect their access to central bank funding if the assessment has a direct implication on collateral valuations.[145] She also argued that the ECB should push the EU to add a green element to its long-delayed project of setting up a capital markets union, as a focus on green finance could give the bloc a competitive advantage.

Network for Greening the Financial System (NGFS)

Another promising avenue is the global NGFS. Formed in 2017, this 'coalition of the willing' had expanded to 69 members and 13 observers by July 2020.[146] The network undertakes research and shares results amongst its membership. It is currently organised into three work streams:

1. Mapping current supervisory practices
2. Developing climate risk financial scenarios
3. Identifying policies to scale up green finance

The NGFS published four major reports between May and June 2020 to assist banks and central banks from both within and outside the network in creating greener financial systems:

- **Climate scenarios for central banks and supervisors** – the report and accompanying datasets, prepared by climate researchers, present three representative scenarios on orderly and disorderly expansions of climate mitigation policy, one with significant physical impacts.[147]
- **Guide to climate scenario analysis** – this report helps supervisors make use of different climate scenarios, such as those in the above report, to assess financial risks to banks and insurers.[148]
- **Guide for supervisors** – this sets out the range of actions that NGFS members can and are currently undertaking to inculcate climate risk awareness within their institutions and within the entities they supervise.[149]
- **Risk differential between green, non-green and brown financial assets** – this status report has results from a voluntary survey of banks and insurance firms on differential credit risks between different assets.[150]

Bank for International Settlements (BIS)

The BIS – the 'central bank of central banks' – introduced its Green Bond Fund in September 2019, an open-ended green bond fund to enable central banks to manage their reserves while investing in climate-friendly products geared to their needs.[151] This novel instrument purchases investment grade (A- and above) USD-denominated bonds to provide central banks with a highly liquid and safe green asset, thus allowing green bonds that incorporate climate to be used in a core part of banking regulation.

BIS also published an interesting book, *Green Swans: Central banking and financial stability in the age of climate change*, about the inherent unpredictability of climate risks.[152,153] Among other findings, it confirmed that central banks are increasingly looking at 'green' financial instruments as an additional tool for their FX reserve management. For instance, apart from the ECB's hefty green asset purchases, Sweden's Riksbank recently decided to reject issuers with a 'large climate footprint', for example selling bonds issued by a Canadian province and two Australian states (*see next page*).[154]

Other central banks

Other central banks from around the world have introduced various policies in line with recommendations from Climate Bonds Initiative's *Greening the Financial System: Tilting the Playing Field*.[155]

Disclosure and risk

The Bank of England (BoE) and **Banque de France** both announced the release of climate risk scenarios for supervised banks and insurers to use in their stress tests. The scenarios provide a common framework to allow comparison between institutions. The UK Prudential Risk Authority sets out three scenarios for banks and insurers to use in the *2021 Biennial Exploratory Scenario*, and Banque de France is doing a similar exercise.[156],[157]

Further, the BoE published climate-related financial disclosure in June 2020.[158] This covers internal governance, external roles (climate risk forum and NGFS), regulatory changes (see below), and staff working papers on internal research, such as the risk differential between housing lenders following extreme events. The BoE holds GBP530bn of assets – chiefly through its Asset Purchase Facility – of which GBP500bn are gilts and the remainder are GBP-denominated corporate bonds. The bank claims the carbon footprint of these assets is lower than the average for other G7 countries by dint of the UK's economy being more decarbonised. It has no policy to actively target green assets.

The **UAE's** financial authorities, including the Central Bank of the UAE and the Abu Dhabi Global Market, published the country's Guiding Principles on Sustainable Finance, quoting international best practice and providing Abu Dhabi's financial sector with a voluntary guideline to set out the disclosure standards it seeks.[159]

The **Netherlands' DNB** has applied some of the ideas from the TCFD to the theme of biodiversity loss. A recent joint study with the PBL Netherlands Environmental Assessment Agency, entitled *Indebted to nature*, explores the biodiversity risks to the Dutch financial sector, particularly those associated with damage to critical ecosystem services such as pollination and nutrient regulation.[160] The new study builds on the *Values at risk?* report, published last year by DNB, in which the risks of biodiversity loss were investigated in more qualitative terms.[161]

Prudential regulation and collateral framework

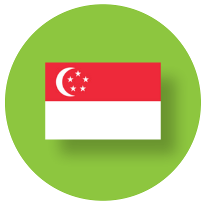
Central banks can have a major impact on bank lending by adjusting the rules governing the 'haircut' they impose on assets offered as collateral, or how they weigh assets when assessing whether a bank is adequately capitalised. So far, central banks have been hesitant about departing from the principle of 'market neutrality' – the NGFS's most recent publication on brown vs. green risk differentials reiterates this hesitance – but there are signs of change, especially when green assets can be linked to lower default risks.

In China, the **People's Bank of China** (PBoC) has been implementing a *Green Credit Performance Evaluation Programme* since 2018 for the country's major banks and has included the outcome to the central bank's macroprudential assessment (MPA) for the banks. The evaluation is consisted of both qualitative (20%) and quantitative (80%) components with five quantitative indicators: the proportion of green loan balance, the proportion of green loan balance share, the ratio of green loan increment, the year-on-year growth of green loan balance, and the non-performing ratio of the green loans.[162]

In 2018, a recommendation was made to the PBoC's monetary policy committee to lower the risk differentials of green assets. The PBoC is also actively involved in the discussion and analysis of potential underlying risk differentials of green and brown assets at the NGFS.

One central bank to slightly break ranks is the **Central Bank of Hungary** (MNB), which last year announced portfolios of mortgages on energy efficient homes will be more leniently treated in its capital adequacy formulas. Mortgage lenders are being asked to share this benefit with borrowers by reducing interest rates on loans for energy efficient homes by 0.3%. The MNB has justified this policy by citing evidence showing that green mortgages have lower risks of default than vanilla ones. Similar evidence of lower default risks has been found in other EU housing markets.[163]

Own asset purchase



The **Monetary Authority of Singapore** (MAS) has established a USD2bn fund to encourage private sector fund managers to create products driving regional environmental improvements and/or managing environmental risks. The first purchase by the MAS under this initiative was a USD100m purchase of the BIS Green Bond Fund previously mentioned (*see previous page*).[164] This reflects the authority's strategy of developing green finance markets and complements existing grant schemes to subsidise the costs of verifying green bonds and loans.

Sweden's Riksbank has decided to divest bonds issued by sub-national governments with a large carbon footprint in Australia (Queensland and Western Australia) and Canada (Alberta).[165] Announced in early 2019, the divestment continued over the year, including the sale of stakes in Alberta's tar sands last autumn. Norway's Norges Bank Investment Manager, which manages the country's USD1.1tn sovereign wealth fund (Government Pension Fund of Norway), also announced it plans to divest from companies dedicated to oil and gas exploration in 2019 – however, the fund manager and Norway's Finance Ministry made it clear that this is aimed at protecting the country's overall wealth from oil-price risks, rather than for climate reasons, with the scope of divestment having shrunk following the announcement.[166]

Other regulators also increasingly involved

Financial Centres for Sustainability

The International Network of Financial Centres for Sustainability (FC4S) is a group of financial centres from around the world with the objective of accelerating the expansion of sustainable finance by enabling financial centres to exchange experience and drive convergence globally.[167] It currently counts 30 members, including public-private agencies and market associations, some of which have regulatory and supervisory functions in local markets.[168]

IOSCO's Sustainable Finance Network

Complementing the work of the NGFS, the International Organization of Securities Commissions (IOSCO) – a network of securities regulators from 115 countries – has become more involved in the topic of green finance. IOSCO established a Sustainable Finance Network issued reports in June 2019. The focus of its work to date has been to uncover the range of work undertaken by members of the network and to understand respective levels of disclosure, including guidelines and obligations around ESG reporting.[169]

In the UK, the Pensions Regulator has issued a statement clarifying that "climate change is a risk to long-term sustainability that pension trustees need to consider when setting and implementing investment strategies", in response to a long-standing and erroneous perspective held by trustees that their focus should be short-term returns.[170]

Sustainable Banking Network

The Sustainable Banking Network (SBN) is a voluntary community of financial sector regulatory agencies and banking associations from EM supported by the IFC. The SBN's stated aim is to advance sustainable finance in line with international good practice, with its 40-member countries represent USD43tn (85%) of EM total banking assets. Having released its first Global Progress Report in 2018, the SBN's most recent study, entitled Necessary Ambition: How Low-Income Countries Are Adopting Sustainable Finance to Address Poverty, Climate Change, and Other Urgent Challenges, finds that sustainable finance has emerged as a pathway for low-income countries to de-risk investments and enable the financial flows needed to support climate action and sustainable development.[171]

Other green finance initiatives by regulators

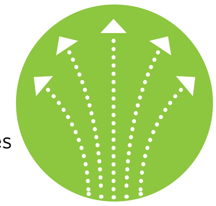
2019 saw institutional change from several financial regulators, with the establishment of various subcommittees and commissions on climate risk.

The French Financial Markets Authority has created a Climate and Sustainable Finance Commission to strengthen action on regulatory and supervisory issues related to sustainable finance, for example through changing practices, increasing transparency, facilitating capital mobilisation, and including sustainability dimensions in financial discussions.[172]

Some initiatives by US regulators are discussed on pages 26-27. An increased focus on climate risk is also shown by the Canadian Securities Administrators, which issued a Staff Notice on Reporting of Climate Change-related Risks to provide issuers with guidance on identifying and disclosing climate risks, in response to increased investor interest in climate disclosure.[173]

Similarly, Germany's Federal Financial Supervisory Authority, BaFin, published good practice guidelines for dealing with sustainability risks.[174] It is aimed at improving risk management among the diverse set of financial institutions supervised by the authority.

What next?



Central banks need to work closely with finance ministries to set a post-COVID recovery that integrates the 'build back better' agenda of green stimulus packages, with targeted purchases of 'green-resilient' assets and preferential loans by central banks.

Many of the interesting highlights mentioned above need to become more mainstream. For instance, DNB's work on biodiversity is particularly timely given the needs of the Convention on Biodiversity for conceptual and practical support on mechanisms to attract private finance for biodiversity and ecosystem conservation, as well as a more systematic appreciation, understanding and assimilation of the financial risks from conservation failure.

The UK and France are pioneering climate stress testing. Now that the NGFS has published guidance, more central banks could start to implement these scenarios and help banks and insurance companies manage such risks, which would be especially useful in the context of TCFD.

Lastly, many central banks have called for others to produce a 'brown' taxonomy. It seems to us that central banks, in their role as prudential regulators, are the primary users of such a taxonomy. If the market does not develop something that defines assets of dubious value and high exposure to climate risk, central banks and regulators may therefore need to incorporate such work in their own research agendas, looking for support from governments and sector experts to ensure credibility, relevance, and operability.

Global stock exchange developments

Stock exchanges from around the world are also becoming prominent supporters of sustainable finance. Here we cover some of the major initiatives by stock exchanges, but it is not intended as comprehensive list. These take several forms and are often supported by membership of the UN's Sustainable Stock Exchanges Initiative (SSE).

Stock exchanges and indices

A recently announced joint effort between former BoE governor Mark Carney and the **London Stock Exchange** plans to establish a global coalition of stock exchanges supporting climate disclosure, in line with TCFD recommendations.[175] In partnership with the SSE, the climate disclosure initiative is intended to encourage exchanges to do more to help issuers transition towards decarbonisation. The SSE will establish a new workstream that the London Stock Exchange Group will chair, drawing up best practice reporting guidance on climate disclosure. These guidelines can then be used by corporate issuers, wherever they are listed.

With investors needing globally consistent, quality climate and sustainability data to inform investment decisions, exchanges can play a critical role to improve the availability and consistency of this data and reinforce global standards.

The Nasdaq Sustainable Bond Network (NSBN) is another important and related development. This newly created initiative serves as a global, publicly available, web-based platform designed to improve transparency in the market for green, social and sustainability bonds.[176] It is an online repository that provides issuers of sustainable debt instruments the ability to voluntarily publish key information and data regarding their specific bonds on a centralised platform - in turn, this provides investors, other market actors, and the general public, with the information they need to compare bonds successfully. An external review is recommended by the NSBN, although not required for inclusion.

Hong Kong is maintaining its focus on green finance with new policy settings to encourage transition and sustainable finance. The Hong Kong Monetary Authority and the Securities and Futures Commission have established the Green and Sustainable Finance Cross-Agency Steering Group, which includes various other members, as well as launching the Sustainable and Green Exchange (STAGE), an online portal providing greater information, access and transparency on a wide range of sustainable, green and social investment products.[177,178] The portal will also help issuers, asset managers, investors and professional advisers on the positioning, innovation, and marketing of sustainable and green finance.

The **Korea Exchange** launched a dedicated segment for Socially Responsible Investment (SRI) bonds, as well as a public information portal to provide accurate and transparent information on such deals, last June.[179] Meanwhile, to boost the SRI bond market, in line with the launch of the new segment, the exchange signed MOUs with external evaluation institutions and provides financial support for SRI bond issuers, such as these being exempt from listing fees and annual dues for three years following issuance to reduce funding expenses.

Luxembourg's Green Exchange, self-described as "the first exchange to translate industry best practices for sustainable financial instruments into mandatory requirements", is a dedicated platform of LuxSE with strict transparency requirements in its eligibility criteria, including external reviews of actual use of proceeds.[180,181] This follows the long-standing incorporation of transparency requirements into LuxSE's governance principles in 2006.[182]

The London Stock Exchange (LSE) launched a Sustainable Bond Market (SBM) in October 2019, building on its Green Bond Segment launched in 2015. The LSE introduced mandatory annual post-issuance reporting for issuers listed on the SBM so as to maintain transparency and continued eligibility – it has so far raised GBP47bn.[183,184] At the same time, the exchange announced the launch of it Green Economy Mark initiative, recognising equity issuers with green revenues of 50% or more, as well as releasing a Guide to Green Finance and hosting its first Sustainable Finance Summit.[185,186]

In a somewhat similar vein, the **Johannesburg Stock Exchange's** (JSE) Green Bond Segment has been expanded to a fully-fledged Sustainability Segment as of July, allowing interested issuers to list social and sustainability bonds along with green bonds.[187]

In the Middle East, the Bahrain Bourse has published a new ESG Reporting Guide to encourage and assist listed issuers in providing ESG information used to inform investor decision-making while also supporting companies to align with Bahrain's Economic Vision 2030 and the SDGs.[188],[189]

Meanwhile, Abu Dhabi's Department of Energy (DoE) has launched a Green Bond Accelerator initiative with Abu Dhabi Global Market (ADGM) and the Abu Dhabi Securities Exchange (ADX).[190] Launched in January 2020, its objective is to establish Abu Dhabi as a regional hub for green bond and green sukuk issuance targeting sustainable projects in the Emirate as well as across the rest of the Middle East and Africa. The bonds will be listed on the ADX and must support projects that comply with the DoE's new green bonds policy.[191] The inclusion of blue and transition bonds is also said to be under consideration.

Moving to Latin America, the **Mexican Stock Exchange (BMV)** recently launched the S&P/BMV Total Mexico ESG Index, partnering with S&P Dow Jones Indices (S&P DJI).[192] The index uses rules-based selection criteria based on relevant ESG principles to choose its constituents from the newly launched S&P/BMV Total Mexico Index, a broad benchmark consisting of stocks and Real Estate Investment Trusts (REITs) listed on the BMV.[193] The objective of the ESG index is to give investors core exposure to the Mexican equity market while providing a significant boost in ESG score performance.

Other stock exchanges from the region are also increasingly working to develop and promote green finance in their respective countries. While there are several examples, Costa Rica's BNV leads the way. It published a *Guide for the Definition and Management of Green Projects*,[194] targeted at potential green bond issuers, as well as a *Green Bond Guide and Voluntary Guidance on ESG Reporting*, in late 2018.[195] The stock exchange has taken several other steps to develop the green bond market, such as offering a dedicated and promote wider sustainability engagement and market development. It has also released guides for Social Bond[196] and Sustainability Bond issuance[197] and launched the BNV Sustainability Awards in 2019 to reward capital market participants across several sustainability categories.[198]

Further, the Inter-American Development Bank (IDB) is launching a **Green Bond Transparency Platform** (GBTP) which will provide an open access, centralised way of obtaining details about green bonds in Latin America, including their use of proceeds and environmental impacts, as well as relevant documentation. Despite not being a stock exchange initiative, it is an important development expected to drive transparency and comparability in the market (in some ways similar to the NSBN).[199]

Conclusion: lessons for the critical 20s

Heraclitus, the Greek philosopher, is coined with saying that "the only constant is change". In human systems, this has never been more true than it is today. The ongoing – and worsening – environmental crisis, with impacts ranging from climate change to biodiversity loss, pollution, soil degradation, and pandemics, has brought this to the fore more than ever, to a level impossible to ignore any longer.

The COVID-19 virus naturally poses serious health risks, but we can be thankful that it is nowhere near as deadly as others, such as Ebola or SARS. If it were – and it is not unreasonable to think that future global outbreaks might be – we would be in a much more dire place. The full extent of economic impacts, however, still remains to be seen, and will likely still take a while to be fully understood.

The bigger picture

Negative shocks such as COVID-19 are here to stay. The question is for how long, and to what extent. And that depends on our response.

On one hand, this means adapting to the effects of environmental damage, for example by investing in climate adaptation and implementing systems to respond more quickly and effectively to shocks, especially among more vulnerable populations and regions. This is a vital question of resilience – environmental, social (including health), and economic. COVID-19 has clearly highlighted our unpreparedness in this domain, with various countries struggling to know how to react and/or not reacting fast enough.

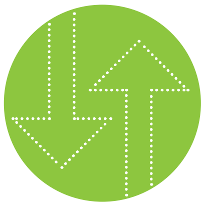
On the other hand, mitigation of climate change and other sources of environmental stress is critical. Our response on this must come through a much deeper appreciation of life on this incredible planet, of our place in it, and of the systems we have created as a means of developing and evolving. Recognising this, we must be open to challenging the foundations and inner workings of those systems, because therein lie the root causes of many – probably most – of our crises.

While a powerful force for production, innovation and development, capitalism in its current form ignores broader systemic health by treating private actors – be they individuals or entities – as independent from each other, seeking only to maximise their gains. Furthermore, treating impacts that affect actors not engaged in transactions as 'external' leaves these out of market considerations. Yet those impacts – be they GHG emissions, water pollution, or unemployment – are as real as the electricity, phones or cars being bought. One might argue this set up has fuelled success so far; in some ways this might be true, but a system that leads to its own destruction ultimately cannot be considered successful.

It is therefore clear we cannot keep doing the same, even if we do it more efficiently. Einstein is believed to have said that "we cannot solve our problems with the same level of thinking that created them". Right now, understanding this is crucial to our survival.

The effects of this paradigm shift will reverberate across the global economy, from small producers to large multinational conglomerates, banks to private equity firms to institutional investors, central banks to local and national governments, and the executive on Wall Street to the rice farmer in rural China.

Implications for sustainable finance



Sustainable finance instruments are one avenue for channelling funds into projects and assets with positive environmental and/or social impacts, both to meet the needs of private and public sector entities. Work in this space has intensified noticeably in the last couple of years.

The market is evolving, and this will likely accelerate given the ongoing pandemic and increased attention placed on sustainability themes. The transparency and accountability of the 'use-of-proceeds' model have worked relatively well so far, but such instruments will most likely not be enough to meet the large financing needs of the transition; others – such as transition bonds or performance-linked products – will be necessary.

In the context of governments, the urgent need for stimulus packages to kickstart economies worldwide presents a valuable opportunity for change through the 'build back better' agenda, which may include an increased use of labelled debt. But beyond essential stimulus measures, which will understandably be focused on stemming the immediate negative health and economic impacts of COVID-19, there is a clear need to 'think bigger', and for the wider policy landscape to evolve.

The ECB's Schnabel, for example, recently mentioned that despite the COVID-19 health shock being entirely unrelated to monetary policy, it nevertheless has huge implications for it – the same being true for climate change, hence why central banks cannot ignore it. She added that "there is the view that we should stick very closely to market neutrality and there is the alternative view that markets are not pricing climate risks properly, so there is a market distortion and therefore market neutrality may not actually be the right benchmark."[200] Central banks can thus be powerful agents of change, but will need to be supported by broader economic policy and initiatives by regulators, stock exchanges, financial institutions, and related networks.

The bottom line is that greater cooperation and coherence are needed economy-wide to reach the goal we truly desire: meeting our needs while living on a healthy, clean and fair world. To achieve this, we need to account for the holistic impact of our activities. In particular, we must implement operating frameworks aligned with this aim, so that individual actors have a clear path and are incentivised to follow it. Improved disclosure and common definitions, for instance through the use of taxonomies, are useful in informing decisions and measuring progress, but are still only part of the puzzle.

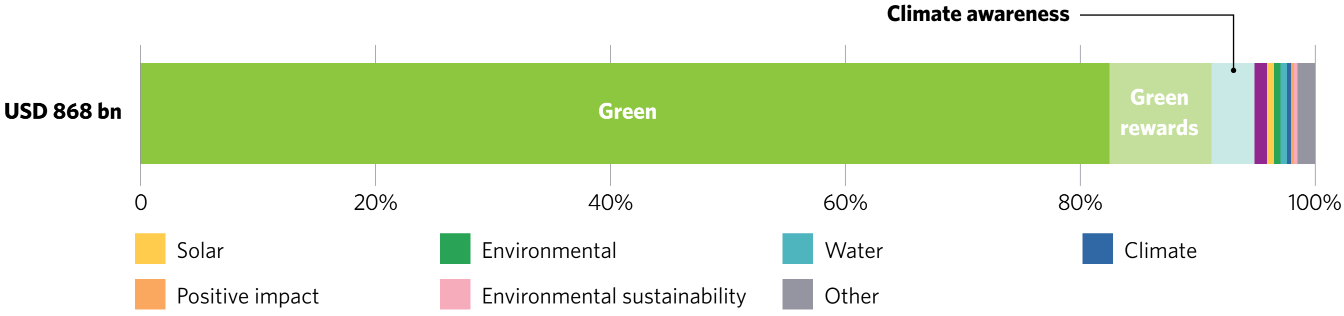
Complementing this, introducing effective feedback loops – largely absent under the current economic MO – to encourage and discourage certain behaviours, as close as possible to their source, is vital. This would also help address the fact that even though activities are climate- or Paris-aligned, such as those included under the EU Taxonomy, this does not mean they cannot be made better, both on the environmental and social fronts. Thus, regardless of eligibility under a given category or taxonomy, such improvements should be encouraged; echoing the point made at the start, change – and evolution – are constant.

Natural systems, including biological organisms, use feedback loops in abundance. It is only logical that our economic system does the same - a form of biomimicry - in order to reflect the real impacts of our activities within economic decisions. Individual entities are rarely 'bad' even if they do bad things, however we define these; rather, they respond to the architecture of the system they operate in. If it pays to do bad things, some will, and can hardly be blamed for it.

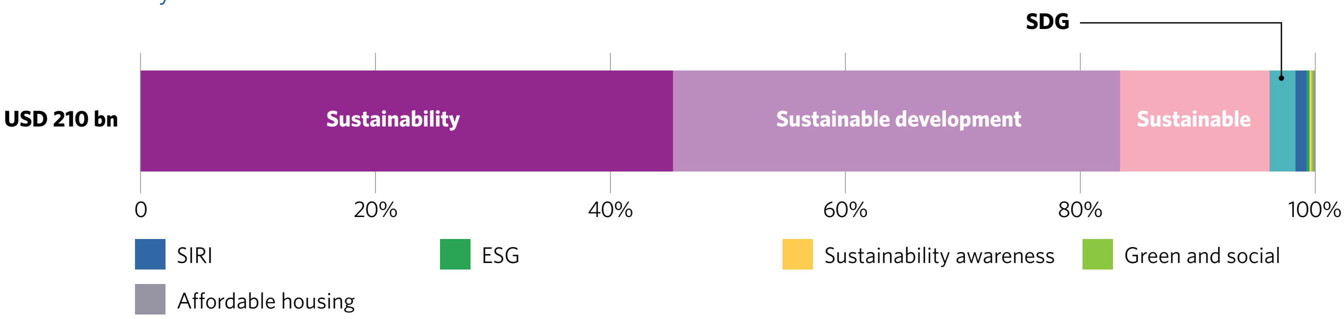
Appendix A

The following charts show the composition of labels in each theme. For simplicity, only the top 10 labels are shown for the green and social themes (the rest combined into 'Other').

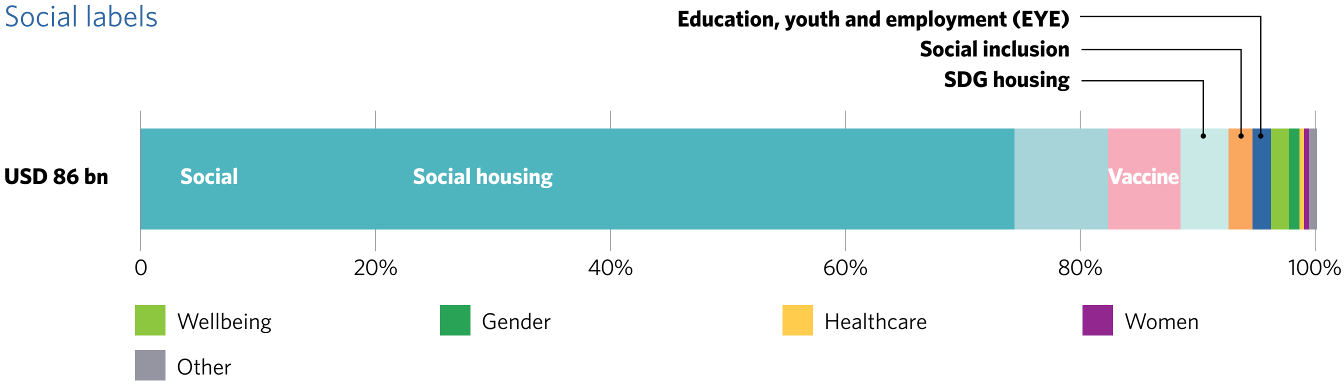
Green labels



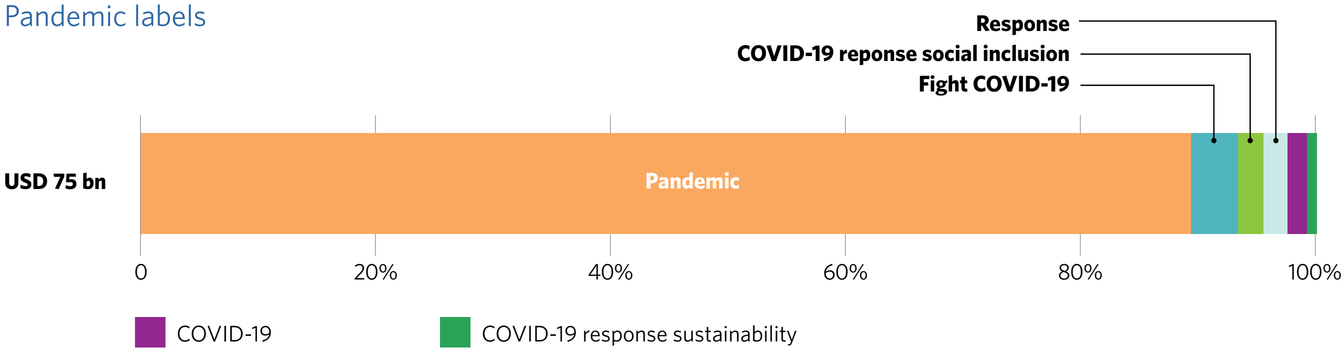
Sustainability labels



Social labels



Pandemic labels



Appendix B

Methodology notes & caveats

1. Due to the methodological difference between Green and other themes, it is important to note that **our analysis of other themes is merely an indicator of the financing aimed at each, based on the deal's label.**

For instance, some deals labelled as 'SDG', and therefore included under the Sustainability theme, may only actually finance social projects. Importantly, there will also, for example, be various deals under the Social and Sustainability themes that finance, in whole or in part, pandemic-related investments. *We are working on the more granular UoP analysis for other themes and will share the results in due course.*

2. Some of the analysis is shown in terms of 'number of issuers' rather 'amount issued' – this reflects the number of issuers in each individual theme. The total number of issuers is slightly lower than the total adding across themes, since some issuers have printed deals that cover more than one theme. For example, the infographic shows 90 issuers in the Sustainability theme, 106 in Social, and 447 in Pandemic; adding these gives a total of 643, but it is actually 627.

3. Our Green Bond Database includes many loans and ABS (securitised) deals. We have historically treated these as issuer types, and the same applies to this report. However, under our new methodology, these are considered different instrument – not issuer – types. Within the SSP themes, it is not yet common to see loans or ABS deals with a sustainability, social, or pandemic label (a reminder that performance-linked loans are not included).

4. In addition to the exclusion of performance-linked instruments and transition labels, we excluded:

- Several deals because we could not find publicly available labels (this included some by repeat issuers, most of which had issued clearly labelled deals – where possible, we suggest improving the availability and clarity of information related to each deal, including labels)
- Nine Chinese deals due to lack of information about key details, such as date and amount issued

Climate Bonds Database updates

Climate Bonds has been expanding data coverage to other labelled debt instruments – particularly sustainability and social bonds – and a separate database covering these will be launched shortly. The extended database will complement other enhancements to our data, such as the collection of more granular information on the use of proceeds and impacts of green bonds, more robust and detailed analysis of climate-aligned issuers, and a more detailed assessment of SDG alignment.

Understanding green bonds

Green bonds

Green bonds are issued to raise finance for climate change solutions - the key is for the proceeds to go to green assets. They can be printed by various issuer types, such as governments and government-backed entities, financial institutions, and non-financial corporates.

The green label can be applied to any debt format, including private placements, securitisations, covered bonds, and sukuk, as well as green loans which comply with the Green Bond Principles (GBP) and/or the Green Loan Principles (GLP).[201,202]

It is important to keep in mind that the label itself does not need to be 'green' for the deal to be considered a green bond (although most green bonds actually do carry a 'green' label). Myriad labels are applied in practice, such as 'Sustainability', 'SDG', 'Climate' or more specific ones like 'Renewable Energy', 'Solar', or 'Blue' (*see Appendix A*).

Inclusion in our Green Bond Database

Only labelled bonds with all net proceeds dedicated to green assets and projects aligned with the Climate Bonds Taxonomy, are included in our Green Bond Database and figures. If there is insufficient information on the use of proceeds, a bond may be excluded. The full new version of the Climate Bonds Green Bond Database Methodology is available on the CBI website.[203]

Green definitions

The Climate Bonds Initiative Green Bond Database and market analysis is based on the Climate Bonds Taxonomy categories: Energy, Buildings, Transport, Water, Waste, Land use, Industry, and ICT.[204]

CBI also develops Sector Criteria with expert input from the international science community and industry professionals.[205] Issuers can certify their green debt instruments under the Climate Bonds Standard and these Sector Criteria.[206] Independent Approved Verifiers provide a third-party assessment that the use of proceeds complies with the objective of capping global warming at 2°C.

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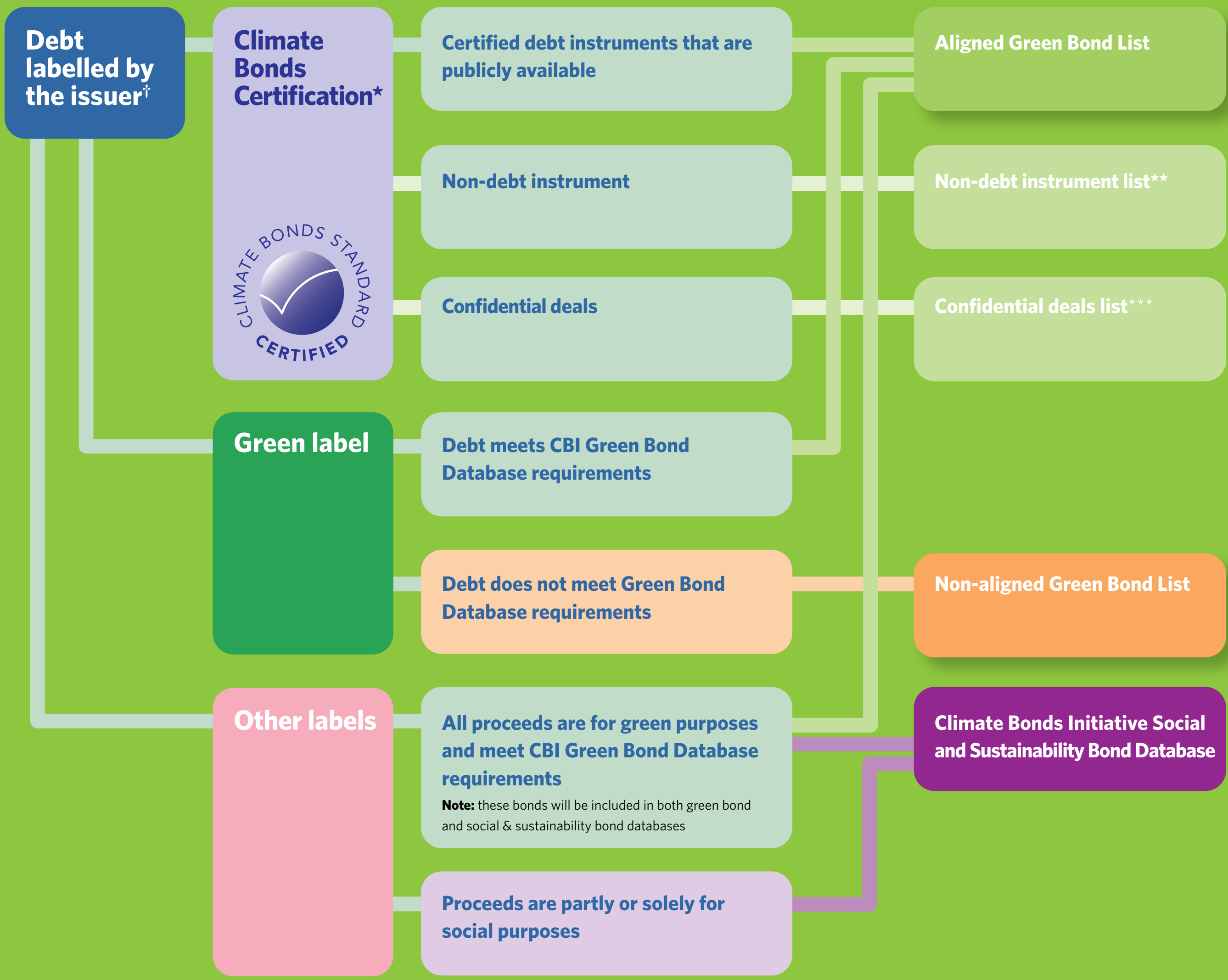
Climate Bonds Initiative Green Bond Database screening process



† All labels are used primarily to identify bonds for screening. In the Green Bond Database, the assessment of the green credentials is based on the assets, projects or activities financed. In the Social and Substitutability Bond Database, the proceeds allocations are recorded rather than assessed.

* Certified Climate Bond/Loan is fully alignment with the Green Bond Principles/Green Loan Principles. It can be considered as a subset of the green bond/loan market. However, Climate Bonds Certification can be applied widely, including, but not limited to, non-debt instruments, directly to assets or projects (with no debt wrapper), and private/confidential deals.

** Certified non-debt instruments can be found on CBI website.

*** Confidential deals can be found on CBI website but certain information might not be available to the public.

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