

Green Bonds Market Summary

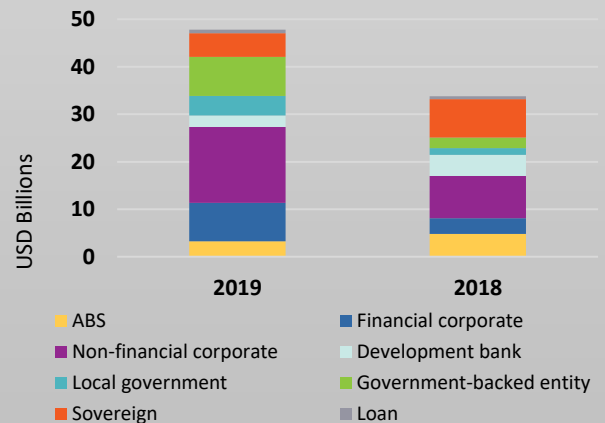
Q1 2019

April 2019

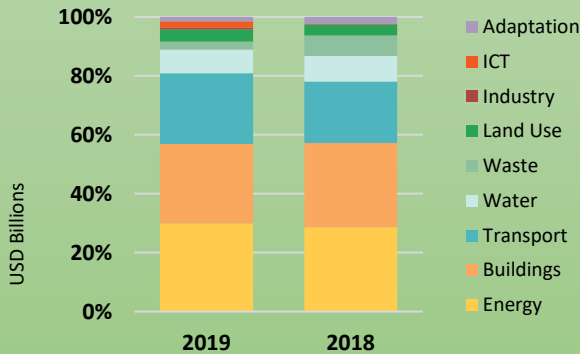
The quarter at a glance

- USD47.9bn of green bond issuance*
- 42% growth* on Q1 2018
- 285 green bond issues from 122 issuers*
- 23% of volume from debut issuers
- 43 new market entrants from 17 countries*
- EUR2bn (USD2.3bn) – largest single green bond of Q1 2019, issued by Société du Grand Paris
- Repeat sovereign issuance from France, Indonesia and Poland
- 14% of issuance were Certified Climate Bonds

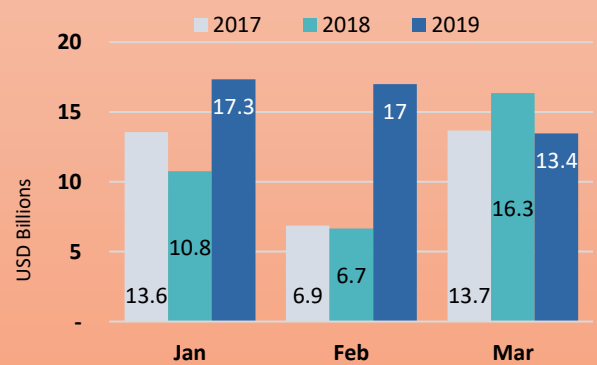
Quarterly volume* by issuer type



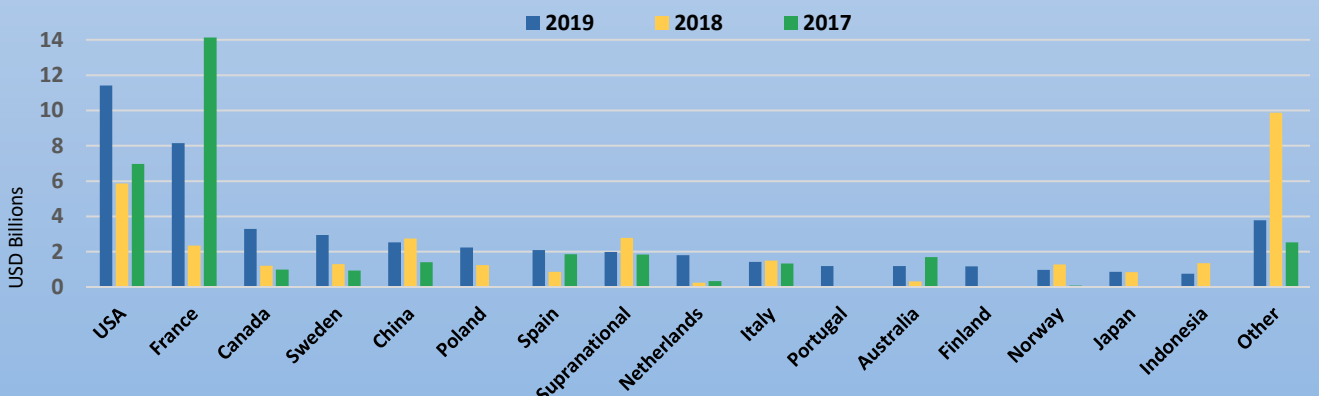
Quarterly use of proceeds*



Q1 monthly issuance volume*



Q1 2019: Top 15 countries



* All charts and analysis are based on preliminary figures for Q1 2019 issuance volume and number of deals, with 7 deals still under assessment for inclusion in the CBI green bond database.

Q1 2019 green bond issuance highlights

Green bond issuance reached **USD47.9bn** in Q1 2019, and surpassed Q1 2018 volume of USD33.8bn by 42%, on a clear upward trend.

Q1 volumes were driven by non-financial corporates, which accounted for a third of issuance. Government-backed entities and financial corporates were also active in the market, each contributing 17%.

81% of volume came from developed markets issuers. USA, France and Canada topped the country rankings, accounting for 48% of Q1 2019 global issuance. US issuers contributed USD11.4bn, French – USD8.1bn and Canadian – USD3.3bn.

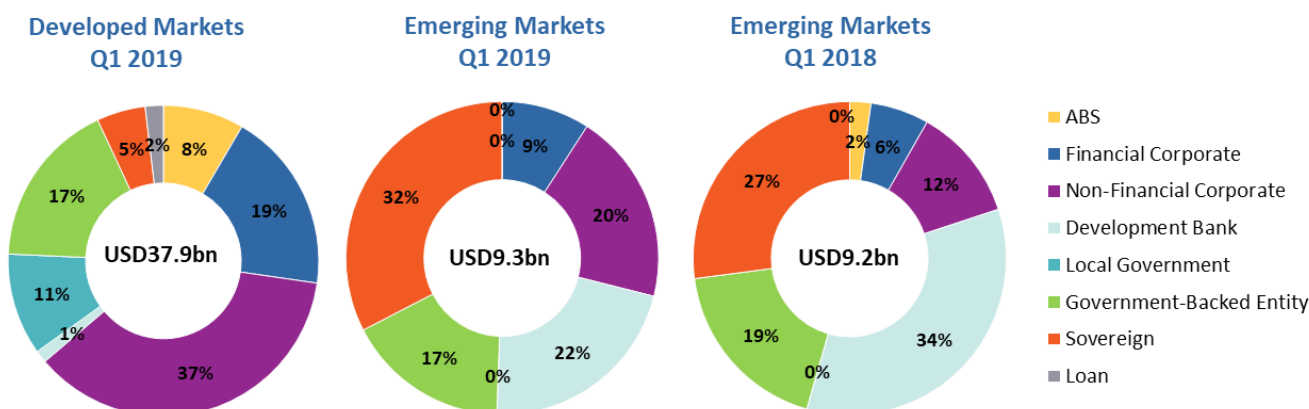
Year-on-year quarterly volumes from emerging markets (EM) stayed identical, whilst sovereign issuance accounted for a slightly larger share. China, Poland and Indonesia contributed 77% of Q1 2019 EM volumes.

Regional growth from North America

Green bond issuance from North America reached USD14.7bn from 25 issuers in Q1 2019, making it the second highest quarterly performance of the region after Q4 2017 (USD17.3bn).

Whilst Europe remained the largest source of green bonds at 49%, North American green bond accounted for 31% of the quarterly volumes, up from 21% in Q1 2018. Substantial issuance came from 10-digit green bonds from MidAmerican Energy (USD1.5bn), Citigroup (EUR1bn), Canada Pension Plan Investment Board (EUR1bn) and Verizon (USD1bn).

Asia-Pacific issuance remained about the same in absolute terms: USD7.5bn. A third of that was contributed by Chinese issuers.



Increasing issuance from non-financial corporates

Non-financial corporates fuelled quarterly issuance with USD15.9bn, or 33% of the quarterly global total, up from 26% in 2018. USD9.3bn were issued by companies from the energy sector, and USD2.4bn from property companies.

Four of the top five issuers of the segment came from the energy sector, all issuing benchmark-sized bonds: MidAmerican Energy, Engie, EDP and Enel.

For the first time, telecoms companies featured in the mix with a USD1bn deal from Verizon (USA) and a EUR1bn bond from Telefonica (Spain).

Certified Climate Bonds accounted for 14% of quarterly volumes, up from 6% in Q1 2018. At USD2.9bn, Certified issuance was highest from French issuers, followed by Australian ones (USD1.1bn). Société du Grand Paris continued to issue under its multi-billion programme to upgrade rail and metro links in the French capital, contributing the equivalent of USD2.4bn to Q1 2019 green bond volumes.

Two-thirds of Q1 2019 green bonds by amount were **benchmark sized** deals (USD500m and above). By comparison, benchmark-sized deals represented 57% of Q1 2018 issuance.

47% of Q1 2019 volumes were EUR-denominated deals, while USD was the second most popular currency at 24%. Overall, green bonds issued in **hard currency** during the first quarter accounted for 83% of the market, versus 85% for Q1 2018 figures.

In terms of **use of proceeds**, 81% of Q1 2019 green bond volumes were split between energy (USD14.2bn, 30%), buildings (USD12.8bn, 27%) and transport (USD11.4bn, 24%). In absolute figures, energy allocations were up 47% compared to Q1 2018, buildings up 32% and transport up 61%.

CBI update: CBI is currently reviewing the [CBI Green Bond Database Methodology](#) and will consider tightening certain screening criteria in the near future, such as the minimum building certification level.

Green bond post-issuance reporting

In 2018, CBI undertook research into post-issuance reporting practices for the second time. The findings are summarised and analysed in our study [Post-issuance reporting in the green bond market](#).

The analysis covers post-issuance reporting data for 1,927 bonds issued prior to November 2017 by 369 issuers. The research assessed whether issuers are reporting and provides an update on the allocation of proceeds, recorded on the CBI Green Bond Database.

There is post-issuance reporting for 77% of issuance by bond count and 87% by amount, i.e. in line with previous findings (74%, 88%), if the prolific issuance from Fannie Mae is excluded. Fannie Mae deals are secured on green collateral from issuance, so they do not provide UoP reporting, but do report on impacts.

New insights: We determined that about 14% of raised funds remain unallocated, and there is no information for another 4%. New allocation information revealed that 9 bonds from Chinese issuers financed unaligned assets or working capital, and have thus been excluded from the [CBI green bond database](#).

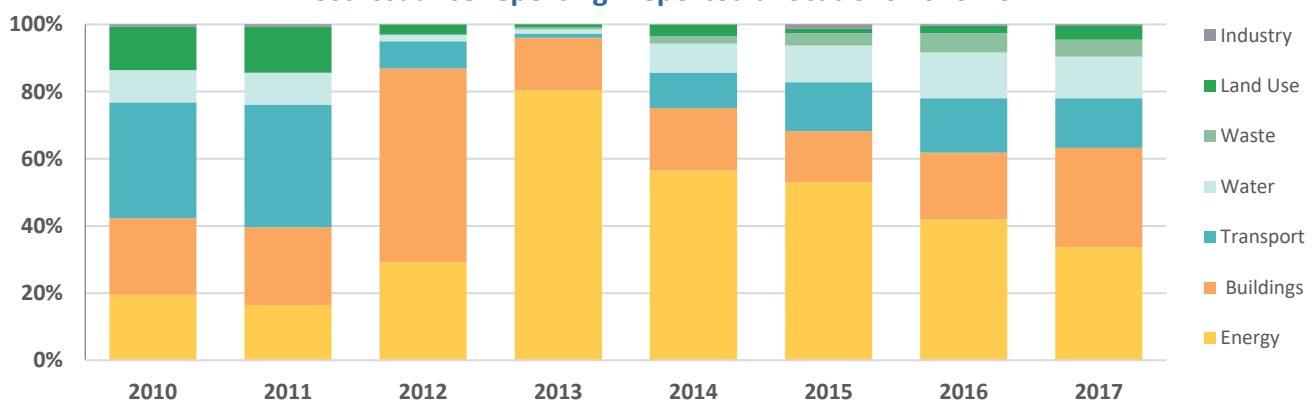
Top 10: CBI developed a report quality scoring system for post-issuance UoP reporting, based on aspects of information clarity, granularity and reliability.

Top 10 reporters	Country	Sector	Points
Icade	France	Property	25.0
SSE	UK	Energy	25.0
BNDES	Brazil	Financial	24.0
DBS Group	Singapore	Financial	24.0
Lietuvos Energija	Lithuania	Energy	24.0
National Bank of Abu Dhabi	UAE	Financial	24.0
SNCF Reseau	France	Rail	24.0
Treasury Corp Victoria	Australia	Government	24.0
IREN	Italy	Energy	24.0
DC Water	USA	Government	23.7

Key findings

- 2/3 of issuers provide post-issuance UoP reporting. More issuers report on allocations than on environmental impact. Almost 50% of issuers report on both UoP and impact.
- 93% of bonds, where issuers committed to reporting at issuance, did so. 1/3 of bonds, where there was no commitment, reported.
- Larger issuers tend to report: the reporting percentage based on amount issued is considerably higher than number of issuers. Benchmark-size bonds (USD500m or more) are more likely to have reporting.
- The reporting percentage is higher for deals with an external review post-issuance. When the external review is at issuance, e.g. SPO, the correlation is also positive but is weaker.
- Despite having the largest number of issuers reporting UoP (52), the USA is not the country with most reporting by amount issued: China ranks higher due to the large number of bank issuers, who are required to report quarterly.
- Countries with large green bond markets tend to have high levels of reporting. Most large markets have reporting levels of 90% or more.
- While many issuers report impacts and greenhouse gases emission reductions are reported most often, there is little consistency with over 200 metrics and many different frameworks used by issuers.

Post-issuance reporting: Reported allocations 2010-2017



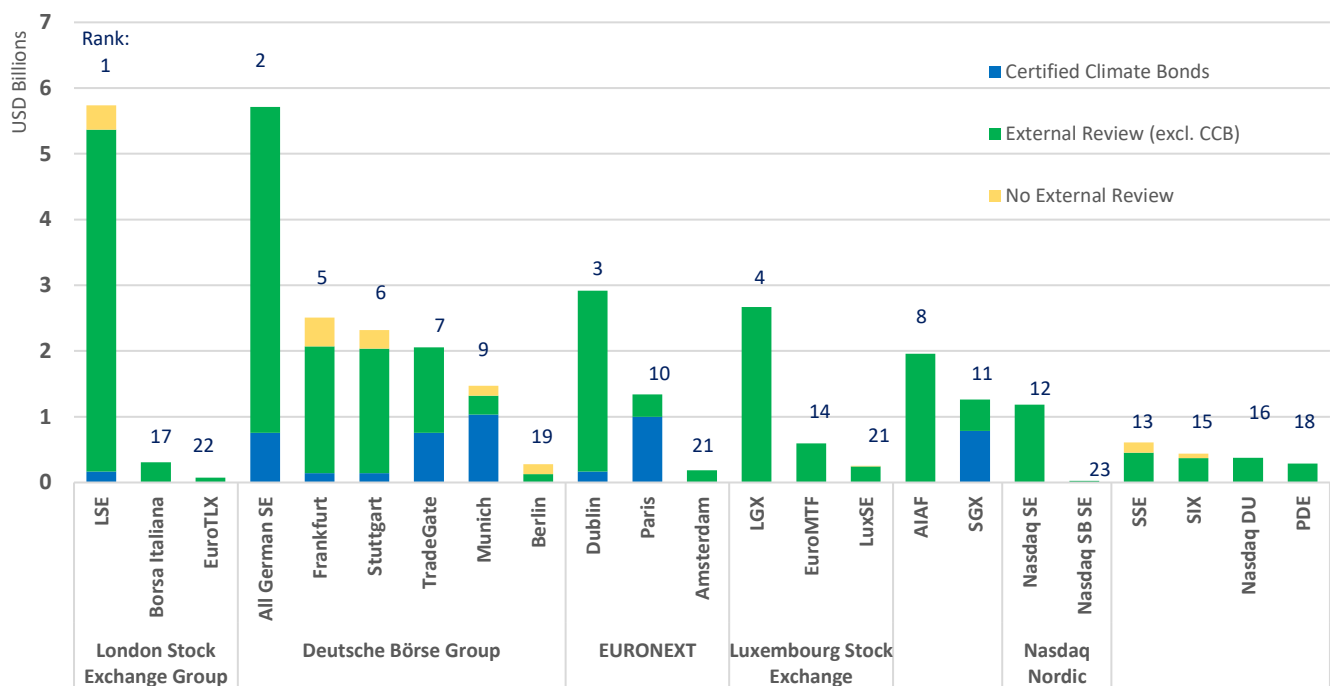
Data source: Climate Bonds Initiative. Only green bonds issued between 2010 and November 2017, included under the CBI Green Bond Database and which provided post-issuance use of proceeds reporting.

Trading venue league table

In Q1 2019, USD34.5bn worth of green bonds was listed / traded on a variety of venues, representing 73% of green bonds issued in the quarter. Green bonds issued on the over-the-counter (OTC) market, including China Interbank Bond Market, account for 13% of the total. The remaining 14% was either not listed or the listing information is not available.

In the league table below, we have grouped venues by stock exchange group, if applicable. The numbers on top of the bars indicate the ranking of each venue. London Stock Exchange was the most popular green bond listing venue with USD5.7bn worth of deals. However, Deutsche Börse was the largest platform for green bonds trading as a stock exchange group.

LSE ranked No.1 in the green bond trading venue league table



Data source: Climate Bonds Initiative, Refinitiv, Bloomberg

Listing venue league table: Methodology

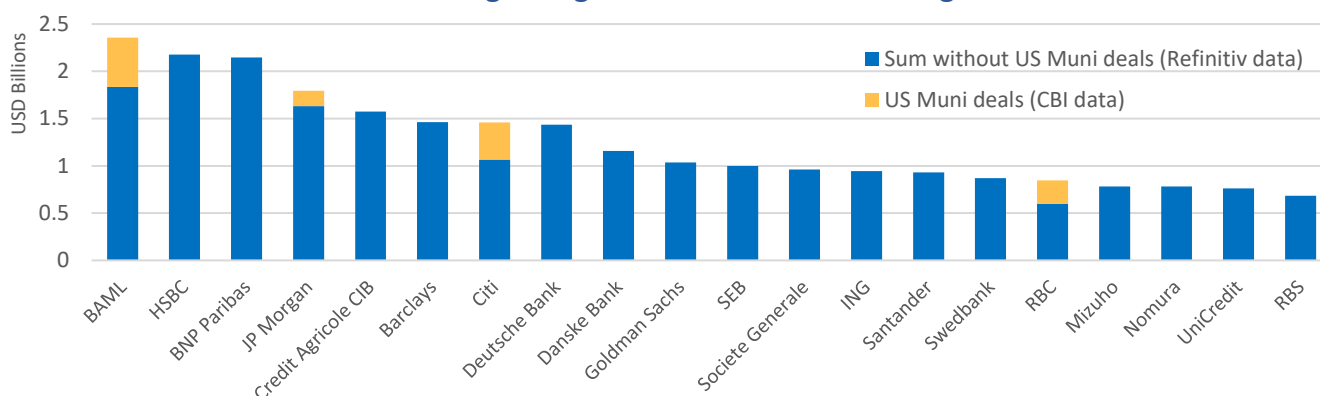
- Primary data sources for listing venues include Thomson Reuter EIKON, Bloomberg Terminal and Wind Financial Terminal. They are further supplemented by information collected from stock exchanges with a dedicated green bond segment, such as Luxembourg Green Exchange, London Stock Exchange, Borsa Italiana, Shanghai Stock Exchange and Taipei Exchange.
- At most four listing venues are recorded for calculation purposes. If a bond is listed on multiple exchanges, primary vs. secondary listing venues are not differentiated.
- When a green bond is listed on more than one venue, the issued amount is divided by the number of venues and each venue is allocated an equal share.
- We have not allocated bonds listed on All German SE, EURONEXT and Nasdaq Nordic to the constituent stock exchanges.
- A bond listing venue is treated as “Not listed” when the bond is not listed or relevant information is not available from the sources identified in this methodology.
- Bond volumes allocated to each listing venue are categorised into Certified Climate Bonds, bonds with external reviews (other than Certified Climate Bonds) and bonds with no external reviews. Commentary:
- Bonds issued before the Green Bond Principles were first published in 2014 generally do not have external reviews. Many of the early issues have now matured.
- Some external reviews may not be available until an assurance audit is completed. For instance, KPMG provides an annual independent review of EIB’s Climate Awareness Bonds. The 2017 assurance report was published in November-2018.
- All LGX deals without a review relate to those most recent EIB CAB, for which an assurance report has not been published yet.
- If a bond is traded on LuxSE and displayed on LGX at the same time, only LGX is recorded as it’s trading venue to avoid double counting.

Green bond underwriter league tables

Bank of America Merrill Lynch was the largest underwriter in the global green bond market in Q1 2019, climbing from the 3rd place in Q4 last year. USD519m worth of the bank's total underwritten green bond deals (USD2.4bn) was contributed by US green muni bonds. HSBC retained the 2nd spot globally with USD2.2bn underwritten deals.

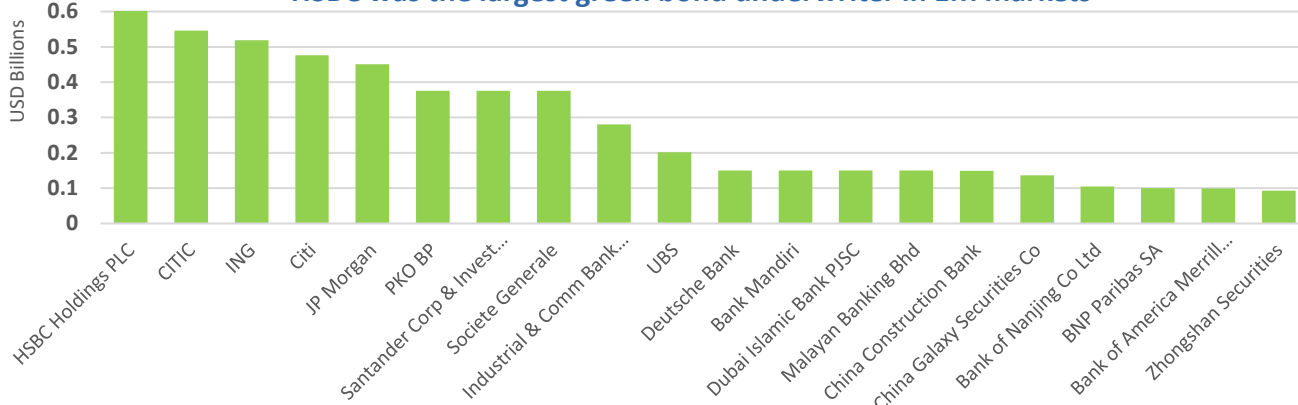
In addition, HSBC ranked the top of the leader-board for EM green bond underwriting. Except for a few international banks, ten EM-headquartered banks made their way into the EM league table, including CITIC, PKO BP, Dubai Islamic Bank and Malayan Banking. This is positive for local market evolution.

BAML at No.1 of global green bond underwriter league table



Data source: Refinitiv, Climate Bonds Initiative

HSBC was the largest green bond underwriter in EM markets



Data source: Refinitiv

Underwriter league tables: Methodology

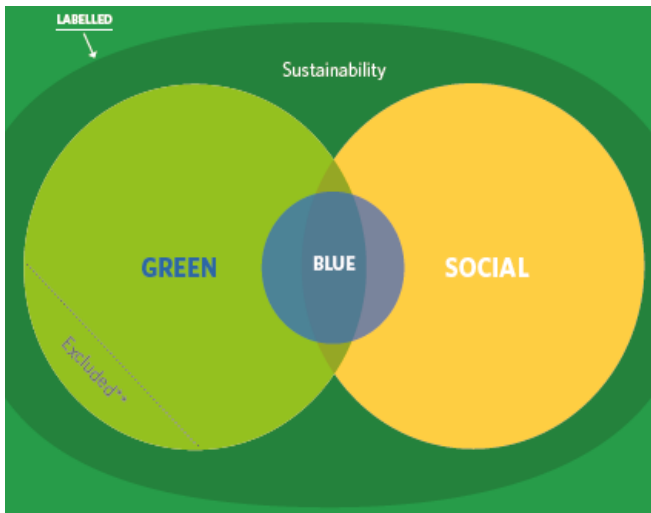
Since Q3 2016, the underwriters league tables are collated using data from Refinitiv except for US municipal bonds which are calculated by the Climate Bonds Initiative. As such, ranking volumes differ from Refinitiv tables. Volumes may differ from other league tables as they include ABS deals and US Muni bonds and only include bonds which have 95% or more of proceeds going to assets or projects, aligned to the [Climate Bonds Taxonomy](#).

Refinitiv data methodology:

- Primary Issuance only. Excludes tax exempt US Municipal bonds
- Underwritten transactions only
- The global table includes transactions that mature at least 360 days after settlement
- Transactions that mature or are callable/puttable less than 360 days after settlement are excluded

- Self-funded straight debt transactions are excluded (excluding mortgage and asset securitizations) unless two or more managers/ underwriters unrelated to the issuer are present.
- Transactions with an issue size of less than USD 1m (equivalent) are included; sole led MTN take downs with a minimum size of USD50m for core currencies are included, USD10m for non-core
- Deals must be received within 5 business days of pricing
- For a transaction to be green league table eligible, deals must have 100% of proceeds formally earmarked for green projects
- Issuances where there is a mixed use of proceeds designated across different projects, are not eligible: e.g. ESG bonds that combine social and green projects
- Securitisation deals and private placement will be included provided they meet the standard criteria

The wider labelled bond universe



**Labelled green bonds not aligned with the Climate Bonds Taxonomy

The labelled bond market has expanded beyond green bonds. Sustainability and social bonds have been around for a few years now, but they really came into their own in 2018, with SDG bonds also emerging as issuers and investors started adopting policies and strategies linked to the UN's [17 Sustainable Development Goals](#).



Climate Bonds support the Sustainable Development Goals (SDGs) overall and see [many links](#) between green bond finance and specific SDGs, [in particular](#) SDGs 6,7,9,11,13, 14 and 15.

Notwithstanding this, CBI remains focused on green bonds, which are specifically linked to climate-change mitigation, adaptation and resilience. Consequently, the proportion of proceeds allocated to social projects which are not also green needs to be no more than 5% for inclusion in the CBI green bond database.

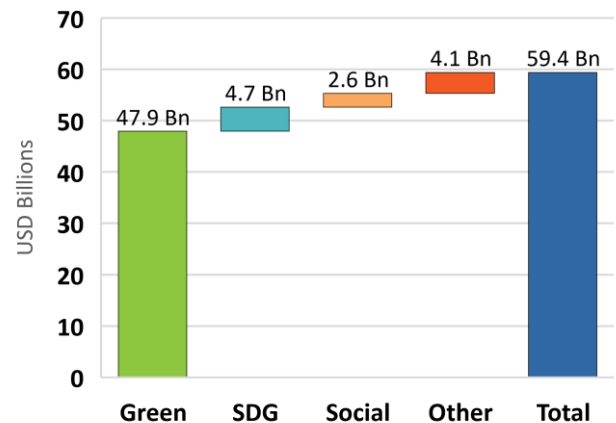
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Q1 2019 issuance including SDG, Social and other excluded bonds



Sustainability and social bonds

The top 3 sustainability and social bond markets for Q1 2019 were Germany (USD2.5bn), followed by South Korea (USD1.2bn) and France (USD1.1bn). Other active markets included Italy, Switzerland, Japan and the UK. All bonds received an external review, showing a growing commitment to transparency.

Local governments accounted for 35% of market volumes, government-backed entities 16% and development banks 15%. The rest was split between non-financial and financial corporates.

In Q1 2019, the sustainability market saw issuance from various sectors. The largest issuers in this segment were the German **State of NRW** (USD2.5bn, repeat issuer), Swiss-based chocolate producer **Barry Callebaut** (USD677m, debut issuer) and South Korean **KEB Hana Bank** (USD600m, debut issuer).

Social bond issuers included French public development bank **SFIL** (USD1.1bn, debut issuer), Italian government-backed financial institution **Cassa Depositi e Prestiti** (USD852m, repeat issuer) and UK social housing funding aggregator **MORhomes** (USD326m, debut issuer).