

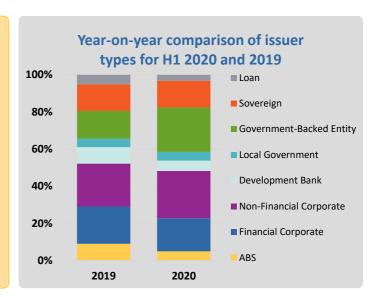
Green bond market summary H1 2020

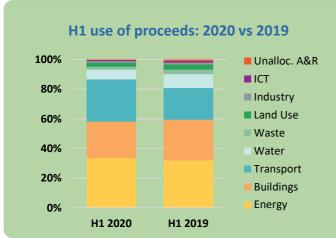
August 2020

The first half at a glance

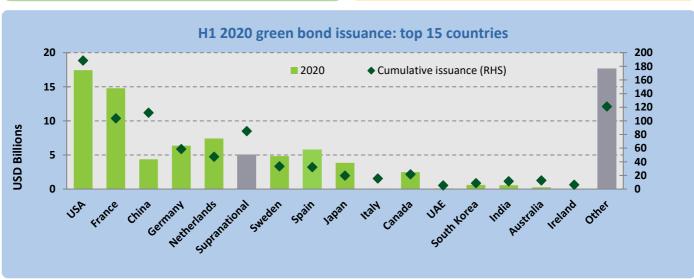
Key figures

- USD91.6bn of issuance* down 26% year-on-year
- 439 deals* with 145 from the USA, 56 from Sweden,
 34 from Japan and 27 from Germany
- 221 issuers* from 34** countries
- Five of 12 sovereign issuers return to the market: Chile, France, Indonesia, Lithuania, and the Netherlands
- 85 market entrants from 24** countries bring the total number of GB issuers to 1056









^{*} All charts and analysis are based on preliminary figures for H1 2020 issuance volume and number of deals, pending the inclusion of 128 deals still under assessment for inclusion in the CBI green bond database. ** Hong Kong is counted as a separate country as it is classified as a developed country according to MSCI's Market Classification, whereas China is classified as an emerging market.

H1 2020 green bond issuance highlights

Green bonds, loans and sukuk included in the Climate Bonds database for H1 2020 are down 26% year-on-year, reaching a total volume of USD91.6bn. For inclusion, at least 95% of proceeds must be dedicated to green assets or projects aligned with the Climate Bonds Taxonomy.

The pandemic and market turmoil

Despite overall growth in the global bond markets, green bond issuance in the first half of 2020 slowed down from 2019, likely as a result of the ongoing COVID-19 pandemic. Although the share of sovereign issuance remained stagnant in H1 2020, governments also tapped into labels beyond green to mitigate the effects of the coronavirus as well as to pave the road to recovery. Both non-financial corporates and government-backed entities were prominent in the market, with the latter comprising nearly a quarter (24%) of total volume (up from 15% in H1 2019).

Preliminary Climate Bonds analysis suggests that a total of approximately USD75bn equivalent of debt carrying the "pandemic" label was issued in the first half of 2020. We will publish detailed analysis on this and other labels — with a focus on social, sustainability and transition — later in Q3.

Market embraces sustainability themes

Provisional figures suggest that social and sustainability bonds comprised a further USD94.4bn of labelled debt in H1 2020 – doubling the total figures. In addition to publishing a new report on the topic, Climate Bonds will launch dedicated segments broadening the scope of our labelled database in Q4 2020, including use of proceeds analysis for these instruments that contribute to financing other crucial social and economic objectives beyond the specific climate related goals.

H1 2020 also saw a total of USD9.1bn of excluded bonds. Some of these carried the emerging "Transition" label, financing efficiency improvements in complex and/or hard-to-abate sectors, such as gas power generation. Climate Bonds is collaborating with other market stakeholders to formulate a robust framework for assessing transition-focused debt, with a view to ensure the integrity of these instruments on delivering greenhouse gas emission reductions in line with the Paris Accord and steady progress towards low- and then zero carbon business models.

Government-backed entities step up

Green bonds from government-backed entities totalled USD21.9bn for first half of 2020 (H1 2019: USD18.9bn). This represents a 9% year-on-year increase for this issuer type. French railway sector issuers **Société du Grand Paris** and **SNCF** dominated the category: their combined five deals and USD6.6bn equivalent volume contributed 30% of government-

backed green issuance. Added to local governments' 5% share (+2% from H1 2019), sub-sovereign issuers made up just under a third (29%) of all H1 2020 green volumes (H1 2019: 20%). The most prolific local government issuer was **New York MTA**, whose two deals (USD2.7bn combined) issued under Programmatic Certification against the Climate Bonds Standard represented nearly two-thirds (62%) of the segment's green issuance.

Non-financial corporates were a close second in H1 with a share of 25% compared to H1 2019's 23%. The top three issuers, **E.ON** (Germany), **EDP** (Portugal) and **Iberdrola** (Spain), contributed 25% of the segment's volume. In addition to energy utilities, a notable addition to the issuer pool came from grid operators. We highlighted the UK's **National Grid** entering the market in our first <u>Markets Monthly</u> for the year. Grid operators helped maintain Energy as the most popular use of proceeds category at 34% (H1 2019: 32%).

Green instruments from financial corporates became slightly scarcer in H1 with 18% of total volume (H1 2019: 20%). The larger deals came from commercial banks, including **Citigroup**, USA (USD1.5bn), **Huaxia Bank**, China (CNY10bn/USD1.4bn) and **Groupe BPCE**, France (EUR1.3bn/USD1.4bn). Together they accounted for a third (33%) of the segment's volume. Huaxia Bank's deal was also H1's largest EM deal.

Sovereign issuance represented 14% of H1 2020 volume, matching the segment's share in H1 2019. The half-year saw issuances from three continents as **Chile, France, Indonesia, Lithuania**, and the **Netherlands** all returned to market. Chile's EUR1.3bn (USD1.4bn) Climate Bonds Certified deal issued in January 2020 was the largest.

Developed Markets top country ranking

The **US** led the country rankings in the first half-year with 19%, followed by **France** (16%). The **Netherlands**, **Germany** and **Spain** filled the remaining top 5 spots in H1 2020 with 8%, 7% and 6% respectively. In total, DM countries contributed 82% of green bond issuance in the first half, (+7% from H1 2019). Conversely, EM countries saw their share fall from 21% to 13% between H1 2019 and H1 2020.

Certified Climate Bonds hold their ground

Certified Climate Bonds (CCBs) accounted for a quarter of the half-year volumes (+6% year-on-year) Certifications via issuers in 17 countries, including 12 first-time issuers. The largest H1 Certification came from Société du Grand Paris (USD2.7bn). In total, the issuer contributed 15% of total CCB issuance, making it the second largest in this category. Top 3 CCB issuers in H1 also included sovereigns Chile (USD3.8bn) and the Netherlands (#3, USD3.4bn). Together they constituted nearly half (48%) of H1 2020 CCB volume.

^{*} All charts and analysis are based on preliminary figures for H1 2020 issuance volume and number of deals, pending the inclusion of 128 deals still under assessment for inclusion in the CBI green bond database. ** Hong Kong is counted as a separate country as it is classified as a developed country according to MSCI's Market Classification, whereas China is classified as an emerging market.



Trading venue league table

In the first six months of 2020, USD64.1bn worth of green bonds were listed on various stock exchanges, representing 70% of the total GB issuance for the period (USD91.6bn).

Green bonds traded in over-the-counter (OTC) markets in H1 2020, including the **China Interbank Bond Market (CIBM)**, accounted for 14%. The remaining 16% of volume is not listed or information is not available.

In the league table below, we have grouped venues by stock exchange group, where applicable.

The numbers on top of the bars indicate the ranking of each venue.

The **Euronext** was the most popular GB listing platform, with USD22.3bn worth of deals traded across its venues in H1 2020, out of which 35.5% were Certified Climate Bonds. The largest listing was a EUR2.6bn (USD2.9bn) reopening issuance from Republic of France.

All German Exchanges were the second largest group with USD20.5bn, followed by the Luxembourg Stock Exchange Group and London Stock Exchange Group.

Euronext Paris top green bond listing venues in H1 2020 ■ Certified Climate Bonds ■ External review (excl CCB) ■ No review 12 10 8 3 6 4 **USD Billions** 25 2 Paris Dublin Oslo Berlin LuxSE LSE TRACE XETRA Amsterdam **German SE** Frankfurt L_GX EuroMTF **Nasdaq SE** Nasdaq FI Nasdaq SB SE Nasdaq LT SGX SIX Nasdaq DU EURONEXT Hannover **Nasdaq Nordic** Others (Exc. OTC) China Interbank Nordic ABM **Dusseldorf** Stuttgart отс FURONEXT LuxSE LSFG **Nasdaq Nordic** All German SF

Data sources: Climate Bonds Initiative, Refinitiv, Bloomberg

Listing venue league table: Methodology

Primary data sources for listing venues include Refinitiv 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 LGX, LSE, Borsa Italiana, SSE 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 Novermber-2018.
- All LGX deals without a review relate to the 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 its trading venue to avoid double counting.

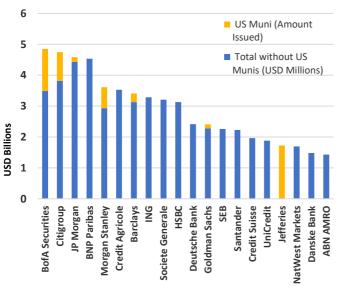


Green bond underwriter league tables

Bank of America Securities was the largest green bond underwriter in the global market in the first half of 2020 with a total of USD4.8bn. Its top three underwritten deals came from Canada's CPPIB Capital Inc. (EUR 1bn/USD1.1bn), Dutch NXP BV (USD1bn) and the EBRD (USD0.9bn). Green US muni bonds made up 28% of BofA's underwritten volume in H1 2020.

The second spot went to **Citigroup**, whose total bookrunner volume of USD4.7bn in the first half-year was split 20% US Munis and 80% other green bonds. **JP Morgan** was a close third with USD4.6bn. In H1 2020, **Jefferies** was the largest green US Muni deal underwriter with USD1.7bn.

BofA Securities, Citi and JP Morgan: Top Green Bond Underwriters in H1 2020



Data sources: Climate Bonds Initiative, Refinitiv

Underwriter league tables: Methodology

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

Refinitiv data methodology:

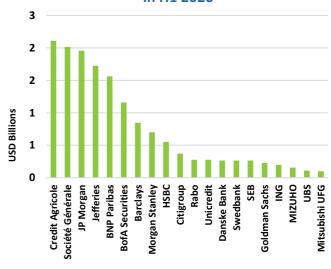
- Primary Issuance only. Excludes tax exempt US Municipal honds
- Underwritten transactions only
- The global table includes transactions that mature at least 360 days after settlement
- Transactions that mature or are callable/puttable less than 360 days after settlement are excluded

Crédit Agricole was the top underwriter of Certified Climate Bonds in H1 2020. Its underwritten volume came from the Chilean sovereign green bonds (total USD2.1bn)

Société Générale came in second with USD2bn, having also participated in the Chilean sovereign issuances as a junior bookrunner. JP Morgan took third place also in the CCB underwriter rankings, including for example being the lead bookrunner in the first CCB from Russia (**Russian Railways**, CHF250m/USD257m).

A USD1.7bn deal from the **New York MTA** propelled New York-headquartered independent bank Jefferies to fourth place in the H1 2020 CCB underwriter ranking.

Credit Agricole, SocGen and JP Morgan top certified green bond underwriters in H1 2020



- 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 USD1m (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 five business days of pricing
- For a transaction to be green league table eligible, deals must have 100% of proceeds formally earmarked for green projects
- Deals with 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 placements will be included provided they meet the standard criteria



Climate Bonds Initiative © August 2020

www.climatebonds.net

Disclaimer: The information contained in this communication does not constitute investment advice in any form and the Climate Bonds Initiative is not an investment adviser. Any reference to a financial organisation or debt instrument or investment product is for information purposes only. Links to external websites are for information purposes only. The Climate Bonds Initiative accepts no responsibility for content on external websites. The Climate Bonds Initiative is not endorsing, recommending or advising on the financial merits or otherwise of any debt instrument or investment product and no information within this document should be taken as such, nor should any information in this communication be relied upon in making any investment decision. Certification under the Climate Bond Standard only reflects the climate attributes of the use of proceeds of a designated debt instrument. It does not reflect the credit worthiness of the designated debt instrument, nor its compliance with national or international laws. A decision to invest in anything is solely yours. The Climate Bonds Initiative accepts no liability of any kind, for any investment an individual or organisation makes, nor for any investment made by third parties on behalf of an individual or organisation, based in whole or in part on any information contained within this, or any other Climate Bonds Initiative public communication.