Climate Bonds Initiative

Green Bonds Highlights 2016

June this year will mark a decade since the very first green bond was issued by the European Investment Bank (EIB).
2016 has shown how far the market has developed, with annual issuance aligned with international definitions reaching a record **USD81bn**, equivalent to approximately USD9.2m raised every hour!

The big numbers

92% - growth on 2015 making 2016 the most prolific year to date

USD11.8bn - November issuance, the largest month on record

24 - number of countries with green bond issuers

27% - proportion of Chinese issuers

241 - number of labelled green bonds issued (median size USD133.7m)

>90 - number of new issuers

>50 - number of repeat issuers

USD4.3bn - largest single green bond ever issued from the Bank of Communications (China)

1st - Poland became the first issuer of a sovereign green bond

Largest issuers

Sovereign: Poland

Sub-sovereign: New York MTA

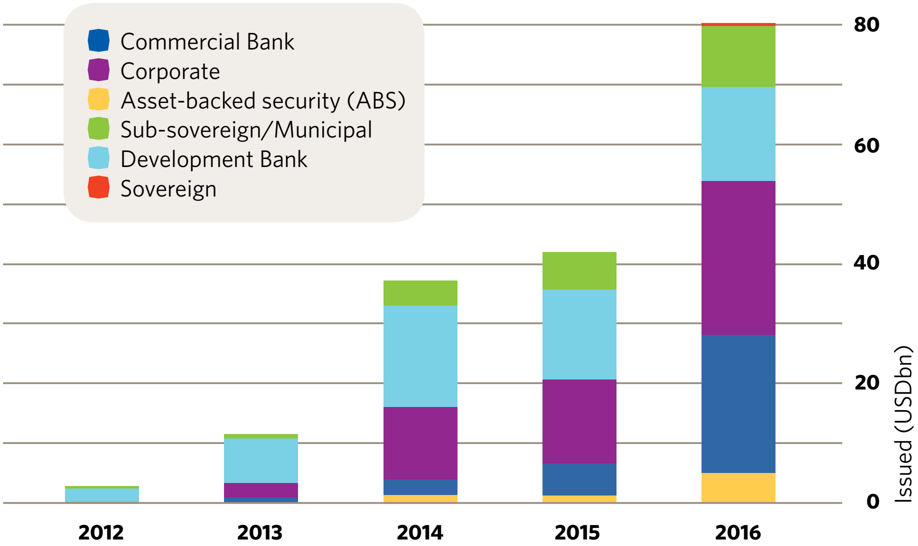
Development Bank: EIB

Corporate: Iberdrola

Commercial Bank: Shanghai Pudong Development Bank

ABS: Toyota

The green bond market 2012-2016



2016 issuance was almost double that of 2015[1]

2016 was a record-breaking year by all metrics - the largest year of issuance to date, the largest single month, the largest number of new issuers... the list goes on.

We note that the above figures do not include bonds that do not meet international definitions of green (e.g. reduced-emissions coal, large hydro and grid connection projects not linked to renewable energy or also referred to as "excluded bonds"[2]). Including these bonds brings total 2016 issuance to USD92bn.

The market is diversifying

2016 was the year the market matured with bonds from an increasing number of countries, bond types, issuer types, ratings and of use of proceeds. We have seen innovation in the types of bonds issued: green covered bonds (which has a dual recourse structure), the first green residential mortgage-backed security (RMBS) from Obvion and the first Green Schuldschein (Nordex).

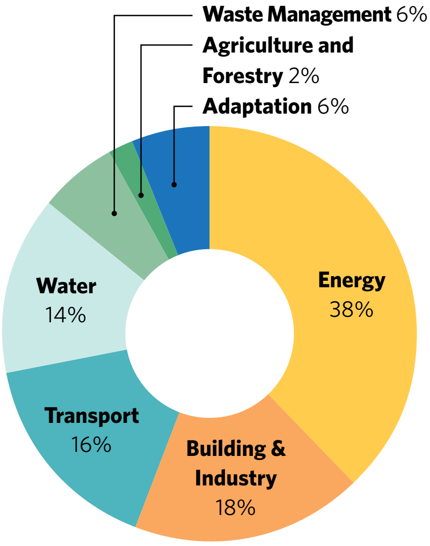
China is the big story

Green debt raised by Chinese entities rose from less than USD1bn in 2015 (8th place) to over USD23bn (1st place) in 2016, accounting for more than a quarter of the 2016 total[3]. This follows increasing awareness of environmental issues in China which has been followed through to policy and financial decision-making.

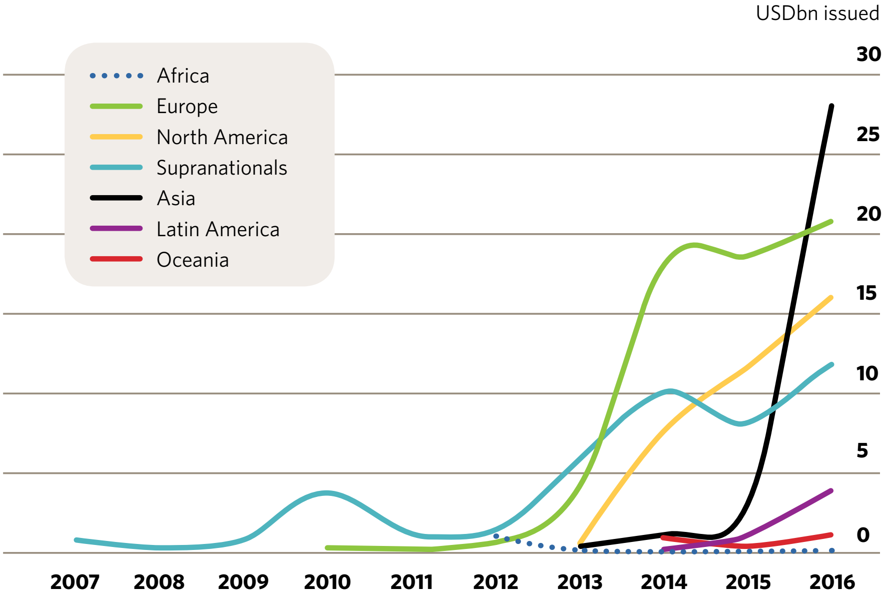
Cities and municipalities are joining the market

As cities look to play a role in country NDCs, green bonds have become an increasingly viable form of finance with issuance from cities and municipalities growing from just USD4bn in 2014 (10%) to USD10.5bn (13%) in 2016. While US municipalities continue to dominate the sub-sovereign space, green municipals and city bonds have come from all around the world, including Mexico, Sweden and Australia. Nordic municipality debt aggregators were important players, enabling small municipalities access to low-cost capital through the bond market despite their small size.

There was a broad range of use of proceeds in 2016



Green bond issuance by region



A broad range of use of proceeds

In 2016, green bonds use of proceeds was more equally split between the 7 sectors, reflecting a maturing of the market. While the largest category remained Energy (a total of USD31bn investment in 2016), its share decreased from 52% in 2015 to 38% in 2016. Conversely, investment in Water grew from 9% to 14%. Both Transport and Buildings & Industry increased their share by 2%. This is a welcome indication that the green transition is taking place across all sectors.

The first sovereign bond was issued in 2016

Poland issued its debut green sovereign bond of EUR750m in December 2016 and we expect much more in 2017. France has already issued an impressive EUR7bn green sovereign bond in January 2017 - the year of the Rooster, is it a coincidence? There are also plans for green sovereign bonds from Morocco and Nigeria. As governments seek to implement Nationally Determined Contributions (NDCs), sovereign green bonds are a logical financing option.

Other emerging nations are starting to leverage green debt financing

We have seen new players coming to the market from Poland,
Costa Rica (Banco Nacional de Costa Rica),
Philippines (AP Renewables),
Morocco (MASEN, BMCE Bank),
Colombia (Bancolombia),
Latvia (Latvenergo), Brazil (Suzano),
Mexico (Mexico City Airport Trust,
Mexico City, Nacional Financiera),
India (Axis Bank, Greenko, Hero Future Energy, NTPC, PNB Housing Finance, Renew Power) and of course, China[4].
Emerging markets are the future!

Demand continues to outstrip supply

Investors with and without a green mandate are showing interest in the market, with oversubscription commonplace. Pricing remains tight in both the primary and secondary market indicating that there is still plenty of unmet demand for green product.

Standards are developing

In order to adapt to the demands of the fast-growing green bond market, a new version of the Climate Bonds Standard (Version 2.1) has been published. The additions included the expansion of the range of debt instruments that can now be certified under the Standard (such as Yieldcos and Sukuk) as well as a Programmatic Certification option that will streamline the verification process for regular issuers with large portfolios of eligible assets.

In 2016 new Sector Criteria (Transport, Geothermal and Water) were finalised.

In 2017, Land Use, Bioenergy, Hydropower and Marine Criteria will be released. There will be expanded Buildings Criteria and expanded Water Criteria.

We also saw increasing demand for green ratings, with Moody's and S&P both publishing methodologies for rating green impact.

National green bond issuance guidelines became more common in 2016, with India, Brazil and Morocco following the Chinese lead of 2015.

Context for 2017

Green bonds have been a shining light, in what was otherwise a year of pretty bad news for climate.

As 2016 came to a close, global sea ice cover was at record lows and CO_2 levels at Muana Loa passed 400ppm. It was the hottest year on record, according to both NASA & NOAA. The wider context is grim.

The green bond market needs to grow, at speed. HSBC's preliminary estimate for 2017 ranges up to USD120bn, Moody's is around USD200bn and our forecast is that 2017 green bond issuance will reach USD150bn.

Three things to watch for in 2017

1. More issuance from sovereign and sub-sovereign issuers as governments try to mobilise green investment and support market liquidity.

2. Policy developments will push green finance even further as the G20 nations prioritise climate action. This will also encourage greater harmonisation of green bond guidelines across markets.

3. Over-subscription of green bonds and tight pricing will remain and as a result, we expect to see more issuers from lower rating bands coming to market.

1. The figures in this roundup do not consider Chinese bonds which only meet the PBoC's green definitions (but only those aligned with international definitions), unless stated otherwise.
2.We note that the proportion of assets financed by Chinese issuers which do not comply with international definitions is small compared to the overall issuance.
3. China's share goes up to 39% if the 'excluded' bonds are accounted for.
4. Agricultural Development Bank of China, BAIC Motors, Bank of China, Bank of Communications, Bank of Qingdao, Bank of Urumqi, Beijing Enterprises, CECEP, Century Concord Wind Power, China Datang, China Industrial Bank, DunAn Holding, Export-Import Bank of China, Guangdong Huaxing Bank, Huaneng Renewables, Jiangsu Nantong Rural Bank, Poten Environment, Shanghai Pudong Development Bank, Wuhan Metro, Wuxi Communication Industry Group, Xinjiang Goldwind.