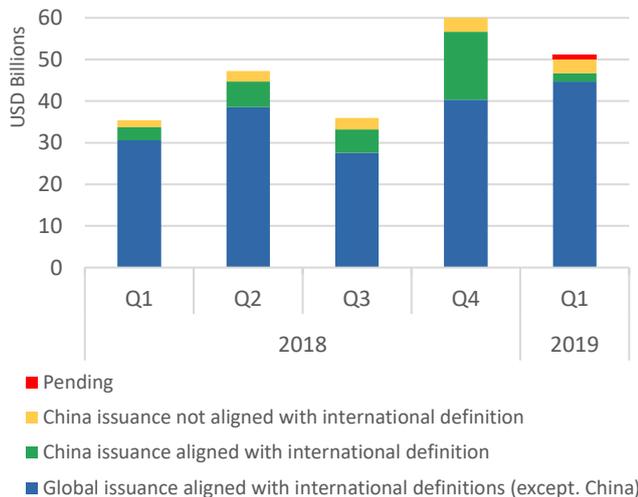


China Green Bond Market Newsletter Q1 2019

中国绿色债券市场季报 2019 第一季度

January-March 2019/2019 年 1 月至 3 月

Market overview



At a glance

Total Q1 Chinese issuance: USD6.9bn/RMB45bn

Onshore issuance: USD6.9bn/RMB45bn

Offshore issuance: None

Issuance that meets international definitions: USD2.9bn/RMB19.6bn

Largest issuer: Guangzhou Metro Group Co.,Ltd.

Largest issuing sector: Clean Transport

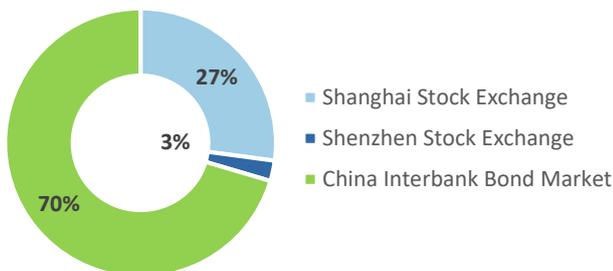
Chinese green bond market saw a 44% surge in Q1

Both China and global green bond markets were active in the past three months. The total amount of global green bonds that are aligned with international definitions reached USD47.8bn in Q1 - an 42% increase from the same period last year.

The USD6.9bn worth of overall green bonds from China represents a 44% surge year-on-year. However, only 43% (or USD2.9bn) of Q1 volumes from Chinese issuers is in line with international green bond definitions, while 44% has been excluded in accordance [with CBI Green Bond Database Methodology](#). The rest 13% are remained in pending until further analysis carried out.

Chinese green bonds are issued domestically

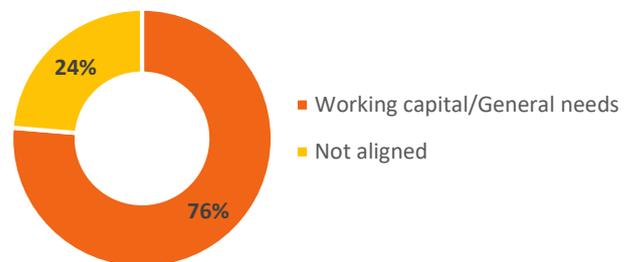
In Q1 all Chinese issuance was domestically listed. 70% of bonds were placed on the China Interbank Bond Market. This is followed by listings on Shanghai Stock Exchange with USD1.86bn, or 27% of the Q1 total. The remainder are listed on Shenzhen Stock Exchange.



Working capital was the major reason for exclusion

As it has been highlighted in our [2018 China Green Bond Market Report](#), proceeds allocation to working capital and/or general use

became the primary reason for exclusion. For example, Nanchang Metro’s CNY500m green bond was excluded due to the use of up to 50% of proceeds for general working capital which could potentially finance the issuer’s other business lines that are not necessarily green, such as property development.



13% of the total issuance remains in “pending”. For example, Anhui Huaihai Industrial Development Group raised CNY300m for an environmental management project to tackle subsidence in a coal mining area. We kept this bond as pending because it is unclear if the project will be carried out in an abandoned coal mining site or not. The bond will be excluded from CBI database if the project is linked to an active coal mining site as it could be considered as a measure to extend the mine’s life cycle.

Green bonds on Pending list

In some cases, use of proceeds details are not available at issuance. Thus we cannot make immediate judgement on the green credentials of the bond, the bond is marked as Pending and further research is needed. The investigation process is carried out by the end of the next quarter. If no further information is made available or the information obtained does not show alignment with taxonomy, the bond is added to the excluded bond list.

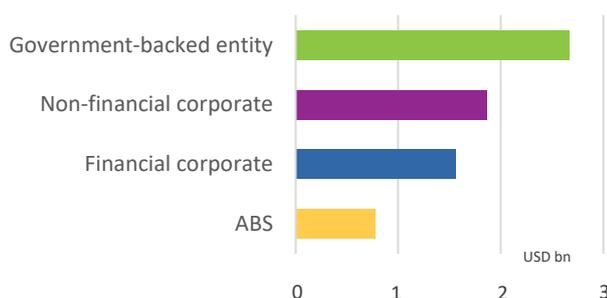
Government-backed entities as the major issuer type

Issuance from **government-backed entities** totalled USD2.7bn, accounting for 39% of the Q1 total. All the 13 issuers are local government financing vehicles (LGFVs). Except for Huzhou Municipal Construction Investment Group as a LGFV of a prefectural-level city, all the others are backed by province or provincial-level cities.

Non-financial corporates are the 2nd largest issuer type. Seasoned issuers include green pureplay companies such as CGN Wind Energy Limited and Tus-Sound Environmental Resources. Five new issuers came to market with their debut green bonds financing projects aligned with international green definitions. These include Shandong Water Affairs Development, Guangxi Xijiang Development.

Although the USD1.6bn worth of green bonds from **financial corporates** represents a drop of almost 90% from the USD14bn reached in Q4 2018, the figure is more than doubled the Q1 2018 volume of USD727m. All nine issuers are regional commercial banks, and four of them are rural banks, including Guangdong Rural Commercial Bank, Guangdong Nanhai Rural Commercial Bank, Dongguan Rural Commercial Bank and Zhejiang Deqing Rural Commercial Bank. In China's banking system, rural commercial banks focus on financing agriculture, infrastructure in rural areas, and farmers. With the acceleration of China's green bond market, we expect to see further diversity of issuer types.

Q1 2019: government-backed entities dominant



Three **green ABS** deals were issued in Q1 for a total amount of USD775m. However only two deals (accounting for USD546m) are aligned with international definitions. Guodian Financing Lease's deal was excluded because its collateral includes receivables from a coal energy efficiency project. The concern is coupled with the ambiguity of proceeds allocation as all funds raised will be used as general working capital for the originator.

Issuer	Asset / ABS collateral	Amount
Guangxi Xijiang development & Investment Group	Cash flow from hydroelectricity sales	CNY700m
Guangzhou Metro	Ticket sales	CNY300m
Guodian Financing Lease	Leasing receivables from fossil fuel, wind, and hydro projects => excluded	CNY1.57bn

It is worth noting that a securitisation can be defined as green when the underlying cash flows relate to low-carbon assets or where the proceeds from the deal are earmarked to invest in low-carbon assets. In the Guangzhou Metro deal, for example, up to 25% of proceeds will finance general working capital, but the deal is still considered as an eligible green ABS by CBI as it is fully backed by cash flow from low carbon transport (ticket sales).

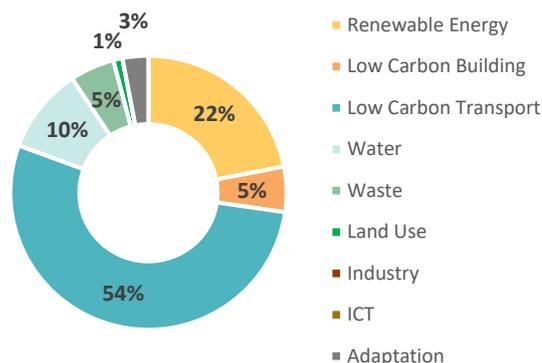
Low Carbon Transport is the dominant theme

Low Carbon Transport dominated the use of proceeds mix at 54%, followed by Renewable Energy (22%) and Water (10%).

Transport – Top 3: Guangzhou Metro Group, Nanjing Metro Group and Chengdu Rail Transit Group are among the biggest issuers and raised a total of USD1.2bn for urban and intercity rail infrastructure in their local regions.

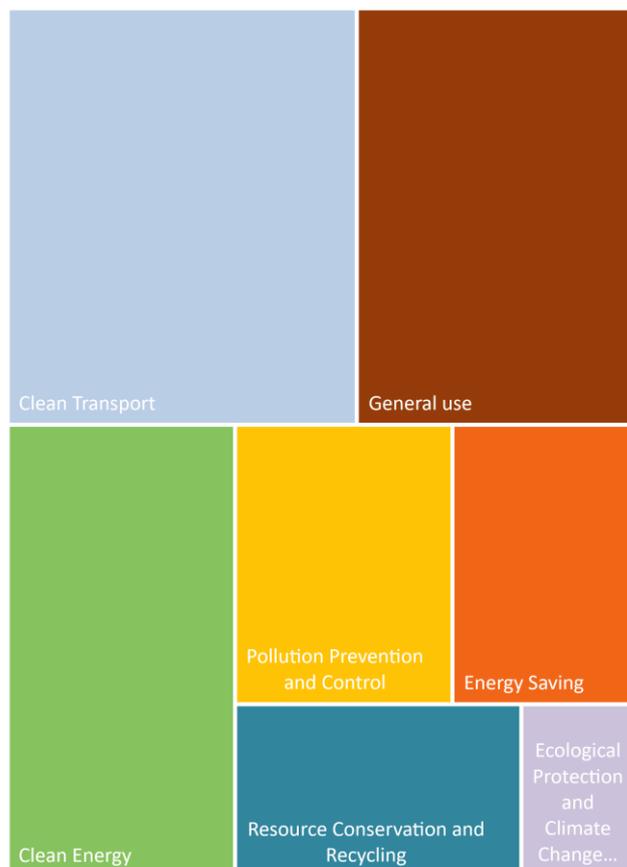
Energy – Top 3: China Suntien Green Energy Company, CGN Wind Energy, and Jiangsu Guoxin Investment Group.

Water: The biggest issuer, Yancheng Haixing Group, allocated all the proceeds from its green bond of CNY624m (USD93.2m) to water treatment and environmental remediation at a lake district.



According to China's local green bond definitions, the top three categories are Clean Transport at USD1.8bn, Clean Energy at USD1.26bn, and Pollution Prevention and Control at USD743m.

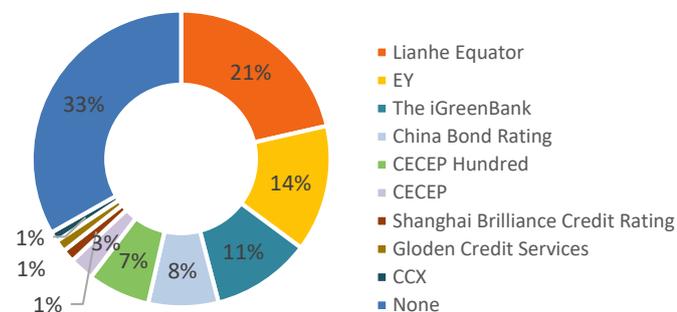
Use of proceeds (China's local definition)



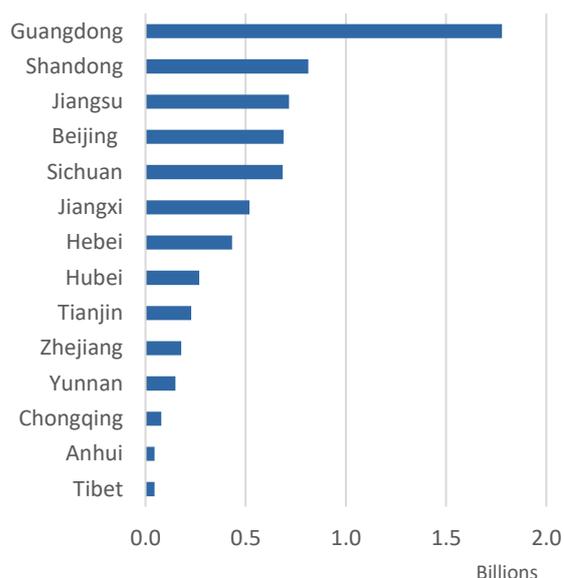
67% of all issuance carries an external review

More than a third of green bonds did not carry any form of external review. Most of these were NDRC regulated green bonds.

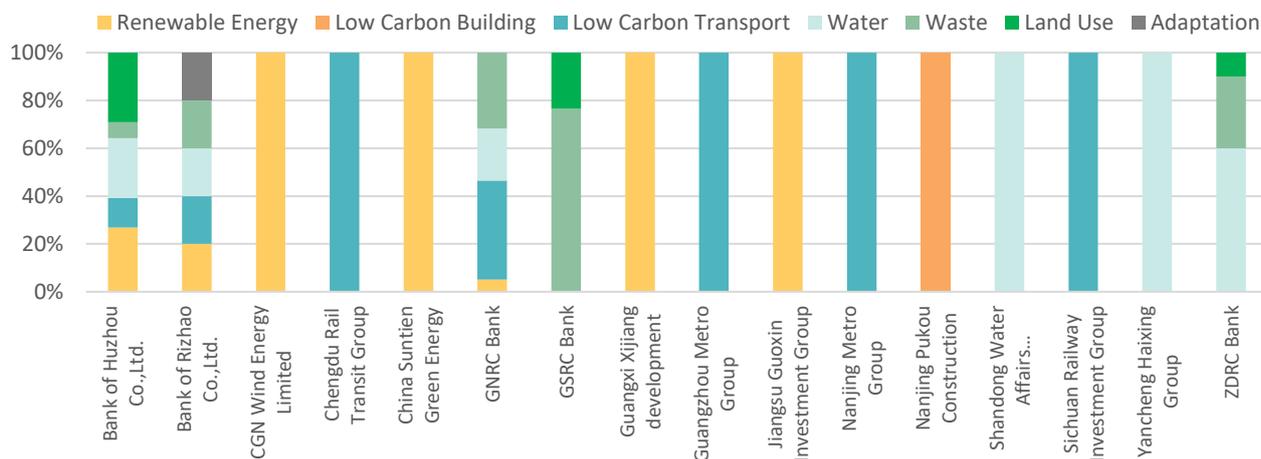
Lianhe Equator was the largest external reviewer in Q1 2019, accounting for 21% of the market share. EY ranks the 2nd, and it is followed by iGreenBank.



Guangdong led Q1 2019 green bond market growth



Use of proceeds by Q1 2019 aligned issuers



Post-issuance reporting analysis and re-classification

In January 2019, CBI published the second [Post-issuance Reporting Report in the Green Bond Market](#) research. By shedding more light on reporting practices, it helps the market to understand the level of adoption of reporting on allocations and environmental impact metrics.

China ranks first by reporting percentage by amount issued and fourth by number of bonds. The majority of Chinese issuers provided publicly available information after issuance, with 85% of bonds complying by number of bonds or 93% by value.

The analysis also helped us to track the alignment of proceeds allocation. In some cases, issuers only provide category names for eligible projects or assets, e.g. clean transport, renewable energy, etc. However, they could disclose further details at post issuance stage when funds have been allocated. This allows us to track alignment with international definitions.

Re-classification: We excluded the following bonds from our database due to the detailed proceeds allocation disclosed in their post issuance reports are not in line with CBI definition of green.

Issuer	Bonds	Total amount	Reason for exclusion
BAIC Motors	2	CNY4.8bn	CNY2.3bn (47%) was used for R&D and efficient internal combustion engine vehicles
Bank of Qingdao	2	CNY8bn	CNY1.28bn (16%) was not aligned (e.g. proceeds were used for tourist centres, etc.)
Hebei Financial Leasing	3	CNY1.3bn	CNY200m (14%) was used for thermal power plant (to remove SOx)
Wuhai Bank	1	CNY500m	CNY100m (20%) was used for clean coal projects
Bank of Luoyang	1	CNY1bn	CNY165m (16.5%) was used for natural gas-based projects

Climate Bonds discussion: Green Industry Guiding Catalogue

Seven regulators, including the NDRC, Ministry of Industry and Information Technology, Ministry of Natural Resources, Ministry of Ecology and Environment, Ministry of Housing and Urban-Rural Development, PBoC and the National Energy Administration, released the Green Industries Catalogue in March 2019.

What does the catalogue aim to achieve?

The catalogue aims to promote energy saving and environmental protection, clean energy and “clean” production. It provides guidelines for and encourages local governments and regulators to formulate incentive policies and measures in investment, pricing mechanisms, finance, and tax, taking into consideration their own regional and sector development focus.

What does the catalogue include?

The Catalogue classifies categories into three levels. The first level comprises six categories as per the summary table below. Compared with the Green Bond Endorsed Project Catalogue (2015) commonly used in the field of green finance, the Green Industry Guiding Catalogue additionally covers the green services industry, the upgrade of industrial parks, etc. It expands the scope for transportation and buildings and makes some deletions and changes in definitions.

What is new in the catalogue?

The green services industry, which includes 5 sub-categories, ranging from environmental consulting to green certification services. It identifies organisations providing green bond second party opinions, assurances and certification services.

What are the Implication for China’s domestic green bond market?

The catalogue provides a framework to define what are green assets and green activities in China. Under this umbrella, local governments and regulators could formulate policies and measures on green investment, pricing mechanisms, green finance systems, and tax incentives to accelerate green finance. Regulators such as PBoC and CSRC could update the list of eligible green bond assets within the defined scope.

Eligible assets defined by PBoC’s green bond catalogue and NDRC’s green bond guidelines are largely covered by the new industry catalogue. Clean coal, coal efficiency and coal plant retrofit also remained in the catalogue. PBoC is working on an updated version of green bond catalogue and it will likely use the industry catalogue as a reference. PBoC is also interested in harmonising its guidelines with international best practice.

Level I Category	Level II Category
Energy-saving and environmental protection industry	1) manufacture of high-efficiency energy-saving equipment, 2) advanced environmental protection equipment, 3) resource recycling equipment, 4) new energy vehicles and green ships, 5) energy-efficiency improvement, 6) pollution control and 7) resource recycling.
Cleaner production industry	1) green upgrading of industrial park, 2) non-toxic and harmless alternative use of raw materials and treatment of hazardous waste, 3) treatment and disposal of waste gas in production process and comprehensive utilization of resources, 4) water saving, treatment and disposal of waste water and 5) comprehensive utilization of resources, treatment and disposal of waste residue in production process.
Clean energy industry	1) manufacture of new energy and clean energy equipment, 2) the construction and operation of clean energy facilities, 3) the clean and efficient utilization of conventional energy, and the 4) efficient operation of energy systems.
Eco-environmental industry	1) ecological agriculture, 2) ecological protection and 3) ecological restoration.
Green upgrading of infrastructure	1) building energy efficiency and green building, 2) green transportation, 3) environmental infrastructure, 4) urban energy infrastructure, 5) sponge city, 6) green landscapes.
Green service	1) environmental consulting services, 2) environmental project operation management (such as carbon trading and pollution-discharge right trading), 3) project evaluation, audit and verification (such as EIA), 4) monitoring and testing (such as pollution monitoring) and 5) technical product certification and promotion (such as organic food certification).

News and events

SSE and SEEE collaborate to accelerate green finance in

Shanghai: Shanghai Stock Exchange (SSE) and Shanghai Environmental Energy Exchange (SEEE) held a green investment seminar and signed a memorandum on further cooperation to promote the development of green finance by providing market education and developing green investment indices.

SSE to display green bonds listed on LuxSE: Shanghai Stock Exchange and the Luxembourg Stock Exchange signed a supplemental agreement

to the Green Bond Info Channel Cooperation Agreement and officially launched the eastward information display of green bonds: green bonds listed on the LuxSE will be displayed on the SSE website (eastward), which will provide Chinese investors with an efficient and transparent channel to obtain the information.

SZSE and LuxSE launched the Green Fixed Income Information Channel: Shenzhen Stock Exchange (SZSE) and Luxembourg Stock Exchange launched the Green Fixed Income Information Channel at the

Boao Forum for Asia Annual Conference 2019. The Information Channel displays information of SZSE green corporate bonds and ABS products on LuxSE's website, giving international exposure to SZSE's fixed income products and promoting connection of green products and services offered by capital markets of China and Luxembourg.

Ma Jun shared China's experience at NGFS seminar: Ma Jun, Director of the Green Finance Committee of the China Finance Association and Special Advisor to the Governor of the People's Bank of China, chaired a seminar of the Central Banks and Supervisors Network for

Greening the Financial System (NGFS) in Mexico City. He shared China's experience in developing the green bond market and establishing a green finance system with 130 representatives from 24 Latin American central banks and financial regulators. NGFS is a group of Central Banks and Supervisors willing, on a voluntary basis, to exchange experiences, share best practices, contribute to the development of environment and climate risk management in the financial sector, and to mobilize mainstream finance to support the transition toward a sustainable economy.

Policy update

2019 Government Work Report reinforces the importance of sustainable development and green finance

Li Keqiang, Premier of the State Council, delivered the 2019 Government Work Report at the second session of the 13th National People's Congress. The Report lists "strengthening pollution prevention and control, enhancing ecological improvement, and making big advances in green development" as one of the ten major government tasks this year. It also proposes to reform and improve the environmental economic policies, improve the pollution rights trading system, and accelerate the development of green finance. This is the second consecutive year that the annual government work report directly mentions the development of green finance.

Outline Development Plan for the Guangdong-Hong Kong-Macao Greater Bay Area

The CPC Central Committee and the State Council released the Outline Development Plan in February. It supports:

- Hong Kong to develop into a green finance centre in the Greater Bay Area and to set up an internationally recognized green bond certification institution
- Guangzhou to develop a pilot green finance reform and innovation zone and to establish an innovative futures exchange that takes carbon emission as its first trading commodity
- Macao to study the feasibility of a green finance platform denominated and cleared in RMB
- Shenzhen to enhance cooperation with Hong Kong in green finance.

Work Plan for the Pilot New Energy Vehicle Battery Recycling Program in Sichuan Province

Nine departments of Sichuan Province including Sichuan Provincial Economic and Information Department jointly released a Work Plan, which aspires to achieve a production value of RMB500m in the NEV battery cascade utilization industry and a production value of RMB3bn in the material recycling industry by 2020. The recycling will be facilitated through a combination of tools such as finance and tax, industrial fund, green credit, and green bonds.

Ministry of Industry and Information Technology and the China Development Bank issued a notice on Accelerating Industrial Energy Conservation and Green Development

China Development Bank will begin granting green credit facilities based on market needs, applying its pledged supplementary lending (PSL) from the central bank. It will provide cheap funding to key industrial pollution prevention and control projects which meet the PSL application requirements for eco-environment protection.

Provincial departments of industry and information technology are required to strengthen their coordination with local CDB branches to give special financial support preferentially to programs in technological transformation and green manufacturing, industrial parks and projects that have already obtained green loans.

As one of the monetary policy tools of the central bank, PSL accepts high-rated bonds and quality credit assets as collateral. It mainly supports the three policy banks to fund shantytown renovation and major water conservancy projects.



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** Figures used in this report refer to both onshore and offshore green bonds issued by entities domiciled in mainland China, and green panda bonds unless otherwise stated. Internationally aligned green bonds are those aligned with both local and international definitions of green.*

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