

Handbook

How to issue a green panda bond

Investment in low-carbon solutions will be essential for meeting global emission reduction targets under the Paris Agreement on climate change. Given the projected climate volatility over the coming decades, infrastructure, with its long life time, should be designed as climate resilient.

The rapid growth of the global green bond market has shown that capital markets provide a promising channel to finance climate investments.

The booming Chinese green bond market offers great opportunities

With total issuance of USD60.9bn as of October 2018, China is now the world's second largest green bond market. China's green bond market, with clear rules, active market players, and supportive investors and policymakers, offers a great opportunity for foreign green bond issuers.

This handbook provides an overview of the regulations and guidelines applicable to green bonds and panda bonds in China.

It seeks to support foreign issuers in issuing green panda bonds in China's domestic market.

A green panda bond is a RMB-denominated bond issued in mainland China by a foreign entity, with proceeds earmarked for green assets or projects. The issuance of a green panda bond needs to follow both the guidelines for panda bonds and for green bonds.

What is a green panda bond?



Panda Bond + Green Feature = Green Panda Bond

Green panda bonds are essentially the same as other panda bonds (RMB-denominated bond issued in mainland China by a foreign entity), except that:

- Issuer labels bonds as "green"
- Proceeds are earmarked for green assets or projects
- Issuer tracks and reports on the use of proceeds to ensure compliance

Existing rules provide clear guidance to ensure market robustness

Regulators in China have published guidelines on green bonds issuance procedures, criteria to define green assets and projects, requirements on external review and verification, and guidance on post-issuance disclosure.

These guidelines provide clear guidance and for issuers on how to issue green bonds in China's bond market, with a view to enhance potential issuers' capacity and market integrity.

For more details on green bond guidelines and regulations, see Table 3 on page 4.

Domestic investors have been supporting the growth of China's green bond market

Chinese investors could be a source of capital for foreign green bond issuers who are looking to diversify their investor base and increase their exposure in China.

While more green investors or dedicated green bond funds are expected to come into play as the market develops, commercial banks are currently the largest investors in the Chinese domestic bond market, accounting for approximately 85% of the bond deals overall.

That said, on the retail investor side, China is among the few markets leading the efforts in expanding public participation in green investment. For example, in September 2017, China Development Bank issued a green bond partially sold to retail investors through branches and the electronic platforms of Industrial and Commercial Bank of China (ICBC), Agricultural Bank of China (ABC) and Bank of China (BOC).¹

There are active service providers in China's green bond market

China's green bond market kicked-off in 2016, and over the past 2-3 years the number of various service providers has been growing rapidly. There are 14 approved verifiers in China qualified to provide verification against both China's green bond guidelines and the Climate Bonds Standard.²

Chinese underwriters are active in both China's and global green bond markets (see underwriter league Table 4). They can support the issuance application of potential green bond issuers.

Market infrastructure organisations including stock exchanges and clearing houses are also providing training on green bond issuance.

Chinese policymakers are keen on facilitating investment in green assets

As China accelerates the transitions toward a green and sustainable growth model, green investment is expected to play a pivotal role.

In August 2016, China's seven ministerial agencies jointly released the *Guidelines for Establishing the Green Financial System*,³ making China the first country to establish a policy framework for green financial system.

The Guidelines call for the securities market to promote green investment for institutional investors (pension funds and insurance companies) to invest in green financial products; and investors to release green investment responsibility reports.

Following the *Guidelines*, the Asset Management Association of China (AMAC)⁴ officially released the *Green Investment Guide (Trial)*⁵ in November 2018. It encourages fund managers to voluntarily comply with published green criteria when screening investment opportunities. For the screening criteria, investors can refer to existing guidelines and standards in China,⁶ as well as international principles and standards including the *Green Bond Principles* and the *Climate Bonds Standard*.

RMB is being increasingly used for cross-border settlement

The internationalisation of the RMB and its inclusion into the Special Drawing Rights (SDR) has increased the use of RMB transaction settlement, in particular by countries associated with the Belt and Road Initiative (BRI). In 2017, BRI countries handled over RMB1.36 trillion (USD196bn) cross-border RMB settlements, accounting for 14.7% of the total cross-border RMB settlements.⁷

China has been actively investing in other countries over the past decade. For example, over the 2010-2017 period, total direct investment in Latin America reached USD91bn.⁸ To facilitate RMB-settlement, China has established RMB clearing banks in Argentina and Chile.

As China continues to invest abroad - e.g. directly in assets or through loans - issuers could use the RMB-denominated capital raised from green panda bonds to repay Chinese lenders and/or to settle transactions in RMB.

Regulatory system for China's bond market

China's bond market is primarily regulated by PBoC, CSRC and NDRC (see list of abbreviations below Table 1). The regulations cover bond issuance; listing, trading and information disclosure; clearing, settlement, and custody; market participants; and relevant service providers including rating agencies.

Regulation of corporate bond issuance:

In order to strengthen the coordination between regulators, in 2012, PBoC, NDRC and CSRC jointly established the ministry commission for regulating corporate bonds. Under this mechanism, the relevant

departments carry out their own duties and work together to tackle the problems in the development and reform of the bond market, including regulating issuance and trading behavior, enhancing cooperation for product innovation and market infrastructure, etc.

Regulation of bond listing, trading and information disclosure:

This is achieved through the self-regulatory measures of marketplaces, which include the interbank market, the exchange market, and the over-the-counter (OTC) market of commercial banks, regulated respectively by PBoC, CRSC, and CBIRC. The interbank market is

the dominant of the three bond markets, accounting for over 90% of the outstanding bonds and trading volume in China and boasting a liquidity far higher than the OTC market.

Regulation of bond clearing, settlement, and custody: Bond clearing, settlement, and custody are primarily handled by clearing, settlement, and custody companies, mainly CCDC, CSDC, and SHCH (see list of abbreviations below Table 1). CCDC is jointly regulated by PBoC, CBIRC and MOF, while CSDC and SHCH are regulated by CSRC and PBoC, respectively.

Table 1: Regulatory system for China's bond market²³

Classification		Regulator	
Approval-based regulation of product issuance	Treasury bonds and municipal bonds	MOF and CSRC	
	Central bank bonds: central bank notes	PBoC	
	Financial bonds	Policy (development) bank bonds	PBoC
		Special financial bonds ²⁴	
		Non-bank financial institution bonds	
		Commercial bank bonds	PBoC
		Securities company commercial paper	PBoC and CSRC
		Securities company bonds	
	Insurance company bonds	PBoC	
	Non-financial institution bonds	Enterprise bonds ²⁵	NDRC
		Medium-term notes	PBoC (non-financial institution bonds need to be registered with NAFMII and are subject to its self-regulatory measures)
		Commercial paper	
		Small and medium enterprise collective bonds and notes	
Asset-backed securities		PBoC and CSRC	
Convertible bonds		CSRC	
Corporate bonds			
Bonds issued by international organisations such as the World Bank and the ADB		PBoC, CSRC and MOF	
Regulation of marketplaces	Exchange market (Shanghai and Shenzhen stock exchanges)	CSRC	
	Interbank market	PBoC	
	OTC market of commercial banks	PBoC and CBIRC	
Regulation of clearing, settlement, and custody companies	CSDC	CSRC	
	CCDC	PBoC, MOF and CBIRC	
	SHCH	PBoC	

Abbreviations: MOF = Ministry of Finance; PBoC = People's Bank of China; CBIRC = China Banking and Insurance Regulatory Commission; CSRC = China Securities Regulatory Commission; NDRC = National Development and Reform Commission; CCDC = China Central Depository & Clearing; CSDC = China Securities Depository and Clearing; SHCH = Shanghai Clearing House; NAFMII = National Association of Financial Market Institutional Investors.

Regulation of bonds issued by foreign institutions in mainland China (“panda bond”)

To further improve the internationalisation of China’s bond market, in September 2018, PBoC and MOF jointly released the *Interim Measures for the Administration of Bond Issuance in the National Interbank Market by Foreign Institutions*.⁹ The Measures apply to foreign institutions, including foreign governments¹⁰, international development organisations¹¹, foreign financial institutions

and non-financial corporates. They clarify the requirements, and application and registration procedures, and provide rules which govern information disclosure, issuance registration, custody and clearing, the opening of RMB account, foreign exchange, and investor protection.

PBoC will continue to work with other

ministerial agencies to enhance the accessibility of China’s financial market.

National Association of Financial Market Institutional Investors (NAFMII), which operates under the supervision of PBoC, is currently developing the detailed rules for implementing the *Measures*, and the rules are expected to be released shortly.

Table 2: Key regulatory requirements for the issuance of panda bonds¹²

Local presence	No mandatory requirements
Issuer qualification	Foreign governments and international development institutions are required to have bond issuance experience and adequate solvency. A foreign financial institution should have a paid-in capital of RMB 10 billion or foreign currency equivalent, sound corporate governance and risk management systems, robust financial performance and good credit standing, as well as recorded profitability in each of the most recent three years.
Application and registration procedure	Foreign financial institutions should obtain the approval of the PBoC. Foreign governments, international development institutions and foreign non-financial corporates should apply to NAFMII for registration.
Information disclosure	Foreign institutions are required to fulfil disclosure obligations in accordance with the rules of the interbank market before the issuance and during the term of the bond. The publicly disclosed information disclosure documents such as application and proof of issuance approval, bond prospectus, financial statements, qualification to carry out financial services, legal opinion, credit rating and guarantee agreement (if applicable) need to be either written or translated into simplified Chinese.
Issuance registration	A foreign institution may apply to issue bonds on a stand-alone basis or in tranches, within the quota. Foreign governments, international development organisations and foreign financial corporates that are seasoned issuers on overseas markets or that have issued bonds in China and have complied with the ongoing disclosure requirements for more than a year may apply to issue bonds in tranches within the quota. Foreign non-financial corporates applying to issue bonds in tranches shall comply with the relevant rules of NAFMII.
Custody and clearing	<p>Bonds issued by foreign institutions need to be placed under the custody of a registration and custody company recognised by the PBoC. A foreign institution which is approved or registered for issuing bonds in mainland China needs to go through the foreign exchange registration process. Issuers need to follow the rules on the opening of accounts, foreign exchange, cross-border remittance, and information filing under the PBoC and the State Administration of Foreign Exchange.</p> <p>Issuers should either set up a RMB bank settlement account overseas or set up an escrow account in China through the lead underwriter. The account is for depositing capital raised and for cross-border RMB settlement such as repatriation, which needs to comply with the ratio of proceeds to be used in China and overseas, as approved by the regulator during the bond issuance application.¹³</p>
Investor protection	A foreign institutional bond issuer needs to establish investor protection mechanisms such as disclosure of significant events and meetings with bond holders. Issuer should engage an independent domestic organisation to ensure the implementation of investor protection mechanisms and to safeguard the interests of bondholders during the term of the bond.

Notes

1. China Financial Information Network (2017). CDB sells green bonds to individuals for the first time, exploring a new model of green debt financing. <http://greenfinance.xinhua08.com/a/20170908/1725077.shtml>

2. Climate Bonds Initiative has been providing regular training to approved verifiers to ensure their ongoing competence. A list of approved verifier can be found here: <https://www.climatebonds.net/certification/approved-verifiers>.

3. Released by the People’s Bank of China (PBoC), Ministry of Finance (MOF), National Development and Reform Commission (NDRC), Ministry of Environmental Protection (MEP), China Banking Regulatory Commission (CBRC), China Securities Regulatory Commission (CSRC), and China Insurance Regulatory Commission (CIRC). <http://www.pbc.gov.cn/goutongjiaoliu/113456/113469/3131687/index.html>

4. AMAC is a self-disciplinary organisation of the fund industry, subject to CSRC regulation. Fund managers and custodians shall join AMAC according to the law. AMAC is responsible for formulating and implementing industry self-disciplinary rules, supervising and inspecting the practice of members, and setting up industry practice standards.

5. The Guide is applicable to the securities investment of both public and private securities and investment funds (including fund of funds), and can be used as a reference by private equities. <http://www.amac.org.cn/xhdt/zxd/393245.shtml>

6. Including Listed Companies Environmental Responsibility (E) Indicators from AMAC, the CSRC Guidelines for Supporting the Development of Green Bonds, the relevant requirements of the Shang-

hai Stock Exchange and Shenzhen Stock Exchange for launching the pilot program of green corporate bonds, the Green Bond Endorsed Project Catalogue from the Green Finance Committee (GFC) of the China Society for Finance and Banking, the Green Bond Issuance Guidelines from the NDRC.

7. PBoC (2018). 2018 RMB Internationalisation Report. <http://www.pbc.gov.cn/goutongjiaoliu/113456/113469/3634065/index.html>

8. <http://www.redalc-china.org/monitor/2016-01-10-23-03-18>

9. PBoC, MoF (2018). Interim Measures for the Administration of Bond Issuance in the National Interbank Market by Foreign Institutions.

10. Including sovereigns, local governments and authorities with a government function.

A step-by-step guide on green panda bond issuance:

In issuing a green panda bond, both the regulatory requirements for panda bonds and those for green bonds need to be followed. For example, for a financial institution such as a national development bank to issue a green panda bond in the interbank bond market, after preparation (step 1 below), the issuer needs to meet relevant requirements on panda bond issuance (Table 2) and seek approval from PBoC (as per Table 1). Then the issuer should follow the green bond guidelines from PBoC (Table 3) to get approval for green bond issuance (step 2). After bond issuance (step 3), the issuer is required to disclose information (step 4) quarterly following the guidance and template for post-issuance disclosure from PBoC (Table 3).



Key regulatory requirements for the issuance of green bonds

China's regulation system for green bonds is rapidly taking shape and maturing, accompanied by a steady stream of new green bond issuance. To issue green bonds in China, issuers need to follow green bond guidelines and seek approval from the relevant regulatory authorities. The top regulatory concerns for green bonds relate to

the use of proceeds, information disclosure, and verification or external review.

These green bond guidelines build on best practice in the international green bond market such as the Green Bond Principles and the Climate Bonds Standard, notwithstanding differences in green definitions on eligible assets and projects, notably the incorporation

of fossil fuel power generation in China's green bond guidelines.¹⁴

China has been working on harmonisation of green definitions and standards with the international market. In 2017, the PBoC and the EIB established a joint green finance initiative to harmonise the green definitions between Chinese and European markets.

Table 3: Green bond guidelines in China

Regulator	PBoC	CSRC	NDRC	NAFMII
Market segment	Interbank	Stock Exchanges	Interbank, Stock Exchanges	Interbank
Issuer	Financial institutions	Corporates	Corporates, mostly state-owned enterprises (SOEs)	Non-financial corporates (debt instruments such as MTN)
Use of proceeds	In accordance with the <i>Green Bond Endorsed Project Catalogue</i> ¹⁵	In accordance with the <i>Green Bond Endorsed Project Catalogue</i>	In accordance with NDRC's <i>Guidelines for the Issuance of Green Bonds</i> ¹⁶	In accordance with the <i>Green Bond Endorsed Project Catalogue</i>
Management of proceeds	Ring-fencing or earmarking	Ring-fencing or earmarking	Ring-fencing or earmarking	Ring-fencing or earmarking
Reporting and disclosure	Quarterly (guidance and template for post-issuance disclosure are in place)	Semi-annually	Depending on the market (annually for Interbank market; semi-annually for stock exchanges)	Semi-annually
Verification and/or external review	<ul style="list-style-type: none"> Encourage issuers to have external review Qualification criteria and guidance in place for verifiers 	<ul style="list-style-type: none"> Encourage issuers to have external review Qualification criteria and guidance in place for verifiers 	N/A	Encourage issuers to have external review
Guidelines	<ul style="list-style-type: none"> The People's Bank of China Announcement No. 39 [2015]¹⁷ Green Bond Assessment and Verification Guidelines (Provisional)¹⁸(jointly with CSRC) Notice on Strengthening the Supervision and Management of Green Financial Bonds During Bond Tenor¹⁹ 	<ul style="list-style-type: none"> Notice on the Launch of Green Corporate Bond Pilot Scheme²⁰ Guidance on Supporting the Development of Green Bonds²¹ Green Bond Assessment and Verification Guidelines (Provisional) (jointly with PBoC) 	Guidelines for the Issuance of Green Bonds	Guidelines for Green Debt Financing Instruments from Non-Financial Corporates ²²

Notes (continued)

11. Refers to multilateral, bilateral and regional international development financial institutions for development loans and investments.

12. PBoC, MoF (2018). Interim Measures for the Administration of Bond Issuance in the National Interbank Market by Foreign Institutions Interim Measures for the Administration of Bond Issuance in the National Interbank Market by Foreign Institutions. <http://www.pbc.gov.cn/goutongjiaoliu/113456/113469/3634065/index.html>

13. No. 258 [2016] of the General Office of the People's Bank of China: Notice of the General Office of the People's Bank of China on Matters concerning the Cross-Border RMB Settlement of RMB Bonds Issued within China by Overseas Institutions. http://www.pbc.org.cn/Upload/image/20180427/20180427112210_39029.pdf

14. More details on the difference between internationally accepted green definitions with China's green bond guidelines: Climate Bonds Initiative (2016). Roadmap for China: green bond guidelines for the next stage of market growth <https://www.climatebonds.net/resources/Roadmap-for-China/April/2016/Paper1>

15. The categories of eligible assets or projects are: energy saving,

pollution prevention and control, resource conservation and recycling, clean transportation, clean energy and ecological protection and climate change adaptation. <http://www.greenfinance.org.cn/displaynews.php?cid=79&id=450>

16. http://www.ndrc.gov.cn/zcfb/zcfbtz/201601/t20160108_770871.html

17. <http://www.pbc.gov.cn/tiaofasi/144941/144959/2993398/index.html>

18. <http://www.pbc.gov.cn/goutongjiaoliu/113456/113469/3449947/index.html>

19. <http://www.pbc.gov.cn/zhengwugongkai/127924/128038/128109/3493704/index.html>

20. Shanghai Stock Exchange: http://www.sse.com.cn/lawandrules/sserules/listing/bond/c/c_20160316_4058800.shtml Shenzhen Stock Exchange: <http://www.szse.cn/main/ints/ywtdt/ywtdt/39759476.shtml>

21. http://www.csrc.gov.cn/pub/newsite/flb/flfg/bmgf/tx/gszj/201805/t20180515_338154.html

22. http://www.nafmii.org.cn/ggzt/gg/201703/t20170322_60431.html

23. http://pg.jrj.com.cn/acc/Res/CN_RES/BOND/2015/9/15/1d-6d160c-327f-4bfc-a07f-1aed70b100da.pdf

24. Special financial bonds refer to bonds issued by financial institutions with proceeds specifically used for repaying debt where the issuer has used capital raised from repo for long-term investment therefore having difficulties to repay short-term debt. http://www.gov.cn/zhengce/content/2010-12/31/content_2312.htm

25. Corporate bonds, mostly issued by State-owned Enterprises (SOEs).

26. New Development Bank. (2016). Investor Presentation. <https://www.ndb.int/investor-relations/investor-presentations/>

27. The Catalogue covers green projects under the Green Bond Principles and the Climate Bonds Taxonomy. Green projects which comply with the Green Bond Principles or the Climate Bonds Taxonomy are eligible under the Catalogue.

28. To provide services in China, external reviewers need to follow the Green Bond Assessment and Verification Guidelines released by the PBoC and CSRC.

29. Information related to bond issuance in general comes from China Chengxin Credit Management (CCX) (2017).

30. There are 5 main credit rating agencies for the Chinese bond market: China Chengxin International Credit Rating, China Lianhe Credit Rating, Shanghai Brilliance Credit Rating, Golden Credit Rating International, and Dagong International Credit Rating.

Green panda bond issuers at a glance

Since 2016, there have been five green panda bond deals totalling RMB5.9bn (USD880m). Although green panda bonds make up less than 1% of the total green bonds outstanding in China, the potential for growth is huge: China is further opening up its capital markets, and green finance is increasingly seen as a useful tool to mobilise the

investment required to address the urgent environmental and climate challenges.

Since the beginning of China's green bond market, renewable energy remains the top climate theme in terms of allocation of proceeds (>60% to date). The next largest sectors are low carbon transport and water management. In the green panda bond space,

a similar pattern is observed. Other categories include buildings and waste.

Chinese underwriters are very active in the green bond market (Table 4). Examples of green panda bond underwriters include Bank of China, ICBC, China Development Bank, HSBC and Standard Chartered.

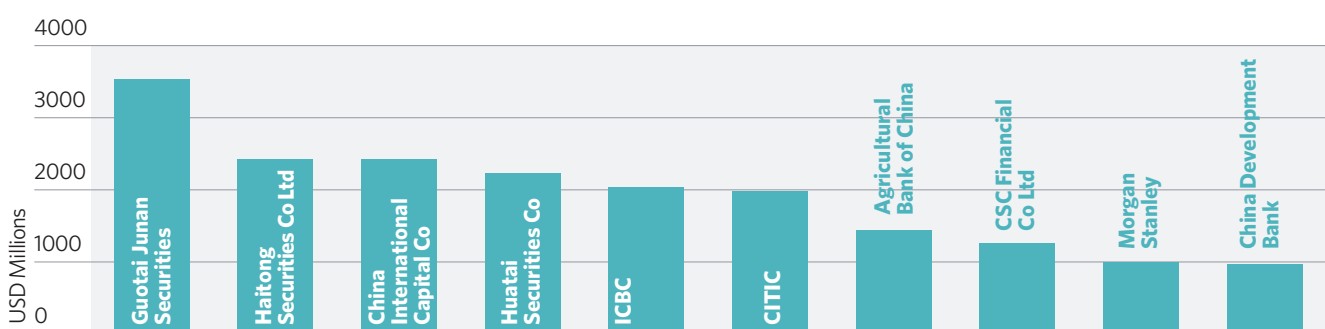
The first green panda bond

The green panda bond market kicked off with the RMB3bn (USD448m) green bond issued by New Development Bank (NDB) in July 2016. It was rated AAA by CCXI and Lianhe and the coupon was set at 3.07%. The 5-year deal was raised to fund projects in three markets: China, Brazil and Russia.²⁶ This includes Lingang Distributed Solar Power Project in Shanghai, Putian Pinghai Bay Offshore Wind Power Project in Fujian, renewable energy projects and associated transmission in Brazil, and a hydroelectric power project in Karelia, Russia.

The bond benefited from an review by Ernst & Young, which provided assurance that the bond is in line with the Green Bond Principles and the Chinese green bond regulations. According to NDB, the bond was over 3 times oversubscribed and more than 30 investors participated in the bidding process. The bond trades on the China Interbank market.

Issuer	Beijing Enterprises Water Group Limited	China Power Clean Energy Development Company	Hang Lung Properties Limited	China Everbright Water Limited
Sector	Water	Energy	Buildings	Water
Amount (RMB)	700m	800m	1bn	400m
Date issued	03 August 2016	23 May 2017	16 July 2018	02 September 2018
Maturity	03 August 2024	22 May 2020	16 July 2021	15 August 2023
External review	SPO by SynTao Green Finance	SPO by CCXI	SPO by Lianhe Equator	GB-1 Green Bond Rating from Shanghai Brilliance Credit Rating
Coupon	3.25%	5.5%	5%	4.6%
Credit rating	AAA (Shanghai Brilliance Credit Rating)	N.A	AAA (CCXI, Lianhe)	AAA (Shanghai Brilliance Credit Rating)
Market	Shanghai Stock Exchange	China Interbank (private placement)	China Interbank	Shanghai Stock Exchange

Table 4: Chinese securities firms top the domestic green bond underwriters league table



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