CGIF Credit Guarantee & Investment Facility

An Asian Bond Markets Initiative

CORPORATE BOND MARKET REPORT

THE PEOPLE'S REPUBLIC OF CHINA

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Abbreviations

ABS	asset-backed securities
ADB	Asian Development Bank
ASEAN	Association of Southeast Asian Nations
ASEAN+3	Association of Southeast Asian Nations countries and the People's Republic of China, Japan, and Republic of Korea
AUM	assets under management
CCDC	China Central Depository and Clearing
CCX	China Chengxin Credit Rating Group
CCXAP	China Chengxin (Asia Pacific) Credit Ratings Company Limited
CCXI	China Chengxin International Credit Rating Company Limited
CCXR	China Chengxin Securities Rating Co. Ltd
CGB	China government bond
CGIF	Credit Guarantee and Investment Facility
CIBM	China Inter-bank Bond Market
CRA	credit rating agency
EBM	Exchange Bond Market
FCY	foreign currency
FTZ	free trade zone
GDP	gross domestic product
ICMA	International Capital Markets Association
LCY	local currency
LGFV	local government financing vehicle
NCD	negotiable certificate of deposit
OTC	over-the-counter
PBOC	People's Bank of China
PRC	People's Republic of China
SOE	state-owned enterprise
SRO	Self-regulatory Organization
YTM	yield to maturity

Currencies

CNH	offshore Chinese renminbi
CNY	Chinese yuan
HKD	Hong Kong dollar
JPY	Japanese yen
KRW	Korean won
SGD	Singaporean dollar
USD	US dollar

Disclaimer

This paper is an extension of the research initiatives under the Finance Department of CGIF: from covering the corporate bond markets of ASEAN to including the key partner countries, such as the People's Republic of China, Japan, and the Republic of Korea. Led by Dong Woo Rhee, Chief Financial Officer, with assistance from Soleil Corpuz, Research Analyst, this research effort aims to show the characteristics of corporate bond markets in ASEAN+3. For any questions or comments on the contents of this report, please contact research@cgif-abmi.org.

Executive Summary

1. Overview of the Corporate Bond Market of the People's Republic of China

- Contributing to the bond market development in ASEAN+3, the bond market of the People's Republic of China (PRC) is further classified into four: the Exchange Bond Market, the China Inter-bank Bond Market, the counter market of commercial banks, and the Free Trade Zone bond market. Of these four, the more relevant venues for corporate bond issuances are the Exchange Bond Market (EBM) and the China Inter-bank Bond Market (CIBM).
- The PRC has a modest corporate bond market size, which is equivalent to 36% of its gross domestic product and 63% of its market capitalization as of end of 2022. Chinese corporate entities are also seen to be generally open to the bond market compared with those from other countries in ASEAN+3. The size of the corporate bond market of the PRC is about 32% of its corporate loan market.

2. Specific Characteristics of the Corporate Bond Market of the PRC

- The PRC's corporate bond market profile is very short term. About 52% of the outstanding CNY corporate bonds have maturities of up to 3 years, which is the highest in ASEAN+3. This is because of the dominance of negotiable certificate of deposits, commercial papers, and super-short commercial papers, which have maturities of up to one year.
- Compared with other countries in ASEAN+3, the PRC has many puttable bonds, wherein investors have the right to force the issuer for early redemption of the bond. It is important to note that the put option in the corporate bond market of PRC is different from those of other markets. This is because Chinese issuers can adjust the coupon rate for the remaining maturity of the bond even before the exercise date of the put option.
- Similar to other markets, rated corporate bonds in the PRC are mostly investment grade. The difference is that the AAA rating is very dominant, followed by the AA rating. This is due to the local context in which investors deem the AA rating as the minimum condition for corporates to tap the onshore corporate bond market.

3. Investors

- Due to its size, the corporate bond market of the PRC has six investor groups. However, only the following three groups are considered as the key groups for corporate bonds: commercial banks, unincorporated products, and insurance companies.
- Commercial banks are active investors in the entire bond market of the PRC. Most of the bond holdings of commercial banks are government bonds. However, these banks still hold corporate bonds, such as commercial bank bonds, enterprise bonds, and credit asset-backed securities.
- Unincorporated products are the biggest investor group of corporate bonds. Unincorporated products are regarded as the products that are managed by banks, insurance companies, asset management companies, or securities companies. However, these products are owned by individuals or other institutions.
- Insurance companies tend to be conservative to the credit ratings and prefer long tenors for their corporate bond investments. Most of the bond investments of insurance companies are those issued by government or government-related entities. Only a small portion of their bond portfolio are bonds that are issued by commercial entities.

4. Other Market Participants

- The companies from the financial industry have been the largest issuer group of corporate bonds in the PRC. Other significant issuers are companies from industrials, consumer discretionary, and the utilities. One active issuer group is the local government financial vehicles, which are considered as a state-owned enterprise.
- ChinaBond Pricing Center Co., Ltd. serves as the bond pricing agency for the CIBM. Corporate bond yields for credit ratings of AAA to CC and for tenors of up to 30 years are available. For those rated BBB+ and higher, the yields for bonds with tenor of up to 30 years are available. Another private firm providing bond pricing services in the PRC is the China Securities Index Company.
- The PRC has eleven domestic credit rating agencies, and a number of these agencies have formed partnerships with international credit rating agencies. Some of these credit rating agencies specialize in the EBM or the CIBM, while others can serve both markets.

5. Pricing

- The implied requirement of investors for a minimum AA rating on bonds is seen in the credit spreads of outstanding rated corporate bonds. The yields of corporate bonds increase substantially from AA rating to A rating. This correlated with the perception of investors that bonds rated below AA are considered as high yield bonds.

6. Guaranteed Corporate Bonds

- The guaranteed corporate bonds in the PRC comprised 9% of its total corporate bond market. This ratio is considered moderate in the region. However, the PRC boasts of the largest guaranteed corporate bond market with the nominal size of its corporate bond market considered as the largest in ASEAN+3.
- The PRC has a number of municipal guarantors and national credit guarantors, which include China Bond Insurance Company, China National Investment and Guaranty Corporation, and China United SME Corporation.

7. Thematic Corporate Bonds

- The PRC is encouraging the issuance of thematic bonds. As of end of 2022, the ESG corporate LCY bond market of the country reached USD178.52 billion, wherein the leading product is a green bond.
- Chinese corporate entities are encouraged to issue transition bonds. The bonds serve as instruments in which the proceeds are intended to achieve a net zero emission among carbon-intensive industries. Since transition bonds are relatively new in the market, Chinese regulators are progressively publishing clarifications and guidelines on these bonds.

8. Cross Border Corporate Bonds

- Cross-border corporate bonds are welcome in the PRC. Specific cross-border corporate bonds, such as panda bonds and dim sum bonds, capitalize on the attractiveness of the CNY for issuers and investors that are eager to participate in the corporate bond market of the PRC. This provides an open and welcoming environment for domestic players to gain more experience in the corporate bond market of the PRC.
- Panda bonds – the CNY-denominated corporate bonds of foreign issuers – are mostly issued by corporates from Hong Kong, China. On the other hand, dim sum bonds – CNY-denominated bonds issued outside the PRC – are issued by both Chinese and foreign issuers. Dim sum bonds are relatively new products, with its first issuance in Hong Kong, China in 2007 by China Development Bank.

1 Overview of the Corporate Bond Market of the People's Republic of China

1.1 General Characteristics

The bond market of the People's Republic of China (PRC) has become a crucial market in ASEAN+3. Given its size, the bond market of the PRC is classified into the Exchange Bond Market (EBM), the China Inter-bank Bond Market (CIBM), the counter market of commercial banks, and the Free Trade Zone bond market.[1] Of these four markets, the EBM and CIBM are considered as the more relevant for corporate bonds.

The EBM, which is found in the Shanghai Stock Exchange and Shenzhen Stock Exchange, has six bond products: treasury bonds, local government bonds, policy financial bonds, enterprise bonds, short-term notes of securities companies, and corporate bonds. In 2018, about 69% of par value of bonds were listed at Shanghai Stock Exchange corporate bonds. On the other hand, CIBM has government bonds, government-backed bonds, financial bonds, enterprise bonds, Panda bonds, and asset-backed securities (ABS) and asset backed notes. Most of the securities in the CIBM are government bonds, commercial papers, and super-short commercial papers.[2]

The China Central Depository and Clearing (CCDC) reported that the development of corporate bond market of the PRC allowed for private placements, public offerings, and commercial bank counter issuance to happen. Among these three general issuance methods, the most common is the public offering method. Enterprise bonds and government-backed institutional bonds can be issued through auction, while enterprise credit bonds, credit ABS, and debt financing instruments of non-financial enterprises are often issued through book building. Financial bonds can be issued through auction or book building.

Over the past decade, the corporate bond market of the PRC implemented several reforms on the market environment, which in turn increased the corporate bond issuances of the country.

1.2 Corporate Bond Market Size

Table 1.1 shows the sizes of corporate bond markets in ASEAN+3. Compared with the other countries in the region, the ratio of local currency (LCY) corporate bond market of the PRC to the GDP of 36% can be considered as modest. This ratio follows those of the Republic of Korea (ROK) and Malaysia. Relative to market capitalization, the LCY corporate bond market of the PRC is significantly sizeable with the resulting ratio of 63%. In fact, this ratio is the second highest in ASEAN+3, following that of Korea. This shows that the LCY corporate bond market of the PRC is growing and contributing highly to the economic and financial market development of the country.

[1] As reference, offshore bonds issued in the free trade zone areas are called 'pearl bonds'. The CCDC noted that pearl bonds emerged in 2016. Pearl bonds are considered as an innovation in the offshore bond market.

[2] The reader should be aware that the CIBM has both commercial papers and super short-term commercial papers. Commercial papers or short-term financing bills pertain to those notes issued by domestic corporate entities with maturities not exceeding one year. On the other hand, super short-term commercial papers refer to any debt financing instrument with maturities of 270 days issued in the CIBM. A qualified issuer of these super short-term commercial papers is an issuer that has a legal person status and a high credit rating in the CIBM. These types of bonds are also discussed in *The Inter-Bank Bond Market in the People's Republic of China: An ASEAN+3 Bond Market Guide* of the Asian Development Bank (ADB). https://www.adb.org/publications/asean3-inter-bank-bond-market-prc

Table 1.1: Corporate Bond Market, Market Capitalization, and Gross Domestic Product of ASEAN+3, 2022

Country	LCY Corporate Bond Market (A)	GDP (B)	Market Capitalization (C)	A/B (%)	A/C (%)
PRC	**6,338.1**	**17,542.79**	**10,138.33**	**36%**	**63%**
Japan	748.16	4,243.34	5,456.78	18%	14%
Korea	1,349.58	1,552.61	1,604.65	87%	84%
Cambodia	0.83	29.96	1.82	3%	46%
Indonesia	28.60	1,258.25	608.85	2%	5%
Malaysia	185.24	342.26	376.55	54%	49%
Philippines	28.77	395.21	231.03	7%	12%
Singapore	133.91	480.44	416.03	28%	32%
Thailand	128.71	501.87	586.19	26%	22%
Viet Nam	50.84	402.54	220.42	13%	23%

ASEAN+3 = Association of Southeast Asian Nations plus the People's Republic of China, Japan, and Republic of Korea, GDP = gross domestic product, LCY = local currency, PRC = The People's Republic of China.
Notes and Sources:
1. Values in USD billions.
2. Values for the LCY corporate bond market size and GDP as of December 2022 from Asian Bonds Online.
3. Values for the LCY corporate bond market of Viet Nam are from the Ministry of Finance Viet Nam.
4. Information on market capitalization as of end of December 2022 from Bloomberg.
5. Information on market capitalization of Cambodia from Cambodia Stock Exchange.

Table 1.2 reflects the relative sizes of corporate bond markets in ASEAN+3 compared with their respective government bond markets and corporate loan markets. The PRC maintains a sizeable LCY corporate bond market size, such that it is equivalent to 52% of its LCY government bond market. This indicates the openness of Chinese corporate entities to the bond market.

Table 1.2: Corporate Bond Market, Government Bond Market, and Corporate Loan Market of ASEAN+3, 2022

Country	LCY Corporate Bond Market (A)	LCY Government Bond Market (B)	Corporate Loan Market (C)	A/B (%)	A/C (%)
PRC	**6,338.1**	**12,122.45**	**19,838.07**	**52%**	**32%**
Japan	748.16	9,372.08	2,808.43	8%	27%
Korea	1,349.58	907.04	1,333.21	149%	101%
Cambodia	0.83	0.02	7.50	415%	11%
Indonesia	28.60	350.23	242.28	8%	12%
Malaysia	185.24	238.44	188.27	78%	98%
Philippines	28.77	163.53	183.80	18%	16%
Singapore	133.91	174.47	363.09	77%	37%
Thailand	128.71	253.37	381.69	51%	34%
Viet Nam	50.84	90.97	509.00	56%	10%

ASEAN+3 = Association of Southeast Asian Nations plus the People's Republic of China, Japan, and Republic of Korea, LCY = local currency, PRC = The People's Republic of China.
Notes and Sources:
1. Values are in USD billions.
2. For Indonesia, Malaysia, Philippines, Singapore, Thailand, and Viet Nam: Asian Bonds Online for corporate bond market size and government bond market size (as of December 2022); Corporate loan market size (as of December 2022) from the central bank of each country.

3. For Cambodia: Cambodia Stock Exchange.
4. Brunei Darussalam, Lao PDR, and Myanmar are excluded from the list since there are no outstanding LCY corporate bonds in these countries.
5. The exchange rates used are as of end of December 2022, reported by Bloomberg.

2 Specific Characteristics of the Corporate Bond Market of the PRC

This section compares the specific characteristics of the corporate bond market of the PRC with those of other countries in ASEAN+3 in terms of issue size, maturity distribution, maturity type, coupon type, payment rank, and credit ratings. Brunei Darussalam, Lao PDR, and Myanmar are excluded from all comparisons because there are no outstanding corporate bonds available in these countries. In addition, Cambodia and Viet Nam are excluded in the comparison of credit rating distribution because these countries do not have sufficient locally-rated-corporate bonds in their markets.

It is important to note that the corporate bond market of the PRC has a significant number of negotiable certificates of deposits (NCDs), which are securities issued by banks with short term maturity of less than one year. In addition, these NCDs have usually no coupons. As of end of 2022, NCDs already take up about 35% of the entire corporate fixed income market of the PRC in terms of the volume. Given that NCDs are included, the characteristics of the corporate bond market of the PRC are significantly influenced by short term and zero-coupon natures of the NCDs.

2.1 Issue Size

Table 2.1 shows the bond issuance sizes in ASEAN+3. Based on the table, the PRC has the highest average issuance size of USD188.54 million-equivalent and the highest maximum issuance size of USD9.4 billion-equivalent compared with other countries in the list.

Table 2.1: Comparison of Average Issue Sizes of Corporate Bonds in ASEAN+3, 2022
(USD million)

Country	Average	Minimum	Maximum
PRC	**188.54**	**0.58**	**9,422.50**
Japan	135.74	0.23	4,194.63
Korea	49.48	< 0.01	1,019.42
Cambodia	12.00	1.48	19.44
Indonesia	30.33	< 0.01	543.07
Malaysia	47.29	< 0.01	3,257.49
Philippines	122.66	1.79	945.44
Singapore	183.12	0.07	4,626.20
Thailand	62.67	0.14	866.85
Viet Nam	45.62	0.05	169.25

ASEAN+3 = Association of Southeast Asian Nations plus the People's Republic of China, Japan, and Republic of Korea, PRC = The People's Republic of China, USD = US dollar
Note: Exchange rates to USD1: CNY6.90, JPY131.12, KRW1,260.30, KHR 4,114, IDR15,573, MYR4.40, PHP55.74, SGD1.34, THB34.61, and VND23,633.
Sources: Bloomberg; Author's calculations.

2.2 Maturity Distribution

Table 2.2 shows the maturity distribution in ASEAN+3. Short term corporate bonds dominate the LCY corporate bond market of the PRC, with bonds having maturities of up to 5 years capturing 72.62% share. Specifically, 3 years and 5 years are the key tenors among the outstanding corporate bonds in in the PRC.

Table 2.2: Comparison of Maturity Distribution of Corporate Bonds in ASEAN+3, 2022

	Up to 3 years	> 3 to 5 years	> 5 to 10 years	Over 10 years	Perpetual
PRC	**52.08%**	**20.54%**	**15.26%**	**2.55%**	**9.57%**
Japan	7.18%	23.49%	34.730%	29.28%	5.32%
Korea	50.13%	24.72%	16.06%	5.68%	3.40%
Cambodia	11.58%	62.31%	26.11%	-	-
Indonesia	41.37%	29.39%	25.96%	4.29%	-
Malaysia	8.43%	10.97%	39.31%	37.45%	3.85%
Philippines	22.10%	19.04%	54.38%	4.49%	-
Singapore	2.31%	17.19%	42.51%	15.05%	22.94%
Thailand	26.35%	27.45%	34.26%	9.69%	2.25%
Viet Nam	28.44%	24.39%	44.82%	2.34%	-

ASEAN+3 = Association of Southeast Asian Nations plus the People's Republic of China, Japan, and Republic of Korea, PRC = The People's Republic of China
Notes:
1. Data refers to original maturity.
2. Rows may not total 100% because of rounding.
Sources: Bloomberg; Author's calculations.

The maturity distribution of bonds by industry strengthens the perception of a short-term profile of the corporate bond market of the PRC. Preference for up to 3-year bonds is observed not only from the financial sector but also from the utilities sector, whose bonds are generally long in many other countries (Table 2.3).

Table 2.3: Maturity Distribution of CNY Corporate Bonds by Industry, 2022

Industry	Up to 3 years	> 3 to 5 Years	> 5 to 10 Years	> 10 Years	Perpetual
Financial	63.59%	11.99%	13.64%	1.47%	9.31%
Industrial	33.51%	39.58%	17.41%	1.28%	8.22%
Cons. Disc.	22.73%	30.10%	28.30%	16.23%	2.65%
Utilities	41.61%	24.83%	9.72%	3.05%	20.80%
Others	40.75%	30.89%	14.51%	1.81%	14.37%
Total	**52.08%**	**20.54%**	**15.26%**	**2.55%**	**9.57%**

CNY = Chinese yuan, Cons. Disc. = Consumer Discretionary.
Note: Rows may not total 100% because of rounding.
Sources: Bloomberg; Author's calculations.

2.3 Maturity Type

While Table 2.4 shows the dominance of straight (bullet) corporate bonds in terms of their maturity type, some countries have other maturity types that are notable in their respective corporate bond markets. Within ASEAN, the Philippines and Singapore have a significant number of callable bonds. The PRC has relatively diverse maturity type in its corporate bond market, with bullet maturity bonds taking up 63.65% of the market, followed by callable bonds at 15.67% and puttable bonds at 14.83%.

Table 2.4: Comparison of Maturity Type of Corporate Bonds in ASEAN+3, 2022

	Straight	Callable	Convertible	Sinkable	Puttable	Others
PRC	**63.65%**	**15.67%**	**1.69%**	**2.70%**	**14.83%**	**1.46%**
Japan	78.12%	13.29%	1.30%	0.49%	-	6.8%
Korea	90.15%	3.25%	0.42%	0.21%	0.21%	5.76%
Cambodia	100.00%	-	-	-	-	-
Indonesia	96.91%	0.43%	2.48%	0.17%	-	-
Malaysia	84.91%	13.05%	0.64%	0.26%	-	1.14%
Philippines	36.81%	60.40%	-	-	-	2.79%
Singapore	59.87%	29.61%	1.66%	0.28%	-	8.58%
Thailand	83.17%	15.20%	0.09%	0.31%	1.06%	0.17%
Viet Nam	92.42%	6.36%	0.20%	1.02%	-	-

ASEAN+3 = Association of Southeast Asian Nations plus the People's Republic of China, Japan, and Republic of Korea, PRC = The People's Republic of China
Notes:
1. Rows may not total 100% because of rounding.
2. For Japan, Korea, Malaysia, Singapore, and Thailand, perpetual callable bonds are included in the callable category.
3. "Others" means maturity types with two features, such as callable/sinkable and callable/puttable.
Sources: Bloomberg; Author's calculations.

Puttable bonds are types of bonds providing investors the right, but not the obligation, to force the issuer to redeem the bond before its maturity date. The put option in the corporate bond market of the PRC is different from the ordinary form of put options that are adopted in other bond markets. In the PRC, it is common for issuers to have rights to adjust the coupon rate of the remaining maturity before the exercise date of the put option. Investors can make their decision on whether to exercise the put options only after the decision on coupon adjustment by issuers. If issuers want the bonds to be redeemed earlier than the maturity date, they can adjust the coupon rates to lower than that of the current market levels. Most of the issuers of puttable bonds in the PRC are real estate or property developers.[3]

Table 2.5 shows the maturity types of LCY corporate bonds in the PRC per sector. The financial and utilities industries have high ratios of callable bonds, while the industrial and remaining industries have sizeable ratios of puttable bonds.

[3] Reuters. 2018. *Investors put back Chinese property bonds on refinancing fears.* https://www.reuters.com/article/china-property-bonds-idUKL3N1PD4MR.

Table 2.5: Ratio of CNY Corporate Bonds by Industry and Maturity Type, 2022

Industry	Straight	Callable	Convertible	Sinkable	Puttable	Others
Financial	68.88%	19.27%	1.08%	0.95%	8.89%	0.93%
Industrial	46.48%	8.26%	1.28%	9.59%	31.99%	2.39%
Cons. Disc.	77.40%	2.65%	2.11%	1.93%	13.54%	2.38%
Utilities	64.22%	20.83%	1.59%	0.88%	11.68%	0.80%
Others	51.65%	14.38%	7.67%	0.57%	21.45%	4.28%
Total	**63.65%**	**15.67%**	**1.69%**	**2.70%**	**14.83%**	**1.46%**

CNY = Chinese yuan, Cons. Disc. = Consumer Discretionary.
Notes:
1) Rows may not total 100% because of rounding.
2) Perpetual callable bonds are included in the callable segment.
Sources: Bloomberg; Author's calculations.

2.4 Coupon Type

Compared with other countries in ASEAN+3, the PRC has a smaller number of outstanding corporate bonds with fixed coupon types, with 46.02% of the corporate bond market of the country. Table 2.6 shows that this is the second lowest in ASEAN+3. Corporate bonds with variable coupons comprised 26.54% of the total outstanding corporate bonds in the country in 2022. Variable coupons observed in the PRC are similar to step coupons as these coupons are fixed for certain years from the start of the bond and adjusted to another rate thereafter. Zeco coupon bonds also occupy a significant portion of the corporate bond market of the PRC. These bonds are mostly from NCDs that are issued by banks with up to 1 year maturity.

Table 2.6: Comparison of Coupon Type of Corporate Bonds in ASEAN+3, 2022

Country	Fixed	Floating	Step	Variable	Zero	Others
PRC	**46.02%**	**0.07%**	**2.12%**	**26.54%**	**25.21%**	**0.04%**
Japan	77.97%	0.57%	0.04%	19.49%	1.93%	-
Korea	89.71%	8.60%	0.12%	0.49%	1.07%	-
Cambodia	59.65%	40.35%	-	-	-	-
Indonesia	99.04%	-	0.26%	0.08%	0.62%	-
Malaysia	81.76%	6.05%	1.26%	2.47%	7.81%	0.64%
Philippines	97.62%	-	0.46%	1.77%	0.15%	-
Singapore	65.77%	-	0.96%	25.36%	7.90%	-
Thailand	94.31%	0.10%	1.03%	2.41%	2.15%	-
Viet Nam	36.52%	63.48%	-	-	-	-

ASEAN+3 = Association of Southeast Asian Nations plus the People's Republic of China, Japan, and Republic of Korea, PRC = The People's Republic of China
Notes:
1. Rows may not total 100% because of rounding.
2. "Others" include flat trading (Malaysia).
Sources: Bloomberg; Author's calculations.

It is evident that the dominant coupon types across industries in the PRC are fixed, variable, and zero-coupon types. The consumer discretionary industry has the highest ratio of fixed coupon type compared with other industries, while the industrial for variable coupon bonds. Zero coupon is the most frequent coupon type in the financial industry. However, zero coupon is extremely rare in other industries.

Table 2.7: Ratio of CNY Corporate Bonds by Industry and Coupon Type, 2022

Industry	Fixed	Floating	Step	Variable	Zero	Others
Financial	37.32%	0.11%	1.85%	19.42%	41.26%	0.03%
Industrial	53.74%	-	1.25%	44.98%	-	0.02%
Cons. Disc.	78.41%	0.03%	2.15%	19.41%	-	-
Utilities	65.95%	0.01%	0.58%	33.46%	-	-
Others	53.83%	-	7.83%	38.05%	0.05%	0.24%
Total	**46.02%**	**0.07%**	**2.12%**	**26.54%**	**25.21%**	**0.04%**

CNY = Chinese yuan, Cons. Disc. = Consumer Discretionary.
Note: Rows may not total 100% because of rounding.
Sources: Bloomberg; Author's calculations.

2.5 Payment Rank

Most of the bonds across ASEAN+3 are unsecured bonds. The PRC is no different, with unsecured bonds in occupying almost 87.76% of the LCY corporate bonds in the country. Secured bonds are rare in the PRC with only 0.35% of the LCY corporate bonds, which is the third lowest secured bond ratio, next to Cambodia and the Philippines.

Table 2.8: Comparison of Payment Rank of Corporate Bonds in ASEAN+3, 2022

Country	Secured	Unsecured	Subordinated
PRC	**0.35%**	**87.76%**	**11.89%**
Japan	18.41%	58.67%	22.93%
Korea	6.18%	83.91%	9.93%
Cambodia	-	100.00%	-
Indonesia	7.13%	88.78%	4.08%
Malaysia	26.41%	61.53%	12.06%
Philippines	-	96.38%	3.62%
Singapore	1.52%	71.37%	27.11%
Thailand	5.44%	88.13%	6.43%
Viet Nam	12.04%	87.96%	-

ASEAN+3 = Association of Southeast Asian Nations plus the People's Republic of China, Japan, and Republic of Korea, PRC = The People's Republic of China
Notes:
1. Rows may not total 100% because of rounding.
2. Secured bonds include first, second, and third liens.
Sources: Bloomberg; Author's calculations.

About 19.43% of the bonds that are issued by companies in the financial industry are subordinated bonds. This is unlike other industries in the PRC where subordinated bonds are rare. In other industries, unsecured bonds are dominant.

Table 2.9: Ratio of CNY Corporate Bonds by Industry and Payment Rank, 2022

Industry	Secured	Unsecured	Subordinated
Financial	0.20%	80.37%	19.43%
Industrial	0.62%	99.31%	0.07%
Cons. Disc.	0.17%	99.83%	-
Utilities	1.28%	98.72%	-
Others	0.48%	99.52%	-
Total	**0.35%**	**87.76%**	**11.89%**

CNY = Chinese yuan, Cons. Disc. = Consumer Discretionary.
Note: Figures may not total 100% because of rounding.
Sources: Bloomberg; Author's calculations.

2.6 Credit Ratings

Table 2.10 shows the credit rating distribution of outstanding corporate bonds in ASEAN+3. AAA-rated bonds at 88.95% have the dominant share of the rated corporate bonds in the PRC. The corporate bonds that are rated AAA or AA occupy more than 99% of the total rated corporate bonds. Given the market practice in the country, an AA rating serves as the minimum condition for corporates to tap the onshore primary corporate bond market of the PRC.[4]

Table 2.10: Comparison of Credit Ratings of Outstanding Corporate Bonds in ASEAN+3, 2022

Country	AAA	AA	A	BBB	Below BBB
PRC	**88.95%**	**10.32%**	**0.19%**	**0.01%**	**0.52%**
Korea	35.68%	56.08%	7.18%	0.70%	0.17%
Japan	1.75%	32.57%	61.24%	4.44%	-
Indonesia	43.13%	21.54%	31.11%	3.75%	0.46%
Malaysia	52.01%	39.22%	8.18%	0.27%	0.32%
Philippines	91.80%	7.25%	0.88%	-	-
Singapore	36.43%	8.55%	24.53%	30.49%	-
Thailand	5.63%	15.16%	57.64%	21.00%	0.32%

ASEAN+3 = Association of Southeast Asian Nations plus the People's Republic of China, Japan, and Republic of Korea, PRC = The People's Republic of China
Notes:
1. Credit rating distributions are based on the updated credit ratings of bonds as of end of 2022 instead of the issuance ratings.
2. Bonds whose credit ratings are not available or withdrawn are excluded in calculating the percentages.
3. The following domestic credit rating agencies are used for each market: PEFINDO for Indonesia, RAM for Malaysia, PhilRatings for the Philippines, Moody's for Singapore, TRIS Rating for Thailand, China Chengxin Credit Ratings Company for the PRC, Rating & Investment Information Inc. (R&I) for Japan, and Korea Ratings Corporation for South Korea. The table reflects the equivalent rating scales of each domestic credit rating agency. Short term ratings are excluded from the computation of the distribution of credit ratings.
4. Cambodia and Viet Nam are excluded due to lack of rated corporate bonds in each of the markets.
Sources: Bloomberg; Author's calculations.

[4] It is important to note that the credit ratings reflected in Table 2.10 are not the initial credit ratings. These are the credit ratings as of end of 2022. Thus, it can be said that these bonds have been downgraded from their initial ratings.

The rated corporate bonds in the consumer discretionary industry are mostly rated as AAA. On the other hand, the industrial sector has a significant amount of bonds that are rated as AA compared with other industries in the PRC. It is important to note that relevant Chinese regulators have minimum credit rating thresholds for bond investments, which contributes to the competition of local credit rating agencies (CRAs) as issuers must secure a certain credit rating to sell bonds to particular investor groups.[5]

Table 2.11: Ratio of CNY Corporate Bonds by Industry and Credit Ratings, 2022

Industry	AAA	AA	A	BBB	Below BBB
Financial	90.40%	8.56%	0.26%	0.02%	1.06%
Industrial	70.38%	29.34%	0.28%	-	-
Cons. Disc.	95.42%	4.56%	0.01%	-	-
Utilities	93.25%	6.75%	-	-	-
Others	87.62%	11.24%	0.20%	-	0.93%
Total	**88.95%**	**10.32%**	**0.19%**	**0.01%**	**0.52%**

CNY = Chinese yuan, Cons. Disc. = Consumer Discretionary.
Notes:
1. Rows may not total 100% because of rounding.
2. Ratings refer to the latest credit ratings of China Chengxin Credit Ratings Company for each bond per sector.
Sources: Bloomberg; Author's calculations.

3 Investors

This section discusses the different investor groups that are participating in the corporate bond market of the PRC and the specific appetites of each investor group on corporate bond investments.

3.1 Investors Compositions

Table 3.1 shows the bond holdings by different investor groups for corporate bonds in the PRC, according to the type of bonds. As over-the-counter (OTC) and exchange markets are relatively small compared with the interbank bond market, investor groups ranking that are observed from the interbank bond market is expected to represent the total market in the PRC. Commercial banks hold CNY61.3 trillion worth of bonds in interbank bond market, which occupies 68% of the total bonds held by investors. Holding 18% of the bonds in the interbank bond market, unincorporated products are the second top investors despite its holdings are far behind the holdings of commercial banks. Unincorporated products include the following products of banks: wealth management products, securities investment funds, trust funds, and insurance product.[6]

[5] Fitch Ratings. 2019. *China Corporate Bond Market Blue Book.*
[6] ADB Asian Bonds Online. 2019. *Market Summaries People's Republic of China.*
https://asianbondsonline.adb.org/china/market_summary/cn_market_summary_201909.pdf

Table 3.1: Holder Structure of Bonds in Deposit with CCDC, 2022

(CNY billion)

Investor Group	CGB	Local gov't bond	Policy bank bond	Commercial bank bond	Enterprise bond	Credit ABS	Total
Commercial banks	15,867	28,950	12,098	2,145	503	1,764	61,327
Credit Cooperatives	276	168	647	32	5	-	1,128
Insurance companies	648	1,307	548	422	63	10	2,998
Securities companies	679	415	269	142	191	75	1,770
Unincorporated products	1,635	1,585	6,929	4,381	903	448	15,880
Overseas institutions	2,293	7	737	30	3	21	3,091
Others	2,171	1,243	193	133	9	75	3,824
Interbank bond market	**23,569**	**33,675**	**21,419**	**7,286**	**1,676**	**2,392**	**90,017**
OTC market	717	9	8	-	-	-	734
Exchange market	908	1,208	-	-	1,086	-	3,202
Total	**25,193**	**34,892**	**21,427**	**7,286**	**2,763**	**2,392**	**93,953**

ABS = asset-backed securities, CCDC = China Central Depository & Clearing, CGB = China government bond, CNY = Chinese yuan, gov't = government.

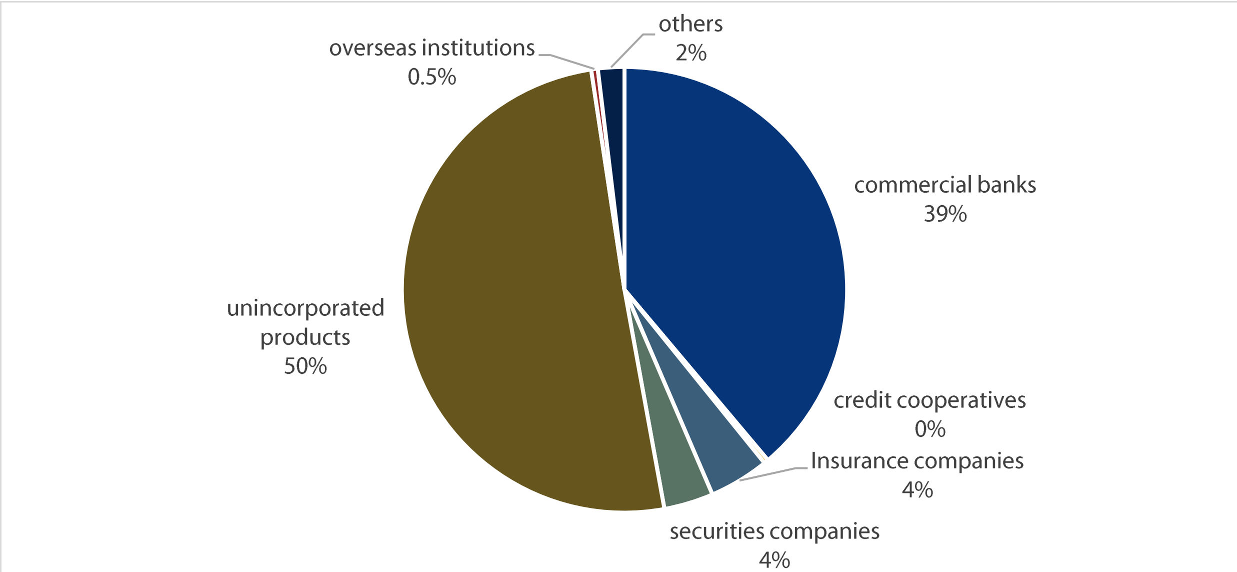
Source: China's Bond Market Overview 2022, CCDC Research[7].

From the six types of bonds in Table 3.1, the corporate bonds that are defined in this market research are composed of commercial bank bonds, enterprise bonds and credit ABSs.[8] Figure 3.1 shows the corporate bond holding ratio by investor group. Specific to corporate bonds, unincorporated products are the largest investor group, holding 50% of the total corporate bonds. Banks are the second largest with 39%. Meanwhile, corporate bond holdings by overseas institutions are negligible, holding only 0.5% of total corporate bonds in the market. Overseas institutions prefer to invest in China government bonds (CGBs) and policy bank bonds, with these two occupying 98% of the total bond holdings of these institutions in the PRC.

[7] CCDC list of research and working papers.
http://www.ccdc.com.cn/ccdc/en/business/c150475823/c150475895/c150476473/list.shtml

[8] ADB Asian Bonds Online noted that financial bonds, enterprise bonds, listed corporate bonds, commercial papers, medium-term notes, and asset-backed securities are the key categories the corporate bond market of the PRC. Please see one market summary report of the Asian Bonds Online for the bond market of the PRC (November 2022):
https://asianbondsonline.adb.org/china/market_summary/cn_market_summary_202211.pdf

Figure 3.1: Corporate Bond Holding Ratio by Investor Group in the PRC, 2022



PRC = The People's Republic of China.
Source: CCDC Research, 2022.

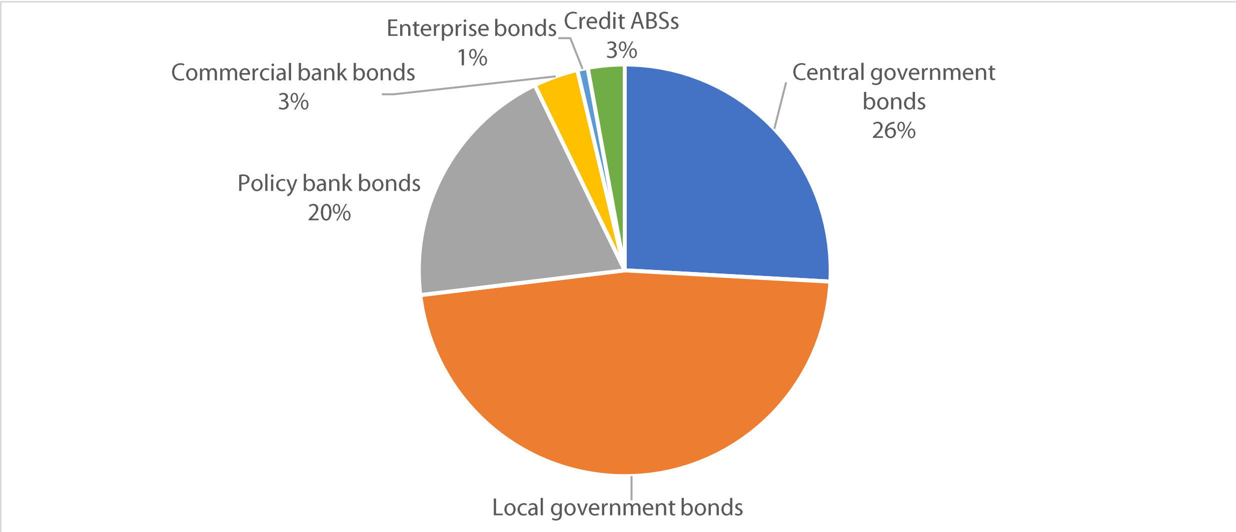
3.2 Investment Appetite for Corporate Bonds by Investor Group

This section discusses the investment appetites for corporate bonds among different domestic investor groups in the PRC, such as commercial banks, unincorporated products, insurance companies, and securities companies.

Commercial banks

Commercial banks held CNY61.3 trillion of the bonds at the end of 2022. This indicates that commercial banks form the largest investor group for bonds in the PRC. However, the holdings on corporate bonds of commercial banks, which are composed of commercial bank bonds, enterprise bonds, and credit ABS, are CNY4.4 trillion. This amount is only 7% of the total bond holdings of commercial banks (Figure 3.2).

Figure 3.2: Bond Holdings of Commercial Banks in the PRC



PRC = The People's Republic of China.
Source: CCDC Research, 2022.

Table 3.2 shows the investment preferences for corporate bonds among commercial banks in the PRC. Banks prefer bonds with shorter tenor (up to 5 years), which is in line with the original maturity distribution of corporate bonds in the country. However, there may be instances that corporate bonds with maturities of longer than 5 years can be considered. Generally, the minimum credit rating required by banks is A.

Table 3.2: Investment Preferences for Corporate Bonds of Select Commercial Banks in the PRC

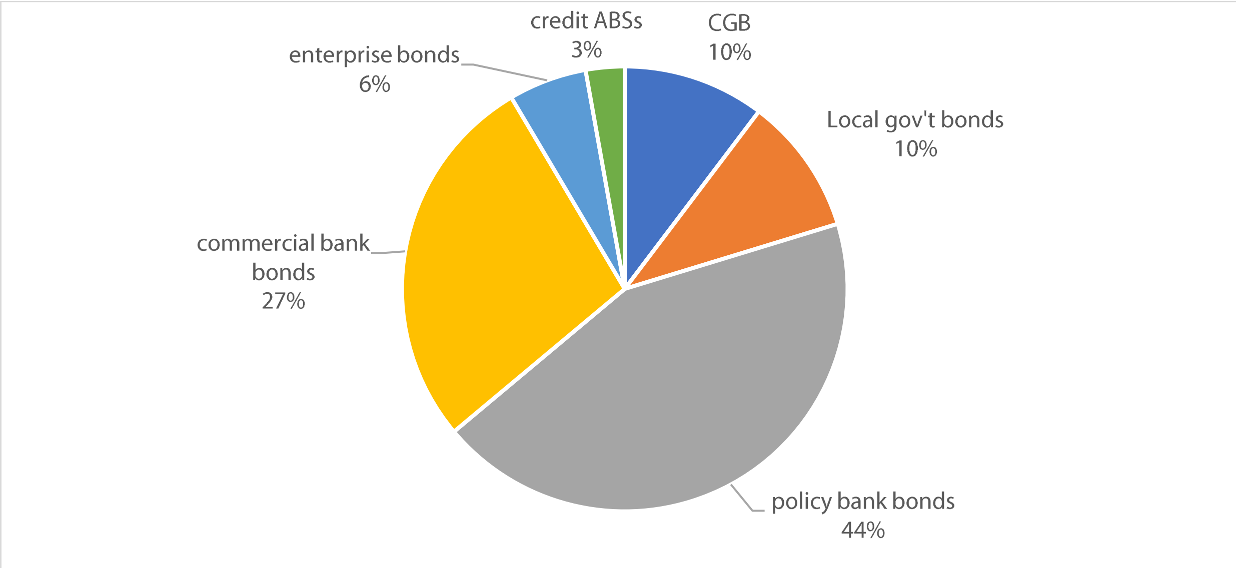
	Investment Preference
Tenor	Bonds with maturities of up to 5 years are preferred
Credit Rating	A as the minimum credit rating. In some cases, unrated bonds and bonds that are rated below A are considered.
Currency	Mostly CNY; USD and HKD for any foreign currency investments.

CNY = Chinese yuan, HKD = Hong Kong dollar, PRC = The People's Republic of China, USD = United States dollar.
Sources: Annual Report 2022 of Industrial and Commercial Bank of China (ICBC), Agricultural Bank of (ABC), China Construction Bank (CCB), and Bank of China (BoC); and market interviews in 2023.

Unincorporated products

Unincorporated products are collectively the biggest corporate bond investor group in the PRC, holding 50% of the total corporate bonds in the country. Unincorporated products are regarded as the products that are managed by banks, insurance companies, asset management companies, or securities companies. But instead of these institutions, their clients are the owners of these products. These include wealth management products, securities investment funds, trust funds, and insurance products of banks, as well as the funds that are managed by asset management companies. These products are mostly invested by individual investors, and to a lesser extent, by institutional investors. As a result, the investment appetite for unincorporated products mirrors that of individual investors, who have generally low-risk appetite in the PRC. As shown in Figure 3.3, bonds of government or government-related entities (i.e., CGBs, local government bonds, and policy bank bonds) occupy 64% of total bond holdings of unincorporated products, which are bigger than the sum of commercial bank bonds, enterprise bonds and credit ABS. This indicates a generally low-risk appetite of individual investors in the PRC.

Figure 3.3: Bond Holdings by Unincorporated Products in the PRC, 2022



ABS = asset-backed securities, CGB = China government bonds, gov't = government, PRC = The People's Republic of China.
Source: CCDC Research, 2022.

The CSRC reported that 133 fund management companies are operating in the country as of 2020.[9] From these companies, 44 fund management companies have foreign shareholders, which account for up to 70% of the shares of the companies. The foreign shareholders prefer to tap the domestic market in the PRC.

Table 3.4: Number of Fund Management Companies in the PRC, 2020

	Total Number of Companies	Purely Domestic Companies	With Foreign Shareholding	Range of Foreign Shareholding within a company
Fund Management Companies	133	89	44	8% - 70%

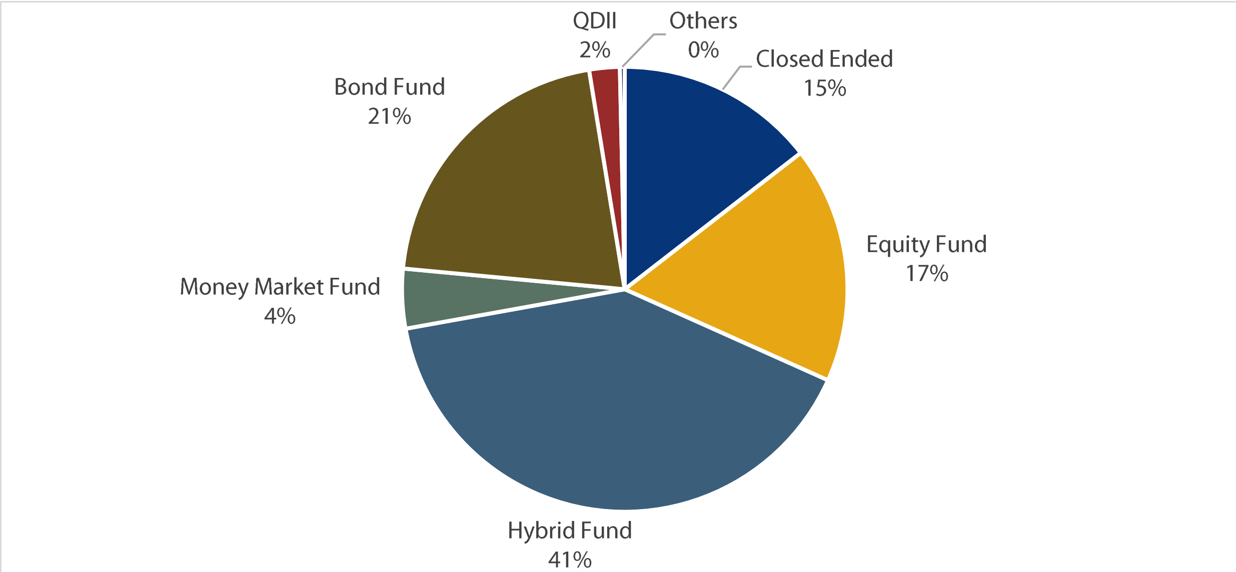
PRC = The People's Republic of China.
Source: CSRC Annual Report, 2020.

The funds from asset management companies represent the unincorporated products. The funds market in the PRC is composed of public funds and private funds segments. In 2020, the total assets under management (AUM) of these public funds reached CNY19.91 trillion and the total AUM of private funds reached CNY15.97 trillion.

Fund management companies operate these funds in the PRC. Figure 3.4 shows the ratio of public investment fund types based on the number of active funds as of 2020. Of the 7,940 public funds, 41% are hybrid funds. This is followed by bond funds with 21% share and equity fund with 17% share.

[9] CSRC. *2020 List of Fund Management Companies.* http://www.csrc.gov.cn/csrc_en/c102046/c1606008/1606008/files/List%20of%20Fund%20Management%20Companies%20(2020).pdf

Figure 3.4: Number of Public Funds in the PRC, by type, 2020

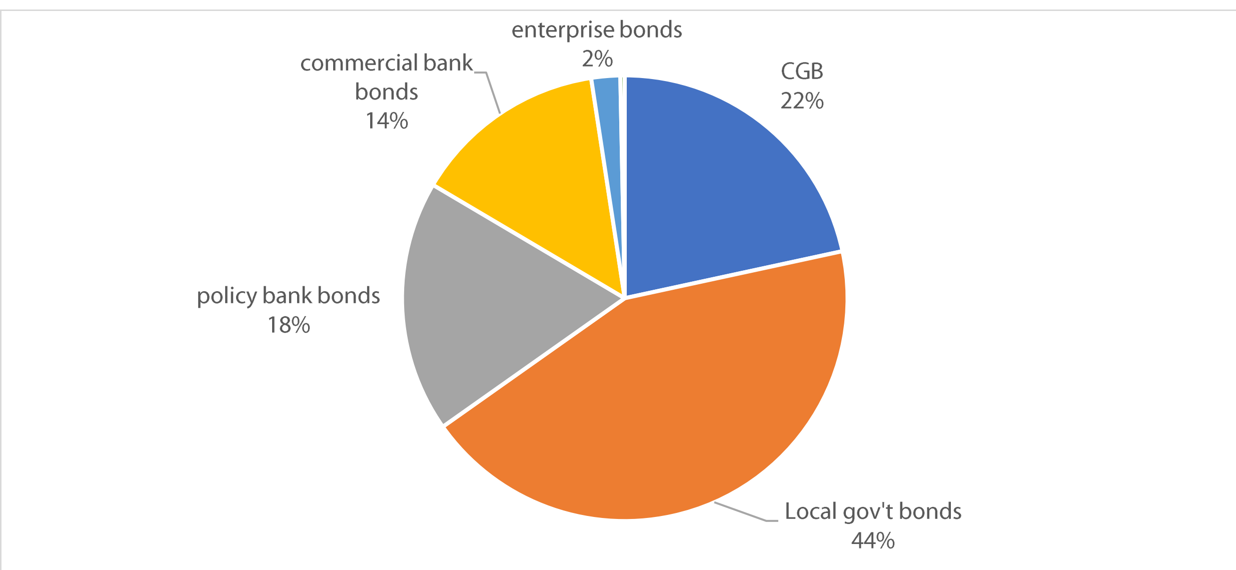


PRC = The People's Republic of China.
Source: CSRC Annual Report, 2020.

Insurance companies

Similar to the insurance companies in other countries, insurance companies in the PRC tend to be conservative on the credit ratings and prefer longer tenors for their corporate bond investments. Figure 3.5 shows that most of the bonds that are invested by insurance companies are the ones issued by government or government-related entities. Bonds of commercial entities occupy only a small portion of their bond portfolio. Enterprise bonds comprise a meagre share of their portfolio.

Figure 3.5: Bond Holdings by Insurance Companies in the PRC



CGB = China government bonds, gov't = government, PRC = The People's Republic of China.
Source: China's Bond Market Overview 2022, CCDC Research.

In terms of credit rating, insurance companies invest mostly in AAA rated bonds. There is little interest in investing in AA rated bonds. In terms of currency, the companies invest mostly in CNY-denominated bonds, and to a limited extent, in USD or HKD denominated bonds.

Table 3.4: Investment Preferences for Corporate Bonds of Select Insurance Companies in the PRC

	Investment Preference
Tenor	Longer than 5 years bonds
Credit Rating	AA and higher rated bonds
Currency	Mainly CNY. Among foreign currencies, USD and HKD are considered by most insurance companies.

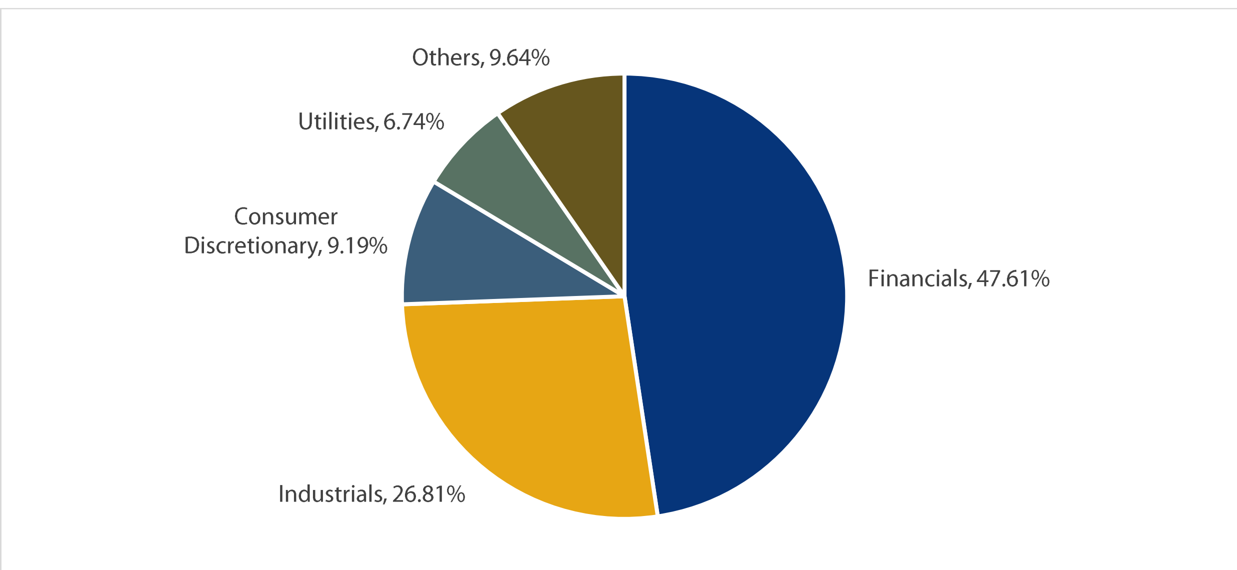
CNY = Chinese yuan, HKD = Hong Kong dollar, PRC = The People's Republic of China, USD = United States dollar.
Sources: Annual Report 2022 of Ping An Insurance, China Insurance, and China Pacific Insurance; and market interviews in 2023.

4 Other Market Participants

4.1 Issuers

The companies from the financial industry are the largest issuer group in the corporate bond market of the PRC, with about 47.61% of outstanding corporate bonds issued by them in 2022. This is followed by the industrial industry, contributing about 26.81% of the outstanding corporate bonds in the same year.

Figure 4.1: Distribution of Issuers in the PRC by Industry, 2022



PRC = The People's Republic of China.
Note: Values are based on issued amounts by issuer.
Sources: Bloomberg; Author's calculations.

The PRC has local government financing vehicles (LGFVs) that are active issuers of corporate bonds.[10] Since local governments in the PRC are not allowed to issue municipal bonds, LGFVs, which are considered as state-owned enterprises (SOEs), played a unique role in securing funding for local governments. An LGFV is in the form of an investment company that raises capital by securing bank loans or issuing corporate bonds and other securities to finance real estate development and other local infrastructure projects. In return, the local government transfers the rights on land use and other existing assets, such as highways or bridges, as collateral to the LGFVs for equity ownership.[11] LGFVs are still considered as corporate debt, but investors believe that the local governments are accountable for them.

LGFVs contributed to about 25% to 33% of the annual corporate bond issuances from 2014 to 2018, and dominate in the other segment of the corporate bond market of the PRC– the free trade zone (FTZ) bond market (or the "offshore bonds" since they are issued inside an FTZ). Over time, LGFVs became influential in the corporate bond market of the PRC. However, LGFVs face some notable risks ahead. Although no defaults are yet recorded, some local governments already faced difficulties in managing debt interest payments in 2023 because of the downturn in real estate sector of the PRC, which impeded income from land sales and increased public spending for Covid-19 response leading to the contraction of public funds.

4.2 Regulators

Due to the size of the corporate bond market of the PRC, regulators and relevant organizations are different from the EBM and the CIBM as presented in Table 4.1.

Table 4.1: Regulatory Bodies and Relevant Organizations in the Corporate Bond Market of the PRC

Role	Exchange Bond Market	China Interbank Bond Market
Main Regulator	China Securities Regulatory Commission (CSRC)	People's Bank of China (PBOC)
Self-regulatory Organization (SRO)	Securities Association of China (as general SRO)	National Association of Financial Market Institutional Investors (NAFMII)
Central Securities Depository	China Securities Depository and Clearing Co., Ltd.	China Central Depository & Clearing Co., Ltd. (CCDC or ChinaBond)

PRC = The People's Republic of China.
Note: For the exchange bond market, other SROs include the Shanghai Stock Exchange and Shenzhen Stock Exchange. For the China interbank bond market, other central securities depository is the Shanghai Clearing House.
Source: Asian Development Bank (ADB) Bond Market Guide for the People's Republic of China.

China Securities Regulatory Commission

The China Securities Regulatory Commission (CSRC) is the main regulator of the EBM. Established in 1992, the CSRC oversees the operations of the exchange market in the PRC. This role includes drafting of relevant laws and regulations for the securities markets, and supervising the activities in the exchange market, such as listing, trading, and settlement of domestic contract-based futures. The CSRC also monitors the overseas future businesses of the

[10] The LGFVs are established after the 2008 financial crisis when the Chinese government undertook a CNY4 trillion national stimulus plan. Bloomberg. 2023. *Why LGFV is a Growing Risk for China's Economy: QuickTake*. 4 July. https://news.bloomberglaw.com/capital-markets/why-lgfv-debt-is-a-growing-risk-for-chinas-economy-quicktake
[11] Deng, Yongheng. 2015. *Understanding the Risk of China's Local Government Debts and Its Linkage with the Property Markets.* https://www.imf.org/external/np/seminars/eng/2015/housingchina/pdf/Session%203_YDeng.pdf

domestic institutions in accordance with the relevant regulations. In addition, the CSRC is also tasked to promote the rights and interests of investors.

People's Bank of China

As the central bank of the PRC, the People's Bank of China (PBOC) is the main regulator of the CIBM. Tasked with the development of the interbank bond market, the PBOC regulates and supervises the CIBM and its members, as well as approves Panda bond issuances by non-resident financial institutions in the CIBM and domestic bond issuances by policy banks. The PBOC also appoints and supervises bond settlement agents and market makers. The open market operation of the PBOC is implemented using the infrastructure and best practices of the CIBM.

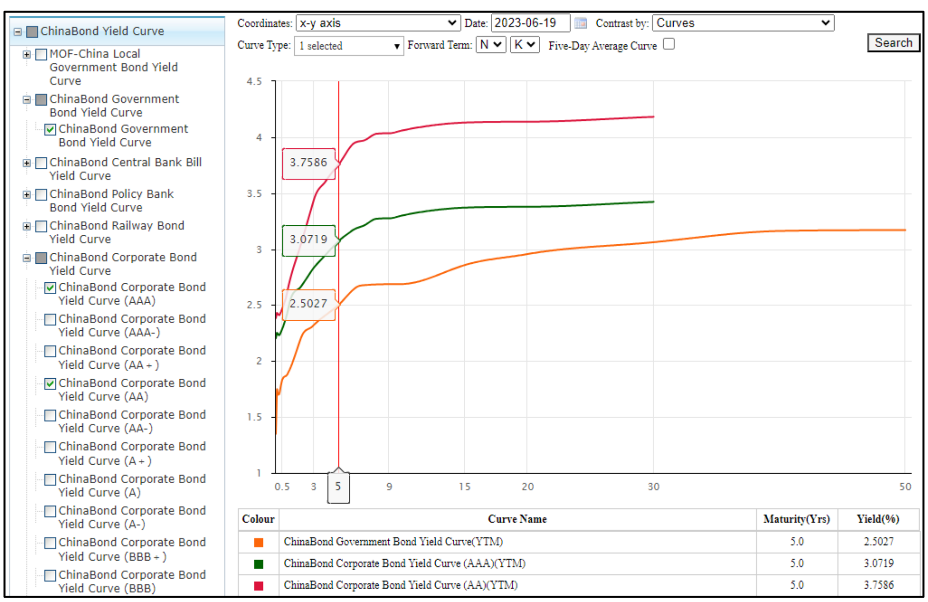
4.3 Bond Pricing Agency

A bond pricing agency provides fair values of the bonds and yield matrix, which shows the yields corresponding to specific sectors or credit ratings and tenors, among others. While these are the main functions or services of bond pricing agencies, other institutions may provide the same services if bond pricing is part of their functions.

A wholly owned subsidiary of CCDC, ChinaBond Pricing Center Co. Ltd. serves as the bond pricing agency for the CIBM. ChinaBond Pricing Center provides eight data categories, including ChinaBond yield curve, ChinaBond valuation, ChinaBond index, ChinaBond VaR, ChinaBond-implied market rating, ChinaBond statistics, ChinaBond SPPI, and ChinaBond Debt Management Tool, which fully reflect the price and risk level of the CNY bond market.

Figure 4.2 shows the ChinaBond yield curve data.[12] Corporate bond yields for credit ratings of AAA to CC, and for tenors of up to 30 years are available. For those rated BBB+ and higher, the yields for bonds with tenor of up to 30 years are available. On the other hand, for those rated lower than BBB+, only the yields of bonds with tenor of up to 5 years are provided. In addition to the corporate bond yields, the yields for commercial bank bonds, ABS, and bond across different credit ratings and tenors of other sectors are available.

Figure 4.2: Sample Corporate Bond Yield Curve from ChinaBond



Source: ChinaBond Pricing Center.

[12] ChinaBond Pricing Center website: http://yield.chinabond.com.cn.

China Securities Index Company, a Chinese financial research firm and index provider, also provides bond pricing among other services. The company was founded in August 2005 as a joint venture between Shanghai Stock Exchange and Shenzhen Stock Exchange. Figure 4.3 shows the yield curve data of China Securities Index Company.[13] The variety of information on corporate bond yields that are available from China Securities Index Company is as comprehensive as the information from ChinaBond.

Figure 4.3: Sample Corporate Bond Market Yield Curve from China Securities Index Company

Source: China Securities Index Company.

4.4 Credit Rating Agency

Table 4.2 shows the participation of each credit rating agency (CRA) in the bond market of China, as well as the partner international CRAs. As wide as its corporate bond market, the PRC has several domestic CRAs. It is important to note that given the size and the fragmented nature of the corporate bond market of the PRC, these domestic CRAs must secure approvals and licenses from the appropriate regulators of the CIBM and the EBM.

Table 4.2: Domestic Credit Rating Agencies in the PRC

Name of Credit Rating Agency	EBM	CIBM	Partner with	ACRAA
China Chengxin Securities Rating	No	Yes	Moody's	
China Chengxin International Credit Rating	Yes	No	Moody's	Yes
United Credit Ratings	No	Yes		
China Lianhe Credit Rating	Yes	No	Fitch	Yes
Dagong Global Credit Rating	Yes	Yes		
Shanghai Brilliance Credit Rating & Investors Service	Yes	Yes	S&P	Yes
CSCI Pengyuan Credit Rating	Yes	Yes		
China Bond Rating	Yes	No		
Fareast Credit Rating Co. Ltd.				Yes

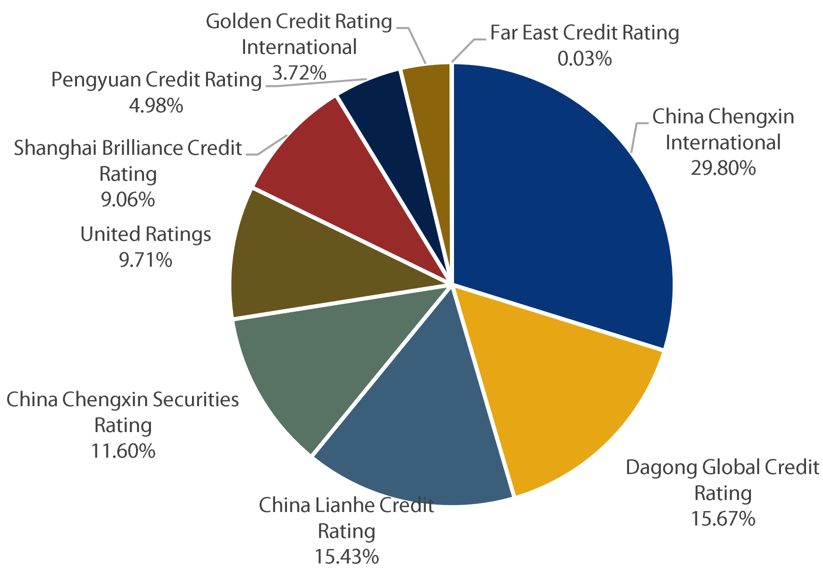
[13] China Securities Index website: http://csindex.com.cn.

S&P Global (China) Ratings	Yes	No		
Fitch (China) Bohua Credit Ratings Ltd.	Yes	No		

ACRAA = Association of Credit Rating Agencies in Asia, PRC = The People's Republic of China.
Sources: ADB Bond Market Guide for China; Company websites.

As shown in Figure 4.4, the top three domestic CRAs are China Chengxin International Credit Rating, Dagong Global Credit Rating, and China Lianhe Credit Rating, which collectively took 61% of the total outstanding rated corporate bonds in 2018.

Figure 4.4: Market Share of Local Credit Rating Agencies in the PRC, 2018



PRC = The People's Republic of China.
Source: Fitch Ratings. 2019. *China Corporate Bond Market Blue Book*.[14]

China Chengxin Credit Rating Group

China Chengxin Credit Rating Group (CCX) is the oldest credit rating agency in the PRC that has the biggest market share in domestic market for credit ratings. Being a pioneer in the credit rating industry in the country, CCX established a credible reputation over the years. CCX, through its group companies, provides services, such as credit ratings, research, and credit analysis for issuers and investors in the international debt market.

CCX has two companies that are active raters in the corporate bond market of PRC: the China Chengxin (Asia Pacific) Credit Ratings Company Limited (CCXAP) and the China Chengxin Securities Rating Co. Ltd (CCXR). CCXAP is wholly owned by China Chengxin International Credit Rating Company Limited (CCXI), which is a joint venture between Beijing Zhixiang Information Management Consulting Co., Ltd. and Moody's Investors Service. CCXAP, which was established in Hong Kong, China, became the first Chinese CRA from the PRC to operate in the international setting.[15] Meanwhile, CCXR provides credit rating services for the inter-bank market, the stock exchange market, and the international market of Hong Kong, China.

[14] The report can be accessed at https://www.fitchratings.com/research/corporate-finance/china-corporate-bond-market-blue-book-03-11-2019.
[15] The license was granted under the Hong Kong Companies Ordinance. CCXAP received the Type 10 License (Providing Credit Rating Services) from the Securities and Futures Commission of Hong Kong, China on 28 June 2012.

Dagong Global Credit Rating

Dagong Global Credit Rating is another domestic CRA in the country. It was established in 1994 under the approval of PBOC and the then State Economic and Trade Commission of China. Dagong Global Credit Ratings is a holding subsidiary of China Guoxin Holdings Co., Ltd., with headquarters in Beijing. According to the available information from its website, Dagong Global Credit Ratings has over 130 professional analysts that are trained for the securities market.

Throughout its operations, Dagong Global Credit Rating researched and formulated credit rating standards for the national and local governments, and industries, and rated more than 10,000 companies across more than 70 industries in the PRC and Hong Kong, China.[16]

The Lianhe Group (United Credit Rating Co., Ltd and China Lianhe Credit Rating Co. Ltd.)

Both United Credit Rating Co. Ltd. (United Ratings) and China Lianhe Credit Rating Co. Ltd. (China Lianhe Credit Rating) are related companies to the Lianhe Credit Information Service Co., Ltd. As another leading credit rating agency in the PRC, United Ratings, a wholly-owned subsidiary of Lianhe Credit Information Service, was incorporated in May 2002 with a registered capital of CNY30 million. Based in Beijing, United Ratings now has more than 150 professional credit analysts. in the country.

In May 2008, United Ratings was approved by the CSRC to provide credit rating services in the securities market. In October 2013, the China Insurance Regulatory Commission allowed insurance companies to invest in bonds that are rated by United Ratings.

With extensive experience on credit rating practices over the past 10 years, United Ratings is recognized by the National Development and Reform Commission and the PBOC. United Ratings can provide sovereign and issuer ratings, and issue ratings on the following products: corporate bonds, convertible bonds, government bonds, municipal bonds, exchangeable bonds, privately placed bonds, financial bonds, asset securitization, debt investment plans, trust products, and asset management plans. In addition, United Ratings provides risk assessment and advisory services for companies considering initial public offerings, corporate social responsibility, corporate governance, private equity fund risks, fund ratings, and credit risk management.

Meanwhile, China Lianhe Credit Rating also has extensive experience on credit rating services, having been able to rate issuers and bonds (both CNY- and CNH-denominated bonds). China Lianhe Credit Rating is 71.8% owned by Lianhe Credit Information Service Co., Ltd. and 24.2% owned by the Government of Singapore Investment Corporation. China Lianhe Credit Rating fully owns Lianhe Ratings Global Limited, which is in charge of the international credit rating services of the Lianhe Group. Since its establishment in 2000, China Lianhe Credit Rating obtained licenses, qualifications, and market recognitions to be able to engage in the onshore credit rating services in the CIBM and EBM.

Shanghai Brilliance Credit Rating & Investors Service Co. Ltd.

Founded in July 1992 and headquartered in Shanghai, Shanghai Brilliance Credit Rating & Investors Service Co. Ltd. provides credit ratings for bonds, asset securitization, and other structured financing in the PRC, Hong Kong, China, and other countries. The company also provides Panda bond rating services for overseas enterprises. It has a comprehensive cooperation agreement with S&P Global Ratings on credit rating concept and methodology.

[16] Dagong Global Credit Ratings Company Profile. https://www.dagongcredit.com/#/companyProfile/companyProfile

CSCI Pengyuan Credit Rating

Established in 1993, CSCI Pengyuan Credit Rating Limited (CSCI Pengyuan) is another established domestic CRA in the PRC. In 2016, China Securities Credit Investment invested in CSCI Pengyuan. CSCI Pengyuan is committed in providing investors with independent, objective, and fair corporate credit rating, bond and structured financing product rating, and corporate governance rating services. By the end of 2022, CSCI Pengyuan rated 27,000 businesses, wherein 4,000 of these business requested for bond rating services. It has also carried out corporate governance ratings to about 500 companies.[17]

5 Pricing and Credit Spreads

The yield to maturity (YTM) matrix is available from more than one institution in the PRC. Government bonds yields are available for maturities of up to 50 years. Yields reported by the China Securities Index Company are used in this section.

Table 5.1 presents the yield matrix of the PRC as of 15 June 2023. The yield matrix shows the yields corresponding to certain credit ratings and certain maturities at a certain date. The China Securities Index Company records government bond yields of tenors of up to 50 years and yields on AAA to C rated bonds of up to 30 years. Corporate bonds, commercial bank bonds and ABSs show different yields despite same credit ratings and all of them are available. Table 5.1 shows the yield matrix which is only a part of full yield matrix available from the China Securities Index Company for the CNY bond market.

Table 5.1: CNY Government Bond and Corporate Bond Yield Matrix, 15 June 2023

(%)

	1Y	3Y	5Y	7Y	10Y
Government	1.87	2.25	2.44	2.62	2.65
AAA	2.41	2.72	3.01	3.18	3.3
AA	2.62	3.35	3.69	3.98	4.1
A	9.32	10.11	10.42	10.67	10.81
BBB	16.46	17.25	17.56	17.81	17.95

CNY = Chinese yuan, Y = year.
Source: China Securities Index Company.

Table 5.2 shows the credit spread matrix based on the yield matrix of Table 5.1. Spreads in Table 5.2 are calculated as the difference between the yield of one credit rating and the yield of a government bond corresponding to the same maturity. For example, the spread for 3-year AA-rated bond is calculated as the difference between its yield (3.35%) and the 3-year government bond yield (2.25%).

[17] CSCI Pengyuan Credit Rating Co. Ltd Company Profile. https://www.cspengyuan.com/pengyuancmscn/about-us/introduction/profile.html.

Table 5.2: CNY Corporate Bond Credit Spread, 15 June 2023

(%)

	1Y	3Y	5Y	7Y	10Y
AAA	0.54	0.47	0.57	0.56	0.65
AA	0.75	1.10	1.25	1.36	1.45
A	7.45	7.86	7.98	8.05	8.16
BBB	14.59	15.00	15.12	15.19	15.30

CNY = Chinese yuan, Y = year.
Note: Figures refer to mid-yield-to-maturity (YTM) against corresponding benchmark CNY government bonds.
Sources: China Securities Index Company; Author's calculations.

Table 5.3 shows the differences of yields between corporate bonds and commercial bank bonds with the same credit ratings and tenors. Comparisons are conducted only for bonds that are rated A and above because A is the lowest rating available for commercial bank bonds from the data source.

Table 5.3: CNY Corporate Bond and Commercial Bank Bond Yields, 15 June 2023

(%)

	1Y	3Y	5Y	7Y	10Y
Corporate AAA	2.41	2.72	3.01	3.18	3.30
Bank AAA	2.30	2.63	2.77	2.89	3.02
Difference	+0.11	+0.09	+0.24	+0.29	+0.28
Corporate AA	2.62	3.35	3.69	3.98	4.10
Bank AA	2.48	2.83	3.02	3.12	3.26
Difference	+0.14	+0.52	+0.67	+0.86	+0.84
Corporate A	9.32	10.11	10.42	10.67	10.81
Bank A	3.32	4.08	4.26	4.41	4.51
Difference	+6.00	+6.03	+6.16	+6.26	+6.30

CNY = Chinese yuan, Y = year.
Note: Figures refer to mid-YTM against corresponding benchmark CNY government bonds.
Source: China Securities Index Company.

The following observations can be noted from the figures presented in the table.

- Yields of corporate bonds increase substantially from AA rating to A rating. Additional spread from AA to A for 3-year bond is 6.76%, which is larger compared with the additional spreads from AA to A of the same tenor of other countries. This is in line with S&P global report, which said that bonds with ratings of below AA in the PRC are already considered high yield bonds.[18]
- Yields of corporate bonds also increase substantially from A rating to BBB rating. Yield of BBB-rated corporate bonds with 3-year tenor is 17.25%. This is 7.14% higher than the yield of A-rated corporate bonds with the same tenor and 13.90% higher than the yield of AA-rated corporate bonds.
- Yields of commercial bank bonds are lower than yields of corporate bonds under the same credit rating and tenor. This observation is specific for A rating because yields of A-rated commercial bank bonds are lower than yields of A-rated corporate bonds by more than 6% throughout the tenors.
- According to market experts, there are a few corporate names with ratings of below AA. As a result, A- and BBB-rated curves are reflective of idiosyncratic risks.

[18] S&P Global. 2018. *It's Structural: How Puts and Perpetuals Are Adding to Default Risks in China.* https://www.spglobal.com/_assets/documents/ratings/2018-07-18-its-structural-how-puts-and-perpetuals-are-adding-to-default-risks-in-china-39385461.pdf.

6 Guaranteed Corporate Bonds

Guaranteed bonds occupy 9% of the total corporate bonds in the PRC. This ratio is considered moderate in ASEAN+3 (Table 6.1). However, the PRC boasts of the largest guaranteed corporate bond market because the nominal size is the largest in the region. Credit guarantees can play a crucial role in the corporate bond market of PRC because issuers with credit ratings of A or below face challenges in issuing bonds as Chinese investors prefer AAA- and AA-rated bonds.

Table 6.1: Overview of Local Currency Guaranteed Corporate Bonds in ASEAN+3, December 2022

Country	Currency	Value of Corporate Bonds (LCY billions) (A)	Value of Guaranteed Corporate Bonds (LCY billions) (B)	Ratio of Value of Guaranteed Bonds (B/A)
PRC	**CNY**	**42,744**	**3,856**	**9%**
Japan	JPY	96,683	2,121	2%
Korea	KRW	657,901	0	0%
Indonesia	IDR	446,798	7,534	2%
Malaysia	MYR	746	276	37%
Philippines	PHP	1,511	0.1	0%
Singapore	SGD	78	31	40%
Thailand	THB	4,075	253	6%
Viet Nam	VND	113,197	15,119	13%

ASEAN+3 = Association of Southeast Asian Nations plus the People's Republic of China, Japan, and Republic of Korea LCY = local currency; CNY = Chinese yuan; JPY = Japanese yen; KRW = Korean won; IDR = Indonesian rupiah; MYR = Malaysian ringgit; PHP = Philippine peso; PRC = The People's Republic of China, SGD = Singaporean dollar; THB = Thailand baht; VND = Vietnamese dong
Sources: Bloomberg; Authors' calculations.

6.1 Characteristics of CNY Guaranteed Corporate Bond Market

Table 6.2 shows that as of December 2022, about 85.9% of the guaranteed CNY corporate bonds have guarantees from corporates in terms of the issuance value. Guarantees from parent companies and subsidiaries occupy about 13.8%, while guarantees from banks occupy only 0.3%. This data shows that companies are the most active guarantor group in the PRC. A good number of SOEs or local government related entities specialize in providing guarantees for corporate bonds or other forms of funding in the PRC. These entities are classified under Company in Table 6.2.

Table 6.2: Guarantors of Corporate Bonds in the PRC

Guarantor Groups	Number of Guaranteed CNY Corporate Bonds	Share per Guarantor Type to Total Guaranteed CNY Corporate Bonds (in terms of value of bonds)
Bank	10	0.34%
Company	2,383	85.88%
Parent	597	13.72%
Subsidiaries	5	0.07%
Total	2,995	100%

CNY = Chinese yuan, PRC = The People's Republic of China.
Sources: Bloomberg; Author's calculations.

6.2 Local Guarantors

The 2,383 bonds that are guaranteed by companies are guaranteed by 476 different guarantors (Table 6.2). Table 6.3 shows the top 10 guarantors in terms of the number of the bonds guaranteed. Railway Construction Fund guarantees only the bonds that are issued by China State Railway group. On the other hand, guarantors with the names of Jiangsu, Chongqing, Hubei, Anhui, and Hunan provide guarantees for issuers that are located in specific Chinese provinces of the same name. China Bond Insurance Company Ltd., China National Investment & Guaranty Corporation, and China United SME Guarantee Corporation are the national guarantors. The following section describes the three national guarantors.

Table 6.3: Top 10 Corporate Bond Guarantors in the PRC

Corporate Guarantors	Number of the bonds guaranteed
Railway Construction Fund	184
Jiangsu Re-Guarantee Group Co. Ltd.	149
Chongqing Sanxia Financing Guarantee Group Corp.	144
Chongqing Xingnong Financing Guarantee Group Co. Ltd.	124
Hubei Financing Guarantee Group Co. Ltd.	87
China National Investment & Guaranty Corp.	86
China Bond Insurance Co. Ltd.	82
Anhui Credit Financing Guarantee Group Co. Ltd.	75
China United SME Guarantee Corp.	65
Hunan Investment and Financing Guarantee Group Co Ltd.	59

PRC = The People's Republic of China
Sources: Bloomberg; Author's calculations.

National Guarantors

Table 6.4 shows the number of guarantees that are provided to the same issuers in each of the three national guarantors of the PRC. It is rare that guarantees from any national guarantor are provided to the same issuer more than twice. Among the three national guarantors, most issuers availed of bond guarantees only once.[19] This implies that the national guarantors allocate their resources to as many beneficiaries as possible.

Table 6.4: Number of Guarantees of National Guarantors of the PRC to Same Issuers

Number of Guarantees to Same Issuers	Number of Issuers (Number of Issues)		
	China Bond Insurance Company	China National Investment and Guaranty Corporation	China United SME Corporation
1	54 (54)	57 (57)	57 (57)
2	14 (28)	13 (26)	4 (8)
3	0 (0)	1 (3)	0 (0)
Total	68 (82)	71 (86)	61 (65)

PRC = The People's Republic of China
Sources: Bloomberg; Author's calculations.

[19] The calculation of the frequency of availing guarantees is based on the outstanding guaranteed corporate bonds as of end of 2022. Any matured guaranteed bond is not included.

China Bond Insurance Company

China Bond Insurance Company is the first national credit enhancement institution for bonds in the PRC. In September 2009, under the guidance of PBOC, the company was jointly initiated and established by National Association of Financial Market Institutional Investors, China National Petroleum Corporation Limited, State Grid Yingda International Holdings Group, Sinochem Co., Beijing State-owned Capital Operation and Management Co., Shougang Group Co., and BOC Investment Asset Management Co. The company is registered and operates in Beijing with a registered capital of CNY9 billion. The main business scope includes enterprise credit enhancement services, the creation and trading of credit products, asset management, and investment consulting.[20]

China National Investment & Guaranty Corporation

Another important national and professional guarantor in the PRC is the China National Investment & Guaranty Corporation, which was established in 1993 under the approval of the State Council and the funding of the Ministry of Finance of the PRC and the then State Economic and Trade Commission. As of Q1 of 2023, China National Investment & Guaranty Corporation reported that it reached a total registered capital of CNY42.28 billion and total assets of CNY1,273 billion. The company is also recognized by distinguished local CRAs, such as China Chengxin and Lianhe Credit Rating, as an AAA-rated entity. The financial guarantees of China National Investment & Guaranty Corporation are intended for bonds, funds, interbank products, and ABS.[21]

China United SME Guarantee Corporation

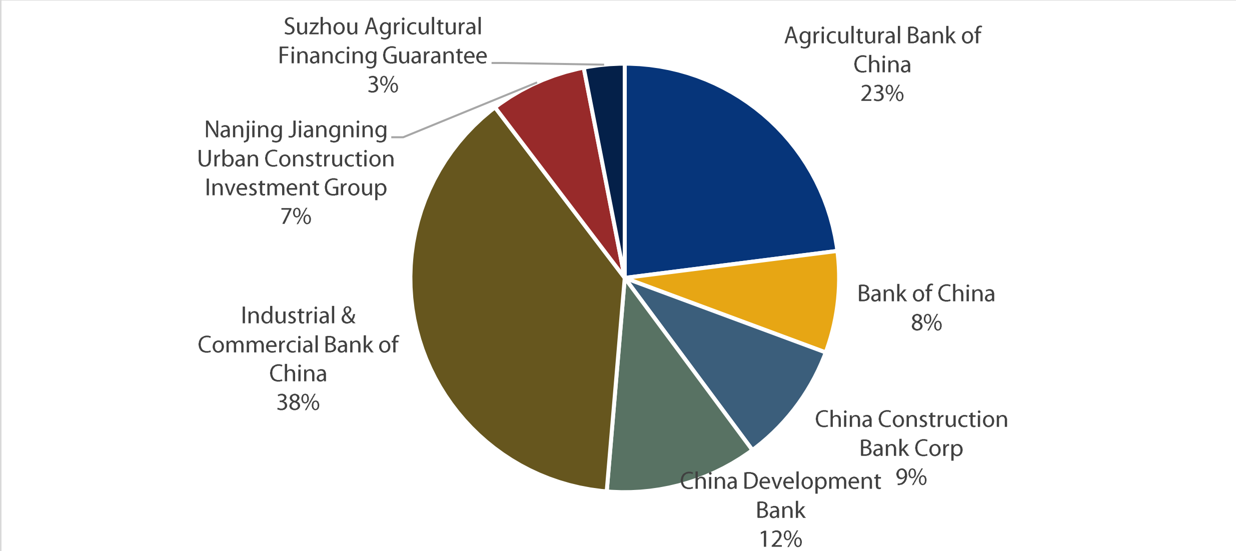
Established in 2012, China United SME Guarantee Corporation is a Sino-foreign joint venture financing guarantee institution, comprising of five Chinese stockholders (Export-Import Bank of China, HNA Capital Group Company, Baosteel Group Company, Haining Hongda Private Equity Management Co. Ltd., and Inner Mongolia Xintai Investment Company Limited) and two foreign stockholders (JPMorgan China Investment Co. Ltd. and Siemens Ltd. China). The principal business of China United SME Guarantee Corporation is credit guarantees for loans, bonds, trade finance, and project finance, and other financial instruments.[22]

Banks

There are seven banks that are disclosed to be guarantors of specific bonds, namely: Agricultural Bank of China, Bank of China, China Construction Bank Corp., China Development Bank, Industrial and Commercial Bank of China Ltd. (ICBC), Nanjing Jiangning Urban Construction Investment Group Co. Ltd., and Suzhou Agricultural Financing Guarantee Co. Ltd. Figure 6.1 shows the share of each bank in the guaranteed bonds within its group.

[20] China Bond Insurance Company. Company Profile. https://www.cbicl.com.cn/company/index.html
[21] China National Investment & Guaranty Corporation Company Profile. https://www.guaranty.com.cn/gtztb/gywm/A0501index_1.htm?tab=0
[22] Based on the company information disclosed in its audited financial statement in 2014. https://links.sgx.com/FileOpen/Project%20Sunnyday_E_OC%20(final)_Part2.ashx?App=Prospectus&FileID=27112 (accessed on 25 September 2023)

Figure 6.1: Share of Local Banks in the Bank-guaranteed Bonds in the PRC, 2022



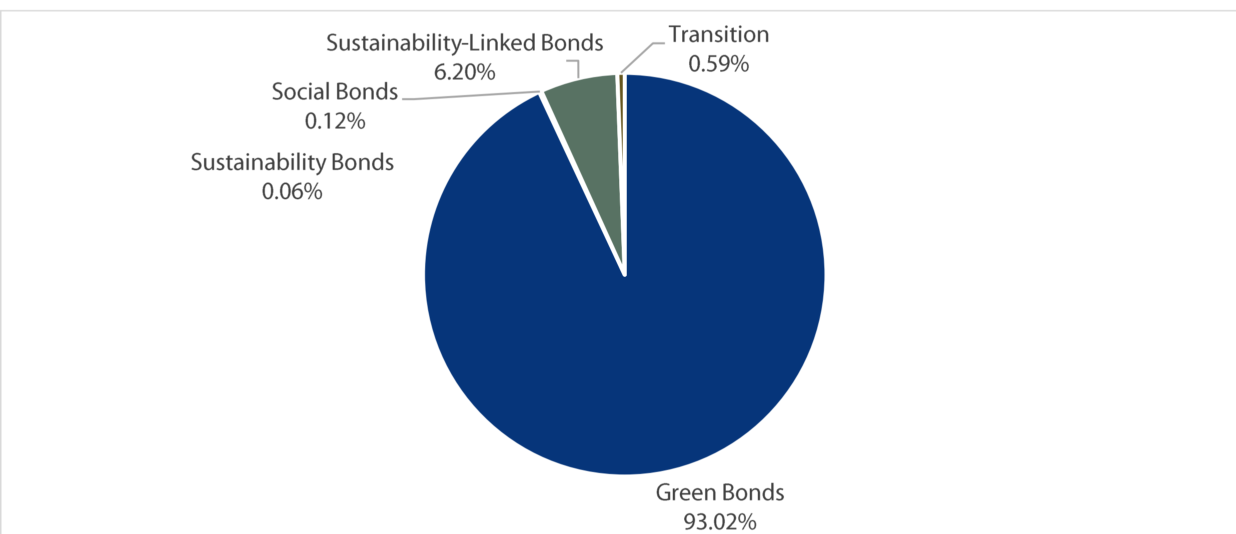
PRC = The People's Republic of China.
Sources: Bloomberg; Author's calculations.

It is interesting to note that bank-guaranteed bonds have tenors from 7 to 30 years. The 20-year bonds occupy 60% of the total bank guaranteed bonds and the 30-year bond occupies 23%. Meanwhile, the 7-year bonds occupy 9% and the 10-year bonds occupy 8%. This maturity distribution of bank guaranteed bonds is quite different from that of general corporate bonds in the PRC, in which 3-year and 5-year bonds are most common.

7 Thematic Corporate Bonds

The PRC encourages thematic bonds issuance. As of end of 2022, the thematic corporate LCY bond market of the PRC reached USD178.52 billion and is dominated by green bonds.

Figure 7.1: Thematic Corporate Bonds in the PRC, 2022



Source: Asian Bonds Online.

The PRC is noted to become a key player in transition bonds.[23] As the country is keen on meeting its carbon neutrality objectives, more Chinese issuers are exploring the possibility of issuing transition bonds, which are instruments where the use of proceeds (UOP) is intended to achieve a net zero emissions among carbon-intensive industries. From 2021, regulators started encouraging these transition bonds through publishing clarifications and guidelines on issuing transition bonds.

8 Cross-border Corporate Bonds

Table 8.1 shows the basic classification of cross border bonds: "inbound bonds" and "outbound bonds". The so-called "inbound bonds" correspond to the local currency bonds that are issued by foreign entities. The ratio of this type of bonds to the total local currency bonds shows how much foreign entities are participating in the local currency bond market. Local currency bonds that are settled in major currencies, such as USD, are excluded in the calculation of this ratio to understand the actual participation of foreign issuers because these bonds are neither issued nor traded in the local bond market. However, the bonds that are settled in major currencies are also included in Table 8.1 (column A), since some countries in ASEAN have notable sizes of such type of cross border bonds. For the PRC, the ratio of inbound corporate bonds is highly negligible compared with its LCY corporate bond.

Table 8.1: Cross-border Corporate Bonds in the PRC, 2022

Country	Ratio of LCY corporate bonds issued by foreign entities to total LCY corporate bonds		Ratio of offshore bonds issued by local entities to total bonds issued by local entities (Outbound Ratio) [C]
	Including bonds settled in major currencies [A]	Excluding bonds settled in major currencies (Inbound Ratio) [B]	
PRC	**1%**	**0%**	**3%**
Japan	17%	17%	36%
Korea	0.1%	0%	13%
Indonesia	28%	< 1%	70%
Malaysia	1%	1%	15%
Philippines	3%	0.3%	37%
Singapore	25%	25%	69%
Thailand	1%	1%	16%
Viet Nam	4%	0%	28%

LCY = local currency, PRC = The People's Republic of China.
Notes:
1. Offshore bonds include foreign currency bonds and offshore LCY bonds.
2. Major currencies include USD, EUR, and JPY.
Sources: Bloomberg; Author's calculations.

On the other hand, "outbound bonds" correspond to the foreign currency (FCY) bonds that are issued by local entities. The ratio of this type of bonds to the total bonds that are issued by local entities shows how much local entities rely on the offshore market for bond financing. As shown in Table 8.1, Chinese corporates have minimal

[23] Climate Bonds Initiative. *China Sustainable Debt State of the Market Report 2022*. https://www.climatebonds.net/files/reports/cbi_china_sotm_22_en.pdf.

participation in issuing FCY bonds, which may be because of the large domestic corporate bond market in the PRC.

The internationalization of the CNY also contributed to the lack of FCY-denominated bonds among Chinese corporate entities. In fact, cross border bonds, such as panda bonds and dim sum bonds, capitalize on the attractiveness of the CNY for both issuers and investors. These two types of bonds are further explained in the following sections.[24]

8.1 Panda Bonds

Panda bonds are defined as CNY-denominated corporate bonds of foreign issuers. So, they exactly mean the inbound bonds of the PRC in this research. In its 2017 survey report, the International Capital Markets Association (ICMA) stated six reasons why issuers consider Panda bonds as funding options. Table 8.2 provides the details for the six reasons.

Table 8.2: Reasons for Issuing Panda Corporate Bonds

Reasons for Panda Bond Issuance	Details
Funding Offshore Operations	Many foreign corporates have significant economic ties to the PRC, as a consumer market, operational hub, and/or manufacturing center. Raising CNY directly onshore can simplify the cash flow operations and reduce potential currency risk to match their CNY funding needs.
Secondary Liquidity	From ICMA's survey, secondary liquidity in the panda market is not a major concern, if issuers in the panda bond market expect that most investors will hold the bonds until maturity.
Global Funding	With favorable swap market conditions, it is possible for some issuers to consider panda bonds for more cost-efficient funding by issuing in CNY and swapping the funds back.
Investor Diversification	Investor diversification has been important principle among many issuers. With panda bonds, issuers can tap the large investor base of the corporate bond market of the PRC.
Market Considerations	The issuance of panda bonds provides mutual benefits for the foreign issuers and the domestic players in the PRC. Overall, trust between the two groups is expected to be formed. Domestic players can have better understanding of the operations of foreign companies, while foreign issuers may have sustainable and efficient operations in the country.
Market Innovation	Prior to 2017, some companies and even multilaterals have issued panda bonds to be the first movers in the market.

Source: International Capital Markets Association (ICMA) Group. 2017. *The Panda Bond Market and Perspective of Foreign Issuers.* icmagroup.org/assets/documents/About-ICMA/APAC/The Panda Bond Market and Perspectives of Foreign Issuers – English version – 251017.pdf.

Table 8.3 shows the distribution of outstanding panda bonds at the end of 2022 by issuer's country based on Bloomberg data. Hong Kong, China is the largest, occupying 32% of the total outstanding panda bonds, followed by Bermuda with 21%, and Cayman Islands with 14%. Upon checking the parent companies of the issuers from Bermuda and Cayman Islands, they are mostly companies from the PRC or Hong Kong, China. This implies that

[24] It should be noted that compared to other corporate bond market research papers conducted by CGIF, this report highlights the special cross border bonds from the PRC. As such, there are no discussions on "inbound bonds" and "outbound bonds", which are included in other corporate bond market research papers.

Chinese corporate entities, including Hong Kong, China, occupy 67% of the total outstanding panda bonds in terms of ultimate beneficiary owner (UBO).

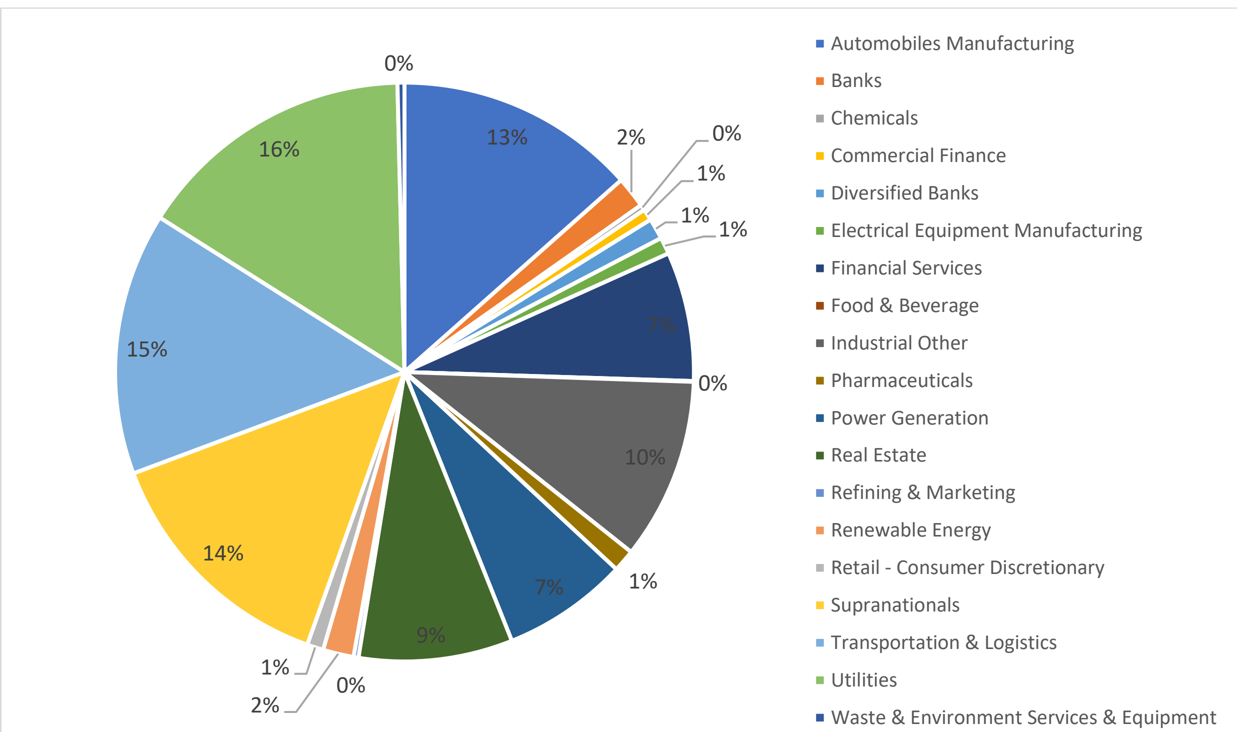
Table 8.3: Panda Bonds by Country of Incorporation of Issuer, 2022

Country	**Amount Issued** (CNY million)	**Weight** (%)
Bermuda	53,100	21
Cayman Islands	35,780	14
France	6,800	3
Hong Kong, China	82,420	32
Japan	1,000	0
Macau	3,500	1
Netherlands	34,500	13
Singapore	3,700	1
Supranational	35,500	14
Total	**256,300**	**100**

CNY = Chinese yuan
Sources: Bloomberg; Author's calculations.

Figure 8.1 shows the distribution of issuers by sector. Companies from the utility sector is the largest, occupying 16%; followed by the companies from Transportation & Logistics (15%), Supranational (14%) and Automobiles Manufacturing (13%). Unlike the overall CNY corporate bond market where more than 60% of the bonds are issued by financial entities, the panda bond market is well distributed in terms of the sector of the issuer.

Figure 8.1: Distribution of Issuers of Panda Corporate Bonds, by Sector, 2022



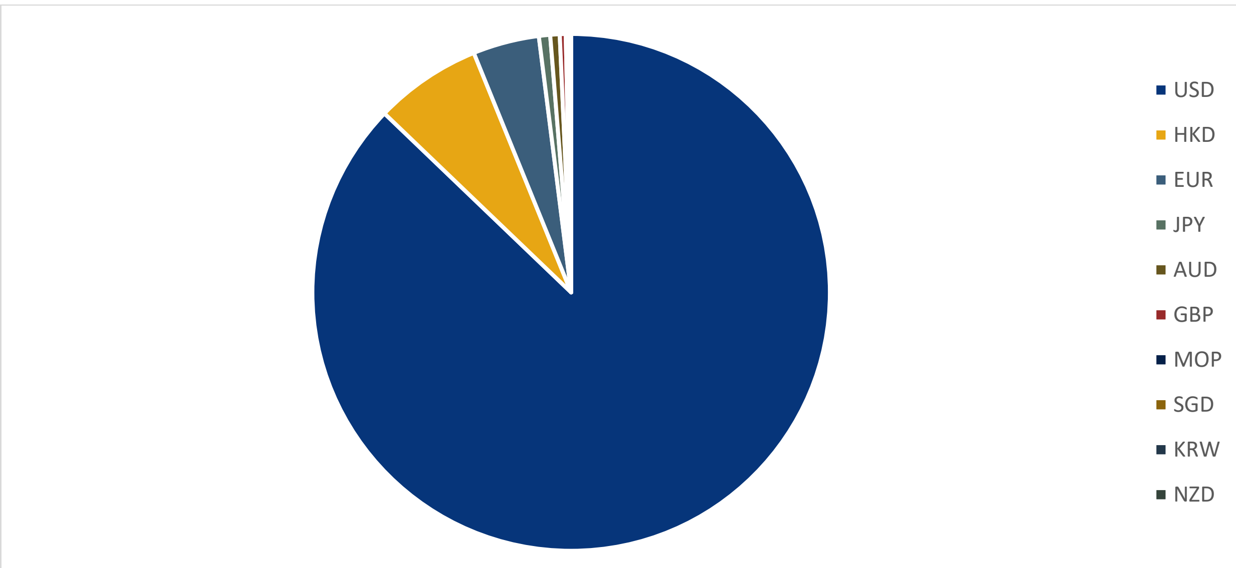
Sources: Bloomberg; Author's calculations.

8.2 Outbound Bonds

"Outbound bonds" are offshore bonds that are issued by domestic entities. Generally, offshore bonds refer to foreign currency bonds. However, offshore bonds from the perspective of Chinese issuers include offshore CNY bonds, dim sum bonds, which are defined as CNY bonds issued outside of the PRC. This section discusses only the foreign currency bonds that are issued by Chinese corporate entities, whereas the following section will cover dim sum bonds.

According to Bloomberg data, by end of 2022, there are 2,705 outstanding FCY corporate bonds that are issued by Chinese entities. Figure 8.2 shows the breakdown of these bonds by currency. USD occupies 87% of the total foreign currency issues, followed by HKD at 7%. Aside from JPY occupying 1%, the percentage of currencies from ASEAN+3 countries are negligible as there are only three SGD bonds and one KRW bond. Upon checking the issued bonds in JPY, SGD and KRW, all are issued by banks, except two JPY bonds, which are issued by CITIC group, a state-owned investment company in the PRC.

Figure 8.2: Distribution of Foreign Currency Bonds of Chinese Corporate Entities, 2022



AUD = Australian dollar, EUR = euro, GBP = British pound, HKD = Hong Kong dollar, JPY = Japanese yen, KRW = Korean won, MOP = Macanese pataca, NZD = New Zealand dollar, SGD = Singaporean dollar, USD = US dollar.
Sources: Bloomberg; Author’s calculations.

8.3 Dim Sum Bonds

Dim sum bonds are bonds issued outside of the PRC but denominated in CNY. They are also called offshore CNY bonds. The first dim sum bond was issued by China Development Bank in 2007 in Hong Kong, China. In 2009, the Ministry of Finance of the PRC started issuing dim sum bonds, which enabled the ministry to create a benchmark yield curve for the pricing of these offshore CNY-denominated bonds.

As dim sum bonds are issued by both Chinese and foreign entities and invested in by both Chinese and foreign investors, these bonds can be inbound bonds or outbound bonds based on the situations in Table 8.4.

Table 8.4: Classification of Dim Sum Bond Issuers

	Chinese issuers	Foreign issuers
Chinese investors		Inbound
Foreign investors	Outbound	

Source: Author's illustration.

From previous researches, the motivations for Chinese and foreign issuers and investors for dim sum bonds are describes in Table 8.5.[25]

Table 8.5: Motivation for Dim Sum Bonds

Chinese issuers	• External financing to support outward direct investment. • Since they can access both onshore and offshore markets, Chinese issuers can issue dim sum bonds when offshore funding is cheaper than onshore funding.
Foreign issuers	• To support business in the onshore market. • When CNY funding cost is cheaper than that of USD or other major currencies.
Chinese investors	• When offshore rates are more attractive than onshore rates. • Diversification of the bond holdings of these investors in terms of geography, credit risk, and other considerations.
Foreign investors	• Currency appreciation and yields. • Diversification of the investment portfolio of foreign investors.

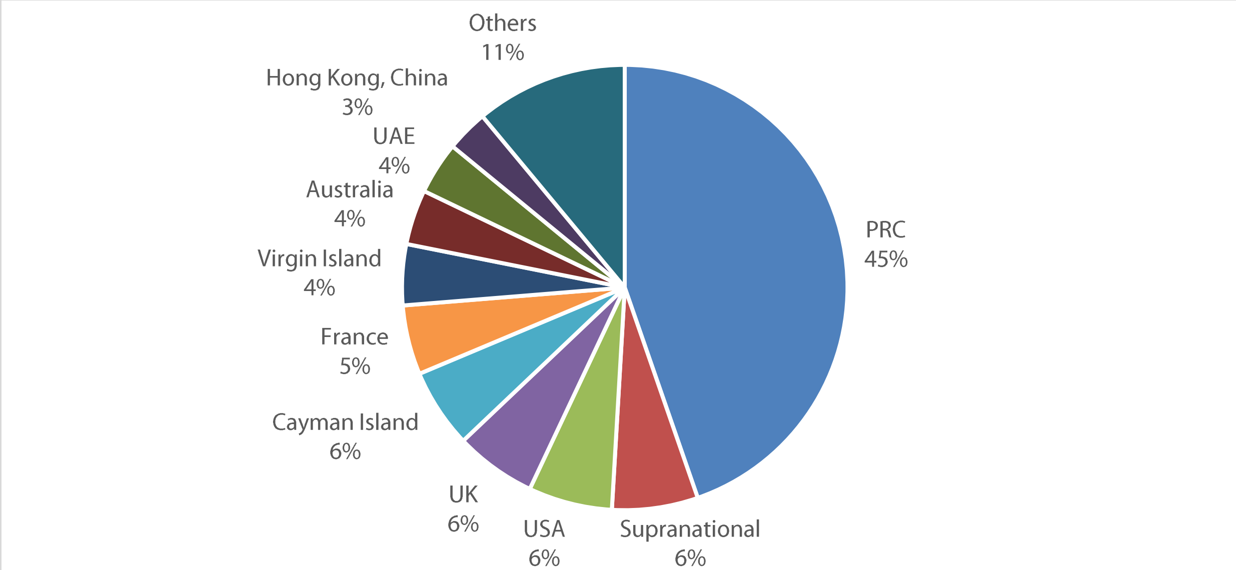
Source: Three papers from S&P Global Ratings. S&P Global Ratings. 2023. *China Default Review 2023 Where's the Next Wave?* 13 April. https://www.spglobal.com/_assets/documents/ratings/research/101575327.pdf

Based on the data from Bloomberg, the total outstanding dim sum bonds at the end of 2022 is USD97.35 billion. Figure 8.3 shows the key countries of dim sum bond issuers as of the end of 2022. Chinese entities occupy almost 45% of the total outstanding corporate dim sum bonds, followed by Supranationals, USA, UK, and Cayman Island. Although not major issuers in the dim sum bond market, there are corporates from ASEAN+3 that issued dim sum bonds.[26]

[25] For this information, the reader can refer to three publications as follows:
1. CCB International Securities. 2023. *The big picture: What's next for the Dim Sum bond market?* https://rfs.ccbintl.com.hk/RnfTRSc2L6In3qJidjJpY3Z9TfDOUoaezkdv2qoIdOH-XdJS9HWN643m5faVApS7aM_ZEJ6jVVH6m_Rx0.pdf.
2. IMF. 2019. *The Future of China's Bond Market* https://www.imf.org/en/Publications/Books/Issues/2019/03/05/The-Future-of-China-s-Bond-Market-46144
3. Bär & Karrer. 2015. *Growing Appetite for Dim sum bonds – The global rise of the Renminbi.* https://www.baerkarrer.ch/en/publications/growing-appetite-for-dim-sum-bonds-the-global-rise-of-the-renminbi

[26] As reference, about 2% of the dim sum bond issuers are from Singapore, 1% from Korea, another 1% from Malaysia, and less than 1% from Japan.

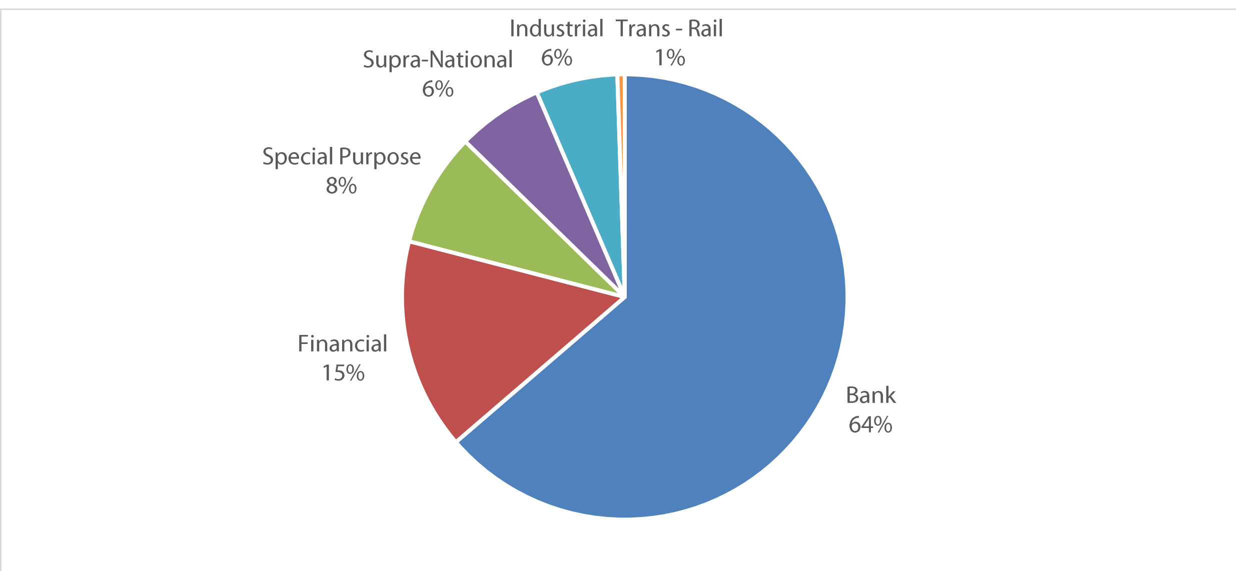
Figure 8.3: Dim Sum Corporate Bonds by Country of Incorporation of Issuer, 2022



PRC = The People's Republic of China, UK = The United Kingdom, USA = The United States of America
Sources: Bloomberg; Author's calculations.

On the other hand, Figure 8.4 shows the breakdown of dim sum bonds by industry of the issuer. Banks are the largest issuers of corporate dim sum bonds, occupying 64% of the total outstanding corporate dim sum bonds as of end of 2022. Given the fact that special purpose entities are established by financial institutions for their financing and supra-nationals are mostly multilateral banks, non-financial institutions occupy only 7% of dim sum bonds issuances.

Figure 8.4: Dim Sum Corporate Bonds by Sector, 2022



Sources: Bloomberg; Author's calculations.

The specific characteristics of dim sum bonds are analyzed by using the outstanding data as of end of 2022 from Bloomberg. As shown in Table 8.6, corporate dim sum bonds are generally short, with 76% being 3 years or shorter tenor bonds.

Table 8.6: Maturity Distribution of Corporate Dim Sum Bonds, 2022

	Up to 3 years	>3 to 5 years	>5 to 10 years	>10 years
Weight	76%	12%	10%	2%

Sources: Bloomberg; Author's calculations.

The most common coupon type of corporate dim sum bonds is fixed coupon. Nevertheless, there is a significant number of zero-coupons from the outstanding corporate dim sum bond market. Zero-coupon bonds are mostly issued by banks with maturities of up to 1 year.

Table 8.7: Coupon Types of Corporate Dim Sum Bonds, 2022

	Fixed	Floating	Step	Variable	Zero
Weight	64%	0%	0%	4%	32%

Sources: Bloomberg; Author's calculations.

As shown in Table 8.8, straight bonds are dominant for corporate dim sum bonds based on the maturity type, wherein they occupy 87% of outstanding dim sum bonds at the end of 2022. Callable bonds follow straight bonds at 9%. This distribution of maturity type of corporate dim sum bonds is similar to other corporate bond markets.

Table 8.8: Maturity Types of Corporate Dim Sum Bonds, 2022

	Straight	Callable	Pass-through	Perpetual callable
Weight	87%	9%	2%	1%

Sources: Bloomberg; Author's calculations.

In terms of payment rank, senior unsecured bonds are dominant for dim sum bonds. Secured bonds are rare, although they are present (0.2%) at market.

Table 8.9: Payment Rank of Corporate Dim Sum Bonds, 2022

	Senior Unsecured	Subordinated	Secured
Weight	97%	3%	0%

Sources: Bloomberg; Author's calculations.

Among outstanding corporate dim sum bonds at the end of 2022, 31% are rated by at least one of three global rating agencies, Moody's, S&P, and Fitch, in terms of the amount issued. Table 8.10 shows the credit rating distribution of the corporate dim sum bonds that are rated by at least one of the agencies. When a bond is rated by more than one rating agency, the mode rating is selected if such exists. If not, the second highest rating grade is selected regardless of whether the bonds are rated by two rating agencies or even three agencies. AA+ and AA- ratings are included in AA, and same is applied to A, BBB, and BB ratings. Based on Table 8.10, 99% of rated corporate dim sum bonds have investment grades, which mean BBB or higher ratings. Among them, A rating is the most common, occupying 48% of the total rated corporate dim sum bonds.

Table 8.10: Credit Rating Distribution of Corporate Dim Sum Bonds, 2022

	AAA	AA	A	BBB	BB and below
Weight	21%	19%	48%	11%	1%

Sources: Bloomberg; Author's calculations

Most corporate dim sum bonds are settled in offshore CNY (CNH), while only a handful are settled in USD. Out of the 2,612 outstanding corporate dim sum bonds as of 31 December 2022, only 12 are settled in USD.

9 Future Direction

The corporate bond market of the PRC has become influential in ASEAN+3. In terms of the absolute size, the PRC is the largest in the region. It is also the most diverse in terms of market distribution due to the use of the CNH or the offshore renminbi. Many Chinese issuers already explored issuing bonds overseas, and these are welcomed by foreign investors. Due to its scale, the corporate bond market of the PRC is further segmented into four sub-markets in which there are different regulators with which both issuers and investors have to comply.

However, the corporate bond market of the PRC has challenges:

- Risk of defaults. It is important to note that most corporate defaults are seen in the real estate sector of the PRC. S&P reported that the defaults from the issuers in the real estate sector reached about CNY250 billion in the domestic corporate bond market in 2022. This was even higher than the reported CNY120 billion in 2021. All other sectors in the PRC did not record corporate bond defaults, totaling to more than CNY10 billion in 2021 and 2022.[27]
- Less issuance activity from the LGFVs. As the primary vehicle for infrastructure financing in the country, LGFVs are also hit by the decline in the real estate activity in the PRC. In the same report of S&P, higher rated LGFVs are issuing bonds in lesser volumes compared with the previous year; while many weak LGFVs also face refinancing risks, as they cannot easily access the corporate bond market. Thus, there is the possibility of reduced issuance activity from the LGFVs collectively.
- Streamlining of regulations among regulators of the corporate bond market. Efforts among the regulators are required to enhance the performance of the corporate bond market. To be a more competitive market, regulations should consider supporting actions geared toward furthering market transparency and price discovery.

Aside from the large domestic corporate bond market, the bright spots of the corporate bond market of the PRC lie in encouraging more cross-border corporate bond transactions, such as panda bonds and dim sum bonds. These types of bonds can bring more variety in the issuer and investor groups in the country.

[27] S&P Global Ratings. 2023. *China Default Review 2023 Where's the Next Wave?* 13 April. https://www.spglobal.com/_assets/documents/ratings/research/101575327.pdf.

General References

Asian Bonds Online. https://asianbondsonline.adb.org/

Bloomberg. https://www.bloomberg.com/asia

ChinaBond. https://yield.chinabond.com.cn/cbweb-mn/yield_main?locale=en_US

China Central Depository & Clearing. http://www.ccdc.com.cn/

China Securities Index Company. http://csindex.com.cn

China Securities Regulatory Commission. http://www.csrc.gov.cn/csrc_en/index.shtml

International Capital Market Association Reports and Papers. https://www.icmagroup.org/media-and-market-data/icma-reports-and-papers/icma-reports-and-papers/

National Association of Financial Market Institutional Investors. https://www.nafmii.org.cn/englishnew/

People's Bank of China. http://www.pbc.gov.cn/english/

Shanghai Stock Exchange. http://english.sse.com.cn/

Shenzhen Stock Exchange. https://www.szse.cn/English/

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