IV

Bond and Note Transactions and Trading Market Infrastructure

Debt instruments issued in the PRC may be listed and traded on the exchanges and/or traded in the CIBM or other market segments. This chapter details the infrastructure and trading practices of the CIBM.

A. Inter-Bank Bond Market

The CIBM is a regulated OTC market populated by bank and non-bank financial institutions as direct participants, and other investors as indirect participants. The CIBM was established in 1997 and has its origins in the classical interbank market—hence the name—established by the PBOC to conduct open market operation with constituent banks. Over time, the original market was augmented with additional products serving the funding of an increasing number of participants and additional market features to become the CIBM in its current form.

Today, products traded in the CIBM include cash bonds (the term used in the China bond market for outright bond and note trading), pledged repo, outright repo, bond lending, and bond forwards. PFBs, central government bonds (Treasury bonds), local enterprise bonds, and local government bonds are the four most actively traded instrument types in the CIBM. The trading of NCD in the CIBM is significant and also popular with foreign investors as a way to generate extra returns.

The CIBM facilitates two trading modes: bilateral negotiation and click-and-deal (one-click) trading (see also section B in this chapter). A market-maker mechanism was officially introduced in the CIBM in 2001 to improve market liquidity and enhance efficiency. Currently, 24 market makers provide bid–offer quotations for underlying bonds that cover nearly all instrument types and tenors; three of the 24 market makers are subsidiary companies of foreign banks.

Trading is conducted on the CFETS platform (see section B.1 for details); trades may also be concluded between counterparties outside this platform but need to be captured into CFETS on the same day (see section C for details). To access the CIBM, certain types of participants may need to route their orders through specific mechanisms, such as Bloomberg or TradeWeb for Bond Connect, or the CFAE for domestic nonfinancial institutions (see section B.3 for details). Trading intermediaries and other service providers must be members of NAFMII.

The CIBM is regarded by participants as an institutional marketplace. While direct participants are limited to financial institutions, issuers continue to issue debt financing instruments via public offerings that may be on-sold by direct participants to individual or general investors in the commercial banks' counter market (see also Chapter I.A for details). Nonfinancial institutions can trade in the CIBM by placing their orders through the CFAE; their transactions are limited to cash bonds only. All market participants, whether direct or indirect, trade in their own name and need to maintain corresponding trading accounts with CFETS and clearing and/or settlement accounts with either CCDC or SHCH, or both, as the case may be.

Foreign institutional investors using CIBM Direct participate in the market through a bond settlement agent, who executes orders on behalf of the investor and also provides settlement and safekeeping services to the investor. As of November 2019, the PBOC had approved 49 institutions to carry out bond settlement agency business in the CIBM.[88] Of those, 19 institutions had settlement capabilities to service foreign investors. For more information on the role of bond settlement agents or other market participants, please see Chapter III.M.

Foreign investors accessing the CIBM through Bond Connect place orders via their connected trading platform of choice and settle through the depository accounts maintained by the CMU. Most foreign institutional investors are limited to trade cash bonds and engage in bond lending and bond forwards, but not repo transactions (please see section G for more details).

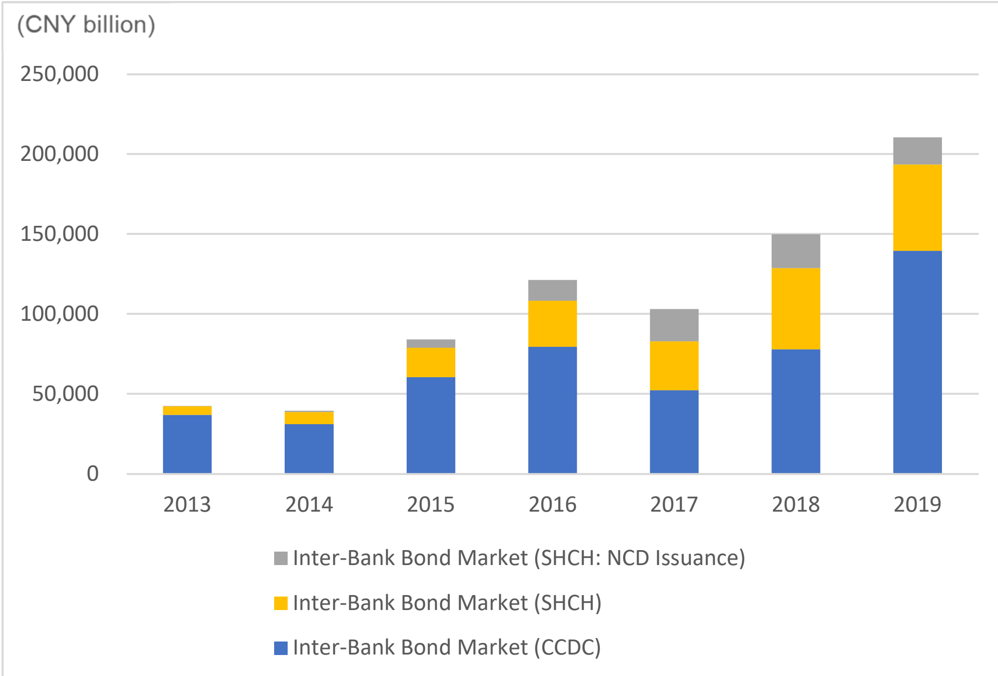
At the time of compilation of this bond market guide, NAFMII listed nearly 6,900 members in the CIBM and CFETS maintained about 30,000 trading accounts for fixed income products. CCDC reported 23,916 domestic institutional participants (participants here representing the number of distinct account names for which settlement is conducted) and 1,095 accounts held by QOII. SHCH reported 23,511 institutional participants (including 1,024 accounts held by QOII), covering all types of financial institutions such as commercial banks, securities companies, and their authorized branches; insurance companies; and different investment vehicles including mutual funds and pension funds. Among these, commercial banks were the most active participants, partially due to the PBOC continuing to conduct its open market operation in the CIBM, for which commercial banks are the primary constituents.

Securities companies with asset management plans that want to engage in the securities asset management business in the CIBM are required to maintain separate bond trading (and corresponding settlement) accounts for each asset management plan, leading to a large number of investment fund participants in the CIBM. At the same time, NCD and other short–term products may be accessed by retail or general investors through money market funds, which are often offered by online payment system providers.

As shown in Figure 4.1, the volume of debt financing instrument trading in the CIBM has grown strongly in recent years. Settlement of trades in the CIBM occurs at CCDC or SHCH, depending on instrument type and where the trading counterparties maintain their depository accounts.

[88] The list of bond settlement agents (银行间债券市场结算代理人名单) is available (in Chinese) from the CFETS website at http://www.chinamoney.com.cn/chinese/mtmemrmb/.

Figure 4.1: Debt Instrument Trading Volume in the Inter-Bank Bond Market



CCDC = China Central Depository & Clearing Co., Ltd; CNY = Chinese renminbi; NCD = negotiable certificates of deposit; SHCH = Shanghai Clearing House.
Sources: *CCDC Bond Market Statistical Analysis Report, 2013–2018*; *SHCH Yearbook, 2013–2018*.

In addition, SHCH also fulfills a CCP function as the only CCP in the CIBM recognized by the PBOC. The other CCP in the China bond market is CSDC for the exchange bond market.

SHCH's CCP function is not limited by instrument type; for cash bond and repo transactions, if both counterparties are CCP clearing members, the CCP service can be used for any debt instruments deposited with SHCH. At the same time, the use of the CCP for fixed income transaction settlement is not mandatory. Counterparties can opt to use the CCP function at the point of trade in CFETS, or when they instruct SHCH. When using the CCP function, different clearing and settlement fees apply; applicable rules and fee schedules can be found on the SHCH website and are also detailed in Chapter VI.

B. Trading Platforms

1. China Foreign Exchange Trading System

CFETS is the common trading platform and liquidity hub of the CIBM. CFETS also fulfills the role as the NIFC and uses Chinamoney as its web handle, which describes its function in the classical interbank market to this day. Both CFETS and NIFC are regulated by the PBOC and treated as one entity.

CFETS and NIFC main functions include (i) providing systems for foreign exchange trading, interbank cash lending, and bond trading; (ii) organizing interbank foreign exchange trading, interbank cash lending, and bond trading; (iii) handling the settlement and clearing of foreign exchange trading; (iv) promoting the clearing of interbank cash lending and bond trading; (v) providing an online commercial paper quotation system; (vi) providing information on the foreign exchange, bond, and money markets; and (vii) engaging in other businesses authorized by the PBOC. However, for the bond market, only CFETS and its functions will be described further.

CFETS has been operating the CIBM trading platform since 1997 and by now has developed into a comprehensive electronic OTC bond trading platform with functions to facilitate and support trading, post-trade services, risk management, and information services. The CFETS platform facilitates activities for all instruments in the CIBM, including cash-bond trading, bond repo, and bond forwards.

On the CFETS platform, the practice of bilateral negotiation is applied to all CIBM products, while one-click trading (点击成交) is only applied to cash bond trading and interest rate derivatives. CFETS provides an interface for members to transfer data from CFETS to their internal systems. Straight-through processing between CFETS and the depositories for the CIBM—CCDC and SHCH—is provided, with transaction data transferred to the respective settlement system automatically. CFETS also provides market information, including quotations and prices, on a real-time basis. The trading platform contains features for post-trade management such as specific modules for post-trade supervision and risk management.

As for the trading method, Treasury bond spot transactions are executed at a clean price, (i.e., transactions are executed at a price quote that excludes accrued interest). Enterprise bond spot transactions are executed at the gross price—also referred to as a dirty price (i.e., transactions are executed at a price quote that includes accrued interest). CFETS trading hours are shown in Table 4; please note the small difference in the afternoon trading session hours for same-day settlement. The trading hours are stated for the Beijing time zone (GMT+8) and apply from Monday to Friday, with the exception of statutory holidays in the PRC.

Table 4: CFETS Trading Platform Hours

For Settlement on	Session	Start Time	End Time
T+0	Morning session	9 a.m.	12 noon
	Afternoon session	1:30 p.m.	4:50 p.m.
T+1	Morning session	9 a.m.	12 noon
	Afternoon session	1:30 p.m.	5 p.m.

Source: China Foreign Exchange Trading System. http://new.chinamoney.com.cn/english/prdbmkcbt/.

Financial institutions can directly trade on the CFETS platform. The participation of other institutions depends on the nature of those participants: nonfinancial institutions must route their orders via CFAE, while foreign institutional investors access the market via a bond settlement agent (in the case of CIBM Direct) or placing their orders via an international trading platform connected to CFETS (for transactions via Bond Connect). However, all trades will be executed on the CFETS platform and trade confirmations are sent back to the platform where the order originated.

At the end of September 2019, CFETS maintained about 30,000 trading accounts on its platform, including for retail investors. Trading accounts contain standard trading and settlement information that allow CFETS to validate which instruments a trading account holder may trade and where the traded instruments should be settled, given that there are multiple depositories potentially covering the same debt financing instruments. As such, foreign institutional investors or those with specific restrictions (e.g., nonfinancial institutions) cannot trade products not available to them under applicable regulations.

As the central trading platform for the CIBM, CFETS formulates and publishes its own trading rules and other rules pertaining to the transactions executed on its platform (see also Chapter II.K) and governs the activities of its trading participants; it is, however, not an SRO and, therefore, is subject to supervision by the PBOC.

2. Money Brokerage Companies

The systems of currency brokerage companies—or money brokers—are another type of bond trading platform in the CIBM. Money brokers are non-bank financial institutions approved by CBIRC and specialized in the promotion of financial intermediation between financial institutions and foreign exchange transaction and brokerage services through electronic or other means. Money brokers receive a commission for these services.

CBIRC (then CBRC) has been issuing rules and regulations on money brokerage business since August 2005, when it allowed the establishment of joint venture operations of experienced overseas money brokers and eligible domestic broking companies on a trial basis. The Provisional Rules Governing the Money Brokers, 2005 were followed by the Guidance on Money Brokerage and Transactions among Financial Institutions, issued on 30 August 2007, with a view to further regulating the activities of money brokers and dealers, improving their work efficiency, and ensuring orderliness and fairness in the market.[89]

However, the business of money broking companies has not developed as expected due to a weak members' foundation, the difficulty of connecting their technology platforms, and the dominance of the common trading platform at CFETS in the market, among other things.

3. Beijing Financial Assets Exchange

The Beijing Financial Assets Exchange, also referred to as the China Financial Assets Exchange and abbreviated as CFAE, is a state-owned financial assets transaction platform designated by the MOF as well as a transaction platform designated by NAFMII for the indirect participation of domestic nonfinancial institutions, such as corporates, in the CIBM. CFAE also acts as a feeder mechanism for trading orders for certain instruments in the CIBM, such as Panda bonds and PPN, and offers the function of a centralized book-building platform in the market (see Chapter III.E for a description of this function).

CFAE was established by the Beijing Municipal Government on 30 May 2010 to improve the liquidity of a variety of financial assets. Its business now covers transactions of state-owned assets, credit assets, bonds, trust products, insurance assets, and private equity. CFAE is part of a group of asset transaction venues guided by the China Beijing Equity Exchange (CBEX), a comprehensive equity trading institution approved by the Beijing Municipal Government. CBEX was established in 1994 by the Beijing Municipal Government and is the sole institution for the transfer of ownership of SOEs in the PRC. In turn, CBEX has established a number of separate transaction venues for different asset classes, including the CFAE.

While CFAE may function as a trading venue for a variety of financial asset classes, its main role in the CIBM is focused on routing orders placed by nonfinancial institutional investors, who are unable to directly participate in the CIBM, to the trading platform of

[89] This text has been adopted in part from the following CBRC announcement available at http://www.cbrc.gov.cn/EngdocView.do?docID=200709187531B537C9A5E135FF30A98CC6624400.

CFETS for execution. Orders routed via CFAE will be quoted, priced, and executed exclusively via the CFETS platform and trade confirmations will be sent back to the nonfinancial institution via CFAE upon the execution of the order on CFETS. Orders are routed and executed in the name of the actual nonfinancial enterprise placing the order (see flow description in the next paragraph). For that purpose, nonfinancial enterprises wishing to access the CIBM also need to have a trading account on CFETS as well as a depository account at either CCDC or SHCH, or both.

A transaction using order routing via the CFAE would occur in the following manner:

1. Market makers provide anonymous quotes through CFETS to CFAE.
2. A nonfinancial company chooses an anonymous quote for a transaction on CFAE; the transaction type can only be cash bonds.
3. CFAE sends the trading order to CFETS after checking that the nonfinancial company has sufficient holdings of cash or debt instruments.
4. The trade is executed on CFETS through the trading account of the investor.
5. CFETS sends a trade confirmation to CFAE and trade information to the depository.
6. The depository asks both the market maker and nonfinancial company to confirm the trade information.
7. Upon confirmation, the depository settles the trade; any trade or settlement discrepancies will need to be addressed directly by the nonfinancial company.

For the purpose of investments by QOII, all of which to date have been financial institutions, and their activities in the CIBM, the CFAE does not play a direct role. As such, at the time of compilation of this bond market guide, the website of CFAE was only available in Chinese.[90] CBEX maintains an English website.[91]

C. Trade Reporting

Due to the nature of the CFETS platform, trades executed on the system are automatically captured and disclosed to all participants and available for market monitoring and surveillance. CFETS also publishes information on executed trades on its platform to its constituents and reports trading activities to the PBOC regularly.

In addition, according to a requirement by the PBOC, in the event that bonds are not traded through the trading system of CFETS, both parties should report the trade information for the record to CFETS on the same trading day. If one party or both parties of the transaction instruct a bond settlement agent for trade settlement, then the bond settlement agent should report the trade information to CFETS.

According to prevailing rules and regulations, including the Measures for the Administration of Bond Transactions in the National Inter-Bank Bond Market and the Circular of the People's Bank of China on Issues Concerned in Application to Bond Settlement Agent Business, market makers and settlement agencies shall regularly report their business performance to the PBOC. At present, there is no regulation that requires market makers and settlement agencies to furnish a copy of the report submitted to the PBOC to intermediary platforms or self-regulatory bodies.

[90] See https://www.cfae.cn.
[91] See http://www.cbex.cn.

D. Market Monitoring and Surveillance

The PBOC is responsible for regulating and supervising the OTC bond market overall. Under guidance from the PBOC, NAFMII has formulated a self-regulatory management system for the secondary market and self-regulatory normative documents to strengthen the self-regulatory management of its members when carrying out trading activities. These normative documents include the Working Guidelines for Market Makers of the Inter-Bank Bond Market and the Self-Regulatory Rules for Bond Trading in the Inter-Bank Bond Market.

At the same time, NAFMII is not the regulator for CFETS. CFETS issues its own rules and governs its trading participants under a mandate from the PBOC and conducts market monitoring activities on its participants and their trading activities. CFETS regularly provides trading data to the PBOC for analysis, which may be forwarded by the PBOC to NAFMII for examination.

Under its mandate to improve market transparency in the OTC bond market, CFETS has the primary responsibility to detect and address abnormal transactions. In its market rules, CFETS states its mandate to conduct market surveillance and lists adverse participant behavior that constitutes market rule violations.[92] CFETS may take appropriate disciplinary action(s) against the participant(s) at fault and may report any incident that it deems to have a market impact to the PBOC, as deemed appropriate.

E. Bond Information Services

To enhance transparency in the bond market, especially with the CIBM being an OTC market, NAFMII, CFETS, SHCH, and CCDC all provide information services on debt financing instruments registered, traded, and cleared and settled in the CIBM, including on initial and continuous disclosure information and market activities. In addition, the PBOC provides general information on government debt instruments used in its open market operation. Some of the bond information services available from institutions in the CIBM are mentioned in the next sections.

Information on debt financing instruments, their features and related disclosure information, trading prices, and other market statistics are available from market makers and other trading participants, as well as from commercial information vendors.

1. Information on Government Bond Issuances

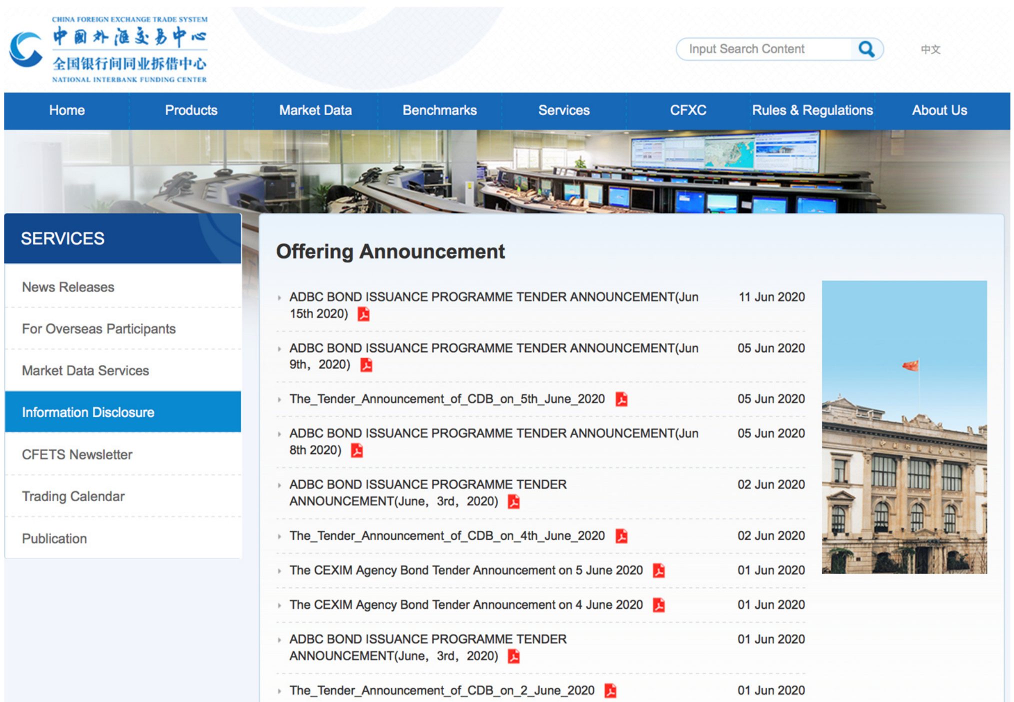
Treasury bonds are issued and traded in the CIBM, and also listed and traded in the exchange bond market. The issuance of Treasury bonds is the responsibility of the MOF. At the time of compilation of this bond market guide, the official website of the MOF was only available in Chinese.[93] In addition, the English website of the PBOC does not contain information on bond issuances of the state or state-owned agencies and enterprises. However, the English website offers the latest yield information and yield curves for central government bonds; the yield curve is calculated for the PBOC by CCDC.[94] For more information on yields and yield curves, please also see section H.1.

[92] China Foreign Exchange Trading System. Rules for Bond Transactions of the National Inter-Bank Market. http://www.chinamoney.com.cn/english/rarrmrrudmrl/20161111/2025.html.
[93] See www.mof.gov.cn.
[94] See http://www.pbc.gov.cn/english/130727/index.html.

2. China Foreign Exchange Trade System

CFETS discloses market information, particularly pricing-related statistics via the trading system, on a real-time basis to market participants. In addition, CFETS also offers product information on the debt financing instruments traded on its platform and disclosure information including news on new issuances and corporate announcements (Figure 4.2).

Figure 4.2: Example of Disclosure Information on the China Foreign Exchange Trade System Website



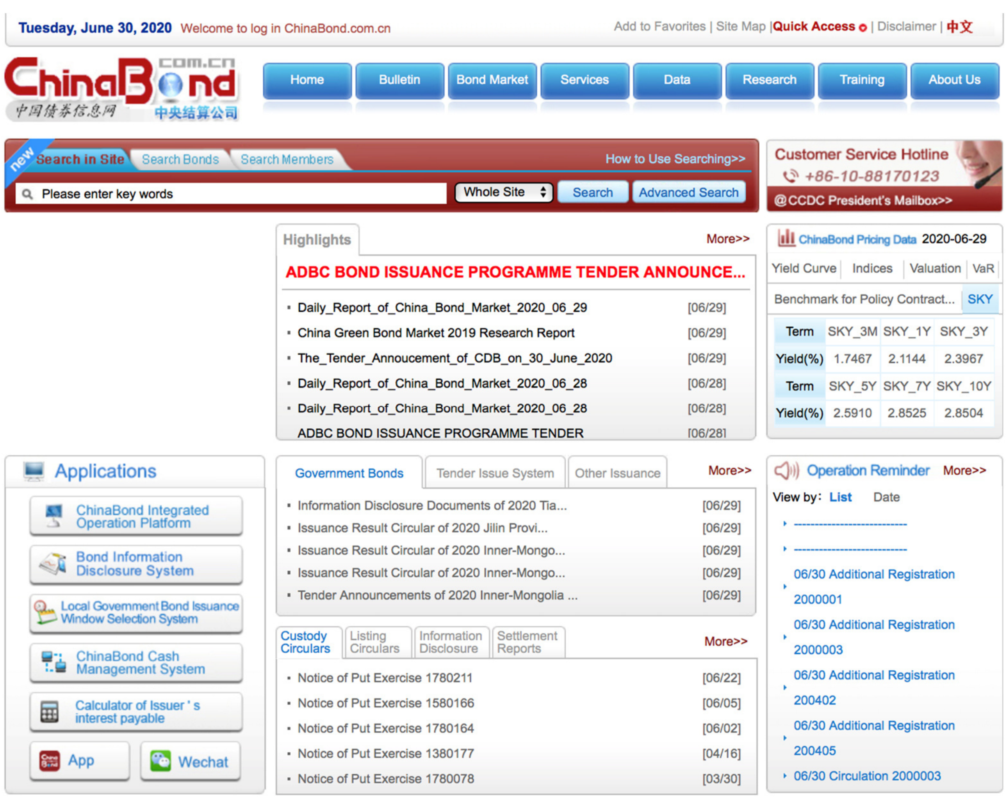
Source: China Foreign Exchange Trade System. Information Disclosure. http://www.chinamoney.com.cn/english/svcidssoan/.

3. China Central Depository & Clearing Co., Ltd. (ChinaBond)

CCDC publishes extensive bond market information through its very comprehensive website, including information on new issuances, auction and tender results, registration, income payments, as well as market quotations and OTC bilateral prices.[95] CCDC also provides market statistics and calculates debt financing instrument valuations and yield curves under its ChinaBond brand (see Chapter III.K for more details) (Figure 4.3). The website provides access to the Bond Information Disclosure System (in Chinese only) to registered users. The CCDC information services have been in place since 1998.

[95] See http://www.chinabond.com.cn/d2s/engindex.html.

Figure 4.3: Debt Securities Information on the CCDC Website



Source: China Central Depository & Clearing Co., Ltd (CCDC). http://www.chinabond.com.cn/d2s/engindex.html.

Under its mandate to further the development of the CIBM, CCDC conducts roadshows and international events to provide information to interested parties in markets outside the PRC. CCDC also holds an annual conference that brings together industry representatives, issuers, and investors on a range of specific topics. In the near future, CCDC intends to launch a dedicated Global Investor Portal, which will aggregate available resources for foreign investors in the CIBM. Already available is an English language e-learning system for interested parties; registration is required but is free of charge.

CCDC periodically publishes issues of *ChinaBond Watch*, which contains macroeconomic data, interest rate, yield and index information and trends, plus updates on the activities of foreign institutional investors and notable recent developments, as well as an annual *CCDC Handbook*, which contains frequently asked questions about the CIBM.

4. People's Bank of China

The PBOC provides information on government bond issuances and other debt instruments issued through the PBOC Bond Issuance System on its website. At the time of compilation of this bond market guide, most of the information was only available via the Chinese version of the website. At the same time, the English version of the website contains general information on instruments and the bond market, announcements on the PBOC's open market operation, and yield curve information (Figure 4.4).

Figure 4.4: The People’s Bank of China’s Website with Selected Debt Instrument Information in English

Source: People’s Bank of China. http://www.pbc.gov.cn/english/130437/index.html.

5. Shanghai Clearing House Co., Ltd.

SHCH publishes the *Monthly Bulletin on the Shanghai Clearing House Bond Market* on its website. The bulletin is downloadable as a Microsoft Excel workbook and contains a number of spreadsheets with general and specific market statistics on issuances, redemptions, and clearing volumes, with a breakdown for each category by debt financing instrument type (Figure 4.5). The bulletin also contains data on the assets under safekeeping by SHCH by instrument type as well as the holding structure of said instruments by the type of investor.

Figure 4.5: Example of Market Data in Monthly Bulletin on Shanghai Clearing House Bond Market

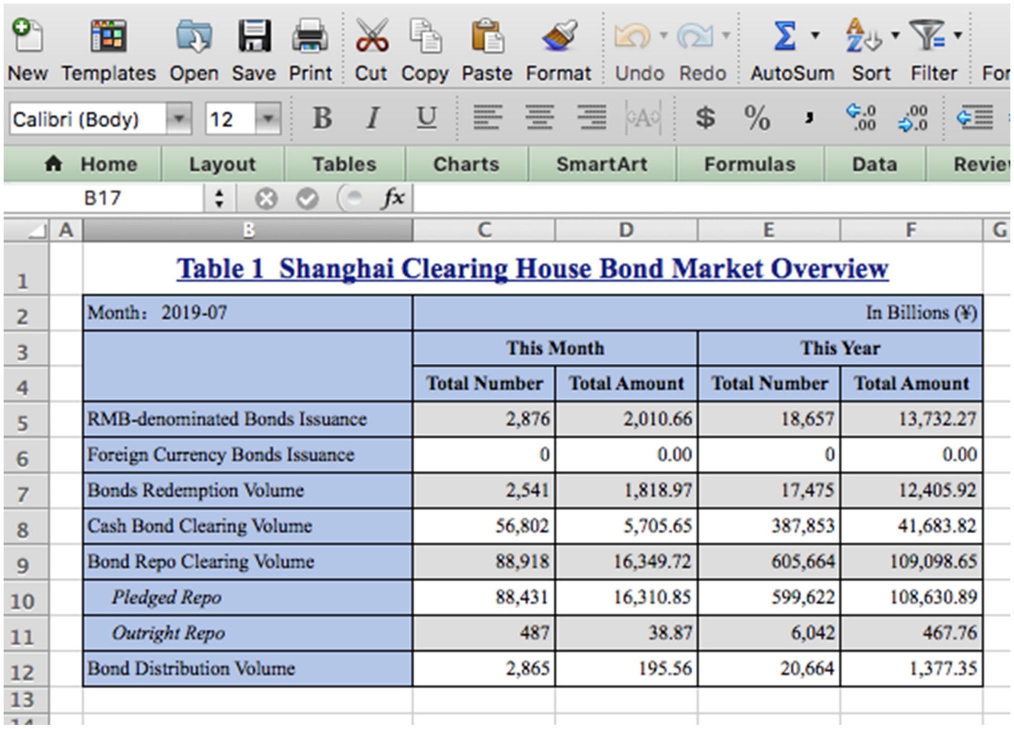


Table 1 Shanghai Clearing House Bond Market Overview

Month: 2019-07				In Billions (¥)
	This Month		This Year	
	Total Number	Total Amount	Total Number	Total Amount
RMB-denominated Bonds Issuance	2,876	2,010.66	18,657	13,732.27
Foreign Currency Bonds Issuance	0	0.00	0	0.00
Bonds Redemption Volume	2,541	1,818.97	17,475	12,405.92
Cash Bond Clearing Volume	56,802	5,705.65	387,853	41,683.82
Bond Repo Clearing Volume	88,918	16,349.72	605,664	109,098.65
Pledged Repo	88,431	16,310.85	599,622	108,630.89
Outright Repo	487	38.87	6,042	467.76
Bond Distribution Volume	2,865	195.56	20,664	1,377.35

Source: Shanghai Clearing House Co., Ltd. Bond Market Overview. http://english.shclearing.com/data/market/?xyz=0.08571623063476264.

F. Yields, Yield Curves, and Bond Indexes

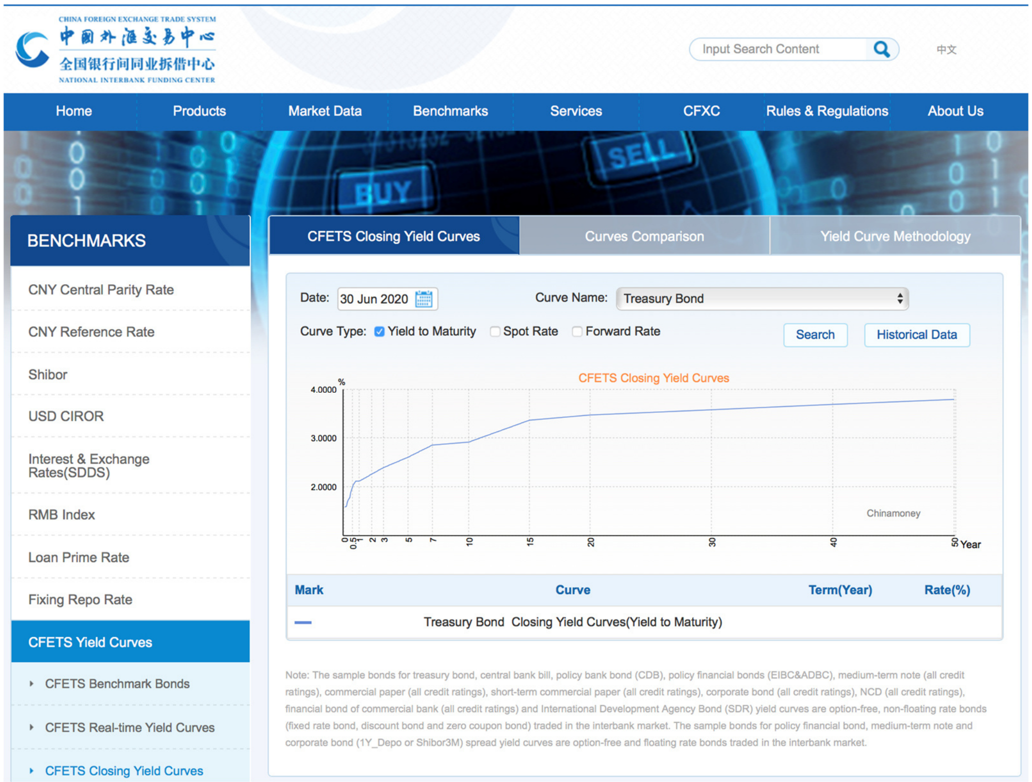
Bond yield curves reflect the level of interest rates across different bond tenors in the market and also reflect interest rate differences relative to the credit level of bonds. Bond yield curves are an important pricing reference for deposit and lending, fixed income, and other financial products.

Bond yield curves are available from a number of providers in each segment of the China bond market. For the CIBM, the key information providers are CFETS, CCDC (ChinaBond), and SHCH. The PBOC uses yields and yield curves calculated by CCDC and publishes them on its website and in official publications.

1. China Foreign Exchange Trade System

CFETS composes intra-day and end-of-day yield curves on six types of benchmark bonds. The intra-day yield curves are the only such benchmarks in the CIBM. Every trading day the first yield curve is published at 9:30 a.m. The curve is updated hourly until the system closes (Figure 4.6).

Figure 4.6: China Foreign Exchange Trade System Closing Yield Curves



China Foreign Exchange Trade System. Yield Curves. http://www.chinamoney.com.cn/english/bmkycvcyc/.

2. China Central Depository & Clearing Co., Ltd.

CCDC has been providing ChinaBond Yield Curves since 1999. In 2002, the calculation of the ChinaBond Yield Curves was upgraded, following consultations with external experts, using a brand-new modeling method with reference to the particularities of the China bond market. CCDC introduced the Hermite Curve Model, which proved more suitable to the China bond market than those models with an inherent trend as adopted by many other pricing agencies.

ChinaBond Yield Curves are available for many debt financing instrument types, and have generally been recognized by Chinese financial market regulators and participants. ChinaBond Yield Curves are being applied widely, serving the aims of market supervision as well as a pricing benchmark, in the context of internal controls of financial institutions and a performance evaluation of the holdings and market activities of banks, funds, insurance companies, and other market participants (Figure 4.7).

Figure 4.7: ChinaBond Yield Curve Web Page

Source: China Central Depository & Clearing Co., Ltd. (ChinaBond). ChinaBond Yield Curve. http://yield.chinabond.com.cn/cbweb-mn/yield_main?locale=en_US.

ChinaBond price- or index-related products not only include bond yield curves but also bond valuations (see Chapter III.K for more information), bond indexes, and the calculation of value-at-risk metrics. Value-at-risk is an indicator for measuring market risk and forms the basis for risk control and performance assessment.

3. Shanghai Clearing House Co., Ltd.

SHCH constructs eight categories of yield curves in the CIBM, involving par rate curves, spot rate curves, and forward rates. SHCH adopts the variable roughness penalty method, which is sensitive to interest rate changes and accurately depicts term structure. Yield curves are published daily at about 6 p.m. (Figure 4.8).

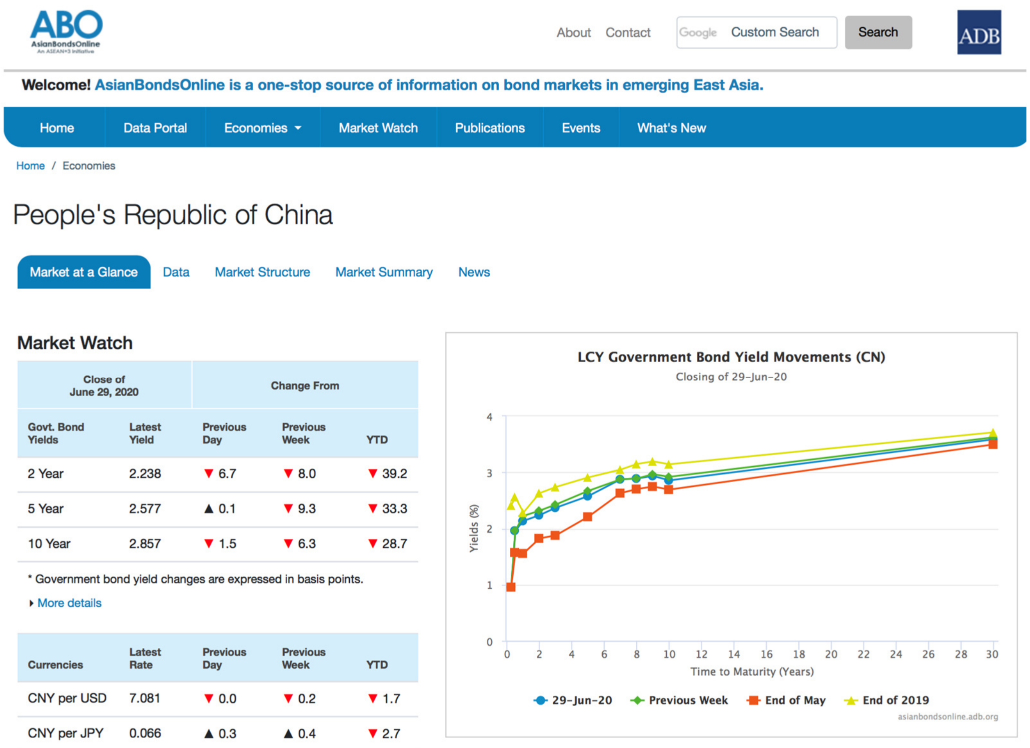
Figure 4.8: Shanghai Clearing House Yield Curve Web Page

Source: Shanghai Clearing House. Yield Curve. http://www.shclearing.com/cpgz/zqjqysp/dqsylqx/.

4. Other Information Sources for Yield Curves

Government bond yields and yield curves, as well as many other pertinent details on the China bond market, are also available from the *AsianBondsOnline* website (Figure 4.9).

Figure 4.9: People's Republic of China's Government Bond Yield Curve on *AsianBondsOnline*



Close of June 29, 2020		Change From		
Govt. Bond Yields	Latest Yield	Previous Day	Previous Week	YTD
2 Year	2.238	▼ 6.7	▼ 8.0	▼ 39.2
5 Year	2.577	▲ 0.1	▼ 9.3	▼ 33.3
10 Year	2.857	▼ 1.5	▼ 6.3	▼ 28.7

Currencies	Latest Rate	Previous Day	Previous Week	YTD
CNY per USD	7.081	▼ 0.0	▼ 0.2	▼ 1.7
CNY per JPY	0.066	▲ 0.3	▲ 0.4	▼ 2.7

CN = People's Republic of China, CNY = Chinese renminbi, JPY = Japanese yen, LCY = local currency, USD = United States dollar, YTD = year-to-date.
Source: *AsianBondsOnline*. Market at a Glance—People's Republic of China. https://asianbondsonline.adb.org/economy/?economy=CN.

5. Bond Indexes in the Inter-Bank Bond Market

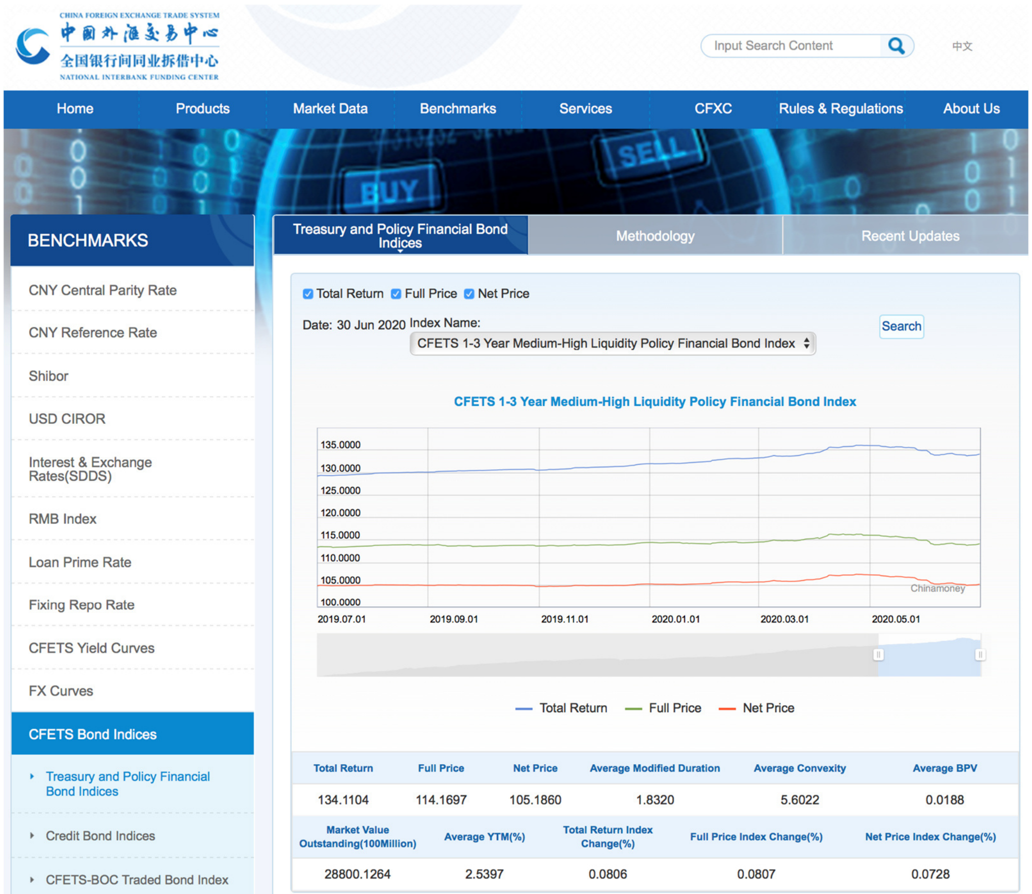
For the CIBM, bond indexes are available from CFETS, CCDC (ChinaBond), and SHCH. CCDC calculates a large number of ChinaBond Bond Indices across a number of indicators, including instrument type, tenor, and credit rating. The indexes include green bond and foreign-currency-denominated indexes, and track the activities of foreign institutional investors. CFETS also provides a number of bond indexes for debt instruments traded on its platform, including indexes in cooperation with some of the market participants. SHCH offers the China Credit Bond Index series, which was created in 2016 to track the performance of the Chinese credit bond market.

In addition, professional market data vendors and many market participants may calculate and provide bond indexes for debt instruments traded in the CIBM to their clients and subscribers.

a. China Foreign Exchange Trade System

CFETS calculates indexes, including for Treasury bonds and PFBs across tenors, and also for debt financing instruments issued by nonfinancial enterprises, including MTN (Figure 4.10).

Figure 4.10: Bond Indexes Provided by CFETS

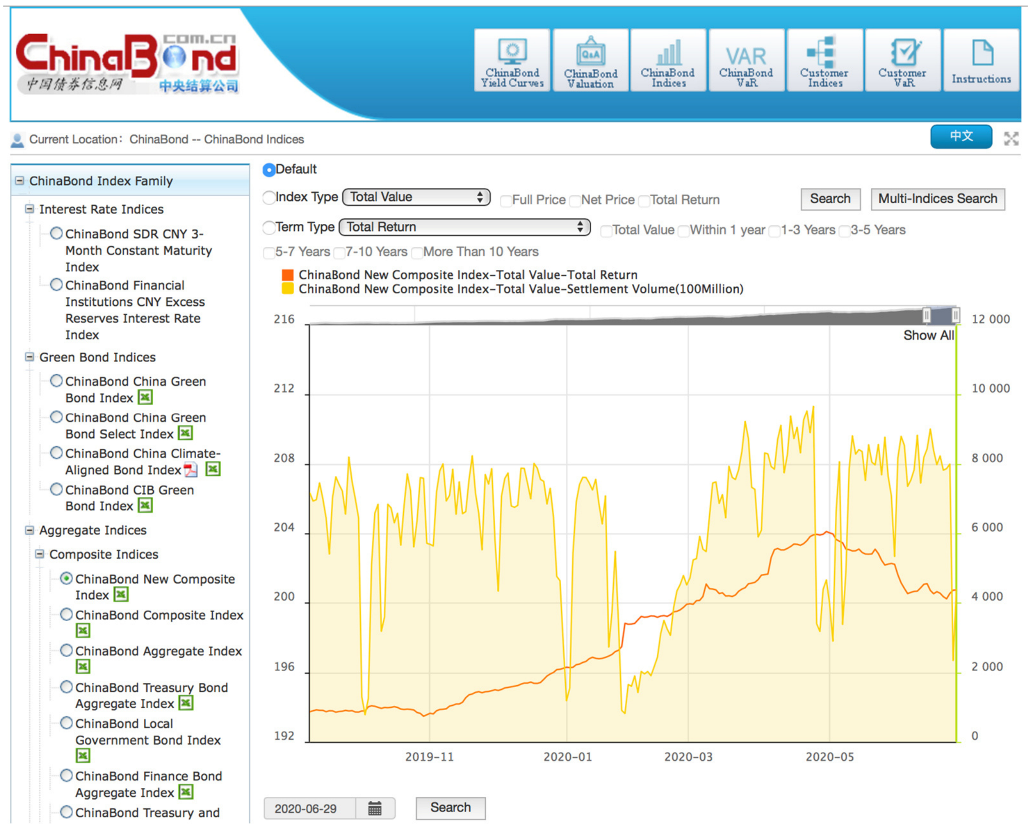


China Foreign Exchange Trade System. Bond Indexes. http://www.chinamoney.com.cn/english/bmkbidrbi2/.

b. China Central Depository & Clearing Co., Ltd.

CCDC calculates ChinaBond Bond Indices for debt instruments traded in the CIBM as well as for those traded on the exchanges, with the information available from the CCDC website. Every day, CCDC publicly releases 58 indexes and more than 400 subindexes, and calculates position indexes for more than 1,200 accounts. Figure 4.11 illustrates the bond indexes provided, using the example of an iBoxx ChinaBond Government and Policy Banks Bond Index.

Figure 4.11: ChinaBond Composite Bond Index



Source: China Central Depository & Clearing Co., Ltd. ChinaBond Index Family. http://yield.chinabond.com.cn/cbweb-mn/indices/single_index_query?locale=en_US.

c. Shanghai Clearing House Co., Ltd.

SHCH provides a comprehensive set of benchmark indexes to track the performance of the Chinese credit bond market. Currently SHCH provides six China Credit Bond Indices, some of which are composite index series designed to track the performance of the broader market, while others are customized to track the performance of certain bond types or investment themes. Each index series includes several indexes differentiated by bond features such as tenor and credit rating. There are 39 indexes in total. SHCH publishes daily index data on SHCH's official website (Figure 4.12).

Figure 4.12: SHCH Bond Index Web Page

Source: Shanghai Clearing House. Bond Indexes. http://www.shclearing.com/cpgz/zqjqysp/zqzs/zshq/.

6. Inclusion of China Government Securities in Bond Indexes

On 23 March 2018, Bloomberg announced that it would add CNY-denominated government bonds and PFBs to the Bloomberg Barclays Global Aggregate Index once several planned operational enhancements have been implemented by the PBOC and the MOF.

To be considered for inclusion in the Global Aggregate Index, a local currency debt market must be classified as investment grade and its currency must be freely tradable, convertible, hedgeable, and free of capital controls. Ongoing enhancements from the PBOC have resulted in CNY-denominated instruments meeting these absolute index rules.

Following the implementation of a number of market liberalization practices, including a delivery-versus-payment settlement practice and a clarification on tax policies with regard to debt financing instruments, Bloomberg proceeded to phase in these debt financing instruments traded in the CIBM over a 20-month period starting in April 2019.

Once the phase-in process is complete, these debt financing instruments will represent about 6% of the overall index value.[96]

In October 2019, J.P. Morgan announced that high-liquidity CNY-denominated government bonds will be included in its Government Bond Index-Emerging Markets Index (GBI-EM). The inclusion will be phased in over a 10-month period from 28 February 2020, at 1% per month, and eventually represent 10% of the GBI-EM.[97]

G. Repo Market

There are two repo market segments in the PRC—the inter-bank bond repo market and the stock exchange repo market—each with different structures, characteristics, terminology, and rules.

In the inter-bank bond repo market, transactions are conducted through the OTC method as private one-to-one negotiations between institutional participants, while in the exchange bond market the exchanges not only facilitate transactions, but CSDC also acts as the central counterparty to all repo sellers and repo buyers.

As an illustration, the combined inter-bank bond repo market and exchange repo market turnover was nearly 11 times larger than the CIBM trading turnover (without repo) in 2017. The focus in this bond market guide is on the features of the inter-bank bond repo market.

1. Inter-Bank Bond Repo Market Overview

The inter-bank repo market is an OTC market, where counterparties conclude transactions based on bilateral negotiation. The PBOC is responsible for the overall market framework and system arrangement. It operates its open market operation through repo and reverse repo transactions in the inter-bank repo market to support market liquidity and stability.

As the self-regulatory body for the CIBM, NAFMII is responsible for conducting supervision and surveillance on daily activities in the CIBM and has long been promoting the development of the OTC bond repo market by establishing rules and regulations. At the beginning of 2013, NAFMII officially released the new version of the Repo Master Agreement, which combines two former master agreements. The changes in the New Master Agreement include the general terms and conditions as well as a special term structure enabling a single agreement structure, thus reducing negotiation costs and the management cost of transaction documentation. A number of core mechanisms were added to the New Master Agreement: the mark-to-market adjustment mechanism, exchange and adjustment, performance assurance mechanism, and the single agreement close-out netting, thereby minimizing systemic risks in the repo market. The New Master Agreement is signed by multiple market members, while the supplementary market agreement is signed bilaterally by the institutions.

CFETS provides the trading platform for the inter-bank repo market and settlement of repo transactions occurs via the counterparties' accounts with CCDC or SHCH, depending on the underlying debt trading instruments. These market infrastructure providers are charged by the PBOC with providing safe and reliable trading and

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[96] Adopted by ABMF SF1 from a 2018 announcement by Bloomberg Finance L.P. Available at https://www.bloomberg.com/company/announcements/bloomberg-add-china-bloomberg-barclays-global-aggregate-indices/.

[97] As reported in the October 2019 edition of *ChinaBond Watch*.

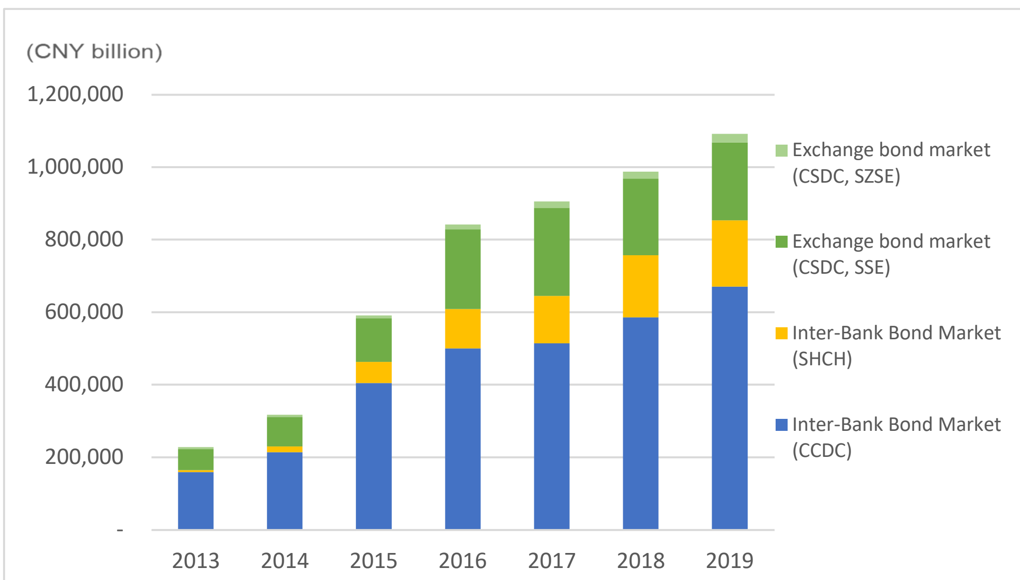
settlement services to participants, and the keeping and monitoring of transaction data.

Transactions are based on OTC bilateral negotiation between counterparties. Terms and conditions—including tenor, size, collateral, haircut (over collateral), and yield—are negotiated between the two counterparties. Inter-bank repo market participants, therefore, must manage their own credit exposure risk. In the event of a default by either counterparty, the first option would be to negotiate an agreed settlement. If this does not succeed, both counterparties can participate in CCDC-directed arbitration. As a final option, the master agreement gives the inter-bank repo buyer the right to dispose of the collateral to compensate for any losses, including principal, interest, and other related expenses.

2. Repo Market Size

Inter-bank bond repo dominates the repo market in Chinese renminbi, representing 71% of all repo transactions in the China bond market in 2018 (Figure 4.13). The major product in the inter-bank repo market is the pledged repo, accounting for about 97% of inter-bank repo transactions. The inter-bank repo market also offers an outright repo, but it only amounts to about 3% of transactions.

Figure 4.13: Bond Repo Transaction Volume by Bond Market Segment



CCDC = China Central Depository & Clearing Co., Ltd.; CNY = Chinese renminbi; CSDC = China Securities Depository and Clearing Co., Ltd.; SHCH = Shanghai Clearing House; SSE = Shanghai Stock Exchange; SZSE = Shenzhen Stock Exchange.

Sources: *CCDC Bond Market Statistical Analysis Report, 2013–2019* (债券市场统计分析报告), (市场交易结算情况); *SHCH Yearbook 2013* and SHCH 2014–2019/12 Monthly Report (web) 统计月报: 表一 上海清算所固定收益产品业务总览; SSE Website Yearly Bond Data Overview 年度债券概况 http://www.sse.com.cn/market/bonddata/overview/yearly/ (data for 2013, 2014, 2017, 2018, and 2019). *SZSE Fact Book, 2013–2017* and SZSE Market statistics (web) 市场数据 市场统计 现券交易概况+质押式回购交易概况+质押式协议回购交易概况 (2018–2019). http://bond.szse.cn/marketdata/statistics/overview/mo/index.html.

3. Acceptance of Standards

To be able to trade repos in the CIBM, participants are required to execute the China Inter-Bank Market Bond Repurchase Master Agreement (中国银行间市场债券回购交易主协议), published by NAFMII on 21 January 2013 and replaced the Pledged Repo Master Agreement and the Outright Transfer Master Agreement.

The Global Master Repurchase Agreement, or the GMRA, which is administered by the International Capital Market Organization and considered the global standard for documentation for repo, is not referenced in the master bond repo agreement published by NAFMII. The CIBM master agreement also differs from the documentation used in the exchange bond repo market.

At the same time, the core mechanisms of the agreements are the same, including document structure and provisions for trade netting and settlement, among others. Key differences include that the NAFMII master agreement is constructed under the law of the PRC and prescribes dispute resolution mechanisms available only in the PRC, and it covers both pledged repo and bilateral repo (also referred to as classic or buy-out repo), while the GMRA only covers the buy-out repo.

4. Specific Repo Practices in the Inter-Bank Bond Market

a. Type of Repo

Repo transactions in the CIBM consist mainly of the so-called "pledged repo," with "outright repo" transactions playing a minor role in terms of total transactions.

A pledged repo refers to a debt financing instrument or bond trade in which at the time the debt financing instrument or bond holder pledges its bonds as collateral in exchange for a cash loan, the two parties agree to return the cash and release the bonds pledged as collateral at the maturity of the repo. In contrast, an outright repo refers to a bond trade in which at the time the bond holder sells its bonds to the buyer, the two parties agree that the seller will buy back the same quantity of the same bonds at a specified price on a predetermined date. One significant distinction between these two repo types is that the collateral pledged in a pledged repo transaction may not be sold or otherwise used during the term.

b. Size and Tenor

Repo terms may be concluded after a period from 1 day to 365 days; standardized repo terms are available in the CFETS trading system for overnight, 7 days, 14 days, 21 days, 1 month, 3 months, 4 months, 6 months, 9 months, and 12 months. Given that banks tend to address their short-term liquidity requirements through transactions via the PBOC's open market operation or with other constituents, overnight, 7-day repo, and 14-day repo are the most active and liquid tenors.

Hence, based on the overnight, 7-day, and 14-day pledged repos, CFETS composes the fixing repo rate, which is now one of the key benchmarks for the financial market in the PRC.

c. Trading Hours

Inter-bank repo market trading hours are the same as for the cash bond market: from 9 a.m. to 12 noon and from 1:30 p.m. to 5 p.m. for settlement on T+1, with a dedicated lunch break. If counterparties wish to settle on the same day, they may only conclude trades until 4:40 p.m. in the afternoon session. No trading is conducted on statutory PRC holidays.

d. Eligible Debt Securities as Collateral

Collateral, the terms of which are negotiated between the two parties, can include any bonds traded in the CIBM except bonds that will mature before the repo maturity date. The main underlying bonds used as collateral in the inter-bank repo market are government-backed (agency) bonds, such as government bonds, PFBs, and bonds issued by SOEs.

As the inter-bank repo market does not have a margin payment mechanism or collateral mark-to-market, haircuts tend to be higher than for equivalent exchange repo transactions. Collateral registration shall be made with CCDC or SHCH.

e. Accounting and Tax Treatment

Pledged repo does not constitute the sale and (re-)purchase of the underlying debt financing instruments; hence, no capital gains tax applies since there is no disposal of the underlying assets. Interest paid to the lender for the cash provided against the pledged bonds is considered taxable as income and becomes part of the corporate tax liability of the institution.

f. Market Participants

About 2,200 bank and non-bank financial institutions are actively involved as participants in inter-bank repo market transactions. They are commercial banks, securities companies, insurance companies, trusts, funds, as well as nonfinancial institutional investors. Commercial banks are the dominant participants. Small banks tend to be collateral providers (repo-sellers) with the aim of seeking funding, and large state-owned commercial banks with excess cash tend to be cash providers (repo-buyers).

To participate in the inter-bank repo market, a CIBM license issued by the PBOC is mandatory. Inter-bank repo market participants must use the China Inter-Bank Market Bond Repurchase Master Agreement prescribed by NAFMII, which details the general terms and conditions that apply to repo counterparties, including their responsibilities and procedures in the event of nonperformance or default.

g. Market Access and Participation of Foreign Investors

The majority of foreign institutional investors are presently not able to access the inter-bank repo market directly. Under PBOC regulations issued in 2015 and 2016, only foreign central banks, international financial organizations, sovereign wealth funds, and RMB clearing banks and foreign participating banks are allowed to enter into repo transactions in the CIBM.[98] Repo transactions are presently not available for foreign investors accessing the CIBM under the QFII and RQFII concepts.

Please also see Chapter II.N for more information on the QFII and RQFII concepts.

[98] Pursuant to PBOC Announcement No. 220 (2015) and PBOC Announcement No. 3 (2016). The latter is available in Chinese only at http://www.pbc.gov.cn/goutongjiaoliu/113456/113469/3070371/index.html.

H. Securities Lending and Borrowing

At present, bilateral securities lending and borrowing is only operated in the CIBM, and referred to as “bond lending.” Bilateral bond lending was launched in 2006. The term bond lending originates from the PBOC Announcement No. 15 (2006), officially titled Tentative Provisions on the Administration of Bond Lending Business in the National Inter-Bank Bond Market, published on 2 November 2006 and effective from 20 November 2006.[99] The provisions refer to bond lending as a transaction where a bond receiver borrows bonds from the bond provider (lender) against a certain quantity of collateral and, at the same time, both parties agree that the bond receiver shall return the borrowed bonds and the bond provider shall return the corresponding collateral on a certain day in the future.

All CIBM participants may participate in bond lending transactions. Plans for bond lending as a market segment include the introduction of a central automatic lending program provided by CDCC and SHCH, which would include collateral management services for the first time.

1. Trading and Settlement Mechanisms

Market participants may conclude a bond lending transaction bilaterally through the CFETS trading system or via telephone, fax, and other means. CFETS provides quotations, transaction, recording, and information services for bond lending transactions. Where the bond lending transaction is not conducted through the CFETS trading system directly, both counterparties shall record the trade with CFETS before 12 noon on the following business day. CCDC and SHCH are responsible for the settlement of bond lending transactions for instruments deposited with them. Both parties of the bond lending transaction shall send settlement instructions to the respective CSD on the day a bond lending trade is concluded. The lent bonds and the collateral bonds of one transaction could be registered in two different CSDs, which may lead to a cross-CSD bond lending transaction.

2. Terms and Conditions

The underlying bonds used in bond lending transactions shall be part of the holdings of the bond provider with SHCH or CDCC and should be tradable in the CIBM. The tenor of bond lending and borrowing transactions can be determined by both parties through negotiation, but shall not exceed 365 days. The delivery of bonds upon the closing of the transaction (return leg) should be made with the underlying bonds, but may also be done in cash upon negotiation and with the consent of both counterparties.

If a payment of interest on the underlying bonds occurred during the bond lending period, the bond receiver shall return the interest on the underlying bonds to the bond provider in a timely manner. The bond receiver shall pay fees for the bond lending transaction to the bond provider, with the fees determined through negotiation between the counterparties.

Market participants are required to execute a Master Agreement for RMB Bond Borrowing and Lending Transactions, or a similarly named key document, with their counterparties or their bond settlement agent prior to engaging in bond lending transactions. During the bond lending period, the pledged bonds can be exchanged.

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[99] The provisions are available in an English translation from the CFETS website at http://new.chinamoney.com.cn/english/rarrmrrudrgl/20061102/899.html.

3. Size and Tenors

The tenor and terms of bond lending transactions can principally be determined by negotiation between the counterparties, with a maximum tenor of 365 days. At the same time, CFETS offers on its platform bond lending transaction types with 11 standardized terms: 1 day, 7 days, 14 days, 21 days, 1 month, 2 months, 3 months, 4 months, 6 months, 9 months, and 1 year.

4. Trading Hours

Similar to cash bond and repo trading, bond lending transactions on the CFETS platform may be conducted every working day from 9 a.m. to 12 noon and from 1:30 p.m. to 4:50 p.m. for same-day settlement, and until 5 p.m. for trades to be settled the following business day. There is no trading on statutory holidays in the PRC.

5. Market Participants

Market participants for bond lending transactions on the CFETS platform are limited to financial institutions. Nonfinancial institutions and selected other types of investors currently may not engage in bond lending transactions.

I. Debt-Financing-Instrument-Related Derivatives in the Inter-Bank Bond Market

Derivatives related to underlying debt financing instruments in the CIBM may be traded on a dedicated futures exchange or in the OTC derivatives market. The available products include bond futures, bond forwards, interest rate swaps, as well as forward rate agreements. For illustration purposes, this section takes a brief look at bond futures and bond forwards only. Detailed information on all derivative products available in the CIBM is available from the CFETS Derivatives Market web pages.[100]

1. Exchange Traded Bond Futures on China Financial Futures Exchange

The China Financial Futures Exchange (CFFEX) is a demutualized exchange dedicated to the trading, clearing, and settlement of financial futures, options, and other derivatives. On 8 September 2006, with the approval of the State Council and CSRC, CFFEX was established in Shanghai by the Shanghai Futures Exchange, Zhengzhou Commodity Exchange, Dalian Commodity Exchange, SSE, and SZSE. CFFEX is an exchange-style SRO under the supervision of CSRC.

CFFEX's main functions include organizing and arranging the listing, trading, clearing, settlement, and delivery of financial futures and other derivatives; formulating business rules; conducting self-management; disseminating market-trading information; providing technology, venues, and facility services; and other functions approved by CSRC.[101]

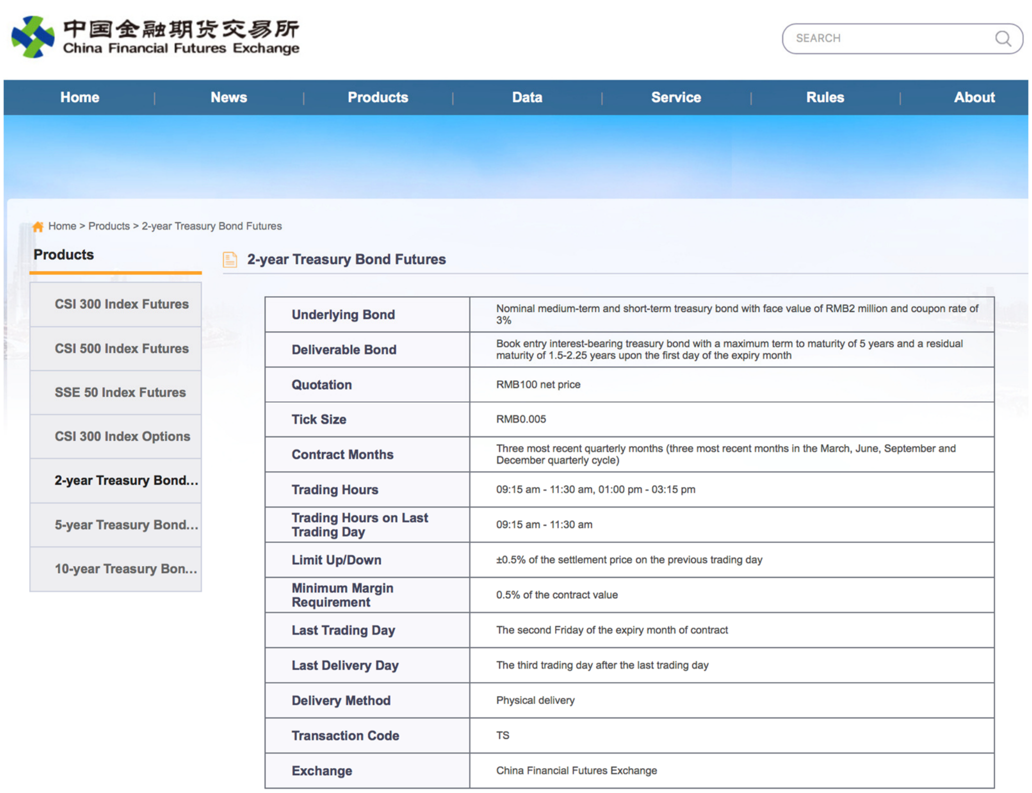
In relation to interest rate futures or other hedging instruments for the fixed-income market, CFFEX currently trades contracts for 2-year, 5-year, and 10-year Treasury bond futures. Figure 4.14 gives an illustration of the contract details, using the example of the 2-year Treasury bond futures contract. The contract employs physical delivery.

[100] See http://new.chinamoney.com.cn/english/prddmkfsw/.
[101] This description of activities has been adopted from the CFFEX website.

Transactions in Treasury bond futures are subject to the respective business rules issued by CFFEX, such as the Detailed Trading Rules of China Financial Futures Exchange for 2-Year Treasury Bond Futures Contract (as revised from time to time); the version that was current at the time of the compilation of this bond market guide was adopted on 6 August 2018 and first amended on 28 December 2018.[102]

CFFEX applies a hierarchical member clearing system, with members classified as either clearing members or trading members. Clearing members are further categorized by scope of business into trading clearing members, full-clearing members, or special clearing members. Trading members may conduct futures trading but are not eligible to carry out clearing activities. Members of CFFEX are futures companies with business qualifications for financial futures brokerage services, or other financial institutions that meet the eligibility criteria in the CFFEX Membership Rules.[103] Additional participants are the margin-holding banks with which members deposit the required initial and variable cash margin amounts for their trading positions.

Figure 4.14: Features of a 2-Year Treasury Bond Futures Contract on CFFEX



Underlying Bond	Nominal medium-term and short-term treasury bond with face value of RMB2 million and coupon rate of 3%
Deliverable Bond	Book entry interest-bearing treasury bond with a maximum term to maturity of 5 years and a residual maturity of 1.5-2.25 years upon the first day of the expiry month
Quotation	RMB100 net price
Tick Size	RMB0.005
Contract Months	Three most recent quarterly months (three most recent months in the March, June, September and December quarterly cycle)
Trading Hours	09:15 am - 11:30 am, 01:00 pm - 03:15 pm
Trading Hours on Last Trading Day	09:15 am - 11:30 am
Limit Up/Down	±0.5% of the settlement price on the previous trading day
Minimum Margin Requirement	0.5% of the contract value
Last Trading Day	The second Friday of the expiry month of contract
Last Delivery Day	The third trading day after the last trading day
Delivery Method	Physical delivery
Transaction Code	TS
Exchange	China Financial Futures Exchange

CFFEX = China Financial Futures Exchange; CSI = China Securities Index Co., Ltd.; RMB = Chinese renminbi; SSE = Shanghai Stock Exchange.
Source: CFFEX. 2-Year Treasury Bond Futures. http://www.cffex.com.cn/en_new/2ts.html.

With a series of rules in place—such as evaluating investor suitability, coordinating cross-market regulation, and monitoring abnormal trading activities—CFFEX strives to maintain the orderly functioning of the financial market; safeguard market openness,

[102] The CFFEX business rules are available in English at http://www.cffex.com.cn/en_new/ywgz/.
[103] CFFEX. Measures of China Financial Futures Exchange on Membership Management. http://www.cffex.com.cn/en_new/ywgz/20101115/16968.html.

fairness, and impartiality; protect the lawful rights and interests of investors, especially small and medium-sized investors; and prevent systemic risks.

2. Over-the-Counter Derivatives on the China Foreign Exchange Trade System

This section provides a brief overview of bond forwards as an illustration of OTC derivatives traded on CFETS and related to debt financing instruments in the CIBM. A bond forward refers to a transaction where two trading parties agree to sell and buy bonds for a specified price and quantity, and at an agreed date in the future.[104]

a. Size and Tenor

The term of the bond forward—from deal date to settlement date—is agreed in negotiation between the counterparties but may not exceed 365 days. There are no standard deal terms for bond forwards. There is no standard transaction size.

b. Eligible Debt Financing Instruments

Underlying debt financing instruments for forward transactions should be Treasury bonds, central bank bills, and financial bonds for which cash bond transactions are conducted in the CIBM, and other bonds approved by the PBOC.

c. Trading Hours

The CFETS platform trading hours for bond forwards are the same as for cash bond trading, repo, and bond lending transactions, with a morning session from 9 a.m. to 12 noon and an afternoon session from 1:30 p.m. to 4:50 p.m. for same-day settlement, or a 5 p.m. close for transactions to be settled on T+1. No trading occurs on PRC statutory holidays.

d. Market Participants

Financial institutions with market maker or clearing agency business qualifications can conduct bond forward transactions with all other market participants. Other financial institutions can conduct bond forward transactions with all financial institutions, and nonfinancial institutions can only carry out bond forward transactions for hedging purposes with the financial institutions having market maker or clearing agency business qualifications.

[104] Information obtained from the CFETS website at http://new.chinamoney.com.cn/english/prddmkbfw/.