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 exchange bond market.

A. Exchange Bond Market

Table 4.1: Debt Securities Turnover on the Shanghai Stock Exchange
(CNY billion)

Bond Type (债券现货)	2014	2015	2016	2017	2018
Treasury bonds (国债)	124.75	411.75	578.05	174.03	122.03
Local government bonds (地方政府债)	–	21.32	199.25	71.35	133.18
Policy financial bonds, insurance company bonds, securities company bonds (政策性金融债，保险公司债, 证券公司债)	30.13	48.40	3.44	16.03	87.86
Enterprise bonds (企业债)	1,230.95	1,022.33	727.50	593.77	403.82
Corporate bonds (公司债) total	365.52	782.59	2,681.53	3,275.46	3,974.05
Publicly offered corporate bonds (公开发行公司债券)	322.27	579.16	1,523.63	1,832.16	2,393.89
Non-publicly placed corporate bonds (非公开发行公司债)[a]	40.97	168.24	1,116.40	1,363.75	1,462.14
Exchangeable corporate bonds (可交换债)	2.28	35.19	41.50	79.55	118.02
Convertible bonds (可转换公司债)	766.12	742.68	103.49	185.87	231.48
Detachable convertible bonds (分离式可转债)	26.59	12.01	5.78	-	-
Asset-backed securities (资产支援证券)	6.31	28.64	83.36	126.63	173.84
Total	**2,550.37**	**3,069.71**	**4,382.41**	**4,443.14**	**5,126.26**

CNY = Chinese renminbi.
[a] Includes small and medium-sized enterprise private placement bonds.
Source: Shanghai Stock Exchange. Bond Data Overview. http://www.sse.com.cn/market/bonddata/overview/yearly/.

The trading venues for bonds in the exchange bond market are the SSE (Table 4.1) and the SZSE (Table 4.2). Although NEEQ had been included in the choice of trading venues for corporate bonds under the 2015 measures, bond trading on that venue had not commenced at the time of the compilation of this Bond Market Guide.

Given the nature of an exchange bond market, direct participants are limited to securities companies that are members of the exchange. Other typical market participants in a bond market, such as commercial banks, can participate indirectly in the exchange bond market, by routing their buy and sell orders through the member securities firms. At the same time, if so admitted by the exchanges, commercial banks and other financial institutions may receive direct access to the centralized trading platform of the exchanges as nonmember participants (see also Chapter II.H for further details).

Table 4.2: Debt Securities Turnover on the Shenzhen Stock Exchange
(CNY billion)

Bond Type (债券现货)	2014	2015	2016	2017	2018
Treasury bonds (国债)[a]	1.28	1.70	3.73	13.75	0.51
Local government bonds (地方政府债)					3.81
Government support bonds (政府支持债券)				–	1.96
Policy financial bonds (政策性金融债)				–	22.94
Securities company subordinated bonds (证券公司次级债)				5.20	18.01
Securities company short-term notes (证券公司短期债)				3.05	4.42
Enterprise bonds (企业债)	20.21	11.66	6.08	4.83	1.89
Corporate bonds (公司债) total[a]	191.32	216.10	347.41	1,005.14	928.56
Publicly offered corporate bonds (公开发行公司债券)				381.48	437.68
Non-publicly placed corporate bonds (非公开发行公司债券)[b]				600.29	472.09
Exchangeable corporate bonds (可交换公司债)				–	0.78
Non-publicly placed exchangeable corporate bonds (非公开发行可交换公司债券)				23.37	18.01
Convertible bonds (可转换公司债)	31.18	66.71	29.81	41.09	215.90
Detachable convertible bonds (分离式可转债)				–	–
Asset-backed securities (资产支援证券)				–	–
Total	**243.98**	**296.17**	**387.02**	**1,073.06**	**1,197.99**

CNY = Chinese renminbi.
[a] Prior to 2018, the Shenzhen Stock Exchange (SZSE) did not break down central and local government bond trading numbers; prior to 2017, it did not break down corporate bond trading numbers into the above categories.
[b] Includes small and medium-sized enterprise private placement bonds.
Source: SZSE. 2016. *SZSE Fact Book 2016*. Shenzhen; SZSE. Overview. http://bond.szse.cn/marketdata/statistics/overview/co/index.html.

Trading counterparties may also conclude deals in debt securities between themselves and then capture the trade details in the appropriate function of the trading platform of an exchange.

B. Trading Platforms

The exchange bond market trading is based on continuous order-driven pricing quotes on the centralized automatic trade-matching systems at the SSE and the SZSE, respectively, and trades are settled on a net amount basis through CSDC, as the dedicated settlement institution and depository for the exchange bond market.

Other than the continuous order-driven trading mechanism, SSE also has a dedicated fixed-income platform.[69] Transactions on the electronic platform are either in the form of quotation transactions or price inquiry-based transactions (please refer to the next section for more details on the SSE trading platforms). Shenzhen Stock Exchange also has a trading platform similar to the Shanghai Stock Exchange fixed-income trading platform.

CSDC also maintains a general bond account in CCDC, to facilitate cross-market transactions and giving exchange bond markets the ability to trade or pledge their positions in fungible debt securities in the CIBM.

The features of the exchange bond market platforms are illustrated below using the example of the SSE. In keeping with the unified guidance approach by CSRC and the use of standards and common practices across the exchange bond market, the features available on SZSE are same or similar to those described here.

1. Shanghai Stock Exchange

The SSE provides the market with technical systems for product trading and trading-related activities across three electronic trading platforms: (i) the matching transaction platform (MTP), (ii) the alternative trading platform (ATP), and (iii) the fixed-income securities platform (FSP). The trading platforms are distinguished in the manner described below. For further details and the specific applicability to bond trading on the MTP, ATP, or FSP, please also refer to the SSE Trading Rules (交易规则).[70]

i. Matching Transaction Platform

This platform provides the market with trading services for stocks, closed-end funds, open-end funds, exchange-traded funds, listed open-ended funds, stock pledged repos, and bond pledged repos. In addition to bond repos, the MTP also facilitates the trading of most bonds except trades in private placement bonds, including the pre-issuance trading of Treasury bonds.

The underlying trading system is called New Generation Trading System, which was launched at the end of 2009.

ii. Alternative Trading Platform

This platform provides the market with trading services for block trading, purchase and redemption of money market funds, exchange-traded funds and listed open-ended funds, agreed repos, and quotation repos.

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[69] For more details, please see http://english.sse.com.cn/tradmembership/tradingsystem/fixedincome/.
[70] See http://english.sse.com.cn/tradmembership/rules/c/3977570.pdf.

iii. Fixed-Income Securities Platform

This platform provides the market with trading services for Treasury bonds, local government bonds, enterprise bonds, corporate bonds, convertible bonds, exchangeable bonds, ABS, bond repos, and private placement bonds. The FSP provides one production (live) environment and one simulation and testing environment which is available to participants 24 hours a day. Please also see the later parts of this section for a description of some of the features of the FSP.

The official name for the FSP is the Integrated Electronic Platform of the Shanghai Stock Exchange for Fixed-Income Securities, which was launched on 25 June 2007. The term "fixed-income securities" refers to debt securities including Treasury bonds, corporate bonds, and ABS. Bond trades on the Integrated Electronic Platform of the Shanghai Stock Exchange for Fixed-Income Securities include inter-dealer trades and dealer–client trades.

For details on the rules of the FSP, please refer to the Interim Provisions on the Trading of the Integrated Electronic Platform of Fixed Income Securities of the Shanghai Stock Exchange (上海证券交易所固定收益证券综合电子平台交易暂行规定).

The trading platforms and their underlying systems are provided and maintained by SSE Technology. SSE Technology provides the actual securities trading services (auction trading, block trading, and quotation-driven trading) and technical support, allowing market participants to engage in business activities such as trading, access to market data, exchange of data, as well as other non-trading activities. Market participants are also able to engage in web-based business activities through business processing platforms such as the bond application system.

Trading on these platforms is governed by the Detailed Implementing Rules for Bond Transactions of the Shanghai Stock Exchange (Trading Rules). Investors participating in bond transactions on the SSE shall designate one SSE member firm in advance as its agent and enter into an agreement for designated trading as well as a client-broker agreement for bond spot transactions and bond repo transactions with such agent.

On the platform, participants are classified into primary dealers and general dealers as exchange members, and indirect participants. Primary dealer refers to a dealer approved by the SSE to provide continuous bilateral quotations and to provide quotations in response to inquiries on the SSE platform; the practice is referred to as market-making (see also Chapter III.M for a detailed description of market participants). Dealer refers to a securities company, a fund management company, a finance company, an insurance asset management company, or any other institution approved by the SSE as a trading participant on the SSE platform.

Dealers shall ensure the truthfulness and accuracy of negotiated trades. Dealers shall be fully liable for any execution order they send without the consent of its clients or not based on a real trading situation. Dealer–client trades refer to trades of debt securities listed on the SSE platform executed through private negotiation between the dealer qualified as a broker and its client.

In order to participate in trading on the FSP, dealers and primary dealers shall sign the Master Agreement on Trading of Fixed-income Securities Platform and comply with the relevant provisions stipulated in the Detailed Implementing Rules for Bond Transactions of the Shanghai Stock Exchange. In the absence of provisions in these rules on any specific subjects, the Listing Rules and other relevant rules of the SSE shall apply.

Primary dealers and general dealers can directly engage in trading, and indirect participants can engage in trades only by using primary dealers or general dealers. The Notice on the Publication and Implementation of the Interim Rules for Trading on the Integrated Electronic Platform of Fixed Income Securities of the Shanghai Stock Exchange applies to trades executed through the FSP.

Some of the FSP features are detailed below.

a. Market Participants

The electronic platform meets the needs of a two-tiered market: dealers can directly participate in the centralized trading and securities companies in their capacity as dealer can trade debt securities with their brokerage clients through private OTC transactions and then send the results to the electronic platform.

b. Trading Hours

Spot trading hours on the MTP for key maturity issues are between 9:30 a.m. and 11:30 a.m., and between 1 p.m. and 3 p.m. (see also section D). After the close of spot trading hours, the overnight outright repo function will automatically lend bonds to primary dealers and freeze relevant funds accordingly. Prior to market opening on the next business day, the system will automatically transfer bonds back to the lender.

The trading hours for outright repo (also on the MTP) are between 9:30 a.m. and 11:30 a.m., and between 1 p.m. and 3 p.m.

c. Trading Models

Trades on the electronic platform are either in the form of quotation trades or price inquiry-based trades. Both the quotation trades and price inquiry-based trades are inter-dealer trades. Quotation trades refer to the trading model where a dealer submits quotations either anonymously or named to the whole market and other dealers accept its quotations. Dealers must specify their bids and offers either as firm quotations or non-firm quotations. Price inquiry-based trades refer to the trading model where a dealer submits price inquiries to multiple (up to 5) other dealers, with the inquirees providing quotations and the inquirer accepting such quotations.

d. Settlement Models

At present, FSP supports a variety of settlement methods, including T+1 real-time gross settlement (for bonds traded only on FSP) and net guaranteed settlement (applicable to bonds traded in both FSP and MTP).

For Treasury bonds, the T+1 net settlement practice is adopted. Here, CSDC serves as a central counterparty (CCP) to guarantee the settlement of spot trades and outright repo trades. Both bonds and cash are settled using the existing net settlement mechanism, whereby trades are netted by the electronic platform and the matching system.

e. Market-Making Mechanism

The market-making system is the most critical component for the efficient functioning of the electronic platform and is at the heart of both market organization and system design. SSE has selected a group of so-called primary dealers from among the dealers as market makers. Primary dealers can provide margin trading and a short sale facility and are required to make continuous bilateral quotations to maintain market liquidity.

f. Information

The electronic platform provides quotation information and execution information on a real-time basis to members and indirect participants.

The quotation information is generated from firm quotations while execution information includes statistics information and trade-by-trade information. Market data is disseminated through the electronic platform as well as the SSE's website and information vendors.

2. Shenzhen Stock Exchange

The SZSE uses the Shenzhen Trading System, the Integrated Negotiating Trade System, and a block trade system for the execution of bond trades. Bonds can be spot traded on the Integrated Negotiated Trading Platform by negotiation and on the Centralized Quotation System by centralized bidding.

C. Trading Methods and Conventions

The methods of trading and trading conventions at the SSE and SZSE do not differ significantly. At the same time, both exchanges are able to determine and enforce their own rules; hence, it is practical to detail some of their individual practices for easy reference and in case of future changes.

Further information on the trading process and practices of the SSE and SZSE markets, as well as on the prescribed trading conventions, may be found on the exchanges' respective websites.

1. Shanghai Stock Exchange

The SSE conducts trading in debt securities across its platforms from 9:15 a.m. to 3 p.m. on any day that is not a weekend or a national holiday in the PRC. The opening session of each trading day operates using the call auction principle in order to determine a suitable opening price and the continuous auction concept is used after the opening session.

Call auction refers to an auction method to determine the price of the order-driven auction market by collecting orders at specified times for the market opening. Continuous auction represents the continuous operation of the auction principle during trading hours and trades are executed whenever a buy and sell order can be matched. The individual trading sessions are illustrated in Table 4.3.

For each trading day, the opening call auction session is from 9:15 a.m. to 9:25 a.m., and the continuous auction sessions are from 9:30 a.m. to 11:30 a.m., and from 1 p.m. to 3 p.m. For block trades, the SSE accepts two types of orders: intent orders and execution orders. Intent orders are accepted from 9:30 a.m. to 11:30 a.m., and from

1 p.m. to 3:30 p.m., and execution orders from 3 p.m. to 3:30 p.m. Repo trading on the MTP in the main session ends at 3:30 p.m.

Table 4.3: Shanghai Stock Exchange Trading Hours

Session	Start Time	End Time
Opening call auction session	9:15 a.m.	9:25 a.m.
Continuous auction sessions	9:30 a.m.	11:30 a.m.
	1 p.m.	3 p.m.
Intent orders for block trades are accepted	9:30 a.m.	11:30 a.m.
	1 p.m.	3:30 p.m.
Execution orders for block trades are accepted	3 p.m.	3:30 p.m.

Note: Trading hours given for the matching transaction platform.
Source: Shanghai Stock Exchange. Schedule. http://english.sse.com.cn/tradmembership/schedule/.

Auction trading is based on the principles of price-time priority and client order priority. All orders for bonds must be limit orders, not market orders.[71] There is no price limit for trades on the MTP, but there is a price cage mechanism. Debt securities trades on the FSP are subject to a daily price limit, with a daily price fluctuation limit of 10%.[72]

During auction trading, an order for bonds may be placed for a face value of CNY1,000, considered as one round lot, or its multiples. The quotation unit for debt securities is CNY100 par value. The tick size of an order for bonds must be CNY0.001. According to the SSE Trading Rules, for a single order for bonds, the intended trading volume shall be no less than 1,000 lots or the transaction value shall be no less than CNY1 million.

Block trading is conducted separately to avoid any overwhelming impact on small trades executed through the auction trading system. A single block trade order for bonds and bond repos other than Treasury bonds shall be no less than 1,000 lots, with the tick size being CNY0.01 and the quotation unit being CNY100 par value, and not be less than a transaction value of CNY1 million. On the other hand, a single block trade order of Treasury bonds shall not be less than 10,000 lots, and a single order shall have a transaction value of not less than CNY10 million.[73] SSE may adjust the minimum limit for block trades according to market conditions.

Spot trades in bonds are carried out either through the auction trading system, the block trading system, or the FSP.[74] Except for convertible bonds, spot trades in bonds are executed on a clean (net) price basis and orders are submitted through securities accounts. Spot trading orders are limited to 10,000 round lots (i.e., representing a face value of CNY10 million).

Transactions on the FSP are usually done in the form of quotation transactions (firm quotation trades) or price inquiry-based transactions. Trades by agreement,

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[71] Limit order is an order to buy or sell a set amount of bonds at a specified price or better. Market order is an order to buy or sell bonds immediately at the best available current price.
[72] For details, see Section 3.4.16 of the SSE Trading Rules (Revised 2018).
[73] For details, see Chapter III, Section 7, Articles 3.7.1 (3) and (4) of the SSE Trading Rules (Revised 2018).
[74] The Detailed Implementing Rules for Bonds Transactions of the Shanghai Stock Exchange apply to spot trades and repos in Treasury bonds, corporate bonds, enterprise bonds, and convertible bonds with warrants executed through the auction trading system.

trades with designated counterparties, and emergency trades may also be executed on the FSP. In the case of quotation transactions, dealers can submit quotations either anonymously or under their real names. In the case of price inquiry-based transactions, dealers must submit quotations under their real names. In the case of quotation transactions, dealers must specify their bids and offers either as firm quotations or non-firm quotations. The SSE will arrange the firm and non-firm quotations in the order of price, respectively.

In the case of firm quotations, transactions will be executed after the quotations are accepted by other dealers and upon verification by the SSE platform (FSP). In the case of non-firm quotations, transactions will be executed upon the verification on the FSP if the quotations are confirmed by the quotation provider within 20 minutes after being accepted by other dealers. Any quotations not confirmed within 20 minutes will be canceled automatically.

In the case of quotation transactions, the volume of each quotation shall be 5,000 round lots (i.e., representing a face value of CNY5 million) or integral multiples thereof and transactions are executed trade by trade on a 5,000 round lots basis. In the case of price inquiry-based transactions, an inquirer can submit price inquiries to five inquirees each time. The quotations provided by the inquirees must be firm quotations. If a quotation provided by an inquiree is accepted by an inquirer within 20 minutes after the price inquiry is submitted, the SSE platform will confirm that a transaction is concluded. If the quotation is not accepted with 20 minutes, both the inquiry and the quotation shall be canceled automatically. Price inquiries can be canceled by the inquirer before they are accepted.

The platform will provide execution results in sequence upon its confirmation of execution of buy and sell orders placed by dealers.

A dealer is not allowed to sell an amount of debt securities that exceeds the balance available for trading in its securities account, or the securities accounts of its clients. For the purpose of market-making, a primary dealer can sell debt securities subject to the limit specified by the SSE. The SSE will determine such limit in consultation with CSDC and can adjust such limit in line with market needs. The debt securities purchased by dealers on a particular day can be sold on the same day. Debt securities specified on a particular day as pending for settlement can be sold on the next trading day.

As stated in the SSE Trading Rules, the closing price on the SSE is based on the trading volume weighted average price of all the trades of the same bonds during the one minute before the last trade (including the last trade) on a given day.[75] In the absence of any trade on a trading day for a particular bond, the previous closing price is taken as the closing price of that day.

2. Shenzhen Stock Exchange

The SZSE conducts both opening and closing call auction sessions, with the main sessions using the continuous auction method between 9:30 a.m. and 2:57 p.m., divided by a lunch break. The individual trading sessions are illustrated in Table 4.4. A trading calendar, including the official holidays for a given calendar year, is available on the SZSE website.[76]

[75] The Detailed Implementing Rules for Bonds Transactions of the Shanghai Stock Exchange apply to spot trades and repos in Treasury bonds, corporate bonds, enterprise bonds, and convertible bonds with warrants executed through the auction trading system. The Notice on the Publication and Implementation of the Interim Rules for Trading on the Integrated Electronic Platform of Fixed Income Securities of the Shanghai Stock Exchange applies to trades executed through the Electronic Platform (SSE Trading Rules, Chapter 4, Section 1, Article 4.1.3).
[76] See http://www.szse.cn/English/services/trading/calendar/index.html.

As stipulated in the SZSE Trading Rules (Chapter, IV, Section 2, Article 4.2.3), the closing price on the SZSE is determined in the closing call auction session.

Table 4.4: Shenzhen Stock Exchange Trading Hours

Session	Start Time	End Time
Opening call auction session	9:15 a.m.	9:25 a.m.
Continuous auction sessions	9:30 a.m.	11:30 a.m.
	1 p.m.	2:57 p.m.
Closing call auction session	2:57 p.m.	3 p.m.

Source: Shenzhen Stock Exchange. Trading System. http://www.szse.cn/main/en/Products/Trading/TradingSystem/.

During auction trading, an order for bonds is placed at a face value of CNY1,000 or multiples thereof.

At the SZSE, block trading is managed separately from the auction system to refrain from any impact on auction trades executed through the auction trading system. A single block trade of any debt securities shall not be less than a face value of CNY500,000 or not less than a transaction value of CNY500,000.[77] Negotiated block trading may be carried out from 9:15 a.m. to 11:30 a.m., and between 1 p.m. and 3:30 p.m. After-hours fixed price block trading takes place from 3:05 p.m. to 3:30 p.m.

Bond trades are eligible for turnaround trades on T+0 (i.e., bonds bought may be onward sold during the same trading day).

D. Trade Reporting

As a result of being conducted on an exchange platform, trades executed on the exchanges are recorded in the exchange systems by default and are available for review, inspection, and surveillance, as may be necessary. The SSE and SZSE platforms will publicize, via trading terminals and other access points for members and nonmember participants, firm quotation information as well as information on executed trades. In the case of anonymous quotations, the platforms will only disclose the prices and volumes of quotations without naming the relevant dealers. Complete data on recorded trades is also available through the market data services of the exchanges (see section G).

E. Market Monitoring and Surveillance

As a result of the unified approach to guidance for the market and the supervision of market institutions favored by CSRC, market monitoring and surveillance is carried out by SSE and SZSE on their markets in a similar manner. The example of the SSE is used here.

[77] SSE Trading Rules, Chapter III, Section 6, Article 3.6.1 (4).

1. Shanghai Stock Exchange (as an Example)

The SSE monitors transactions on its platform on a real-time basis and deals with unusual trading activities and breaches of laws and regulations pursuant to the relevant regulations of the SSE. Any dealer or primary dealer that breaches these rules will be punished by the SSE pursuant to the relevant regulations, up until the possibility of its dealer or primary dealer status being suspended or terminated.

CSDC may request that the SSE restrict the trading activities of any dealer or primary dealer that commits a material breach of the rules of CSDC.

F. Bond Information Services

Investors are principally able to obtain information on bond and note issuance, issuer details, and underlying financial data through the information disclosure prescriptions in law and regulations. In addition, a number of market institutions may also offer—typically through their websites—comprehensive information on the bond market, ranging from general descriptions of the market and instruments to the detailed provision of prices or yields, yield curves, and other analytical data.

Bond information disclosure is generally classified into (i) information disclosure before issuance, including issued documents, prospectus or bond information memorandum, rating documents, legal opinions, and other contents; (ii) information disclosure after issuance, such as the issuing result, and (iii) information disclosure through the life of the bonds, such as credit rating documents, financial reports, interest and principal payment announcements, major issues announcements, and other such events.

The information disclosure requirements in the exchange bond market may differ from those for the CIBM; at the same time, the information disclosure requirements for different bond types within the same market may also vary. Information disclosed in the exchange bond market is principally available from websites designated by CSRC. For a detailed description of the disclosure requirements in the exchange bond market, please refer to Chapter II.G.

The following section provides an overview of the bond information service available on debt instruments listed and traded in the exchange bond market, without the need to study issuance specific disclosure information.

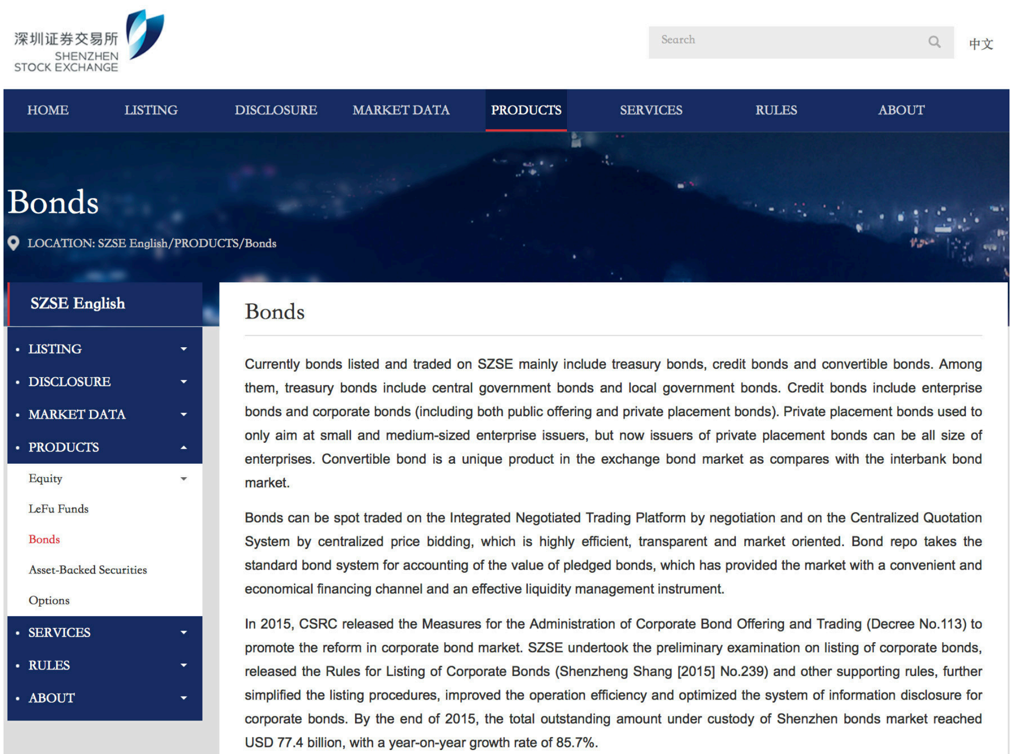
1. Information on Government Bond Issuances

Treasury bonds are listed and traded in the exchange bond market. At the same time, 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.[78] 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 website offers the latest yield information and yield curves for central government bonds; the yield curve is calculated for the PBOC by CCDC.[79] For more information on yields and yield curves, please also see section H.1.

[78] See www.mof.gov.cn.
[79] See http://www.pbc.gov.cn/english/130727/index.html.

2. Information on the Exchange Websites

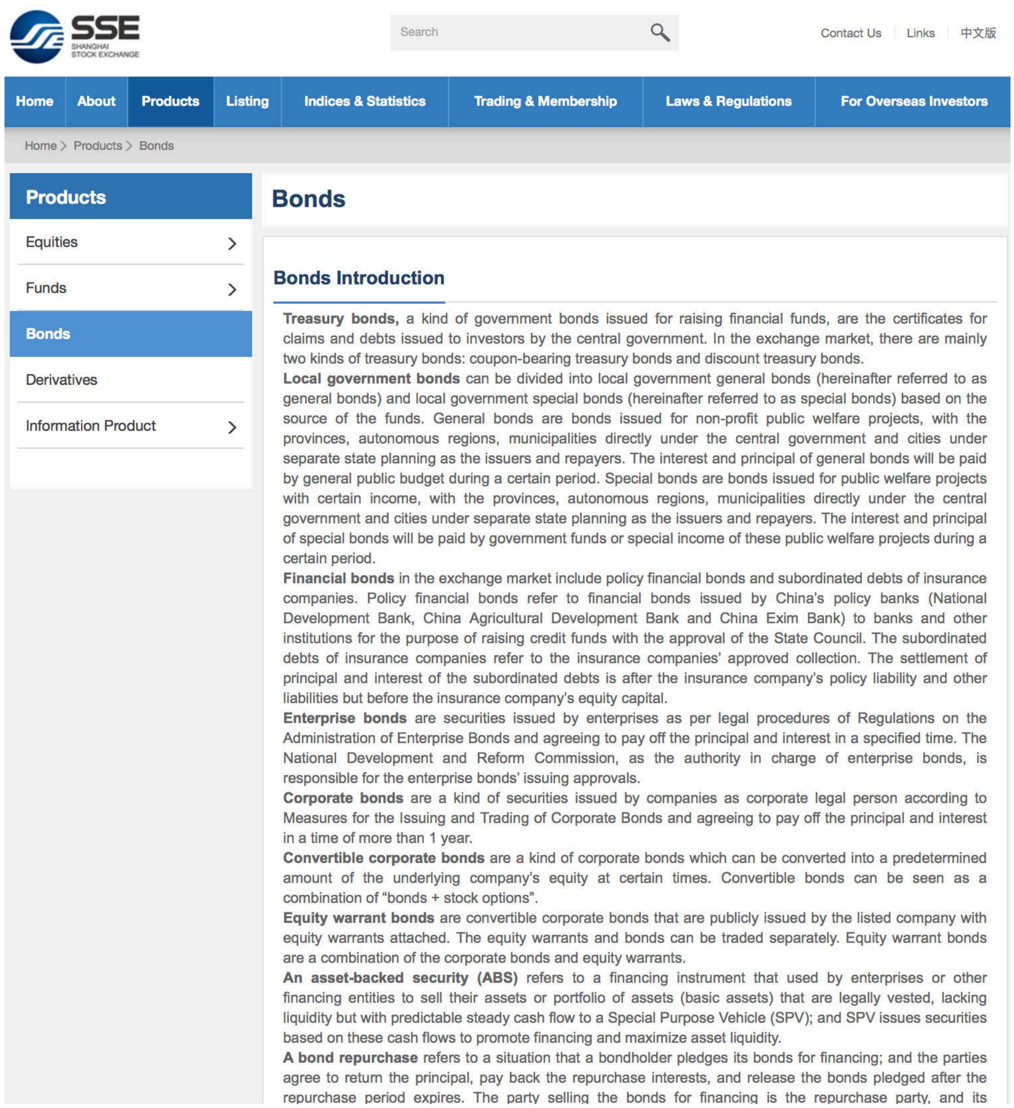
Figure 4.1: Basic Bond Information on the Shenzhen Stock Exchange Website



Source: Shenzhen Stock Exchange. Bonds. http://www.szse.cn/English/products/bonds/.

Basic information on the debt instruments listed on the exchanges is available from the exchange websites. An example for the SZSE is given in Figure 4.1, while an example of information on the SSE can be seen in Figure 4.2. At the same time, the exchanges provide much information on the traded debt securities, quotations, and transactions on their markets, as part of their market data services (see next section).

Figure 4.2: Basic Bond Information on the Shanghai Stock Exchange Website



Source: Shanghai Stock Exchange. Bonds. http://english.sse.com.cn/products/bonds/.

3. Market Data Services

The exchanges or related companies and dedicated information vendors may separately publish general bond information, as well as price and yield data, and the outcome of trading activities through their own proprietary channels. These are often referred to as market data services.

For example, the SSE provides market data on its platforms, including market data for

i. transactions on MTP; the MTP's market data system is responsible for releasing market data on products listed for auction trading, including bonds;
ii. transactions on ATP; the ATP's market data system is responsible for releasing market data on products listed on the platform; the system mainly distributes ATP market data files; and

iii. redistribution, including (a) redistributed market data from the SZSE on SZSE-listed products, and (b) redistributed market data from the Southbound Trading Link Platform on products traded through the Southbound Trading Link.

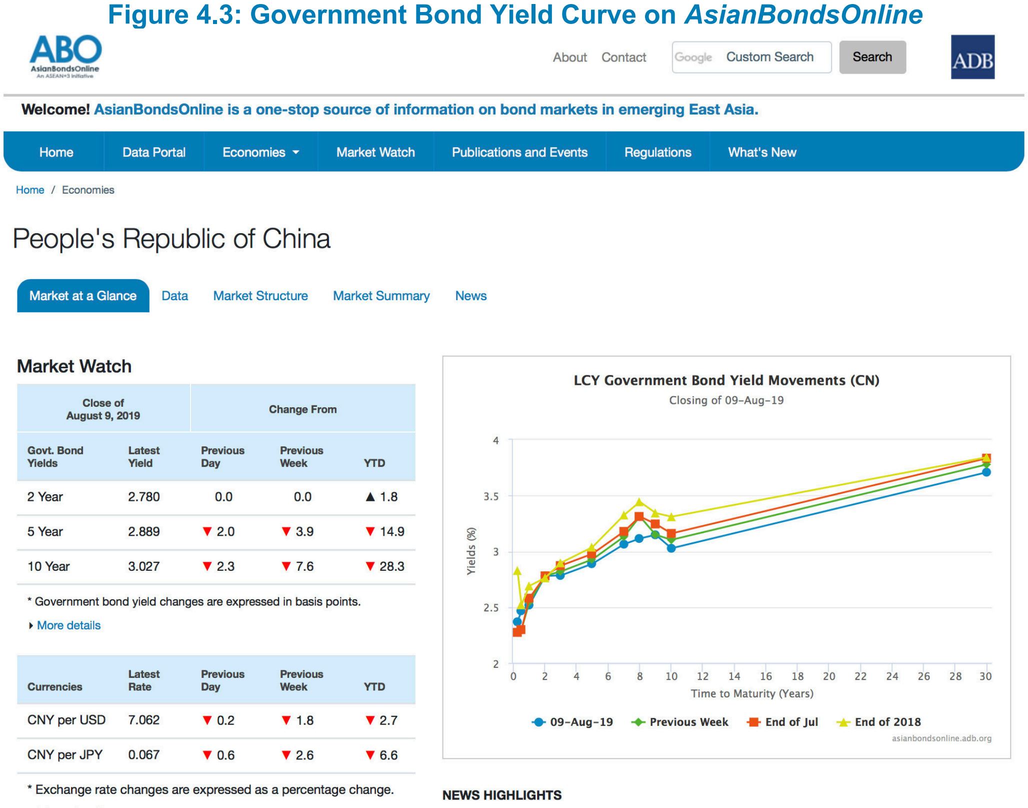
Information on debt instruments traded in the exchange bond market is also available from Bloomberg and other international bond trading platforms.

G. 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 the bonds. Bond yield curves are an important pricing reference for deposit and lending, fixed-income, and other financial products.

1. Yields and Yield Curves

Figure 4.3: Government Bond Yield Curve on *AsianBondsOnline*



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.

Bond yield curves are available from a number of providers in each segment of the PRC bond market. For the exchange bond market, the key information providers are the SSE and SZSE, their related companies, as well as data vendors.

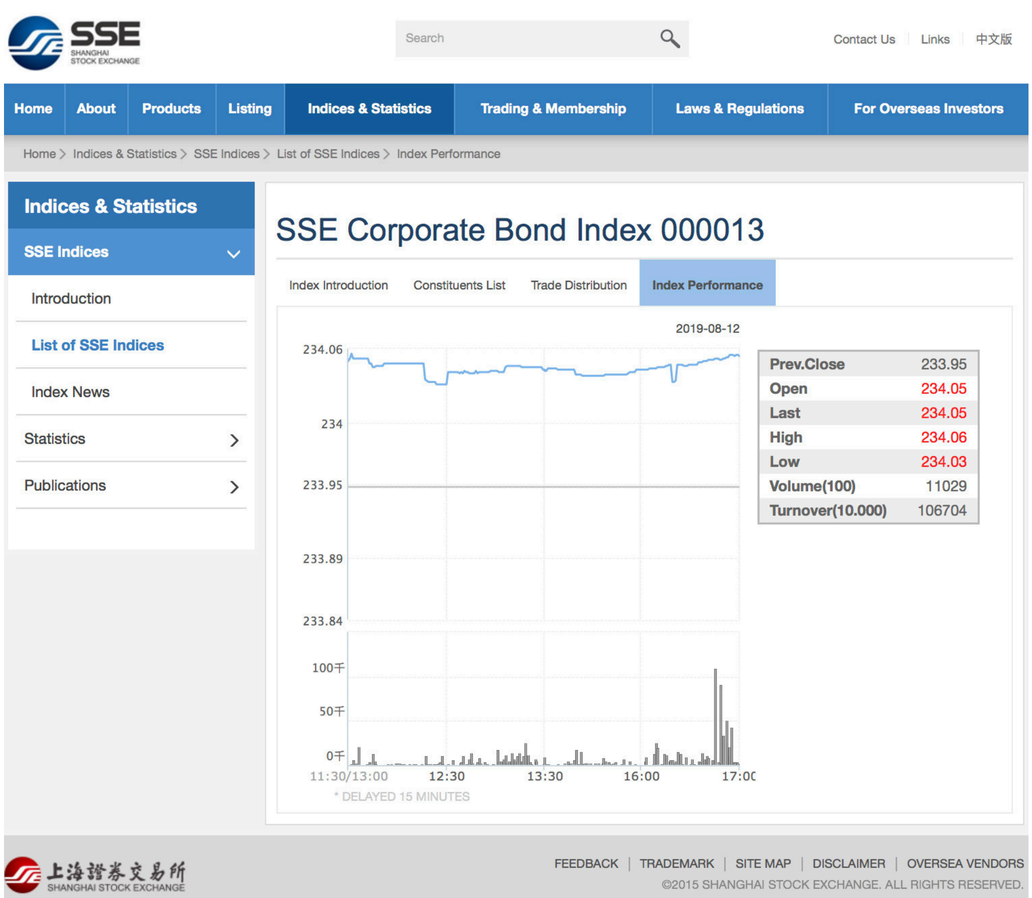
Yields and yield curves for debt instruments traded on the exchanges are available through the trading terminals of exchange members and participants from the respective exchange websites, and via approved data vendors. Yields and yield curves on bonds listed on the exchanges are also available from the international trading systems with connection to the exchanges.

Information on yields, yield curves, as well as price data, particularly on government bonds, is also available from the *AsianBondsOnline* website through an initiative of ASEAN+3 (Figure 4.3).

2. Bond Indexes in the Exchange Bond Market

a. Shanghai Stock Exchange

Figure 4.4: Bond Index Information on the Shanghai Stock Exchange Website



SSE = Shanghai Stock Exchange.
Source: SSE. Indices and Statistics—Index Performance.
http://english.sse.com.cn/indices/indices/list/basic/index.shtml?COMPANY_CODE=000013&INDEX_Code=000013.

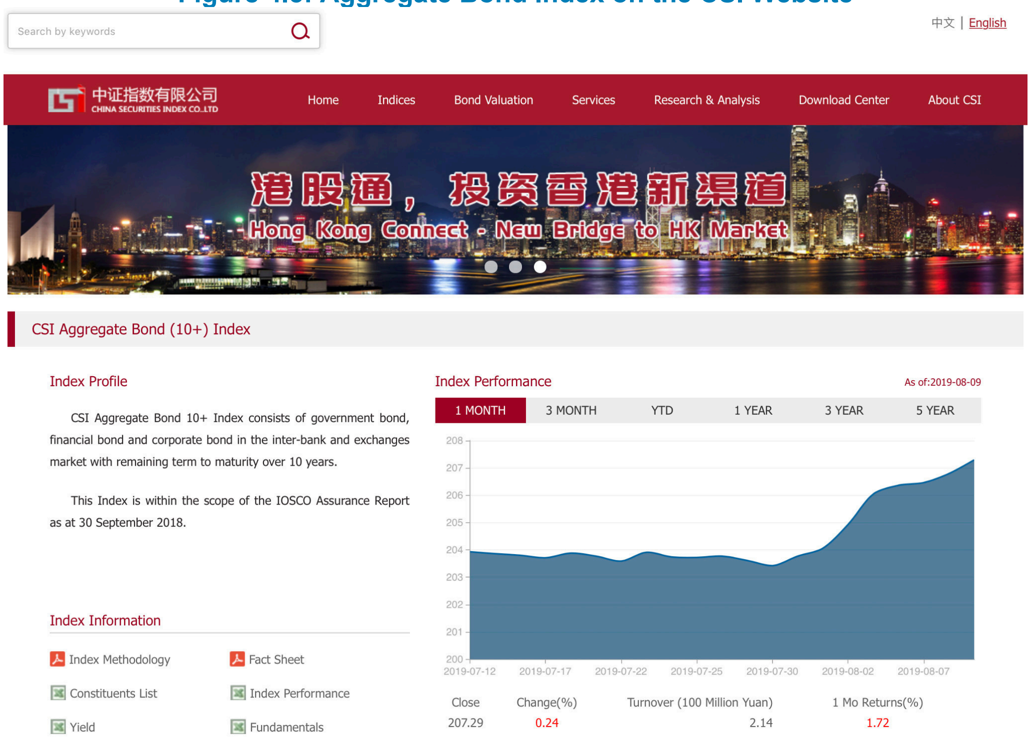
The SSE calculates and provides to the market a series of 24 bond indexes for the exchange bond market. Among the indexes available are government bond and corporate bond indexes, as well as specialized indexes for green bonds, specific tenors, and bond categories. For example, the SSE Enterprise Bond 30 Index—the PRC's first constituent bond index published on a real-time basis—selects 30 of the highest-quality, largest, and most liquid enterprise bonds.

The list of indexes, as well as background on their constituent instruments, calculation, and performance are available in detail from the SSE website. Figure 4.4 gives an overview of the available information on each index.

b. China Securities Index Co., Ltd.

CSI is a joint venture between the SSE and SZSE that specializes in the creation and management of indexes and index-related services. CSI is dedicated to serving the capital market and promoting financial innovation relying on the information and technical advantages of the two exchanges. CSI has created its own series of indexes and supports exchange indices and customized indexes.

Figure 4.5: Aggregate Bond Index on the CSI Website



Source: China Securities Index Co., Ltd (CSI). CSI Aggregate Bond Index. http://www.csindex.com.cn/en/indices/index-detail/H11005.

Currently, as the owner and administrator of the CSI 300 Index, which is the most recognized index in the PRC and will become the underlying index of the forthcoming Chinese Index Future, CSI has launched a series of other indices covering a range of characteristics including size, sector, bond, style, and other customized measures.

As the first bond index designed and launched by CSI, the CSI Aggregate Bond Index (Figure 4.5) covers both the exchange bond market and the CIBM. The index consists of government bonds, financial bonds, and corporate bonds in the exchange bond market and the CIBM. The end-of-day closing index and related bond indicators are calculated and disseminated each day by CSI, which provides analysis tools and benchmarks for bond investors. Model pricing is applied in case of abnormal prices or the absence of prices, which can better reflect the real value and yield character of bonds.

The CSI Aggregate Bond Index series also includes four different term-to-maturity indexes and three credit classification indexes. Debt securities with terms-to-maturity of 1–3 years, 3–7 years, 7–10 years, and more than 10 years are selected as constituents of the corresponding subindices of the CSI Aggregate Bond Index. Moreover, constituent bonds of the CSI Aggregate Bond Index are allocated to the corresponding subindices, according to their classification as government bonds, financial bonds, or corporate bonds.

Further information on CSI is contained in the CSI information service handbook, which is available for download from the CSI website.[80]

H. Repo Market

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

In the inter-bank bond repo market, transactions are conducted through the over-the-counter method as private one-to-one negotiations between institutional participants, while in the exchange bond market the exchanges not only facilitate transactions but also CSDC acts as the central counterparty to all repo sellers and repo buyers. The focus in this Bond Market Guide is the repo business in the exchange bond market.

According to the SSE Trading Rules (Revised 2018) Chapter III, Section 8 3.8.2, a bond pledged repo is a short-term, CNY-denominated pledge financing transaction in which a bondholder pledges a bond and calculates the number of standard vouchers calculated by the standard bond conversion ratio (discount rate) as the financing amount. The parties agree to expire the repurchase period after returning funds and releasing the pledge transaction.

In bond repurchase transactions, the party that borrows funds and pledges bonds is called the repo party, and the party that lends and holds the pledge right of bonds is called the reverse repo party. The repo represents a financing activity where the repo party pledges the bonds to the reverse repo party, and at the same time the two parties agree that the repo party will return to the reverse repo party the amount of funds at the appointed repo interest rate, and the reverse repo party will return the pledged bonds to the repo party at a future date determined by the two parties.

In contrast, a buyout or outright repo is a contract for the sale of bonds or notes with a commitment by the initial seller (repo-seller, effectively a money borrower) to buy back the same bonds from the initial buyer (repo-buyer, effectively a money lender) at a pre-agreed specific price on a pre-agreed designated future date after a pre-agreed fixed period of time.

1. Stock Exchange Repo Market Overview

In 2016, stock exchange repo transactions represented 27% of the total market repo volume in the PRC. Repo transactions in the exchange bond markets are supervised by CSRC. Among the stock exchanges, the SSE has the dominant market share of stock exchange repo transactions. For example, SSE pledged repo transactions can be entered into between 1 p.m. and 3:30 p.m. on the MTP platform, and the bilateral repurchase and tripartite repurchase will be from 1 p.m. to 3:15 p.m. (see also section C in this chapter for more details on trading hours and information on trading platforms of the exchanges).

The stock exchange pledged repo model is unique in that not only do the exchanges facilitate the transactions but also CSDC acts as the central counterparty to all repo

[80] See http://www.csindex.com.cn/uploads/services/data/files/en/data_service_en.pdf.

buyers and sellers. The concept of "one execution and two clearings and settlements" is adopted in bond repo transactions. The clearing and settlement of bond repo transactions are governed by the relevant regulations of CSDC.

Yields in the exchange bond repo market are driven by supply and demand; however, stock exchange repo interest rates or yields are more volatile than those in the Inter-Bank Repo Market, due to the lack of a corresponding function to PBOC's open market operation, which has a moderating influence on supply and demand in its market.

The stock exchanges provide three formats of bond repos, namely the standardized repo, bilateral repo, and triparty repo. Standardized bond repos are conducted as collateral repos, while bilateral repos can be traded as either a buyout repo or a collateral repo. On the SSE, in terms of market share, the bilateral repo and triparty repo are smaller, accounting for less than 1% of the repo volume.

Both SSE and SZSE offers standardized repo products. Its standard bond is not an actual bond, but a calculated maximum quota converted from the collateral bonds to control the amount of repo transactions of a bond lender. According to the Measures for the Administration of Conversion Rate of Standard Securities released by CSDC, the standard bond is the calculated amount of collateral bonds' par value discounted at a conversion rate, which is codetermined by recent average price, bond credit rating, price volatility, and average repo rate, among other factors. Standardized repo transactions are netted through CSDC as the CCP, and the orders are matched anonymously.

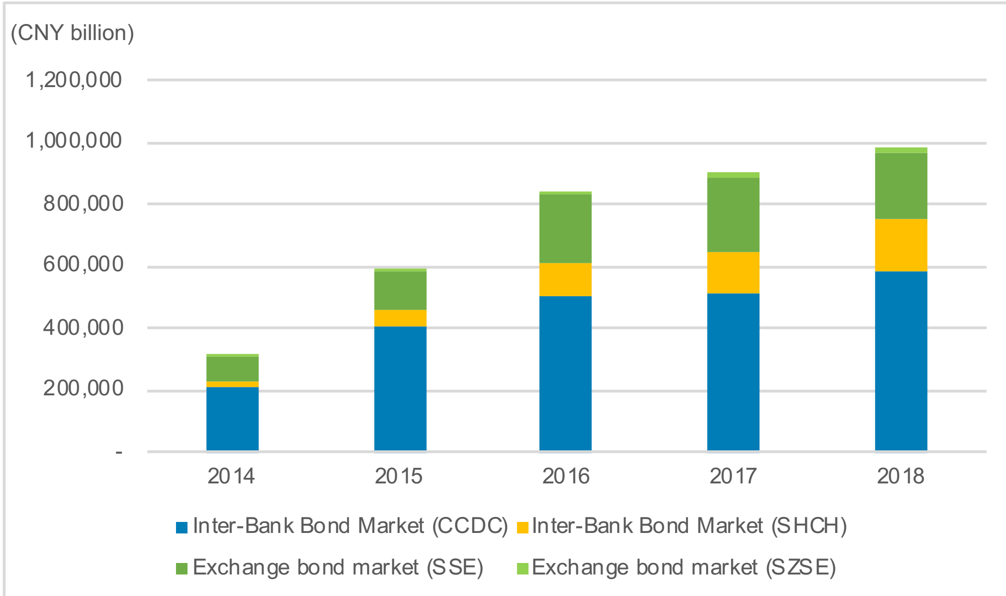
The "standardized bond" is used to measure the amount of loan that can be granted in a standardized repo by applying the applicable conversion factor to the different bond products. Under the netting arrangement, CSDC, acting as the CCP, carries out the guaranteed settlement of standardized repos to segregate risks. Standardized repos are traded through the call auction system and orders are matched strictly pursuant to the principle of price-time priority (see also section C in this chapter), with the repo interest rate determined by demand and supply. Price formation is entirely market driven.

Bilateral repos are entered into by two parties as either a collateral repo or buyout repo, upon independent negotiation. As a bilateral repo allows for renewal and netting upon renewal, a third party may substitute for the existing reverse repurchasing party upon renewal of the bilateral repo. A bilateral repo is settled between two clearing participants and its settlement is not guaranteed by CSDC and carried out on a trade-by-trade basis. The risk specific to bilateral repos is the counterparty risk while the credit risk of standardized repos is mitigated by the netting agreement with CSDC as CCP.

2. Repo Market Size

For general orientation, Figure 4.6 gives an overview of the size and composition of the repo market in the PRC. As mentioned, the repo market is divided into the exchange bond repo market and a segment within the CIBM. Within the CIBM segment, repo transactions for instruments at the different depositories for the CIBM may be carried out in a different manner. Please refer to the Bond Market Guide for the Inter-Bank Bond Market in the PRC for more information on the CIBM repo market.

Figure 4.6: 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.

Source: CCDC Bond Market Statistical Analysis Report (债券市场统计分析报告), 2013–2018 (市场交易结算情况); SSE Fact Book 2016, 2017; SSE. Yearly Bond Data Overview (年度债券概况). http://www.sse.com.cn/market/bonddata/overview/yearly/; SZSE Fact Book 2013–2017. http://bond.szse.cn/marketdata/statistics/overview/mo/index.html.

3. Acceptance of Standards

Considered a global standard, the Global Master Repurchase Agreement was referenced for the practices in the exchange bond repo market. However, since repo trading in the exchange bond market is conducted in the public auction market with CSDC as CCP, no specific repo-related documentation needs to be signed between counterparties. At the same time, members and participants sign client agreements between them and the investors whom they service.

4. Specific Repo Practices in the Exchange Bond Market

a. Type of Repo

Under the terminology used in the SSE and SZSE Trading Rules, "pledged repo" is defined as a collateral repo transaction and "outright repo" as a buyout repo transaction.

A collateral repo trade refers to a bond trade in which at the time the bondholder 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. A buyout repo trade 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.

Since 2009, the pledged repo type represents close to 100% of all repo transactions on the SSE and SZSE.

b. Size and Tenor

On the SSE, an order for a bond collateral repo and standardized repo shall be placed at a face value of CNY100,000 or multiples thereof, limited to a maximum transaction value per order of CNY10 million. An order for bond buyout repos shall be placed at a face value of CNY1 million or multiples thereof, with a maximum transaction value per order of CNY50 million.

On the SZSE, an order for a bond collateral repo shall be placed at face value of CNY1,000 or multiples thereof, with the maximum quantity of one order to be less than CNY100 million.

Standardized repos have a standardized term. For example, the SSE offers 9 standardized repo products, with standardized terms of 1 day, 2 days, 3 days, 4 days, 7 days, 14 days, 28 days, 91 days, and 182 days. The term of a bilateral repo is determined by the trading counterparties and ranges from 1 day to 365 days.

c. Eligible Debt Securities as Collateral

In principle, debt securities that can be used for bilateral repo can be any debt securities and ABS that are listed, traded, or transferred on the stock exchanges, whether they are publicly offered or not, and other products recognized by the stock exchanges. In practice, corporate bonds are most often used as collateral.

On the SZSE, convertible bonds and exchangeable bonds cannot be used as collateral for bilateral repo, due to their underlying character. In fact, corporate bonds and SME private placement corporate bond are mainly used as collateral for bilateral repos on the SZSE.

d. Market Participants

Investment funds, insurance companies, and securities companies are the major exchange repo market participants acting as repo sellers (collateral providers and cash borrowers), while money market funds with excess cash to invest are typical participants as repo buyers (cash providers).

Any market participants that meet the investor suitability requirements may participate in bilateral repo trades.

e. Market Access and Participation of Foreign Investors

As at the time of compilation of this bond market guide, foreign investors such as QFIIs or RQFIIs were not able to participate in exchange bond repo transactions, since repo transactions had not been specifically mentioned in the list of permissible investment activities in the regulations governing the QFII or RQFII schemes (see also Chapter II.N, for more information on the QFII and RQFII concepts).

I. Securities Lending and Borrowing

At present, bilateral bond lending and borrowing only occurs in the CIBM.

At the same time, a practice called debt securities lending is practiced in the exchange bond market. Debt securities lending refers to a certain type of contract signed through bilateral negotiation, in which counterparties reach an agreement whereby the borrower pledges a certain amount of self-owned bonds as collateral to borrow specific bonds from the lender and promises to return the specific bonds and get back the pledged bonds at an agreed future date. Debt securities lending was first launched on the SSE in March 2015, following the publication of the SSE Notice on the Pilot Program of Debt Securities Lending Business, and is currently available on the SSE Bond Business Platform. To create a contract, counterparties need to confirm key elements of the contract and submit those via an online application. After the acceptance of the application by the exchange, the SSE will relay the agreed transaction features to CSDC via a data exchange mechanism. CSDC will accordingly arrange settlement and register the pledge of the bonds on a T+2 basis. The outstanding balance of debt securities lending on the SSE amounted to as much as CNY21 billion during the course of 2018.

J. Interest Rate and Fixed-Income Futures

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 the 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' 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.[81]

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 4.7 gives an illustration of the contract details, using the example of the 2-year Treasury bond futures contract. The contract employs physical delivery.

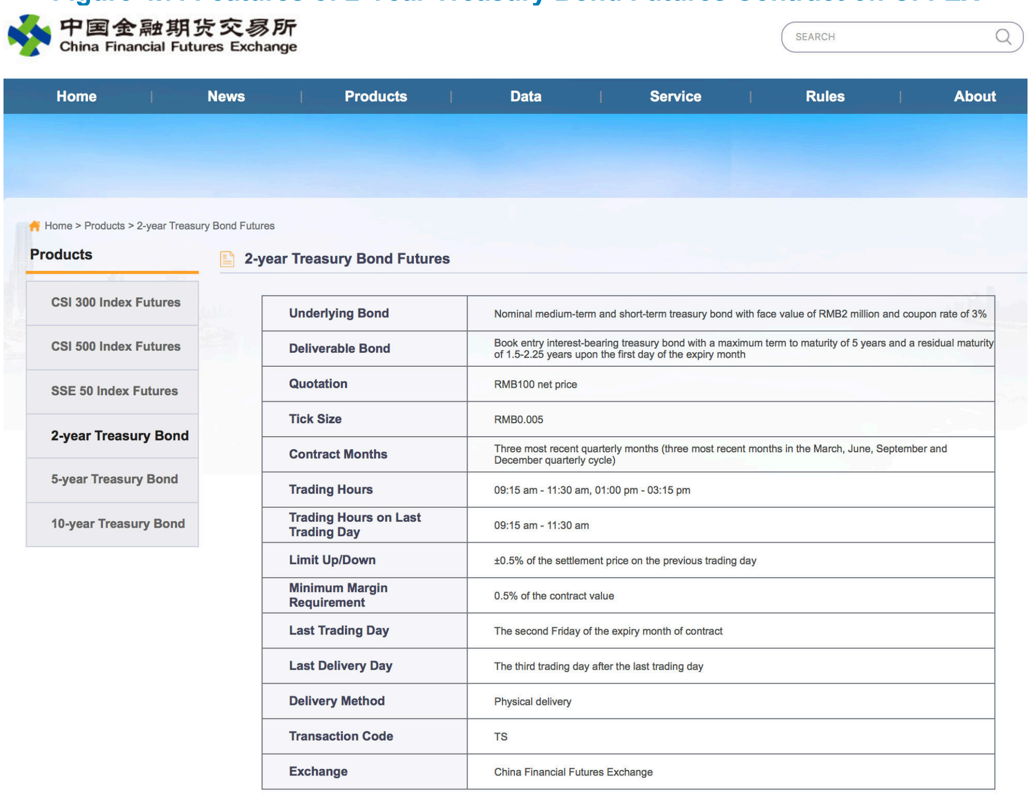
Transactions in Treasury bond futures are subject to the respective business rules issued by CFFEX, such as the Detailed Trading Rules of China Financial Futures Exchange for 2-Year Treasury Bond Futures Contract (as revised from time to time); the version that was current at the time of the compilation of this bond market guide was adopted on 6 August 2018 and first amended on 28 December 2018.[82]

CFFEX applies a hierarchical member clearing system, with members being classified into clearing members and trading members. Clearing members are further categorized, by scope of business, into trading clearing members, full-clearing members, and 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,

[81] The description of activities has been adopted from the CFFEX website.
[82] The CFFEX business rules are available in English at http://www.cffex.com.cn/en_new/ywgz/.

or other financial institutions that meet the eligibility criteria in the CFFEX Membership Rules.[83] Additional participants are the margin holding banks with which members deposit the required initial and variable cash margin amounts for their trading positions.

Figure 4.7: Features of 2-Year Treasury Bond Futures Contract on CFFEX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Products

- CSI 300 Index Futures
- CSI 500 Index Futures
- SSE 50 Index Futures
- 2-year Treasury Bond
- 5-year Treasury Bond
- 10-year Treasury Bond

2-year Treasury Bond Futures

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, fairness, and impartiality; protect the lawful rights and interests of investors, especially SME investors; and prevent systemic risks.

[83] CFFEX. Measures of China Financial Futures Exchange on Membership Management. http://www.cffex.com.cn/en_new/ywgz/20101115/16968.html.