



Shanghai Futures Exchange

**CPSS-IOSCO Principles for Financial Market
Infrastructures**

Information Disclosure

December 2023

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Responding institution: Shanghai Futures Exchange (SHFE)

Jurisdiction in which the FMI Operates: People's Republic of China

Authority Regulating, Supervising, or Overseeing the FMI: China Securities Regulatory Commission (CSRC)

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I. Executive Summary

The Shanghai Futures Exchange (hereinafter referred to as “SHFE” or the “Exchange”) is a central counterparty (CCP) established in accordance with applicable laws and regulations of the People's Republic of China and a legal person that fulfills its duties under applicable laws and regulations, is subject to the centralized regulation of the China Securities Regulatory Commission (CSRC), and exercises self-regulation in accordance with its *Articles of Association*. Under the supervision and regulation of CSRC, SHFE provides futures trading venues, facilities, and services; designs futures contracts; arranges for the listing of contracts; and organizes and supervises futures trading, clearing, and delivery in an open, fair, impartial, and good faith manner. SHFE serves the high-quality development of the real economy and assists global clients in pricing and trading, managing risks, and allocating resources by promoting the efficient operation of the futures market, expanding the product lineup, deepening high-level opening up, enhancing regulatory effectiveness, driving technological innovation, and strengthening internal governance.

In January 2019, CSRC formally approved SHFE as a Qualifying Central Counterparty (QCCP), which means that by benchmarking against international standards, SHFE has further improved its governance, market management, and capacity to prevent and mitigate market risks, thereby laying a solid foundation for its future development.



Members of SHFE are classified into Futures Firm Members (“FF members”) and Non-Futures Firm Members (“non-FF members”). Only members are allowed to directly conduct futures trading and relevant activities on the Exchange. Clients can participate in futures trading, clearing, delivery, exchange of futures for physicals (EFP), hedging quota application, etc. only through FF members.

Designated depository banks (“depository banks”) are banks prudentially designated by SHFE to provide margin depository services. They are as a rule reputable, financially robust large state-owned commercial banks or national joint-stock commercial banks that provide nationwide coverage and advanced inter-city funds transfer capabilities through established margin management rules and competent technical teams. The depository banks are required to comply with the rules of the Exchange and assist the Exchange in providing margin depository and transfer services.

A designated delivery warehouse is a venue approved by SHFE for handling physical deliveries. SHFE regulates the futures business of designated delivery warehouses according to the *Designated Delivery Warehouse Rules of the Shanghai Futures Exchange* (the “*SHFE Designated Delivery Warehouse Rules*”) and applicable detailed delivery measures for relevant products. A designated warehouse is required to establish a separate account for each underlying commodity and designate dedicated persons to be in charge of the physical delivery.

Clearing and settlement is handled by the Exchange’s internal Clearing Department, which is responsible for the central clearing, margin management, and prevention of clearing risk with respect to futures trading at the Exchange. The Exchange implements system of margin requirements, daily mark-to-market, and risk reserve fund, and adopts a two-tiered risk prevention system, under which the Exchange manages the risks from members, and members manage the risks from their clients. To ensure effective risk management, the Exchange implements margin requirements, price limit, position limit, trading limit, large position reporting, forced position liquidation, and the risk warning regime, among others. In

case of participant default, SHFE can invoke effective and clearly defined rules and procedures for immediate responses that ensure due payment obligations are fulfilled and relevant financial resources used during default resolution are adequately replenished after the event.

Physical delivery is carried out after the settlement, i.e., the delivery of the underlying commodity against an expired contract within a prescribed time limit. Delivery-related services are provided by designated delivery warehouses, and clients can perform deliveries only through members.

As a CCP, SHFE shoulders a wide range of potential internal or external risks that may arise from itself or from its participants, clients, or other entities. These risks mainly include legal risk, credit risks, liquidity risks, physical delivery risks, general business risks, investment and custody risks, operational risks, and violation risks.

Robust, effective risk-management framework: The Risk Management Committee under the SHFE's Board of Directors participates in decision making which involves SHFE's risk control and management; SHFE adopts supporting detailed rules and measures to comprehensively manage credit, liquidity, delivery, and other risks facing it in daily operations. Internal departments including the Information Technology Department, the Trading Department, the Clearing Department, the Legal Affairs Department, the Market Compliance Department, and concerning Commodities Departments as well as various business systems, are committed to jointly and closely monitoring changes in risk intensity and market environment and, in response thereto and according to policy-making rules, update relevant policies and procedures; and the Risk Management Department and the Risk Management Working Group are devoted to inspecting, assessing, and addressing risks and to making risk control decisions and have developed clear strategies, measures, and plans to respond to risks and emergencies.

Market surveillance. SHFE conducts look-through supervision. As a client's open positions and collaterals are recorded under a unique trading code and segregated from those of other clients, SHFE's system can readily and accurately identify each client's assets to facilitate the monitoring by the China Futures Market Monitoring Center (CFMMC). SHFE may identify a participant violation through an internal real-time monitoring system, investigate the violation and take actions against the entity concerned according to relevant rules and, under serious circumstances, report the situation to CSRC for formal investigation. A violation constituting a crime will be referred to the judicial authority for criminal prosecution.

Disclosure of rules, key procedures, and market data. SHFE accomplishes this by: (1) periodically conducting extensive market surveys and timely seeking and analyzing opinions and suggestions from the market to meet the needs of participants and the market it serves; (2) promptly developing solutions after hearing and evaluating the needs, comments, and suggestions of market participants received through various channels; (3) timely improving its businesses, rules, and systems to adapt to the changes in market needs; (4) conducting sufficient full-market testing in advance and organizing training programs for new systems or to-be-launched businesses; and (5) disclosing basic data, service charges, discount policies, circular and announcements, and regulatory information to the market through its official website and the member service system.

II. Summary of Major Changes Since Last Disclosure

Following the release of the *Principles for Financial Market Infrastructure (PFMI): Disclosure Framework and Assessment Methodology* by CPSS-IOSCO (later renamed as CPMI-IOSCO) in December 2012, SHFE made its first public disclosure in May 2019 as required under PFMI Principle 23 (Disclosure of rules, key procedures, and market data). Subsequent updates to the disclosure document are made once a year. This update covers the period from January 1, 2023 to December 31, 2023 and mainly includes the following:

- Executive summary: information on annual trading size, number of members, strategic planning, listing of new products, and delivery methods have been updated;
- Principle 1: disclosures regarding legal basis have been added to reflect the revised *Measures on the Administration of Futures Exchanges*;
- Principle 3: names of the Exchange's internal departments and committees have been updated;
- Principle 6: the collection method of options margin has been added;
- Principle 9: the number of designated depository banks has been updated;
- Principle 14: some paragraphs have been amended according to the requirements of the *Futures and Derivatives Law of the People's Republic of China* (the "Futures and Derivatives Law");
- Principle 21: the Exchange's strategic objectives have been updated.

III. Background on SHFE

- **General Description of SHFE and the Markets It Serves**

Serving the real economy is not only the mandate of the financial industry, but also the *raison d'être* of the futures market. As a hub of the futures market, SHFE has been committed to empowering industrial enterprises by serving both domestic and international markets, safeguarding market openness and integrity, and forestalling systemic risks. It continues to develop and launch new derivative products and introduce innovative and improved trading, settlement, delivery, information, and technology services. Through its products and services, SHFE aims to enable domestic and foreign clients to better manage and cope with risks and industrial enterprises to be operationally more robust.

As of the end of 2023, SHFE had 201 members (150 FF members and 51 non-FF members) and oversaw 3,825 remote trading seats nationwide. SHFE and its subsidiary, Shanghai International Energy Exchange (INE), currently list 23 futures and 9 option products, covering metal, energy, chemicals, service, and other industries. The 23 futures products are copper, aluminum, zinc, lead, tin, nickel, bonded copper, aluminum oxide, gold, silver, steel rebar, wire rod, hot rolled coil, stainless steel, crude oil, fuel oil, low-sulfur fuel oil, bitumen, natural rubber, TSR 20, synthetic rubber, wood pulp, and SCFIS (Europe). The 9 options products are copper, natural rubber, gold, aluminum, zinc, crude oil, steel rebar, silver, and synthetic rubber. In particular, crude oil, low-sulfur fuel oil, TSR 20, bonded copper, and SCFIS (Europe) futures and crude oil options are directly accessible to foreign investors.

As of December 31, 2023, on a single-counted basis (i.e., long or short), SHFE futures contracts recorded an annual trading volume of 1.881 billion lots and an annual turnover of ¥151.13 trillion (excluding crude oil, TSR 20, low-sulfur fuel oil, bonded copper, and SCFIS (Europe) futures); SHFE options products achieved a total trading volume of 179,125,000 lots and a total premium of ¥169.055 billion (excluding crude oil options). These figures reflect a highly active and robust market.

- **Organization and Governance Structure**

Pursuant to the *Futures and Derivatives Law*, the *Regulations on the Administration of Futures Trading*, the *Measures on the Administration of Futures Exchanges* and its *Articles of Association*, SHFE adopts the following organization and governance structure: the Members' Assembly, as the highest authority at the Exchange, consists of all the members. SHFE has set up the Board of Directors (the "Board") and the Board of Supervisors. The Board is the permanent body of and reports to the Members' Assembly, and exercises the powers and functions as stipulated in the *SHFE Articles of Association*. The Board establishes special committees under itself to assist it in performing duties. The special committees report to the Board. The Board of Supervisors exercises the powers and functions as stipulated in the *SHFE Articles of Association*. The Exchange has a Chief Executive Officer who is responsible for the Exchange's day-to-day activities and several Executive Vice Presidents and other officers. The Chief Executive Officer is appointed and dismissed by the CSRC; the Executive Vice Presidents are appointed and dismissed in accordance with the applicable rules of the CSRC. The Exchange governs multiple departments including General Office, Human Resources Department, Media Publicity Department, Discipline Inspection Office, Finance Department, Audit Department, International Cooperation Department (Hong Kong, Macao

and Taiwan Affairs Office), Legal Affairs Department, Commodities Futures Department I, Commodities Futures Department II, Commodities Futures Department III, Futures Derivatives Department, OTC Department, Trading Department, Clearing Department, Delivery Department, Member Management Department, Market Compliance Department, Risk Management Department, Information Technology Department I, Information Technology Department II, Data Management Department, and SHFE North Center.

- **Legal and Regulatory Framework**

Currently, SHFE carries out CCP clearing business only under Chinese laws. This business has a well-founded, clear, transparent, and enforceable legal basis. The legal basis that supports SHFE's operations mainly comprises: (1) laws of the People's Republic of China (the "PRC"), including the *Civil Code of the People's Republic of China* (the "Civil Code") enacted by the National People's Congress (the "NPC") as well as the *Futures and Derivatives Law* and *Amendment XI to the Criminal Law of the People's Republic of China* enacted by the Standing Committee of the NPC; (2) judicial interpretations made by the Supreme People's Court, including the *Provisions of the Supreme People's Court on Issues concerning the Trial of Futures Dispute Cases*, *Provisions of the Supreme People's Court on Issues concerning the Trial of Futures Dispute Cases (II)*, the *Interpretation of the Supreme People's Court and the Supreme People's Procuratorate on Issues concerning the Application of Law in the Handling of Criminal Cases regarding the Trading by Using Undisclosed Information*, and the *Interpretation of the Supreme People's Court and the Supreme People's Procuratorate on Issues Concerning the Application of Law in the Handling of Criminal Cases Involving the Manipulation of the Securities and Futures Market*; (3) the *Regulations on the Administration of Futures Trading* formulated by the State Council; (4) ministry-level rules formulated by CSRC, including the *Measures on the Administration of Futures Exchanges*, the *Measures for the Supervision and Administration of Futures Firms*, and the *Interim Measures for the Administration of Overseas Traders' and Overseas Brokers' Engagement in the Trading of Specified Domestic Futures Products*; and (5) the rules of the Exchange of SHFE. In practice, these laws and regulations, judicial interpretations, ministry-level rules, and other normative documents are all well enforced and complied with.

CSRC is China's competent government authority for futures regulation and supervision. Under the supervision and regulation of CSRC, SHFE organizes futures trading on a transparent, fair, impartial, and good faith basis, and provides members with futures trading venues, facilities, services, designs futures contracts, arranges the listing of contracts, and organizes and supervises futures trading, clearing, and delivery. SHFE exercises self-regulation in accordance with its *Articles of Association* in line with its priority to the public interest.

- **IT System Design and Operation**

The Exchange runs the following IT systems for its core activities: The Trading Management System, the Clearing Management System, the Risk Assessment System, the Futures Fund Management System, the Standard Warrant Management System, and the Delivery System. To be specific:

Trading Management System. SHFE has developed and uses its own electronic trading management system to manage transactions, trading seats, trading codes, and hedging quotas,

among others. The system provides trading services to market participants continuously and is highly upgradable and scalable to accommodate future needs.

Clearing Management System. This system clears the gains and losses, trading margin, transaction fees, taxes and other fees for each member based on the daily settlement price of each contract, transfers the net balance of the member's receivables and payables, and correspondingly increase or decrease the member's clearing deposit. It also provides the members with relevant data and information such as settlement prices, positions, settlement parameters, and transaction fees on a daily basis. In addition, it ensures the normal operation of the clearing business by supporting the management of core businesses such as funds deposit and withdrawal, collateral margin, physical delivery and so on.

Risk Assessment System. This system is designed to timely monitor the rights and interests, gains and losses and potential financial pressure of each member. With this system, SHFE's risk management personnel can conduct intra-day real-time clearing, post-trading stress test, and reverse stress test to dynamically evaluate the fund risks both of any member and across the entire market; various simulation scenarios can be created for the stress test for different specific situations, and more than one assessment method is supported. The assessment results can be released to appropriate decision makers in a timely manner, thus strengthening the Exchange's ability to manage the members' credit and liquidity risks. In terms of delivery risk management, the system may be used to timely identify abnormal accounts related to delivery business or potential delivery risks at the time near delivery, thereby ensuring the smooth delivery.

Futures Fund Management System. As an electronic fund platform linking the Exchange, members and designated depository banks, this system has realized the real-time reporting, approval, and tracking of the transfer of futures funds. It features safety, high efficiency and convenience, and to a considerable extent, has reduced the operating costs of members, the Exchange and banks, improved the operational efficiency of futures funds, and enhanced the Exchange's monitoring of the fund flow risk.

Standard Warrant Management System. As a comprehensive warrant management platform linking the Exchange, members, delivery warehouses and quality inspection agencies, this system has realized the e-management of the delivery notice; warrant registration, transfer, collateralization, cancellation; and the deliverable reporting and inspection, helping make the delivery process more efficient and warrants more secure. Meanwhile, this system can daily mark collaterals posted as margin to market, and automatically adjust the amount of the margin converted from collaterals according to market situations, thus ensuring the smooth management of margin collateral.

Delivery System. This system is a comprehensive management platform designed specifically to handle physical delivery. This system allows the Exchange to collect market participants' delivery intentions and match warrants between its members. It is also used for calculating delivery-related fees and charges, which in turn ensures smooth physical delivery.

SHFE uses high-throughput fibers, dedicated lines, inter-exchange networks, and other telecommunication technologies to ensure real-time, reliable data transmissions. SHFE's central databases enable the real-time data synchronization and exchange between the IT systems for clearing, funds, delivery, remote delivery warehouses, and risk monitoring.

Moreover, the Exchange has set up three data centers in Shanghai and Beijing. The centers are built to world-leading standards for derivatives development and data processing centers and are interconnected by multiple high-throughput fiber optic cables that allow SHFE's core business systems to retain backup copies of other systems' data for more secure operations.

IV. Principle-by-Principle Summary Narrative Disclosure

This part sets out SHFE’s summary narrative disclosure for each applicable principle.

Principle 1: Legal basis

An FMI should have a well-founded, clear, transparent, and enforceable legal basis for each material aspect of its activities in all relevant jurisdictions.

<p>Key consideration 1: The legal basis should provide a high degree of certainty for each material aspect of an FMI’s activities in all relevant jurisdictions.</p>	<p>SHFE is a futures exchange under the centralized and uniform regulation of CSRC and organizes futures trading as approved by CSRC. SHFE exercises self-regulation in accordance with its <i>Articles of Association</i> in line with its priority to the public interest. CSRC is China’s competent government authority for futures regulation and supervision.</p> <p>As a CCP, SHFE requires a high degree of legal certainty for the following businesses: novation, netting arrangement, collateral arrangement (including margin arrangement), settlement finality, default handling, and segregation and prompt disposal of margin assets. Currently, all of SHFE’s key businesses are conducted within the People’s Republic of China, which shall be deemed “all relevant jurisdictions” for the purposes hereof.</p> <p>Novation has legal support in China’s legal environment. First, the <i>Futures and Derivatives Law</i> has clarified the legal status of a futures clearing organization that serves as a CCP. In particular, a CCP futures clearing organization provides centralized performance guarantee for futures trading by conducting net clearing and settlement with the two clearing participants in a trade as their mutual counterparty. This arrangement enables SHFE to translate the rights and obligations of the parties to a transaction agreement into the clearing rights and obligations of SHFE as a CCP and each of the parties. Second, according to the <i>Regulations on the Administration of Futures Trading</i>, the <i>Measures on the Administration of Futures Exchanges</i>, and the <i>Interim Measures for the Administration of Overseas Traders’ and Overseas Brokers’ Engagement in the Trading of Specified Domestic Futures Products</i>, a futures exchange that performs the function of clearing futures trading shall operate as a central counterparty to futures trading; interpose itself between the trading parties upon the consummation of futures transactions, becoming the seller to every buyer and the buyer to every seller; assume their rights and obligations under futures trading; and perform clearing on a net basis to provide centralized performance guarantee for such futures trading.</p> <p>Netting arrangement has legal support in China’s legal system. First, the <i>Futures and Derivatives Law</i> specifies that a CCP futures clearing organization conducts net clearing and settlement with clearing participants. Second, the enforceability of the netting arrangement is supported by the right of set-off under the Book III “Contracts” of the <i>Civil Code</i>, the daily mark-to-market system under the <i>Regulations on the Administration of Futures Trading</i>, and the netting settlement provisions under the <i>Measures on the</i></p>
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Administration of Futures Exchanges. Third, according to the *General Exchange Rules of the Shanghai Futures Exchange* (the “*SHFE General Exchange Rules*”) and the *Clearing Rules of the Shanghai Futures Exchange* (the “*SHFE Clearing Rules*”), after the close of each trading day, the Exchange shall, based on the settlement price of each contract, conduct a transfer of the net balance of each member’s receivables and payables.

Collateral arrangement has legal support in China’s legal system. First, the *Futures and Derivatives Law* provides that futures trading requires margin, which is used for settlement and performance guarantee. Margin may be paid with cash, liquid marketable securities, and other assets specified by the futures regulator under the State Council. Marketable securities may be posted as margin through pledge or other means that can secure performance. Second, the *Regulations on the Administration of Futures Trading* sets forth the definition of margin. Third, the *Measures on the Administration of Futures Exchanges* specifies that the futures margin that a futures exchange collects from clearing members can only be used for settlement and performance guarantee, and it also specifies the types of marketable securities acceptable as margin.

Default handling has legal support in China’s legal system. First, according to the *Civil Code*, a defaulting party shall continue performance of obligations, take remedial actions, or compensate for losses, which provides the legal basis for the Exchange to handle defaults during the course of futures trading. Second, the provisions of the *Futures and Derivatives Law* on default resolution have supplied the legal basis for the financial resources available, default waterfall sequence, and the rights of futures clearing organizations and clearing participants to recover in the event of a default. Third, the *Regulations on the Administration of Futures Trading* also provides the legal basis for the Exchange to handle defaults during the course of futures trading.

Settlement finality has legal support in China’s legal system. First, pursuant to the *Futures and Derivatives Law*, settlement and delivery conducted in accordance with the law shall not be suspended, invalidated, or rescinded due to the lawful entry into bankruptcy proceedings by any party participating in the settlement process. In effect, the law provides the legal basis for settlement finality, thereby protecting the settlement and delivery process from the adverse effect of a bankruptcy and protecting settlement results from cherry-picking, rescission, or other types of challenges that may be available under the *Bankruptcy Law* following the entry into bankruptcy proceedings by a trader, clearing participant, futures clearing organization, or other parties. Second, the *Provisions of the Supreme People’s Court on Issues concerning the Trial of Futures Dispute Cases* provides that clients shall confirm the clearing results on the very day of their transactions. Third, the *Regulations on the Administration of Futures Trading* states that a futures exchange shall adopt a daily mark-to-market system and notify clearing results; the *Measures on the Administration of Futures Exchanges* provides that the futures margin that a futures exchange collects from members should only be used for settlement and performance guarantee and should not be sealed up, frozen,

	<p>seized, or enforced; the <i>Measures for the Supervision and Administration of Futures Firms</i> states that clients shall confirm transaction clearing reports, and a futures firm shall first properly handle clients' margins in the event of dissolution or bankruptcy. Fourth, the <i>SHFE General Exchange Rules</i> also has provisions on settlement finality.</p> <p>Margin segregation has legal support in China's legal system. First, the <i>Futures and Derivatives Law</i> directly provides the legal basis for depositing margin in dedicated accounts and protecting assets used in trade settlement. Specifically, the law states that the margin, premium, and other amounts collected by futures clearing organizations and clearing participants must be separated from their own funds, deposited in dedicated accounts at futures margin depository institutions, and managed separately, and that misappropriation of margin is prohibited. Settlement assets are mostly protected by their immunity to enforcement actions and bankruptcy proceedings. Second, according to the provisions of <i>Regulations on the Administration of Futures Trading</i> regarding the ownership and deposit of margin, margin funds shall be segregated from a futures exchange's own funds and deposited in a separate account and shall not be used for any purpose other than for clearing the trades of members. The foregoing provision provides legal protection to SHFE with regard to the margin funds of market participants. Third, the <i>Measures on the Administration of Futures Exchanges</i> specifies that a futures exchange should open dedicated settlement accounts at futures margin depository banks for margin deposit and should not misappropriate any funds deposited as margin.</p> <p>Disposal of collateral has legal support in China's legal system. First, the <i>Civil Code</i> has provisions on enforcement of pledge interest, pledge, and creditors' priority claims, which provide the legal basis for the collection of margins and for the prompt disposal thereof when clearing members are under-margined. Second, the <i>Futures and Derivatives Law</i> states that margin is used for settlement and performance guarantee. The margin funds of clearing participants and traders are used to cover the cost and potential losses incurred by a default of the clearing participants and traders under normal conditions. If margin is paid in the form of marketable securities, futures clearing organizations and clearing participants may dispose of such marketable securities under the specific circumstances that they are permitted to force-liquidate the corresponding positions. Third, the <i>Measures on the Administration of Futures Exchanges</i> specifies that the futures margin that a futures exchange collects from clearing members can only be used for settlement and performance guarantee. Fourth, the <i>SHFE General Exchange Rules</i> and <i>SHFE Clearing Rules</i> clearly stipulate the disposal of margins.</p>
<p>Key consideration 2: An FMI should have rules, procedures, and contracts that are clear, understandable, and</p>	<p>SHFE solicits comments and suggestions from the relevant participants both before and during the drafting of rules, procedures, and contract specifications to ensure they are clear and understandable.</p> <p>SHFE formulates or amends its rules, procedures, and contracts in accordance with existing laws and regulations, and ensures their consistencies therewith</p>

<p>consistent with relevant laws and regulations.</p>	<p>by seeking legal opinions or conducting in-depth analyses.</p> <p>According to the <i>Futures and Derivatives Law</i> and the <i>Measures on the Administration of Futures Exchanges</i>, the formulation or amendment of SHFE’s <i>Articles of Association</i>, <i>General Exchange Rules</i>, <i>SHFE Clearing Rules</i> requires the prior approval of CSRC. The Exchange shall seek CSRC’s opinions for proposed formulation or modification of the implementing rules or measures to its trading rules or clearing rules, and file a report with CSRC before official release thereof. To list any exchange-traded futures or options, the Exchange should comply with the rules of the CSRC and register the product with CSRC in accordance with the law. Any suspension, resumption, or termination of the listing of any such product should be filed with the CSRC for record.</p> <p>As an established practice, before releasing or amending its rules of the Exchange, SHFE conducts a fair competition review by assessing their impacts on market competition against the <i>Anti-Monopoly Law</i> and its supporting rules, in order to not inadvertently preclude or stifle competition.</p>
<p>Key consideration 3: An FMI should be able to articulate the legal basis for its activities to relevant authorities, participants, and, where relevant, participants’ customers, in a clear and understandable way.</p>	<p>The legal basis for SHFE’s activities chiefly comprises applicable laws, regulations, rules, procedures, and contracts, all of which are public and readily accessible. In addition, SHFE also releases operational guidelines and notices to elaborate its rules of the Exchange and the implementing details thereof, thus improving the operability of the rules of the Exchange. Should any relevant authorities, participants, or participants’ clients have any questions regarding such legal basis, SHFE may also offer specific legal opinions or analyses.</p>
<p>Key consideration 4: An FMI should have rules, procedures, and contracts that are enforceable in all relevant jurisdictions. There should be a high degree of certainty that actions taken by the FMI under such rules and procedures will not be voided, reversed, or subject to stays.</p>	<p>SHFE’s rules of the Exchange are definitively enforceable in China. The <i>Futures and Derivatives Law</i> establishes the legal force of the rules of futures exchanges. Any person engaged in any futures trading-related activity at a futures exchange is required to abide by the rules lawfully made by the relevant futures exchange. The <i>Regulations on the Administration of Futures Trading</i> and the <i>Measures on the Administration of Futures Exchanges</i> expressly recognize the legal force of these rules of the Exchange and protect their enforceability. The rules, procedures, and contracts of SHFE are formulated in strict accordance with the <i>Civil Code</i>, the <i>Futures and Derivatives Law</i>, the <i>Provisions of the Supreme People’s Court on Issues concerning the Trial of Futures Dispute Cases</i>, the <i>Provisions of the Supreme People’s Court on Issues concerning the Trial of Futures Dispute Cases (II)</i>, the <i>Interpretation of the Supreme People’s Court and the Supreme People’s Procuratorate on Issues Concerning the Application of Law in the Handling of Criminal Cases Involving the Manipulation of the Securities and Futures Market</i>, the <i>Regulations on the Administration of Futures Trading</i>, the <i>Measures on the Administration of Futures Exchanges</i>, and other laws, judicial interpretations, administrative regulations, and ministry-level rules;</p>

	<p>and all its rules, before their drafting and amendment, have been approved by or revised according to the opinions of CSRC. According to the <i>Provisions of the Supreme People’s Court on Issues concerning the Trial of Futures Dispute Cases (II)</i> and the <i>Provisions of the Supreme People’s Court on the Jurisdiction of the Shanghai Financial Court</i>, the Shanghai Financial Court has first-instance jurisdiction over financial civil and commercial cases that name SHFE as a defendant or third party and relate to SHFE’s performance of duties. Therefore, it is assured that SHFE’s rules, procedures, and contracts will not be voided, reversed, or subject to stays and that, as a result, have a high degree of certainty. To date, none of SHFE’s rules, procedures, and contracts has ever been held by the court to be invalid in the People’s Republic of China.</p>
<p>Key consideration 5: An FMI conducting business in multiple jurisdictions should identify and mitigate the risks arising from any potential conflict of laws across jurisdictions.</p>	<p>Currently, SHFE engages in futures clearing only under Chinese laws, and all such businesses have well-founded, clear, transparent, and enforceable legal basis.</p>

Principle 2: Governance

An FMI should have governance arrangements that are clear and transparent, promote the safety and efficiency of the FMI, and support the stability of the broader financial system, other relevant public interest considerations, and the objectives of relevant stakeholders.

<p>Key consideration 1: An FMI should have objectives that place a high priority on the safety and efficiency of the FMI and explicitly support financial stability and other relevant public interest considerations.</p>	<p>SHFE places a high priority on the safety and efficiency of the market and explicitly supports financial stability and other relevant public interest considerations. Be it now or in the future, SHFE will fulfill its front-line supervisory duties and provide global clients with the most diversified product offerings, the most efficient and transparent trading and settlement platform, and the most sophisticated and secure technical support. SHFE aspires to become an exchange of top world notch with well-regulated, efficient, transparent market; global coverage; diversified products; worldwide client base; centralized and accessible market data; and leading technologies and security.</p> <p>SHFE submits to the regulation of CSRC. According to its <i>Articles of Association</i> and rules of the Exchange, SHFE is expressly required to guarantee the normal operation of futures trading and the legitimate rights and interests of parties to futures trading as well as the interests of the public at large. In addition, in line with the provisions of the <i>Futures and Derivatives Law</i>, SHFE follows the principle of prioritizing the public interest.</p>
<p>Key consideration 2:</p>	<p>SHFE has established its governance structure in accordance with the <i>Futures</i></p>

<p>An FMI should have documented governance arrangements that provide clear and direct lines of responsibility and accountability. These arrangements should be disclosed to owners, relevant authorities, participants, and, at a more general level, the public.</p>	<p><i>and Derivatives Law, the Regulations on the Administration of Futures Trading, and the Measures on the Administration of Futures Exchanges, and has in place documented governance arrangements which are available on its official website.</i></p> <p>As a self-regulatory legal person, SHFE has an established governance structure which comprises the Members' Assembly, the Board of Directors (Board), officers, and the Board of Supervisors. The Members' Assembly, as the highest authority of the Exchange, consists of all the Exchange members. The Board is the permanent body of and reports to the Members' Assembly, while the Board of Supervisors serves as the supervisory organ of the Exchange. SHFE has one Chief Executive Officer who is responsible for the day-to-day management of the Exchange.</p> <p>SHFE clearly defines the objectives, responsibilities, and powers of all departments and positions and has in place corresponding authorization, inspection, and cascading accountability systems to ensure that they perform functions within the scope of their authorization.</p> <p>The Exchange is obliged to report to CSRC from time to time, so as to improve its lawful and compliant operation and guarantee futures markets' safety and stability. For example, the Exchange is required to submit to CSRC its annual financial statements within four months following the end of each year, which shall be audited by an accounting firm licensed to practice in securities and futures businesses; submit quarterly and annual work reports on the business operations and the implementation of laws, administrative regulations, ministry-level rules, and policies within 15 days following the end of each quarter or 30 days following the end of each year, as appropriate.</p>
<p>Key consideration 3: The roles and responsibilities of an FMI's board of directors (or equivalent) should be clearly specified, and there should be documented procedures for its functioning, including procedures to identify, address, and manage member conflicts of interest. The board should review both its overall performance and the performance of its individual board members regularly.</p>	<p>The <i>SHFE Articles of Association</i> clearly specifies the powers and duties and rules of procedure of the Board to ensure the effective fulfilment of its functions. The Board submits annual work reports to the Members' Assembly for deliberation.</p> <p>SHFE explicitly stipulates the powers and duties and rules of procedure of the Board of Supervisors to ensure the performance of its supervisory role. The Board of Supervisors provides information on the performance of its supervisory duties in the annual work reports submitted to the Members' Assembly for deliberation.</p> <p>SHFE expressly prescribes the powers and duties of the senior officers to ensure that they manage its day-to-day business operations in an orderly manner.</p> <p>Information on the performance of duties by the Members' Assembly, the Board, and the Board of Supervisors has been documented and retained.</p> <p>The Board reports to the Members' Assembly, which deliberates and approves the work reports of the Board. In addition, the Board of Supervisors oversees the directors in their performance of duties and orders a director who acts against the interests of SHFE to correct his actions.</p>

<p>Key consideration 4: The board should contain suitable members with the appropriate skills and incentives to fulfil its multiple roles. This typically requires the inclusion of non-executive board member(s).</p>	<p>According to the <i>SHFE Articles of Association</i>, the Board consists of 17 directors, including 11 member directors and six non-member directors. Member directors are nominated by the Board or one fifth or more of members in a jointly manner and competitively elected by the Members' Assembly. The non-member directors are appointed by CSRC. Member-nominated directors represent the interests of the market participants at large, while CSRC-appointed directors voice the public interests at a more general level. All members of the Board possess necessary expertise in the futures industry.</p>
<p>Key consideration 5: The roles and responsibilities of management should be clearly specified. An FMI's management should have the appropriate experience, a mix of skills, and the integrity necessary to discharge their responsibilities for the operation and risk management of the FMI.</p>	<p>According to the <i>Futures and Derivatives Law</i> and the <i>Measures on the Administration of Futures Exchanges</i>, SHFE is staffed with senior officers who have all met the appointment requirements specified by the CSRC. The <i>SHFE Articles of Association</i> clearly specifies the powers and duties of the management. SHFE has one Chief Executive Officer who is responsible for its day-to-day management and several Executive Vice Presidents and other senior officers.</p> <p>The senior officers of SHFE are responsible for managing the operation of the Exchange and, according to the resolutions of the Members' Assembly and the Board, organizing the implementation of relevant tasks. SHFE clearly defines the powers and functions of the Chief Executive Officer. Executive Vice Presidents assist the Chief Executive Officer in performing his duties according to the division of duties among them. The Chief Executive Officer submits annual work reports, financial budget plans, and final account reports to the Board for deliberation, who then submits the same to the Members' Assembly. The Members' Assembly deliberates and approves the work reports of the Board and the Chief Executive Officer, as well as financial budget plans and final account reports of the Exchange.</p> <p>The Board of Supervisors may supervise the conducts of officers in their performance of duties and order an officer who acts against the interests of SHFE to correct his actions.</p> <p>The foregoing supervision and assessment measures work effectively to ensure that the management has the motive and capacity to achieve the objectives of SHFE.</p>
<p>Key consideration 6: The board should establish a clear, documented risk-management framework that includes the FMI's risk-tolerance policy,</p>	<p>SHFE has an established internal risk prevention and control system including the Chairman, the Chief Executive Officer, the Chairman of Board of Supervisors, and senior officers, as well as specific implementation requirements thereof, with the risk management and internal control requirements and rules for responsibilities, accountabilities and decision-making clearly defined.</p> <p>The Risk Management Committee under the Board participates in the decision-making related to risk control and management and comprises</p>

<p>assigns responsibilities and accountability for risk decisions, and addresses decision making in crises and emergencies.</p> <p>Governance arrangements should ensure that the risk-management and internal control functions have sufficient authority, independence, resources, and access to the board.</p>	<p>member representatives, industry professionals and SHFE staff members. The Risk Management Committee is a deliberative organ under and reports to the Board and assists the Board in performing relevant works. The main duties of the Risk Management Committee include: (1) providing professional guidance and experience input for the building of SHFE’s risk management system; (2) making suggestions and advising on SHFE’s efforts to improve its rules of the Exchange and risk management rules; (3) pre-researching, predicting, and making suggestions and advising on the major risks that have a material impact on normal operation of the market; and (4) providing risk assessment and resolution advice on the major practices and significant business innovation. The members of the Risk Management Committee are allowed to independently express their opinions at a risk-control meeting. In the case of a major issue requiring deliberation, the Risk Management Committee will hold a meeting. The Committee may directly report to and make proposals to the Board to ensure that it makes decisions on business risk management under the authorization of the Board. Meanwhile, SHFE has a dedicated internal risk management department which conducts relevant risk management, research, and other related works as required by the Risk Management Committee to maintain the secure and stable operation of SHFE’s businesses.</p> <p>To prevent financial market risks, SHFE released the <i>Risk Management Rules of the Shanghai Futures Exchange (the “SHFE Risk Management Rule”)</i>, which cover a comprehensive, multi-dimensional risk management system comprising margin requirement, price limits, position limit, trading limit, large trader position reporting, forced position liquidation, and risk warning.</p> <p>SHFE has also set up the Discipline Inspection and Supervision Office and the Audit Department that conduct disciplinary inspections and internal audits respectively and requires the department concerned to rectify the issues discovered within a specified time limit, thus forming an effective system of checks and balances and supervision.</p>
<p>Key consideration 7: The board should ensure that the FMI’s design, rules, overall strategy, and major decisions reflect appropriately the legitimate interests of its direct and indirect participants and other relevant stakeholders. Major decisions should be clearly disclosed to relevant stakeholders and, where there is a</p>	<p>A member of SHFE may get involved in decision-making through participating in the Members’ Assembly or the Board. For example, the Board has the power to deliberate and approve the SHFE’s development plans and annual work plans proposed by the Chief Executive Officer, as well as the implementing rules and measures formulated under SHFE rules of the Exchange. The Members’ Assembly has the power to deliberate and adopts the <i>SHFE Articles of Association</i> and the <i>SHFE General Exchange Rules</i> and their draft amendments, and deliberate and approve the financial budget plans and final account reports of the SHFE. SHFE also solicits on an annual basis the comments from stakeholders through surveys and interviews, questionnaires, members’ meetings, and other methods.</p>

broad market impact,
the public.

Principle 3: Framework for the comprehensive management of risks

An FMI should have a sound risk-management framework for comprehensively managing legal, credit, liquidity, operational, and other risks.

<p>Key consideration 1: An FMI should have risk-management policies, procedures, and systems that enable it to identify, measure, monitor, and manage the range of risks that arise in or are borne by the FMI. Risk-management frameworks should be subject to periodic review.</p>	<p>I. Comprehensive risk-management framework</p> <p>When providing clearing services as a CCP, SHFE shoulders a wide range of internal or external risks that may arise from the Exchange per se, its participants, clients, or other entities. These risks include but are not limited to legal risk (see Principle 1), credit risk (Principle 4), liquidity risk (Principle 7), physical delivery risk (Principle 10), general business risk (Principle 15), investment and custody risk (Principle 16), operational risk (Principle 17), and violation risk (see Principle 19).</p> <p>The Board reviews periodically SHFE’s risk-management policies and framework. Special committees under the Board, namely the Strategic Development Committee, the Risk Management Committee, the Listing Review Committee, the Supervision Committee, the Trading Committee, the Settlement Committee, the Membership Review Committee, the Legal and Mediation Committee, the Finance Committee, the Technical Committee, the Product Committee, and the Delivery Committee, assists the Board in performing its tasks and fulfills their duties during day-to-day operations. In particular, the Risk Management Committee participates in making decisions on SHFE’s risk control and management programs and reports to the Board (see Principle 2 on governance). To facilitate its routine risk-management efforts, SHFE has set up the Risk Management Department and the Risk Management Working Group that are responsible for: (1) inspecting, assessing, and handling risks; (2) making risk-control decisions; (3) preparing risk management reports; (4) creating a list of material risks; and (5) developing emergency management policies to coordinate responses to various emergencies, improve risk reporting procedures, and consolidate emergency management resources. SHFE’s functional departments, including the Information Technology Department, Trading Department, Clearing Department, the Legal Affairs Department, the Market Compliance Department, and the Commodity Futures Departments, as well as various business systems, are committed to jointly and closely monitoring risks in relevant areas and changes in market environment and, in response thereto and according to policy-making rules, updating relevant policies and procedures.</p> <p>SHFE manages various risks in day-to-day operations with the supporting rules and measures built on the <i>SHFE General Exchange Rules</i>, such as the <i>SHFE Trading Rules</i>, the <i>SHFE Clearing Rules</i>, <i>SHFE Membership Rules</i>, <i>SHFE Risk Management Rules</i>, <i>SHFE Enforcement Rules</i>, the <i>Designated Depository Banks Rules of the Shanghai Futures Exchange</i> (the ‘<i>SHFE</i></p>
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Designated Depository Bank Rules'), and the *SHFE Delivery Rules*. Risk management measures and processing procedures are disclosed to the market in written forms of rules, detailed rules, and measures.

For legal risks (see Principle 1), SHFE has put in place a legal framework consisting of laws, judicial interpretations, administrative regulations, and the Exchange's rules of the Exchange, laying a solid foundation for offering services as a CCP.

For credit risks (see Principle 4), SHFE identifies and measures members' sources of credit risks and the size of risk exposures by conducting intraday and post-trading stress tests through its risk assessment system; mitigates and eliminates the credit risks facing it through daily mark-to-market clearing and margin call; directs the financial resources that can cover current and potential future exposures caused by each participant with a confidence level of 99% or higher to credit risks; establishes a default waterfall for the tail credit risks not covered by margin and collateral; and ensures high availability and stability of the risk reserve fund through separate accounting.

For liquidity risks (see Principle 7), SHFE has created a sound management framework by developing rules, executing agreements, building monitoring systems, conducting stress tests, establishing a risk waterfall model, and performing due diligence to manage the liquidity risks from members, designated depository banks, and liquidity providers. Specifically, SHFE takes ex-ante risk management measures to prevent members' liquidity risks; establishes rigorous admission criteria and performs annual inspections and random inspections to manage the liquidity risks from designated depository banks. In addition, SHFE has built the technical systems that can continuously identify, measure, and monitor funds settlement and flows; and has maintained sufficient liquid financial resources including credit from commercial banks.

For physical delivery risks (see Principle 10), the delivery risks that have been identified by SHFE mainly include the custody risks from the warehouses which manage standard warrants, and the delivery default risks of buyers and sellers during the course of physical deliveries. SHFE imposes stringent requirements on warehouses. For instance, the obligations and responsibilities of buyers, sellers, the Exchange, designated delivery warehouses, and other participants as well as the definition of delivery default and the methods for compensation upon default are set out in the *SHFE Delivery Rules* and the *SHFE Standard Warrant Trading Rules*.

For general business risks (see Principle 15), SHFE is subject to the regulation of CSRC and sets strict requirements on capital investment and management. For this reason, SHFE has set up the Finance Committee that provides professional suggestions on financial management and the Financial Audit Committee to review material expenditures out of each department's financial budget; identifies and monitors general business risks on an ongoing basis through bookkeeping system and financial analyses; and has maintained sufficient liquid net assets funded by equity that can cover the

operational costs for minimum six months. As SHFE focuses on its principal businesses and has sufficient financial resources to cover its business risks, it is unlikely that its equity funds will fall below the minimum requirements.

For custody and investment risks (see Principle 16), SHFE manages depository banks in accordance with the *SHFE Designated Depository Bank Rules*, which provides defined and stringent requirements for the qualification and management of such banks. Most of the existing designated depository banks are reputable national commercial banks, and margin is operated within a “closed loop” supervised by CFMMC. In addition, SHFE holds proprietary funds in the form of cash and deposit.

For operational risks (see Principle 17), SHFE addresses potential risks by: (1) establishing a network security system and developing information security strategies under internationally accepted quality management systems and standards; (2) enhancing new and senior employees’ risk awareness; (3) adopting a two-staff, double-check mechanism; (4) developing assessment indicators; (5) conducting internal inspections and external evaluations; (6) executing agreements with utility providers; (7) building a monitoring system; (8) 24hr facility check and building environment inspection; (9) carrying out emergency drills; and (10) setting up disaster recovery centers.

For violation risks (see Principle 19), an all-member clearing system involving multi-tiered participant arrangements is applied. SHFE understands basic information on clients’ accounts and identifies, monitors, and manages the substantial risks arising out of multi-tiered participant arrangements by look-through regulation, trading codes, and relevant system designs. In addition, SHFE has built an internal real-time monitoring system to identify participants’ trading violations, and to investigate violations and penalize the entities concerned according to the *SHFE Enforcement Rules* and, under serious circumstances, timely report to CSRC for a formal investigation. A violation constituting a crime will be transferred to the judicial authority for criminal prosecution.

II. Risk-management policies, procedures, and systems

To ensure timely risk identification and handling, SHFE has developed the trading system, the clearing management system, the risk assessment system, the monitoring system, the historical data analysis system, the futures funds management system, the delivery system, and the Standard Warrant Management System as well as a statistical information platform. Such systems and platform work together to provide an overview of members’ and clients’ risk exposures and allow SHFE to timely address any risks not yet covered in accordance with such rules as daily mark-to-market, margin requirement, price limits, position limit, large trader position reporting, forced position liquidation, and risk warning. In addition, SHFE adopts such measures as trading codes, separate account management, and two-tiered clearing to facilitate participants and their clients to better manage and control potential risks.

	<p>Internally, for its risk-management framework, SHFE has developed an audit system covering its entire operations to ensure the normal operation of its businesses; formed an effective system of checks and balances and supervision by setting up the Discipline Inspection and Supervision Office and the Audit Department that conduct disciplinary inspections and internal audits respectively and require the department concerned to rectify the issues discovered within a specified time limit; and identifies risks and improves various business procedures by conducting internal audits of major projects. Externally, SHFE's annual financial statements are subject to risk-oriented periodic audits by an independent auditor.</p>
<p>Key consideration 2: An FMI should provide incentives to participants and, where relevant, their customers to manage and contain the risks they pose to the FMI.</p>	<p>First, SHFE implements a complete set of systems including the trading code system, segregation of funds, and a tiered clearing system. Second, in the course of clearing, SHFE requires participants to strictly abide by laws and regulations, and its rules and detailed rules, operating procedures and guidelines. Lastly, SHFE, based on the participants' level of compliance, recognizes outstanding participants and takes measures against non-compliant participants according to relevant rules. These management and incentive measures can effectively urge participants to manage their risks posed to SHFE.</p>
<p>Key consideration 3: An FMI should regularly review the material risks it bears from and poses to other entities (such as other FMIs, settlement banks, liquidity providers, and service providers) as a result of interdependencies and develop appropriate risk-management tools to address these risks.</p>	<p>Currently, the entities closely linked to SHFE include members, depository banks, and delivery warehouses, for whom SHFE has developed a sound participant risk-management framework as follows:</p> <p>(1) Members. SHFE monitors members' and clients' trading behaviors through a real-time monitoring system, and deals with defaulting members in accordance with the <i>SHFE Trading Rules</i>, the <i>SHFE Clearing Rules</i>, the <i>SHFE Risk Management Rules</i>, the <i>SHFE Enforcement Rules</i>, among others.</p> <p>(2) Depository banks. To address liquidity risks from designated depository banks, SHFE has made the <i>SHFE Designated Depository Bank Rules</i>, which provides qualification requirements for applicants and a supervision system for the banks admitted. Moreover, SHFE conducts annual inspections of depository banks covering their qualification status and business compliance.</p> <p>(3) Delivery warehouses. The <i>SHFE Designated Delivery Warehouse Rules</i>, which governs the futures-related businesses of designated delivery warehouses, enables SHFE to handle potential credit and operational risks associated with delivery warehouses. The warehouse management system additionally helps ensure the authenticity of instruments.</p>
<p>Key consideration 4: An FMI should identify scenarios that may potentially prevent it from being able to provide its critical operations and services</p>	<p>Pursuant to the <i>SHFE Articles of Association</i>, CSRC may shut down the Exchange at its discretion; SHFE may, subject to the approval of CSRC, terminate according to resolutions of the Members' Assembly or for the purposes of combination or division of the Exchange; and a liquidation team would be set up upon termination of the Exchange.</p> <p>As a non-profit legal person regulated by CSRC, SHFE does not use its own</p>

<p>as a going concern and assess the effectiveness of a full range of options for recovery or orderly wind-down. An FMI should prepare appropriate plans for its recovery or orderly wind-down based on the results of that assessment. Where applicable, an FMI should also provide relevant authorities with the information needed for purposes of resolution planning.</p>	<p>funds to invest in other areas and has accrued sufficient amount of liquid net assets funded by equity that support and ensure business sustainability, it is thus able to maintain sustainable, robust operations while suffering general business losses. Furthermore, emergency response plans have been created both at the CSRC level and SHFE level to address multiple risk events including failure to normally, comprehensively, and fully conduct CCP clearing business or to conduct normal operation and management activities. Although business termination is highly unlikely, SHFE has assessed the effectiveness of a full range of options for recovery or orderly wind-down.</p> <p>In addition, SHFE has set up the Risk Management Department that assesses its critical services and operations, prepares and implements corresponding plans; and has set standards in accordance with requirements of the industry, including the <i>Measures for the Administration of Information Security Protection in the Securities and Futures Industries</i> and the <i>Testing and Evaluation Requirements for Information System Security Level Protection in the Securities and Futures Industries</i>, etc. Also, the Exchange has set up its business continuity measures internally. In extreme conditions, credit from banks may help SHFE continue to perform the obligations disrupted by lack of resources.</p>
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Principle 4: Credit risk

An FMI should effectively measure, monitor, and manage its credit exposures to participants and those arising from its payment, clearing, and settlement processes. An FMI should maintain sufficient financial resources to cover its credit exposure to each participant fully with a high degree of confidence. In addition, a CCP that is involved in activities with a more-complex risk profile or that is systemically important in multiple jurisdictions should maintain additional financial resources sufficient to cover a wide range of potential stress scenarios that should include, but not be limited to, the default of the two participants and their affiliates that would potentially cause the largest aggregate credit exposure to the CCP in extreme but plausible market conditions. All other CCPs should maintain additional financial resources sufficient to cover a wide range of potential stress scenarios that should include, but not be limited to, the default of the participant and its affiliates that would potentially cause the largest aggregate credit exposure to the CCP in extreme but plausible market conditions.

<p>Key consideration 1: An FMI should establish a robust framework to manage its credit exposures to its participants and the credit risks arising from its payment, clearing, and settlement processes. Credit exposure may arise from current</p>	<p>The credit risks facing SHFE mainly arise from members' failure to pay off their outstanding debts. To manage participants' credit exposures and the credit risks arising from payment, clearing, and settlement, SHFE has developed a set of comprehensive, robust risk-management frameworks as follows:</p> <p>(1) a credit risk management framework built on the <i>SHFE General Exchange Rules</i> and comprising, among other specific rules, the <i>SHFE Clearing Rules</i>, the <i>SHFE Delivery Rules</i>, the <i>SHFE Risk Management Rules</i>, and the <i>SHFE Enforcement Rules</i>;</p> <p>(2) the <i>SHFE Membership Rules</i>, which sets out stringent membership admission criteria that members must meet on an ongoing basis, and requires</p>
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<p>exposures, potential future exposures, or both.</p>	<p>clearing members to be well-capitalized and have relevant personnel and technical systems to ensure that they can perform their membership responsibilities (see Principle 18 on access and participation requirements);</p> <p>(3) daily mark-to-market clearing that requires a member to deposit a certain amount of margin before opening positions and daily risk management under which SHFE monitors, identifies, and measures members' credit exposures in real time through its risk assessment system. Margin and margin collaterals are all subject to daily mark-to-market;</p> <p>(4) implementing margin call, price limits, forced position liquidation, forced position reduction, and other systems at the day-end clearing to eliminate members' current credit risk exposures; and setting a minimum clearing deposit requirement and enforcing a strict haircuts regime for collaterals to control or mitigate potential future credit risk exposures;</p> <p>(5) implementing daily backtesting to verify that the collected margin can cover exposures at a minimum 99% confidence level, and implementing daily stress tests to ensure the available prepaid financial resources can cover the credit risk exposures of each participant. A default waterfall sequence has been established for the tail credit risks not covered by margin or margin collaterals; and</p> <p>(6) risk reserve fund which is extracted at a certain ratio from the transaction fees collected from members and is of high availability and stability as it is calculated separately and deposited into a special account. If a defaulting member still falls short of funds after SHFE has taken relevant measures, SHFE may draw on the risk reserve fund according to relevant procedures.</p> <p>SHFE reviews its credit risk-management framework before listing a new product, implementing a new mechanism, and revising its rules and conducts at least one comprehensive review each year.</p>
<p>Key consideration 2: An FMI should identify sources of credit risk, routinely measure and monitor credit exposures, and use appropriate risk-management tools to control these risks.</p>	<p>SHFE identifies the sources of credit risk, both current and future, by monitoring members' funds account and by calculating margin requirements.</p> <p>For current credit risks, SHFE may assess members' credit risk exposures by conducting intraday real-time clearing (or intraday real-time risk monitoring) each day; identifying and measuring credit exposures through its risk control and management system; and calculating members' current margin requirements against the balance of their margin funds in real time. Parameters used in real-time clearing may be adjusted in view of the market risk profile; when necessary, personnel at SHFE may conduct more calculations of risk exposures. In general, SHFE personnel can alert a member by telephone if that member is identified by real-time clearing calculations to have a high margin utilization ratio.</p> <p>SHFE personnel usually can wait till day-end clearing to issue the margin call to any member who falls below SHFE's minimum margin requirement, to eliminate the credit risk exposures posed by it. But when necessary, they can also conduct clearing and issue the margin call during the course of</p>

	<p>trading in view of the market risks, margin variation, and the <i>SHFE Clearing Rules</i>.</p> <p>Following day-end clearing, a member whose clearing deposit falls below the minimum requirement will be deemed as having received a margin call from SHFE, in which case, the difference between the minimum requirement and the balance of clearing deposit will be the amount to be replenished. After issuing the margin call, SHFE may deduct the amount from the member's dedicated fund account through depository banks. If a deficiency still exists, the member should bring the balance to the minimum requirement before market open on the following trading day, failing which, where the balance of the clearing deposit is larger than zero but less than the minimum requirement, the member should not open new positions; where the balance of the clearing deposit is less than zero, SHFE will conduct forced position liquidation in accordance with the <i>SHFE Risk Management Rules</i>.</p> <p>Potential future credit risk exposure refers to the risk exposure resulting from changes in the market price of the underlying asset during liquidation. It is managed mainly through the following measures:</p> <p>First, SHFE sets minimum clearing deposit requirements: ¥2,000,000 for FF members and ¥500,000 for non-FF members. In addition to SHFE's trading margin requirement, a member with a margin call needs to satisfy the minimum requirement for clearing deposit. Second, SHFE has established prudent haircuts and management criteria in light of market liquidity and other factors (see Principle 5 Collateral). Third, SHFE collects margin at a sufficiently high ratio and has taken into account the factors including the close-out period.</p> <p>SHFE has set up its clearing agency as an internal department that has easy access to data and information to ensure the timeliness of the information. Moreover, SHFE evaluates the reliability and effectiveness of its assessment system at least annually.</p>
<p>Key consideration 3: A payment system or SSS should cover its current and, where they exist, potential future exposures to each participant fully with a high degree of confidence using collateral and other equivalent financial resources (see Principle 5 on collateral). In the case of a DNS payment system or DNS SSS in</p>	<p>N/A.</p>

<p>which there is no settlement guarantee but where its participants face credit exposures arising from its payment, clearing, and settlement processes, such an FMI should maintain, at a minimum, sufficient resources to cover the exposures of the two participants and their affiliates that would create the largest aggregate credit exposure in the system.</p>	
<p>Key consideration 4: A CCP should cover its current and potential future exposures to each participant fully with a high degree of confidence using margin and other prefunded financial resources (see Principle 5 on collateral and Principle 6 on margin). In addition, a CCP that is involved in activities with a more-complex risk profile or that is systemically important in multiple jurisdictions should maintain additional financial resources to cover a wide range of potential stress scenarios that should include, but not be limited to, the default of the two participants and their affiliates that would potentially cause</p>	<p>SHFE uses such financial resources as margin and risk reserve fund to cover credit risks. In particular, the margin can cover current and potential future risk exposures of each participant at a confidence level of 99% or higher; SHFE determines the minimum sufficient amount of risk reserve resources based on its assessment of market size and risk changes.</p> <p>Currently, SHFE is one of the systemically important institutions in P.R. China and does not deal with products characterized by discrete jump-to-default price changes. Pursuant to the <i>SHFE Clearing Rules</i>, margin is divided into trading margin and clearing deposit. Trading margin is the funds deposited by a member into the dedicated settlement account of the Exchange to ensure performance; it is the portion of margin being used to maintain existing positions. Clearing deposit is the fund deposited in advance by a member into the special clearing account of the Exchange which is not being used to maintain existing positions; the minimum amount of clearing deposit is prescribed by the Exchange. Moreover, the risk reserve fund is provisioned as part of the management expenses at a certain ratio of the transaction fees collected from members and is of high availability and stability as it is calculated separately and deposited into a special account.</p> <p>To maintain sufficient financial resources to cover credit exposures, SHFE collects adequate margin during day-to-day operations, and ensures the margin deposited by members can cover the exposures with a minimum 99% confidence level. Furthermore, SHFE assesses the sufficiency of the risk reserve fund at least once each year and will, in view of market risk profile, increase the assessment frequency.</p> <p>SHFE currently maintains a risk reserve fund in an amount of over ¥4 billion, a size determined taking account of the changes in market size and risk level during the development of the futures market, which has been approved by CSRC following the Board’s adoption.</p>

<p>the largest aggregate credit exposure for the CCP in extreme but plausible market conditions. All other CCPs should maintain additional financial resources sufficient to cover a wide range of potential stress scenarios that should include, but not be limited to, the default of the participant and its affiliates that would potentially cause the largest aggregate credit exposure for the CCP in extreme but plausible market conditions. In all cases, a CCP should document its supporting rationale for, and should have appropriate governance arrangements relating to, the amount of total financial resources it maintains.</p>	
<p>Key consideration 5: A CCP should determine the amount and regularly test the sufficiency of its total financial resources available in the event of a default or multiple defaults in extreme but plausible market conditions through rigorous stress testing. A CCP should have clear procedures to report the results of its stress tests to</p>	<p>SHFE carries out daily post-trading stress tests, which set extreme but plausible scenarios to estimate the possible losses resulting from the default of its two largest members, and based on the estimate, assesses the sufficiency of its financial resources available for covering the credit risks.</p> <p>The scenarios used in the daily post-trading stress tests include historical extreme scenarios and hypothetical scenarios and are assigned different weights during tests. The stress tests use such historical extreme scenarios as the financial crisis of 2008, China’s stock market crash in 2015, Brexit in 2016, Covid-19 outbreak in 2020, crude oil price collapse in 2020, and commodity price surge in 2021; and such hypothetical scenarios as debt crisis, natural disasters, and military blockade. The results of stress tests will be promptly reported to the proper decision-makers.</p> <p>When an SHFE-listed product or contract hits price limit or faces greater price fluctuations, SHFE personnel will conduct a reverse stress test after the market close.</p>

<p>appropriate decision makers at the CCP and to use these results to evaluate the adequacy of and adjust its total financial resources. Stress tests should be performed daily using standard and predetermined parameters and assumptions. On at least a monthly basis, a CCP should perform a comprehensive and thorough analysis of stress testing scenarios, models, and underlying parameters and assumptions used to ensure they are appropriate for determining the CCP's required level of default protection in light of current and evolving market conditions. A CCP should perform this analysis of stress testing more frequently when the products cleared or markets served display high volatility, become less liquid, or when the size or concentration of positions held by a CCP's participants increases significantly. A full validation of a CCP's risk-management model should be performed at least annually.</p>	<p>Simply put, a reverse stress test is conducted to test the funds sufficiency of all participants in the market in the hypothetical extreme condition where price limit on one contract or one or all products is hit on one, two, or three consecutive days in the same direction. After completion of a reverse stress test, the personnel will analyze in details the loss caused by the hypothetical extreme condition. The results of reverse stress tests will also be promptly reported to the proper decision-makers.</p> <p>In general, SHFE does not immediately issue margin calls based on the results of the stress tests and reverse stress tests conducted after market close, which are only meant to inform internal management and decision-making. SHFE evaluates the scenarios, parameters, and assumptions used in stress tests at least once a month. It may also increase the stress test frequency in the event of greater market risks.</p> <p>Based on the results of stress tests, SHFE always assesses the sufficiency of the risk reserve fund and other financial resources used to cover credit risk as well the credit from banks on a regular basis.</p> <p>In addition, SHFE performs a backtesting on the margin coverage of all products and contracts each day to verify the effectiveness of its margin models (see also Principle 6).</p>
<p>Key consideration 6: In</p>	<p>SHFE carries out stress tests and reverse stress tests after market close each</p>

<p>conducting stress testing, a CCP should consider the effect of a wide range of relevant stress scenarios in terms of both defaulters' positions and possible price changes in liquidation periods. Scenarios should include relevant peak historic price volatilities, shifts in other market factors such as price determinants and yield curves, multiple defaults over various time horizons, simultaneous pressures in funding and asset markets, and a spectrum of forward-looking stress scenarios in a variety of extreme but plausible market conditions.</p>	<p>day to ensure that it has sufficient financial resources to cover a spectrum of forward-looking stress scenarios in extreme market conditions. In particular, SHFE takes the following measures:</p> <p>First, the base margin ratio set by SHFE may cover credit risks with a confidence level of 99% or above. SHFE has, in establishing the base margin for each product, considered peak historic price volatilities, price determinants, yield curves, multiple defaults over various time horizons, simultaneous pressures in funding and asset markets, and a spectrum of forward-looking stress scenarios in a variety of extreme but plausible market conditions; and its personnel perform a backtesting on the margin coverage of all products and contracts each day.</p> <p>Second, in its daily operations, SHFE performs intraday real-time risk monitoring, post-trading stress tests, and reverse stress tests in accordance with the <i>SHFE Clearing Rules</i> and other applicable systems. The stress tests use such historical extreme scenarios as the financial crisis of 2008, China's stock market crash in 2015, Brexit in 2016, Covid-19 outbreak in 2020, crude oil price collapse in 2020, and commodity price surge in 2021; and such hypothetical scenarios as debt crisis, natural disasters, and military blockade. In reverse stress tests, SHFE considers the extreme conditions when price limit on one contract or one or all products is hit on one, two, or three consecutive days in the same direction. When simulating historical extreme scenarios, SHFE has considered the peak historic price volatilities, and shifts in other market factors such as price determinants, price volatility rates and yield curves. When simulating hypothetical scenarios, SHFE has made forward-looking judgement on all risk factors.</p>
<p>Key consideration 7: An FMI should establish explicit rules and procedures that address fully any credit losses it may face as a result of any individual or combined default among its participants with respect to any of their obligations to the FMI. These rules and procedures should address how potentially uncovered credit losses would be allocated, including the repayment of any funds an FMI may borrow</p>	<p>SHFE has established explicit rules and procedures that address any possible credit losses to effectively allocate potentially unaddressed credit risks. The procedures to replenish financial resources during a stress event are set out in the <i>SHFE Clearing Rule</i>. If SHFE suffers any actual credit loss resulting from any individual or combined default among its members while fulfilling their duties, it will seek compensations by taking the following measures in sequence: (1) disqualifying the members concerned and setting the membership fee off against its loss; (2) drawing on the risk reserve fund with the approval of the Board; (3) making use of its own assets; and (4) exercise the right of recourse to the Member through legal proceedings.</p>

from liquidity providers. These rules and procedures should also indicate the FMI’s process to replenish any financial resources that the FMI may employ during a stress event, so that the FMI can continue to operate in a safe and sound manner.

Principle 5: Collateral

An FMI that requires collateral to manage its or its participants’ credit exposure should accept collateral with low credit, liquidity, and market risks. An FMI should also set and enforce appropriately conservative haircuts and concentration limits.

Key consideration 1:
An FMI should generally limit the assets it (routinely) accepts as collateral to those with low credit, liquidity, and market risks.

SHFE accepts the marketable securities with low credit, liquidity, and market risks as margin. Currently, the marketable securities recognized as margin include standard warrants as well as book-entry government bonds domestically issued by the Ministry of Finance of the People’s Republic of China.

SHFE manages standard warrants through the Standard Warrant Management System to ensure they are authentic and valid. In practice, a client authorizes a member to submit a warrant through the Standard Warrant Management System, which in turn checks the quality and ownership of the warrant and determines whether there is any legal dispute involved. Moreover, SHFE manages warehouses on a rigorous basis through regular on-site inspections, in order to ensure that the goods stored meet relevant standards and are properly managed.

Government bonds posted as margin are recognized as high-quality collateral due to low default risk, high liquidity, and stable price. A client who intends to use government bonds as margin must ensure that there are sufficient government bonds free of other encumbrances in its custody account. The Exchange engages depositories to transfer or register the pledge of the government bonds used as margin, after which the process of using the governments bonds as margin is considered completed.

To reduce credit risks, SHFE daily marks the assets accepted as margin to market. To mitigate concentration risks, SHFE places a cap on the amount of margin that a member pays with marketable securities – currently four times (the “allotting multiplier”) the available cash held by the member under its dedicated settlement account. The allotting multiplier may be adjusted in view of market risks and members’ credit standing.

To make it easier to post marketable securities as margin, SHFE handles

	<p>collaterals through an electronic system that has further simplified the deposit and withdrawal of such marketable securities.</p>
<p>Key consideration 2: An FMI should establish prudent valuation practices and develop haircuts that are regularly tested and take into account stressed market conditions.</p>	<p>Detailed provisions on valuations of marketable securities accepted as margin and prudent haircuts are set out in the <i>SHFE Clearing Rules</i>. When standard warrants are used as margin, SHFE will, during clearing on each day, calculate the market value of such warrants based on the settlement price of the nearest month futures contract for the product underlying the warrants on that day; and will, before market close on that day, calculate the market value of such warrants based on the settlement price of the nearest month futures contract for the product underlying the warrants on the preceding trading day. When government bonds are used as margin, SHFE will, during clearing on each day, determine the market value of such government bonds by using the net value of the benchmark price of such government bonds on the preceding trading day, which price is the smaller value estimated by the depository of such government bonds. Such benchmark price may be adjusted by SHFE.</p> <p>The <i>SHFE Clearing Rules</i> also sets prudent haircuts for marketable securities accepted as margin. Specifically, the maximum amount of margin convertible from marketable securities is 80% of their market value. SHFE currently discounts standard warrants to 80% of their market value. This discount factor (equaling a 20% haircut) covers the full range of price limit of SHFE on futures contracts, and substantially covers the price risks of marketable securities. According to applicable rules, the discount factor may also be adjusted by SHFE as it deems necessary.</p>
<p>Key consideration 3: In order to reduce the need for procyclical adjustments, an FMI should establish stable and conservative haircuts that are calibrated to include periods of stressed market conditions, to the extent practicable and prudent.</p>	<p>SHFE establishes prudent haircuts by taking procyclicality into consideration to prevent significant adjustments in stressed market conditions and may, when necessary, adjust the haircuts.</p>
<p>Key consideration 4: An FMI should avoid concentrated holdings of certain assets where this would significantly impair the ability to liquidate such assets quickly</p>	<p>SHFE periodically monitors the concentration of marketable securities as margin by tracking the proportion of marketable securities to the total amount of margin. No concentrated holdings of assets have been identified.</p>

without significant adverse price effects.	
Key consideration 5: An FMI that accepts cross-border collateral should mitigate the risks associated with its use and ensure that the collateral can be used in a timely manner.	N/A.
Key consideration 6: An FMI should use a collateral management system that is well-designed and operationally flexible.	<p>SHFE’s collateral system can use the client code to identify all of the marketable securities deposited by each client as margin. During prescribed time windows, members may freely deposit or withdraw marketable securities as margin through the system. At present, any margin funds converted from standard warrants are immediately available for use. During clearing on each day, the Clearing Department recalculates the value of the marketable securities used as margin based on the settlement price of the day and determines the amount of margin funds thus converted at the maximum allotting multiplier.</p> <p>Operations related to the collateral system are subject to a two-staff, double-check mechanism at the SHFE end to ensure the smooth use of standard warrants and government bonds as margin.</p>

Principle 6: Margin

A CCP should cover its credit exposures to its participants for all products through an effective margin system that is risk-based and regularly reviewed.

Key consideration 1: A CCP should have a margin system that establishes margin levels commensurate with the risks and particular attributes of each product, portfolio, and market it serves.	<p>SHFE implements a margin system that includes trading margin and clearing deposit, among which, trading margin is collected in proportion to the value of futures contract and should be deposited in advance. SHFE has set margin levels commensurate with the risks and particular attributes of each futures product and the market it serves that can reasonably cover – at least one price limit hit – the risks associated with existing products. The margin requirement for an SHFE-listed options contract is linked to and adjusted concurrently with that for its underlying futures contract. The <i>Options Trading Rules of the Shanghai Futures Exchange</i> sets out the collection method of options margin. The price data used in the margin system are from SHFE’s trading system.</p> <p>SHFE routinely manages margin with the <i>SHFE Clearing Rules</i> and the <i>SHFE Risk Management Rules</i>, which are disclosed on its official website and available to all market participants.</p> <p>Provisions on the collection of margins are set out in the <i>SHFE Clearing Rules</i>. Margin is divided into the clearing deposit and the trading margin. Trading margin refers to the funds deposited by a member into SHFE’s dedicated</p>
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settlement account to ensure performance; it is the portion of margin being used to maintain existing positions. Once a futures trade is executed, SHFE collects margin from both sides either in proportion to the value of the contract concerned or by other methods as prescribed. Clearing deposit is the funds deposited in advance by a member into SHFE's dedicated settlement account, which is not being used to maintain existing positions. SHFE sets minimum requirements for clearing deposit: ¥2,000,000 for FF members and ¥500,000 for non-FF members. Moreover, for the long and short positions in one product held by a Non-FF Member or a client at one member, SHFE may calculate and collect the trading margin on a larger-side basis.

Detailed explanations of margin and the adjustment of margin are given in the *SHFE Risk Management Rules*, which provide that SHFE may adjust margin by how close a contract is to the delivery month and by the size of open interest; adjust margin through price limits in the event of consecutive occurrences of limit-locked market; and adjust the base trading margin in view of overall market conditions.

To manage current credit exposures, SHFE collects a margin that can cover the exposures at a minimum 99% confidence level; measures and identifies risk exposures during intraday real-time risk monitoring processes; and eliminates risks with such measures as issuance of margin call and forced position liquidation after day-end clearing.

During real-time risk monitoring processes (intraday real-time risk monitoring), SHFE may, through its risk control and management system, assess the largest member's risk exposure by estimating members' margin, gains and losses, and other amounts at a hypothetical price level. The frequency of assessments may be increased by the risk management personnel at the Clearing Department on an "as needed" basis. For the members who conduct unduly frequent transfer of funds, the risk management personnel will pay special attention to changes in their funds, positions, and contract prices, and fully warn them about associated risks.

After the completion of day-end clearing, a member whose clearing deposit falls below the minimum requirement will be deemed to have received a margin call from SHFE and is required to make up the shortfall before the market open on the following trading day. If the member fails to do so, where the clearing deposit is larger than zero but less than the minimum requirement, the member should not open new positions; where the clearing deposit is less than zero, SHFE will enforce liquidation according to the *SHFE Risk Management Rules*. In the latter case, the member should first close out its positions within the time limit prescribed, failing which, forced position liquidation will be conducted by SHFE. During the liquidation, SHFE prioritizes speculative over hedging positions and futures over options positions. Specifically, SHFE first selects the contract to be liquidated by descending open position after market close on the preceding trading day, then successively liquidates positions of all clients under the member, ranking by descending net position losses. If multiple members are subject to forced position liquidation, SHFE will determine the sequence of these members by descending the amount of additional margin required from

	<p>each.</p> <p>Regarding the management of potential future credit risks:</p> <p>First, SHFE sets minimum requirements for clearing deposit: ¥2,000,000 for FF members and ¥500,000 for non-FF members. In addition to SHFE’s trading margin requirement, a member with a margin call needs to satisfy the minimum requirement for clearing deposit.</p> <p>Second, SHFE has developed prudent haircuts and management criteria by taking market liquidity into account (see Principle 5 on collateral).</p> <p>Third, SHFE collects margin at a sufficiently high ratio and has taken into account the factors including the close-out period.</p> <p>According to the <i>Measures for the Supervision and Administration of Futures Firms</i>, if a client has insufficient margin due to defaults during futures trading, his carrying futures firm (member) should eliminate the shortfall with risk reserve fund or the firm’s (member’s) own assets, and may not divert other clients’ margin funds. If a member fails to fulfill its contractual obligations, SHFE is entitled to take the following protective measures according to <i>Clearing Rules</i>: (1) apply the member’s clearing deposit; (2) suspend opening of new positions; (3) conduct forced position liquidation as prescribed until the margin released is sufficient to fulfill the relevant obligations and responsibilities; (4) convert the Member’s margin collateral into cash, and use the proceeds therefrom to fulfill relevant obligations and responsibilities; (5) disqualify the member and apply the membership fee to cover the obligations; (6) draw on risk reserve fund to cover the obligations with the approval of the Board of Directors; (7) use its own assets to cover the obligations; and (8) exercise the right of recourse to the member through legal proceedings. The responsibilities of each party involved in forced position liquidation are clarified in the <i>Provisions of the Supreme People’s Court on Issues concerning the Trial of Futures Dispute Cases</i>.</p> <p>At SHFE, trade clearing and settlement is conducted by Beijing Time only.</p>
<p>Key consideration 2: A CCP should have a reliable source of timely price data for its margin system. A CCP should also have procedures and sound valuation models for addressing circumstances in which pricing data are not readily available or reliable.</p>	<p>Pursuant to its applicable rules, SHFE needs to set the listing benchmark price of a contract based on the reasonable expected price of the contract in the market, conditions in the futures and spot markets, and pricing formula, underlying price, and costs of the contract after having considered the macro environment, market attention, liquidity, industry environment, and other comprehensive factors. During this process, SHFE also takes into consideration the spot price of the underlying product and the price of related products in the domestic and foreign futures, spot, and forward markets. The sources of these data include the actual trading price of the underlying product in the spot market from at least two companies above designated size.</p> <p>SHFE calculates the percentage and amount of margin for a newly listed contract based on its listing benchmark price and the margin quantitative model.</p> <p>Detailed margin calculation methods for inactive contracts and untraded</p>

	<p>futures contracts are set out in the <i>SHFE Clearing Rules</i>.</p> <p>Currently, SHFE calculates margin based on prices generated from its own system, thus there is generally no circumstance in which pricing data is not readily available or reliable.</p>
<p>Key consideration 3: A CCP should adopt initial margin models and parameters that are risk-based and generate margin requirements sufficient to cover its potential future exposure to participants in the interval between the last margin collection and the close out of positions following a participant default. Initial margin should meet an established single-tailed confidence level of at least 99 percent with respect to the estimated distribution of future exposure. For a CCP that calculates margin at the portfolio level, this requirement applies to each portfolio's distribution of future exposure. For a CCP that calculates margin at more-granular levels, such as at the subportfolio level or by product, the requirement must be met for the corresponding distributions of future exposure. The model</p>	<p>The margin models that SHFE adopts based on the market it serves can effectively meet risk-management requirements and ensure smooth operation of the market.</p> <p>Model design:</p> <p>SHFE collects trading margin in proportion to contract value under the models that determine margin levels based on assumptions of market efficiency and historical data relevance as well as product attributes. The basic margin level is calculated with the popular historical value-at-risk (HVaR) model which covers risks with a high confidence level. SHFE also considers calculating and managing basic level margin using other quantitative models, and then attempts to estimate a relatively conservative one as the reference basic level margin. After making the estimation, the management personnel at SHFE may determine the basic level margin by taking account of other factors in light of product attributes. In addition, SHFE applies the same stringent criteria to the margin setting under the larger-side margining system, especially to its confidence level, close-out period, historical data sampling period, and limiting of countercyclicality and procyclicality. Moreover, the <i>SHFE Risk Management Rules</i> contains detailed provisions on how margin requirement is to be adjusted based on the size of open interest, how close a contract is to the delivery month, and when the price limit is hit.</p> <p>Model assumptions:</p> <p>SHFE's margin models determine margin levels based on the assumption of market validity and valuable historical data as well as product characteristics.</p> <p>Key parameters and input of model:</p> <p>In calculating the margin level for a certain a product, SHFE mainly considers the historical price changes and volatility of the product in the spot or futures markets, and uses various models to estimate the margin requirements for the corresponding futures and options contracts.</p> <p>The HVaR margin model mainly uses the following parameters: historical price data of over 250 days, a confidence level of above 99%, and a close-out period of at least one day. In addition, in case of high market volatility, SHFE may also consider using historical price data of a longer or shorter period and all other available margin models to set a margin level that most accurately reflects the market conditions.</p> <p>Close-out periods:</p> <p>Close-out periods are set out in the <i>SHFE General Exchange Rules</i>, the <i>SHFE Clearing Rules</i>, and the <i>SHFE Risk Management Rules</i>. To eliminate the adverse effect that decreased liquidity of futures products may have on close-</p>

<p>should (a) use a conservative estimate of the time horizons for the effective hedging or close out of the particular types of products cleared by the CCP (including in stressed market conditions), (b) have an appropriate method for measuring credit exposure that accounts for relevant product risk factors and portfolio effects across products, and (c) to the extent practicable and prudent, limit the need for destabilising, procyclical changes.</p>	<p>out periods, SHFE has set different position limits for various products by how close a contract is to the delivery month. Forced position liquidation is first carried out by members. Unless otherwise prescribed by SHFE, members are required to complete forced position liquidation within the morning session after market open. If a member fails to complete the liquidation within the prescribed time limit, SHFE will enforce the liquidation. A member required to carry out forced position liquidation due to a negative clearing deposit is not permitted to establish new positions before it eliminates the margin shortfall. The liquidation price is formed through market trading. If forced position liquidation is not fully completed within the prescribed time limit due to price limit or other market factors, the remaining positions may be liquidated in the following trading day in accordance with the <i>SHFE Risk Management Rules</i> until all relevant positions are closed out.</p> <p>Historical data sampling period and considerations:</p> <p>For newly listed contracts, SHFE selects the sampling period based on the price volatility of the underlying physical products by taking into consideration such factors as market size, market attributes, and price transparency. For existing contracts, the sampling period should cover huge price volatilities.</p> <p>Limiting the destabilizing effect of procyclical changes:</p> <p>SHFE’s margin collection scheme prevents the destabilizing effect of procyclical changes to a large extent by: (1) requiring contributions to margin in advance; (2) collecting margin at a fixed percentage; (3) setting high margin levels; and (4) maintaining low adjustment frequency.</p> <p>Identifications and mitigations of specific wrong-way risk:</p> <p>The marketable securities acceptable as margin currently include standard warrants and government bonds. SHFE sets reasonable haircuts for standard warrants and government bonds, marks their value to market daily, and ensures their authenticity through the Standard Warrant Management System and Member Service System. Except for cash, standard warrants, and government bonds, no other assets are accepted as margin; government bonds are barely subject to wrong-way risks as it is highly improbable for them to be exposed to issuers’ credit risks.</p>
<p>Key consideration 4: A CCP should mark participant positions to market and collect variation margin at least daily to limit the build-up of current exposures. A CCP should have the authority and operational capacity</p>	<p>SHFE collects trading margin in proportion to contract value and implements a daily mark-to-market clearing system. Pursuant to the <i>SHFE Risk Management Rules</i>, SHFE may adjust margin levels based on the level of open interest, life cycle stage of contracts following listing, and price limit hits. Margin requirements may also be adjusted in the event of a limit-locked market, public holidays, and other special circumstances as SHFE deems necessary.</p> <p>During trading on a day, SHFE calculates a member’s trading margin and clearing deposit based on the settlement price and the margin requirement of the preceding trading day and does not allow a member whose clearing</p>

<p>to make intraday margin calls and payments, both scheduled and unscheduled, to participants.</p>	<p>deposit falls below the minimum requirement to open new positions. At daily clearing, SHFE settles the gains and losses of all contracts at the settlement price of the day, collects trading margin based on the settlement price and the margin requirement of the day, and increases or reduces members' clearing deposits accordingly. Where the balance of a member's clearing deposit falls below the minimum requirement, a margin call will be deemed to have issued to the member.</p> <p>According to relevant rules, SHFE has the authority to, without notice to a member, deduct any receivables from the member's dedicated fund account through designated depository banks, and to access the balance and transaction history of the account at any time.</p>
<p>Key consideration 5: In calculating margin requirements, a CCP may allow offsets or reductions in required margin across products that it clears or between products that it and another CCP clear, if the risk of one product is significantly and reliably correlated with the risk of the other product. Where two or more CCPs are authorised to offer cross-margining, they must have appropriate safeguards and harmonised overall risk-management systems.</p>	<p>SHFE's larger-side margining system allows reduced margin requirements during arbitrage trading of the various futures contracts in the same product. Under this system, SHFE collects margin based on larger of the margin required for the long positions and for the short positions held by a client in the same product. Currently, SHFE does not grant margin discounts across its products, and no offsets or reductions in required margin between products at SHFE and another CCP are permitted.</p> <p>SHFE has developed and analyzed its larger-side margining system over many years. The system has been proven its robustness over this period.</p>
<p>Key consideration 6: A CCP should analyse and monitor its model performance and overall margin coverage by conducting rigorous daily backtesting and at least monthly, and more-frequent where</p>	<p>SHFE conducts a backtesting on the margin coverage of all products and contracts each day to assess the reasonability of its margin model and relevant parameters.</p> <p>SHFE performs adequate sensitivity analysis of the coverage of the margin collected when developing, using, and evaluating its margin model, and analyzes and assesses, on a periodic or <i>ad hoc</i> basis, margin losses due to price fluctuations and fund losses at membership and market levels caused by extreme risks.</p> <p>Backtesting results show that SHFE's margin scheme has achieved its target confidence level. If its model does not perform as well as expected, SHFE will</p>

<p>appropriate, sensitivity analysis. A CCP should regularly conduct an assessment of the theoretical and empirical properties of its margin model for all products it clears. In conducting sensitivity analysis of the model's coverage, a CCP should take into account a wide range of parameters and assumptions that reflect possible market conditions, including the most-volatile periods that have been experienced by the markets it serves and extreme changes in the correlations between prices.</p>	<p>take countermeasures according to applicable rules, and file them with CSRC.</p>
<p>Key consideration 7: A CCP should regularly review and validate its margin system.</p>	<p>SHFE modifies and adjusts margin requirements according to the <i>SHFE Clearing Rules</i> and the <i>SHFE Risk Management Rules</i>, and files the updated margin requirements with CSRC. Before effecting a modification or adjustment, SHFE will, within a reasonable time, issue a prior notice to the market through its official website and the Membership Service System.</p> <p>SHFE's business departments as well as the Risk Management Department, and the Risk Management Committee organize joint conferences to validate the implementation status of its margin system and adjusted margin requirements. Issues involving major policy adjustments will be submitted to CSRC after consideration by the management.</p>

Principle 7: Liquidity risk

An FMI should effectively measure, monitor, and manage its liquidity risk. An FMI should maintain sufficient liquid resources in all relevant currencies to effect same-day and, where appropriate, intraday and multiday settlement of payment obligations with a high degree of confidence under a wide range of potential stress scenarios that should include, but not be limited to, the default of the participant and its affiliates that would generate the largest aggregate liquidity obligation for the FMI in extreme but plausible market conditions.

<p>Key consideration 1: An FMI should have a robust framework to manage its liquidity risks from its participants, settlement banks, nostro agents, custodian banks, liquidity providers, and other entities.</p>	<p>SHFE has a robust framework for managing liquidity risks from all relevant participants.</p> <p>Participants posing liquidity risks in SHFE’s existing businesses include members and designated depository banks, with the latter being the only participants with multiple roles. However, banks shoulder different responsibilities and obligations when they act as members and as depository banks; the dedicated margin funds account that SHFE opens at a settlement bank is also separated and managed separately from the dedicated fund account used by the bank in proprietary businesses. SHFE thus measures and prevents potential liquidity risks from each bank separately by its role – as a member and as a settlement bank.</p> <p>Main potential sources of SHFE’s liquidity risks include: (1) members’ insolvency due to defaults or bankruptcy; (2) insufficient funds at margin depository banks for margin withdrawals; (3) margin depository banks’ failure to provide SHFE with a certain amount of intraday credit as liquidity providers according to relevant agreement; and (4) difficulties in liquidating the collaterals of low liquidity.</p> <p>SHFE identifies, measures, and monitors its asset settlement and fund flow during and after trading hours through its clearing system, risk control and management system, fund management system, trading system, surveillance system, Standard Warrant Management System, delivery system, and unified payment system on a timely and ongoing basis.</p> <p>The institutional framework and measures with which SHFE manages liquidity risks mainly include rules and agreements, such as the <i>Futures and Derivatives Law</i>, the <i>Regulations on the Administration of Futures Trading</i>, the <i>Measures on the Administration of Futures Exchanges</i>, the <i>SHFE Clearing Rules</i>, the <i>SHFE Designated Depository Bank Rules</i>, the <i>Margin Rules of the Shanghai Futures Exchange</i> (the “<i>SHFE Margin Rules</i>”) as well as the futures margin depository agreement between it and each designated depository bank.</p> <p>To manage the liquidity risks from members, SHFE implements ex ante risk controls including: (1) requiring advanced deposit of margin; (2) only accepting cash and highly liquid marketable securities as margin; (3) implementing price limits. Such limits are applicable to both members and clients with respect to every contract, thereby limiting the potential scale of default of a participant and its affiliates in extreme scenarios; and (4) identifying members under potential financial stress through reverse stress tests.</p> <p>To manage the liquidity risks from designated depository banks, SHFE has laid down supervisory requirements regarding their credit standing, capital adequacy ratio, accesses to liquid resources, and operational capacity. Moreover, SHFE has dedicated personnel to monitor their liquidity concentrations during operations. If the fund balance of a bank is or is likely to be insufficient, SHFE will transfer funds from other banks with sufficient liquidity to help the bank meet payment obligations on time. SHFE also</p>
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	<p>conducts routine inspections on the liquidity of depository banks each year.</p>
<p>Key consideration 2: An FMI should have effective operational and analytical tools to identify, measure, and monitor its settlement and funding flows on an ongoing and timely basis, including its use of intraday liquidity.</p>	<p>SHFE identifies, measures, and monitors its asset intraday and post-trading settlement and fund flow through its clearing system, risk controls and management system, fund management system, trading system, surveillance system, Standard Warrant Management System, delivery system, and unified payment system on a timely and ongoing basis.</p> <p>First, the risk control and management system assess the sufficiency of a member’s margin during clearing on a day by taking account of changes in open interests, adjustments of margin ratio in view of changes in market conditions, as well as the member’s floating gains and losses, funds deposits, amount of margin from pledged warrants, and delivery payment on the day. The system also supports reverse stress tests, which can estimate all members’ and clients’ funding risks following an extreme market condition, such as three consecutive same direction price limit hits.</p> <p>Second, during daily clearing, the fund management system evaluates a member’s funds available for withdrawal on that day according to factors such as the member’s margin, amount of margin from pledge, gains and losses of the day, and maximum withdrawal percentage, so as to ensure that the member’s clearing deposit does not fall below the minimum requirement after withdrawal of funds.</p> <p>In addition, SHFE’s fund system monitors designated depository banks’ concentration of funds in real time. According to the <i>SHFE Designated Depository Bank Rules</i>, if SHFE needs additional liquidity during funds settlement, depository banks should provide the funding support upon request of SHFE to help SHFE mitigate risks.</p>
<p>Key consideration 3: A payment system or SSS, including one employing a DNS mechanism, should maintain sufficient liquid resources in all relevant currencies to effect same-day settlement, and where appropriate intraday or multiday settlement, of payment obligations with a high degree of confidence under a wide range of potential stress scenarios that should</p>	<p>N/A.</p>

<p>include, but not be limited to, the default of the participant and its affiliates that would generate the largest aggregate payment obligation in extreme but plausible market conditions.</p>	
<p>Key consideration 4: A CCP should maintain sufficient liquid resources in all relevant currencies to settle securities-related payments, make required variation margin payments, and meet other payment obligations on time with a high degree of confidence under a wide range of potential stress scenarios that should include, but not be limited to, the default of the participant and its affiliates that would generate the largest aggregate payment obligation to the CCP in extreme but plausible market conditions. In addition, a CCP that is involved in activities with a more-complex risk profile or that is systemically important in multiple jurisdictions should consider maintaining</p>	<p>SHFE has maintained sufficient liquid resources. SHFE’s qualifying liquid resources include trading margin, clearing deposit, marketable securities accepted as margin, risk reserve fund, and its own assets.</p> <p>First, SHFE adopts ex ante risk controls by: (1) requiring advanced deposit of margin; (2) only accepting cash and highly liquid collateral as margin; (3) implementing price limits and limitations on total open interests. Both price and position limits are applicable to both members and clients with respect to every contract, thereby limiting the potential scale of default of a participant and its affiliates in extreme scenarios; and (4) identifying members under potential financial stress through reverse stress tests.</p> <p>In particular, the reverse stress tests and other predictive measures can identify and measure liquidity risk exposures in extreme but plausible conditions. Results of stress tests can cover all members and clients.</p> <p>Second, according to the <i>SHFE Designated Depository Bank Rules</i>, SHFE requires banks to cooperate with it in meeting liquidity needs and conducts regular tests on depository banks’ liquidity. Furthermore, SHFE may ensure adequate liquid resources through inter-bank fund transfer.</p> <p>SHFE conducts settlement in RMB, and is only systemically important in the People’s Republic of China. SHFE is not exposed to more complex risks, therefore its liquid resources are sufficient.</p>

<p>additional liquidity resources sufficient to cover a wider range of potential stress scenarios that should include, but not be limited to, the default of the two participants and their affiliates that would generate the largest aggregate payment obligation to the CCP in extreme but plausible market conditions.</p>	
<p>Key consideration 5: For the purpose of meeting its minimum liquid resource requirement, an FMI's qualifying liquid resources in each currency include cash at the central bank of issue and at creditworthy commercial banks, committed lines of credit, committed foreign exchange swaps, and committed repos, as well as highly marketable collateral held in custody and investments that are readily available and convertible into cash with prearranged and highly reliable funding arrangements, even in extreme but plausible market conditions. If an FMI</p>	<p>SHFE's qualifying liquid resources include cash, trading margin, clearing deposit, marketable securities accepted as margin, risk reserve fund, and its own assets. There are no barriers impeding SHFE's access to these qualifying liquid resources, for the following reasons:</p> <p>First, both trading margin and clearing deposit must be deposited in RMB in advance at large state-owned or national joint-stock commercial banks.</p> <p>Second, marketable securities acceptable as margin are highly marketable and liquid assets.</p> <p>Third, SHFE's risk reserve fund, deposited in cash in advance at large state-owned commercial banks, is also readily available. The use of risk reserve fund is subject to the approval of the Board of Directors and must be in compliance with the pre-established purposes and procedures after CSRC is duly notified.</p> <p>SHFE conducts RMB settlement and adopts ex ante risk controls by requiring advance deposit of margin. Most of the margin funds consist of cash by far. While the People's Bank of China does not extend SHFE any regular credit loan at present, SHFE can obtain certain credit from depository banks to ensure its on-time performance of settlement obligations.</p> <p>(see the <i>Futures and Derivatives Law</i>, the <i>Regulations on the Administration of Futures Trading</i>, the <i>Measures on the Administration of Futures Exchanges</i>, <i>SHFE Clearing Rules</i>, and the <i>SHFE Standard Warrant Rules</i>).</p>

<p>has access to routine credit at the central bank of issue, the FMI may count such access as part of the minimum requirement to the extent it has collateral that is eligible for pledging to (or for conducting other appropriate forms of transactions with) the relevant central bank. All such resources should be available when needed.</p>	
<p>Key consideration 6: An FMI may supplement its qualifying liquid resources with other forms of liquid resources. If the FMI does so, then these liquid resources should be in the form of assets that are likely to be saleable or acceptable as collateral for lines of credit, swaps, or repos on an ad hoc basis following a default, even if this cannot be reliably prearranged or guaranteed in extreme market conditions. Even if an FMI does not have access to routine central bank credit, it should still take account of what</p>	<p>SHFE’s supplementary liquid resources are credit from commercial banks.</p> <p>Based on assessments of participants’ credit and liquidity risks, SHFE has established various risk control systems: margin requirements can cover a price limit hit of at least one day; implementing a daily mark-to-market system; and conducting real-time settlement multiple times a day to keep risks at manageable levels. As SHFE’s qualifying liquid resources are sufficient to meet the liquidity needs even under extremely stressed conditions, no supplementary liquid resources have been used.</p> <p>SHFE always prioritizes qualifying liquid resources over supplementary liquid resources if liquidity needs arise.</p>

<p>collateral is typically accepted by the relevant central bank, as such assets may be more likely to be liquid in stressed circumstances. An FMI should not assume the availability of emergency central bank credit as a part of its liquidity plan.</p>	
<p>Key consideration 7: An FMI should obtain a high degree of confidence, through rigorous due diligence, that each provider of its minimum required qualifying liquid resources, whether a participant of the FMI or an external party, has sufficient information to understand and to manage its associated liquidity risks, and that it has the capacity to perform as required under its commitment. Where relevant to assessing a liquidity provider's performance reliability with respect to a particular currency, a liquidity provider's potential access to credit from the central bank of issue may be taken into account. An FMI should regularly test</p>	<p>SHFE's liquidity providers include the margin depository banks that have signed margin depository agreements with it. Depository banks are required to take effective measures to mitigate fund liquidity risks under the <i>SHFE Clearing Rules</i>, the <i>SHFE Designated Depository Bank Rules</i>, and the <i>SHFE Margin Rules</i> as well as the <i>Banking Institution Futures Margin Depository Agreement</i> executed with SHFE. If SHFE needs additional liquidity during funds settlement, depository banks should, upon SHFE's request, provide the corresponding funding support and ensure the stability and efficiency of SHFE's unified payment system (UPS) to help SHFE mitigate risks. While currently SHFE is not qualified to obtain credit loan from China's central bank, its margin depository banks, mostly state-owned commercial banks, do have access to such credit loan.</p> <p>To prevent margin from being misappropriated, a futures firm must deposit margin into a dedicated margin funds account. Margin may only be transferred among the following accounts of a futures firm: its dedicated margin funds account, its dedicated fund account opened at where SHFE is located, and its fund account at SHFE. These accounts form a "closed loop" for the futures firm's margin funds; and margin may only move within this closed loop. Margin is measured and supervised by CSRC's regional offices by comparing the total amount of funds in the loop as reported by futures firms, depository banks, and SHFE, with the equity of each company and client. Depository banks should not allow any other entity or individual to freeze or transfer any funds in SHFE's dedicated settlement account and, if any other entity intends to take measures which may affect the margin depository service (freezing the funds in a member's dedicated fund account for example), promptly notify SHFE. Furthermore, depository banks should take effective measures to prevent liquidity risk associated with funds as required by SHFE.</p> <p>In addition, SHFE may investigate depository banks' operation compliance, risk management capability, and financial health through annual inspections and random checks. Concentration of margin in these banks are monitored by SHFE's systems on an ongoing basis.</p>

<p>its procedures for accessing its liquid resources at a liquidity provider.</p>	
<p>Key consideration 8: An FMI with access to central bank accounts, payment services, or securities services should use these services, where practical, to enhance its management of liquidity risk.</p>	<p>N/A.</p>
<p>Key consideration 9: An FMI should determine the amount and regularly test the sufficiency of its liquid resources through rigorous stress testing. An FMI should have clear procedures to report the results of its stress tests to appropriate decision makers at the FMI and to use these results to evaluate the adequacy of and adjust its liquidity risk-management framework. In conducting stress testing, an FMI should consider a wide range of relevant scenarios. Scenarios should include relevant peak historic price volatilities, shifts in other market factors such as price</p>	<p>Trading and settlement on SHFE are conducted in RMB only. In carrying out stress tests with respect to the existing single currency, SHFE has considered the attributes of the settlement business, historic market data, and plausible, extreme conditions. Stress tests are conducted to identify SHFE’s liquidity risk caused by members’ liquidity shortfall and the risks arising from insufficient balance in dedicated fund accounts at banks.</p> <p>Possible sources of members’ liquidity risks are dramatic changes in market conditions, and substantial net withdrawal of funds due to increases or reductions of positions, among others. When the market is exposed to major risks – such as during special circumstances including price limit hits of a nearby month contract and other major volatilities on a trading day – the risk management personnel may conduct reverse stress tests, and in combination with various assessments, check whether members or designated depository banks meet liquidity requirements.</p> <p>Reverse stress tests are generally conducted after market close. The tests will, based on the price limit of each contract, estimate members’ funding situation in the following two days (i.e., assuming price limit is hit on three consecutive days). These tests allow SHFE to estimate the exposure it might face after the price limit is hit on three consecutive days. The stress test results are for internal reference only. SHFE will not immediately require a member to deposit more trading margin based on such results, but will warn it about fund shortfall and negative equity. The stress test results will be directly reported to the Risk Management Department and proper decision-makers.</p> <p>To address liquidity risks from designated depository banks, SHFE has laid down supervisory requirements regarding their credit standing, capital adequacy ratio, accesses to liquid resources, and operational capacity. SHFE has also dedicated personnel to monitor their liquidity concentrations during operations. If the fund balance of a bank is or is likely to be insufficient, SHFE will transfer funds from other banks with sufficient liquidity to help the bank meet payment demands on time. Moreover, SHFE regularly checks</p>

<p>determinants and yield curves, multiple defaults over various time horizons, simultaneous pressures in funding and asset markets, and a spectrum of forward-looking stress scenarios in a variety of extreme but plausible market conditions. Scenarios should also take into account the design and operation of the FMI, include all entities that might pose material liquidity risks to the FMI (such as settlement banks, nostro agents, custodian banks, liquidity providers, and linked FMIs), and where appropriate, cover a multiday period. In all cases, an FMI should document its supporting rationale for, and should have appropriate governance arrangements relating to, the amount and form of total liquid resources it maintains.</p>	<p>banks' liquidity and conducts inter-bank fund transfer tests.</p>
<p>Key consideration 10: An FMI should establish explicit rules and procedures that enable the FMI to effect same-day</p>	<p>SHFE has established sound rules and procedures regarding the use of liquid resources.</p> <p>First, the rules, systems and corresponding measures enable it to meet its settlement and payment obligations on time following any individual or combined default among its participants.</p>

<p>and, where appropriate, intraday and multiday settlement of payment obligations on time following any individual or combined default among its participants. These rules and procedures should address unforeseen and potentially uncovered liquidity shortfalls and should aim to avoid unwinding, revoking, or delaying the same-day settlement of payment obligations. These rules and procedures should also indicate the FMI's process to replenish any liquidity resources it may employ during a stress event, so that it can continue to operate in a safe and sound manner.</p>	<p>If one or more members fail to fulfill their contractual obligations, SHFE is entitled to take the following protective measures: (1) draw on the members' clearing deposit; (2) suspend opening of new positions; (3) conduct forced position liquidation as prescribed until the margin released is sufficient to cover the obligations; (4) use the cash converted from the marketable securities that the members deposit to cover the obligation; (5) disqualify the members and apply the membership fee to cover the obligations; (6) draw on risk reserve fund to cover the obligations with the approval of the Board of Directors; (7) use its own assets to cover the obligations; and (8) take right of recourse to the members through legal proceedings.</p> <p>In addition, SHFE obtains certain lines of credit from depository banks under a futures margin depository agreement executed with each of them and covers liquidity exposures with loans from commercial banks.</p> <p>Since the founding of SHFE, these rules and procedures have been tested in a wide range of extreme market conditions including the 2008 financial crisis. No member default has occurred thus far.</p>
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Principle 8: Settlement finality

An FMI should provide clear and certain final settlement, at a minimum by the end of the value date. Where necessary or preferable, an FMI should provide final settlement intraday or in real time.

<p>Key consideration 1: An FMI's rules and procedures should clearly define the point at which settlement is final.</p>	<p>The point at which clearing is final is clearly defined in SHFE's supporting rules. SHFE implements a daily mark-to-market system and timely notifies members of clearing results after completion of clearing on a day. A member who disagrees with the clearing data should notify SHFE in writing no later than 30 minutes prior to the next market open or, under special circumstances, within two hours after the market open. If a member does not challenge the clearing data within this period, the member is deemed as having accepted the accuracy of the data. A futures firm should in turn carry out clearing with its clients based on SHFE's clearing result and timely notify the clients of clearing results in the manner they have agreed. Each client should confirm</p>
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	<p>the clearing result as stipulated in the futures brokerage contract; if there is a disagreement, the client should notify the futures firm in writing within the time limit specified in the futures brokerage contract, in which case, the futures firm should verify the figures within the agreed time limit. No objection raised by a client within the specified time limit is deemed as a confirmation of the result. Furthermore, confirmation of any day's clearing result is deemed as a confirmation of all the positions and trading and clearing results before that day, the consequences of which are to be solely borne by the client. After the clearing and settlement deadline, payment and transfer instructions will become irrevocable and the deadline will not be subject to any extension (see the <i>SHFE Clearing Rules</i>, the <i>Measures for the Supervision and Administration of Futures Firms</i>, the <i>Provisions of the Supreme People's Court on Issues concerning the Trial of Futures Dispute Cases</i>, the <i>Regulations on the Administration of Futures Trading</i>, and the <i>Futures and Derivatives Law</i>).</p> <p>In addition, the <i>Futures and Derivatives Law</i> prohibits the suspension, invalidation, or rescission of lawfully conducted settlement and delivery procedures following the lawful entry into bankruptcy proceedings by any party participating in the settlement process. The <i>Measures for the Supervision and Administration of Futures Firms</i> requires any futures firm subject to dissolution or bankruptcy to properly handle clients' margin funds and other assets first. The <i>Provisions of the Supreme People's Court on Issues Concerning the Trial of Futures Dispute Cases</i> and the <i>Regulations on the Administration of Futures Trading</i> also provide a legal basis for the finality of settlement (see Principle 1 Legal basis).</p> <p>The above-mentioned information is disclosed to members and investors in the form of rules and operational guidelines as well as through SHFE's official website and other channels.</p>
<p>Key consideration 2: An FMI should complete final settlement no later than the end of the value date, and preferably intraday or in real time, to reduce settlement risk. An LVPS or SSS should consider adopting RTGS or multiple-batch processing during the settlement day.</p>	<p>SHFE implements a daily mark-to-market system and its rules of the Exchange can ensure the completion of final settlement before market open on the following trading day. The day-end settlement is conducted by the Clearing Department after market close at 15:00 each trading day. Funds deposits by members are completed by the Department before 15:00 if requests are submitted before market close. Funds withdrawal requests submitted before market close are collectively processed after market close and daily settlement on the same day, while funds deposit or withdrawal requests submitted after market close and daily settlement are processed on the following trading day. Members' applications for withdrawal of marketable securities are accepted before 14:30. During daily settlement, the Department carries out a final settlement for all contracts based on the settlement price of that day, and makes a one-off transfer of all gains and losses, trading margin, transaction fees, and taxes as well as other receivables and payables for all contracts, on a net basis, by crediting or debiting members' clearing deposit accordingly. Following the settlement, a member whose clearing deposit falls below the minimum requirement will be deemed</p>

	<p>as having received a margin call from SHFE, in which case, the difference between the minimum requirement and the balance of clearing deposit will be the amount to be replenished. After issuing the margin call, SHFE may deduct the amount from the member's dedicated fund account through depository banks. If a deficiency still exists, the member should bring the balance to the minimum requirement before market open (21:00 for continuous trading) on the following trading day, failing which, where the balance of the clearing deposit is larger than zero but less than the minimum requirement, the member should not open new positions; where the balance of the clearing deposit is less than zero, the member should close out its positions within the morning session, or SHFE will enforce liquidation in accordance with the <i>SHFE Risk Management Rules</i>.</p> <p>For timeliness and finality of fund transfers, SHFE instructs designated depository banks to provide safe, accurate, and timely margin deposit and transfer services for the clients concerned, and to adjust business hours in light of changes in SHFE's trading and settlement time, so as to meet the needs for the margin depository business. For intra-bank fund transfers, a settlement bank, upon receipt of SHFE's fund transfer instruction, is required to transfer funds to the dedicated fund account that SHFE designates in real time. For inter-bank fund transfers, a settlement bank should, upon receipt of SHFE's fund transfer instruction, ensure that the funds are timely received by the bank that SHFE designates (see the <i>SHFE Clearing Rules</i>, the <i>Continuous Trading Rules of Shanghai Futures Exchange</i>, the <i>SHFE Risk Management Rules</i>, and the <i>SHFE Designated Depository Bank Rules</i>).</p>
<p>Key consideration 3: An FMI should clearly define the point after which unsettled payments, transfer instructions, or other obligations may not be revoked by a participant.</p>	<p>After the point which clearing and settlement results are final, payment and transfer instructions will generally become irrevocable and immune to exceptional circumstances and relevant deadlines will not be afforded any extensions. Moreover, SHFE implements a daily mark-to-market system to ensure the completion of the final settlement by the end of the proposed value date.</p> <p>A prior, market-wide notice will be issued for adjustments to the settlement schedule due to public holidays. SHFE has never postponed settlement to the following business day, whether for itself or for any member. If a member delays settlement for a certain reason, SHFE will deal with the member according to the default procedures; if SHFE delays settlement for its own reason, it will take measures according to the established rules and emergency response plan, and, if necessary, switch to the Zhangjiang Disaster Recovery Center. Following the last trading day for a contract, holders of open positions in the contract are required to perform their obligations by physical deliveries.</p> <p>The above-mentioned information is clearly defined in SHFE's rules of the Exchange, operational guidelines, notices, and announcements and disclosed to the public through SHFE's website.</p>

Principle 9: Money settlements

An FMI should conduct its money settlements in central bank money where practical and available. If central bank money is not used, an FMI should minimise and strictly control the credit and liquidity risk arising from the use of commercial bank money.

<p>Key consideration 1: An FMI should conduct its money settlements in central bank money, where practical and available, to avoid credit and liquidity risks.</p>	<p>SHFE conducts money settlements in central bank money only.</p> <p>SHFE conducts settlement through its Clearing Department at its own risks, while banks only hold in custody members' margin and assume no settlement risk. Moreover, SHFE opens no account at China's central bank, and designates commercial banks rather than the central bank as depository banks. The existing 16 designated depository banks – mostly large state-owned or national joint-stock commercial banks with superior risk-management capacity – all make settlement in the money issued by the central bank.</p> <p>SHFE has opened a dedicated settlement account at each of the 16 banks. A member must conduct money settlement between its dedicated fund account opened at these banks and SHFE's dedicated settlement account. All money settlements are completed through these dedicated accounts by either bank transfer or negotiable instruments.</p> <p>(See the <i>SHFE Clearing Rules</i>).</p>
<p>Key consideration 2: If central bank money is not used, an FMI should conduct its money settlements using a settlement asset with little or no credit or liquidity risk.</p>	<p>First, all contracts listed on SHFE are settled in either RMB issued by the central bank or highly liquid marketable securities.</p> <p>Second, the depository banks designated by SHFE are all reputable, financially robust large state-owned commercial banks or national joint-stock commercial banks that engage technical professionals with futures knowledge and higher risk prevention awareness and demonstrate superior risk-management capacity. To mitigate risks and ensure the security of settlement funds, SHFE has designated a dozen of commercial banks as fund depository banks, for whom it has developed strict admission criteria and approval procedures. Admission criteria for margin depository banks are set out in the <i>SHFE Clearing Rules</i> and the <i>SHFE Designated Depository Bank Rules</i>. Before conducting futures margin depository business, a newly admitted settlement bank is required to enter into a Banking Institution Futures Margin Depository Agreement with SHFE to specify both parties' rights and obligations.</p> <p>Third, members' margin, deposited in the accounts opened at depository banks in cash form, is of high liquidity and availability.</p>
<p>Key consideration 3: If an FMI settles in commercial bank money, it should monitor, manage, and limit its credit and liquidity risks arising from the commercial</p>	<p>Specific business and technical requirements for depository banks are set out in the <i>SHFE Designated Depository Bank Rules</i>. In addition, SHFE has signed a Futures Margin Depository Agreement with each designated depository bank, which stipulates that depository banks are only responsible for the custody of members' margin funds and do not perform settlement functions. SHFE takes the following measures to strictly monitor depository banks' concentration of credit and liquidity risks according to the <i>SHFE Designated Depository Bank Rules</i>:</p>

<p>settlement banks. In particular, an FMI should establish and monitor adherence to strict criteria for its settlement banks that take account of, among other things, their regulation and supervision, creditworthiness, capitalisation, access to liquidity, and operational reliability. An FMI should also monitor and manage the concentration of credit and liquidity exposures to its commercial settlement banks.</p>	<p>First, SHFE deposits funds at 16 large commercial banks to avoid excessive concentration of risks;</p> <p>Second, a designated depository bank is required to notify the Exchange and the CFMMC of any major business risk or loss that may impair its credit within three business days from the day the risk or loss arises, and to submit written reports on the analysis of the impact of such risk or loss on its futures margin depository business and the resolutions to address such risk or loss;</p> <p>Third, a designated depository bank is required to conduct reconciliation of the dedicated settlement account of the Exchange on a daily basis;</p> <p>Fourth, a settlement bank is required to provide the Exchange with real-time feedbacks on the balances and historical transactions of members' dedicated fund accounts and to take effective measures to prevent fund liquidity risks;</p> <p>Fifth, the Exchange has the right to initiate inter-bank transfers of margin deposits held with designated depository banks at any time to test the security of margin deposits;</p> <p>Sixth, SHFE monitors members' margin funds accounts in real time through the futures fund management system to ensure the security of funds;</p> <p>Seventh, the Clearing Department designates dedicated persons in charge of reconciling the data submitted by depository banks on a daily basis;</p> <p>Eighth, SHFE's depository banks, all of which are listed banks, are required to disclose their financial status to regulators and the market on a regular basis; and</p> <p>Ninth, SHFE conducts on-site inspections on designated depository banks each year and supervises the banks' risk management efforts and financial status.</p>
<p>Key consideration 4: If an FMI conducts money settlements on its own books, it should minimise and strictly control its credit and liquidity risks.</p>	<p>The Exchange requires depository banks to: (1) promptly complete account reconciliation as requested by Exchange after completion of clearing on a daily basis; (2) provide the Exchange with real-time response to any inquiry on the balance and historical transactions of the Exchange's dedicated settlement account at any time during business hours; (3) deliver to the Exchange transaction documents such as clients' debit/credit notes or breakdown of fund transfers of a day; and (4) provide the account statement of the Exchange's dedicated settlement account as required. These measures can ensure minimum risks.</p>
<p>Key consideration 5: An FMI's legal agreements with any settlement banks should state clearly when transfers on the books of individual settlement banks are</p>	<p>The funds received by SHFE and its participants can be transferred in real time between its dedicated settlement account and members' dedicated fund accounts. To prevent liquidity risks arising from overdue settlements of funds, SHFE requires depository banks to observe the following rules for funds settlements: (1) adjust their business hours in light of changes in the trading and clearing hours of the Exchange in order to meet the needs for the futures margin depository services; (2) for intra-bank fund transfers, upon receipt of SHFE's fund transfer instruction, transfer funds to the dedicated fund account</p>

<p>expected to occur, that transfers are to be final when effected, and that funds received should be transferable as soon as possible, at a minimum by the end of the day and ideally intraday, in order to enable the FMI and its participants to manage credit and liquidity risks.</p>	<p>that SHFE designates in real time; (3) for inter-bank fund transfers, upon receipt of SHFE’s fund transfer instruction, ensure that the funds are transferred in the most efficient way and are timely delivered to the bank that SHFE designates; (4) reject any request by any other entity or individual to freeze or deduct the funds deposited in the dedicated settlement account of the Exchange. If any other entity or individual intends to freeze the funds deposited in members’ dedicated fund accounts or take other actions that may affect the margin depository business, designated depository banks should promptly notify the Exchange. Transfers are final and irrevocable. (See Principle 8 Settlement finality).</p>
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Principle 10: Physical deliveries

An FMI should clearly state its obligations with respect to the delivery of physical instruments or commodities and should identify, monitor, and manage the risks associated with such physical deliveries.

<p>Key consideration 1: An FMI’s rules should clearly state its obligations with respect to the delivery of physical instruments or commodities.</p>	<p>Physical delivery refers to the process that a buyer and a seller settle open positions in an expired futures contract through the transfer of the ownership of the underlying commodity. Pursuant to the <i>SHFE Delivery Rules</i>, all the holders of open interest in a futures contract should fulfill their obligations through physical delivery following the last trading day of the contract. Moreover, physical deliveries against any client’s futures contracts should be executed by members of the Exchange and conducted in the name of the member on or through the Exchange. During physical deliveries, SHFE will, as the participant in the matching of delivery intentions, after taking into account buyers’ intentions, allocate the available standard warrants to the buyers on the second delivery day according to the relevant principles specified in the <i>SHFE Delivery Rules</i>. The matching of delivery intentions is conducted automatically online pursuant to the relevant matching principles. SHFE will continue to optimize its matching system.</p> <p>The deliverable commodity, represented by standard warrants, should be the commodities with registered trademarks whose producers are registered with the Exchange or those of designated brands whose producers are recognized by the Exchange. The <i>SHFE Standard Warrant Rules</i> specify that a standard warrant should contain the following elements: (1) the full name of the owner of the underlying goods; (2) variety, quantity, quality of the underlying goods; (3) the venue where the underlying goods are stored; (4) the storage fees charged; (5) for the already insured underlying goods, the amount of the coverage, date of issuance, expiration of the policy, and the name of the insurer shall all be contained; (6) issuer, place and date of issuance; and (7) other information required to be provided.</p>
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	<p>The obligations and responsibilities of buyers, sellers, the Exchange, and designated delivery warehouses are set out in the <i>SHFE Delivery Rules</i>. The Exchange regularly organizes business training programs for members and investors to ensure that they are familiar with and understand the physical delivery procedures for relevant products.</p> <p>The <i>SHFE Delivery Rules</i> and the <i>SHFE Standard Warrant Rule</i> have been disclosed to the public through SHFE’s website.</p>
<p>Key consideration 2: An FMI should identify, monitor, and manage the risks and costs associated with the storage and delivery of physical instruments or commodities.</p>	<p>The risks that have been identified by SHFE mainly include the custody risks from the warehouses that manage standard warrants and buyers’ and sellers’ delivery default risks during the course of physical deliveries.</p> <p>The Exchange addresses custody risk associated with standard warrants by: (1) requiring delivery warehouses to obtain its approval before they engage in futures delivery-related businesses; (2) executing a cooperation agreement with each designated delivery warehouse and requiring designated delivery warehouses to produce a letter of guarantee from a relevant entity to ensure the performance of obligations; (3) designating delivery warehouses to be in charge of the custody, safety, and confidentiality of underlying commodities; and (4) requiring warehouse internal audit as well as implementing random and annual inspection conducted by the Exchange.</p> <p>To manage buyers’ and sellers’ delivery default risk during the course of physical delivery, SHFE mainly takes the following measures: firstly, SHFE has authorized independent third-party quality inspection agencies to inspect the brand, quality, and quantity of commodities in the corresponding warrants during load-in of the underlying commodities according to the <i>SHFE Standard Warrant Rules</i> and other rules; secondly, SHFE monitors a seller’s deliverable resources and a buyer’s accounts within the Standard Warrant Management System before the delivery day; thirdly, SHFE collects delivery margin from both buyers and sellers during deliveries; and fourthly, SHFE includes the definition of delivery default and the methods of compensation for default in the <i>SHFE Delivery Rules</i>. Moreover, SHFE conducts emergency drills on delivery default each year to more effectively deal with delivery default risks. (See Principle 13 Participant-default rules and procedures).</p>

Principle 11: Central securities depositories

A CSD should have appropriate rules and procedures to help ensure the integrity of securities issues and minimise and manage the risks associated with the safekeeping and transfer of securities. A CSD should maintain securities in an immobilised or dematerialised form for their transfer by book entry.

Summary narrative	N/A.
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Principle 12: Exchange-of-value settlement systems

If an FMI settles transactions that involve the settlement of two linked obligations (for example, securities or foreign exchange transactions), it should eliminate principal risk by conditioning the final settlement of one obligation upon the final settlement of the other.

<p>Key consideration 1: An FMI that is an exchange-of-value settlement system should eliminate principal risk by ensuring that the final settlement of one obligation occurs if and only if the final settlement of the linked obligation also occurs, regardless of whether the FMI settles on a gross or net basis and when finality occurs.</p>	<p>SHFE settles on a net basis and prescribes that a physical delivery can only be carried out after the trading of the corresponding futures contract is completed. Principal risk can be effectively managed under the current physical delivery method.</p> <p>SHFE implements margin requirements and a daily mark-to-market system according to the <i>Futures and Derivatives Law</i> and the <i>Regulations on the Administration of Futures Trading</i>, under which futures exchanges, futures firms, or non-futures firm clearing members are prohibited from allowing members with insufficient margin to trade futures.</p> <p>The <i>SHFE Clearing Rules</i> provide that after the end of each trading day, the Exchange will settle all the contracts based on the settlement price of the day, and increase or deduct members' clearing deposits accordingly. After settlement, if a member's clearing deposit is lower than the minimum requirement, the member should bring the balance to the minimum requirement before opening of the next trading day; if the balance of clearing deposit is less than zero, the Exchange will conduct forced position liquidation according to relevant rules.</p> <p>Pursuant to the <i>SHFE Delivery Rules</i>, only after paying for the underlying commodities can the buyer obtain a standard warrant, which ensures that delivery of warrants only occurs when the corresponding funds are received. The <i>SHFE Clearing Rules</i> set out that the Exchange should secure payment from the buyer (member) before allowing the member (seller) to make the physical delivery.</p> <p>Moreover, SHFE's final settlement of linked obligations occurs simultaneously, and does not rely on the delivery-vs-payment (DvP) or payment-vs-payment (PvP) service from other FMIs in physical deliveries.</p>
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Principle 13: Participant-default rules and procedures

An FMI should have effective and clearly defined rules and procedures to manage a participant default. These rules and procedures should be designed to ensure that the FMI can take timely action to contain losses and liquidity pressures and continue to meet its obligations.

<p>Key consideration 1: An FMI should have default rules and procedures that enable the FMI to continue to meet its obligations in the event of a participant default and that address the replenishment of resources following</p>	<p>SHFE's rules and procedures clearly define cases of default as well as the methods to identify defaults. In addition, SHFE adopts a two-tiered risk prevention system, under which the Exchange manages the risks from members, and members in turn manage the risks from their clients.</p> <p>The defaults identified by the Exchange include but are not limited to members' failure to perform or to fully perform their margin obligations to the Exchange and delivery default.</p> <p>In accordance with the <i>SHFE Clearing Rules</i>, if a member fails to fulfill its contractual obligations due to its inability to meet the margin requirement, SHFE is entitled to take the following protective measures: (1) draw on the member's clearing deposit; (2) suspend the member from opening new positions; (3) conduct forced position liquidation as prescribed until the</p>
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<p>a default.</p>	<p>margin released is sufficient to cover the obligations; and (4) use the cash converted from the marketable securities that the member deposits to cover the obligation. If a deficiency still exists, the Exchange may cover the obligations by applying the membership fee of the defaulting member, drawing on the Exchange’s risk reserve fund, and using the Exchange’s own assets in sequence. In addition, the Exchange will exercise the right of recourse to the member through legal proceedings.</p> <p>The <i>SHFE Delivery Rules</i> considers the following acts as a delivery default: (1) a seller fails to present standard warrants in the required number within the specified delivery period; (2) a buyer fails to make payment in the required amount within the specified delivery period; or (3) other acts the Exchange deems as delivery default. In the case of physical delivery default, if only one party defaults, the defaulting party is to pay the non-defaulting party 20% of the contract value in default as liquidated damages. In this case, the Exchange will return the delivery payment or standard warrants to the non-defaulting party and terminate the delivery. If both parties default, the Exchange will terminate the delivery and impose a fine at 5% of the contract value in default on both parties.</p>
<p>Key consideration 2: An FMI should be well prepared to implement its default rules and procedures, including any appropriate discretionary procedures provided for in its rules.</p>	<p>The management’s responsibilities for default handling as well as the handling procedures are clearly defined in the Exchange’s internal management systems and procedures. Moreover, the Exchange maintains close contact and communications with CSRC and CFMMC. If the margin and collaterals posted by a member are still insufficient to cover its margin obligations after corresponding actions have been taken, the Exchange will timely report the situation to CSRC and may draw on the risk reserve fund with the approval of the Board.</p> <p>The Exchange reviews on a periodic or <i>ad hoc</i> basis its internal management systems and procedures through rule revisions, departmental policy scrutiny, internal audit, and compliance check. When there is any material change to its businesses, the Exchange will review or revise its relevant internal rules on default handling.</p> <p>SHFE addresses trading, clearing, delivery, and technical risks as well as other emergencies that materially affect or are likely to materially affect market safety and stability by: (1) creating emergency response plans and procedures; and (2) establishing clear prevention, response, and resolution procedures that ensure normal, full, and sufficient operations of various businesses and orderly operational management; and (3) setting up an emergency response leadership group and an emergency response working group who are responsible for identifying risks, classifying risk incidents according to severity, and developing differentiated response procedures by incident type and classification; and (4) incorporating response results in assessments on responsible personnel and departments.</p>
<p>Key consideration 3: An FMI should</p>	<p>The Exchange’s default handling procedures, including countermeasures, scope of countermeasures, persons or entities taking countermeasures, and the</p>

publicly disclose key aspects of its default rules and procedures.	mechanisms ensuring performance, are clearly defined in its relevant rules and measures and publicly disclosed through its website. SHFE revises its default handling rules on an <i>ad hoc</i> basis in light of changes in its businesses and rules and issues updates on its official website.
Key consideration 4: An FMI should involve its participants and other stakeholders in the testing and review of the FMI's default procedures, including any close-out procedures. Such testing and review should be conducted at least annually or following material changes to the rules and procedures to ensure that they are practical and effective.	Generally, default handling measures, such as drawing on clearing deposits, restricting opening of positions, conducting forced position liquidation, and handling delivery default, may be taken by the Exchange according to its rules. As a result, the Exchange conducts unscheduled system tests and emergency drills on these default handling measures on an annual basis to strengthen links with CSRC, CFMMC, members, and clients, and reports drill results to the emergency response leadership group and the emergency response working group. When developing or revising default handling rules, SHFE invites members and clients to participate in discussions and consults their opinions to improve the rules.

Principle 14: Segregation and portability

A CCP should have rules and procedures that enable the segregation and portability of positions of a participant's customers and the collateral provided to the CCP with respect to those positions.

Key consideration 1: A CCP should, at a minimum, have segregation and portability arrangements that effectively protect a participant's customers' positions and related collateral from the default or insolvency of that participant. If the CCP additionally offers protection of such customer positions and	SHFE has segregation and transfer arrangements that effectively protect a participant's clients' positions and related collateral from the default or insolvency of that participant. First, the <i>Futures and Derivatives Law</i> , the <i>Regulations on the Administration of Futures Trading</i> , and the <i>Measures for the Supervision and Administration of Futures Firms</i> all provide a legal basis for the protection of settlement assets deposited by a client with an FF member or futures clearing organization. Second, the <i>Measures for the Segregated Management of Futures Firms' Margin</i> specify that if a client's equity falls below zero, the carrying futures firm should promptly make up the margin shortfall with its own funds and is prohibited from using other clients' margins. Third, the <i>SHFE Membership Rules</i> and the <i>SHFE Clearing Rules</i> stipulate that the Exchange shall manage the margin deposited by each member in the Exchange's dedicated settlement account via separate accounts; an FF member shall manage the margin deposited by each client in the member's
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<p>collateral against the concurrent default of the participant and a fellow customer, the CCP should take steps to ensure that such protection is effective.</p>	<p>dedicated fund account via separate accounts. FF members are prohibited from misappropriating client margins.</p> <p>Fourth, the Exchange implements a trading code system for investors, under which FF members and investors shall obey the rule of one trader being dispatched with one trading code, rather than trading in omnibus accounts. The trading code system enables the Exchange to respectively record the positions, margin in use, and collateral of each client. Through the account segregation and transfer arrangements, the Exchange can effectively protect client positions and collaterals from the default or insolvency of carrying members.</p> <p>Fifth, in accordance with the <i>SHFE Clearing Rules</i>, if an FF member cannot continue in the futures brokerage business for any reason or is subject to consolidation, division, business suspension, dissolution, or bankruptcy, the member may apply to the Exchange for transfer of clients' positions. The Exchange has established convenient procedures to ensure completion of transfer of positions within one business day.</p> <p>Sixth, members participating in SHFE's clearing process and their clients are currently all required to comply with China's laws and regulations. As SHFE does not provide any clearing services outside of China, no foreign laws are involved.</p>
<p>Key consideration 2: A CCP should employ an account structure that enables it readily to identify positions of a participant's customers and to segregate related collateral. A CCP should maintain customer positions and collateral in individual customer accounts or in omnibus customer accounts.</p>	<p>As China's futures markets generally adopt look-through regulation under the trading code system, the Exchange and its members can accurately and easily identify each client's assets through its systems.</p> <p>In addition, according to the <i>Measures for the Segregated Management of Futures Firms' Margin</i>, a futures brokerage firm must deposit its clients' margin in full at a commercial bank engaged in the futures trading settlement business, which margin should be segregated from its proprietary funds and managed within a network of accounts. CFMMC conducts daily checks on the client equity reported by futures firms and the own funds of futures firms in the closed loop against the funding data reported by depository banks, futures exchanges, and other futures clearing organizations. Any abnormality identified during the process will be reported, in accordance with the rules on the monitoring of futures margin, to the CSRC regional office of where the relevant futures firm is located and to the CSRC itself.</p> <p>The trading code system ensures that the information associated with each client is unique and helps segregate the assets held by the clients under the same member. As a client's positions, trading margin, and collaterals are all recorded under his own code, under no circumstances would the margin funds of other clients affiliated with the same member be misappropriated to bail out a fellow client with insufficient funds. Once a client has a margin shortfall, the carrying member will first use its own funds to eliminate the same.</p>
<p>Key consideration 3: A CCP should</p>	<p>SHFE's transfer arrangements allow the transfer of positions and collateral of a defaulting participant's clients to one or more other participants. In</p>

<p>structure its portability arrangements in a way that makes it highly likely that the positions and collateral of a defaulting participant's customers will be transferred to one or more other participants.</p>	<p>accordance with the <i>SHFE Clearing Rules</i>, if an FF member cannot continue in the futures brokerage business for any reason or is subject to consolidation, division, or bankruptcy, it or any of its clients may apply to the Exchange for transfer of clients' positions. SHFE has established convenient procedures to ensure completion of transfer of positions within one business day.</p> <p>China's laws also ensure the successful transfer of the positions and collateral of the clients of a defaulting participant to one or more other participants. According to the applicable laws, a client's positions and collateral are the client's instead of his carrying member's properties. When his carrying member becomes bankrupt, a client may dispose of his positions and collateral at his discretion without being affected by the bankruptcy.</p>
<p>Key consideration 4: A CCP should disclose its rules, policies, and procedures relating to the segregation and portability of a participant's customers' positions and related collateral. In particular, the CCP should disclose whether customer collateral is protected on an individual or omnibus basis. In addition, a CCP should disclose any constraints, such as legal or operational constraints, that may impair its ability to segregate or port a participant's customers' positions and related collateral.</p>	<p>SHFE's segregation and transfer arrangements are set out in the <i>SHFE Trading Rules</i> and the <i>SHFE Clearing Rules</i> and have been published on its website. In addition, the <i>Futures and Derivatives Law</i>, the <i>Regulations on the Administration of Futures Trading</i>, the <i>Measures on the Administration of Futures Exchanges</i>, the <i>Measures for the Supervision and Administration of Futures Firms</i>, the <i>Measures for the Segregated Management of Futures Firms' Margin</i>, and the <i>Provisions of the Supreme People's Court on Issues concerning the Trial of Futures Dispute Cases</i> all provide the legal basis for SHFE to segregate or transfer a participant's customers' positions and related collateral.</p>

Principle 15: General business risk

An FMI should identify, monitor, and manage its general business risk and hold sufficient liquid net assets funded by equity to cover potential general business losses so that it can continue operations and

services as a going concern if those losses materialise. Further, liquid net assets should at all times be sufficient to ensure a recovery or orderly wind-down of critical operations and services.

<p>Key consideration 1: An FMI should have robust management and control systems to identify, monitor, and manage general business risks, including losses from poor execution of business strategy, negative cash flows, or unexpected and excessively large operating expenses.</p>	<p>SHFE identifies and monitors general business risks on an ongoing basis through the set financial system and day-to-day financial analyses. In terms of management, SHFE has set up sound financial management systems that cover, among others, budget management, accounting, business expenditures, funds management, equity investment, asset management and risk reserve management to ensure the correctness and effectiveness of its operational strategies. Moreover, SHFE reviews the potential impacts on cash flow and capital in its commercial risk evaluation and then assesses its overall financial condition by preparing periodic financial reports, implementing an internal review system, and conducting analyses such as stress tests, liquidity analysis, cost-benefit analysis, debt-paying analysis, and budget and final account analysis. In addition, SHFE has purchased commercial insurances to cover property losses and created a thorough disaster recovery emergency plan to address the risks associated with electric and network service providers. In general, SHFE currently faces few potential business risks as it focuses on primary businesses, retains sufficient risk reserve fund, develops a solid market infrastructure, and maintains sound operations.</p>
<p>Key consideration 2: An FMI should hold liquid net assets funded by equity (such as common stock, disclosed reserves, or other retained earnings) so that it can continue operations and services as a going concern if it incurs general business losses. The amount of liquid net assets funded by equity an FMI should hold should be determined by its general business risk profile and the length of time required to achieve a recovery or orderly wind-down, as appropriate, of its critical operations and</p>	<p>SHFE has retained sufficient, highly liquid net assets which funded by equity and is able to continue ongoing and sound CCP clearing business once facing common losses. The accumulation of SHFE’s liquid net assets outpaces the losses arising from potential common risks; and the high liquidity of the liquid net assets enables SHFE to continue operations and services in the event of common losses.</p>

<p>services if such action is taken.</p>	
<p>Key consideration 3: An FMI should maintain a viable recovery or orderly wind-down plan and should hold sufficient liquid net assets funded by equity to implement this plan. At a minimum, an FMI should hold liquid net assets funded by equity equal to at least six months of current operating expenses. These assets are in addition to resources held to cover participant defaults or other risks covered under the financial resources principles. However, equity held under international risk-based capital standards can be included where relevant and appropriate to avoid duplicate capital requirements.</p>	<p>Pursuant to the <i>SHFE Articles of Association</i>, CSRC may shut down the Exchange at its discretion; SHFE may, subject to the approval of CSRC, terminate according to resolutions of the Members' Assembly or for the purposes of combination or division of the Exchange; and a liquidation team would be set up upon termination of the Exchange.</p> <p>To maintain business sustainability, SHFE has created an emergency response plan and relevant procedures and measures in alignment with CSRC, prepared a viable recovery or orderly wind-down plan, and reserved sufficient, highly liquid net assets funded by equity equal to at least six months of operating expenses to address losses in extreme conditions.</p>
<p>Key consideration 4: Assets held to cover general business risk should be of high quality and sufficiently liquid in order to allow the FMI to meet its current and projected operating expenses under a range of</p>	<p>SHFE analyzes critical financial indicators on a regular basis in order to meet its current and projected operating expenses under a range of scenarios, including in adverse market conditions. SHFE's liquid net assets funded by equity, mainly comprised of cash and bank deposits, are placed under the custody of large state-owned commercial banks that are regulated by China's regulators. SHFE conducts periodic assessments of these assets against the standards of simple structure, high liquidity, and ease of realization.</p>

scenarios, including in adverse market conditions.	
Key consideration 5: An FMI should maintain a viable plan for raising additional equity should its equity fall close to or below the amount needed. This plan should be approved by the board of directors and updated regularly.	As a membership-based exchange regulated by CSRC, SHFE has sufficient liquid resources backed by stock and risk reserve fund, and in the case of emergencies, can obtain lines of credit from banks to address business risks.

Principle 16: Custody and investment risks

An FMI should safeguard its own and its participants’ assets and minimise the risk of loss on and delay in access to these assets. An FMI’s investments should be in instruments with minimal credit, market, and liquidity risks.

Key consideration 1: An FMI should hold its own and its participants’ assets at supervised and regulated entities that have robust accounting practices, safekeeping procedures, and internal controls that fully protect these assets.	<p>Currently, SHFE has 16 designated depository banks, including the Industrial and Commercial Bank of China, the Bank of China, the Agricultural Bank of China, the China Construction Bank, the Bank of Communications, the China Merchants Bank, the Industrial Bank, the China Minsheng Bank, the China Everbright Bank, the China CITIC Bank, the Ping An Bank, the Shanghai Pudong Development Bank, the China Guangfa Bank, the Postal Savings Bank of China, the DBS Bank China Co., Ltd., and the Citibank (China) Co., Ltd. All of these banks are reputable, large state-owned or national joint-stock commercial banks or robust foreign banks, subject to the regulation of the National Financial Regulatory Administration and headquartered in the same time zone.</p> <p>The <i>SHFE Designated Depository Bank Rules</i> set out the admission criteria for designated depository banks covering qualification application, institutional development, technical systems, operational rules, risk prevention, among others; and grants the SHFE right to supervise the banks’ credit status, system security, and operational status and to conduct annual inspections and assessments of their operational rules, technical systems, qualification review and internal control systems.</p> <p>In addition, CFMMC conducts daily checks on the client equity reported by futures firms and the own funds of futures firms in the closed loop against the funding data reported by depository banks, futures exchanges, and other futures clearing organizations. Any abnormality identified during the process will be reported, in accordance with the rules on the monitoring of futures margin, to the CSRC regional office of where the relevant futures firm is located and to the</p>
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	<p>CSRC itself.</p> <p>(See Chapters 2 and 6 of the <i>SHFE Designated Depository Bank Rules and the Measures for the Segregated Management of Futures Firms' Margin</i>).</p>
<p>Key consideration 2: An FMI should have prompt access to its assets and the assets provided by participants, when required.</p>	<p>SHFE is able to protect its assets and the assets provided by participants.</p> <p>SHFE manages its proprietary and non-proprietary assets strictly and prudently according to relevant rules and has the right to promptly access to and dispose of all of the assets. While distinguishing proprietary assets from non-proprietary assets, SHFE fully protects and ensures prompt access to these assets by keeping them in current or short-term time deposits at State-owned or national joint-stock commercial banks. When opening an account, SHFE enters into a depository agreement with each settlement bank to specify both parties' rights and obligations, which is of legal force and protected by the <i>Law of the People's Republic of China on Commercial Banks</i> and other applicable laws and regulations.</p>
<p>Key consideration 3: An FMI should evaluate and understand its exposures to its custodian banks, taking into account the full scope of its relationships with each.</p>	<p>To decrease the concentration of margin funds, SHFE currently designates 16 banks – all of which are reputable, large state-owned or national joint-stock commercial banks or robust foreign banks – as its depository banks. Moreover, SHFE conducts stress tests to understand the concentration of its own funds and the liquidity risk exposures to the banks; the Clearing Department monitors the balance of each bank through SHFE's funds system, so as to ensure that each of them has a proper balance to address the liquidity that SHFE requires in day-to-day operations; and SHFE tests the margin of each settlement bank by transferring funds of varying amount on an <i>ad hoc</i> basis to check the security of deposits and maintain funds concentration, and when necessary, will properly manage the funds.</p>
<p>Key consideration 4: An FMI's investment strategy should be consistent with its overall risk-management strategy and fully disclosed to its participants, and investments should be secured by, or be claims on, high-quality obligors. These investments should allow for quick liquidation with little, if any, adverse price effect.</p>	<p>Currently, SHFE maintains its funds in cash or bank deposit. In addition, all of its material investment decisions are made by the Board or the Members' Assembly and should be reported to CSRC.</p>

Principle 17: Operational risk

An FMI should identify the plausible sources of operational risk, both internal and external, and mitigate their impact through the use of appropriate systems, policies, procedures, and controls. Systems should be designed to ensure a high degree of security and operational reliability and should have adequate, scalable capacity. Business continuity management should aim for timely recovery of operations and fulfilment of the FMI's obligations, including in the event of a wide-scale or major disruption.

<p>Key consideration 1: An FMI should establish a robust operational risk-management framework with appropriate systems, policies, procedures, and controls to identify, monitor, and manage operational risks.</p>	<p>Plausible sources of SHFE's operational risks mainly include unstable technical systems, operational errors, under capacity, impacts of major businesses launched, disruption of utility services, and outbreak of epidemic diseases. Accordingly, SHFE has created an operational risk-management framework covering:</p> <p>(1) Organizational structure. SHFE's Board considers and periodically assesses its risk-management framework and through the Risk Management Committee which, together with the Risk Management Department and the Audit Department, constitute the three lines of defense against risks, and the Risk Management Working Group, periodically conducts risk assessments, audits, and compliance inspections.</p> <p>(2) Overall institutional design. SHFE has, through putting in place comprehensive risk management rules, business continuity measures, and an emergency response plan, created full-coverage and multi-level organizational, business, and assurance systems for management of operational risks.</p> <p>(3) Standard development and strengthened management that ensure high operational stability and reliability of technical systems. SHFE has formulated the <i>Measures for Cybersecurity of the Shanghai Futures Exchange</i> (the "SHFE Cybersecurity Measures") and the <i>Information Security Strategies of the Shanghai Futures Exchange</i> (the "SHFE Information Security Strategies") in accordance with the <i>Cybersecurity Law</i> to protect cybersecurity; has applied ISO 27001 – Information Security Management Systems Requirements to operational procedures, which are also subject to periodic review and audit; and accepts regular external audits each year for timely identification and discovery of operational issues. The Information Technology Committee is responsible for making suggestions and advising on technical systems.</p> <p>(4) Management of growing capacity needs of various systems through the standard capacity management process set out in ISO 20000, in line with which, the technical departments quarterly assess the capacity operational indicators and make a capacity plan in advance for the following year.</p> <p>(5) Operational accuracy and operational risk management. SHFE adopts a two-staff, double-check mechanism to ensure high operational accuracy and incorporates operational accuracy in employee performance evaluation to minimize operational risks. Moreover, SHFE endeavors to raise the awareness of risk prevention among its employees by regularly organizing operational risk education programs for both new and senior employees; raising risk</p>
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	<p>management awareness across different stages of product development, launch, and established operation; and strengthening business and technical personnel’s ability to foresee and identify operational risks.</p> <p>(6) Regular internal inspections and external assessments. SHFE reviews the implementation status of operational risk-management scheme, checks potential risks, and creates a checklist of risks to ensure the implementation of operational risk management concepts and measures.</p> <p>(7) Protection of trading and operating activities against disruption or interference. To fully respond to any potential emergency risks, SHFE has developed an emergency response plan, and sub-plans including those on cybersecurity emergency and public health emergency; entered into agreements with utility service providers; established same-city and remote-location disaster recovery systems in Shanghai and another city; and regularly purchased epidemic control supplies and strictly implemented epidemic prevention and control measures at all places.</p>
<p>Key consideration 2: An FMI’s board of directors should clearly define the roles and responsibilities for addressing operational risk and should endorse the FMI’s operational risk-management framework. Systems, operational policies, procedures, and controls should be reviewed, audited, and tested periodically and after significant changes.</p>	<p>Pursuant to the <i>SHFE Articles of Association</i>, the <i>Working Procedures of the Board of Directors</i>, and the <i>Working Procedures of Special committees under the Board of Directors</i>, the Board and the management are jointly and ultimately accountable for operational risks. Internally, SHFE has the Information Technology Committee responsible for making suggestions and advising on SHFE’s technical systems. Moreover, the Risk Management Department organizes business and technical departments to conduct periodic assessment of operational risks, drafts risk response plans, and submits system improvement suggestions and summarized reports, both of which will be subject to the review by the Risk Management Committee; and the management adopts and guides business departments’ adoption of risk-management concepts and rules in system development, launch, and operation by combing operational risks with SHFE’s businesses. Externally, competent regulators and the National Audit Office periodically inspect SHFE’s operational risk management and provide the relevant audit results.</p> <p>SHFE places high emphasis on potential operational risks arising from systems’ significant changes. For instance, according to the <i>Rules on the Management of Technical Issues of the Shanghai Futures Exchange</i>, the <i>SHFE Cybersecurity Measures</i>, and other normative documents, SHFE should comprehensively and prudently review, audit, and test its systems, operational policies, procedures, and controls when launching a new business or updating a technical system. For upfront design, development, and testing of IT systems, relevant criteria on quality control are also in place.</p>
<p>Key consideration 3: An FMI should have clearly defined operational reliability objectives and should have policies in place</p>	<p>To maintain high operational stability, reliability, and accuracy, SHFE only expects a maximum of two system faults lasting no more than 40 minutes in total each year. To achieve this end, business and technical departments have developed a series of internal policies and management procedures to ensure high operational reliability; and the Trading Management Department, the Clearing Department, the Market Compliance Department, and other business</p>

<p>that are designed to achieve those objectives.</p>	<p>departments have incorporated operational accuracy in their duties. Moreover, SHFE adopts a two-staff, double-check mechanism in its production systems to avoid operational errors; includes operational accuracy in assessment indicators; and ensures that operators' activities are non-arbitrary by improving relevant systems, maintaining a log for each position and a ledger for each business, periodically teasing out and refining operational procedures, and launching education and training programs for both new and senior employees, with the aim of mitigating operational risks.</p>
<p>Key consideration 4: An FMI should ensure that it has scalable capacity adequate to handle increasing stress volumes and to achieve its service-level objectives.</p>	<p>SHFE manages growing capacity needs in line with the standard capacity management procedures under ISO 20000. Accordingly, the technical departments quarterly assess the capacity operational indicators and make a capacity plan in advance for the following year; and various systems draft capacity plans on a quarterly basis and will scale system capacity in view of their operational status. If the capacity of a system reaches the threshold prescribed, the person-in-charge of the system will timely scale system capacity based on its analysis of unsatisfactory operational performance.</p>
<p>Key consideration 5: An FMI should have comprehensive physical and information security policies that address all potential vulnerabilities and threats.</p>	<p>SHFE addresses potential vulnerabilities and threats by: (1) formulating the <i>SHFE Cybersecurity Measures</i> and the <i>SHFE Information Security Strategies</i> according to the <i>Cybersecurity Law</i> and relevant regulatory requirements to regulate information and data security, backup mechanisms, handling procedures of and responsibilities for security incidents; (2) adopting ISO 27001 – <i>Information Security Management Systems Requirements</i> to manage daily information security, which verified by relevant international accreditation agency; (3) physically segregating its production network from external networks; (4) applying the highest physical assurances to its production environment in all aspects; (5) deploying major systems in more than one centers; (6) assigning primary and supporting duties for a position to two employees; (7) monitoring security threats in real time; (8) setting security requirements on system software; (9) periodically scanning systems to timely discover security vulnerabilities; and (10) establishing complete identity recognition and authority management systems that enable it to manage the security of critical data and to timely handle any issue uncovered.</p>
<p>Key consideration 6: An FMI should have a business continuity plan that addresses events posing a significant risk of disrupting operations, including events that could cause a wide-scale or major disruption. The plan</p>	<p>In its day-to-day management, SHFE, pursuant to its relevant guidelines for safety and security, monitors the operation of core systems and software throughout a day with real-time and non-real-time monitoring systems, assigns personnel that work on a 24-hour shift, conducts on-site inspections twice a day to screen hazards and to promptly discover issues, and coordinates relevant departments and service providers to quickly resolve problems.</p> <p>To ensure effective operation and timely recovery of business and technical systems, SHFE has established a risk emergency response mechanism and the Emergency Response Leadership Group; developed the corresponding emergency response plan, operational guidelines, and business continuity measures that fully regulate the rapid handling of various risk events disruptive</p>

<p>should incorporate the use of a secondary site and should be designed to ensure that critical information technology (IT) systems can resume operations within two hours following disruptive events. The plan should be designed to enable the FMI to complete settlement by the end of the day of the disruption, even in case of extreme circumstances. The FMI should regularly test these arrangements.</p>	<p>to market operation, network and technical systems, as well as public security and health; and imposed targeted measures and requirements, including but not limited to switching to the disaster recovery centers and a rotating shift for key positions.</p> <p>In addition, SHFE addresses risks in the case of emergencies by conducting periodic tabletop, simulated, or field exercises, improving emergency response procedures, and making its system and staff members readily prepared for emergencies.</p> <p>In line with the above-mentioned rules and guidelines, SHFE has made a continuity plan that requires its trading system to resume operations following major faults within five minutes and other systems within two hours at a secondary site. To this end, SHFE has upgraded and deployed its systems, allocated sufficient resources therefor, and holds periodic emergency drills according to its emergency response plans.</p>
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<p>Key consideration 7: An FMI should identify, monitor, and manage the risks that key participants, other FMIs, and service and utility providers might pose to its operations. In addition, an FMI should identify, monitor, and manage the risks its operations might pose to other FMIs.</p>	<p>Instead of outsourcing its key services, SHFE establishes corresponding departments to be in charge of day-to-day operations and maintenances in trading, clearing, product development, technical operation and maintenance, and other areas.</p> <p>To prevent disruption of utility services, SHFE has executed service agreements with utility providers that set out both parties' rights and obligations; for power supply, SHFE has accesses to uninterrupted power supply in day-to-day operations as a Class-II electricity user and addresses disruptions of power in extreme conditions by maintaining backup power supply systems; for network services, SHFE has built a backup network to which its systems will automatically switch when the primary network services are disrupted. Moreover, SHFE has created a complete assessment plan for those utility providers.</p>
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Principle 18: Access and participation requirements

An FMI should have objective, risk-based, and publicly disclosed criteria for participation, which permit fair and open access.

<p>Key consideration 1: An FMI should allow for fair and open access to its</p>	<p>Adopting an all-member clearing system, the Exchange now clarifies its membership criteria and requirements and provides its members and other market participants with fair and open access to its services.</p>
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<p>services, including by direct and, where relevant, indirect participants and other FMIs, based on reasonable risk-related participation requirements.</p>	<p>First, participation criteria and requirements.</p> <p>Membership requirements. Currently, the Exchange has FF members and non-FF members. For non-FF members, the Exchange clearly specifies their membership requirements including sufficient registered capital, good credit, sound business records, well-designed structure, and adequate staffing. For FF members, in furtherance of the provisions of laws, regulations, and rules of CSRC, the Exchange also lays down their membership requirements including sufficient registered capital, good credit, sound business records, well-designed structure, and adequate staffing.</p> <p>As for overseas special participants (OSPs) and overseas intermediaries, <i>SHFE Articles of Association</i> and <i>SHFE General Exchange Rules</i> set forth the definitions of OSPs and overseas intermediaries, their admission criteria, and their rights and obligations in routine operations, and provide that the Exchange may formulate detailed rules to impose further management requirements on them.</p> <p>Access to trading of options and Specified Domestic Futures Products. The Exchange implements a trader suitability regime for options and Specified Domestic Futures Products, which requires any client that intends to trade options and Specified Domestic Futures Products to meet such conditions as possessing the essential knowledge, passing the relevant test, and having actual or mock trading experience and a certain amount of available funds.</p> <p>Market making requirements. The Exchange manages market makers based on product type and clarifies that an applicant should have, inter alia, the requisite net assets, dedicated market making department and personnel, sound market making plans, as well as internal control and risk management systems.</p> <p>Second, services available to different participants of the Exchange. The Exchange has formulated rules and detailed rules to specify the rights of its members and market makers. It has also developed several rules to set out the best practices, rights, and obligations of different participants in their futures and options trading on the Exchange.</p> <p>Third, all relevant rules are released and made public to the market.</p> <p>(See the <i>Futures and Derivatives Law</i>, the <i>Regulations on the Administration of Futures Trading</i>, the <i>Measures for the Supervision and Administration of Futures Firms</i>, the <i>Interim Measures for the Administration of Overseas Traders' and Overseas Brokers' Engagement in the Trading of Specified Domestic Futures Products</i>, the <i>SHFE Articles of Association</i>, the <i>SHFE Membership Rules</i>, the <i>SHFE Futures Trading Participant Eligibility Rules</i>, the <i>SHFE Options Trading Rules</i>, and the <i>SHFE Market Maker Rules</i>)</p>
<p>Key consideration 2: An FMI's participation</p>	<p>The Exchange's participation requirements are justified in terms of the safety and efficiency of the futures market, are tailed to and commensurate with the specific risks of the commodity futures and options markets, and are publicly</p>

<p>requirements should be justified in terms of the safety and efficiency of the FMI and the markets it serves, be tailored to and commensurate with the FMI's specific risks, and be publicly disclosed. Subject to maintaining acceptable risk control standards, an FMI should endeavour to set requirements that have the least-restrictive impact on access that circumstances permit.</p>	<p>disclosed.</p> <p>In terms of safety, the <i>SHFE Articles of Association</i>, the <i>SHFE Membership Rules</i>, the <i>SHFE Futures Trading Participant Eligibility Rules</i>, and the <i>SHFE Market Maker Rules</i> not only meet the general requirements laid out in the <i>Futures and Derivatives Law</i>, the <i>Regulations on the Administration of Futures Trading</i>, the <i>Measures for the Supervision and Administration of Futures Firms</i>, and the <i>Measures for the Suitability Management of Securities and Futures Investors</i>, but also define reasonable requirements for different participants based on the needs of managing China's market risks and the Exchange's own (specific) risks.</p> <p>In terms of efficiency, the <i>SHFE Membership Rules</i>, the <i>SHFE Market Maker Rules</i>, and the <i>Operational Guidelines for the Futures Trading Participant Eligibility Rules of the Shanghai Futures Exchange</i> have detailed the applying conditions, materials, and processes, so that applicants may be informed of the applying requirements in advance to boost efficiency.</p> <p>Relevant laws, regulations, rules, and the Exchange's <i>Articles of Association</i> and implementing rules have been published and can be accessed via the SHFE website.</p> <p>(See the <i>SHFE Membership Rules</i>, Chapter 2 of the <i>SHFE Market Maker Rules</i> and the <i>Operational Guidelines for the Futures Trading Participant Eligibility Rules of the Shanghai Futures Exchange</i>).</p>
<p>Key consideration 3: An FMI should monitor compliance with its participation requirements on an ongoing basis and have clearly defined and publicly disclosed procedures for facilitating the suspension and orderly exit of a participant that breaches, or no longer meets, the participation requirements.</p>	<p>Currently, China's financial regulators have established ongoing monitoring mechanisms for members. The Exchange has specified its rights and the measures available for dealing with violations in implementing rules. Relevant rules have been disclosed publicly.</p> <p>First, in the <i>Measures for the Administration of Risk Supervision Indicators of Futures Firms</i> released in 2017, CSRC sets standards for various risk indicators including the net asset and required ongoing compliance by futures firms (for example, the net asset should not be lower than ¥30 million and the ratio between the net asset and the risk capital reserve should not be lower than 100%).</p> <p>Second, the Exchange explicitly stipulates members' reporting obligations and their supervision and management: any member experiencing significant changes in business, management or other aspects should submit a written report to the Exchange within 10 business days.</p> <p>Third, the Exchange has the right and obligation to track and examine the participants' compliance with relevant participation requirements. Pursuant to the <i>SHFE Enforcement Rules</i>, the Exchange may exercise regulation over its members, including requiring them to provide such reports as annual reports and third-party audit reports; investigating and taking evidence from them; checking their futures margin accounts; and accessing their computer system for trading, clearing, and financial matters. If a member breaches or no longer meets the participation requirements, the Exchange may terminate its</p>

	<p>membership and ban it from market entry.</p> <p>Fourth, as to the management of market maker status, the Exchange may revoke the status for any single product under such circumstances as failure to perform quoting obligations or revoke the status for all products under such circumstances as serious violations. The Exchange has also made arrangements for voluntary forfeiture of market maker status.</p> <p>(See Chapters 2 and 4 of the <i>Measures for the Administration of Risk Supervision Indicators of Futures Firms</i>, the <i>SHFE Membership Rules</i>, Chapter 3 of the <i>SHFE Enforcement Rules</i>, and the <i>SHFE Market Maker Rules</i>)</p>
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Principle 19: Tiered participation arrangements

An FMI should identify, monitor, and manage the material risks to the FMI arising from tiered participation arrangements.

<p>Key consideration 1: An FMI should ensure that its rules, procedures, and agreements allow it to gather basic information about indirect participation in order to identify, monitor, and manage any material risks to the FMI arising from such tiered participation arrangements.</p>	<p>Under the framework of current laws, regulations, and the Exchange’s rules and supporting rules, the Exchange makes tiered participation arrangements in its all-member clearing system. It may collect the basic account information of indirect participants through its “look-through supervision” and relevant trade coding and system design, hence identifying, monitoring, and managing material risks arising out of the tiered arrangements.</p> <p>Tiered participation arrangements:</p> <p>Consisting of direct and indirect participants, the Exchange’s tiered participation arrangements form part of its all-member clearing system. Direct participants are FF and non-FF members; indirect participants are clients of FF members. The Exchange clears for its members and its members clear for their clients. The Exchange may access the name, ID card number, bank account number, and other basic information of a client since the client needs to open his account with the China Futures Market Monitoring Center (CFMMC) and file such information with the Exchange.</p> <p>Risk identification and management:</p> <p>The Exchange adopts a two-tiered risk prevention system, directly assuming risks arising from its clearing members but not clients. Through the trading codes, the Exchange may identify the positions and transaction orders of clients and members in its system, thus understanding the risk exposures of both direct and indirect participants. It may also identify two kinds of risks from the arrangements: the possible default risk arising from clients of FF members due to insufficient margins, and the risk of trading violation.</p> <p>To effectively prevent and control default risks, the Exchange applies the margin requirement, price limits, positions limit, large position reporting, forced position liquidation, risk warning, and default risk waterfall, among others, in accordance with the <i>SHFE Risk Management Rules</i>.</p> <p>For the risk of trading violation, the Exchange’s Market Compliance</p>
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	<p>Department identifies a member or client’s trading violation through its real-time monitoring system, historical data analysis system, and Securities Market Automated Research, Training & Surveillance System (SMART). In accordance with relevant provisions of the <i>SHFE Enforcement Rules</i>, the Exchange will issue a risk warning against a violating member or notify relevant member to issue a risk warning against its client in the case of a minor violation, or refer to judicial investigation in the case of a serious violation.</p> <p>In addition, the Exchange may assess the risk management level of its members by performing on-site checks and examining clearing materials, financial statements and relevant records and account books.</p>
<p>Key consideration 2: An FMI should identify material dependencies between direct and indirect participants that might affect the FMI.</p>	<p>The Exchange is capable of identifying material dependencies between direct and indirect participants that might affect it. Through the coding system assigning a code to each account, the Exchange directly knows the positions and funds of its members and clients and makes predictions based on a large position reporting system. Furthermore, futures firms report client transactions and clearing data to the CFMMC on a daily basis; the CFMMC in turn monitors the safety of futures margin and alarms regulators and the Exchange in the case of any safety issue. The Exchange may also apply to the CFMMC for accessing data on client equity when necessary.</p>
<p>Key consideration 3: An FMI should identify indirect participants responsible for a significant proportion of transactions processed by the FMI and indirect participants whose transaction volumes or values are large relative to the capacity of the direct participants through which they access the FMI in order to manage the risks arising from these transactions.</p>	<p>The Exchange identifies the proportions of transactions that direct participants conducted on behalf of indirect participants in their capacity, direct participants who conducted transactions on behalf of a large number of indirect participants, and indirect participants who account for a significant proportion of trading values in the system. A futures firm should be established in accordance with the <i>Futures and Derivatives Law</i>, the <i>Regulations on the Administration of Futures Trading</i>, the <i>Measures for the Administration of Risk Supervision Indicators of Futures Firms</i>, the <i>Measures for the Supervision and Administration of Futures Firms</i>, and the <i>Provisions on the Classification and Supervision of Futures Firms</i>. The members’ rights and obligations are specified and their brokerage status are managed pursuant to the <i>SHFE Membership Rules</i>. Through the clearing system, the Exchange immediately knows the positions and funds of members and clients and identifies the breakdown account of different types of members. It manages member default risks according to the <i>SHFE Risk Management Rules</i> and binds member trading activities according to the <i>SHFE Enforcement Rules</i>. The Exchange may also take several supervision and management measures including violation warning and awareness campaign, member visits, and on-site inspection.</p>
<p>Key consideration 4: An FMI should regularly review</p>	<p>The Exchange regularly or randomly reviews risks arising from tiered participation arrangements and takes actions to mitigate identified risks when appropriate. Currently, the risk most directly pertinent to the arrangements is</p>

risks arising from tiered participation arrangements and should take mitigating action when appropriate.	default by a client or futures firm due to insufficient margin. When a direct participant, or a member, is exposed to high risks, the Exchange may reduce the risks by taking such measures as raising margins, imposing position limits on relevant products, or enforcing position liquidation according to the <i>SHFE Risks Management Rules</i> . Direct participants are responsible for managing the risks of indirect participants. The Exchange regularly or randomly updates the management framework of tiered risk regulation. For potential or actual violation risks from participants in the tiered participation arrangements, the Exchange may take such measures as warning and judicial investigation in accordance with the <i>SHFE Enforcement Rules</i> or refer any offense to the judicial authority to ensure the robustness of the arrangements.
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Principle 20: FMI links

An FMI that establishes a link with one or more FMIs should identify, monitor, and manage link-related risks.

Summary narrative	“Link” under this Principle 20 refers to a direct link between financial market infrastructures or their indirect link through intermediary agents, which can help one financial institution or market expand its business to other financial institutions or markets. Though both SHFE and its subsidiary Shanghai International Energy Exchange Co., Ltd. serve as central counterparties, they are independent legal persons, conduct trading of different products, are subject to different systems of rules, provide independent trading and clearing services, and have in place different risk prevention and control systems. Investors should open separate trading accounts respectively at the two exchanges, and may only access services such as trading and clearing from the exchange it opens an account with. No “link” as defined under this Principle 20 exists between the two exchanges. Thus, this Principle 20 is not applicable.
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Principle 21: Efficiency and effectiveness

An FMI should be efficient and effective in meeting the requirements of its participants and the markets it serves.

Key consideration 1: An FMI should be designed to meet the needs of its participants and the markets it serves, in particular, with regard to choice of a clearing and settlement arrangement; operating structure; scope of products	To meet the demands of participants and serve the market, the Exchange regularly listens to the needs and feedback from market participants through multiple channels, analyze the market opinions and comments, come up with solutions accordingly, and give feedback to market participants in a timely manner. When the market demand changes, SHFE will adjust and improve its businesses, rules, or systems timely to adapt to such changes. For example, before the launch of new systems and new features, a market-wide test will be conducted to reduce the overall operational risk. In addition, market training will be provided regularly for the launch of new businesses and new systems.
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cleared, settled, or recorded; and use of technology and procedures.	
Key consideration 2: An FMI should have clearly defined goals and objectives that are measurable and achievable, such as in the areas of minimum service levels, risk-management expectations, and business priorities.	<p>SHFE is subject to the regulation of CSRC. According to its Articles of Association and rules of the Exchange, SHFE is expressly required to guarantee the normal operation of futures trading and the legitimate rights and interests of parties to futures trading as well as the interests of the public at large. In addition, in line with the provisions of the <i>Futures and Derivatives Law</i>, SHFE prioritizes the public interest in its activities. SHFE has clearly defined short- and long-term objectives for operational effectiveness, and has developed practical measures to achieve them. SHFE is on the mission to serve the high-quality development of the real economy and assist global clients in pricing and trading, managing risks, and allocating resources. It will strive to better support the real economy by promoting the efficient operation of the futures market, expanding the product lineup, deepening high-level opening up, enhancing regulatory effectiveness, driving technological innovation, and strengthening internal governance.</p> <p>Based on its short- and long-term objectives, the Exchange breaks down its long-term objectives into short term, clearly definable, and measurable annual goals, and reviews progress at the end of each year.</p>
Key consideration 3: An FMI should have established mechanisms for the regular review of its efficiency and effectiveness.	<p>The management at the Exchange convenes regular meetings each year to listen to and review the working reports of various committees and departments, and deliberate and assess the progress of each strategic objective. In addition, the Discipline Inspection and Supervision Office and the Audit Department also conduct internal inspections and audits respectively and require the department concerned to rectify the issues discovered within a specified time limit, thus forming an effective system of checks and balances and supervision.</p>

Principle 22: Communication procedures and standards

An FMI should use, or at a minimum accommodate, relevant internationally accepted communication procedures and standards in order to facilitate efficient payment, clearing, settlement, and recording.

Key consideration 1: An FMI should use, or at a minimum accommodate, internationally accepted communication procedures and standards.	<p>The Exchange’s systems at the communication layer adopt the internationally accepted communication standard TCP-IP, which can effectively and efficiently connect with all the applications using this international standard.</p> <p>At the application layer, the Shanghai Futures Exchange has adopted the communication protocol Firepower Threat Defense (FTD) which is commonly used in China. Compared with the mainstream FIX protocol overseas, FTD can better adapt to and meet the requirements of existing businesses in China. If the Exchange needs to connect with the system that adopts the internationally accepted communication program, it can introduce a protocol</p>
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	conversion module for efficient connection. The Exchange is considering to adopt the internationally accepted protocol for the next generation trading system.
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Principle 23: Disclosure of rules, key procedures, and market data

An FMI should have clear and comprehensive rules and procedures and should provide sufficient information to enable participants to have an accurate understanding of the risks, fees, and other material costs they incur by participating in the FMI. All relevant rules and key procedures should be publicly disclosed.

Key consideration 1: An FMI should adopt clear and comprehensive rules and procedures that are fully disclosed to participants. Relevant rules and key procedures should also be publicly disclosed.	<p>The Exchange has clear and comprehensive rules and procedures that are fully disclosed to participants, which can be accessed at the SHFE website.</p> <p>Any updates of the Exchange’s rules will also be made to the public. The Exchange, through its member service system, announce to its members the operational procedures and expenses, etc. Meanwhile, the Exchange will organize market training to introduce and explain the rules to its members and investors.</p> <p>The definition and treatment measures of abnormal events are explicitly stipulated in the <i>Measures on the Administration of Futures Exchanges</i> and the <i>SHFE General Exchange Rules</i> (see the <i>Measures on the Administration of Futures Exchanges</i> and Chapter 8 of the <i>SHFE General Exchange Rules</i>).</p>
Key consideration 2: An FMI should disclose clear descriptions of the system’s design and operations, as well as the FMI’s and participants’ rights and obligations, so that participants can assess the risks they would incur by participating in the FMI.	<p>The Shanghai Futures Exchange discloses clear description of the design and operation of the systems, and the rights and obligations of market participants.</p> <p>First, the Exchange keeps detailed documentation on system design and operation data. As for the disclosure of systems operation information, the Exchange not only reports to CSRC the operation information of key systems as required, but also release relevant information of technical system and concerning requirements to market participants.</p> <p>Second, the rights and obligations of participants are clearly defined in <i>Measures on the Administration of Futures Exchanges</i> and the <i>SHFE Articles of Association</i>, which enables market participants to fully understand their rights and obligations so as to better assess the risk of participation.</p> <p>(see Chapter 4 of the <i>Measures on the Administration of Futures Exchanges</i> and Chapter 3 of the <i>SHFE Articles of Association</i>)</p>
Key consideration 3: An FMI should provide all necessary and appropriate documentation and training to facilitate participants’ understanding of the FMI’s rules and	<p>The Exchange provides necessary and proper training for market participants, and formulates procedures to deal with violations of contracts and regulations.</p> <p>To educate investors, the Exchange has carried out various activities on investor education, including training courses for chief risk officers, <i>Shanghai Futures Exchange’s Futures Auditorium, Along with the Investors</i>, etc. to serve market participants. These activities have been well prepared in advance and thus well received among the market. Through investor education, the Shanghai Futures Exchange helps market participants better understand the</p>

<p>procedures and the risks they face from participating in the FMI.</p>	<p>rights, obligations, and risks for the participation of futures market.</p> <p>As for dealing with violations against rules and regulations, if the Exchange finds that some participants are lack understanding of rules, procedures, and risks of participation, it will explain to them through various ways such as telephone communication, a written letter, face-to-face communication, etc. If the Exchange confirms that the defaults are caused by lack of knowledge, it will first choose to kindly remind the participants. If compliance is still not achieved after the reminding, the Exchange will investigate, identify, and punish the violators of the contracts and regulations according to relevant provisions in the <i>SHFE Enforcement Rules</i>. If the circumstance is serious, a timely report will be made to the CSRC recommending to initiate an investigation accordingly; and if a criminal violation is involved, the case will be transferred to the judicial authority for criminal prosecution.</p> <p>As for default handling, the Exchange has established a sound risk waterfall mechanism, and the sanctions against any default have been explicitly stipulated in the <i>SHFE Clearing Rules</i>, the <i>SHFE Delivery Rules</i>, and the <i>SHFE Risk Management Rules</i>. Upon occurrence of any loss, the relevant member shall pay in advance for the loss of its clients, and the decision on risk allocation shall be adopted by the Risk Management Committee at the Exchange.</p> <p>As for the arrangement of business continuity, the Exchange has formulated emergency and disaster recovery plans to ensure the smooth operation of the market.</p>
<p>Key consideration 4: An FMI should publicly disclose its fees at the level of individual services it offers as well as its policies on any available discounts. The FMI should provide clear descriptions of priced services for comparability purposes.</p>	<p>The Exchange publicly discloses information as detailed as the individual service charges and existing discount policies on its official website, and once any concerning changes occur, the Exchange will disclose to the market through its member service system.</p>
<p>Key consideration 5: An FMI should complete regularly and disclose publicly responses to the CPSS-IOSCO Disclosure</p>	<p>In accordance with the requirements of the CPSS-IOSCO <i>Disclosure Framework for Financial Market Infrastructures</i>, SHFE completes a compliance report on the <i>Principles for Financial Market Infrastructures</i> each year, and updates and discloses related quantitative data each quarter. All this information is available at the PFMI section on SHFE’s website in both English and Chinese.</p>

<p>framework for financial market infrastructures. An FMI also should, at a minimum, disclose basic data on transaction volumes and values.</p>	<p>As for disclosure of basic data, according to the <i>Futures and Derivatives Law</i>, the <i>Regulations on the Administration of Futures Trading</i>, the <i>Measures on the Administration of Futures Exchanges</i>, the <i>SHFE General Exchange Rules</i>, and the <i>SHFE Information Management Rules</i>, the Exchange discloses relevant information that covers price information, trading volume, turnover, delivery volume, delivery amount, open interests, trade ranking, standard warrant, stock, etc. The disclosure is carried out daily, monthly, quarterly, and annually. The Exchange also makes other disclosures to the market through announcements and circular.</p> <p>In addition, the Exchange discloses to the market information including contract specifications, services, news and events, profile of the Exchange, and contact details. (See more details in the <i>Futures and Derivatives Law</i>, the <i>Regulations on the Administration of Futures Trading</i>, the <i>Measures on the Administration of Futures Exchanges</i>, Chapter 9 of the <i>SHFE General Exchange Rules</i>, and the <i>SHFE Information Management Rules</i>).</p>
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Principle 24: Disclosure of market data by trade repositories

A TR should provide timely and accurate data to relevant authorities and the public in line with their respective needs.

<p>Summary narrative</p>	<p>N/A.</p>
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V. List of Publicly Available Resources

Laws, Rules and Regulations	Website Link
Civil Code of the People’s Republic of China	http://www.npc.gov.cn/npc/c30834/202006/75ba6483b8344591abd07917e1d25cc8.shtml
Futures and Derivatives Law of the People’s Republic of China	http://www.npc.gov.cn/npc/c30834/202204/162cfe3a6d6d493fb5c1660ba9a4c1c5.shtml
Enterprise Bankruptcy Law of the People’s Republic of China	http://www.gov.cn/flfg/2006-08/28/content_371296.htm
Securities Law of the People’s Republic of China	https://www.sac.net.cn/flgz/flfg/202201/t20220113_148242.html
Measures for the Management of Capital of Commercial Banks	https://www.gov.cn/gongbao/2024/issue_11126/202401/content_6928796.html
Measures for the Administration of Domestic Securities and Futures Investment by Qualified Foreign Institutional Investors and RMB Qualified Foreign Institutional Investors	http://www.csrc.gov.cn/csrc/c106256/c1653823/content.shtml
Provisions of the Supreme People’s Court on Issues concerning the Trial of Futures Dispute Cases (II)	http://www.csrc.gov.cn/csrc/c100028/c1002611/content.shtml
Regulations on the Administration of Futures Trading	https://neris.csrc.gov.cn/falvfagui/rdqsHeader/mainbody?navbarId=3&secFutrsLawId=0e29d05331b845faa31a059557012520&body=
Measures on the Administration of Futures Exchanges	https://neris.csrc.gov.cn/falvfagui/rdqsHeader/mainbody?navbarId=3&secFutrsLawId=50b724d889fa41bebc48b8a297ed0d52&body=
Measures for the Administration of Network and Information Security in the Securities and Futures Industry	https://neris.csrc.gov.cn/falvfagui/rdqsHeader/mainbody?navbarId=3&secFutrsLawId=7b2fd48915564f939041a34bf3555939&body=
Measures for the Supervision and Administration of Futures Firms	https://neris.csrc.gov.cn/falvfagui/rdqsHeader/mainbody?navbarId=3&secFutrsLawId=51ee7b7faf114f42bbf04f0c56fd3baa&body=
Interim Provisions on Position Management for the Futures Market	https://neris.csrc.gov.cn/falvfagui/rdqsHeader/mainbody?navbarId=3&secFutrsLawId=5a59ee224b374b17abc9806026f95df2&body=
Measures for the Administration of Risk Supervision Indicators of	https://neris.csrc.gov.cn/falvfagui/rdqsHeader/mainbody?navbarId=3&secFutrsLawId=3938bf27ed2f4ed78041a6c1173c0fdd

Futures Firms	&body=
Measures for the Supervision and Administration of Credibility of Securities and Futures Markets	https://neris.csrc.gov.cn/falvfagui/rdqsHeader/mainbody?navbarId=3&secFutrsLawId=fffe69a17f2c4a88a3e5d2419e0b22df&body=
Provisions on Procedures for Formulating Rules on Securities and Futures	https://neris.csrc.gov.cn/falvfagui/rdqsHeader/mainbody?navbarId=3&secFutrsLawId=bda86848800e452c8acc2015159041e&body=
Measures for the Administration of Foreign-Funded Futures Firms	https://neris.csrc.gov.cn/falvfagui/rdqsHeader/mainbody?navbarId=3&secFutrsLawId=c5be4bf2958b42939999530309406435&body=
Articles of Association of the Shanghai Futures Exchange	http://www.shfe.com.cn/en/Rules/SHFERules/ArticlesofAssociation/
General Exchange Rules of the Shanghai Futures Exchange	http://www.shfe.com.cn/en/Rules/SHFERules/TradingRules/
Risk Management Rules of the Shanghai Futures Exchange	http://www.shfe.com.cn/en/Rules/SHFERules/ImplementationRules/
Delivery Rules of the Shanghai Futures Exchange	http://www.shfe.com.cn/en/Rules/SHFERules/ImplementationRules/
Standard Warrant Rules of the Shanghai Futures Exchange	http://www.shfe.com.cn/en/Rules/SHFERules/ImplementationRules/
Trading Rules of the Shanghai Futures Exchange	http://www.shfe.com.cn/en/Rules/SHFERules/ImplementationRules/
Clearing Rules of the Shanghai Futures Exchange	http://www.shfe.com.cn/en/Rules/SHFERules/ImplementationRules/
Designated Depository Bank Rules of the Shanghai Futures Exchange	http://www.shfe.com.cn/en/Rules/SHFERules/ImplementationRules/
Enforcement Rules of the Shanghai Futures Exchange	http://www.shfe.com.cn/en/Rules/SHFERules/ImplementationRules/
Abnormal Trading Management Rules of the Shanghai Futures Exchange	http://www.shfe.com.cn/en/Rules/SHFERules/ImplementationRules/
Membership Management Rules of the Shanghai Futures Exchange	http://www.shfe.com.cn/en/Rules/SHFERules/ImplementationRules/
Options Trading Rules of the Shanghai Futures Exchange	http://www.shfe.com.cn/en/Rules/SHFERules/ImplementationRules/
Actual Control Accounts Rules of	http://www.shfe.com.cn/en/Rules/SHFERules/ImplementationRules/

the Shanghai Futures Exchange	Rules/
Futures Trading Participant Eligibility Rules of the Shanghai Futures Exchange	http://www.shfe.com.cn/en/Rules/SHFERules/Implementation Rules/
Market-Making Management Rules of the Shanghai Futures Exchange	http://www.shfe.com.cn/en/Rules/SHFERules/Implementation Rules/
Continuous Trading Rules of the Shanghai Futures Exchange	http://www.shfe.com.cn/en/Rules/SHFERules/Implementation Rules/

VI. Disclaimer

Disclaimer

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