Shanghai International Energy Exchange

CPSS-IOSCO Principles for Financial Market Infrastructures

Information Disclosure

December 2023

Contents

Responding institution: Shanghai International Energy Exchange (INE)

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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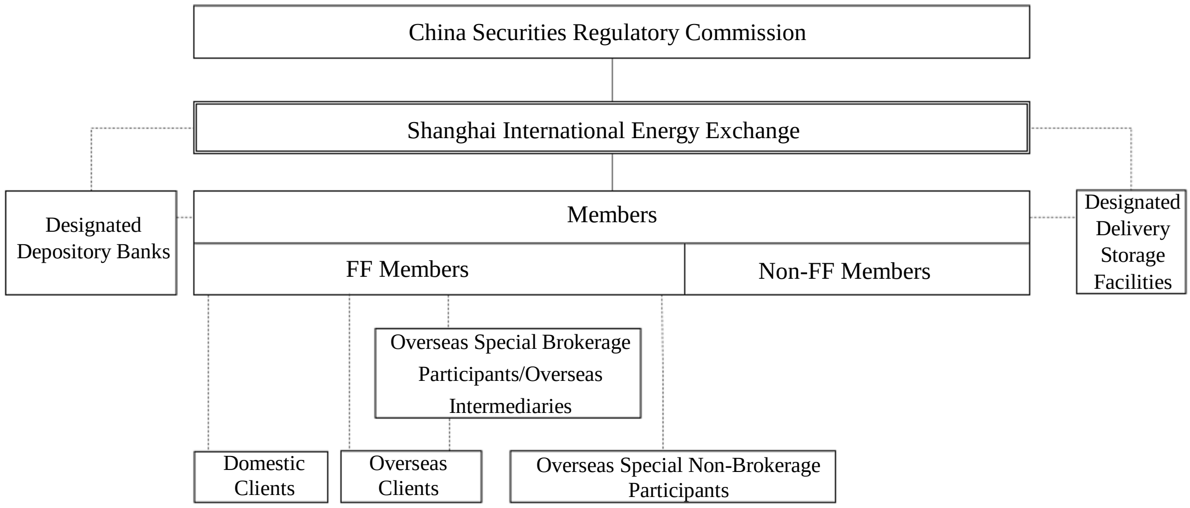
I. Executive Summary

The Shanghai International Energy Exchange (hereinafter referred to as "INE" or the "Exchange") is a self-regulated legal person in the futures market, which is established with the approval of China Securities Regulatory Commission ("CSRC") under the *Futures and Derivatives Law of the People's Republic of China* (the "*Futures and Derivatives Law*"), the *Company Law of the People's Republic of China* (the "*Company Law*"), the *Regulations on the Administration of Futures Trading*, the *Measures on the Administration of Futures Exchanges*, and other relevant rules. It is a central counterparty ("CCP") to all trading parties. Under the supervision and regulation of CSRC, INE organizes the listing, trading, clearing, and delivery of futures, options, and other derivatives in an open, fair, impartial, and good faith manner, develops business management rules, implements self-regulation, publishes market information, and provides Members with technologies, trading venues and facilities as well as other relevant services. Based on the principles of openness, fairness, and impartiality, INE is committed to building a sound global trading platform for energy derivatives that is international, market-oriented, rule-of-law-based, and professional to objectively reflect the supply and demand of the energy, chemicals, metal, shipping, and other industries, provide tools in price discovery, risk management and asset management for producers, distributors, consumers and investors in these industries, so as to facilitate the optimal allocation of resources and promote the economic growth.

In January 2019, CSRC formally approved INE as a Qualifying Central Counterparty ("QCCP"), which means that after launching crude oil futures, China's first futures product that is opened to overseas investors, INE has endeavored to benchmark against international and by benchmarking against international standards, further improved its governance, market management, and capacity to prevent and mitigate market risks, thereby laying a solid foundation for its future development.



INE classifies its Members into Futures Firm Members ("FF Members") and Non-Futures Firm Members ("Non-FF Members"). INE may admit Special Members as necessary for trading and clearing purposes.

The Exchange conducts clearing with Members. Each Member conducts clearing with its Clients, Overseas Special Participants ("OSPs") who have engaged the Member for clearing services, and Overseas Intermediaries who have engaged the Member for trading and clearing services (Clients, OSPs and Overseas Intermediaries are collectively referred to as the "Clearing Delivery Principals"). The Overseas Special Brokerage Participants ("OSBPs") and Overseas Intermediaries clear with their Clients.

Designated banks which engage in futures margin depository business ("Designated Depository Banks") are prudentially designated by INE to provide futures margin depository services.

Designated Depository Banks 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.

A Designated Depository Bank is subject to applicable laws, regulations, and INE's business rules, and accepts INE's supervision and management, and assists INE in providing margin depository and transfer services.

Designated Delivery Storage Facilities include commercial warehouses and factory warehouses. Warehouse refers to a facility of a licensed commodity storage enterprise which has been approved and designated by INE for the physical delivery of certain commodity futures. Factory refers to a facility of a producer which has been approved and designated by INE for the physical delivery of certain commodity futures. The Designated Delivery Storage Facilities shall be announced separately upon the verification and approval of INE. A Designated Delivery Storage Facility is required to establish a separate account for each underlying commodity and assign dedicated staff to be in charge of physical delivery processes.

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 a risk reserve fund, and adopts tiered risk prevention system, under which the Exchange manages the risks from its Clearing Delivery Principals; and OSBPs or Overseas Intermediaries manage the risks from its Clients. To ensure effective risk management, the Exchange implements margin requirements, price limit, position limit, trading limit, large trader position reporting, forced position liquidation, and the risk warning regime, among others. In case of participant default, INE can invoke effective and clearly defined rules and procedures for immediate responses that ensure due payment obligations are fulfilled and financial resources used during default resolution are adequately replenished after the event.

Delivery of a contract can take the form of either physical delivery or cash settlement. In a physical delivery, INE facilitates the transfer of ownership of the contract's underlying commodity between the buyer and the seller pursuant to its rules and procedures, thereby closing out their open positions in the contract. In a cash settlement, INE credits or debits the profits or losses of the parties calculated based on the final settlement price and closes their open positions upon expiry of the contract, pursuant to its rules and procedures. Clients can perform deliveries only through Members.

As a CCP, INE 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 INE's Board of Directors (or the "Board") participates in decision making which involves INE's risk control and management (with duties shared by the Risk Management Committee under the Board of Directors of the Shanghai Futures Exchange); INE 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 the Energy Products Department 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. INE conducts look-through supervision. As a Client's open positions and collaterals are recorded under a unique trading code and separated from those of other Clients, INE's systems can readily and accurately identify each Client's assets to facilitate the monitoring by the China Futures Market Monitoring Center (CFMMC). INE 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. INE accomplishes this by: (1) conducting extensive market surveys and timely seeking and analyzing opinions and suggestions from the market to meet the needs of participants and the market; (2) promptly developing solutions after hearing and evaluating the needs, opinions, 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, INE 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 INE

- **General Description of INE 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, INE 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, INE 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, INE had 161 Members (150 FF Members and 11 Non-FF Members), and oversaw 1,949 trading seats nationwide. In March and November 2018, INE completed the Automated Trading Services (ATS) registration in Hong Kong and the Recognized Market Operator (RMO) registration in Singapore, thus enabling eligible institutions and individuals in Hong Kong and Singapore to trade on INE.

INE currently lists five futures products, namely crude oil, TSR 20, low sulfur fuel oil, bonded copper, and SCFIS (Europe), as well as one crude oil options product, which are directly accessible to overseas investors.

As of December 31, 2023, on a single-counted basis (i.e., long or short), INE futures contracts achieved an annual trading volume of 151,989,000 lots and an annual turnover of ¥35.82 trillion; INE options product achieved a total trading volume of 14,275,200 lots and a total premium of ¥89.861 billion. These figures reflect a highly active and robust market.

- **Organization and Governance Structure**

Pursuant to the *Futures and Derivatives Laws*, the *Regulations on the Administration of Futures Trading*, the *Measures on the Administration of Futures Exchanges*, and the *INE Articles of Association*, INE's Board of Directors and senior management adopt the following governance arrangement: The Shareholders' General Meeting, comprised of all shareholders, is the highest authority of INE. INE has set up the Board of Directors and the Supervisory Board.

The Board of Directors reports to the Shareholders' General Meeting and exercises the powers and functions as stipulated in the INE Articles of Association. Special committees are established under the Board to assist the Board in performing its duties. Each special committee reports to the Board. The Supervisory Board exercises the powers and functions as stipulated in the INE Articles of Association.

INE has one Chief Executive Officer who is responsible for its day-to-day management and several Executive Vice Presidents. INE governs multiple departments including General Administration Department, International Cooperation Department (Hong Kong, Macao and Taiwan Affairs Office), Legal Affairs Department, Commodity Futures Department I, Commodity Futures Department II, Commodity Futures Department III, Derivatives Department, Trading Department, Clearing Department, Delivery Department, Member Management Department, Market Inspection Department, Risk Management Department, and Data Management Department.

- **Legal and Regulatory Framework**

Currently, INE 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 INE'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 the *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 business rules of INE. In practice, these laws and regulations, judicial interpretations, administrative regulations, and other normative legal 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, INE organizes the listing, trading, clearing, and delivery of futures, options, and other derivatives on a transparent, fair, impartial, and good faith basis, formulates business management rules, implements self-regulation, publishes market information, and provides participants with technologies, trading venues, and facilities as well as other services. INE is a legal person incorporated under the *Futures and Derivatives Law*, *Company Law*, *Regulations on the Administration of Futures Trading*, *Measures on the Administration of Futures Exchanges*, and other applicable rules and exercises self-regulation in the futures market.

- **IT System Design and Operation**

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

Trading Management System. INE has developed and uses its own full-featured 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, INE'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 INE'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 or potential delivery risks at the time near delivery, thereby ensuring the smooth delivery.

Futures Fund Management System. As an electronic fund platform linking INE, Members, OSPs, Overseas Intermediaries, 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, improved the operational efficiency of futures funds, and enhanced INE's monitoring of the fund flow risk.

Standard Warrant Management System. As a comprehensive warrant management platform linking INE, Members, OSPs, Overseas Intermediaries, delivery storage facilities, and quality inspection agencies, this system has realized the e-management of the delivery notice, warrant registration, transfer, margin collateral service, cancellation as well as the deliverable reporting and inspection, helping make the delivery process more efficient and warrants more secure. Meanwhile, this system can daily mark assets used as margin to market, and automatically adjust the amount of the margin converted from collateral 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. The system allows INE 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.

INE uses high-throughput fibers, dedicated lines, inter-exchange networks, and other telecommunication technologies to ensure real-time, reliable data transmissions. INE’s central databases enable the real-time data synchronization and exchange between the IT systems for clearing, funds, delivery, remote delivery storage facilities, 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 INE’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 set out INE'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.

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.	As a CCP, INE 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 INE's key businesses are conducted within the People's Republic of China, which should be deemed "all relevant jurisdictions" for the purposes hereof. Novation has legal support in China's legal environment. First, the *Futures and Derivatives Law* 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 INE to translate the rights and obligations of the parties to a transaction agreement into the clearing rights and obligations of INE as a CCP and each of the parties. Second, according to the *Regulations on the Administration of Futures Trading*, *Measures on the Administration of Futures Exchanges*, and *Interim Measures for the Administration of Overseas Traders' and Overseas Brokers' Engagement in the Trading of Specified Domestic Futures Products*, 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 futures trading. Third, the *General Exchange Rules of the Shanghai International Energy Exchange* (the "*INE General Exchange Rules"*) and the *Clearing Rules of the Shanghai International Energy Exchange* (the "*INE Clearing Rules"*) provide certainty for INE's CCP clearing businesses. Netting arrangement has legal support in China's legal system. First, the *Futures and Derivatives Law* 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 *Civil Code*, the daily mark-to-market system under the *Regulations on the Administration of Futures Trading*, and the netting settlement provisions under the *Measures on the Administration of Futures Exchanges*. Third, according to the *INE General Exchange Rules* and *INE Clearing Rules*, after the close of each trading day, INE shall, based on the

	settlement price of each contract, conduct a transfer of the net balance of a 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 INE 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 INE 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, seized, or enforced; the *Measures for the Supervision and Administration of Futures Firms* 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 *INE General Exchange Rules* also has

	provisions on settlement finality. Margin segregation has legal support in China's legal system. First, the *Futures and Derivatives Law* 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 *Regulations on the Administration of Futures Trading* 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 INE with regard to the margin funds of market participants. Third, the *Measures on the Administration of Futures Exchanges* 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. Disposal of collateral has legal support in China's legal system. First, the *Civil Code* 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 *Futures and Derivatives Law* 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 *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. Fourth, the *INE General Exchange Rules* and *INE Clearing Rules* clearly stipulate the disposal of margins.
Key consideration 2: An FMI should have rules, procedures, and contracts that are clear, understandable, and consistent with relevant laws and regulations.	INE 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. INE formulates or amends its rules, procedures, and contracts in accordance with existing laws and regulations, and ensures their consistencies therewith by seeking legal opinions or conducting in-depth analyses. According to the *Futures and Derivatives Law* and the *Measures on the Administration of Futures Exchanges*, the formulation or amendment of INE's *Articles of Association*, *INE General Exchange Rules*, *INE General Clearing*

	Rules requires the prior approval of CSRC. INE shall seek CSRC's opinions for proposed formulation or modification of the implementing rules 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, INE 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. As an established practice, before releasing or amending its business rules, INE conducts a fair competition review by assessing their impacts on market competition against the *Anti-Monopoly Law* and its supporting rules, in order to not inadvertently preclude or stifle competition.
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.	The legal basis for INE's activities chiefly comprises applicable laws, regulations, rules, procedures, and contracts, all of which are public and readily accessible. INE also releases operational guidelines and notices to elaborate its business rules and the implementing details thereof, thus improving the operability of the business rules. In addition, should any relevant authorities, participants, or participants' Clients have any questions regarding such legal basis, INE may also offer specific legal opinions or analyses.
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.	INE's business rules are definitively enforceable in China. The *Futures and Derivatives Law* 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 *Regulations on the Administration of Futures Trading* and the *Measures on the Administration of Futures Exchanges* expressly recognize the legal force of these business rules and protect their enforceability. INE's rules, procedures, and contracts are formulated in strict accordance with the *Futures and Derivatives Law*, the *Company Law*, the *Securities Law*, the *Civil Code*, the *Customs Law*, the *Provisions of the Supreme People's Court on Issues concerning the Trial of Futures Dispute Cases*, the *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 Involving the Manipulation of the Securities or Futures Market*, the *Regulations on the Administration of Futures Trading*, the *Regulations on Foreign Exchange Control*, the *Measures on the Administration of Futures Exchanges*, the *Interim Measures for the Administration of Overseas Traders' and Overseas Brokers' Engagement in the Trading of Specified Domestic Futures Products*, the *Announcement No. 40 [2015] of the General Administration of Customs—Announcement on the Bonded Futures Delivery of Crude Oil, the Notice of the State Administration of Foreign Exchange on Issues concerning*

	Foreign Exchange Administration in Overseas Traders' and Overseas Brokers' Trading of Specified Domestic Futures Products, and other laws, judicial interpretations, administrative regulations, and ministry-level rules; and all its business rules, before their drafting and amendment, have been approved by or revised according to the opinions of CSRC. According to the *Provisions of the Supreme People's Court on Issues concerning the Trial of Futures Dispute Cases (II)* and the *Provisions of the Supreme People's Court on the Jurisdiction of the Shanghai Financial Court*, the Shanghai Financial Court has first-instance jurisdiction over financial civil and commercial cases that name INE as a defendant or third party and relate to INE's performance of duties. Therefore, it is certain that INE's rules, procedures, and contracts will not be voided, reversed, or subject to stays and, as a result, that they have a high degree of certainty. To date, none of INE's rules, procedures, and contracts has ever been held by the court to be invalid in the People's Republic of China.
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.	Currently, INE engages in futures clearing only under Chinese laws, and all such businesses have well-founded, clear, transparent, and enforceable legal basis.

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.

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.	INE places a high priority on the safety and efficiency and explicitly support financial stability and other relevant public interest. Be it now or in the future, INE 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. INE 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. INE submits to the regulation of CSRC. According to the *INE Articles of Association and INE General Exchange Rules*, INE 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 *Futures and Derivatives Law*, INE follows the principle of prioritizing the public interest.

Key consideration 2: 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.	INE has established its governance structure in accordance with the *Futures and Derivatives Law*, the *Regulations on the Administration of Futures Trading*, and the *Measures on the Administration of Futures Exchanges*, has in place documented governance arrangements which are available on its official website. As a self-regulatory legal person, INE has an established governance structure which comprises the Shareholders' General Meeting, the Board of Directors, senior management members, and the Supervisory Board. The Shareholders' General Meeting, as the highest authority of INE, consists of all its shareholders. The Board is the permanent body of and reports to the Shareholders' General Meeting, while the Supervisory Board serves as the supervisory organ of INE. INE has one President and Chief Executive Officer who is responsible for its day-to-day management. INE clearly defines the objectives, responsibilities, and powers of all departments and positions and has in place the corresponding authorization, inspection, and cascading accountability systems to ensure they perform duties within the scope of their authorization. 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 should 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.
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	The *INE Article of Association* clearly specifies the powers and duties and rules of procedure of the Board of Directors to ensure the effective fulfilment of functions by the Board. The Board submits annual work reports to the Shareholders' General Meeting for deliberation; INE explicitly prescribes the powers and duties and rules of procedure of the Supervisory Board to ensure the effective performance of a supervisory role by the Supervisory Board. The Supervisory Board provides information on the performance of its supervisory duties in the annual work reports submitted to the Shareholders' General Meeting for deliberation; INE expressly stipulates the powers and duties of the senior management to ensure that they manage its day-to-day business operations in an orderly manner. Information on the performance of duties by the Shareholders' General Meeting, the Board, and the Supervisory Board has been documented and retained. The Board reports to the Shareholders' General Meeting, which deliberates and approves work reports of the Board. In addition, the Supervisory Board oversees the directors in their performance of duties and orders a director who

individual board members regularly.	acts against the interests of INE to correct his actions.
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).	According to the *INE Articles of Association*, the Board consists of five to nine directors, including one Board Chairman and one Board Vice Chairman who are both elected at Board meetings by a majority of all the directors. All members of the Board possess necessary expertise in the futures industry.
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.	According to the *Futures and Derivatives Law* and the *Measures on the Administration of Futures Exchanges*, INE is staffed with senior management whose members have all met the appointment requirements specified by CSRC. The *INE Articles of Association* clearly specify the powers and duties of the management team. INE has one President and Chief Executive Officer who is responsible for its day-to-day management and several Executive Vice Presidents and other members of the senior management. The senior management of INE is responsible for managing the operation of the Exchange and, according to the resolutions of the Shareholders' General Meeting and the Board, organizing the implementation of relevant tasks. INE expressly defines the powers and duties of the President and Chief Executive Officer. Executive Vice Presidents assist the President and Chief Executive Officer in performing his duties according to the division of duties among them. The President and 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 Shareholders' General Meeting. The Shareholders' General Meeting deliberates and approves the work reports of the Board and the President and Chief Executive Officer, as well as financial budget plans and final account reports of the Exchange. Moreover, the Supervisory Board may supervise the conducts of the senior management in their performance of duties, and order a member of the senior management who acts against the interests of INE to correct his actions. The foregoing supervision and assessment measures work effectively to ensure that the management has the motive and capacity to achieve the objectives of INE.
Key consideration 6: The board should establish a clear, documented	INE has an established internal risk prevention and control system including the Chairman, the President and Chief Executive Officer, the Chairman of Supervisory Board, and the senior management, as well as specific implementation requirements thereof, with the risk management and internal

risk-management framework that includes the FMI's risk-tolerance policy, assigns responsibilities and accountability for risk decisions, and addresses decision making in crises and emergencies. Governance arrangements should ensure that the risk-management and internal control functions have sufficient authority, independence, resources, and access to the board.	control requirements and rules for responsibilities, accountabilities and decision-making clearly defined. The Risk Management Committee of the Shanghai Futures Exchange, the parent company of INE, conducts uniform and collectivized management over INE, which participates in the decision-making related to risk control and management and comprises member representatives, industry professionals and INE staff members. The Risk Management Committee is a deliberative organ under the Board and assists the Board in performing relevant works and reports to the Board of Governors. The main duties of the Risk Management Committee include: (1) providing professional guidance and experience input for the building of INE's risk management system; (2) making suggestions and advising on INE's efforts to improve its business rules 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, INE 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 INE's businesses. To prevent financial market risks, INE released the *Risk Management Rules of the Shanghai International Energy Exchange (the "INE Risk Management Rules")*, which cover a comprehensive, multi-dimensional risk management system comprising margin requirement, price limit, position limit, trading limit, large trader position reporting, forced position liquidation, and risk warning.
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	INE's shareholders may get involved in decision-making through the Shareholders' General Meeting or the Board. For example, the Board has the power to deliberate and approve the INE's development plans and annual work plans proposed by the President and Chief Executive Officer, as well as the implementing rules and measures formulated under the *INE General Exchange Rules*. The Shareholders' General Meeting has the power to deliberate and adopt the *INE Articles of Association* and the *INE General Exchange Rules*, and their draft amendments, and deliberate and approve the financial budget plans and final account reports of the INE. INE also solicits on an annual basis the comments from stakeholders through surveys and interviews, questionnaires, members' meetings, and other methods.

and, where there is a 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.

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.	**I. Comprehensive risk-management framework** When providing clearing services as a CCP, INE 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). The Board reviews periodically INE's risk-management policies and framework. Special committees under the Board, such as the Strategic Planning Committee, the Remuneration Committee, the Listing Review Committee, as well as the Risk Management Committee of INE's parent company – Shanghai Futures Exchange, assist the Board in performing its tasks. In particular, the Risk Management Committee participates in making decisions on INE's risk control and management programs and reports to the Board of Directors (see Principle 2 on governance). To facilitate its routine risk-management efforts, INE 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 daily bulletin; (4) creating and checking a risk-management list; and (5) developing emergency management policies to coordinate responses to various emergencies, improve risk reporting procedures, and consolidate emergency management resources. INE's functional departments, including the Information Technology Department, Trading Department, Clearing Department, the Legal Affairs Department, the Market Compliance Department, and the Energy Products Departments, as well 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 adjust policies and procedures. INE manages various risks it in day-to-day operations with the supporting rules built on the *INE General Exchange Rules*, such as the *INE Trading Rules*, the *INE Clearing Rules*, *INE Membership Management Rules*, the *INE Risk Management Rules*, the *INE Enforcement Rules*, the *INE Designated Depository Banks Management Rules*, and the *INE Delivery Rules*. Risk management measures and processing procedures are disclosed to the market

	in written forms of rules and detailed rules. For legal risks (see Principle 1), INE has put in place a legal framework consisting of laws, judicial interpretations, administrative regulations, and INE's business rules, laying a solid foundation for offering services as a CCP. For credit risks (see Principle 4), INE 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 through separate accounting. For liquidity risks (see Principle 7), INE 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, INE 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, INE 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 INE mainly include the custody risks from the warehouses which manage standard warrants, and the delivery default risks of buyers and sellers during physical deliveries. INE imposes stringent requirements on Designated Delivery Storage Facilities. For instance, the obligations and responsibilities of buyers, sellers, INE, and Designated Delivery Storage Facilities as well as the definition of delivery default and the methods for compensation upon default are set out in the *INE Delivery Rules*. For general business risks (see Principle 15), INE is a company limited by shares of perpetual existence and sets strict requirements on capital investment and management. For this reason, INE has set up sound financial management systems that cover, among others, business expenditures, funds management, asset management, and risk reserve management. INE has maintained sufficient net assets funded by equity of high liquidity that can cover the operational costs for minimum six months. Upon the resolution by the Shareholders' General Meeting, INE may increase its registered capital by offering shares, issuing bonus to existing shareholders, converting capital reserve into capital stock, and any other methods prescribed by laws and administrative regulations as well as approved by the CSRC. For custody and investment risks (see Principle 16), the *INE Designated*

Depository Banks Management Rules provides defined and stringent requirements for the qualification and management of such banks. Most of the existing Designated Depository Banks are large state-owned commercial banks or national joint-stock commercial banks; margin is operated within a "closed loop" supervised by CFMMC. In addition, INE holds proprietary funds in the form of cash and deposit.

For operational risks (see Principle 17), INE controls 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), multi-tiered participant arrangements are applied. INE 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 code, and relevant system designs. In addition, INE has built an internal real-time monitoring system to identify participants' trading violations, investigate violations, and penalize the entities concerned according to the *INE Enforcement Rules* and, under serious circumstances, timely report to CSRC for a formal filing and 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, INE 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 INE to timely address the risks not covered by 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, INE adopts such measures as trading code, separate account management, and tiered clearing and risk prevention system to facilitate participants and their Clients to better manage and control potential risks.

Internally, for its risk-management framework, INE 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, INE's annual financial statements are subject to risk-oriented periodic audits by an independent auditor.
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.	First, INE 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, INE requires participants to strictly abide by laws and regulations, INE's rules and detailed rules, and operating procedures and guidelines. Lastly, INE, based on the participants' level of compliance, recognizes outstanding participants and takes measures against incompliant participants according to relevant rules. These management and incentive measures enable INE to effectively urge participants to manage their risks posed to INE.
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.	Currently, the entities closely linked to INE include Members, OSPs, Overseas Intermediaries, depository banks, and delivery storage facilities, for whom INE has developed a sound participant risk-management framework as follows: (1) Members, OSPs, and Overseas Intermediaries. INE monitors Members' and Clients' trading behaviors through a real-time monitoring system, and deals with defaulting Members in accordance with the *INE Trading Rules*, the *INE Clearing Rules*, the *INE Risk Management Rules*, the *INE Enforcement Rules*, among others. (2) Depository banks. To address liquidity risks from Designated Depository Banks, INE formulates the *INE Designated Depository Bank Rules*, which provides qualification requirements for applicants and a supervision system for the banks admitted. Moreover, INE conducts annual inspections of depository banks covering their qualification status and business compliance. (3) Delivery Storage Delivery Facilities. The *INE Delivery Rules*, which governs the futures-related businesses of Designated Delivery Storage Facilities, enables INE to handle potential credit and operational risks associated with delivery storage facilities. The Standard Warrant Management System additionally helps ensure the authenticity of instruments.
Key consideration 4: An FMI should identify scenarios that may potentially prevent it from being able to provide its critical operations and services as a going concern and assess the effectiveness of a full range of options for recovery or	Pursuant to the *INE Articles of Association*, CSRC may shut down the Exchange at its discretion; INE may, subject to the approval of CSRC, terminate according to resolutions of the Shareholders' General Meeting or for the purposes of combination or division of the Exchange; and a liquidation team would be set up upon termination of the Exchange. Under the centralized and uniform supervision of CSRC, INE has accrued sufficient amount of net assets funded by equity of high liquidity that support and ensure business sustainability, it is thus able to maintain sustainable, robust operations when suffering general business losses. Furthermore, emergency response plans have been created both at the CSRC level and INE level to

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.	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, INE has assessed the effectiveness of a full range of options for recovery or orderly wind-down. In addition, INE has set up the Risk Management Department that assesses its critical services and operations and prepares and implements corresponding plans; and has set standards in accordance with the *Measures for the Administration of Information Security Protection in the Securities and Futures Industries* and the *Testing and Evaluation Requirements for Information System Security Level Protection in the Securities and Futures Industries*, and other industry requirements and developed business continuity measures. In extreme conditions, if INE does not have sufficient resources to provide said critical services and operations, it may, subject to the approval of CSRC, increase registered capital in accordance with relevant provisions.

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.

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 exposures, potential future exposures, or both.	The credit risks facing INE 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, INE has developed a set of comprehensive, robust risk-managements as follows: (1) a credit risk management framework built on the *INE General Exchange Rules* and comprising, among other specific business rules, the *INE Clearing Rules*, the *INE Delivery Rules*, the *INE Risk Management Rules*, and the *INE Enforcement Rules*; (2) the *INE Membership Management Rules* and the *INE Overseas Special Participant Management Rules*, which sets out stringent membership and OSP admission criteria that Members must meet on an ongoing basis, and requires 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); (3) daily mark-to-market system that requires a Member to deposit a certain

	amount of margin before opening positions and daily risk management under which INE monitors, identifies, and measures Members' credit risk exposures in real time through its risk assessment system. Margin and margin collaterals are all subject to daily mark-to-market; (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; (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 (6) risk reserve which is provisioned 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 INE has taken relevant measures, INE may draw on the risk reserve according to relevant procedures. INE 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.
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.	INE identifies the sources of credit risk, both current and future, by monitoring Members' funds account and by calculating margin requirements. For current credit risks, INE 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 INE can conduct more calculations of risk exposures. In general, the INE personnel may can alert a Member by telephone if that Member is identified by real-time clearing calculations to have a high margin utilization ratio. INE personnel usually can wait till day-end clearing to issue the margin call to any Member who falls below INE'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 trading in view of the market risks, margin variation, and the *INE Clearing Rules*. Following day-end clearing, a Member whose clearing deposit falls below the minimum requirement will be deemed as having received a margin call from

	INE, 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, INE may deduct the amount from the Member's dedicated fund account through a depository bank. 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 positive 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, INE will conduct forced position liquidation in accordance with the *INE Risk Management Rules*. 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: First, INE sets minimum clearing deposit requirements: ¥2,000,000 for FF Members and ¥500,000 for Non-FF Members. The minimum clearing deposit should be paid in RMB with Members' own funds. In addition to the trading margin requirement, a Member with a margin call needs to satisfy the minimum requirement for clearing deposit. Second, INE has established prudent haircuts and management criteria in light of market liquidity and other factors (see Principle 5 on collateral). Third, INE collects margin at a sufficiently high ratio and has taken into account the factors including the close-out period. INE has set up as its clearing agency an internal department that has easy access to data and information to ensure the timeliness of the information. Moreover, INE evaluates the reliability and effectiveness of its assessment system at least annually.
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 which there is no settlement guarantee but where its	N/A.

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.	
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 the largest aggregate credit exposure for the CCP in extreme but	INE uses such financial resources as margin and risk reserve 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; INE determines the minimum sufficient amount of risk reserve resources based on its assessment of market size and risk changes. Currently, INE does not deal with products characterized by discrete jump-to-default price changes. Pursuant to the *INE Clearing Rules*, 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 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. To maintain sufficient financial resources to cover credit exposures, INE 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, INE assess the sufficiency of the risk reserve at least once each year and will, in view of market risk profile, increase the assessment frequency. In regard to documenting the supporting rationale of the total risk reserve, Article 34 of the *Measures on the Administration of Futures Exchanges* provides that the President and Chief Executive Officer should draft the plan on the use of risk reserve. The use of the risk reserve must be approved by the INE Board and reported to the CSRC, and carried out in accordance with the prescribed purposes and procedures.

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.	
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 appropriate decision makers at the CCP and to use these results to	INE 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. 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. When an INE-listed product or contract hits price limit or faces greater price fluctuations, INE personnel will conduct a reverse stress test after the market close. 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

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.	consecutive days in the same direction. After completion of a reverse stress test, the personnel will analyze in details the losses caused by the hypothetical extreme condition. Test results will also be timely reported to the proper decision-makers. In general, INE does not immediately issue margin calls to Members based on the results of stress tests and reverse stress tests conducted after market close, which are only meant to inform internal management and decision making. INE evaluates the scenarios, parameters, and assumptions used in stress tests at least once every month. It may also increase the stress test frequency in the event of greater market risks. Based on the results of stress tests, INE always assesses the sufficiency of the risk reserve and other financial resources used to cover credit risk. In addition, INE 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).
Key consideration 6: In conducting stress testing, a CCP should	INE carries out stress tests and reverse stress tests after market close each day to ensure that it has sufficient financial resources to cover a spectrum of forward-looking stress scenarios in extreme market conditions. In particular,

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.	INE takes the following measures: First, the base margin ratio set by INE can cover credit risks with a confidence level of 99% or above. INE 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 Second, in its daily operations, INE performs intraday real-time risk monitoring, post-trading stress tests, and reverse stress tests in accordance with the *INE Clearing Rules* 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, INE 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, INE 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, INE has made forward-looking judgement on all risk factors.
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 from liquidity providers. These rules	INE 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 *INE Clearing Rules*. If INE suffers any actual credit loss resulting from any individual or combined default among its Members arising from their performance of any duties to INE, it will fulfill relevant obligations and responsibilities under a contract in the following sequence: (1) drawing on the risk reserve with the approval of the Board of Directors; (2) making use of its own assets; and (3) exercise the right of recourse to the Member through legal proceedings.

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.	INE accepts the assets with low credit, liquidity, and market risks as margin. Currently, standard warrants, book-entry government bonds issued in the Chinese Mainland by the Ministry of Finance of the People's Republic of China, and foreign exchange are accepted as margin collaterals. According to relevant rules, Overseas Traders and Overseas Brokers may directly deposit foreign exchange as margin collateral. INE monitors and manages standard warrants through the Standard Warrant Management System that checks the quality and ownership of the warrant and determines whether there is any legal dispute involved. Moreover, INE 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 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 shall ensure that there are sufficient government bonds free of other encumbrances in its custody account. INE entrusts a depository to transfer or register the pledge of government bonds, after which process the government bonds are considered as margin. To reduce credit risks, INE daily marks the value of margin collaterals to market. To mitigate concentration risks, INE prescribes that for a Member using margin collaterals other than foreign exchange, the maximum value of such margin collaterals should not exceed four (4) times (the "Cash Multiplier") the total amount of the RMB cash balance as calculated by respective internal ledgers of the Member with the Exchange, and the Exchange has the right to adjust the benchmark price, haircut, and Cash Multiplier of margin collaterals according to market conditions. At present, US dollar is the only foreign exchange that INE accepts as collateral. To fully cover the risks arising from changes in exchange rates, INE

	has established prudent haircuts by taking into account China's existing currency exchange policies, historical exchange rate volatilities, and extreme risk scenarios, among others. To make it easier to post marketable securities as margin, INE handles collaterals through an electronic system that has further simplified the deposit and withdrawal of the relevant assets.
Key consideration 2: An FMI should establish prudent valuation practices and develop haircuts that are regularly tested and take into account stressed market conditions.	Detailed provisions on valuations of margin collaterals and prudent criteria for haircut developments are set out in the *INE Clearing Rules*. For standard warrants used as margin, INE will, at daily clearing, use the settlement price of the nearest month futures contract of the underlying product on the day as the benchmark price for calculating the market value of the standard warrants; before market close on the day, INE will first use the settlement price on the previous trading day as the benchmark price for calculating the market value. For government bonds used as margin, the benchmark price shall be the lowest of the valuations provided by the depository. INE will use the net of the benchmark price of the government bonds on the previous trading day for calculating the market value at daily clearing and has the right to adjust such benchmark price. The *INE Clearing Rules* also sets prudent haircuts for standard warrants, government bonds, and other marketable securities accepted as margin. Specifically, the amount of margin funds converted from marketable securities shall not exceed 80% of their market value, which percentage is the current discount rate. This discount rate covers the daily price limit of futures contracts, and substantially covers all price risks of marketable securities. According to applicable rules, INE has the right to adjust the haircuts. INE determines the value of the foreign exchange to be used as margin based on the current-day central parity rate released by the China Foreign Exchange Trade System. During the daily clearing, the Clearing Department updates the benchmark price of and adjusts the discounted values of foreign exchange deposited as margin according to the above methodology. Currently, INE only accepts USDs as foreign currency collaterals with a haircut of 5%. In addition, INE daily traces and analyzes the central parity rate of RMB against USD, pays close attention to the exchange rate policy of China's central bank, timely assesses market risks, and promptly adjusts and publishes the haircuts for USD margins by duly considering extreme market risk conditions.
Key consideration 3: In order to reduce the need for procyclical adjustments, an FMI should establish stable and conservative haircuts that are	INE establishes prudent haircuts for possible risks and may, when necessary, adjust the haircuts.

calibrated to include periods of stressed market conditions, to the extent practicable and prudent.	
Key consideration 4: An FMI should avoid concentrated holdings of certain assets where this would significantly impair the ability to liquidate such assets quickly without significant adverse price effects.	INE periodically monitors the concentration of the foreign exchanges, standard warrants, and government bonds as margin collaterals by tracking the structure of margin. So far, no concentrated holdings of collaterals have ever been identified, USD presents little concentrated liquidation risks.
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.	According to the *INE Designated Depository Banks Management Rules*, a bank qualified to conduct futures margin depository business for overseas Clients must be a legal person incorporated within China. Under the *Notice on Issues concerning Foreign Exchange Administration in Overseas Traders' and Overseas Brokers' Trading of Specified Domestic Futures Products* released by the State Administration of Foreign Exchange, a depository bank should be able to timely process foreign exchange purchase and settlement business relating to futures trading. Thus, INE has guaranteed ability to timely and effectively complete the transfer, settlement, and sale of foreign exchanges.
Key consideration 6: An FMI should use a collateral management system that is well-designed and operationally flexible.	For the management of marketable securities, INE's Collateral System can use the Client code to identify all of the marketable securities posted as margin associated with a particular Client. During prescribed time windows, Members may freely post marketable securities as margin or release them from the pledge using the system. Any margin funds converted from standard warrants are immediately available for use. INE manages foreign exchange funds through futures fund management system. A Member may flexibly deposit and withdraw its foreign exchange at the prescribed time. During clearing on a day, the Clearing Department recalculates the value of an asset posted as margin and determines the amount of margin funds thus converted from marketable securities at the maximum Multiplier. Operations related to the systems are subject to a two-staff, double-check mechanism at INE to ensure the relevant businesses proceed smoothly.

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.	INE 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. INE has established its margin requirement commensurate with the risks and particular attributes of each product on its international trading platform and the market it serves that can reasonably cover – at least one price limit hit – the risks associated with existing products in the market. The margin requirement for an INE-listed options contract is linked to and adjusted concurrently with that for its underlying futures contract. The *Options Trading Rules of the Shanghai International Energy Exchange* sets out the collection method of options margin. The price data used in the margin system are from INE's trading system. INE routinely manages margin with the *INE Clearing Rules* and the *INE Risk Management Rules*, which are disclosed on its official website and available to all market participants. Provisions on the collection of margins are set out in the *INE Clearing Rules*. Margin is divided into the clearing deposit and the trading margin. Trading margin refers to the funds deposited by a Member into INE's dedicated settlement account to ensure performance; it is the portion of margin being used to maintain existing positions. Once a futures trade is executed, INE 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 INE's dedicated settlement account, which is not being used to maintain existing positions. INE 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, INE 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 *INE Risk Management Rules*, which provide that INE may adjust margin by how close a contract is to the delivery month; adjust margin through price limits and in the event of consecutive occurrences of one-sided market; and adjust the base trading margin in view of overall market conditions. To manage current credit exposures, INE 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 the day-end clearing. During real-time risk monitoring processes (intraday real-time risk monitoring), INE may, through its risk control and management system, assess the largest 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 INE 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, INE will enforce liquidation according to the *INE 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 INE. During the liquidation, INE prioritizes general and arbitrage positions over hedging positions. Specifically, INE first selects the contract to be liquidated by descending open interest of each product after market close on the preceding trading day, then successively liquidates corresponding positions of all Clients or OSNBPs under the Member in each product, ranking by descending net position losses as shown in the internal ledger for that Member or for its OSPs. If multiple Members are subject to forced position liquidation, INE will determine the sequence of these Members by descending the amount of additional margin required from each. Regarding the management of potential future credit risks: First, INE sets minimum requirements for clearing deposit: ¥2,000,000 for FF Members and ¥500,000 for Non-FF Members. In addition to INE's trading margin requirement, a Member with a margin call needs to satisfy the minimum requirement for clearing deposit. Second, INE has developed prudent haircuts and management criteria by taking market liquidity into account (see Principle 5 Collateral). Third, INE collects margin at a sufficiently high ratio and has taken into account the factors including the close-out period. According to the *Measures for the Supervision and Administration of Futures Firms*, if a Client has insufficient margin due to defaults during futures trading, his carrying futures firm (Member) should eliminate the shortfall with risk reserve 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, INE is entitled to take the following protective measures according to the *INE Clearing Rules*: (1) draw on the Member's clearing deposit; (2) suspend the Member's opening of new positions; (3) conduct forced position liquidation as prescribed until the margin released is sufficient to cover the obligations and responsibilities; (4) use the cash converted from the margin collaterals that the Member deposits to cover the obligations and responsibilities; (5) draw on risk reserve to cover the obligations with the approval of the Board of Directors; (6)

	use its own assets to cover the obligations; and (7) 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 *Provisions of the Supreme People's Court on Issues concerning the Trial of Futures Dispute Cases*. As an international exchange, INE provides services to global futures market participants from different time zones. Trade clearing and settlement is conducted by Beijing Time only; however, when adjusting clearing parameters and margin arrangement, INE takes into consideration such factors as public holidays in different time zones.
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.	Pursuant to its applicable rules, INE sets 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 factors. During this process, INE also takes into consideration the spot price of the underlying commodity 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 commodity in the spot market from at least two companies above designated size. INE calculates the percentage and amount of margin for a newly listed contract based on its listing benchmark price and the margin quantitative model. Detailed margin calculation methods for inactive contracts and untraded futures contracts are set out in the *INE Clearing Rules*. Currently, INE calculates margin based on the prices generated from its own system so that there is generally no circumstance in which pricing data is not readily available or reliable.
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.	With the margin model it adopts on the market it serves, INE, an international exchange targeting global futures market participants, can effectively meet risk management requirements and ensure smooth operation of the market. Model design: INE 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. INE also considers calculating and managing basic level margin using other quantitative models, and attempts to estimate a relatively conservative one as the reference basic level margin. After making the estimation, the management personnel at INE may determine the basic level margin by taking account of other factors in light of product attributes. In addition, INE applies the same stringent criteria to the margin

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 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.	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 *INE Risk Management Rules* contain 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. Model assumptions: INE's margin models determine margin levels based on the assumption of market validity and valuable historical data as well as product characteristics. Key parameters and input of model: In calculating the margin level for a particular product, INE 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. The HVaR margin model mainly uses the following parameters: historical price data of over 250 days, a minimum 99% confidence level, and a close-out period of at least 1 day. In case of high market volatility, INE 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. Close-out periods: Close-out periods are set out in the *INE General Exchange Rules*, the *INE Clearing Rules*, and the *INE Risk Management Rules*. To eliminate the adverse effect that decreased liquidity of futures products may have on close-out periods, INE has set different position limits for various products by how close a contract is to the delivery month. Unless otherwise prescribed by INE, 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, INE 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 *INE Risk Management Rules* until all relevant positions are closed out. Historical data sampling period and considerations: For newly listed contracts, INE 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. Limiting the destabilizing effect of procyclical changes:

	INE'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. Identifications and mitigations of specific wrong-way risk: The marketable securities that INE accepts as margin are all highly liquid assets. In particular, INE has set reasonable haircuts for standard warrants and government bonds, marks their value to market daily, and ensures their authenticity through the Standard Warrant Management System. USDs deposited as margin are converted to RMB margin fund at a central parity rate of 95%, which effectively prevents exchange rate risk. As an international reserve currency, USD has inherent low risk, therefore USD collaterals are subject to lower issuers' credit risks or wrong-way risks.
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 to make intraday margin calls and payments, both scheduled and unscheduled, to participants.	INE collects trading margin in proportion to contract value and implements a daily mark-to-market system. Pursuant to the *INE Risk Management Rules,* INE may adjust margin levels based on the life cycle stage of contracts following listing, and price limit hits. Margin requirements may also be adjusted in the event of one-sided market, public holidays, and other special circumstances as INE deems necessary. During trading on a day, INE 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 deposit falls below the minimum requirement to open new positions. At daily clearing, INE 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. According to relevant rules, INE 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.
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	INE's larger-side margining system allows reduced margin requirements during arbitrage trading of the various contracts in the same product. Under this system, INE collects margin based on the larger of the margin required for the long positions and for the short positions held by a Client in the same product. Currently, INE does not grant margin discounts across its products, and no offsets or reductions in required margin between products at INE and another CCP are permitted. INE has developed and analyzed its larger-side margining system over many

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.	years. The system has been proven its robustness over this period.
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 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	INE conducts backtesting on the margin coverage of all products and contracts each day to assess the reasonableness of its margin model and relevant parameters. INE 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 *ad hoc* basis, margin losses due to price fluctuations and fund losses at membership and market levels caused by extreme risks. Backtesting results show that INE's margin scheme has achieved its target confidence level. If its model does not perform as well as expected, INE will take countermeasures according to applicable rules, and file them with CSRC. As detailed in the *INE Clearing Rules* and the *INE Risk Management Rules*, INE has specific margin collection and payment schedules and relevant risk management measures for participants located in multiple time zones.

prices.	
Key consideration 7: A CCP should regularly review and validate its margin system.	INE modifies and adjusts margin requirements according to the *INE Clearing Rules* and the *INE Risk Management Rules*, and files the updated margin requirements with CSRC. Before effecting a modification or adjustment, INE will, within a reasonable time, issue a prior notice to the market through its official website and the Membership Service System. INE'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 policies will be submitted to CSRC after consideration by the management.

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.

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.	INE has a robust framework for managing liquidity risks from all relevant participants. Participants posing liquidity risks in INE's existing businesses include Members, Overseas Brokers, and Designated Depository Banks. Main potential sources of INE'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 INE with a certain amount of intraday credit as liquidity providers according to relevant agreement; and (4) difficulties in liquidating the margin collaterals of low liquidity. INE 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 funds transfer system on a timely and ongoing basis. The institutional framework and measures with which INE manages liquidity risks mainly include rules and agreements, such as the *Futures and Derivatives Law*, *Regulations on the Administration of Futures Trading*, the *INE Clearing Rules*, the *INE Designated Depository Banks Management Rules*, the *Margin Management Rules of the Shanghai International Energy Exchange* (the "*INE Margin Management Rules*") as well as the futures margin depository agreement between it and each Designated Depository Bank.

	To manage the liquidity risks from Members, INE implements ex ante risk controls including: (1) requiring advanced deposit of margin; (2) only accepting cash and highly liquid assets 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. To manage the liquidity risks from Designated Depository Banks, INE has laid down supervisory requirements regarding their credit standing, capital adequacy ratio, accesses to liquid resources, and operational capacity. Moreover, INE has dedicated personnel to monitor their liquidity concentrations during operations. If the fund balance of a bank is or is likely to be insufficient, INE will transfer funds from other banks with sufficient liquidity to help the bank meet payment obligations on time. INE also conducts routine inspections on the liquidity of depository banks each year.
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.	INE identifies, measures, and monitors its asset intraday and after-hours settlement and fund flow through its clearing system, risk control and management system, fund management system, trading system, surveillance system, standard warrant management system, delivery system, and unified funds transfer system on a timely and ongoing basis. 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. 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. In addition, INE’s fund system monitors Designated Depository Banks’ concentration of funds in real time. According to the *INE Designated Depository Banks Management Rules*, if INE needs additional liquidity during funds settlement, depository banks should provide the funding support upon request of INE to help INE mitigate risks.
Key consideration 3: A payment system or SSS, including one	N/A.

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 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.	
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	INE has maintained sufficient liquid resources. INE's qualifying liquid resources include trading margin covering both RMB and foreign exchange funds, clearing deposit, marketable securities accepted as margin, risk reserve, and its own assets. Funds from foreign exchange market are of super-high liquidity. First, INE adopts ex ante risk controls by: (1) requiring advanced deposit of margin; (2) only accepting such assets as standard warrants and foreign exchanges of extremely high liquidity as margin; (3) implementing price limits on total open interests; (4) 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 (5) identifying Members under potential financial stress through reverse stress tests. 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. Second, according to the *INE Designated Depository Banks Management Rules*, INE requires banks to cooperate with it in meeting liquidity needs and conducts regular tests on depository banks' liquidity. Furthermore, INE may ensure adequate liquid resources through inter-bank fund transfer.

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 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.	INE conducts settlement in RMB, and is only systemically important in the People's Republic of China. INE is not exposed to more complex risks, therefore its liquid resources are sufficient.
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	INE's qualifying liquid resources include cash, trading margin, clearing deposit, marketable securities accepted as margin, risk reserve, and its own assets. There are no barriers impeding INE's access to these qualifying liquid resources, for the following reasons: First, trading margin must be deposited in RMB and foreign exchange funds in advance at qualified and designated depository banks. Second, collaterals must be provided by a Member within the prescribed period to INE via the Standard Warrant Management System, and foreign exchange funds through futures fund management system; if a Member fails to cover a margin shortfall, it will be subject to suspension of opening new position, forced position liquidation, and subsequent risk resolutions. Third, INE's risk reserve is deposited in cash in advance at large state-owned banks. INE also has explicit rules on the use of risk reserve, for instance, the *INE Articles of Association* state that, the risk reserve usage plan proposed by the President and Chief Executive Officer should be 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. INE 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.

convertible into cash with prearranged and highly reliable funding arrangements, even in extreme but plausible market conditions. If an FMI 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.	While the People's Bank of China does not extend INE any regular credit loan at present, INE can obtain certain credit from depository banks to ensure its on-time performance of settlement obligations. (See the *Futures and Derivatives Law*, the *Regulations on the Administration of Futures Trading*, the *Measures on the Administration of Futures Exchanges*, and the *INE Clearing Rules*)
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	INE's supplementary liquid resources are credit from commercial banks. Based on assessments of participants' credit and liquidity risks, INE 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 INE's qualifying liquid resources are sufficient to meet the liquidity needs even under extremely stressed conditions, no supplementary liquid resources have been used. INE always prioritizes qualifying liquid resources over supplementary liquid resources if liquidity needs arise.

credit, it should still take account of what 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.	
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 its procedures for accessing its liquid resources at a liquidity	INE's liquidity providers include the margin depository banks which have signed the margin depository agreement with INE. Depository banks are required to take effective measures to mitigate fund liquidity risks under the *INE Clearing Rules*, the *INE Designated Depository Banks Management Rules*, and the *INE Margin Rules* as well as the *Banking Institution Futures Margin Depository Agreement* executed with INE. If INE needs additional liquidity during funds settlement, depository banks should, upon INE's request, provide the corresponding funding support and ensure the stability and efficiency of the unified payment system (UPS) to help INE mitigate risks. While currently INE 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. 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 INE is located, and its fund account at INE. 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 INE, 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 INE'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 INE. Furthermore, depository banks should take effective measures to prevent liquidity risk associated with funds as required by INE. In addition, INE may investigate depository banks' operational compliance, risk management capability, and financial health through annual inspections and random checks. Concentration of margin in these banks are monitored by INE's systems on an ongoing basis.

provider.	
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.	N/A.
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 determinants and yield curves, multiple defaults over various time horizons, simultaneous pressures	Settlement on INE is conducted in RMB only. In carrying out stress tests with respect to the existing single currency, INE has considered the attributes of the clearing business, historic market data, and plausible, extreme conditions. Stress tests are conducted to identify INE's liquidity risk caused by Members' liquidity shortfall and the risks arising from insufficient balance in dedicated fund accounts at banks. 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 run reverse stress tests, and in combination with various assessments, check whether Members or Designated Depository Banks meet liquidity requirements. Reverse stress tests are generally conducted after market close. To control risks, INE 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 INE 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. INE will not immediately require a Member to deposit more trading margin based on the test result, but will warn it about fund shortfall. The stress test results will be directly reported to the Risk Management Department and proper decision-makers. To address liquidity risks from Designated Depository Banks, INE has laid down supervisory requirements regarding their credit standing, capital adequacy ratio, accesses to liquid resources, and operational capacity. INE 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, INE will transfer funds from other banks with sufficient liquidity to help the bank meet payment demands on time. Moreover, INE regularly checks banks' liquidity and conducts inter-bank fund transfer tests.

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.	
Key consideration 10: An FMI should establish explicit rules and procedures that enable the FMI to effect same-day 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	INE has established sound rules and procedures regarding the use of liquid resources. 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. If one or more Members fail to fulfill their contractual obligations, INE is entitled to take the following protective measures: (1) draw on the Members' clearing deposit; (2) suspend the Members' opening of new positions; (3) conduct forced position liquidation as prescribed until the margin released is sufficient to cover the relevant obligations and responsibilities; (4) use the cash converted from the assets that the Members deposit as margin to cover the obligation and responsibilities. If the Members still fail to fulfill their obligations, INE will take the following measures in sequence: (1) draw on risk reserve to cover the obligations; (2) use INE's own assets to cover the obligations; and (3) exercise the right of recourse to the Members through legal

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.	proceedings. In addition, INE 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.

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.

Key consideration 1: An FMI's rules and procedures should clearly define the point at which settlement is final.	The point at which clearing is final is clearly defined in INE's supporting business rules. INE 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 INE 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. The Member should in turn carry out clearing with its Clients, OSPs, Overseas Intermediaries based on INE's clearing results and timely notify them of its clearing results in the previously agreed manner; an OSBP or Overseas Intermediary should clear for its Clients and timely notify them of its clearing results in the previously agreed manner. Each Client should confirm 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 without exception and the deadline will not be subject to any extension (see the *INE Clearing Rules*, the *INE Membership Management Rules*, the *Measures for the Supervision and Administration of Futures Firms*, the *Provisions of the*

	Supreme People's Court on Issues concerning the Trial of Futures Dispute Cases, the *Regulations on the Administration of Futures Trading*, and the *Futures and Derivatives Law*). In addition, the *Futures and Derivatives Law* 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 *Measures for the Supervision and Administration of Futures Firm*s requires any futures firm subject to dissolution or bankruptcy to properly handle clients' margin funds and other assets first. The *Provisions of the Supreme People's Court on Issues concerning the Trial of Futures Dispute Cases* and the *Regulations on the Administration of Futures Trading* also provide a legal basis for the finality of settlement (see Principle 1 Legal Basis). The above-mentioned information is disclosed to Members and investors in the form of rules and operational guidelines as well as through INE's official website and other channels.
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.	INE implements a daily mark-to-market system and its business rules 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. Applications for withdrawal of assets used as margin from Members, OSPs, Overseas Intermediaries are accepted before 14:30. During settlement on a day, the Clearing Department conducts final settlement for all contracts based on the settlement price of the day, settles trading margin, transaction fees, and taxes for all contracts by crediting or debiting receivables and payables thereof, and increases or decreases the Member's clearing deposit accordingly. The gains and losses, charges and fees, delivery payments, and other payments should be paid in RMB funds. Following the completion of daily settlement, a Member whose clearing deposit falls below the minimum requirement will be deemed as having received a margin call from INE, 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, INE 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 INE will enforce liquidation in accordance with the *INE Risk*

	Management Rules. For timeliness and finality of fund transfers, INE instructs Designated Depository Banks to provide safe, accurate, and timely futures margin deposit and transfer services for the Clients concerned, and to adjust business hours in light of changes in INE's trading and settlement time, so as to meet the needs for the futures margin depository business. For intra-bank fund transfers, a depository bank, upon receipt of INE's fund transfer instruction, is required to transfer funds to the dedicated fund account that INE designates in real time. For inter-bank fund transfers, a depository bank should, upon receipt of INE's fund transfer instruction, ensure that the funds are transferred in the most efficient way and are timely delivered to the bank that INE designates (See Chapter 3 of the *INE Clearing Rules*, the *INE Risk Management Rules*, and the *INE Designated Depository Banks Management Rules*).
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.	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, INE implements a daily mark-to-market system to ensure the completion of the final settlement by the end of the proposed value date. A prior, market-wide notice will be issued for adjustments to the settlement schedule due to public holidays. INE 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, INE will deal with the Member according to the default procedures; if INE 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 delivery or cash settlement. The above-mentioned information is clearly defined in INE's business rules, operational guidelines, notices, and announcements and disclosed to the public through INE's website.

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.

Key consideration 1: An FMI should conduct its money settlements in central bank money, where practical and	INE conducts money settlements in central bank money only. INE conducts settlement through its Clearing Department at its own risks, while banks only hold in custody Members' margin and assume no settlement risk. Moreover, INE opens no account at China's central bank, and designates

available, to avoid credit and liquidity risks.	commercial banks rather than the central bank as depository banks. The existing 14 Designated Depository Banks – including 12 large state-owned or national joint-stock commercial banks and 2 foreign banks – all make settlement in the money issued by the central bank. INE has opened a dedicated settlement account at each of the 14 banks. A Member must conduct money settlement between its dedicated fund account opened at these banks and INE's dedicated settlement account. All money settlements are completed through these dedicated accounts by either bank transfer or negotiable instruments. (See the *INE Clearing Rules*)
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.	First, all contracts listed on INE are settled in either RMB issued by the central bank or highly liquid marketable securities. Second, the depository banks designated by INE, including reputable, financially robust large state-owned or national joint-stock commercial banks, and foreign banks specializing in trading derivatives, all 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, INE has designated multiple commercial banks as its 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 *INE Clearing Rules* and the *INE Designated Depository Banks Management Rules*. Before conducting futures margin depository business, a newly admitted depository bank is required to enter into a Banking Institution Futures Margin Depository Agreement with INE to specify both parties' rights and obligations. Third, Members' margin, deposited in the accounts opened at depository banks in cash form, is of high liquidity and availability.
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 settlement banks. In particular, an FMI should establish and monitor adherence to strict criteria for its settlement banks that take account of, among	Specific business and technical requirements for depository banks are set out in the *INE Designated Depository Banks Management Rules*. In addition, INE 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. INE takes the following measures to strictly monitor depository banks' concentration of credit and liquidity risks according to the *INE Designated Depository Banks Management Rules*: First, INE has opened a dedicated settlement account at each of the 14 Designated Depository Banks. A member must conduct money settlement between its dedicated fund account opened at these banks and INE's dedicated settlement account; 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

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.	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; Third, a Designated Depository Bank is required to conduct reconciliation of the dedicated settlement account of the Exchange on a daily basis; Fourth, a depository 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; 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; Sixth, INE may monitor Members' margin funds accounts in real time through the futures fund management system to ensure the security of funds; Seventh, INE designates dedicated persons in charge of reconciling the data submitted by depository banks on a daily basis and monitoring in real time the balance of dedicated settlement accounts in the banks; Eighth, all of INE's designated depository banks, except for two foreign banks, are listed banks, which are required to disclose their financial status to regulators and the market on a regular basis; and Ninth, INE conducts on-site inspections on Designated Depository Banks each year and supervises the banks' risk management efforts and financial status.
Key consideration 4: If an FMI conducts money settlements on its own books, it should minimise and strictly control its credit and liquidity risks.	INE 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.
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 expected to occur, that transfers are to be final when effected, and that funds	The funds received by INE 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, INE 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 INE's fund transfer instruction, transfer funds to the dedicated fund account that INE designates in real time; (3) for inter-bank fund transfers, upon receipt of INE's fund transfer instruction, ensure that the funds are transferred in the most efficient way and are timely received by the bank that INE designates; (4)

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.	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 also Principle 8 Settlement Finality).

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.

Key consideration 1: An FMI's rules should clearly state its obligations with respect to the delivery of physical instruments or commodities.	Physical delivery refers to the process that a buyer and a seller settle open positions in a futures contract through the transfer of the ownership of the underlying products in accordance with INE's rules and procedures. For physically delivered futures contracts, delivery for all the open positions at expiry shall be conducted according to the standard delivery procedures. 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 INE. During physical deliveries, INE, after taking into account the buyers' intentions, matches participants for settlement by allocating available standard warrants to buyers on the second delivery day according to the relevant principles specified in the *INE Delivery Rules*. Pursuant to the *INE Delivery Rules*, the Exchange may implement commodity registration management on the delivery commodities. If a futures contract of the listed products is subject to commodity registration management, the commodities used for the physical delivery, which are represented by standard warrants, must be approved for registration by the Exchange or INE-permitted other trading venues. Chapter 8 (Management of Standard Warrants) of the *INE Delivery Rules* provides that a standard warrant should contain the following items: (1) the full name of the owner of the underlying goods; (2) variety, quantity, and quality of the underlying goods; (3) the venue where the underlying goods are stored; (4) the storage fees; (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 be contained; (6) issuer, place and date of issuance; and (7) other information that should be included in the standard warrant. The obligations and responsibilities of buyers, sellers, the Exchange, and Designated Delivery Storage Facilities are set out in the *INE Delivery Rules*. 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. The *INE Delivery Rules* have been disclosed to the public through INE's website.
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.	The risks that have been identified by INE mainly include the custody risks from the warehouses that manage standard warrants and buyers' and sellers' delivery default risks during physical deliveries. INE addresses custody risk associated with standard warrants by: (1) requiring delivery storage facilities to obtain its approval before they engage in futures delivery-related businesses; (2) executing an agreement with each Designated Delivery Storage Facility and requiring them to pay performance deposit to ensure the performance of obligations; (3) designating delivery storage facilities to be in charge of the custody, safety, and confidentiality of underlying commodities; and (4) requiring delivery storage facility to conduct internal audit as well as implementing random and annual inspection conducted by the Exchange. To manage buyers' and sellers' delivery default risk during physical delivery, INE mainly takes the following measures: Firstly, the load-in and load-out inspection of the quality and quantity of futures commodities should be conducted by the Designated Inspection Agencies in accordance with the standards and methods specified in the inspection rules of corresponding futures products; secondly, INE tracks and monitors a seller's deliverable resources and the accounts opened at a buyer's standard warrant management system before the delivery day; thirdly, INE collects delivery margin from both buyers and sellers during deliveries; and fourthly, the definition of delivery default and the methods for compensation upon default are set out in the *INE Delivery Rules* (see Principle 13 Participant-default rules and procedures).

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.

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.

Key consideration 1: An FMI that is an exchange-of-value	INE settles on a net basis and prescribes that a physical delivery or cash settlement can only be carried out after the trading of the corresponding futures contract is completed. Principal risk can be effectively managed under the

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.	current delivery methods. INE implements margin requirements and a daily mark-to-market system according to the *Futures and Derivatives Law* and the *Regulations on the Administration of Futures Trading*, under which futures exchanges, futures firms, or non-futures firm clearing Members are prohibited to allow Members with insufficient margin to trade futures. The *INE Clearing Rules* 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 following settlement, 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. Pursuant to the *INE Delivery Rules*, 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 *INE Clearing Rules* set out that the Exchange should secure payment from the buyer (Member) before allowing the Member (seller) to make the physical delivery. Moreover, INE'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.

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.

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 a default.	INE's rules and procedures clearly define cases of default as well as the methods to identify defaults. In addition, INE adopts a tiered risk prevention system, under which the Exchange manages and monitors the risks from Members, Members manage and monitor the risks of their Clearing Delivery Principals; and FF Members, OSBPs, and Overseas Intermediaries manage and monitor the risks from their Clients. The defaults identified by the Exchange include but are not limited to Members' failure to perform or to fully perform their margin obligations to INE and delivery default. In accordance with the *INE Clearing Rules*, if a Member fails to fulfill its contractual obligations due to its inability to meet the margin requirement, INE 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 margin released is sufficient to cover the obligations; and (4) use the cash converted from the

	collaterals that the Member deposits to cover the obligations. If a deficiency still exists, the Exchange may cover the obligations by drawing on the Exchange's risk reserve, and using INE's own assets in sequence. In addition, INE will exercise the right of recourse to the Member through legal proceedings for reimbursement. The *INE Delivery Rules* 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.
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.	The management's responsibilities for default handling are clearly defined in INE's internal management systems and procedures. Moreover, INE 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, INE will timely report the situation to CSRC and may draw on the risk reserve with the approval of the Board. The Exchange reviews on a periodic or *ad hoc* basis its internal management systems and procedures through rule revisions, 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. INE 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; (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.
Key consideration 3: An FMI should publicly disclose key aspects of its default rules and	INE's default handling procedures, including countermeasures, scope of countermeasures, persons or entities taking countermeasures, and the mechanisms ensuring performance, are clearly defined in its relevant rules and measures and publicly disclosed through its website.

procedures.	INE revises its default handling rules on an *ad ho*c 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, INE 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 collateral against the concurrent default of the participant and a fellow customer, the CCP should take steps to ensure that such	INE 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 *Futures and Derivatives Law*, the *Regulations on the Administration of Futures Trading*, and the *Measures for the Supervision and Administration of Futures Firms* 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 *Measures for the Segregated Management of Futures Firms' Margin* 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 *INE Membership Rules* and the *INE Clearing Rules* stipulate that INE shall manage the margin deposited by each Member in INE's dedicated settlement account via separate accounts; an FF Member, OSBP or Overseas Intermediary shall manage the margin deposited by each Client via separate accounts. FF Members are prohibited from misappropriating Client margins. Fourth, INE 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

protection is effective.	system enables INE to respectively record the positions, margin in use, and collateral of each Client. Through the account segregation and transfer arrangements, INE can effectively protect Client positions and collaterals from the default or insolvency of carrying Members. Fifth, in accordance with the *INE Clearing Rules*, 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 INE for transfer of Clients' positions. INE has established convenient procedures to ensure completion of transfer of positions within one business day. Sixth, China's laws which support INE's segregation and transfer arrangements with respect to the assets of participants' Clients, provide legal certainty for protection and transfer of positions and collaterals of domestic or foreign participants' Clients.
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.	As China's futures markets generally adopt look-through regulation under the trading code system, INE and its Members can accurately and easily identify each Client's assets through its systems. In addition, according to the *Measures for the Segregated Management of Futures Firms' Margin*, 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. The trading code system ensures that the information associated with each customer 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.
Key consideration 3: A CCP should structure its portability arrangements in a way that makes it highly likely that the positions	INE's transfer arrangements allow the transfer of positions and collateral of a defaulting participant's Clients to one or more other participants. In accordance with the *INE Clearing Rules*, if a Member cannot continue in the futures-related business for any reason, is subject to consolidation, division, or bankruptcy, or changes the clearing authorization, it or any of its Clearing Delivery Principals may apply to the Exchange for position transfer. The

and collateral of a defaulting participant's customers will be transferred to one or more other participants.	transfer will be conducted upon the approval of INE. Under special circumstances, such as when a Member goes bankrupt but has not yet applied for position transfer, the Exchange may, for the purpose to protect Clients' interests, activate the contingency plan to transfer the positions for related Clients. China's laws also ensure that the positions and collateral of the Clients of a defaulting participant can be transferred to one or more other participants. According to 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.
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.	INE's segregation and transfer arrangements are set out in the *INE Trading Rules* and the *INE Clearing Rules* and have been published on its website. In addition, the *Futures and Derivatives Law*, the *Regulations on the Administration of Futures Trading*, the *Measures on the Administration of Futures Exchanges*, the *Measures for the Supervision and Administration of Futures Firms*, the *Measures for the Segregated Management of Futures Firms' Margin*, and the *Provisions of the Supreme People's Court on Issues concerning the Trial of Futures Dispute Cases* all provide the legal basis for INE to segregate or transfer a participant's customers' positions and related collateral.

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.

Key consideration 1: An FMI should have robust management and	INE 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, INE has set up sound financial management systems that cover,

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.	among others, business expenditures, funds management, asset management, and risk reserve management to ensure the correctness and effectiveness of its operational strategies. Moreover, INE 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, INE has created a thorough disaster recovery emergency plan to address the risks associated with electric and network service providers. In general, INE currently faces few potential business risks as it focuses on primary businesses, retains sufficient capital funds, develops a solid market infrastructure, and maintains sound operations.
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 services if such action is taken.	INE has retained sufficient, highly liquid net assets funded by equity and is able to continue ongoing and sound CCP clearing business once facing common losses. The accumulation of INE's liquid net assets outpaces the losses arising from potential general business risks; and the high liquidity of the assets enables INE to continue operations and services in the event of common losses. In addition, INE may, in view of operational and development needs, increase its capital by issuing RMB-denominated ordinary shares or other types of shares to its existing shareholders or other legal persons within or outside China.
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	Pursuant to the *INE Articles of Association*, CSRC may shut down the Exchange at its discretion; INE may, subject to the approval of CSRC, terminate according to resolutions of the Shareholders' General Meeting; and a liquidation team would be set up upon termination of INE. To maintain business sustainability, INE 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

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.	liquid net assets funded by equity equal to at least six months of operating expenses to address losses in extreme conditions.
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 scenarios, including in adverse market conditions.	INE 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. INE'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. Moreover, INE conducts periodic assessments of these assets against the standards of simple structure, high liquidity, and ease of realization.
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	INE has sufficient liquid resources backed by stock and sets up risk reserve, and in the case of emergencies, can obtain lines of credit from banks to address business risks. INE is a company limited by shares of perpetual existence. In accordance with laws, administrative regulations, ministry-level rules, and the *INE Articles of Association*, INE may, upon the resolutions adopted by the Shareholders' General Meeting, increase its registered capital by offering shares, issuing bonus to existing shareholders, converting capital reserve into capital stock, and any other methods prescribed by laws and administrative regulations as well as approved by the CSRC.

regularly.	

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.	Currently, INE has 14 Designated Depository Banks, i.e., 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 DBS Bank China Co., Ltd., and the Citibank (China) Co., Ltd. Most of these banks are reputable, systemically important national commercial banks, the DBS Bank is the largest commercial bank in Singapore, and the Citibank is among the largest banks in the U.S. All of the Designated Depository Banks are established within China, subject to the regulation of the National Financial Regulatory Administration and headquartered in the same time zone. The *INE Designated Depository Banks Management Rules* set out the admission criteria and requirements for Designated Depository Banks covering qualification application, technical requirements, and emergency response, among others; and clearly states that the Exchange may conduct annual or unscheduled inspections on Designated Depository Banks. 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 CSRC itself. (See Chapters 2 and 6 of the *INE Designated Depository Banks Management Rules* and the *Measures for the Segregated Management of Futures Firms' Margin*).
Key consideration 2: An FMI should have prompt access to its assets and the assets provided by participants, when required.	INE is able to protect its assets and the assets provided by participants. First, when opening an account, INE enters into a depository agreement with each depository bank to specify both parties' rights and obligations, which is of legal force and protected by the *Law of the People's Republic of China on Commercial Banks* and other applicable laws and regulations. Second, Designated Depository Banks' duties and obligations are specified in the *INE Designated Depository Banks Management Rules*. Third, INE has developed its rules, procedures, and contracts in accordance with the *Futures and Derivatives Law*, the *Regulations on the Administration of Futures Trading*,

	the *Measures on the Administration of Futures Exchanges,* the *Provisions of the Supreme People's Court on Issues concerning the Trial of Futures Dispute Case*, and other relevant laws, judicial interpretations, and administrative regulations that provide it with a reasonable legal basis, in order to protect its interests or ownership rights in the assets under custody.
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.	To decrease the concentration of margin funds, INE currently designates 14 banks – 12 reputable, large state-owned or national joint-stock commercial banks and 2 robust foreign banks – as its depository banks. Moreover, INE 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 INE's funds system, so as to ensure that each of them has a proper balance to address the liquidity that INE requires in day-to-day operations; and INE tests the margin of each depository bank by transferring funds of varying amount on an *ad hoc* basis to check the security of deposits and maintain funds concentration, and when necessary, will properly manage the funds.
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.	Currently, INE maintains its funds in cash or deposit. In addition, all of its material investment decisions are made by the Board or the Shareholders' General Meeting and should be reported to CSRC.

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.

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.	Plausible sources of INE'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, INE has created an operational risk-management framework covering: (1) Organizational structure. INE's Board of Directors considers and periodically assesses its risk-management systems; 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. (2) Overall institutional design. INE 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. (3) Standard development and strengthened management that ensure high operational stability and reliability of technical systems. INE has formulated the *Cybersecurity Management Rules* and the Information Security Strategies in accordance with the *Cybersecurity Law* 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. Moreover, INE has adopted ISO 9001, an internationally accepted quality management standard in its IT operations and manages growing capacity needs by conducting annual system capacity assessment under ISO 20000 which regulates IT service management. The Information Technology Committee is responsible for making suggestions and advising on technical systems. (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. (5) Operational accuracy and operational risk management. INE 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, INE 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 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. (6) Regular internal inspections and external assessments. INE 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. (7) Protection of trading and operating activities against disruption or interference. To fully respond to any potential emergency risks, INE 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.
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.	Pursuant to the *INE Articles of Association*, the *Working Procedures of the Board of Directors*, and the *Working Procedures of Special Committees under the Board of Directors*, the Board of Directors and the operational management are jointly and ultimately accountable for operational risks. Internally, INE has the Information Technology Committee responsible for making suggestions and advising on INE'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 operational management adopts and guides business departments' adoption of risk-management concepts and rules in system development, launch, and operation by combing operational risks with INE's businesses. Externally, competent regulators and the National Audit Office periodically inspect INE's operational risk management and provide the relevant audit results. INE places high emphasis on potential operational risks arising from systems' significant changes. According to the *Rules on the Management of Technical Issues of the Shanghai International Energy Exchange*, the Cybersecurity Management Rules, and other normative documents formulated by INE, it 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.
Key consideration 3: An FMI should have clearly defined operational reliability objectives and should have policies in place that are designed to achieve those objectives.	To maintain high operational stability, reliability, and accuracy, INE 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 departments have incorporated operational accuracy in their duties. Moreover, INE 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.
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.	INE manages growing capacity needs in line with the standard capacity management procedures under ISO 20000. Accordingly, the technical department quarterly assesses the capacity operational indicators and reviews the capacity plan it makes for the following year; and various systems draft capacity plans on a quarterly basis and will increase the 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 increase the system capacity based on its analysis of unsatisfactory operational performance.
Key consideration 5: An FMI should have comprehensive physical and information security policies that address all potential vulnerabilities and threats.	INE addresses potential vulnerabilities and threats by: (1) formulating the *Cybersecurity Management Rules* and the Information Security Strategies according to the *Cybersecurity Law* and relevant regulatory requirements to regulate information and data security, backup mechanisms, handling procedures of and responsibilities for security incidents; (2) adopting ISO 27001 – Information Security Management Systems Requirements 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.
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 should incorporate the use of a secondary site and should be designed to ensure that critical	In its day-to-day management, INE has formulated relevant guidelines for safety and security. The Exchange 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. To ensure effective operation and timely recovery of business and technical systems, INE has established a risk emergency response mechanism and the Emergency Response Leadership Group; and developed the corresponding emergency response plan, operational guidelines, and business continuity measures that fully regulate rapid handling of various risk events disruptive to market operation, network and technical systems, as well as public security and health, including but not limited to switching to disaster recovery centers and a

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.	rotating shift for key positions. In addition, INE 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. In line with the above rules and guidelines, INE 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, INE has upgraded and deployed its systems, allocated sufficient resources therefor, and holds periodic emergency drills according to its emergency response plans.
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.	Instead of outsourcing its key services, INE 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. To prevent disruption of utility services, INE has executed service agreements with utility providers that set out both parties' rights and obligations; for power supply, INE 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, INE has built a backup network to which its systems will automatically switch when the primary network services are disrupted. Moreover, INE has created a complete assessment plan for those utility providers.

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.

Key consideration 1: An FMI should allow for fair and open access to its services, including by direct and, where relevant, indirect participants and other FMIs, based on reasonable risk-related participation	Principal market participants of INE include, among others, Members, OSPs, Overseas Intermediaries, Clients, and market makers. Currently, INE has developed rules that clearly specify the access criteria and requirements for each type of participants as well as their rights and obligations at INE. First, participation requirements. **Membership requirements.** Currently, INE has FF Members and Non-FF Members. For Non-FF Members, INE clearly specifies their membership requirements including sufficient registered capital, good credit, and sound business records. For FF Members, in furtherance of the futures firm

requirements.	incorporation requirements prescribed by China's regulators, INE also lays down their membership requirements including sufficient registered capital, good credit, sound business records, well-designed structure, and adequate staffing. OSPs are classified into Overseas Special Brokerage Participants ("OSBPs") and Overseas Special Non-Brokerage Participants ("OSNBPs"). In particular, INE has set admission criteria and requirements for OSPs including, but are not limited to, sound rules and sufficient registered capital. INE also imposes continuous operating period, qualifications, and other requirements on an Overseas Intermediary who is permitted to conduct carrying-brokerage business. For Clients, when applying to INE for a trading code, each Client is required to meet such criteria as having basic knowledge of futures trading; having passed relevant tests; having records of live or simulated futures trading; having a certain amount of available funds; having in place sound trading management rules, and having no material adverse credit record. For market makers, INE manages them based on product type and clarifies that an applicant should have, *inter alias*, a certain size of net assets, dedicated market making department and personnel, sound market making plans, as well as a stable and reliable market making technical system. Second, services available to participants. INE has formulated rules and detailed rules to specify the rights of its Members and OSPs. Participants' best practices, rights, and obligations in routine operations are also stipulated in various business rules. Third, all relevant rules have been released and made public to the market. (See the *Futures and Derivatives Law*, the *Regulations on the Administration of Futures Trading*, the *Measures for the Supervision and Administration of Futures Firms*, the *INE Membership Management Rules*, the *INE Overseas Special Participant Management Rules*, the *INE Futures Trading Participant Eligibility Management Rules*, and the *INE Market-Making Management Rules*)
Key consideration 2: An FMI's participation 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	INE's participation requirements are justified in terms of the safety and efficiency of the futures market, tailed to and commensurate with the specific risks of the commodity futures market, and publicly disclosed. In terms of safety, the *INE Membership Management Rules*, the *INE Overseas Special Participant Management Rules,* the *INE Futures Trading Participant Eligibility Management Rules,* and the *INE Market-Making Management Rules*, which are consistent with the foregoing laws, regulations, and ministry-level rules, define access requirements for a wide range of market participants as well as their rights and obligations, ensure the reasonableness of access requirements, and meet INE's requirements for managing specific risks.

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.	In terms of efficiency, the application requirements, materials, and processes are set out in the *INE Membership Management Rules* and the *INE Overseas Special Participant Management Rules*. Meanwhile, INE has formulated and released the *Operating Guidelines for Futures Trader Eligibility Rules of the Shanghai International Energy Exchange* to clarify the materials required for eligibility management, helping Clients' preparation of necessary materials and improving processing efficiency as well. Relevant laws, regulations, ministry-level rules, and INE's detailed rules have been published and can be accessed via the INE website. (See the *INE Membership Management Rules*, the *INE Overseas Special Participant Management Rules*, and the *INE Market-Making Management Rules*)
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.	Currently, China's financial regulators have established ongoing monitoring mechanisms for Members. INE has specified its rights and the measures available for dealing with violations in implementing rules. Relevant rules have been disclosed publicly. First, in the *Measures for the Administration of Risk Supervision Indicators of Futures Firms* 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%.). Second, INE explicitly stipulates Members' and OSPs' reporting obligations and their supervision and management: any Member experiencing significant changes in business, management or other aspects should submit a written report to INE within 10 trading days; and any OSP experiencing a major change in operation, management, or other aspects should submit a written report to INE within 20 trading days. Third, INE has the right and obligation to track and examine participants' compliance with relevant participation requirements. Pursuant to the *INE Enforcement Rules*, the Exchange may exercise regulation over its Members and OSPs, including requiring them to provide such reports as annual reports and third-party audit reports; investigating and taking evidence from them; checking their futures business-related bank accounts; and accessing their technical system for trading, clearing, and financial matters. If a Member or an OSP breaches or no longer meets the participation requirements, INE may take corresponding measures as appropriate for the circumstance, including initiating a formal investigation, suspending the Member's opening of new positions or revoking its Membership or OSP status. Fourth, as to the management of market maker status, INE 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. INE has also made arrangements for

	voluntary forfeiture of market maker status. (See the Chapters 2 and 4 of the *Measures for the Administration of Risk Supervision Indicators of Futures Firms*, the *INE Membership Management Rules*, Chapters 2 and 3 of the *INE Enforcement Rules*, the *INE Overseas Special Participant Management Rules*, and the *INE Market-Making Management Rules*).

Principle 19: Tiered participation arrangements

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

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.	INE is a demutualized futures exchange and, under the framework of current laws, regulations, and its rules and supporting detailed rules, adopts multi-tiered participation arrangements. 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. **Tiered participation arrangements** In INE's multi-tiered participation arrangements, direct participants are Members, and indirect participants are Clients, OSPs, and Overseas Intermediaries. INE clears for its Members; its Members clear for their Clients, OSPs who engage them for clearing, and Overseas Intermediaries who engage them for trading and clearing ("Clearing Delivery Principals"). OSPs and Overseas Intermediaries clear for their Clients. INE 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 CFMMC and file such information with INE. **Risk identification and management** INE adopts a tiered risk management structure, under which INE manages and monitors Members' risks; Members manage and monitor the risks of their Clearing Delivery principals; and OSBPs and Overseas Intermediaries manage and monitor their Clients' risks. By implementing the trading code system, INE may identify the positions and transaction orders of Clients and Members in its systems, thus understanding the risk exposure 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 violations. To effectively prevent and control default risks, INE applies the margin requirement, price limit, position limit, large trader position reporting, forced position liquidation, risk warning, default risk waterfall, among others, in accordance with the *INE Risk Management Rules*. For the risk of trading violation, INE's Market Compliance Department

	identifies a Member or Client's trading violations 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 *INE Enforcement Rules*, INE will issue a risk warning against an incompliant Member or notify relevant Member to issue a risk warning against its Client in the case of a minor violation, or proceed judicial investigation in the case of a serious violation. In addition, INE may assess its Members' risk management level by performing on-site checks and examining such materials relating to Members' and their Clients' futures trading on INE as trading records, clearing materials, financial statements, certificates, and account books.
Key consideration 2: An FMI should identify material dependencies between direct and indirect participants that might affect the FMI.	INE is capable of identifying material dependencies between direct and indirect participants that might affect it. Through the coding system, INE directly knows the positions and margins of its Members and Clients and makes predictions based on large trader position reports. 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 INE in the case of any safety issue. INE may also apply to the CFMMC for accessing data on Client equity when necessary.
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.	INE 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 transaction values in the system. A futures firm should be established in accordance with the *Futures and Derivatives Law*, the *Regulations on the Administration of Futures Trading*, the *Measures for the Administration of Risk Supervision Indicators of Futures Firms*, the *Measures for the Supervision and Administration of Futures Firms*, and the *Provisions on the Classification and Supervision of Futures Firms*. The Members' rights and obligations are specified and their brokerage status are managed pursuant to the *INE Membership Management Rules*. Through the clearing system, INE immediately knows the positions and funds of Members and Clients and identifies the ledgers of different types of Members. It manages Member default risks according to the *INE Risk Management Rules* and binds Member trading activities according to the *INE Enforcement Rules*. INE may also take several supervision and management measures including violation warning and awareness campaigns, interviews, and on-site inspections.
Key consideration 4: An FMI should regularly review risks arising from tiered participation arrangements and	INE 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 default by a Client or futures firm due to insufficient margin. When a direct participant, or a Member, is exposed to high risks, INE may, in accordance with relevant provisions of the *INE Risk Management Rules*, reduce the risks by taking such

should take mitigating action when appropriate.	measures as raising margins, imposing position limits on relevant products which exceed the applicable size of position limit, or enforcing position liquidation. Direct participants are responsible for managing the risks of indirect participants. INE regularly or randomly updates the tiered risk management structure based on its business needs. For potential or actual violation risks from participants in the tiered participation arrangements, INE may take such measures as warning and formal investigation in accordance with the *INE Enforcement Rules* or refer any violation which constitutes a criminal offense to the judicial authority to ensure the robustness of the arrangements.

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 INE and the Shanghai Futures Exchange, its parent company, serve as CCP, 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 INE 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.

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 cleared, settled, or recorded; and use of	To meet the demands of participants and serve the market, INE regularly listens to the needs and feedback from market participants through multiple channels, analyzes the market opinions and comments, comes up with solutions accordingly, and gives feedbacks to market participants in a timely manner. When the market demand changes, INE will adjust and improve its businesses, rules, and 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 operational risks. Market training will be provided regularly for the launch of new businesses and new systems.

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.	Since its establishment, INE has prioritized safety and efficiency, supported financial stability and other related public interests, and aimed consistently to serve the real economy. INE has clearly defined short- and long-term objectives for operational effectiveness, and has developed practical measures to achieve them. INE aims to, based on the principles of openness, fairness, and impartiality, build a world-class trading platform for energy derivatives that is international, market-oriented, rule-of-law-based, and professional to objectively reflect the supply and demand of energy, chemicals, metal, shipping, and other industries, provide tools in price discovery, risk management and asset management for producers, distributors, consumers and investors in these industries, so as to facilitate the optimal allocation of resources and promote the economic growth. On the basis of its short- and long-term objectives, INE breaks down its long-term objectives into short-term, clearly definable, and measurable annual goals, and reviews the achievement of such objectives at the end of each year.
Key consideration 3: An FMI should have established mechanisms for the regular review of its efficiency and effectiveness.	The management also holds 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. The Discipline Inspection and Supervision Office and the Audit Department will 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.

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.	INE’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. At the application layer, INE 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 INE needs to connect with the system that adopts the internationally accepted communication program, it can introduce a protocol conversion module for efficient connection. INE is considering to adopt the internationally accepted protocol for the next generation trading system.

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

FMI.	them through various ways such as telephone communication, a written letter, face-to-face communication, etc. If INE 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, INE will investigate, identify, and punish the violators of the contracts and regulations according to relevant provisions in the *INE Enforcement Rules*. 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. As for default handling, INE has established a sound risk waterfall mechanism, and the sanctions against any default have been explicitly stipulated in the *INE Clearing Rules*, the *INE Delivery Rules*, and the *INE Risk Management Rules*. 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 of INE. As for the arrangement of business continuity, INE has formulated emergency and disaster recovery plans to ensure the smooth operation of the market.
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.	INE publicly discloses information as detailed as the individual service charges and, existing discount policies, etc. on its official website, and once any concerning changes occur, the Exchange will disclose to the market through its member service system.
Key consideration 5: An FMI should complete regularly and disclose publicly responses to the CPSS-IOSCO Disclosure framework for financial market infrastructures. An FMI also should, at a minimum, disclose basic data on transaction volumes and values.	In accordance with the requirements of the CPSS-IOSCO *Disclosure Framework for Financial Market Infrastructures*, INE completes a compliance report on the *Principles for Financial Market Infrastructures* each year, and updates and discloses related quantitative data each quarter. All this information is available at the PFMI section on INE's website in both English and Chinese. As for disclosure of basic data, according to the *Futures and Derivatives Law*, the *Regulations on the Administration of Future Trading*, the *Measures on the Administration of Futures Exchanges*, and the *INE General Exchange Rules*, INE 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. INE also makes other disclosures to the

	market through announcements and circulars. In addition, INE discloses to the market information including contract specifications, news and events, and contact details. (See the *Futures and Derivatives Law*, the *Regulations on the Administration of Futures Trading*, the *Measures on the Administration of Futures Exchanges*, and Chapter 9 of the *INE General Exchange Rules*).

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.

Summary narrative	N/A.

V. List of Publicly Available Resources

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 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 Futures Firms	https://neris.csrc.gov.cn/falvfagui/rdqsHeader/mainbody?navbarId=3&secFutrsLawId=3938bf27ed2f4ed78041a6c1173c0fdd&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=bda86848800e452c8accc2015159041e&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 Shanghai International Energy Exchange Co., Ltd.	http://www.ine.com.cn/en/regulation/regulation/
General Exchange Rules of the Shanghai International Energy Exchange	http://www.ine.com.cn/en/regulation/regulation/
Risk Management Rules of the Shanghai International Energy Exchange	http://www.ine.com.cn/en/regulation/regulation/
Trading Rules of the Shanghai International Energy Exchange	http://www.ine.com.cn/en/regulation/regulation/
Clearing Rules of the Shanghai International Energy Exchange	http://www.ine.com.cn/en/regulation/regulation/
Delivery Rules of the Shanghai International Energy Exchange	http://www.ine.com.cn/en/regulation/regulation/
Membership Management Rules of the Shanghai International Energy Exchange	http://www.ine.com.cn/en/regulation/regulation/
Overseas Special Participant Management Rules of the Shanghai International Energy Exchange	http://www.ine.com.cn/en/regulation/regulation/
Futures Trading Participant Eligibility Management Rules of the Shanghai International Energy Exchange	http://www.ine.com.cn/en/regulation/regulation/
Designated Depository Banks Management Rules of the Shanghai International Energy Exchange	http://www.ine.com.cn/en/regulation/regulation/

Enforcement Rules of the Shanghai International Energy Exchange	http://www.ine.com.cn/en/regulation/regulation/
Administration of Abnormal Trading Behaviors Rules of the Shanghai International Energy Exchange	http://www.ine.com.cn/en/regulation/regulation/
Administration of Accounts Involving Actual Control Relationship Rules of Shanghai International Energy Exchange	http://www.ine.com.cn/en/regulation/regulation/
Market-Making Management Rules of Shanghai International Energy Exchange	http://www.ine.com.cn/en/regulation/regulation/
Glossary of the Rules of the Shanghai International Energy Exchange in Chinese and English	http://www.ine.com.cn/en/regulation/regulation/

VI. Disclaimer

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