

MARKETS AND INFRASTRUCTURE 2019

Shanghai Stock Exchange



A low-angle photograph of the Shanghai Stock Exchange building, a modern skyscraper with a distinctive white, lattice-like structural frame and large glass windows. The building is set against a clear blue sky. In the foreground, a city street with a crosswalk and some trees is visible. The image is overlaid with a semi-transparent blue rectangle containing text.

VISION AND MISSION

At this new starting point, the Exchange will keep the mission in mind, work with all sectors to develop the Exchange into a world-class exchange, which can effectively serve the nation's reform and development initiatives, efficiently allocate domestic and international resources and multiply the global influence of China's capital markets.

MARKETS AND INFRASTRUCTURE

SHANGHAI STOCK EXCHANGE

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CHAPTER I

Overview

History, Development and International Ranking

Shanghai is Mainland China's first city to see the emergence of stocks, stock trading and stock exchanges. Stock trading started in Shanghai as early as the 1860s. In 1891, the Shanghai Share Brokers Association, an early form of stock exchange, was established in Shanghai. Later in the 1920s, with the founding of the Shanghai Securities Goods Exchange and the Shanghai Chinese Securities Exchange, Shanghai emerged as the financial center of the Far East, where both Chinese and foreign investors could trade stocks, bonds, and futures. In 1946, the Shanghai Chinese Security Exchange was renamed the Shanghai Securities Exchange Co., Ltd. Later in 1949, all securities trading venues were closed down.

Since 1980, China's securities market has grown in tandem with the reform and opening up of the country and the development of the socialist market economy. In 1981, the offer-

ing of treasury bonds was resumed. In 1984, stocks and enterprise bonds were issued in Shanghai and other regions. On November 26, 1990, the Shanghai Stock Exchange (the Exchange) was established, and on December 19 of the same year, it started formal operations.

Under the strong leadership of the CPC Central Committee and the State Council and the direct guidance of the CSRC, along with fervent support from all sectors of society, the Exchange makes it its mission to serve the nation's reform and development initiatives. In line with the principles of rule by law, regulation, self-discipline and compliance, the Exchange has been committed to creating a transparent, open, reliable and efficient marketplace and fulfilling its frontline role in market organization, oversight and development over the past 20 plus years.



Left: The Shanghai Stock Exchange's original site - Astor House Hotel in the old financial street on the Bund.

Right: Mr. Zhu Rongji attending the opening ceremony of the Shanghai Stock Exchange. The event attracted more than 500 distinguished guests from home and abroad.

I. The Exchange's scope of business and functions include:

- providing venues, facilities and services for centralized securities trading; formulating and revising business rules of the Exchange;
- formulating and revising business rules of the Exchange;
- reviewing and arranging for listing and trading of securities and making decisions on the securities' suspension, resumption, termination of listing and re-listing;
- arranging transfers for non-public offering securities;
- organizing and overseeing securities trading;
- organizing and implementing innovation in trading instruments and trading mechanisms;
- carrying out supervision of the members;
- exercising supervision over listed companies and relevant persons who have information disclosure obligations;
- exercising supervision over securities institutions' services of listing and trading of securities;
- establishing or participating in the establishment of securities registration and clearing companies;

- managing and releasing market information;
- providing investor education and protection; and
- other functions stipulated by laws, administrative regulations and permitted or authorized by the CSRC.

After 29 years of rapid development, the Exchange has grown into a comprehensive, open and service-oriented exchange. With a complete market structure, the Exchange provides products of stocks, bonds, funds and derivatives; has world class trading systems and communications infrastructure which can support the efficient and stable operation of the Shanghai securities market; and has an effective self-regulatory system which can ensure the regulated and orderly operation of the Shanghai securities market. With these advantages, the Shanghai securities market has grown rapidly both in its size and the number of investors, making the Exchange one of the most representative emerging capital markets. According to statistics of the World Federation of Exchanges (WFE), the Exchange ranked 4th, 7th and 2nd respectively in terms of total market capitalization, total turnover, and capital raised in 2018, becoming one of the top exchanges in the world.

Market Cap			Turnover			Capital Raised		
Exchange	USD\$ tn	Ranking	Exchange	USD\$ tn	Ranking	Exchange	USD\$ tn	Ranking
NYSE	20.7	1	Nasdaq	43.7	1	NYSE	106.79	1
Nasdaq	9.8	2	NYSE	22.9	2	SSE	92.93	2
JPX	5.3	3	BGM	16.0	3	Euronext	80.38	3
SSE	3.9	4	BCE	11.8	4	HKEX	69.10	4
Euronext	3.7	5	SZSE	7.6	5	SZSE	59.11	5
HKEX	3.8	6	JPX	7.2	6	LSE	38.31	6
LSE	3.6	7	SSE	6.1	7	ASE	37.59	7

Data Source: WFE, as of the end of 2018

Market Overview

The Exchange's markets for stocks, bonds, funds and derivatives maintained stable operation in 2018. For the stock market, there were 1,450 companies listed on the Exchange with an increase of 54 companies over 2017; the total market capitalization stood at RMB 27.0 trillion, down by 18.7% from 2017; a total of 57 new companies were listed on the Exchange with a decrease of 157 companies over 2017; the total capital raised throughout the year amounted to RMB 611.4 billion with a decrease of 19.3% over 2017; the total turnover stood at RMB 40.3 trillion, with a daily average turnover of RMB 165.9 billion, down by 20.8% from 2017.

For the bond market, there were 12,089 bonds listed on the Exchange, up by 1,703 bonds or 16.4% from 2017; the volume of outstanding bonds stood at RMB 8.4 trillion, up by 13.2% from 2017; the total turnover reached RMB 216.9 trillion, with a daily average turnover of RMB 892.8 billion, a decrease of 11.9% from 2017; and the total capital raised from corporate bonds amounted to RMB 1.8 trillion, up by 19.0% from 2017.

For the fund market, there were 233 funds listed on the Exchange, up by 31 funds or 15.3% from 2017; the total market value of these funds stood at RMB 449.0 billion, an increase of 38.7% from 2017; the total turnover

throughout the year amounted to RMB 7.2 trillion, with a daily average turnover of RMB 29.5 billion, down by 7.6% from 2017.

For the derivatives market, there were a total of 494 SSE 50 ETF options contracts listed on the Exchange; the total trading volume amounted to 320 million contracts, with an average daily trading volume of 1.3 million contracts, up by 72.6% from 2017; the year-end open interest was 1.96 million contracts, with a daily average open interest of 1.8 million contracts, an increase of 8.4% from 2017; the total face value of the contracts traded stood at RMB 8.4 trillion, with a daily average of RMB 34.4 billion, up by 72.8% from 2017; the total premium trading volume reached RMB 179.8 billion, with a daily average of RMB 740 million, up by 102.1% from 2017.

With regard to the Shanghai-Hong Kong Stock Connect scheme, 577 stocks were covered by the North bound Trading Link, the total turnover amounted to RMB 2.7 trillion, the market value of stocks held by Northbound Trading Link investors stood at RMB 443.7 billion, with a daily average usage rate of 3.0%; and 323 stocks were included in the Southbound Trading Link, the total turnover reached RMB 1.5 trillion, the market value of stocks held by Southbound Trading Link investors stood at RMB 691.4 billion, with a daily average usage



Launch of the SSE STAR Market

rate of 3.9%.

On November 5, 2018, Chinese President Xi Jinping delivered a keynote speech at the inaugural China International Import Expo (CIIE), announcing that “China will launch a science and technology innovation board (‘the SSE STAR Market’) and the pilot registration-based IPO system at the Shanghai Stock Exchange, support Shanghai’s bid to become an international financial center and science and innovation hub, and steadily improve the foundations of the domestic capital market.” All of these initiatives help strengthen the country’s multi-level capital market system, make the capital market more effective at supporting the real economy, and promote Shanghai as a center for international finance and innovation. They have also charted a viable course by which the Exchange can improve market functions, institutional frameworks, and market inclusiveness. By design, the SSE STAR Market oper-

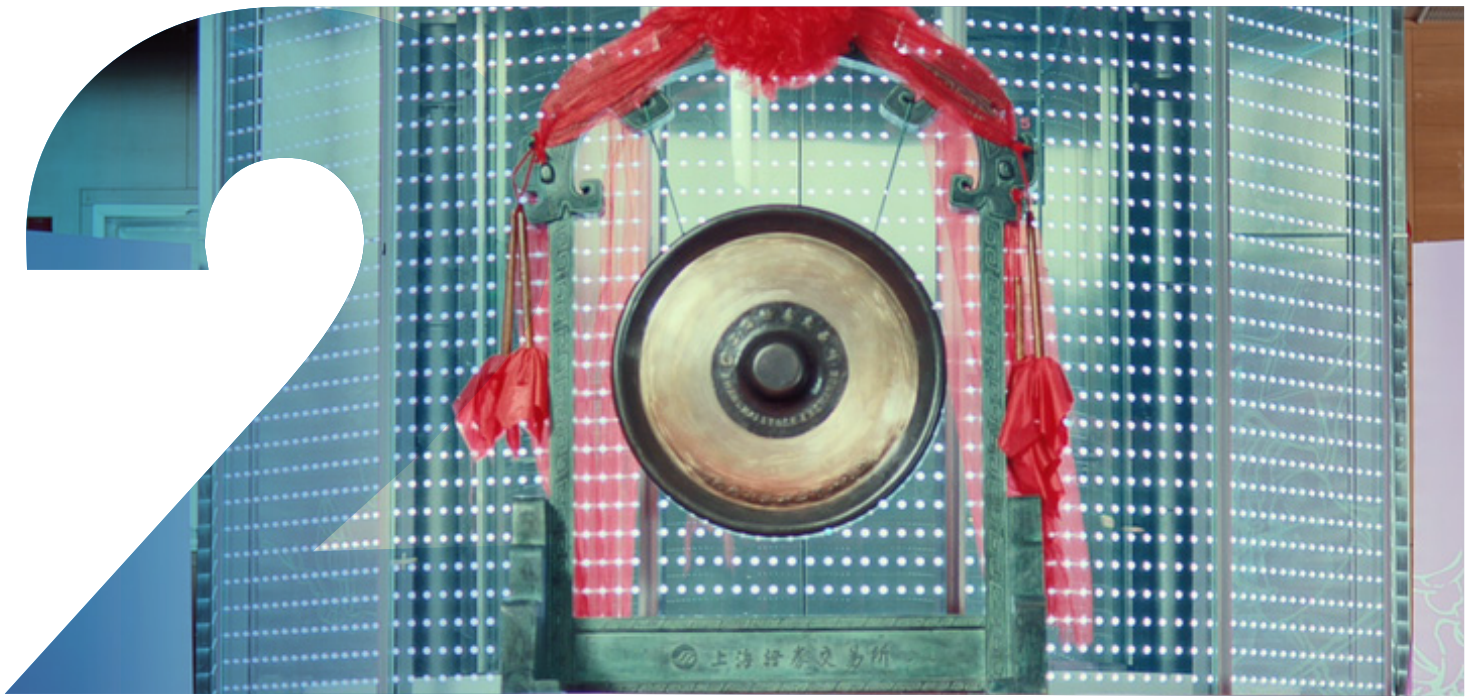
ates on a disclosure-driven, registration-based IPO system, and is committed to supporting sci-tech and innovative enterprises that align with national strategies, hold core and breakthrough technologies, and enjoy a high degree of market recognition. Under the leadership of the China Securities Regulatory Commission (CSRC) and with the support of the Shanghai Municipal Government, the Exchange was able to develop the main frameworks, procedures, rules, and guidelines for the SSE STAR Market and the pilot registration-based IPO system in a mere four months. Following the publication of these documents and the necessary preparations, on June 13, 2019, at the opening ceremony of the 11th Lujiazui Forum, the SSE STAR Market made its official debut. And on July 22, 2019, the first group of 25 companies became listed for public trading, which marked the successful completion of the one of the major tasks in the reform of China’s capital market.

Vision, Mission and Strategy

At present, China is at a decisive stage of completing the building of a moderately prosperous society and at a critical period for rejuvenating the nation. As China’s economic growth enters the New Normal and the supply-side structural reform deepens, China’s capital market faces new challenges and opportunities. As a key component of China’s securities and futures markets, the Exchange duly implements the directives of President Xi Jinping on the capital market. And in accordance with the decisions of the CPC Central Committee, the State Council and the CSRC, the Exchange is committed to pursuing progress while ensuring stability, implementing new development philosophies, adhering to principles, and supporting the supply-side structural reform and the national campaigns on risk management, poverty reduction, and pollution control. The Exchange also strives to support the real econ-

omy, control financial risks, and advance financial reform; enhance innovations in the capital market by building on the SSE STAR Market and the pilot registration-based IPO system; promote market functions, rule of law, professionalism, and risk management; and create synergy and pursue qualitative growth, so as to build a well-regulated, transparent, open, vibrant, and resilient capital market.

Founded in 1990, the Exchange is young, but it is a developing and open exchange. At this new starting point, the Exchange will keep the mission in mind, work with all sectors and effectively maintain an open and fair market, effectively allocate international and domestic resources, effectively prevent market risks, and strive to develop the Exchange into a safe, efficient, functionally complete, and world’s leading exchange to match China’s socialist modernization powers.



CHAPTER II

Public Offering and Listing Arrangements

Arrangements for IPO and Listing on the Main Board

I. Requirements for IPO

Eligibility Criteria for Issuers

- The issuer shall be a company limited by shares established and existing under the laws of China.

When a limited liability company is lawfully converted into a company limited by shares upon the approval of the State Council, it may issue stocks to the public by means of a public offer.

- The issuer shall be in continuous operation for more than three years since its incorporation as a company limited by shares, unless otherwise approved by the State Council.

Where a limited liability company in its entirety is converted into a company limited by shares based on the original book value of its net assets, the continuous operation period maybe calculated from the date on which the limited liability company is incorporated.

- The issuer shall have paid up the registered capital in full and completed the procedures for the transfer of the title to assets contributed as capital by its founders or shareholders and there shall be no material dispute over the ownership of the issuer's major assets.
- The business operations of the issuer shall comply with laws, administrative regulations, its articles of association and the State's industrial policies.

- In the most recent three years, there shall have been no significant change in the issuer's principal business lines, directors and senior officers, nor any change of its de facto controller.

- The equity structure of the issuer shall be clearly defined and there shall be no major dispute over the ownership of shares held by its controlling shareholder, by the shareholders under the control of its controlling shareholder or de facto controller.

Proper Operation

- The issuer shall have established, in accordance with the law, sound arrangements for shareholders' meeting, board of directors, board of supervisors, independent directors and secretary to the board of directors so that relevant departments and personnel can perform their duties pursuant to the law.

- The issuer's directors, supervisors and senior officers shall have understood laws and regulations related to the IPO and listing of stocks and shall be aware of the statutory responsibilities and obligations of a listed company and its directors, supervisors and senior officers.

- The issuer's directors, supervisors and senior officers shall meet the qualifications provided by laws, regulations and rules, and shall not: 1) be subject to an existing securities market ban imposed by the CSRC; 2) be subject to any administrative penalty imposed



The only listed stocks, known as the "eight old stocks", when the Shanghai Stock Exchange officially started operations on Dec 19, 1990.

by the CSRC within the last 36 months or any public censure by a stock exchange within the last 12 months; 3) be under investigation by the judiciary authority for a suspected criminal offence or under investigation by the CSRC for a suspected violation of laws and regulations, where no definitive and conclusive opinion has been issued.

■ The issuer's internal control system shall be soundly established and effectively implemented, which can reasonably guarantee the reliability of its financial reports, the legitimacy of its business activities, and the efficiency and effectiveness of its operations.

■ The issuer shall not:

- 1) have made public offering or disguised public offering of securities without the approval of the statutory authority within the last 36 months; or have any relevant violations of laws which occurred 36 months ago, but lasts up to now;
- 2) be subject to administrative penalties within the last 36 months for any serious violations of laws and regulations on commerce and industry, taxation, land, environmental protection, customs and other issues;
- 3) have, within the most recent 36 months, submitted to the CSRC its IPO application which contain any false representations, misleading state-

ments, or material omissions; or have obtained an approval for IPO by deceptive means when it fails to meet the requirements for IPO; or have improperly interfered with the review work of the CSRC and its Public Offering Review Committee; or have forged or altered the signature or seal of the issuer or any of its directors, supervisors or senior officers.

4) have any false representations, misleading statements, or material omissions in its current IPO application documents.

5) be under investigation by the judiciary authority for a suspected criminal offence, where no definite and conclusive opinion has been issued; or

6) fall under any other circumstances where investors' legitimate rights and interests and the public interest are seriously damaged.

■ The issuer's articles of association shall specify the approval authority and deliberation procedures for external guarantees and no improper guarantee shall be provided to its controlling shareholder, de facto controller or any other enterprise under their control.

■ The issuer shall have a strict system for funds management and shall not have its funds used for loans, debt repayments, advance payments and other purpose by its controlling shareholder, de facto controller or any other enterprise under their control.

Finance and Accounting

- The issuer shall have quality assets, a reasonable asset-liability structure, strong profitability and normal cash flows.
- The issuer's internal control system shall be effectively implemented in all material respects and the issuer shall have obtained an unqualified internal control assurance report from a certified public accountant (CPA).
- The issuer's basic accounting work shall be carried out properly and the preparation of its financial statements shall comply with the Accounting Standards for Business Enterprises and relevant accounting rules and shall give, in all material respects, a fair presentation of its financial position, results of operations and cash flows, and the issuer shall have obtained an unqualified audit report issued by a CPA.
- The issuer shall prepare its financial statements based on transactions or events which have actually occurred; shall exercise due prudence

in its accounting recognition, measurement and reporting activities; and for same or similar business transactions, accounting policies shall be consistent and not be changed arbitrarily.

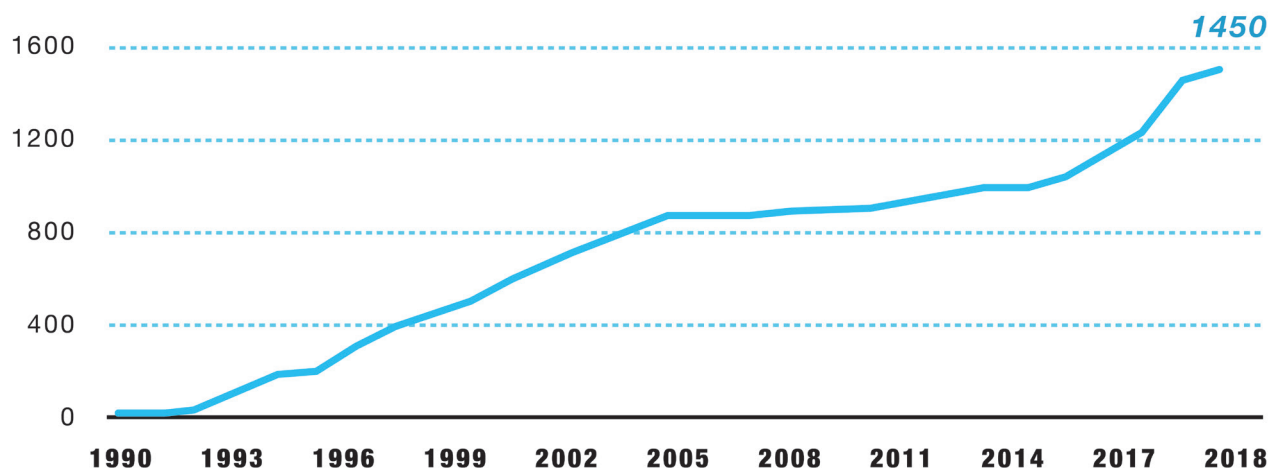
- The issuer shall fully disclose related-party relationships and make an appropriate disclosure of related-party transactions based on the principle of materiality. The issuer shall enter into related-party transactions at a fair price and shall not manipulate profits through related-party transactions.

- The issuer shall meet the following criteria:
 - 1) Its net profits are positive for the last three consecutive financial years, with the aggregate amount exceeding RMB 30 million, and net profits shall be calculated based on the amount before or after the deduction of non-recurring losses and profits, whichever is smaller.
 - 2) Its accumulated net cash flows from operating



IPO Ceremony at the Trading Hall of SSE

No. of listed companies (SSE)



Data source: SSE, as of the end of 2018

activities for the last three consecutive financial years exceed RMB 50 million; or the accumulated revenue for the last three consecutive years exceeds RMB 300 million.

3) Its total pre-IPO share capital is no less than RMB 30 million;

4) Its intangible assets (excluding land use rights, water use rights for aquaculture and mining rights, etc.) do not exceed 20% of its net assets by the end of the latest accounting period; and

5) No loss has been left uncovered by the end of the latest accounting period.

Pilot enterprises identified by the China Securities Regulatory Commission in accordance with the Several Opinions on Launching the Pilot Program of Domestically Issuing Stocks or Depository Receipts by Innovative Enterprises and other provisions may not be subject to the first and fifth items under the preceding paragraph.

■ The issuer shall pay tax in accordance with the law and any tax break taken by the issuer shall be in accordance with relevant laws and regulations. The issuer's operating results shall not be heavily reliant on tax preferences

■ The issuer shall be free of any major debt

servicing risk and shall not be involved in any guarantee, lawsuit, arbitration or other significant contingencies which may have an impact on its continuing operation.

■ In its application documents, the issuer shall not:

- 1) omit or fabricate transactions, events or other important information deliberately;
- 2) misuse accounting policies or accounting estimates; or
- 3) manipulate, forge or tamper with accounting records or relevant vouchers based on which financial statements are prepared.

■ The issuer shall not fall under any of the following circumstances which adversely affect its sustained profitability:

- 1) There has been or will be a significant change in the issuer's business model or the range and structure of its products or services, which may have a material adverse impact on the sustained profitability of the issuer;
- 2) There has been or will be a significant change in the issuer's position or the business environment of its industry, which may have a material adverse impact on the sustained profitability of the issuer;

3) The issuer's revenue or net profits for the latest financial year is heavily reliant on its related parties or any customer to whom material uncertainty may occur;

4) A significant part of the issuer's net profits for the latest financial year is generated from investment income which is not included in its consolidated financial statements;

5) There is any risk of a material adverse change in the acquisition or use of major assets or technologies under use, such as trademarks, patents, proprietary techniques and franchises;

6) Any other circumstances which are likely to have a material adverse impact on the sustained profitability of the issuer.

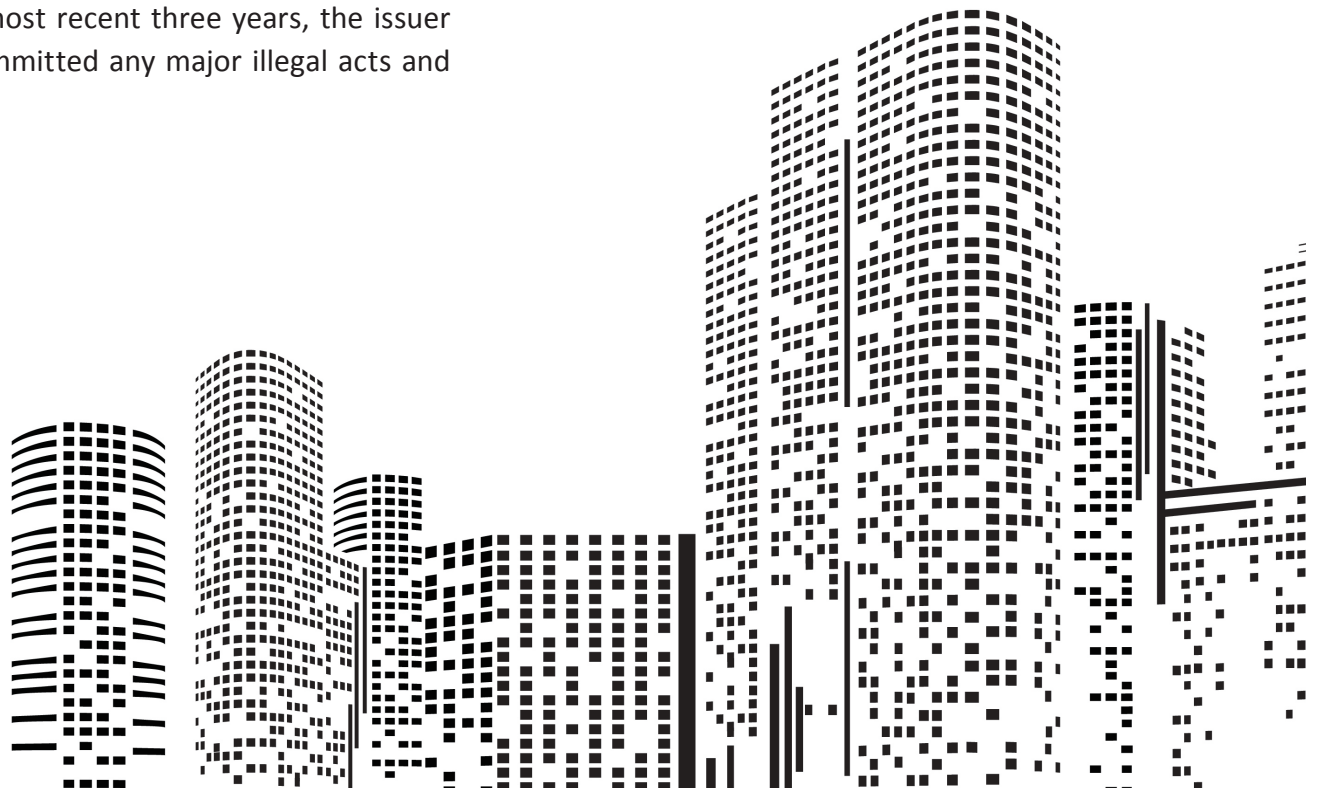
II. Requirements for Listing of IPO Stocks

An issuer's application for listing of its stocks on a stock exchange after an IPO shall meet the following requirements:

- The stocks have been issued to the public with the approval of the CSRC;
- The issuer's total share capital is no less than RMB 50 million;
- The publicly held stocks accounts for more than 25% of the issuer's total stocks; for an issuer whose total share capital exceeds RMB 400 million, such percentage is 10%;
- In the most recent three years, the issuer has not committed any major illegal acts and

there have been no false records in its financial reports; and

- Other requirements as may be imposed by the Exchange.



Arrangements for IPO and Listing on the SSE STAR Market

I. Market Positioning

The SSE STAR Market has a clear positioning as required by the *Implementation Opinions on Establishing the Sci-Tech Innovation Board and Piloting the Registration-based IPO System on the Shanghai Stock Exchange*. The market focuses on the forefront of science and technology, China's economic development, and major national needs. It aims to support sci-tech and innovative enterprises that align with national strategies, hardcore and breakthrough technologies, and enjoy a high degree of market recognition. Priorities are given to high-tech and strategic emerging industries such as next-generation information technology, high-end equipment, new materials, new energy, energy conservation and environmental protection, as well as biomedicine. The SSE STAR Market promotes the deep integration of internet, big data, cloud computing, artificial intelligence, and manufacturing. It seeks to bolster mid- and high-end consumption and to propel a change in quality, efficiency and driving force for economic development. The Exchange publishes a detailed list of specially supported industries and updates actively.

II. Requirement for IPO

Eligibility Criteria for Issuers

The issuer shall be a duly incorporated company limited by shares that has been in continuous operation for more than three years. The issuer shall also have a sound and well-functioning internal organization, with relevant bodies and personnel being capable of performing their duties according to law. Where a limited liability company in its entirety is converted into a company limited by shares based on the original book value of its net assets, the continuous operation period may be calculated from the date on which the limited liability company is incorporated.



The issuer shall have a complete line of business and the ability of operating as a going concern in the market:

- The issuer shall have complete assets and independent business lines, personnel, financial operations, and internal bodies. Between the issuer and its controlling shareholders, de facto controllers, and any other enterprises they control, there shall be no horizontal competition that materially and adversely impacts the issuer, nor any related-party transactions that materially undermine the independence of the issuer or are grossly unfair.

- The issuer shall have stable principal business lines, right of control, management team, and core technical team. There shall have been no material adverse changes to the principal business lines, directors, senior officers, and core technical staff in the most recent two years. There shall be clear ownership of the

issuer's shares held by its controlling shareholders and by the shareholders under the control of its controlling shareholders or de facto controllers. And, in the most recent two years, there shall have been no change of the de facto controllers or any major dispute over share ownership that might result in a change of right of control of the issuer.

- The issuer shall be free from major disputes of ownership over major assets, core technologies, and trademarks; contingent events such as major repayment risks, major guarantees, litigation, and arbitration; and major changes to its operating environment, whether or not having already occurred; or any other circumstance, that materially and adversely affect its ability to continue as a going concern.

Finance and Accounting

The issuer shall have a proper accounting program. The preparation and disclosure of financial statements shall comply with the Accounting Standards for Business Enterprises and relevant disclosure rules and shall give, in all material respects, a fair presentation of the issuer's financial position, results of operations, and cash flows. The financial statements shall be accompanied by a standard unqualified audit report issued by a CPA.

The issuer shall have a sound and effectively implemented internal control system which shall provide reasonable assurance as to the issuer's operational efficiency, state of compliance, and the reliability of its financial reports. The issuer shall have obtained an unqualified assurance report from a CPA on the internal control system.

Compliant Operations

The issuer's production and operations shall comply with laws, administrative regulations, as well as China's industrial policies.

In the most recent three years, the issuer and its controlling shareholders and de facto controllers shall *not* have committed any criminal offence of corruption, bribery, embezzlement of property or funds, misappropriation of property, or undermining of the socialist market economic order; or any major illegal act of fraudulent issuance, major disclosure violation, or any other act that undermines national security, public safety, ecological security, production safety, or public health and safety.

In the most recent three years, the issuer's directors, supervisors, and senior officers shall *not* have been subject to any administrative penalty imposed by the CSRC; or have been under formal inves-

tigation by the judicial authorities for a suspected criminal offence or formal investigation by the CSRC for a suspected violation, for which no definitive conclusion or opinion has been issued.

Others

Where the issuer implements such programs as employee stock ownership plan, option incentive scheme, or loss carry forward with respect to pre-conversion, accumulated losses, it shall comply with the relevant provisions under Q&As on the Review of Offering and Listing of Stocks on the Science and Technology Innovation Board of Shanghai Stock Exchange.

III. Requirements for Listing on the SSE STAR Market

Domestic Enterprises

An issuer that applies for initial public offering on the SSE STAR Market shall meet the listing criteria prescribed in the *Rules Governing the Listing of Stocks on the Science and Technology Innovation Board of Shanghai Stock Exchange*.

Except as provided in Articles 23 and 24 of *Rules Governing the Review of Offering and Listing of Stocks on the Science and Technology Innovation Board of Shanghai Stock Exchange*, an issuer applying for IPO shall additionally meet at least one of the following listing criteria. The specific listing criterion selected shall be explicitly indicated in the issuer's prospectus and in the sponsor's listing sponsorship letter:

- It has an estimated market capitalization of no less than RMB 1 billion and recorded a net profit in each of the last 2 years totaling no less than RMB 50 million, or has an estimated market capitalization of no less than RMB 1 billion and recorded a net profit in the last year on an operating revenue of no less than RMB 100 million;
- It has an estimated market capitalization of no less than RMB 1.5 billion and recorded an operating revenue of no less than RMB 200 million during the last year, with its total R&D investment during the last 3 years accounting for no less than 15 percent of the total operating revenue within such years;
- It has an estimated market capitalization of no less than RMB 2 billion, recorded an operating revenue of no less than RMB 300 million during the last year, and achieved total net cash flows from operating activities of no less than RMB 100 million during the last 3 years;
- It has an estimated market capitalization of no less than RMB 3 billion and recorded an operating revenue of no less than RMB 300 million during the last year; or



On July 22, 2019, the first batch of 25 companies debuts on the SSE STAR Market.

■ It has an estimated market capitalization of no less than RMB 4 billion and its main businesses or products require the approval of national government authorities, have tremendous market potential, and have already achieved milestone progress. In the case of a

pharmaceutical enterprise, at least one of its core products shall have been approved for phase II clinical trial; in the case of any other eligible enterprise, it shall possess a significant technological edge and meet the corresponding requirements.

The net profit mentioned in the preceding paragraphs refers to the lower of the net profit before or after non-recurring gain or loss; and the net profit, operating revenue, and net cash flows from operating activities all mean the audited amount thereof.

Subject the approval of the CSRC, the Exchange may modify the above criteria according to market conditions.

Red Chip Enterprises

A red chip enterprise which complies with the relevant provisions of the *Notice of the General Office of State Council on Forwarding the Opinions of the CSRC on Launching the Pilot Program of Offering Stocks or Depositary Receipts in China by Innovative Enterprises* (Guo Ban Fa [2018] No. 21) may apply to make an offering of shares or depositary receipts and list them on the SSE STAR Market.

To apply for such an offering and listing, an overseas unlisted red chip enterprise with fast growing operating revenue, independently developed and internationally leading technologies, and relative competitive edge over its peers, shall at least meet one of the following criteria on market capitalization and financial indicators. The specific listing criterion selected shall be explicitly indicated in the issuer's prospectus and in the sponsor's listing sponsorship letter:

- It has an estimated market capitalization of no less than RMB 10 billion; or
- It has an estimated market capitalization of no less than RMB 5 billion and recorded an operating revenue of no less than RMB 500 million during the last year.

Enterprises Implementing Differential Voting Rights (DVR)

Where an issuer with DVR arrangements applies to make an offering of shares or depositary receipts and list them on the SSE STAR Market, its DVR and related arrangements shall comply with the provisions of the *Rules Governing the Listing of Stocks on the Science and Technology Innovation Board of Shanghai Stock Exchange* and other rules. The issuer shall meet at least one of the following listing criteria. The specific listing criterion selected shall be explicitly indicated in the issuer's prospectus and in the sponsor's listing sponsorship letter:

- It has an estimated market capitalization of no less than RMB 10 billion; or
- It has an estimated market capitalization of no less than RMB 5 billion and recorded an operating revenue of no less than RMB 500 million during the last year.

The issuer's eligibility criteria for the holders of DVR shares and the specific provisions of its Articles of Association regarding DVR arrangements shall comply with the provisions of Section 5 of Chapter IV of the *Rules Governing the Listing of Stocks on the Science and Technology Innovation Board of Shanghai Stock Exchange*.

IV. Offering and Underwriting

Pricing by Way of Inquiry

An issuer making initial public offering shall determine the offering price through a price inquiry process involving securities companies, fund management companies, trust companies, finance companies, insurance companies, qualified foreign institutional investors, privately offered fund managers, and other specialized institutional investors (collectively “investors under the placing tranche”).

An issuer and its lead underwriter shall, before the commencement of the subscription, disclose the median and the weighted average of residual bids (excluding the highest bids) from investors under the placing tranche; the median and the weighted average of residual bids from publicly offered securities investment funds and other stock-oriented asset management products (“publicly offered products”), National Social Security Fund (“Social Security Fund”), and basic pension insurance funds (“pension funds”); and other pertinent information.

After the completion of the preliminary price inquiry process, if the offering price (or the median of the offering price range) determined by an issuer and its lead underwriter exceeds the lower of the median and the weighted average as specified in the preceding paragraph, the issuer and its lead underwriter shall publish a special announcement on investment risks at least one week before subscription starts.

Placing Tranche and Subscription Tranche

In an IPO on the SSE STAR Market, the issuer shall comply with the following provisions with respect to the size of the placing tranche:

- If the total post-IPO capital stock does not exceed 400 million shares, the initial size of the placing tranche shall account for not less than 70% of the shares to be offered in the IPO;
- If the total post-IPO capital stock exceeds 400 million shares or the issuer has not yet made a profit, the initial size of the placing tranche shall account for not less than 80% of the shares to be offered in the IPO;
- The issuer shall first place no less than 50% of the shares to be offered under the placing tranche, to publicly offered products (including those established for investors who do not meet the investor suitability requirements of the SSE STAR Market), Social Security Fund, pension funds, corporate annuity funds established in accordance with the *Measures for the Administration of Corporate Annuity Funds* (“corporate annuity funds”), and insurance funds that satisfy the *Measures for the Administration of the Utilization of Insurance Funds* and other applicable regulations (“insurance funds”).
- If the shares are placed to investors under the placing tranche by investor category, the percentage of the shares placed to each investor of the same category shall be identical. The percentage of the shares placed to publicly offered products, Social Security Fund, pension funds, corporate annuity funds, and insurance funds shall not be lower than that of those placed to other investors.

If the number of shares validly subscribed for by investors under the subscription tranche is more than 50 times but no more than 100 times the initial size of the subscription tranche in the IPO, the issuer shall transfer 5% of the shares to be offered in the IPO from the placing tranche to the subscription tranche; if the number of shares validly subscribed for by investors under the subscription tranche is more than 100 times the initial size of the subscription tranche, the issuer shall transfer 10% of the shares to be offered in the IPO from the placing tranche to the subscription tranche; after the transfer, the shares to be offered under the placing tranche without a lock-up period shall generally be no more than 80% of the shares to be offered in the IPO.

Subscription

The investor may participate in the subscription under the subscription tranche only if the investor meets the investor suitability requirements of the SSE STAR Market and the market value of relevant assets held by the investor is no less than RMB 10,000. The investor may subscribe for one subscription unit for each RMB 5,000 increment in market value. Any amount below the RMB 5,000-threshold is not applied toward the subscription quota of the investor.

Each subscription unit of a new stock shall be 500 shares. The number of the shares subscribed for by an investor shall be 500 shares or a multiple thereof, but not more than the lower of (a) one thousandth of the initial size of the subscription tranche and (b) 99.9995 million shares; otherwise, the subscription shall be void.

Strategic Investors

Shares to be offered in an IPO may be placed to strategic investors.

If no less than 100 million shares are to be offered in the IPO, the total number of shares placed to strategic investors shall generally be no more than 30% of the shares to be offered in the IPO; if less than 100 million shares are to be offered in the IPO, the total number of shares placed to strategic investors shall be no more than 20% of the shares to be offered in the IPO. Strategic investors shall undertake to hold the placed shares for a period of no less than 12 months.

There shall be no more than 30 strategic investors if no less than 400 million shares of stocks are to be offered in the IPO, no more than 20 if 100 million to 400 million shares (exclusive) are to be offered in the IPO, and no more than 10 if less than 100 million shares are to be offered in the IPO.

The senior officers and key employees of an issuer may establish a special asset management plan to participate in the pre-IPO strategic placement. The number of shares placed to such plan shall be no more than 10% of the shares to be offered in the IPO.

Strategic Placement to Subsidiaries of Sponsors

The SSE STAR Market allows, on a pilot basis, for the participation of relevant subsidiaries of sponsors in strategic placements. An issuer's sponsor shall participate in pre-IPO strategic placement through an alternative investment subsidiary legally incorporated by the sponsor or an alternative investment subsidiary legally incorporated by a securities company which exercises de facto control

over the sponsor, and set a lock-up period for the shares so placed.

A relevant subsidiary of the issuer's sponsor who intends to participate in the issuer's placement shall enter into a placement agreement with the issuer in advance to undertake to subscribe for 2% to 5% of the issuer's IPO shares at the offering price, and such percentage shall be determined according to the specific size of the IPO. In addition, the aforesaid relevant subsidiary shall undertake to hold the placed shares for a period of 24 months upon the IPO and listing of the issuer's shares.

Brokerage Commission for Placement of New Shares

The underwriters of an issuer shall collect, from investors who have received shares through strategic placement or the placing tranche, commissions for the placement, at not lower than a certain percentage of the amount payable by the investors in exchange for the placed shares, except for any investors who are the underwriters who have received the shares as part of their sponsorship activities or for performing their obligations in a firm commitment underwriting.

Overallotment Option

An issuer and its lead underwriter may adopt an over-allotment option in the offering plan.

The number of shares to be offered through over-allotment shall not exceed 15% of the shares to be offered in the IPO.

Arrangements for Offering and Listing of Bonds

Any issuer that has publicly offered corporate bonds shall meet the following requirements of the *Securities Law of the People's Republic of China* ("Securities Law") to list its corporate bonds on a stock exchange:

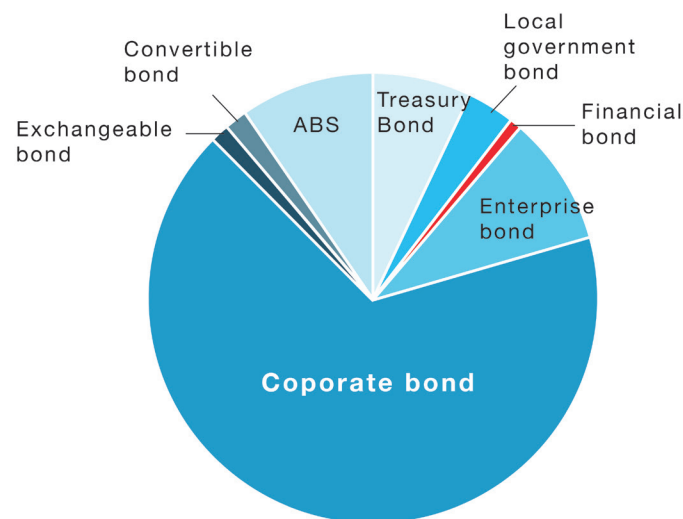
- The corporate bonds have a term of more than one year;
- The actual issuance volume of the corporate bonds is no less than RMB 50 million.
- When applying for listing the bonds, the issuer shall still meet the statutory requirements for public offering of corporate bonds.

The Exchange's requirements for listing corporate bonds are mainly set forth in the *Rules Governing the Listing of Corporate Bonds on the Shanghai Stock Exchange* ("Listing Rules"). Section 2.1.1 of the *Listing Rules* provides that an issuer that applies to the Exchange for listing of its bonds shall:

- meet the requirements for listing of bonds specified in the *Securities Law*;
- have completed the public offering of its bonds in accordance with the law upon the approval of the competent authorities;
- meet the statutory requirements for public offering of bonds when applying for listing of its bonds;
- ensure that its bond holders observe the investor suitability rules of the Exchange; and
- satisfy other requirements as may be imposed by the Exchange.

The Exchange may adjust requirements for listing of bonds according to market conditions.

Pursuant to the *Listing Rules* and relevant notifications, corporate bonds publicly offered to public investors and qualified investors may be traded in the form of auction trades, quotation trades, price inquiry-based trades and trades by agreement. Corporate bonds which are publicly offered to qualified investors only and fail to meet the following criteria may be traded in the form of quotation trades, price inquiry-based trades and trades by agreement:



SSE Fixed Income Products	Number of Listed Bonds	Outstanding Amount (RMB bn)
Treasury bond	193	5764.27
Local government bond	3427	3307.9
Financial bond	15	614.39
Enterprise bond	2153	6433.18
Corporate bond	4997	61774.7
Exchangeable bond	74	1653.85
Convertible bond	73	2187.56
ABS	2648	9468.49
Total	13580	91204.34

Source: SSE, as of June of 2019

- The bonds have a credit rating of AA or above;
- Prior to listing of bonds, the issuer's net assets are no less than RMB 500 million as at the end of the latest accounting period, or its debt-asset ratio is no higher than 75% as at the end of the latest accounting period;

An issuer that applies to the Exchange for the listing and transfer of its non-publicly offered bonds in accordance with the *Interim Measures of the Shanghai Stock Exchange for the Administration of Non-Public Offering of Corporate Bonds* shall:

- comply with relevant provisions of the *Measures for the Administration of Offering and Trading of Corporate Bonds* and other laws and regulations;
- have completed the non-public offering of the bonds in accordance with the law;
- still meet the requirements for offering of bonds when applying for the listing and trans-

- Prior to listing of bonds, the annual distributable profits of the issuer in the latest three financial years are no less than 1.5 times the annual interest accrued on the bonds.
- Other requirements as may be imposed by the Exchange.

fer of the bond;

- ensure that its bond holders observe the investor suitability rules of the Exchange and there are no more than 200 bond holders in total; and
- meet other requirements as imposed by the Exchange.

An asset-backed security issuer that applies to the Exchange for listing of asset-backed securities in accordance with the *Guidelines of the Shanghai Stock Exchange for Asset Securitization* shall meet the following requirements:

- The underlying asset complies with relevant laws and regulations, has a clearly-defined ownership structure, and can generate independent and predictable cash flows;
- The transaction of the asset-backed security is well structured;
- The issuer has issued the asset-backed security and has completed the filing procedures in accordance with relevant rules;

- Investors of the asset-backed security observe the applicable investor suitability rules of the Exchange;
- Risk control measures adopted for the asset-backed security are in compliance with the requirements of the *Guidelines*.
- Other requirements as may be imposed by the Exchange.



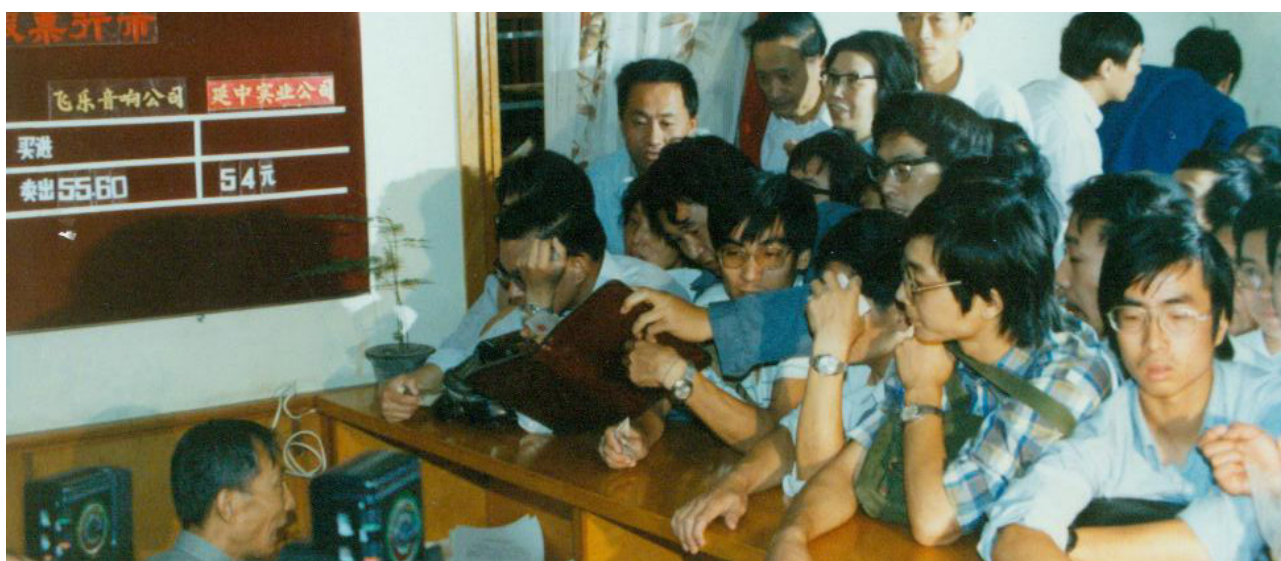


CHAPTER III

Trading Arrangements

Arrangements for Stock Trading on the Main Board

Centralized stock trading refers to the buying and selling of issued stocks at market prices among investors on a stock exchange. The existing instruments available for centralized trading include A-shares and B-shares, both of which are traded in the form of auction trading (including call auction and continuous auction) and block trading. Specific stock trading arrangements are described as follows.



Stock trading in 1986, prior to the establishment of the Shanghai Stock Exchange

Designation

The Exchange implements a designated trading system for all securities traded on the Exchange market. An investor who intends to trade securities on the Exchange market must designate one member in advance as his or its trading and clearing agent and enter into a

Designated Trading Agreement with the member. The investor is not permitted to trade securities without having his or its securities account carried by the member's Participant Business Unit (PBU).

Trading Hours

The Exchange is open for trading from Monday through Friday. The opening call auction session is from 9:15 am to 9:25 am, and the continuous auction sessions are from 9:30 am to 11:30 am and from 1:00 pm to 2:57 pm. The closing call auction session is from 2:57 pm to 3:00 pm.

In regards of block trades, the Exchange accepts intent orders from 9:30 am to 11:30 am and from 1:00 pm to 3:30 pm, execution orders and fixed-price orders from 3:00 pm to 3:30 pm. The market is closed on Saturday and Sunday as well as other days as announced by the Exchange.

Auction Trading			
Morning Session		Afternoon Session	
9:15-9:25	9:30-11:30	13:00-14:57	14:57-15:00
Opening call auction	Continuous auction	Continuous auction	Closing call auction
Block Trading			
9:30-11:30		13:00-15:00	15:00-15:30
Intent orders accepted			
		Execution orders and Fixed-price orders accepted	

Order Submission

After entering into a self-service trading agreement with a member of the Exchange, a client may buy or sell securities through the member by placing limit orders or market orders in written form or through self-service channels such as telephone, self-service trading terminals or the internet. Each order placed by the client includes, among others, the securities account number of the client, the code of the security, buy or sell, the instructed quantity and the instructed price. When buying stocks through auction trading, each order shall be in multiples of 100 shares. When selling stocks, any remaining quantity less than 100 shares shall be sold in a single order. The maximum size of an order for stocks is one million shares.

Order Execution

During the trading of stocks on the Exchange market, orders are matched and executed based on the principles of price-time priority.

In call auction, all trades shall be executed at the same execution price, which is determined according to the following principles:

During block trading, the intended trading volume of an order for A-share shall be no less than 300,000 shares or its transaction value shall be no less than RMB 2 million; and the intended trading volume of an order for B-shares shall be no less than 300,000 shares or its transaction value shall be no less than USD 200,000.

The tick size of an order for A-shares is RMB 0.01 and for B shares is USD 0.001. During auction trading, A-shares and B shares are subject to a price limit of 10% on each trading day except for their first trading day of IPO, follow-on offerings, resumption of listing after suspension or relisting after being delisted. Stocks under risk warnings are subject to a price limit of 5% on each trading day.

- A price that will produce the highest trading volume;
- A price that allows all buy orders to be executed with a higher bid price and all sell orders with a lower ask price to be executed; and
- A price that allows all buy orders at that

price to be executed, or all sell orders at that price to be executed, or both. Where more than one price satisfies the conditions above, the one that minimizes the unmatched volume is taken as the execution price; where the minimum unmatched volume is achieved at two or more prices that satisfy the conditions above, their average is taken as the execution price.

During continuous auction, the execution price shall be determined according to the following principles:

- Where the highest bid price matches the lowest ask price, such price shall be taken as the execution price;
- Where the bid price is higher than the currently available lowest ask price, such lowest ask price shall be taken as the execution price;
- Where the ask price is lower than the currently available highest bid price, such highest bid price shall be taken as the execution price.

For block trades, the execution price shall be any price determined by the buying and selling parties upon mutual agreement within a specified price range.

Trading Information

The Exchange will publish real-time quotations, securities indices, public information on securities trading and other trading information on each trading day. Information on the execution of block trades is disclosed on the Exchange's website (www.sse.com.cn). Pursuant to its trading rules, the Exchange publishes more detailed information on securities which rank top in terms of such metrics as the intra-day closing price deviation, price variation and turnover rate.

Margin Trading and Short Selling

Margin trading or short selling, also known as securities trading on credit, is a trade where an investor provides collateral to a securities company qualified for margin trading and short selling services in order to borrow cash to buy a listed security (margin trading) or borrow a listed security to sell it (short selling). An eligible investor may, through designated trading or by a member of the Exchange accepting his or its instruction, engage in margin trading and short selling of stocks that are approved by the Exchange for such purpose.

Arrangements for Stock Trading on the SSE STAR Market

Stocks listed on the SSE STAR Market ("STAR stocks") are traded in substantially the same way as those listed on the Main Board. In view of the characteristics of the listed companies and the relevant investors suitability requirements, the trading mechanism for STAR stocks is more market-oriented, featuring appropriately loosened price limit, adjusted order size, the introduction of after-hours fixed-price trading and availability for margin trading and short selling on the listing day.

An investor may trade STAR stocks in three ways: auction trading, after-hours fixed-price trading and block trading.

Auction Trading

The Exchange will impose a price limit of 20% on the auction trading of STAR stocks. An IPO stock will not be subject to the price limit during the first 5 trading days from being listed. If STAR stocks are traded through limit orders, the size of each such order shall be no less than 200 stocks and no more than

100,000 stocks; if they are traded through market orders, the size of each such order shall be no less than 200 stocks and no more than 50,000 stocks. The sale of such stocks with an odd lot of less than 200 stocks shall be made in one order.

After-Hours Fixed-Price Trading

The after-hours fixed-price trading refers to the trading mode under which the Exchange trading system will, after the closing call auction, match orders under the principle of time

priority, and execute such orders at the closing price of the day. The after-hours fixed-price trading is permitted for stocks from 3:05 p.m. to 3:30 p.m. on each trading day, except for



The Trading Hall of SSE before renovation

stocks remaining under trade suspension as of 3:00 p.m. on that day.

The Exchange will accept closing price orders from trading participants from 9:30 a.m. to 11:30 a.m. and from 1:00 p.m. to 3:30 p.m. on each trading day. A closing price order shall

include securities account number, securities code, brokerage branch code, buy or sell, limit price, quantity, etc. The size of each closing price order for stocks on the Science and Technology Innovation Board shall be no less than 200 shares and no more than one million

shares. The sale of such stocks with an odd lot of less than 200 shares shall be made in one order. If the closing price is higher than the limit price of a closing price buy order, such order shall be invalid; if the closing price is lower than the limit price of a closing price sell order, such order shall be invalid.

Closing price orders submitted between 9:30 a.m. and 3:05 p.m. shall not be included into the real time quotations; those submitted and executed between 3:05 p.m. and 3:30 p.m., i.e., the after-hours fixed-price trading session, shall be included into the real time quotations.

Block Trading

The Exchange accepts intent orders and execution orders for block trading of a STAR stock. Block trading of STAR stocks is not subject to relevant rules on fixed-price orders. The Ex-

change accepts intent orders and execution orders for STAR stocks each trading day during 9:30-11:30 a.m. and 1:00-3:30 p.m.

Auction Trading			
Morning		Afternoon	
9:15-9:25	9:30-11:30	13:00-14:57	14:57-15:00
Opening call auction	Continuous auction	Continuous auction	Closing call auction
After-Hours Fixed-Price Trading			
Morning		Afternoon	
9:30-11:30		13:00- 15:05	15:05-15:30
Acceptance of closing price orders			
			Matching and execution
Block Trading			
Morning		Afternoon	
9:30-11:30		13:00-15:30	
Acceptance of intent orders and execution orders			
Confirmation and execution of execution orders			

Arrangements for Bond Trading

Spot trades in bonds may be carried out through the Exchange's auction trading system, block trading system or Electronic Platform for Fixed Income Securities ("Electronic Platform") which operates auction trading, block trading and quotation-driven trading respectively. The *Detailed Implementing Rules for Bonds Transactions of the Shanghai Stock Exchange* apply to spot trades and repos in treasury bonds, corporate bonds, enterprise bonds and convertible bonds with warrants executed through the auction trading system. The *Notice on the Publication and Implementation of the Interim Rules for Trading on the Integrated Electronic Platform of Fixed Income Securities of the Shanghai Stock Exchange* applies to trades executed through the Electronic Platform.

For spot trades in bonds, the opening session of each trading day operates by call auction and continuous auctions are used thereafter. The principles of "price-time priority and client order priority" apply to auction trading. All orders for bonds must be limit orders. Bonds are traded in lots (the par value of one lot is RMB 1000). The quotation unit for bonds is RMB 100 par value. The tick size of an order for bonds is RMB 0.01. For each trading day, the opening call auction session is from 9:15 am to 9:25 am, and the continuous auction sessions are from 9:30 am to 11:30 am and from 1:00 pm to 3:00 pm. Block trading is conducted separately to avoid any overwhelming impact on small trades executed through the auction trading system. For a single order for bonds, the intended trading volume shall be no less than 1,000 lots (the par value of one lot is RMB 1000) or the transaction value shall be no less

than RMB 1 million. A single order for treasury bonds shall be no less than 10,000 lots and a single order for any other bonds shall be no less than 1000 lots, with the tick size being RMB 0.01 and the quotation unit being RMB 100 par value.

For block trades, the Exchange accepts two types of orders: intent orders and execution orders. On each trading day, the Exchange accepts intent orders from 9:30 am to 11:30 am and from 1:00 pm to 3:30 pm, and execution orders from 3:00 pm to 3:30 pm.

Quotation trades, including firm quotation trades, price inquiry-based trades, trades by agreement, trades with designated counterparties and emergency trades, may be executed through the Electronic Platform. On each trading day, the trading sessions for quotation trades are from 9:30 am to 11:30 am and from 1:00 pm to 3:00 pm, while the afternoon session for bilateral repos and tri-party repos is from 1:00 pm to 3:15 pm. The Electronic Platform classifies participants into primary dealers, general dealers and indirect participants. Primary dealers and general dealers can directly engage in trades, and indirect participants can engage in trades only indirectly.

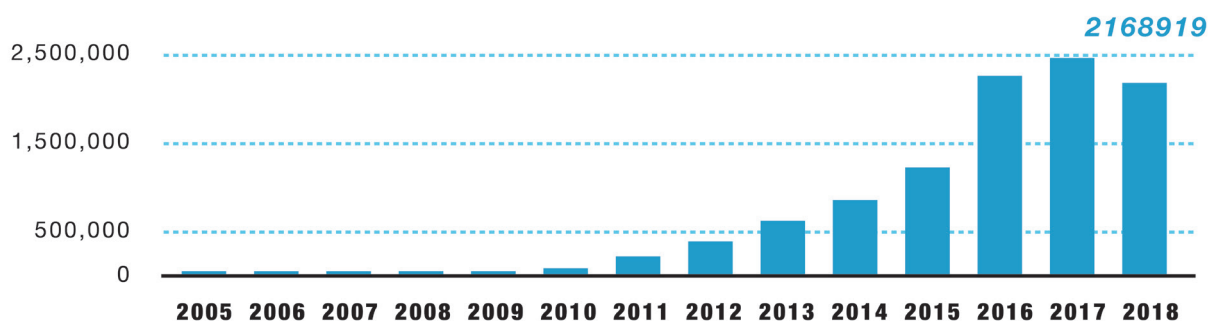
Except for convertible bonds, spot trades in bonds are executed on a net price basis and orders are submitted through securities accounts. During spot trading, bonds may be sold the same day when they are bought.

Repos include standardized repos, bilateral repos, and tri-party repos. In a standardized repo, as the underlying bonds are pledged as collaterals, the bondholder obtains a cash loan up to the value of the standardized bonds

which is derived by applying the applicable conversion factor to the underlying bonds and the parties agree that upon expiry of the repo, the loan is repaid and the collateral released. Standardized repos have the following characteristics: the financing quota available to bondholders is determined by the value of the standardized bonds converted from the underlying bonds; netting is made through a central counterparty (CCP); orders are matched anonymously; and standardized repos have a standardized term. The “standardized bond” is used to measure the amount of loan which can be granted in a standardized repo, by applying the applicable conversion factor to the different bond products. Under the netting arrangement, China Securities Depository & Clearing (“SD&C”), acting as the CCP, carries out the secured settlement of standardized repos to segregate risks. Standardized repos are traded through the call auction system and orders are

matched strictly pursuant to the principles of “price-time priority”, with the repo interest rate determined by demand and supply. Price formation is entirely market-based. The Exchange offers 9 standardized repo products, with their standardized terms ranging from 1 day, 2 days, 3 days, 4 days, 7 days, 14 days, 28 days, 91 days to 182 days. In order to further optimize standardized repos trading mechanism, the Shanghai Stock Exchange released a notice on January 17th, 2019, announcing the extension of standardized repos trading time by 30 minutes. And the *Detailed Implementing Rules for Bonds Transactions of the Shanghai Stock Exchange* was revised such that on each trading day, the opening call auction session is from 9:15 am to 9:25 am, and the continuous auction sessions are from 9:30 am to 11:30 am and from 1:00 pm to 3:30 pm. The change took effect on January 21st, 2019.

SSE Fixed Income Market Turnover (RMB 100 Mn)



Source: SSE, as of the end of 2018

Bilateral repos are entered into by the parties upon independent negotiation. In a bilateral repo, the borrower (the “repurchasing party”) pledges the underlying bonds as collaterals in order to borrow funds from the lender (the “reverse repurchasing party”) and they agree upon a specific day on which the repurchasing

party will return the principal to the reverse repurchasing party and pay interest accrued on the principal based on the agreed repo interest rate, while the collateral will be released. Before participating in bilateral repos, investors need to sign the bilateral repo master agreement. Qualified institutional investors

who meet the exchange's investor eligibility requirements are eligible to trade bilateral repos. Orders for bilateral repos, including intent orders, execution orders, maturity confirmation orders, maturity renewal orders, pledge release orders, bond replacement orders and early termination orders, may be submitted through the Electronic Platform. There are two types of trading orders: intent orders and execution orders. On each trading day, the Electronic Platform accepts orders for bilateral repos from 9:30 am to 11:30 am and from 1:00 pm to 3:15 pm. The bonds that can be pledged as collateral for bilateral repos include all bond products and asset-backed securities that are traded or transferred on the Exchange and other products recognized by the Exchange. The suspension of spot trading in the underlying bonds for a bilateral repo does not impede such bonds from being used in bilateral repo trades, unless otherwise prescribed by the Exchange. Any market participants that meet the investor suitability requirements may participate in bilateral repo trades. The underlying

bonds for a bilateral repo can be any bonds that are listed on the Exchange, whether they are publicly offered or not. In a bilateral repo, the conversion factor for the underlying bonds and the interest rate are determined by the parties through independent negotiation. The term of a bilateral repo is determined by the parties, ranging from 1 day to 365 days. As a bilateral repo allows for renewal and netting upon renewal, a third party may substitute for the existing reverse repurchasing party upon renewal of the bilateral repo. A bilateral repo is settled between two clearing participants and is subject to unsecured settlement on a real-time, full amount and trade-by-trade basis. Generally, risks in a bilateral repo are controlled through extension of credits from one party thereto to the other party.

Tri-party repos are similar to bilateral repos but the collateral management of Tri-party repos is more standardized through services provided by Shanghai Stock Exchange and China Securities Depository and Clearing Corporation Limited.



The Shanghai Stock Exchange's current trading hall, which is now mainly used for holding IPO ceremonies and other events

Arrangements for Fund Trading

An Exchange Traded Fund, abbreviated as ETF, means a fund traded on an exchange that tracks a specified index and can be created and redeemed at the net asset value of the fund on the primary market. Depending on their underlying assets, ETFs traded on the Exchange include stock ETFs (including those tracking the index of a single market or the indices of more than one market), cross-border ETFs, bond ETFs, and gold ETFs.

SSE Fund Market Key Products		Number	Market Value (RMB bn)	Trading Volume (RMB bn)
ETF	Stock ETF	108	319.8	1038.0
	Bond ETF	10	10.5	19.7
	Gold ETF	2	6.1	161.8
	Money ETF	24	186.2	1974.1
	Cross Border ETF	13	11.5	179.6
LOF		79	10.0	14.2
Real-time subscription and redemption of money market funds		6	23.8	-
Close-end Fund		1	9.9	7.0
Total		243	577.9	3394.4

Data source:SSE, as of June 30, 2019

ETF shares may be created or redeemed on in physical assets, which means ETF shares may be created or redeemed by an investor in the form of a basket of underlying securities on the primary market at any time during the period specified in the contract. When creating the ETF shares, the investor provides a specified basket of securities to the ETF manager in exchange for ETF shares; when redeeming the ETF shares, the investor gives back the ETF shares in exchange for the basket of underlying securities. Generally, ETFs are created and redeemed on a share-by-share basis. Considerations for the subscription and redemption of ETF shares include, among others, underlying securities, cash in-lieu amount, cash balancing amount and other assets. The ETF manager publishes a creation and redemption basket according to the net asset value and investment portfolio of the ETF and the underlying securities in the target index. The investor

may, based on the creation and redemption basket, deliver a corresponding quantity of underlying securities to the ETF manager in exchange for ETF shares which are a creation unit or an integral multiple of such unit. Conversely, in the case of in-kind redemption, the investor returns the ETF shares which are a creation unit or an integral multiple of such unit to the ETF manager in exchange for the underlying securities specified in the basket.

Trades in ETFs on the secondary market are carried out in a way similar to those in stocks, where the tick size of an order for ETFs is RMB 0.001 and a price limit of 10% is imposed. Stock ETFs are traded on a T+1 basis, which means that shares of an ETF bought on a specific day, may be sold the next trading day. However, cross-border ETFs, gold ETFs, and bond ETFs can sold on the same day when they are purchased.

Arrangements for Derivatives Trading

Drawing upon the practices of both international options markets and domestic futures market, the Exchange has established a stock options market that is tailored to China's capital markets and investors. The option products currently listed on the Exchange are 50ETF options, including call and put options. When initially listed, each type of these options features four different expiration months and nine strike prices.

The 50ETF options are physically-delivered European options and traded in a way that combines auction trading with market-making trading. That is, market makers submitting both bid and ask prices participate in auction trading together with investors who place orders. Auction trading is subject to the principle of "price-time priority" and opening and closing prices are generated by call auction. The tick size of an order for 50ETF options is RMB 0.0001.

Key Features of SSE 50ETF options	
Underlying Asset	SSE 50 ETF
Contract Type	Call option and put option
Contract Unit	10,000
Strike Price	1 at-the-money, 4 in-the-money and 4-out-of-the-money
Expiration Month	Current month,next month and the following two consecutive quarters
Expiration Date	The fourth Wednesday of each expiration month
Option Style	European style
Contract Delivery	Physical delivery

Adhering to the principle of "high standards, stable operation, strict supervision and tight risk control", the Exchange has implemented the following trading rules: (1) investor suitability rules under which only eligible investors are permitted to participate in options trading; (2) strict margin requirements that can basically cover the risk of the options contract's underlying asset hitting the price limit during two consecutive trading days; (3) pre-trade control of positions and funds by leveraging technological strength; (4) asymmetric price limit

requirements that set different price limits for in-the-money and out-of-the-money options; (5) position limit requirements that control investors' long positions, total positions and single-day buying positions; (6) purchase limit requirements which set forth a limit on the amount of funds which an investor may use to buy options; and (7) circuit breakers which suspend continuous trading of an options contract when the price of such contract hits a certain level of volatility.



CHAPTER IV

Registration and Settlement

Registration and Depository Arrangements

Securities registration refers to activities taken by a securities depository and clearing organization that is entrusted by securities issuers to establish and maintain a register for securities holders in order to authenticate the fact that they hold certain securities. Securities depository refers to activities taken by a securities depository and clearing organization that is entrusted by securities companies to provide centralized safekeeping for the proprietary securities of securities companies and their clients as well. Furthermore, such securities depository and clearing organization provides services related to the benefits entitlement of the securities such as collection of dividends.

Securities custody refers to activities taken by any securities company who is entrusted by its clients to safe-keep their securities on their behalf and provide services related to the benefit entitlement of the securities such as collection of dividends.

As a central securities depository, China Securities Depository and Clearing Corporation Limited (hereinafter referred to as “CSDC”) provides centralized registration and depository services for securities listed on the Exchange and manages securities on a paperless and immobilized basis through establishing an electronic securities book-entry system.



CSDC's Beijing headquarters

I. Registration and Depository Model

CSDC adopts a registration and depository model where most securities are directly registered in the accounts of beneficial owners. The securities shall be recorded in the securities accounts of the securities holders themselves. Provided that, if, under any provisions of laws,

administrative regulations or rules of CSRC, securities may also be recorded in the securities accounts of a nominee. CSDC has the right to require nominees to provide relevant information on beneficial owners on whose behalf they act.

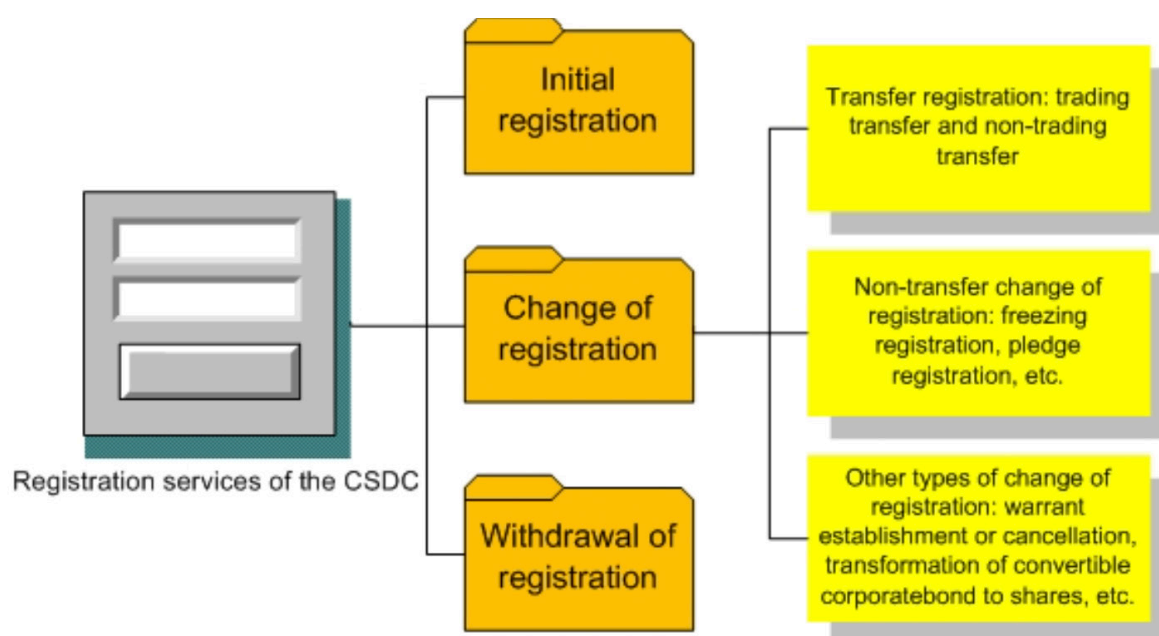
An investor participating in trading activities on the floor of the Exchange appoints a securities company as his securities custodian by completing the procedures for designated trading with the securities company and may only participate in trading activities through this securities company. Under such arrangement, the securities companies are entrusted by investors to take custody of investors' secu-

rities. CSDC is responsible for the depository of both the companies' proprietary securities and clients' securities in custody. CSDC sets up general ledgers for the clients and securities companies in order to maintain detailed list for companies' proprietary securities and clients' securities separately. In addition, securities issuers entrust CSDC to complete the registration of their issued securities.

II. Registration Services

CSDC classifies its securities registration services into initial registration, change of registration, withdrawal of registration and other services related to registration depending on the different stages of securities circulation. Initial registration includes registrations for IPO, bonds issuance, fund raising, issuing of warrants, additional offering of shares and rights issue, etc. Change of registration includes registration for share transfer through centralized trading, share transfer through non-centralized trading and any other changes applicable. If the rights of a securities

holder are restricted due to reasons such as the securities being pledged or frozen up, CSDC will correspondently mark the relevant holding records of the securities holder in the register. If a security issuer terminates the agreement for securities registration and relevant services, CSDC will mark down the same amount in the register of securities holders. Other registration-related services include offering access to the register of securities holders, dividend distribution and online voting services.



Classification of registration services of the CSDC

III. Depository Services

CSDC provides securities companies with securities depository services. CSDC offers centralized safekeeping for securities companies' proprietary securities and clients' securities as well as services for maintenance of benefits entitlements, etc. Specific services include: establishing and managing securities accounts, maintaining securities holdings of securities companies' proprietary securities and their clients' securities deposited with CSDC via the book-entry system,

providing access to securities accounts for securities holdings and holding changes therein, collecting dividends, and recording the establishment, change and termination of custody relationships between securities companies and investors. Meanwhile, CSDC also provides cross-market custody transfer services, including cross-market custody transfer for enterprise bonds and treasury bonds and cross-system custody transfer for listed open-end funds.

Clearing and Settlement Arrangements

Securities clearing and settlement is the process of delivering securities to buyers and paying funds to sellers based on their obligations arising from securities transactions. Clearing means the process of calculating the amount of securities and funds receivable and payable in accordance with the prescribed rules. Settlement means transfer of securities and funds based on the definite clearing results, thereby settling relevant credits and liabilities. CSDC provides funds and securities settlement services for trading of securities listed on the Exchange.

I. Settlement Principles

Two-Tier Settlement

"Tier One" settlement can be classified into two categories based on whether CSDC acts as a central counterparty (hereinafter referred to as "CCP"). When CSDC provides multilateral netting service as a CCP, it is responsible for centralized clearing and settlement of securities and funds **with** clearing participants; When CSDC acts as a non-CCP, it provides clearing and settlement services **for** clearing participants. "Tier Two" settlement generally

refers to the settlement between clearing participants and their clients.

Delivery Versus Payment

Delivery versus payment means that securities will be delivered if and only if funds are paid and *vice versa* during the settlement process. A clearing participant who fails to have a sufficient amount of securities or funds available for settlement cannot obtain the corresponding funds or securities.

II. Settlement Modes

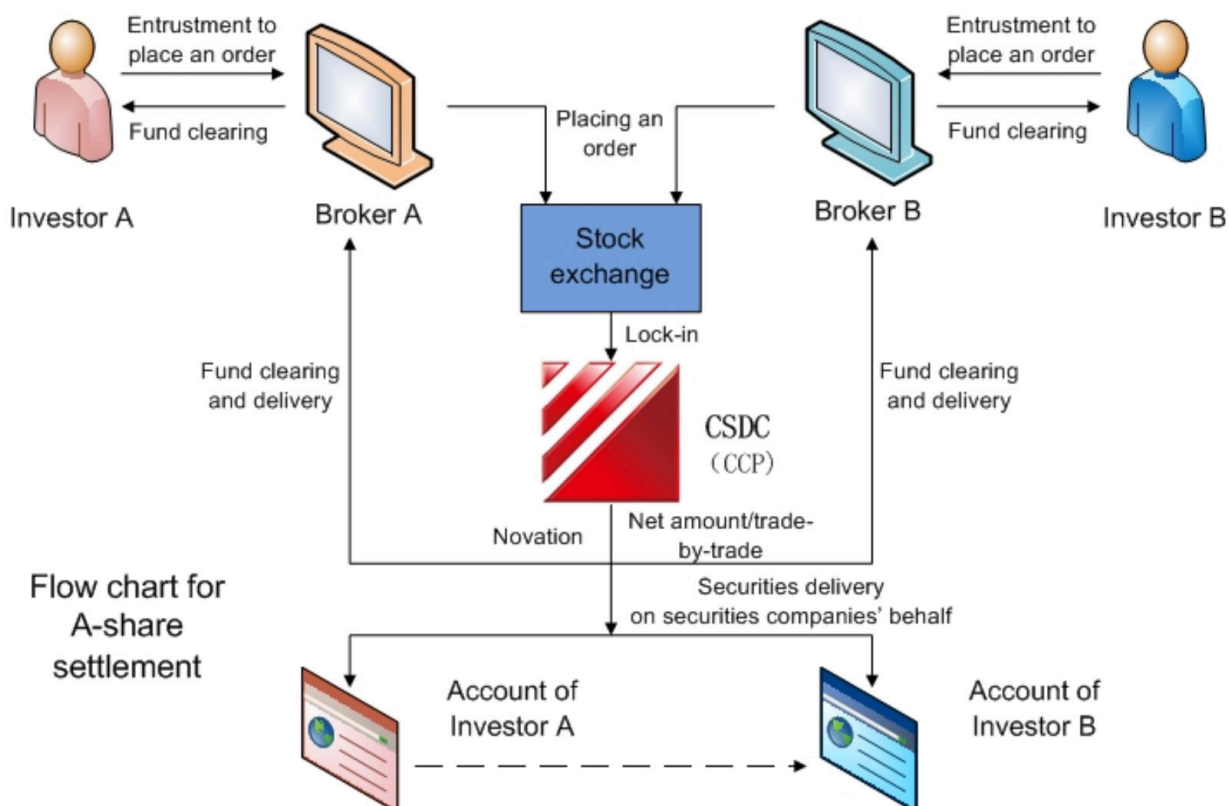
For different securities instruments, CSDC may mainly provide three types of settlement services: guaranteed net settlement, non-guaranteed settlement, and collection and payment service.

Multi-lateral Netting Settlement

Multi-lateral Netting Settlement means that CSDC gets involved in the securities post-trade process as the settlement counterparty for all buyers and sellers, which offsets securities and funds receivable and payable from and to each clearing participant to calculate net funds and securities receivable and payable, and to complete guaranteed settlement with clearing participants on the settlement day based on the net clearing results. Multi-lateral Netting Settlement helps to simplify the settlement

procedures and improve settlement efficiency. Meanwhile, CSDC manages counterparty credit risks in a centralized manner in accordance with the applicable clearing rules, contributing to the control and mitigation of the overall risks in the market.

At present, CSDC provides Multi-lateral Netting Settlement services for A-shares, T-bonds, local government bonds, a portion of corporate bonds (enterprise bonds), Shanghai-Hong Kong Stock Connect, stock options, depository receipts, The SSE STAR Market stocks, pledged bond repos, closed-end funds, ETFs trading, portfolio and cash in-lieu from the subscription and redemption of some ETFs, Real-time Subscription and Redemption Money Market Funds and other trading instruments.



Gross Settlement

Gross Settlement means that CSDC only provides separate clearing for each securities transaction without acting as a central counterparty or undertaking the responsibility of guaranteed settlement and offsetting the funds and securities receivable and payable from and to each clearing participant. The settlement fails if any clearing participant is unable to provide a sufficient amount of funds or securities at the time of settlement. The settlement circle of non-guaranteed gross settlement includes real-time gross settlement (RTGS), T+0 and T+1, which is pre-determined by the categories of trading instrument.

Currently, Gross Settlement applies to transfer of private placement bonds, bilateral repos, tri-repos, subscription and redemption of some ETFs and cash in-lieu transactions, transfer of corporate bonds and specific asset management programs not qualified for netting, transfer of non-publicly offered preferred stocks, other offering activities, agreed repurchase securities trading and exchange of exchangeable corporate bonds for stocks.

Meanwhile, CSDC provides Bilateral Netting Settlement services for pledged bond quotation repos.

Collection and payment service

Collection and payment service is a value-added service provided by CSDC to clearing participants for funds transfer. Clearing participants and other entities may complete the clearing procedures on their own and submit clearing

data to CSDC. CSDC then completes the transfer of funds based on data confirmed by the payer in accordance with relevant rules. Insufficiency of funds from the payer will result in failure of such transfer.

At present, CSDC can provide collection and payment service for subscription and redemption of some ETFs, refinancing activities, subscription and redemption of open-ended funds, etc.

Registration and Settlement on the SSE STAR Market

Aiming for strict standards and a smooth start, the SSE STAR Market has mostly inherited the stock registration and settlement model used in the Main Board. In particular, CSDC provides centralized registration, depository, clearing, and settlement services for STAR stocks.

I. Registration and Depository Services

CSDC provides centralized registration and depository services for stocks listed on the SSE STAR Market.

Before listing its shares on the SSE STAR Market, an issuer shall apply for initial registration as required by the CSDC. There are three types of initial registration: registration for IPO, for follow-on offering, and for rights issue. Except for circumstances otherwise prescribed by laws and regulations, STAR stocks shall be recorded under the names of the shareholders. The securities registration record issued by CSDC is the legal certificate attesting the ownership of the relevant STAR stocks. The

registration information for a STAR stock shall include the code of the security, the type of the security, the type of circulation, and the type of benefit entitlements, etc.

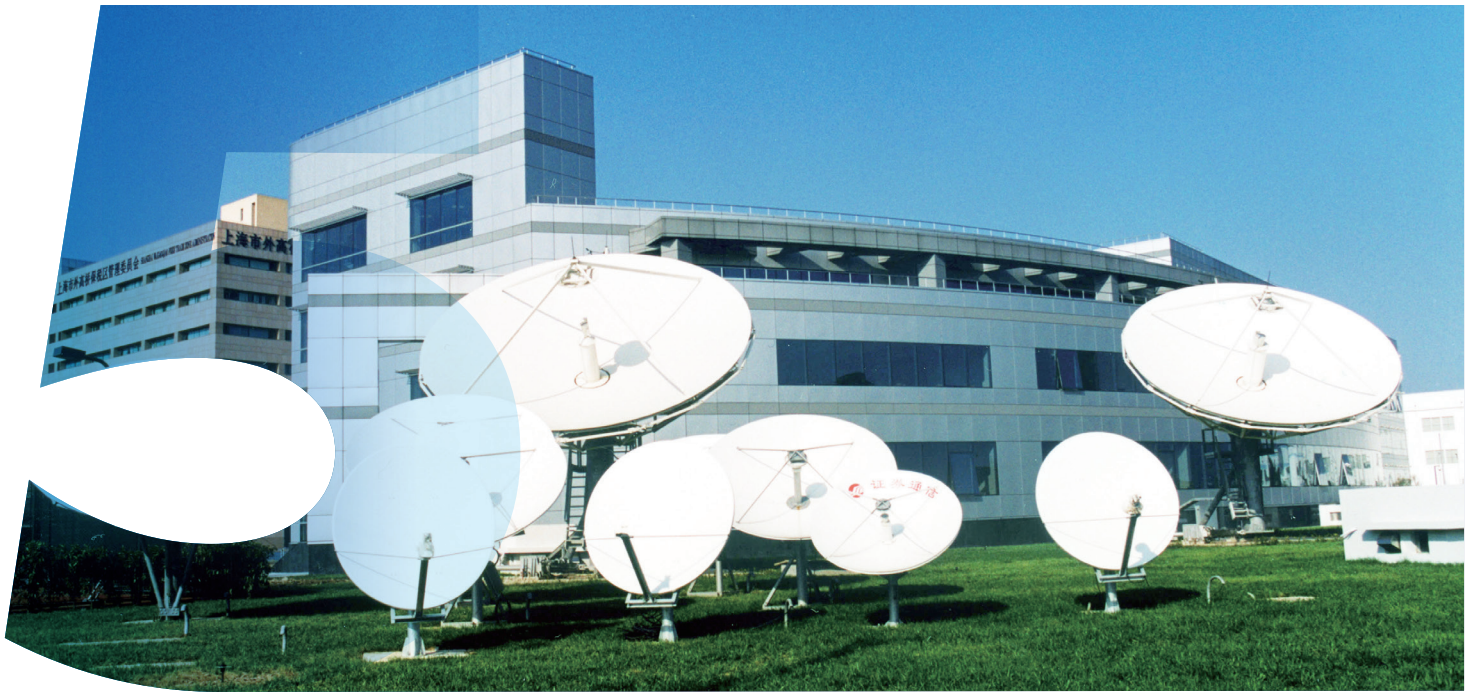
Where the issuer adopts a weighted voting right structure, CSDC shall, at the request of the issuer, register and mark the shares with special voting rights in accordance with relevant procedures. When an issuer needs to convert a share with special voting rights into an ordinary share, CSDC shall register such conversion according to the request of the issuer.

II. Clearing and Settlement Services

STAR stocks are settled in RMB. Shares and funds in the SSE STAR Market are settled according to the two-tier settlement scheme. CSDC, acting as the CCP, provides Multi-lateral Netting Settlement services for the transactions of STAR stocks. For trades in STAR stocks, clearing participants complete funds settle-

ment with CSDC through the clearing reserve account they have opened with CSDC, and shall be responsible for the settlement of STAR stocks and funds with investors. Pursuant to relevant rules, the transfer of STAR stocks between clearing participants and investors shall be handled by CSDC.





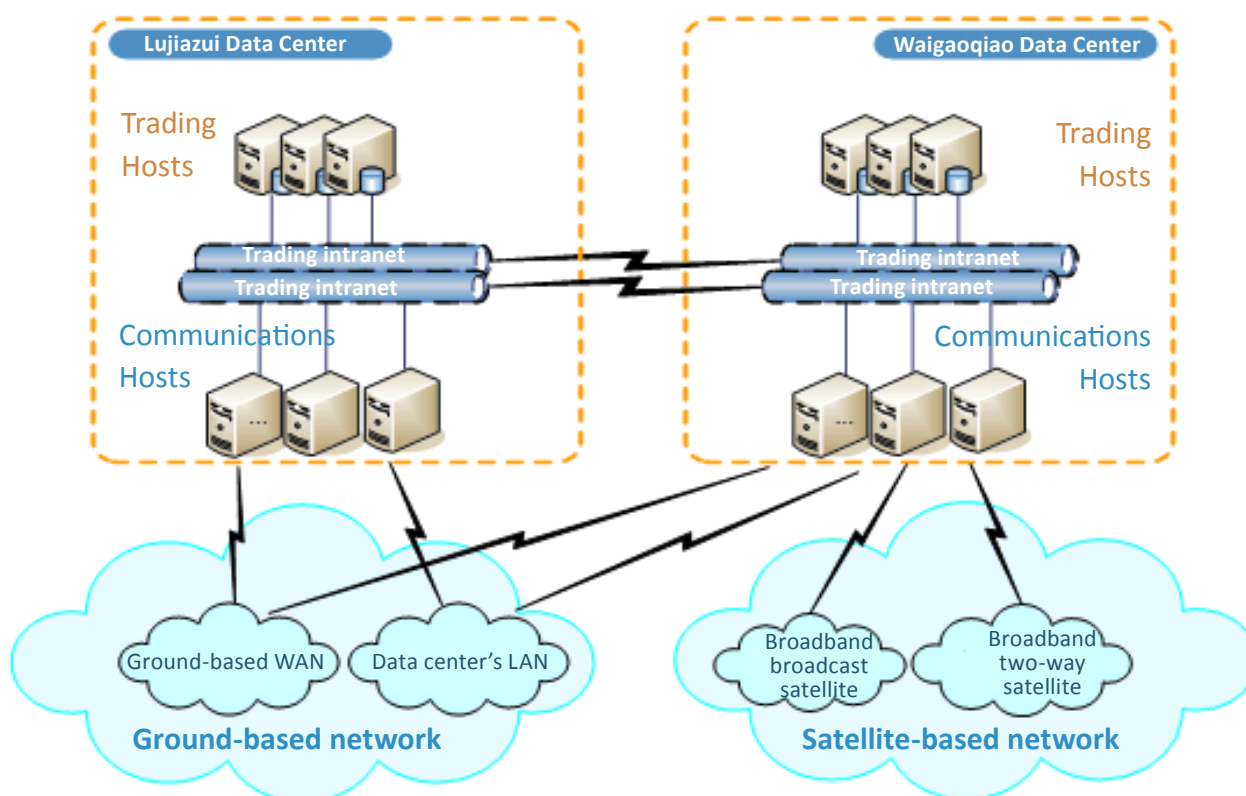
CHAPTER V

Technical System

SSE Technology Co., Ltd (SSE Technology) is responsible for planning, building, operating, and maintaining the IT systems and related technical infrastructures of the Exchange to ensure safe, stable, and efficient market operations. Additionally, complementing the functional positioning of the Exchange, SSE Technology provides members and other market participants with technical services and other innovative products and services, enabling the Exchange to offer better technical solutions for the securities industry.

SSE Technology currently provides securities trading-related services and technical support, allowing market participants to trade, access market data, exchange data, and engage in other non-trading activities and more through the trading platforms of the Exchange (including the Matching Transaction Platform, Alternative Trading Platform, Derivatives Trading Platform, International Trading Platform, and Fixed Income Securities Platform). The Exchange also offers a wide range of internet-based platforms (including the STAR Market listing review system, issuance and underwriting system, offline IPO system, corporate business management system, bond project application system, bond business system, and fund business system, among others) to facilitate issuance and underwriting, information publication, and other corporate activities.

Technical Diagram for the Matching Transaction Platform



I. Trading Services

SSE Technology offers market participants a wide array of trading and service systems. These systems are collectively referred to as “trading systems.” The trading systems currently comprise the following components:

Matching Transaction Platform (MTP):

This platform enables the trading of stocks, closed-end funds, open-end funds, ETFs; the trading and redemption of LOFs; and the trading of standardized repos.

The MTP now boasts a peak processing throughput of 120,000 orders/s and a continuous processing capacity of 60,000 orders/s; it keeps track of nearly 300 million account records and 100 million position records with no set ceiling. Order latency is as low as 50ms, and up to 300 million transactions can be processed daily.

Alternative Trading Platform (ATP):

This platform is for block trading; purchase and redemption of shares of money market funds, cross-border ETFs, and LOFs; pre-issuance trading of treasury bonds; trading of stock repos, pledged bond quotation repos,

and pledged stock repos; as well as after-hours fixed-price trading and more.

Derivatives Trading Platform (DTP):

This platform provides trading services for standardized options contracts on stocks, ETFs, and other underlying assets. The most active product at present is SSE 50 ETF options.

International Trading Platform (ITP):

This platform enables market participants to trade the stocks sanctioned by Hong Kong Stock Exchange.

Fixed-Income Securities Platform (FISP):

This platform provides trading services for treasury bonds, local government bonds, CDB bonds, enterprise bonds, corporate bonds, convertible bonds, exchangeable bonds, asset securitization products, bond repos, private placement bonds, among others.

II. Market Data Services

The Exchange has in place a multi-tier market data system which covers every type of transaction on the Shanghai Stock Exchange, providing data from the spot market, options market, fixed income market, and various interconnected markets. The Exchange has also partnered with overseas exchanges to provide data display, licensing, and access services.

Spot market data:

These include Level-1 basic data and Level-2 value-added data. Level-1 data are basic information on products traded on the MTP, including spot products such as stocks, bonds, and funds, as well as indices. They mainly contain the basic information from call auction and continuous auction, current-day transactions, and real-time five best bids and asks. Level-2 data offer additional, value-added information on top of Level-1 data. In particular, Lev-

el-2 data display the number, quantity, and price of the ten best bids and asks; detailed information on the best bids and asks; transaction-by-transaction execution report; related-party transaction flag; and order cancellations, among other information.

Options market data:

Options market data are market information on the stock options listed on the DTP. They mainly include the pre-opening basic information files for the stock options contracts tradable on the current day, the basic information and transaction information from call auction and continuous auction, and real-time five best bids and asks.

Fixed-income market data:

These are market information on the treasury bonds, corporate bonds, privately offered

bonds of small- and medium-sized enterprises, bilateral repos, and other products traded on the FISP. Such data mainly cover the basic information of tradable bonds provided before market opening, bond transaction snapshots, and transaction-by-transaction execution report.

Interconnected market data:

These are the market data from transactions at overseas exchanges with which the Exchange is connected, including data from the Shanghai-Hong Kong Stock Connect, Shanghai-London Stock Connect, etc.

International cooperation:

The Exchange displays the market data from partnering overseas exchanges, and offers related data licensing and access services. At present, the Exchange enables domestic investors to directly view the market data of the Hong Kong Stock Exchange, and provides access services to the licensed institutions of that exchange. The Exchange also provides licensing and access services for market data from the Deutsche Börse, Euronext, Moscow Exchange, and BM&F Bovespa.

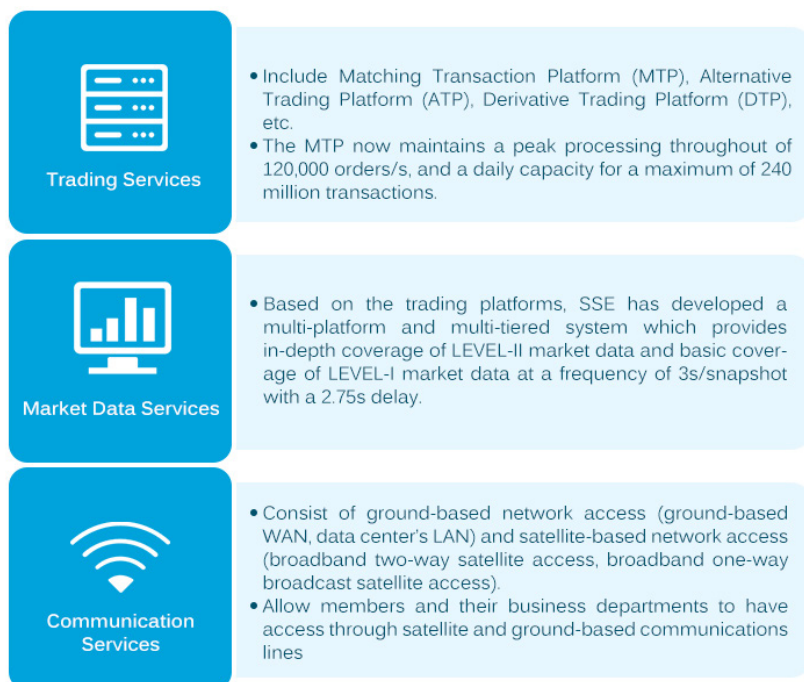
III. Telecommunications Services

The SSE Technology's telecommunications services consist of ground-based network access (ground-based WAN) and satellite-based network access (broadband two-way satellite access, broadband one-way broadcast satellite access), giving members and their business divisions two options and the necessary redundancy when accessing the Exchange's systems.

Ground-based WAN:

The ground-based trading access system can accommodate two access modes, MSTP and SDH, and is mainly used to connect to the trading services of the MTP, ATP, DTP, ITP, and FISP.

The high-speed ground-based market data access system provides users with MSTP WAN access and supports the use of UDP in receiving FAST market data.



Broadband two-way satellite system

In response to the need for the high-capacity satellite communications backup system for centralized trading in the securities communications market, the broadband two-way satellite system provides securities companies, fund management companies, banks and other market participants with a two-way satellite communications platform for securities trading services, with multiple band widths options.

Broadband one-way broadcast satellite system

This system is a one-way satellite communications system which provides financial market and securities companies, fund management companies, banks and other market participants with data and information, including real-time market data, after-trade data and announcements in the securities and futures markets.

IV. Industrial Cloud Services

ZTCloud is a cloud computing service offered by SSE Technology for the securities industry. ZTCloud – a suite of five categories of products covering computing, storage, network, security, and value-added services – enables anytime access, flexible expansion, usage-based billing, and data security for customers' production, disaster recovery, and office systems. Designed in strict accordance with national regulatory policies, ZTCloud provides financial institutions cutting-edge, stable, reliable, and fully compliant cloud services.

SSEINCloud, developed by SSE INFONET, is a proprietary cloud service platform for the securities industry. Designed for security companies and other industry stakeholders, SSEINCloud offers both essential technical services – management of internet-accessible (including mobile internet) servers, load balancing, bandwidth, operation maintenance, security protection, and market data sources – and application hosting services for market data, market information, and other applications. With wide applicability and high performance-to-cost ratio, SSEINCloud allows securities companies to upgrade, replace, and expand existing facilities and build disaster recovery capabilities.

V. Data Center Business

The SSE Data Center has several high-level large data centers as well as ultra-large data centers in China. With advanced data center design, strict technical specifications and sophisticated operation management system, it provides a safe, efficient and compliant data center service for the Chinese financial market.

The SSE Data Center focuses on the needs of financial users, providing them with one-stop solutions for equipment cabinet hosting, operation and maintenance agent, telecom operator's network access, high-speed ground-based market data access, MTP access, ATP access, DTP access, ITP access, FISP access.

With the development of SSE's data center business, hundreds of core institutions of financial market, securities companies, fund management companies and futures companies have settled in the SSE Data Center which, in the financial sector, has become the preferred partner of financial core institutions and securities users.



CHAPTER VI

Market Oversight

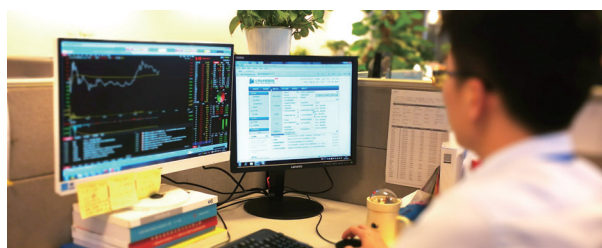
Supervision of Listed Companies on the Main Board

The Exchange's supervision of listed companies aims to monitor and oversee information disclosure of listed companies to ensure that investors can obtain valid information in time so as to make rational investment decisions. The Exchange's supervision over information disclosure by listed companies has five features:

- The Exchange exercises supervision over listed companies in accordance with The *Securities Law*.
- The supervision is a kind of self-regulatory activity as listed companies need to enter into listing agreement with the Exchange, thus subjecting to the rules and supervision of the Exchange.
- As a frontline supervisor, the Exchange needs to directly deal with information disclosure by listed companies to identify problems and make judgments, and then take rapid responsive actions and urge them to correct such problems.
- The Exchange's supervision is based on off-site inspection, which shall differ from the administrative supervision with a focus on onsite inspection.
- The Exchange's supervision is service-oriented. The Exchange offers technical support and regular business trainings for listed companies in businesses related to investors.

In urging listed companies to fulfill their information disclosure obligations as provided by laws and regulations, the Exchange has performed the following five specific functions:

- Carrying out supervision of daily information disclosure. The Exchange focuses on the adequacy, timeliness and fairness of information in periodic reports and *ad hoc* announcements of listed companies. For announcements not up to standard released by a listed company, the Exchange will urge the company to release a corrective or supplementary announcement. For market rumors related to any listed company, the Exchange will urge the company to promptly check and clarify such rumors. For any suspected violation of laws and regulations, the Exchange will submit the case to the regional CSRC office for onsite inspection or initiation of a formal investigation.
- Supervising high-risk companies and resolving risks. Adopting a classification-based supervisory regime, the Exchange is investing heavily in the supervision of high-risk companies to ensure fast response, accurate targeting, and safe resolution of risk events. The Exchange is committed to preventing risk spillover, protecting investors, and stabilizing market expectation through the following measures: (1) dynamically screen for risks, especially with respect to high-risk companies, to enable early prevention and fast response; (2) strengthen supervision during risk events, address risks at early stage, and prevent risks from blooming into major events; (3) impose strict punishment for violations to maintain a fair and orderly market.



- Taking supervisory measures against violations. The Exchange has already formulated explicit supervisory standards and established a working mechanism which separates investigation from examination. Under such mechanism, a specific business department of the Exchange is responsible for investigating cases and the disciplinary committee of the Exchange is responsible for examining cases and making decisions on penalties.

- Performing the supervisory functions delegated by the CSRC. In recent years, CSRC has abolished numerous administrative procedures such as the approval for cash-based restructuring and the record-filing for stock incentive plans, and transferred the supervisory responsibilities over information disclosure for such matters to the Exchange. In particular, for any major asset restructuring involving share issue, the Exchange is required to exercise oversight over the preliminary restructuring plan. Some of the other supervisory duties delegated by

the CSRC include: cracking down on funds misappropriation and illegal guarantees, supervising listed companies to fulfill commitments, propelling them to reward investors through cash dividends, and encouraging them to offer stock incentives and employee stock ownership plans.

- Formulating information disclosure rules in accordance with the law. The Exchange has developed a complete set of information disclosure rules revolving around the *Rules Governing the Listing of Stocks on the Shanghai Stock Exchange*, all of which are publicly available. The Exchange also regularly prepares and releases Q&As on its supervisory rules, interprets and highlights the key points in the rules, and clarifies its regulatory and supervisory standards, so as to offer listed companies useful guidelines on information disclosure, thereby better regulating the disclosure process and improving the quality of the information disclosed to the public.

In the process of exercising information disclosure supervision, the Exchange continuously improves the ways and methods of supervision and promotes the transformation of supervision over listed companies in recent years.

The Exchange officially launched the one-stop information disclosure service in July 2013. Listed companies may directly release announcements at their own discretion via the one-stop information disclosure service system. Instead of performing ex ante review of all announcements, the Exchange exercises ex post review of relevant announcements. To enhance the specialty and efficiency of information disclosure, from January 2015, the Exchange fully switched from region-based supervisory approach to industry-based supervision over information disclosure of listed companies. Since 2016, the Exchange has proposed and implemented the “thorough supervision over information disclosure” model. For important information disclosed by listed companies, the Exchange may raise reasonable doubts and conduct supervisory inquiries in accordance with laws and regulations. The letters of enquiry are released to the public in time, fully revealing risks to the market and strengthening the efficiency of supervision over listed companies.

The above supervision transformation aims to enhance normalization, professionalism and pertinence of supervision, improve the efficiency of supervision, and safeguard the fair order of market and legitimate rights of investors. In this process, the Exchange has consistently promoted the transparency of supervision and released supervision rules, supervision processes and supervision results to the public in time.

Ongoing Supervision System for the SSE STAR Market

The *Rules Governing the Listing of Stocks on the Science and Technology Innovation Board of Shanghai Stock Exchange* (“STAR Listing Rules”) is a foundational rule of the Exchange and independent from the listing rules for the Main Board. On the basis of the *STAR Listing Rules*, the Exchange has established an ongoing supervision system for the SSE STAR Market, which is a more targeted and inclusive framework for continuous supervision. The ongoing supervision system aims to establish a more targeted and effective information disclosure regime, a more rational and strict delisting and shareholding reduction framework, and a more market-oriented M&A, restructuring, and stock incentive framework.

I. More targeted information disclosure regime

The information disclosure regime of the SSE STAR Market builds on the general disclosure requirements, but gives particular considerations to the characteristics of sci-tech and innovation companies. Specifically, the regime sets higher standards on the disclosure of industry information, core technologies, operational risks, corporate governance, and performance fluctuations. At the same time,

the disclosure regime prescribes more flexible arrangements in regard to quantitative disclosure indicators, the time and manner of disclosure, temporary exemption of disclosure of sensitive business information, and release of material information outside trading hours. These flexibilities help companies maintain their competitive edge.

II. More rational shareholding reduction framework

The new framework features a mix of stricter, looser, and flexible rules to better regulate the selling of STAR stocks by officers and other key persons. The main design philosophies behind the new framework are to fine-tune the means and channels of shareholding reduction, in order to minimize shocks to the secondary market and prevent directly pitting retail investors against the controlling shareholders, core management team, key technical staff, and other special shareholders who hold a price advantage. Meanwhile, shareholders such as private equities and venture capitals now have more flexible and market-driven pathways to

sell their shares, which encourages the flow of capital into innovative enterprises.

The new framework brings several benefits. Firstly, it helps companies maintain the right of control and the stability of its technical team. Because sci-tech and innovation companies are highly reliant on their founders and core technical staff, the framework requires controlling shareholders and de facto controllers to not sell their pre-IPO shares within 36 months of IPO, and key technicians to not to sell theirs within 12 months of IPO. Additionally, any shareholding reduction within the first four years of an IPO is subject to the same

set of standards as that applied to company officers. These requirements help stabilize the shareholding structure, align interests, and ensure the sustainable growth of the company.

Secondly, the framework appropriately restricts shareholders from selling pre-IPO shares. For shareholders wishing to sell their pre-IPO shares, in addition to doing so according to the prescribed shareholding reduction ratios, they may also do so through non-public transfers and other means specified by the Exchange.

Thirdly, the framework provides shareholders such as venture capitals more flexible exiting options. Specifically, shareholders such as private equities and venture capitals may reduce their holdings of pre-IPO shares after the lock-up period either according to the existing shareholding reduction rules or through non-public transfers. This flexibility helps them

recover investment and fund new innovative enterprises.

Fourthly, the framework has specified the circumstances under which reducing shareholding is prohibited. In particular, for any company that is not profitable at time of listing, its controlling shareholders, de facto controllers, directors, supervisors, senior officers, and core technical staff may not sell their pre-IPO shares within three full financial years from the listing date unless the company has turned a profit.

Fifthly, the framework mandates better disclosure of information concerning shareholding reduction. In addition to maintaining the requirement for preliminary disclosure, the framework also requires the relevant company to disclose its operational conditions and to make adequate risk disclosures before shareholders in the specified categories are permitted to sell their pre-IPO shares.

III. More flexible stock incentive framework

Firstly, the new framework allows for a higher percentage of the capital stock reserved for a stock incentive plan as well as a wider range of participants. Specifically, the total number of shares underlying all active stock incentive plans can now account for as much as 20% of the capital stock, up from 10%. Also, shareholders who hold, either individually or jointly, 5% or more of company's stock; the company's de facto controllers and their spouses, parents, and children; as well as foreign employees, may now participate in such plans provided they are senior officers, core technical staff, or key business personnel.

Secondly, the new framework permits more flexible price terms in stock incentive plans. Under current rules, the price of restricted shares granted to participants of an incentive plan and the exercise price of stock options

should in principle be no lower than (a) 50% of the average trading price of the stock during the 1 trading day prior to the publication of the incentive plan, and (b) 50% of the average trading price during either the 20 trading days, 60 trading days, or 120 trading days prior to the publication of the incentive plan.

The *STAR Listing Rules* has abolished the above general regulatory rules; instead, in cases where the above rules are not strictly observed, it only requires the independent financial advisor to issue an opinion on whether the stock incentive plan is feasible, whether the plan promotes sustainable development, the basis of pricing and the reasonableness of the pricing methodology, whether the arrangement is detrimental to the interests of the listed company, and the potential impacts on other shareholders.

Thirdly, the new framework has made it easier to implement a stock incentive plan. Existing rules require a listed company to vest the restricted shares and complete share registration within 60 days after its shareholders' meeting approves the stock incentive plan. The *STAR Listing Rules* has removed this 60-day limit, making such plans easier to carry out in practice by allowing the listed company to register the restricted shares under the names of the

participants only upon their satisfaction of the vesting conditions.

Moreover, the ongoing supervision system has also made changes and improvements in such areas as arrangements for differential voting rights, ongoing supervision and guidance of sponsors, compliance requirements for internal governance frameworks, major asset restructuring, and the delisting process.

Supervision of Members

The Exchange is a self-regulatory and membership-based organization with legal personality that provides venues and facilities for centralized trading of securities, organizes and supervises the trading of securities. Consisting of all SSE members, the General Assembly is the highest authority of the Exchange. The Exchange performs its self-regulatory function, engages in business activities pursuant to the law, prioritizes the public interest and maintains a fair, orderly and transparent market.

Members of the Exchange are entitled to:

- Attend the General Assembly;
- Elect and to be elected;
- Submit a proposal and vote on the affairs of the Exchange;
- Engage in securities trading on the Exchange market and receive services from the Exchange;



- Supervise the affairs of the Exchange and the activities of other members;
- Acquire and transfer membership seats, provided that at least one membership seat is retained; and
- Other rights as prescribed by the Exchange.

Meanwhile, members of the Exchange are obligated to:

- Comply with relevant laws, regulations and rules in engaging in securities operations;
- Comply with the Article of Association and rules of the Exchange and implement any resolution of the Exchange;
- Establish a technical system for trading that meets requirements, ensure complete, clear and accurate storage of customers' transaction terminal data, and improve the framework for compliance and internal risk control;
- Supervise and manage the trading activities of its own and its clients to prevent trading violations and abnormal trading risks;
- Fulfill trading and settlement obligations to the Exchange market;
- Apply investor suitability rules to its clients, provide investor education, and properly handle any trading disputes with and complaints from its clients to protect legitimate rights and interests of investors;
- Safeguard the stable development of the trading market;
- Pay all fees and provide relevant information in accordance with requirements;
- Be subject to supervision of the Exchange; and
- Perform other obligations as prescribed by the Exchange.



The Exchange carries out real-time monitoring of securities trading behavior of its members and members' clients, focusing on abnormal trading behaviors which may influence trading price or trading volume. The Exchange may, as warranted in its supervisory activities, conduct onsite/offsite inspection of the members' compliance with the Exchange's Article of Association and rules, and report the inspection results to the CSRC.

If a member of the Exchange violates the Exchange's Article of Association and rules, the Exchange may adopt a wide range of self-regulatory measures, including but not limited to giving verbal or written warnings, demanding correction within specified timeframe, conducting supervisory interviews, and temporarily refusing to accept or handle any relevant business.

In case of a serious violation, the Exchange may impose one or more of the following disciplinary sanctions:

(1) circulating a notice of criticism; (2) giving a public censure; (3) imposing a penalty or fine; (4) suspending or restricting trading rights; (5) revoking trading rights; (6) revoking membership.

Representative offices in China set up by overseas securities institutions may apply to become special members of the Exchange. Special members may attend the General Assembly as a non-voting participant, receive relevant services from the Exchange and propose pertinent suggestions. However, special members are not entitled to other rights enjoyed by members.

Market Surveillance

I. Market Surveillance System and Arrangements

For the purposes of safeguarding the order of stock trading, protecting the legitimate rights and interests of investors, according to the *Securities Law*, the *Measures for the Administration of Stock Exchanges* and other laws and regulations, as well as the *Trading Rules of the Shanghai Stock Exchange*, *Detailed Rules of the Shanghai Stock Exchange on the Real-Time Monitoring of Abnormal Trading in Securities*, *Rules Governing the Real-Time Monitoring of Abnormal Trading of Stocks on the Science and Technology Innovation Board of Shanghai Stock Exchange (for Trial Implementation)*, the *Measures of the Shanghai Stock Exchange for Implementation of Supervisory Measures and Disciplinary Sanctions* and other business rules, the Exchange carries out real-time, comprehensive monitoring of securities trading.

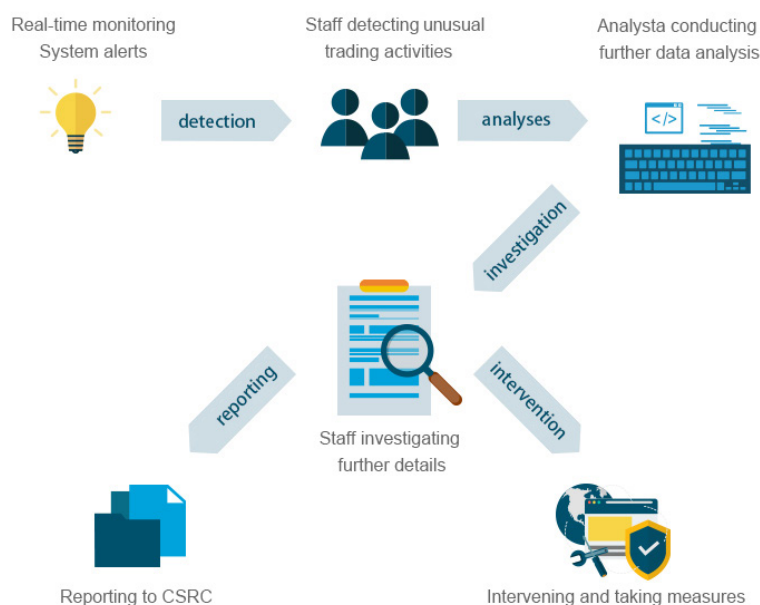
The Exchange will exercise intense monitoring on abnormal trading activities that violating business rules, possibly misleading investors' investment decisions and may improperly affect the trading price or trading volume of securities.

Self-regulatory measures such as giving an oral or written warning, monitoring its or his account as a top priority, requiring the investor to submit an undertaking for compliance of trading, suspending the execution of trading through the investor's account shall be taken in time according to law

for transactions that meet the criteria for identifying abnormal trading.

Disciplinary actions, such as restricting the execution of trading through the investor's account, identifying the investor as an unqualified investor shall be taken against investors who seriously violate the trading rules and other business rules or still conduct abnormal trading activities seriously affect the order of securities trading or the fairness of trading after several regulatory measures.

The Exchange will legally report suspected insider trading, market manipulation, and other violations of laws and regulations to the "CSRC" for investigation to maintain the principle of "Fairness, Openness and Justice" in the Market.



II. Abnormal Trading Activities on the SSE STAR Market

The *Rules Governing the Real-Time Monitoring of Abnormal Trading of Stocks on the Science and Technology Innovation Board of Shanghai Stock Exchange (for Trial Implementation)* specified a total of 5 categories and 11 types of typical abnormal trading activities:

(1) Submitting fictitious orders to induce or mislead other investors to trade; (2) Pumping

or dumping which has caused significant rise or decline in the trading price of a stock; (3) maintaining the trading price or volume of a stock; (4) engaging in wash trade which has affected the trading price or volume of a stock; (5) submitting orders at an abnormal rate for stocks with highly abnormal fluctuations.

Fictitious Orders	Pumping and Dumping	Keeping Trading Price at the Price Limit	Wash Trade	Abnormal Order Submission Rate for Abnormally Volatile Stocks
1. During opening call auction	1. Targeting the opening price	1. During continuous auction	1. Between the same account	Abnormally high order submission rate
2. During continuous auction	2. Targeting trading price	2. At market close	2. Between two or more accounts under de facto control	
3. At price limit	3. Targeting closing price			



CHAPTER VII

Investor Suitability

The investor suitability system, building upon extraterritorial mature markets' experience, is an important move taken by the Exchange to strengthen the legal framework of China's capital markets and provide better protection for legitimate rights and interests of investors. By developing and implementing investor suitability rules, the Exchange has urged securities institutions to fulfill their fiduciary duties to provide suitable financial products or services to investors, and to protect investors' legitimate rights and interests, thus contributing to the healthy development of the market and social harmony and stability.

Overview of the Exchange's Investor Suitability System

The *Interim Measures of the Shanghai Stock Exchange for Investor Suitability* (the "Measures") was implemented in March 2013 and amended in June 2017, which is the fundamental framework document of the Exchange for investor suitability. The Measures, which classify investors into general investors and professional investors, specify suitability obligations to be performed by securities institutions who are members of the Exchange when providing products of the Exchange market or related services to investors.

With launching innovative businesses and diversifying investment instruments, in order to regulate investor suitability and protect investors' rights and interests, the Exchange has clarified the requirements for suitability management across products or businesses, including but

not limited to bonds, Southbound Trading Link, stock options, margin trading and short selling, structured funds, delisting stock trading, Shanghai-London Stock Connect and the SSE STAR Market, to regulate the obligations of securities institutions over suitability management, and impose greater requirements for market oversight and self-regulation. The comprehensive investor suitability system plays a positive role in promoting the healthy development of the Exchange market and protecting the rights and interests of investors.



The publications of SSE on investor education

Details of the Exchange's Investor Suitability System

I. Bond market

In the early 2012, the Exchange promulgated the *Guidelines of the Shanghai Stock Exchange*

for Bond Market Investor Suitability as the preliminary investor suitability framework for the

bond market. In May 2015, the Exchange issued the *Measures of the Shanghai Stock Exchange for Bond Market Investor Suitability* to propel bond market development, protect investors' rights and interest and prevent bond market risks. Pursuant to applicable rules, the Exchange classifies bond market investors into qualified investors and public investors, both of which

participate in the subscription and trading of different bond products in the Exchange market. Meanwhile, the Exchange explicitly requires securities institutions to formulate measures for implementation of comprehensive assessments of bond market investors and carry out such investments. In 2017, the relevant provisions of this rule were revised.

II. Southbound Trading Link under the Shanghai-Hong Kong Stock Connect

In September 2014, to support the launch of the Shanghai-Hong Kong Stock Connect, the Exchange released the *Measures of the Shanghai Stock Exchange for Implementation of Shanghai-Hong Kong Stock Connect* and the *Guidelines of the Shanghai Stock Exchange for Southbound Trading Link Investor Suitability*. The Measures specify the rules and requirements for investor suitability with respect to the Southbound Trading Link under the Shanghai-Hong Kong Stock Connect, particularly stressing that the members shall conduct comprehensive assessments of the assets, knowledge, risk tolerance and creditworthiness, etc. of individual

investors who participate in trading under the Southbound Trading Link. In addition, the Exchange requires securities institutionsmembers to sign a risk disclosure statement for trading under Southbound Trading Link with investors. In June 2017, according to *The measures for the administration of securities and futures investor suitability of CSRC*, the Exchange modified the relevant provisions, further defining the individual investors who want to participate in Southbound Trading Link under the Shanghai-Hong Kong Stock Connect should meet the requirements of 20 trading days average daily 500,000 RMB of assets.

III. Stock options

Early in 2015, the Exchange was approved to implement a pilot program of stock options. Specific rules with respect to participation in the pilot trading of stock options are set out in the *Guidelines of the Shanghai Stock Exchange for Investor Suitability in the Pilot Program of Stock*

Options, including investor suitability standards and classification and management of investors' trading rights and investor education (particularly investment risk education). In June 2017, the relevant provisions of this rule were revised.

IV. Margin trading and short selling

To regulate margin trading and short selling, maintain an orderly market and protect the legitimate rights and interests of investors, the Exchange promulgated the *Implementing Rules of the Shanghai Stock Exchange for Margin Trading and Short Selling* in 2011. To effectively protect the legitimate rights and interests of investors and ensure the steady and healthy development

of the margin trading and short selling business, the Exchange has revised the *Implementing Rules of the Shanghai Stock Exchange for Margin Trading and Short Selling* to further stress that members shall apply client suitability rules more strictly and guide their clients to participate in margin trading and short selling in a rational, lawful and compliant way.

V. Risk alert board stocks

To guard against risks in the trading of stocks of listed companies, ensure effective implementation of the arrangements for delisting companies and protect the legitimate rights and interests of investors, the Exchange has revised the *Measures of the Shanghai Stock Exchange for the Administration of Stock Trading on the Risk Alert Board* in 2015. The *Measures* stipulates the investor suitability rules for trading of stocks of SSE-listed companies on the risk alert board, particularly the eligibility requirements for individual investors in purchasing stocks

which have entered the delisting preparation period. Meanwhile, the *Measures* also requires members to sign the risk disclosure statement of investors who are commissioned to buy risk warning stocks or delisting stocks for the first time and refrain from accepting orders from unsuitable investors to buy those stocks. In June 2017, the relevant provisions of this rule were revised, adding the criteria for the identification of asset indicators should satisfy whoever buys delisting stocks.

VI. Structured funds

There are some risks in investing in structured funds as their design and relatively complex trading mechanism are difficult for general investors to understand. To strengthen the management of structured fund business and protect the legitimate rights and interests of investors, the Exchange has released the *Guidelines of the Shanghai Stock Exchange for Administration of Structured Fund Business* in 2016, which clarifies

the investor suitability system. The Exchange incorporates relevant rules requirements which individual and general institutional investors shall meet to apply for trading rights with respect to structured funds, such as requirements for assets and requirements to pass the comprehensive assessment and sign a risk disclosure statement.

VII. Shanghai-London Stock Connect

The Exchange has released the *Interim Measures for the Listing and Trading of Depositary Receipts under the Stock Connect Scheme between Shanghai Stock Exchange and London*

Stock Exchange to promote trading under the Shanghai-London Stock Connect, maintain market order, and protect investors. The *Interim Measures* specifies the suitability standards and



Shanghai Stock Exchange's posters on investor suitability illustrated using ancient fables and historical figures

requirements of investors who intend to trade Chinese Depositary Receipts (“CDRs”), requiring in particular that SSE members shall comprehensively evaluate individual investors who intend to trade CDRs on their financial situation, knowl-

edge, risk tolerance, creditworthiness, and other pertinent aspects. The *Interim Measures* also provides that members shall require all first-time investors of CDRs to sign a CDR-specific risk disclosure statement in paper or electronic form.

VIII. The SSE STAR Market

To regulate the trading of STAR stocks, in March 2019, the Exchange published the *Special Rules Governing the Trading of Stocks on the Science and Technology Innovation Board of Shanghai Stock Exchange*, which provides that the trading of STAR stocks is subject to an investor suitability regime. Investors who intend to trade STAR stocks shall meet the suitability requirements prescribed by the Exchange, and individual in-

vestors shall additionally pass a STAR-specific comprehensive suitability assessment administered by their carrying members. The Exchange has also published the *Notice on Matters Concerning Investor Education and Suitability on the Science and Technology Innovation Board of Shanghai Stock Exchange*, which further clarifies the standards and requirements for members’ programs on investor education and suitability.

Improved Investor Suitability Administration

The *Measures for Securities and Futures Investor Suitability* was promulgated by the CSRC in December 2016 and came into force on July 1, 2017. As fundamental rules in the securities and futures markets for investor suitability, the *Measures* standardizes fundamental requirements for investor classification, product grading and suitability matching and other requirements, suitability obligations of securities and futures institutions, and sanctions for violation of those obligations.

To implement the *Measures for Securities and Futures Investor Suitability*, the Exchange has revised investor suitability rules in relevant business rules in June 2017, including the *Measures of the Shanghai Stock Exchange for Investor Suitability*, the *Measures of the Shanghai Stock Exchange for Bond Market Investor Suitability*, the *Measures of the Shanghai Stock Exchange for the Administration of Stock Trading on the Risk Alert Board*, the *Guidelines of the Shanghai Stock Exchange for South-bound Trading Link Investor Suitability*, the *Guidelines of the Shanghai Stock Exchange for Investor Suitability in the Pilot Program of Stock Options*, etc. By organizing trainings, self-inspections and on-site inspections, monitoring activities to require securities institutions to implement investor suitability rules, establishing a mechanism for assessing the implementation of the investor suitability system by securities institutions and conducting special investor suitability questionnaire survey, the Exchange has strengthened investor suitability, consolidated the fundamental systems for the capital markets, provided effective protection for the legitimate rights and interests of medium and small investors, and prevented systemic risks. obligations.



CHAPTER VIII

Globalization

International Exchanges and Cooperation

Staying in close touch with exchanges around the world, the Exchange has already signed memorandums of cooperation with 50 overseas exchanges. The Exchange has become increasingly influential in international organizations. On September 7, 2017, Mr. Wu Qing, then Chairman of the Exchange was elected Chairman of the World Federation of Exchanges (WFE). This is the first time that a Chinese mainland exchange holds a leading position in international industry associations. As Chairman of the WFE, the Shanghai Stock Exchange took the lead in drafting The Sustainable Stock Exchanges (SSE) Principles which were published at the 58th WFE General Assembly on October 4, 2018. In June 2018, the Exchange successfully hosted the WFE Board Meeting & Capital Markets Forum. At the 58th WFE General Assembly held in October, 2018, the Exchange was elected a Board Director of the WFE for a three-year term.

Meanwhile, the Exchange is also a member of the Asian and Oceanian Stock Exchanges Federation (AOSEF) and the International Capital Market Association (ICMA). In April 2018, the Exchange successfully held the member conference of the 36th AOSEF, enhancing the financial cooperation between exchanges in Asia-Pacific region.

Since its inception in 1990, the Exchange has been committed to becoming an international exchange and facilitating the integration of China's capital markets with international markets. Listing of the first B-share on the Exchange in 1992 marked the availability of B-share trading as a means for foreign investors to enter the Mainland's capital markets; H-share IPO on the HKEX by the SSE-listed Tsingtao Brewery in

1993, for the first time, opened up the path for Chinese enterprises to go public in Hong Kong; in the wake of China's admission to WTO in 2002, with the establishment and development of QFII and QDII programs, etc., the Exchange has been providing great services for domestic and foreign institutional investors, serving as a bridge between China and international markets.

With the strong support from the Central Government, the Hong Kong SAR Government, the Shanghai Municipal Government and regulators of the Chinese Mainland and Hong Kong, the Exchange and the HKEX successfully launched the Shanghai-Hong Kong Stock Connect in 2014 to achieve connectivity between the stock markets of Shanghai and Hong Kong, contributing to the two-way accessibility of China's capital markets, internationalization of Renminbi, development of Shanghai as an international financial center and consolidation of Hong Kong as an international financial center. Currently, trading, settlement, exchange of currencies, corporate actions and other business activities under Shanghai-Hong Kong Stock Connect operate smoothly, with the business and technical systems in stable operation.

A-shares were officially included in the MSCI Emerging Markets Index on May 31, 2018. In March 2019, MSCI announced that it would increase the inclusion factor (i.e., weight) of A-shares in MSCI indexes in three phases from 5% to 20%. More recently on June 21, 2019, A-shares were included into the FTSE Global Equity Index Series (FTSE GEIS). The inclusion of A-shares into international benchmark indices is a major achievement in the opening up of Chi-

na's capital market and facilitates China's integration with the international stock market.

On June 14, 2019, the Shanghai International Center for Communication and Cooperation between Exchanges was officially launched. It is a non-enterprise organization jointly initiated and established by the SSE, SZSE and SSE Foundation. As an international platform initiated and established by domestic exchanges, the center will provide strong support for the capital

market to serve "Belt and Road Initiative" and become an important carrier to promote the construction of Shanghai international financial center.

On June 17, 2019, the SSE London Office was officially opened, becoming – after the Hong Kong Office – the second overseas office of the Exchange, representing another solid step taken by the Exchange in international development.



Launch Ceremony for A-Shares Included in MSCI Held at SSE (From left to right: Li Hui (SZSE Vice President), Jiang Feng (SSE President), Song Yijia (Deputy Secretary General of Shanghai, Party Chief and Director of Shanghai Stated-owned Assets Supervision and Administration Commission), and Henry Fernandez (Board Chairman and CEO of MSCI))

International Collaborations

Taking the opportunity of "Belt and Road Initiative", the Exchange has never ceased its effort in exploring various ways to promote the integration of China's capital market with international markets.

In November, 2015, the Exchange, Deutsche Börse (DB) and China Financial Futures Exchange (CFFEX) set up a joint venture – China Europe International Exchange AG (CEINEX). Currently, there are 44 spot products and 1 derivative listed and traded on CEINEX. CEINEX is becoming

an influential trading platform in European markets for offshore RMB-related instruments.

In March 2017, the Exchange, China Financial Futures Exchanges, Shenzhen Stock Exchange, Pak China Investment Company Limited, and Habib Bank Limited formed a consortium and acquired 40% stake in Pakistan Stock Exchange.

In May, 2018, the Bangladesh Securities and Exchange Commission officially approved the bidding scheme of the Chinese consortium

formed by the Shanghai Stock Exchange and the Shenzhen Stock Exchange (SZSE). With the approval of the regulatory authorities of the two countries, the SSE and SZSE consortium successfully acquired 25% of the shares of Dhaka Stock Exchange.

On July 5, 2018, the Astana International Ex-

change (AIX) formally started operation. As a strategic partner of the Astana International Finance Center (AIFC) Authority, the Exchange holds a 25.1% stake in AIX and has sent staff to assist in the preparation of AIX. AIX officially commenced trading in November 2018.

Shanghai-Hong Kong Stock Connect

In December 2012, the Exchange's well-thought-out proposal for interconnecting the stock markets of Shanghai and Hong Kong received a positive response from the HKEX. Afterwards, with the great support of the CSRC, the HK SFC, relevant ministries and Shanghai Municipal Government and other parties, the Exchange and the HKEX conducted program design and discussions on various aspects of Shanghai-Hong Kong Stock Connect, such as its implementation paths and mechanism framework, in a highly confidential way. On April 10, 2014, Premier Li Keqiang officially announced the Shanghai-Hong Kong Stock Connect program at the Boao Forum for Asia. In the subsequent six months, the Exchange, together with the HKEX, the CSDC and the HKSCC, achieved fruitful results in preparing for implementing the program, completing the preparatory work in rules, protocols, business, technology, market, surveillance and risk con-

trol, etc. Since its official launch on November 17, 2014, Shanghai-Hong Kong Stock Connect has been in smooth operation and has realized the expected results.

On August 16, 2016, the aggregate quota of the Shanghai-Hong Kong Stock Connect was lifted. To better meet the investment needs of Mainland and Hong Kong investors, as of May 1, 2018, the Northbound daily quota was increased from RMB 13 billion to RMB 52 billion, and the Southbound daily quota from RMB 10.5 billion to RMB 42 billion. On September 26, 2018, the Northbound Investor ID Model was officially launched. On October 22, front-end controls for Northbound trading based on the Broker-to-Client Assigned Number (BCAN) went online, which can automatically reject ineligible trading requests, thus enhancing the mechanisms of cross-border regulatory cooperation and pro-



Launching ceremony of Shanghai-Hong Kong Stock Connect in the Shanghai Stock Exchange on Nov 17, 2014

viding mainland and Hong Kong investors with a better market environment. As of the end of July 2019, trading turnover under the Shanghai-Hong Kong Stock Connect totaled RMB 14 trillion, of which Northbound and Southbound trading accounted for RMB 9 trillion and RMB 5 trillion, respectively.

The idea of the Shanghai-Hong Kong Stock Connect program comes from the Exchange's exploration and reflection on ways to increase the accessibility of the market and the program has become one of the milestones on China's path towards further reform and opening up. In the context of a non-fully convertible capital account, Shanghai-Hong Kong Stock Connect has pioneered a new mode for cross-border securities investments which is user-friendly and keeps risks under control. As a further step in the new round of two-way liberalization of China's capital markets, Shanghai-Hong Kong Stock Connect helps to facilitate the internationalization of Renminbi, consolidate the position of Shanghai and Hong Kong as

international financial centers and significantly accelerate the globalization of the Exchange. Since its inception, Shanghai-Hong Kong Stock Connect has received great attention and recognition from Chinese leaders, positive response and wide participation from market participants



and strong interest and high praise from the international community. Acclaimed as the most complex financial innovation since the birth of Euro, Shanghai-Hong Kong Stock Connect marks a milestone in the opening up of China's capital markets and the dawning of a new era for China's capital markets. It is a masterstroke in the two-way opening-up of the capital markets of Shanghai and Hong Kong.

Shanghai-London Stock Connect



Launch of Shanghai-London Stock Connect on Jun 17, 2019

During President Xi Jinping's state visit in October 2015, to the United Kingdom, the two governments announced that "both sides support the Shanghai Stock Exchange (SSE) and the London Stock Exchange Group (LSEG) to carry out feasibility study on stock connect." Then in November 2016, at the 8th U.K.-China Economic and Financial Dialogue, the two sides agreed to proceed to research and prepare viable rules and implementation arrangements for the stock

connect. With strong support from the regulatory authorities of both countries, SSE collaborated with LSE and successfully completed the feasibility study, business plan, and preparation.

The Shanghai-London Stock Connect is a connectivity program between the SSE and LSE markets and depositary receipts are the first products launched. The program allows eligible LSE-listed companies to issue Chinese Depositary Receipts (CDRs) on the Main Board of SSE (i.e., eastbound business), and eligible A-share companies listed on SSE to issue Global Depositary Receipts (GDRs) on the Main Market of LSE (i.e., westbound business). During the initial stage of this pilot program, GDR issuers may raise capital on the LSE market, whereas CDR

issuers can only list CDRs but not raise capital on the SSE market. Connectivity between the two markets is achieved by allowing depositary receipts to be cross-border converted with the underlying shares (i.e., creation and redemption). On June 17, 2019, the launch ceremony for Shanghai-London Stock Connect was held at LSE, during which China Securities Regulatory Commission (CSRC) and the U.K. Financial Conduct Authority (FCA) made a joint announcement to approve the program. On the same day, SSE-listed Huatai Securities issued the world's first GDR, making it the first A-share company to be traded on LSE under the Shanghai-London Stock Connect program.

China-Japan ETF Connectivity

On October 26, 2018, the SSE and the Japan Exchange Group (JPX) signed a Memorandum of Understanding (MOU) on Closer Cooperation. The two sides agreed to carry out the feasibility study on ETF cooperation to jointly promote the China-Japan ETF Connectivity. On April 22, 2019, during the first China-Japan Capital Markets Forum, the SSE and the JPX signed the ETF Connectivity Agreement.

Under the China-Japan ETF Connectivity scheme, the SSE and the JPX will list ETFs tracking the ETFs listed on the other market. Specifically, the Chinese and Japanese ETF providers will respectively establish cross-border ETFs through the existing QDII and QFII mechanisms, and invest all or most of the assets into the flagship ETFs listed in the other market. On June 25, 2019, the SSE and the JPX held the launch ceremonies for the China-Japan ETF Connectivity respectively, with four SSE-JPX ETF Connectivity products successfully listed on the SSE.

The ETF connectivity is a cooperation model

chosen by the two exchanges upon seriously studying the features of the two markets and fully considering the need of cross-border investments. Through the ETF connectivity, investors can invest in the mainstream ETF products on the counterpart market through the domestic fund products, which realizes the two-way cross-border investment at low costs. It contributes to further collaboration of the capital markets as well as of the securities and asset management industries in the two countries.



Launch of China-Japan ETF Connectivity on Jun 25, 2019



Opening of CEINEX in Frankfurt, Germany

CEINEX

CEINEX is an exchange-operated joint venture established in Frankfurt by the Exchange, CFFEX and Deutsche Börse, with the approval of China's State Council and the CSRC. CEINEX's registered capital amounts to RMB 200 million (approximately EUR 27 million) and the Exchange, CFFEX and Deutsche Börse hold 40%, 20% and 40%, respectively, of the total shares of CEINEX. Positioning itself as a trading and pricing center in Europe for offshore Renminbi assets, CEINEX will cater to the needs of investors for Renminbi financing and investments, build a comprehensive risk management platform and become a key overseas extension of and supplement to the domestic capital markets.

Pursuant to the official reply of the CSRC, CEINEX has initially focused on the development of spot products such as ETFs, bonds, stocks and depositary receipts, all of which are denominated and settled in Renminbi. The first group of new products, including two ETFs and one bond, were launched on November 18, 2015. On October 24, 2018, Qingdao Haier was listed on the D-share market of the Frankfurt-based CEINEX, signaling the official launch of the D-share market and representing a breakthrough for China in building an offshore platform in Europe for Chinese blue-chips.

As of the end of June 2019, 44 spot products have been listed on CEINEX for trading, including 1 stock, 16 ETFs, and 27 bonds. On February 20, 2017, CEINEX debuted futures contracts on Deutsche X-trackers Harvest CSI 300 ETF, and is actively working on more derivatives based on key indices in the Chinese Mainland as well as on its own spot market products.



On October 24, 2018, Qingdao Haier was listed on the D-share market of the Frankfurt-based CEINEX.



CHAPTER IX

Intermediaries and Investors

Members

By 30th June, 2019, the Exchange had a total of 116 members with 11,641 business offices. Members and non-members held a total of 5,126 seats and opened a total of 21,283 participant business units.

By 30th June, 2019, the non-member Exchange participants included 113 fund management companies, 2 asset management subsidiary members, 37 B-shares abroad members, 44 insurance companies, 18 insurance asset manage-

ment companies, 16 listed commercial banks, 4 banking asset management companies, 14 banks with pledge business, 1 social security fund institution (National Council for Social Security Fund), 28 futures companies, 15 financial companies and 2 trust investment companies. In addition, SEHK Securities Trading Service Company has also become a participant of the Exchange.

Investor Base

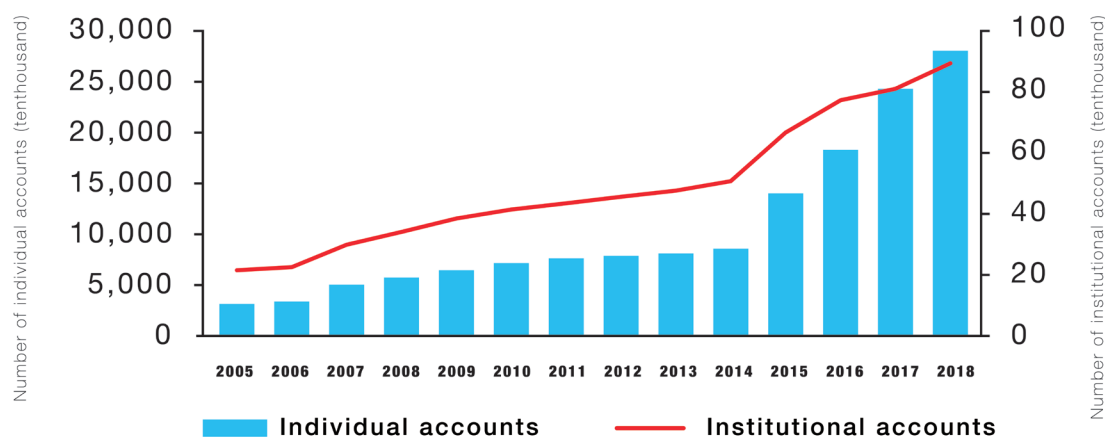
I. Individual investor accounts make up an absolute majority of investor accounts in the Shanghai stock market.

In terms of account types, investor accounts can be categorized into individual investor accounts (hereinafter referred to as “individual accounts”) and institutional investor accounts (hereinafter referred to as “institutional accounts”). Among investor accounts in the Shanghai stock market, individual accounts make up a substantial ma-

jority.

In terms of existing accounts, individual accounts make up 99% of the total accounts. By the end of 2018, there were 161 million investor accounts in the Shanghai stock market, including 160 million individual accounts and 846,000 institutional accounts.

Change in Total Number of Investor Accounts in Shanghai Stock Market

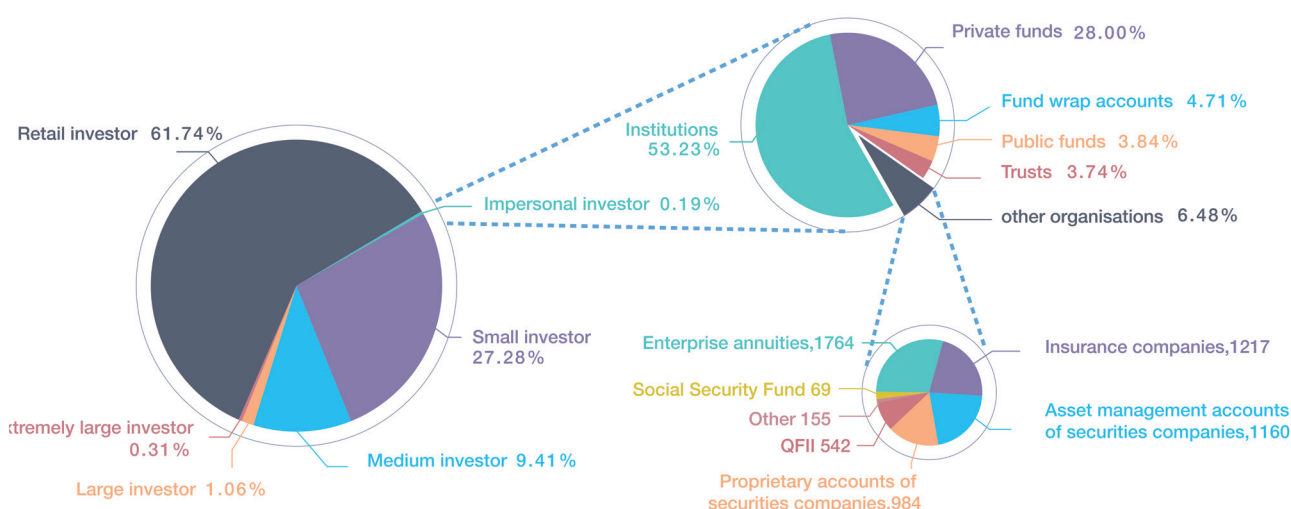


Source: Innovation Lab, SSE Capital Market Research Institute

In terms of the number of active accounts, individual accounts also enjoy absolute advantages. Although the number of active accounts in the Shanghai Stock Exchange in 2018 totaled 48.058 million which has a decrease of 2.656 million

compared with 2017, the overall structure of active accounts has not changed much——47.967 million individual accounts, accounting for 99.8% and 90,000 accounts for institutional investors, making up merely 0.2%.

The Structure of Active Accounts in the Shanghai Stock Exchange



Source: Innovation Lab, SSE Capital Market Research Institute

II. Most of individual accounts in the Shanghai stock market are retail investors

Depending on their stock holdings, individual accounts are classified into retail investors (with the market cap of their stock holdings being less than RMB 100,000), small investors (with the market cap of their stock holdings being between RMB100,000 and RMB 500,000), medium investors (with the market cap between RMB 500,000 and RMB 3 million), large investors (with the market cap between RMB 3 million and RMB10 million) and extremely large investors

(with a market value of more than RMB 10 million).

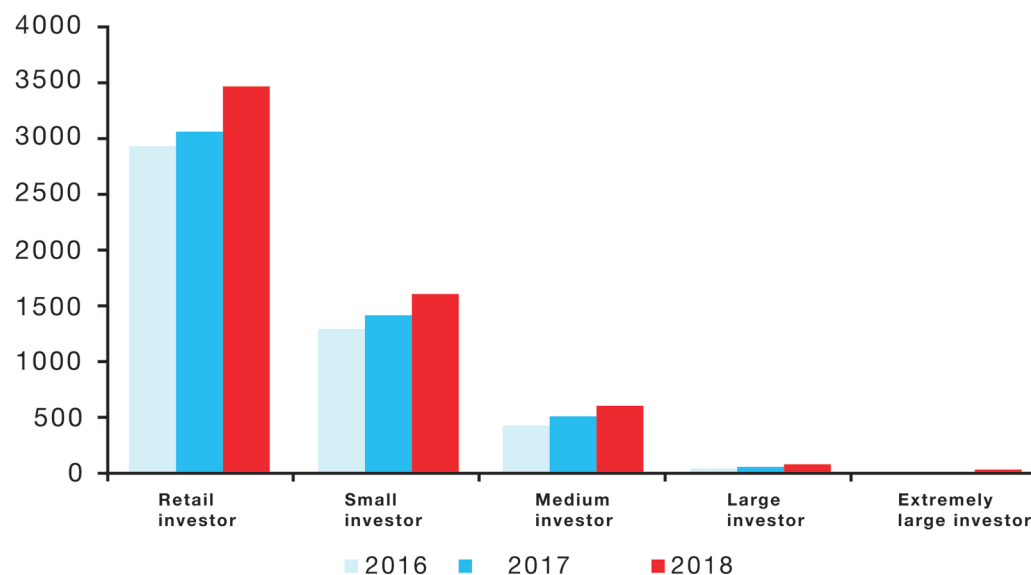
In 2018, among active individual accounts, retail investors accounted for the most (61.7%), followed by small investors (27.3%). Medium investors, large investors and extremely large investors all had a much lower number of active accounts, making up 9.4%, 1.1% and 0.3% respectively.

III. A significant portion of institutional accounts in Shanghai stock market are general institutions

According to the nature of institutional investors, they fall into 12 categories, including proprietary accounts of securities companies, asset

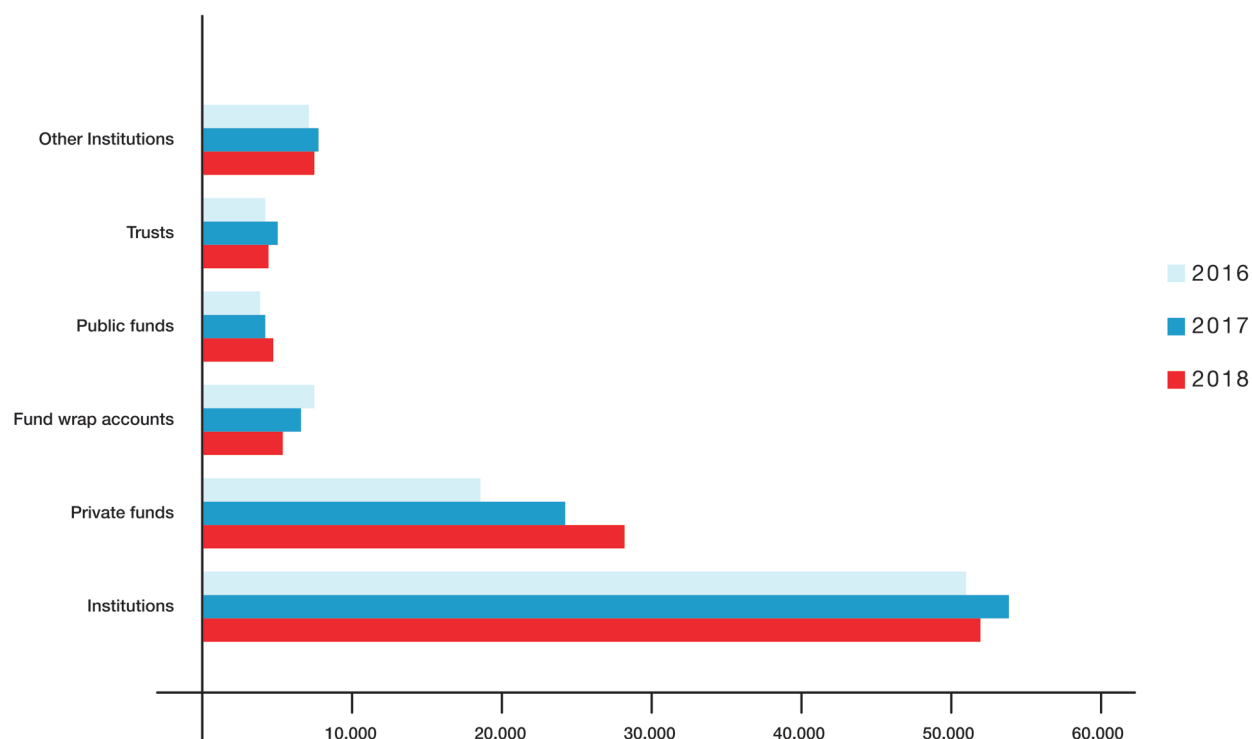
management accounts of securities companies, public funds (excluding ETFs), QFIIs, private funds, fund wrap accounts, trusts, the Social

The Numbers of Active Accounts of Individual Investors in the Shanghai Stock Market (Ten thousand)



Source: Innovation Lab, SSE Capital Market Research Institute

The Numbers of Active Accounts of Institutional Investors in Shanghai Stock Market



Source: Innovation Lab, SSE Capital Market Research Institute

Security Fund, insurance companies, enterprise annuities, general institutions (excluding securities lending accounts of securities companies) and investors under the Northbound Trading Link. In 2018, the number of active accounts of institutions is 90,000, almost the same as 2017.

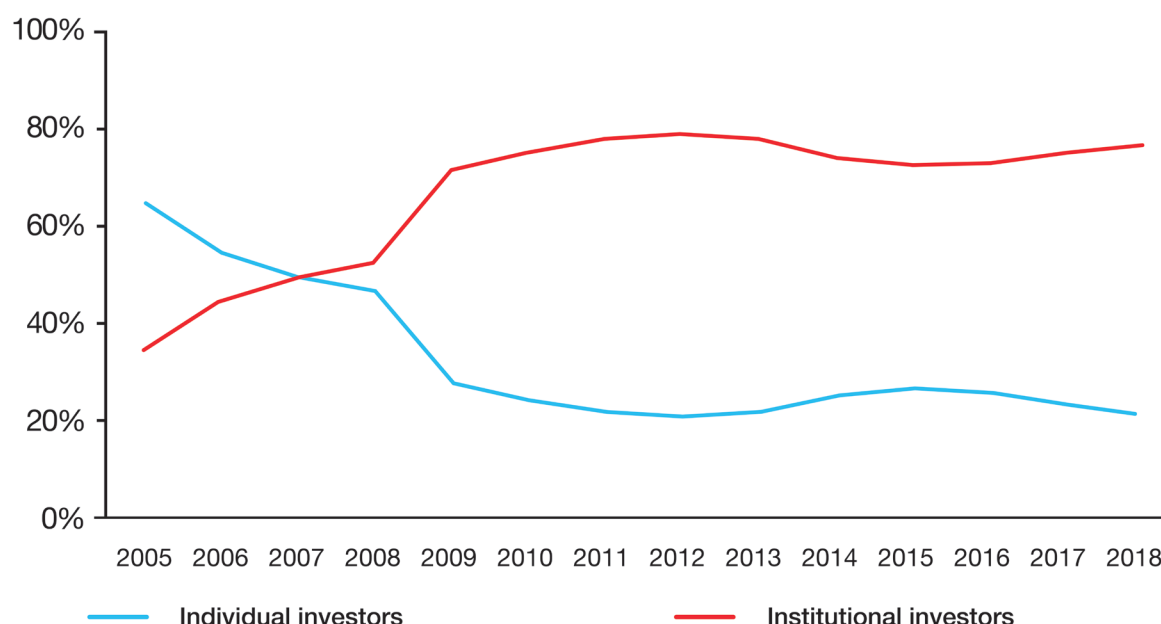
General institutions had the biggest number of active accounts, making up 53.3% of the active accounts of institutional investors, followed by private funds (28.0%, 3.6 percentage points higher than last year), fund wrap accounts (4.7%), trusts (3.7%) and public funds (3.8%).

IV. The market value of stocks held by institutional accounts is higher than that of stocks held by individual accounts

Since 2008, the market value of stocks held by institutional accounts has always been higher than that of stocks held by individual accounts in the Shanghai stock market. In 2018, institutional accounts made up 78.5% of the total market capitalization of the Exchange, rising 0.8 percent

from 2017, individual accounts decreased from 21.2% at the end of 2017 to 19.6% and accounts under the Northbound Trading Link had risen from 1.1% in 2017 to 1.9%, making it one of the most important market forces.

Change in Stock Holdings of Individual and Institutional Investors over the Years in Shanghai Stock Market



Source: Innovation Lab, SSE Capital Market Research Institute

V. Individual investors represent the absolute majority of accounts with access to the SSE STAR Market

As of June 30, 2019, a total of 4,325,000 accounts have access to STAR stocks, of which 4,279,000 (or 98.9% of the total) are individual

accounts, and a mere 45,000 (1.1%) are institutional accounts.





