



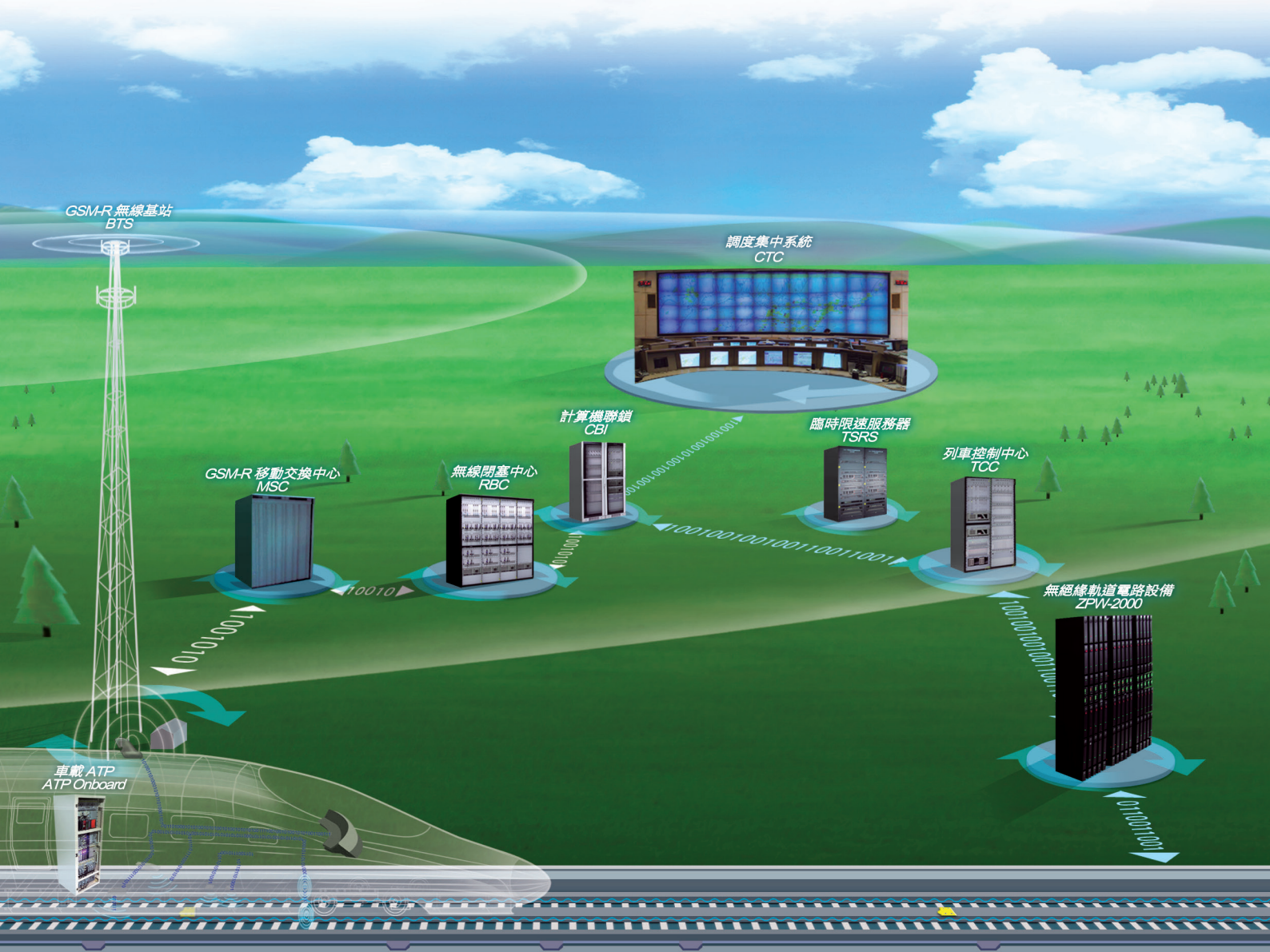
中国通号

China Railway Signal & Communication Corporation Limited*

中國鐵路通信信號股份有限公司

(A joint stock limited liability company incorporated in the People's Republic of China)

Stock code : 3969



2019 Annual Report

*For identification only

IMPORTANT NOTICE

I. THE BOARD AND THE SUPERVISORY COMMITTEE OF THE COMPANY AND THE DIRECTORS, SUPERVISORS AND MEMBERS OF THE SENIOR MANAGEMENT WARRANT THE TRUTHFULNESS, ACCURACY AND COMPLETENESS OF THE CONTENTS HEREIN AND CONFIRM THAT THERE ARE NO MISREPRESENTATIONS OR MISLEADING STATEMENTS CONTAINED IN, OR MATERIAL OMISSIONS FROM, THIS ANNUAL REPORT, AND ACCEPT SEVERAL AND JOINT LEGAL RESPONSIBILITIES.

II. WARNING OF SIGNIFICANT RISKS

For the description of relevant risks, please refer to “B. Discussion and Analysis on Business Operations” under Section IV “Report of the Directors”.

III. ALL DIRECTORS OF THE COMPANY ATTENDED THE BOARD MEETING.

IV. ERNST & YOUNG HUA MING LLP ISSUED A STANDARD UNQUALIFIED AUDIT REPORT FOR THE COMPANY.

V. ZHOU ZHILIANG, PERSON-IN-CHARGE OF THE COMPANY, HU SHAOFENG, CHIEF FINANCIAL OFFICER, AND ZHANG SHIHU, HEAD OF THE FINANCE DEPARTMENT (PERSON IN CHARGE OF ACCOUNTING), CONFIRM THAT THE FINANCIAL REPORT IN THIS ANNUAL REPORT IS TRUE, ACCURATE AND COMPLETE.

VI. PROFIT DISTRIBUTION PLAN OR RESERVES-TO-EQUITY TRANSFER PLAN DURING THE REPORTING PERIOD AS CONSIDERED BY THE BOARD

The Company plans to distribute cash dividend of RMB2 (including tax) to all Shareholders for every 10 shares based on the Company’s total share capital of 10,589,819,000 shares on 31 December 2019.

IMPORTANT NOTICE

VII. WHETHER THERE ARE IMPORTANT MATTERS SUCH AS SPECIAL ARRANGEMENTS FOR CORPORATE GOVERNANCE

Not applicable.

VIII. DISCLAIMER OF FORWARD-LOOKING STATEMENTS

This report contains forward-looking statements that are based on subjective assumptions and judgements on future policies and economic trends and are subject to a variety of uncertainties. The actual results or trends may differ from these forward-looking statements.

The forward-looking statements included in this report in relation to future plans, development strategies, etc. do not constitute any substantive commitment to investors by the Company. Investors should be aware of investment risks.

IX. WHETHER THE CONTROLLING SHAREHOLDER OR ITS RELATED PARTIES HAVE MISAPPROPRIATED THE COMPANY'S FUNDS FOR PURPOSES OTHER THAN FOR BUSINESS

No.

X. WHETHER THE COMPANY HAS PROVIDED EXTERNAL GUARANTEES IN VIOLATION OF ANY PRESCRIBED DECISION-MAKING PROCEDURES

No.

XI. OTHERS

Not applicable.

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SECTION I

DEFINITIONS

Unless otherwise stated in context, the following terms should have the following meanings in this report:

ATO	Automatic Train Operation, the automatic train operation system, a system that automatically adjusts the speed and operation status of trains to automatically control a train's operation
ATP	Automatic Train Protection, the automatic train protection equipment that automatically brakes train when it exceeds speed limits
CBTC	Communication Based Train Control System, train control system for urban transit, the wireless communication-based automatic train control system, a wireless communication system for urban transit that enables bidirectional communication between vehicle and ground facilities to control the operation of trains
CNRG	China National Railway Group Co., Ltd. (中國國家鐵路集團有限公司)
CRSC Group	China Railway Signal and Communication (group) Corporation Limited (中國鐵路通信信號集團有限公司)
CRSC or our Company or Company	China Railway Signal & Communication Corporation Limited* (中國鐵路通信信號股份有限公司)
CSRC	China Securities Regulatory Commission (中國證券監督管理委員會)
CTCS	Chinese Train Control System, developed by China for ensuring the safe operation of trains, which is divided into 0 to 4 levels based on function and equipment configuration according to the operational requirements of different lines. The higher the level, the faster the train speed applied and the higher the technical difficulty
Hong Kong Stock Exchange or Stock Exchange	the Stock Exchange of Hong Kong Limited
RBC	Radio Blocking Center, the ground core equipment of the CTCS-3 system to generate control information on the driving permission, line description and temporary speed limit for the controlled train according to the train status provided by the train ATP, the interlock path status provided by the interlock device, the track occupation status, and the temporary speed limit command provided by the TSRS and transmit such information to the on-board ATP through the GSM-R network to control the driving status of the train
reporting period	the year beginning from 1 January 2019 and ended on 31 December 2019
SASAC	the State-owned Assets Supervision and Administration Commission of the State Council (國務院國有資產監督管理委員會)
SSE	the Shanghai Stock Exchange

SECTION II

CHAIRMAN'S STATEMENT

Dear shareholders:

First of all, I would like to express my sincere gratitude on behalf of the board of directors (the "Board") of CRSC towards all shareholders and people from all sectors of society for continuous care and support for the Company!

The year 2019 is an unusual year in the development of CRSC. Under the strong leadership of the SASAC of the State Council, all employees of CRSC have stuck to their original aspiration, worked hard together, and faced the difficulties, their efforts culminating in the remarkable achievements of CRSC. On 22 July 2019, CRSC was listed (among the first batch of companies) on the Science and Technology Innovation Board of the SSE as the first central enterprise and A + H-share company, drawing widespread attention in the capital market. In 2019, the Company's operating results reached a new high with steady improvement in development quality. During the year, the Company recorded RMB70.61 billion for newly signed contracts, representing a year-on-year increase of 3.4%, operating revenue of RMB41.646 billion, representing a year-on-year increase of 4.08%, and net profit of RMB4.177 billion, representing a year-on-year increase of 12.38%.

Keeping our focus on customers, we strengthened our crisis awareness and actively enabled market linkage to gain the initiative in development. The value of newly-signed contracts of the Company in the year continued to increase steadily. In the field of rail transportation, we won bids for key "Four Electric (四電)" integration projects including Anqing-Jiujiang Railway, South Shandong Railway, Lianyungang-Xuzhou High-speed Railway, Ganzhou-Shenzhen High-speed Railway, Yuxi-Mohan Railway and Hangzhou-Shaoxing-Taiwan High-speed Railway, maintaining its leading position in the market. Under the extremely fierce market competition in the field of urban transit control system, the Company's CBTC system has successively won the bidding of key projects, such as Kunming Subway Line 5, Xi'an Subway Line 9, Nantong Subway Line 1, Tianjin Subway Line 4, Suzhou Subway Line S1 and Shenzhen Subway Line 16, further demonstrating our competitive advantages. We made some headway in overseas market development, winning the bids for the renovation project for communications and signals of Thailand Double-track Railway and Egypt 10th of Ramadan City Railway.

We adhered to the technology-driven principle, raised innovation awareness, targeted at important core technologies and made constant efforts to promote industry optimization and upgrading. We leveraged on CRSC technology to ensure safe and efficient operation of railways throughout the country and subway lines in many cities. We provided safeguards for the trial runs of CTCS-3+ATO and self-developed RBC CTCS-3 in Beijing-Shenyang High-Speed Railway, promoted trial runs of self-developed ATP comprehensive detection train, and got project approval for solutions to high-speed railway bypassing the existing line system. We made significant progress in developing the comprehensive transportation system for regional rail transit, a national key scientific research project. China's first overseas comprehensive laboratory for core control technology of high-speed train operations has been established in Serbia. We completed formulating technical standards and policies for our C3 train control system and self-developed CBTC system in all aspects and took an active part in international standardization activities.

SECTION II

CHAIRMAN'S STATEMENT

We adhered to the principle of safety first, raised the awareness of responsibility, executed our work duly and carefully and steadily enhanced the supportive measures for quality and safety. We learned and implemented General Secretary Xi Jinping's important statements on safe production and construction of the high-speed railway business as a national hallmark project, and strengthened the awareness of bottom line and red line for safety and quality, making contributions to bringing about the “most historically stable period in terms of safe operation” for China's railway sector. General Secretary Xi Jinping gave important instructions regarding the building and operation of the Beijing-Zhangjiakou Railway, which we participated in. Throughout the year, 12 high-speed railways including Beijing-Zhangjiakou, South Shandong, Shangqiu-Hefei-Hangzhou and Zhengzhou-Wanzhou railways were launched and put into safe and efficient operation, reaching a new high in the operation milestone. The Company won the titles of “Outstanding Unit for the 40th Anniversary of the Promotion of Overall Quality Management” and “Meritorious Enterprise” for the celebration of the 70th Anniversary of the founding of the People's Republic of China, etc., and its Mombasa-Nairobi Railway won the Luban Prize and eight projects including Beijing Subway Line 1 and Beijing-Shanghai High-speed Railway received honors including “Hundred Classic Projects”.

2020 is the final year of the “13th Five-year Plan” and a crucial year of transition. CRSC will continue to deepen reform and innovation, constantly enhance the competitiveness, innovation capability, control capability, influence and risk prevention capability of state-owned economy, to promote high-quality, effective and sustainable development, and give back to society, shareholders and employees with constant and healthy business performance!

ZHOU Zhiliang

Chairman

Beijing, the PRC

25 March 2020



SECTION III BASIC CORPORATE INFORMATION AND KEY FINANCIAL INDICATORS

I. CORPORATE INFORMATION

Chinese name of the Company	中國鐵路通信信號股份有限公司
Chinese abbreviation	中國通號
English name of the Company	China Railway Signal & Communication Corporation Limited*
English abbreviation	CRSC
Legal representative of the Company	ZHOU Zhiliang
Registered office of the Company	20/F, CRSC Building A 1 Compound, Automobile Museum South Road Fengtai District Beijing
Postal code of registered office of the Company	100070
Principal place of business	CRSC Building 1 Compound, Automobile Museum South Road Fengtai District Beijing
Postal code of principal place of business	100070
Principal place of business in Hong Kong	40th Floor, Sunlight Tower, No. 248 Queen's Road East, Wanchai, Hong Kong
Website of the Company	www.crsc.cn
E-mail	ir@crsc.cn

II. CONTACT PERSONS AND CONTACT METHODS

	Secretary to the Board	Representative of Security Affairs
Name	QIU Wei	SHI Guangjian
Correspondence address	CRSC Building A 1 Compound, Automobile Museum South Road, Fengtai District, Beijing	CRSC Building A 1 Compound, Automobile Museum South Road, Fengtai District, Beijing
Telephone	010-50809077	010-50809077
Fax	010-50809075	010-50809075
E-mail	ir@crsc.cn	ir@crsc.cn

SECTION III BASIC CORPORATE INFORMATION AND KEY FINANCIAL INDICATORS

III. INFORMATION DISCLOSURE AND PLACE OF INSPECTION

Media designated by the Company for information disclosure	China Securities Journal, Shanghai Securities News, Securities Times and Securities Daily
Website designated by the CSRC for publishing the A share annual report of the Company	www.sse.com.cn
Website designated by the Hong Kong Stock Exchange for publishing the H share annual report of the Company	www.hkexnews.hk
Place of inspection of the annual report of the Company	Board Office of the Company
Index to changes during the reporting period	None

LANGUAGE AND MEANS OF RECEIPT OF CORPORATE COMMUNICATIONS

The Company provides corporate communications to the shareholders based on their respective selected language version and means of receipt. The shareholders have the following options:

- to read the online version of all corporate communications published on the Company's website by electronic means instead of receiving the printed version and receive written notice for the publication of the corporate communications published on the Company's website;
- to receive printed English version of all corporate communications only;
- to receive printed Chinese version of all corporate communications only; or
- to receive both printed English and Chinese version of all corporate communications.

The shareholders may choose and/or change their choice on the language version of our corporate communications and/or the way to receive the corporate communications at any time. The shareholders may notify the Company of their options by the following ways:

- by mail: 17M Floor, Hopewell Centre, 183 Queen's Road East, Wanchai, Hong Kong
- by email: crsc.ecom@computershare.com.hk

For enquiry on the arrangement of selection of the language version and means of receipt of corporate communications, the shareholders may contact the hotline at +852 2862 8688 at any time.

SECTION III BASIC CORPORATE INFORMATION AND KEY FINANCIAL INDICATORS

IV. BASIC INFORMATION OF SHARES/DEPOSITARY RECEIPTS OF THE COMPANY

(I) BASIC INFORMATION OF SHARES OF THE COMPANY

Basic information of shares of the Company

Class of share	Place of listing and sector	Stock abbreviation	Stock code	Stock abbreviation before change
A share	SSE	CRSC	688009	None
H share	Hong Kong Stock Exchange	CRSC	03969	None

(II) BASIC INFORMATION OF DEPOSITARY RECEIPTS OF THE COMPANY

Not applicable.

V. OTHER RELEVANT INFORMATION

JOINT COMPANY SECRETARIES

Ms. QIU Wej ^{Note 1}
Ms. NG Wing Shan (*FCIS, FCS*)

AUTHORIZED REPRESENTATIVES

Mr. ZHOU Zhiliang
Ms. NG Wing Shan (*FCIS, FCS*)

H SHARE REGISTRAR

Computershare Hong Kong Investor Services Limited
Shops 1712-1716
17th Floor, Hopewell Centre
183 Queen's Road East
Wanchai, Hong Kong

LEGAL ADVISERS

Hong Kong Legal Adviser

Clifford Chance
27th Floor, Jardine House
1 Connaught Place
Central, Hong Kong

PRC Legal Adviser

Zhong Lun Law Firm
33, 36, 37/F, SK Tower
A6 Jianguomenwai Avenue, Chaoyang District
Beijing, China

SECTION III BASIC CORPORATE INFORMATION AND KEY FINANCIAL INDICATORS

Accountant of the Company	Name Office address	Ernst & Young Hua Ming LLP ^{Note 2} No. 3 Building, East Zone, No.1 East Chang An Avenue Dongcheng District, Beijing
	Name of signing accountants	ZHANG Xiaoliang, WANG Min
Sponsor institution performing the duty of continuous supervision during the reporting period	Name Office address	China International Capital Corporation Limited 27th and 28th Floor, China World Office 2, 1Jianguomenwai Avenue, Chaoyang District, Beijing, the PRC
	Name of signing sponsor representative	MA Qinghai, WU Jiaqing
	Term of continuous supervision	From the listing date to 31 December 2022

Note: 1. Since 4 November 2019, as succession of Mr. HU Shaofeng, Ms. QIU Wei has served as a joint company secretary of the Company.

Note: 2. Pursuant to the amendments to the Hong Kong Listing Rules and relevant requirements of the Ministry of Finance and the CSRC, a company incorporated in mainland China and listed on the Hong Kong Stock Exchange is permitted to adopt the PRC GAAP Standards to prepare its financial statements and to engage a domestic accounting firm recognized by the Ministry of Finance and the CSRC to provide relevant services according to the PRC auditing standards since 15 December 2010. Therefore, the Company appointed one auditor as its external auditor starting from the financial year of 2019 (no division of domestic and overseas).

SECTION III BASIC CORPORATE INFORMATION AND KEY FINANCIAL INDICATORS

VI. KEY ACCOUNTING DATA AND FINANCIAL INDICATORS IN THE PAST THREE YEARS

(I) Key accounting data

Unit: Yuan Currency: RMB

Key accounting data	2019	2018	Change as compared with the corresponding period of last year (%)	2017
Revenue	41,646,286,792.57	40,012,601,322.24	4.08	34,585,933,621.04
Net profit attributable to shareholders of the listed company	3,815,874,901.39	3,408,545,542.62	11.95	3,222,483,597.72
Net profit deducting non-recurring profit or loss attributable to shareholders of the listed company	3,501,282,304.33	3,295,190,747.94	6.25	3,091,815,598.84
Net cash flows from operating activities	3,371,360,784.87	-1,586,789,943.14	-	-886,018,363.82
	As at the end of 2019	As at the end of 2018	Change as compared with the end of last year (%)	As at the end of 2017
Net assets attributable to shareholders of the listed company	41,119,607,362.50	28,908,396,681.99	42.24	24,019,050,920.26
Total assets	97,512,591,304.36	79,678,537,628.47	22.38	61,244,644,570.65

SECTION III BASIC CORPORATE INFORMATION AND KEY FINANCIAL INDICATORS

(II) Key financial indicators

Key financial indicators	2019	2018	Change as compared with the corresponding period of last year (%)	2017
Basic earnings per share (RMB/share)	0.38	0.38	–	0.37
Diluted earnings per share (RMB/share)	0.38	0.38	–	0.37
Basic earnings per share after deduction of non-recurring profit or loss (RMB/share)	0.35	0.37	-5.41	0.35
Weighted average rate of return on net assets (%)	12.77	13.58	Decreased by 0.81 percentage point	14.09
Weighted average rate of return on net assets after deduction of non-recurring profit or loss (%)	11.72	13.13	Decreased by 1.41 percentage points	13.52
R&D investment as a percentage of revenue (%)	3.85	3.45	Increased by 0.40 percentage point	3.41

Key accounting data and financial indicators of the Company in the past three years as at the end of the reporting period

Not applicable.

VII. DIFFERENCES IN ACCOUNTING DATA UNDER DOMESTIC AND OVERSEAS ACCOUNTING STANDARDS

(I) Differences in net profit and net assets attributable to shareholders of the listed company in financial reports disclosed in accordance with international accounting standards and Chinese accounting standards

Not applicable.

SECTION III BASIC CORPORATE INFORMATION AND KEY FINANCIAL INDICATORS

- (II) Differences in net profit and net assets attributable to shareholders of the listed company in financial reports disclosed in accordance with overseas accounting standards and Chinese accounting standards

Not applicable.

- (III) Explanation of differences between domestic and overseas accounting standards:

Not applicable.

VIII. MAIN QUARTERLY FINANCIAL DATA FOR 2019

Unit: Yuan Currency: RMB

	The first quarter (January to March)	The second quarter (April to June)	The third quarter (July to September)	The fourth quarter (October to December)
Revenue	7,885,358,465.48	12,626,219,377.38	7,609,334,194.78	13,525,374,754.93
Net profit attributable to shareholders of the listed company	676,450,474.26	1,591,442,612.60	544,389,952.79	1,003,591,861.74
Net profit deducting non-recurring profit or loss attributable to shareholders of the listed company	655,248,439.39	1,405,247,761.21	517,074,593.08	923,711,510.65
Net cash flows from operating activities	-1,107,082,379.52	976,914,069.28	469,527,689.52	3,032,001,405.59

Explanation of differences between quarterly data and data disclosed in the periodic report

Not applicable.

SECTION III BASIC CORPORATE INFORMATION AND KEY FINANCIAL INDICATORS

IX. NON-RECURRING PROFIT OR LOSS ITEMS AND AMOUNTS

Unit: Yuan Currency: RMB

Non-recurring profit or loss items	Amounts of 2019	Amounts of 2018	Amounts of 2017
Profit and loss of disposal of non-current assets	-1,382,312.77	-4,136,576.96	975,322.77
Government grants recognised through profit or loss (other than government grants which are closely related to the Company's normal business operations, which comply with national policies and can be enjoyed continuously based on a fixed amount or a fixed quantity)	67,680,990.59	128,501,713.65	114,961,257.74
Reversal of impairment provisions for receivables that are individually tested for impairment	/	/	8,755,316.90
Reversal of impairment provisions for receivables and contract assets that are individually tested for impairment	54,934,954.40	34,841,407.21	/
Other net non-operating income/expenses other than the above items	43,910,945.85	-21,386,663.64	22,822,804.55
Other profit and loss items falling within the definition of non-recurring profit and loss	243,017,735.72	20,981.71	12,524,145.16
The impact from minority interest	-224.46	-	-
The impact from income tax	-93,569,492.27	-24,486,067.29	-29,370,848.24
Total	<u>314,592,597.06</u>	<u>113,354,794.68</u>	<u>130,667,998.88</u>

Note: Other profit and loss items falling within the definition of non-recurring profit and loss of 2019 are mainly the investment income from disposal of the equity interest of its subsidiary CRSC Real Estate Co., Ltd.

SECTION III BASIC CORPORATE INFORMATION AND KEY FINANCIAL INDICATORS

X. ITEMS MEASURED AT FAIR VALUE

Unit: Yuan Currency: RMB

Item	Opening balance	Closing balance	Current change	Amount of impact on current profit
1. Other equity instrument investments	653,814,229.20	806,064,229.20	152,250,000.00	—
2. Receivables for financing	<u>1,845,116,686.79</u>	<u>1,478,647,844.54</u>	<u>-366,468,842.25</u>	<u>—</u>
Total	<u><u>2,498,930,915.99</u></u>	<u><u>2,284,712,073.74</u></u>	<u><u>-214,218,842.25</u></u>	<u><u>—</u></u>

XI. OTHERS

Not applicable.

SECTION IV REPORT OF THE DIRECTORS

A. SUMMARY OF THE COMPANY'S BUSINESSES

I. MAJOR BUSINESSES AND OPERATION MODE, INDUSTRY INFORMATION AND RESEARCH AND DEVELOPMENT INFORMATION OF THE COMPANY DURING THE REPORTING PERIOD

(I) Major Businesses, Major Products or Services

The Company has always been focusing on the research and exploration of rail transportation control system technology and is committed to providing safe and efficient core support for the operation of national rail transportation. It has become a world-leading rail transportation control system solution provider with industry-leading research and development and integration capabilities to provide integrated services throughout the industry chain of rail transportation control system to its customers.

The Company provides products and services throughout the industry chain of rail transportation control system, with its main business covering: 1) Design and integration, mainly includes provision of system integration services for related products of rail transportation control system and provision of design and consultancy services mainly for construction of rail transportation projects; 2) Equipment manufacturing, mainly includes producing and selling signal system, communication information system products and other related products; 3) System implementation, mainly includes construction, equipment installation and maintenance services for rail transportation control system projects.

The Company adheres to the development strategy of "one core business with diversification into related businesses". In addition to the businesses related to rail transportation control system industry, the Company also provides tramcars, smart city, power supply and electrification, construction contracting and other related diversified products and services. The Company attaches great importance to the accumulation and continuous innovation of technology, actively faces the forefront of world science and technology, and carries out forward-looking research. In the future, the Company will continue to carry out research and development of advanced and intelligent technologies, and strive to make breakthroughs in advanced rail transportation control, intelligent comprehensive operation and maintenance of rail transportation, smart city and industry communication information, special chips for rail transportation and other fields, leading the new direction of industry development.

There was no material change in the Company's major businesses since its establishment.

SECTION IV REPORT OF THE DIRECTORS

(II) Major Operation Modes

The Company has been working in the field of rail transportation control system for many years and has formed a stable and efficient business model in line with China's railway and urban transit policies, operation mode and market environment. The Company mainly obtains orders through public bidding, and mainly obtains production raw materials through centralized procurement. The Company provides integrated and comprehensive services of rail transportation control system to its customers under the mature business mode of design and integration, equipment manufacturing and system implementation.

1. Sales mode

The Company takes advantage of industry technology and the whole industry chain, actively participates in domestic and foreign user procurement activities with the aim of responding to users' needs and providing highly secure and reliable products and services, and obtains product and service orders through market competitions such as bidding and business negotiation.

2. Production and service mode

The production and service mode adopted by the Company in design and integration, equipment manufacturing and system implementation etc. is mainly formed in line with the overall operation mode of railway and urban transit system in the PRC, and customized production and service can also be provided according to the specific needs of owners. The Company provides relevant products and services in strict accordance with the contract requirements on schedule and quality.

3. Purchase mode

The Company strictly follows relevant national laws and regulations and standardizes various procurement activities in accordance with *the Administrative Measures for the Procurement in China Railway Signal & Communication Corporation Limited** (《中國鐵路通信信號股份有限公司採購管理辦法》). Procurement methods mainly include public tender, tender invitation, competitive negotiation, inquiry and bidding, etc., and the Company will select the applicable procurement methods according to the specific conditions of projects to ensure procurement efficiency. The Company mainly implements a centralized procurement system, under which the Company's engineering management center acts as the centralized management department for procurement activities and is responsible for formulating the relevant system of procurement management, monitoring and reviewing the procurement activities at various levels of the Company. The centralized procurement system is carried out at two levels, including two modes, namely the centralized procurement by the Company's headquarter and the centralized procurement by subordinate secondary enterprises. Secondary enterprises also have a sound procurement management system, under which the procurement activities of subordinate enterprises are independently and centrally managed by the specialized procurement department.

SECTION IV REPORT OF THE DIRECTORS

4. *Management mode*

The Company implements a two-level operation and management mode, under which the headquarter and each of the subsidiaries are responsible for the projects executed by them respectively. The headquarter is responsible for formulating the overall strategic plan, centrally organizing and coordinating the operating activities of subsidiaries, making material decisions and improving the operation and management system of the Company while it is also the one to implement major project management. Subsidiaries are responsible for formulating their own operation and management systems and annual operating plans and goals, etc., and they also manage and operate their own contracted projects by setting up operating management institutions according to their respective operating plans and status.

(III) Relevant Industry Information

1. *Industrial development stage, basic characteristics and main technical thresholds*

Major businesses of the Company are design and integration, equipment manufacturing and system implementation of rail transportation control system, and it belongs to the “C37 railway, ship, aerospace and other transportation equipment manufacturing industry” according to *the Guidelines for the Industry Classification of Listed Companies (Revised in 2012) issued by the CSRC*. Seen from the perspective of global railway industry, the period since the late 1990s is the third development wave of high-speed railways, and the number of countries and regions that are building and planning to build high-speed railway is growing rapidly. As shown in the report *High Speed Lines In the World* released by the Worldwide Railway Organisation (UIC) in March 2019, the operation mileage of high-speed railways in the world has reached 46,400 kilometers, the mileage under construction has reached 12,000 kilometers, the planned mileage has reached 13,100 kilometers, and the long-term planned mileage has reached 27,400 kilometers. Seen from the perspective of the domestic railway industry, according to *the Medium- and Long-term Railway Plan (2020-2035) (for comments)*, the high-speed railway network will be expanded from “eight vertical and eight horizontal lines” to “ten vertical and ten horizontal lines”, and *the Planning Outline of the National Comprehensive Three-Dimensional Transportation Network (2021-2050)* and other documents also set the tone for the domestic railway construction to enter a new climax in the future. As of the end of 2019, the domestic mileage of railways in operation was approximately 139,000 kilometers, of which 35,000 kilometers were high-speed railways, indicating that there is still broad market space for new railway lines in the future. With the operation time of high-speed railway lines opened around 2010 reaching or approaching 10 years, the corresponding train control system has gradually entered the renewing and upgrading cycle, and thus the relevant market will gradually open. Seen from the perspective of global urban transit industry, at present, the developed urban transit system plays an increasingly important role in the urban passenger transport system. Major cities such as New York, Washington, Chicago, London, Paris, Berlin, Tokyo, etc. have basically completed the construction of urban transit network, and the construction of urban transit in emerging countries and regions is in the ascendant. Seen from the perspective of domestic urban

SECTION IV REPORT OF THE DIRECTORS

transit industry, in recent years, the continuous expansion of urban scale has injected power into the urban transit industry. Some large cities have completed a number of projects in succession, which has significantly improved the urban traffic situation and played an important role in giving full play to the urban functions, improving the environment and promoting economic and social development. In accordance with the “13th Five-Year Plan”, the domestic mileage of urban transit in operation will increase by approximately 3,000 kilometers and the number of cities where network scale exceeds 400 kilometers will be over 10 by 2020. As of the end of 2019, the newly approved planned lines were nearly 700 kilometers and another batch of lines are under planning. China’s urban transit industry has also ushered in a period of high-speed development, and some of the early built metro lines also need upgrading and transformation to meet the operation needs.

The basic characteristic of the rail transportation control system industry is the high threshold of core technology. Customers have extremely high requirements for the safety, reliability and sustainability of the products and services provided, which requires enterprises to have a strong anti-risk ability. In addition, from the perspective of the full cycle of rail transit construction and maintenance, it also has significant cyclical characteristics. According to the requirements of relevant technical specifications and industry practices, the life cycle of high-speed rail transportation control system is generally about 10 years.

China’s rail transit system has the characteristics of dense railway network, many hubs, fast train speed (maximum operating speed of 350km/h), long distance span (the train may cross the extremely cold and hot regions during driving), etc. With the characteristics of interconnection, high stability, high environmental adaptability, high system security, high calculation accuracy, etc., the rail transportation control system independently developed and fully applied by the Company can protect China’s huge and complex rail transit system.

The Company has world-class and domestic leading technology. The Company has been engaged in the rail transportation control system industry for many years, taking the lead in the formulation of CTCS (Chinese Train Control System) standards and the research and development of core technologies. It has undertaken a number of national major scientific research projects, providing technical support for the construction of China’s high-speed railways, plateau railways, alpine railways and heavy-duty railways, the speed increase of existing lines and the construction of urban transit. CTCS train operation control system, urban transit CBTC system, freight railway CIPS integrated automation system and other research and development achievements independently developed by the Company have been widely used in the field of rail transit and maintained an efficient, safe and stable operation state, with a large number of actual operation data. The Company also has a number of world leading laboratories and R&D centers and has accumulated abundant experimental cases, providing a strong guarantee for the Company’s future technology upgrading.

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The Company provides integrated and comprehensive services of rail transportation control system to its customers under the mature business mode of design and integration, equipment manufacturing and system implementation. This business mode improves the Company's ability of customization, allowing it to provide customers with different products and service combinations flexibly, which effectively meets customers' all-round needs, eventually forming the Company's unique competitive advantages.

2. Analysis of relevant industrial status and changes thereof

The Company is a world-leading provider of rail transportation control system solutions. In the field of high-speed railway, as of the end of 2019, the cumulative contracted mileage covered by the Company's core products and services of high-speed railway control system ranked the first in the world. As of the end of 2019, the contracted mileage coverage rate of the Company exceeded 60% based on the cumulative contracted mileage statistics of domestic high-speed railway control system integration projects. The core equipment of high-speed railway control system produced by the Company, such as track circuit, centralized traffic control system, computer interlocking, CTCS-3 on-board ATP system, RBC and train control center, has taken up leading market shares. Meanwhile, the Company also holds a significant leading position in the urban transit market in the PRC and is the largest domestic provider of urban transit control system solutions. Since the establishment, the Company's core products and services of urban transit control system have covered nearly 90 urban transit routes in the PRC which have been in operation and completed the bidding of control system, having the leading position in the industry. Currently, the Company keeps growing in the domestic market, it also exerts efforts to develop overseas markets and strives to further enhance its influence in the global market.

As a world-leading provider of rail transportation control system solutions, the Company will continue to seize favorable industry trends and opportunities, fully utilize the world-frontier technologies, take advantage of industry chain integration, further increase investment in research and development and put an emphasis on making strategic breakthroughs in the structural adjustments to industry products, historical breakthroughs in core technologies and internationalization breakthroughs in China's high-speed railway standards and industry export. Meanwhile, the Company will accelerate the conversion of research results into industrial production, continuously enhance its management as a modern enterprise, proactively adapt to new environments and new changes, seize market opportunities ahead of others, actively participate in global competition to consolidate its leading position in global industry of rail transportation control system and become a world-class multinational industrial group with the characteristics of its rail transportation control technology.

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3. *Development of new technology, new industry, new business type and new mode during the reporting period and future development trend*

In recent years, the communication among different regions has also become increasingly frequent while the economy of the PRC experienced rapid growth, and transportation is playing more and more prominent role in promoting and contributing social economy. As an important means of transportation, rail transportation is a pillar industry of national economy. China's railway transportation industry will continue to take the advancing of "One Belt, One Road" initiative as priority, and perform the work in the fields of survey and design, engineering construction, high speed multiple units, train control, traction power supply, operation management and safety control abroad; while at home China's railway transportation industry will focus on optimizing urban agglomeration railway and rail transportation planning and operation management, strengthen regional cohesion, promoting fast development of modern urban agglomeration and metropolitan area of the PRC. Meanwhile, along with the continuous expansion of the scale of the use of railway infrastructure and equipment, railway operation and maintenance system gradually becomes a rigid demand for railway construction, and it also plays more critical role in maintaining safe transportation order of railway. Therefore, the Company will conduct the research and development of new generation train operation control system and equipment which are suitable to multiple transportation models and faster, more efficient, more intelligent and safer, build a full industrial chain of new generation train control system from design, research & development, manufacturing to implementation of deliverables; the Company is carrying out study of integrated operation and maintenance system and providing whole set of operation and maintenance solution to realize the improvement of level of the automation and intellectualization of operation and maintenance.

(IV) Core Technology and Research and Development Progress

1. *Core technology and its leading edges and changes during the reporting period*

The Company focuses on technology research & development, and promotes sustainable development of its overall business by technology innovations. Since its establishment, the Company has been working in the field of rail transportation control system, and owned many industry-leading core technologies leveraging on its outstanding technology innovation strength. As of the end of 2019, the Company has 1,901 registered patents to protect its core technologies in the PRC, meanwhile, the Company signed special confidentiality agreements with relevant technicians regarding core technologies to ensure that core technologies would not be disclosed or spread.

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The core technologies owned by the Company primarily include but not limited to the below:

No.	Core technology	Source of technology	Technical level and degree of application
1	Train operation control technology	Independently researched and developed	Train operation control technology has been widely used in HSRs, ICRs and other fields, which provides core technical guarantee for highly efficient and safe operation of rail transportation. Responding to the demand for highly safe and reliable operation of rail transportation, this technology has addressed certain significant technology issues such as dynamical control curve model of train, precise positioning of train, speed and distance detecting of train, onboard fully functional seamless switch, wireless redundancy coverage of multiple doubling railways, moving blocking and railway network connectivity.
2	Automatic train operation technology	Independently researched and developed	Automatic train operation technology has been successfully applied in the fields of HSRs, ICRs and urban transit. Based on train control system, by using this technology, automatic train operation is realized; through advanced automatic driving control algorithm, certain significant technology issues such as calculation of desired speed curve of train operation, the algorithm of precise stop of train, intelligent control of multiple objects, perception of status in complex operation environment, remote safe control have been addressed, and multiple indicators such as punctuality rate of operation and train parking accuracy and ride comfort and operation consumption have been improved.

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No.	Core technology	Source of technology	Technical level and degree of application
3	Integrated automation technology of freight railway	Independently researched and developed	Integrated automation technology of freight railway has been widely used in many marshaling yards in national railway and dispatch centers of railway bureaus, which provides core technology guarantee in improving railway freight efficiency, benefit and safety. The technology has addressed some significant technology issues such as intelligent calculation of freight traffic, intelligent adjustment of running line of railway wagons, intelligent preparation of locomotive usage plan and shunting plan, smart issuance of periodical maintenance and repair plan of vehicles, source control of train operation, as a result, the railway freight efficiency and intellectualization level have been improved.
4	Train traffic control automation technology	Independently researched and developed	Train traffic control automation technology has been widely used in HSRs, ICRs, urban transit and some normal-speed railways. This technology integrates computer technology, network technology and control technology, forms a closed-loop system of train operation dispatch and instruction, addresses technology issues such as train tracing, automatic control for hump rolling routes, prevention and control of mistaken receiving-departure at multi-directional hub station, train dispatch management and control at sectional station and intermediate station and intelligent adjustment of operation plan, as a result, automation level of operation instruction and emergent handling level have been improved.

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No.	Core technology	Source of technology	Technical level and degree of application
5	Intelligent detection, operation and maintenance technology of rail transportation	Independently researched and developed	Intelligent detection, operation and maintenance technology of rail transportation has been successfully used in the fields of HSRs, normal-speed railways, urban transit. By virtue of Big Data system and Cloud Service technology, the technology has been adopted to promote the development of detection, operation and maintenance of rail transportation towards digitalization, intellectualization and informatization. With the technologies such as diverse integration of intelligent perception, multi-drive engines integration of analysis and judgement, Big Data health assessment analysis as breakthrough points, through expert system, mode identification, trend analysis, comprehensive appraisal, comprehensive positioning and mobile internet, it has realized the advance prediction of rail transit operation risks, active maintenance and health management of key equipment during whole lifetime based on all factors such as personnel, equipment, environment and operation and maintenance processes , improved the maintenance efficiency of equipment, effectively shortened breakdown time, and significantly decreased the failure rate of equipment.
6	Train control integration technology	Independently researched and developed	The Train control integration technology has been widely used in the fields of HSRs, ICRs, urban transit. Through the integrated engineering software design platform integrating data platform technology and graphic software technology, the technology has been applied to make engineering design, data allocation, automatic compiling an organic entirety, resulting in the improvement of software integration; by summarizing features of domestic hub and utilization scenario, an integration process of site installation, commissioning, test and construction standardization has been built. This technology is appropriate for the connectivity of different modes of equipment with various operation grades at newly-built routes, reconstructed routes and complex hubs.

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No.	Core technology	Source of technology	Technical level and degree of application
7	Safe computer platform technology	Independently researched and developed	The safe computer platform technology has been widely used at the train operation control system centers, stations, onboard safe control devices, which provides a very safe, reliable, high-performed and expandable basic software and hardware platform. This technology has addressed some core technology issues such as safe drive and collection based on electronic components, clock level multi-machine synchronous comparison, operation fault detection and fast redundancy switch, and it has been granted highest grade safety certification of International Functional Safety Standard.
8	Mobile frequency key control signal safety modulation technology	Independently researched and developed	Mobile frequency key control signal safety modulation technology has been widely used in the fields of HSRs, ICRs and normal-speed railways. This technology has built a set of fault-safety rail circuit system with mobile frequency key control signal as power and rail as conductor, addressed contactless safety signal source technology, mobile frequency key control signal digital spectrum analysis technology, all-region at transmission channel detection technology, and realized safe and core functions covering rail section occupancy-idling detection, transmitting information to train through rail, and real-time detection of completeness of rails.

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No.	Core technology	Source of technology	Technical level and degree of application
9	Turnout switch technology	Independently researched and developed	Turnout switch technology has been widely used in the fields of HSRs, normal-speed railways, heavy-haul railways and urban transit in the PRC. This technology has addressed the major problems in large-size turnout switch synchronization technology, industrial and electrical interface integration, the switch technology of movable point frog of high speed turnout, external-locking technology of turnouts, established world-leading high speed turnout switch system technology system, and provides powerful safeguard to the development of railway in the PRC.
10	Rail transportation simulation test technology	Independently researched and developed	Rail transportation simulation test technology has been widely used in the fields of HSRs, ICRs, freight railways, urban transit, which provides support to test and verification processes at various stages of lifetime from plan verification, function development, system integration to engineering execution of train control system, freight and train operation instruction system. This technology has addressed some significant technology issues such as simulation test structure based on distribution semi-physical, modelling approach for complex engineering system, multi-source data at multi-level traceable test management method, automatic test, reappearance of fault and analysis, safe control system interface monitoring, test of optimization deployment of environmental resources, aiming at large scale of simulation of tested object, greater isotacticity and strong instantaneity and higher automation, and the utilization of such technology improved the defect remediation rate and quality reliability of tested system.

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No.	Core technology	Source of technology	Technical level and degree of application
11	High precision simulation technology based on coupling of multi-physics	Independently researched and developed	High precision simulation technology based on coupling of multi-physics has been applied to build a high precision simulation analysis platform with error within 0.5%. This technology enables ground rail circuit system to work safely and reliably under complex natural conditions, electromagnetic environment and complicated route conditions, including in the circumstances of coupling of multi-physics of high speed train rails contact electric shunt, high power electrification traction current disturbance, high-frequency transient signal shock caused by lightening, bridge-roadbed-tunnel multi-space structure routes, alternating dry-wet ballast bed and parallel running on complex hub multi routes. The platform was used for precise analysis of transmission features of approximately 10,000 typical deployment rail circuits at engineering. This technology has played an important role in building core competitiveness of China's high speed railway.
12	Manufacture technology of rail transportation safety products	Independently researched and developed	The operation control system of rail transportation has a high requirement to safety and reliability. Based on complete identification of product manufacture risk, the manufacture technology of rail transportation safety products target the control in the whole process from material selection, manufacture equipment, production technology, test and detection, reliability verification to lifetime analysis, thus providing a systematic quality assurance basis for the safety and reliability of products.

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No.	Core technology	Source of technology	Technical level and degree of application
13	Application technology in broadband wireless communication industry	Independently researched and developed	Application technology in broadband wireless communication industry is based on broadband wireless communication technology of LTE-M/R, which can actualize data transmission and integration of multiple operations, improve the efficiency and experience of trunking command direction system. This technology can meet the demand of wireless broadband, terminal intellectualization and business mobilization.
14	Comprehensive video monitoring technology for rail transportation	Independently researched and developed	Comprehensive video monitoring technology for rail transportation has been widely used in the transportation fields such as HSRs and ICRs, which provides comprehensive management system containing video monitoring, Big Data display and visualization for safe operation of rail transportation. Aiming at the demand for all-weather and full-coverage monitoring, this technology has addressed the technology issues such as decoding and forwarding of high definition video stream, concurrency of read-write, unity and connect of railway three-stage platform, massive video retrieval, intelligent face recognition and certification, intelligent operation and maintenance, clustering of platform management, dynamic load balance of storage resource and engineering, thus, leading the development of comprehensive video monitoring technology for rail transportation.

The Company actively deployed innovation chain surrounding industrial chain, and it was dedicated to transformation and industrialization of core technology achievements. It applied its core technology to rail transportation core systems such as train control system of railway, train control system of ICRs, train control system of urban transit, freight automation system, operation command automation and detection system and communication information system. The development of core businesses such as design and integration, equipment manufacturing, system implementation of rail transportation control system of the Company will fully depend on its core technology. During the reporting period, no material change in the core technology occurred.

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2. *Research and development achievements during the reporting period*

During the reporting period, the Company has completed the commissioning of C3+ATO and C3 grade automation RBC on Beijing-Shenyang Railway. The Company's solution of high-speed moving around existing route system has been reviewed and approved by China State Railway Group, great progress in R&D of comprehensive transportation system in regional rail transportation has been made, and the first overseas high-speed train control technology lab of the PRC has been set up in Europe, and a large number of research projects have been executed and advanced rapidly. Regarding the Company's core technologies and main products, newly authorized patents increased by 470, and the total number of accumulative effective authorized patents reached 1,901. The Company has obtained 20 awards above provincial and ministerial level, undertaken 39 research projects supported by governmental authorities and industrial administration organizations, completed the release of 24 standards at national and industrial level. As a sponsor of authoritative journal *Railway Signaling Communication Engineering*, the Company has published R&D and application achievements in those industrial journals sponsored by China State Highway Group, such as *Railway Signaling & Communication*, *Journal of the China Railway Society* and *Railway Signaling Communication Engineering*.

As an innovative enterprise driven by R&D, the authorized patents, technology awards, standard compiling tasks, research projects at national and provincial level undertaken by the Company are all closely related to the research, development of the Company's main products including CTCS-3, CTCS-2+ATO, CBTC and CIPS, together with relevant technology services. It is the unique technical insights and application in corporate core technologies such as train operation control technology, self-driving of train technology, integrated automation technology of freight railway, train traffic control automation technology, safe computer platform technology, train control integration technology, rail transportation safety product manufacture technology that supports the development of Company's main business activities.

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During the reporting period, the awards obtained by the Company primarily include the following:

No.	Year	Project/Product/Achievement	Award
1	2019	Train operation control method, device, vehicle-mounted equipment and train control system (列車運行控制方法、裝置、車載設備及列控系統)	Silver award of China patent award
2	2019	Train operation dispatching command system of China Railway Corporation	First prize of Science and Technology Award by the China Railway Society
3	2019	Code for design of suburban railway	First prize of Science and Technology Award by the China Railway Society
4	2019	Comprehensive monitoring system of Section automatic blocking	First prize of Science and Technology Award by the China Railway Society
5	2019	Comprehensive test of Shanghai-Kunming railway passenger special line	Second prize of Science and Technology Award by the China Railway Society
6	2019	R&D of equipment for train control center (LKD2-T3) with absolute independent ownership of intellectual property rights	Second prize of Science and Technology Award by the China Railway Society
7	2019	Technical conditions of centralized traffic control, series of standards for equipment and operation specifications	Second prize of Science and Technology Award by the China Railway Society
8	2019	CTCS2-200K train control onboard ATP equipment	Second prize of Science and Technology Award by the China Railway Society
9	2019	<i>Design code of railway communication</i>	Third prize of Science and Technology Award by the China Railway Society
10	2019	Locomotive signaling definition and distribution (TB/T3060-2016)	Third prize of Science and Technology Award by the China Railway Society
11	2019	TSRS-KA temporary speed restriction server	Third prize of Science and Technology Award by the China Railway Society
12	2019	Railway telecommunication and signaling informationization management system	Third prize of Science and Technology Award by the China Railway Society
13	2019	Key technology research of TDY European standard balise	Third prize of Science and Technology Award by the China Railway Society
14	2019	BIM application in the construction of Bama Technology Innovation Center	Second prize of "Long Tu Cup" national BIM competition

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No.	Year	Project/Product/Achievement	Award
15	2019	Study and application of intelligent automatic train operation system	Second prize of Science and Technology Award by China Intelligent Transportation Systems Association
16	2019	Thrust construction of asymmetrical box girder across busy trunk line railway with multi-slide, multi-point linkage pull method	First Prize of Construction Technology Innovation for Building Project of Henan Province
17	2019	Key technology and application of multi-domain integration edge computing access network	First Prize of Shanghai Municipality Technology Invention
18	2019	Metro multimedia platform door project	Excellence Award of Central Enterprise Yixing Innovation and Creativity Competition
19	2019	R&D of thin wall insulation locomotive control signal cable	Third Prize of Technological Progress of Gansu Province
20	2019	<i>Standard for detail design and technical quality of high-speed railway communication, signaling engineering</i>	Technology Award of China Association For Quality-Technology Achievement Award

3. Research and development investment

Unit: Yuan

Expensed research and development expenditure in the current period	1,583,455,766.97
Capitalized research and development expenditure in the current period	19,246,263.32
Total research and development investment	1,602,702,030.29
Percentage of total research and development expenditure in revenue (%)	3.85
Number of research and development personnel in the Company	4, 235
Percentage of total research and development personnel in total personnel of the Company (%)	20.99
Percentage of capitalized research and development expenditure (%)	1.20

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4. Projects under development

The rail transportation control system industry in which the Company operates involves in train control system of railway, train control system of ICR, train control system of urban transit, automation system of freight. The Company has technology R&D capability in whole industry chain, and its technology under R&D covers the whole industry chain of rail transportation control industry. During the reporting period, the Company's projects under R&D include the following:

Unit: 0'000 Yuan

No.	Project name	Estimated total investment	Investment amount in the current period	Cumulative investment amount	Progress or phased achievements	Intended goal	technical level	Specific application prospects
1	Collaborative transportation and service system of regional rail transportation	7,951	1,343	2,597	Established collaborative transportation theory system of regional rail transportation; finished the R&D of the model machine of equipment for regional rail transportation collaborative transportation and service system. The application demonstration work is on going.	Formed collaborative transportation theory system of regional rail transportation, Integration system and equipment; and finished the application on site.	At present, there is no complete multi-mode collaborative transportation and service theory system and relevant system of regional rail transportation. This research achievement will guide the development trend of regional rail transportation, promote industrial development and advancement, and effectively enhance the rail operation and management level, improve safeguard ability, push the process of information service intellectualization, and further satisfy demand of the public for safe, efficient, economical, convenient and green travelling.	It can be applied to multi-rail collaborative transportation and service of high-speed railway in city cluster and intercity (suburban) railways, and urban transit.

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No.	Project name	Estimated total investment	Investment amount in the current period	Cumulative investment amount	Progress or phased achievements	Intended goal	technical level	Specific application prospects
2	Development of train control equipment based on dynamic interval and application demonstration verification	6,606	3,517	4,275	Completed the prototype production of vehicle and other equipment.	Complete the development of train control equipment based on dynamic interval; complete the application demonstration verification.	This research uses following domestic first technologies: accurate train positioning based on multi-sensor fusion technology; on-board equipment with functions such as vehicle-to-vehicle communication, driving permit calculation and integrity check; multi-mode two-way wireless communication through multi-channels such as satellite, airship and public network; the system satisfies the dynamic configuration of train tracking interval and is able to achieve moving block.	It can be applied to low-density railways as well as local railways.
3	Research on high speed railway automatic driving system	8,059	790	7,141	The system has been used for passenger trials in the Beijing-Shenyang high-speed railway and the project has been concluded.	Form a complete set of high-speed railway automatic driving system equipment, complete the on-road test and meet the engineering application conditions.	The automatic driving system of high-speed railway is the first intelligent system suitable for high-speed railway with a speed of 350 kilometers per hour in the world. It is an important component of intelligent high-speed railway with the leading level in the industry.	It can be applied to the construction and upgrading of high-speed railways.
4	Research on ETCS train control system based on baseline 3	4,455	519	2,902	The research and development of core train control equipment to meet the project requirements has been completed, of which RBC and transponder have obtained the baseline 3 dual-version TSI certificate.	Form a complete set of equipment meeting the latest European ETCS technical specifications.	This research results have completely independent intellectual property rights, meet ETCS technical specifications and is at the leading level in the industry.	It can be applied to the implementation of overseas ETCS projects represented by Budapest-Belgrade railway.

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No.	Project name	Estimated total investment	Investment amount in the current period	Cumulative investment amount	Progress or phased achievements	Intended goal	technical level	Specific application prospects
5	Research on overseas application of full electronic interlocking system	1,709	446	1,302	The project has been completed.	Form interlocking devices that meet the needs of overseas markets.	This research results have completely independent intellectual property rights, have passed the safety certification and is at the leading level in the industry.	It can be applied to various high-speed railways, subway, mine, port and other railway transportation lines.
6	Development of fully automatic unmanned driving system for interconnection and intercommunication.	11,879	1,401	8,933	Has completed the development of fully automatic unmanned driving system for interconnection and intercommunication and obtained a full set of product certifications.	Complete the research and development and engineering application of the interconnected CBTC system and complete the research and development and certification of the interconnected fully automatic unmanned driving system.	This research is based on modern computer, communication, control and system integration technologies to realize the automation of the whole process of train operation in a new generation of urban rail transit system, reaching the highest level of automatic train driving GoA4. It realized interconnection and improved the intelligent level of rail transit serving the new trend of network operation.	It can be applied to the reconstruction of existing railway lines such as domestic subways, light rails, municipal railways, and medium-low-speed maglev railways.
7	Research on optimization of comprehensive control system of trams	8,746	1,368	5,980	The research on the optimization of the comprehensive control system of trams has been completed and its engineering application has been realized in Shenzhen and Chengdu; further system improvement researches have been carried out in accordance with market demands.	Complete the research on the optimization of the comprehensive control system of trams and realize its engineering application.	For the first time, the comprehensive control system of trams has realized the deep integration of weak current systems and achieved intelligent linkage. It has pioneered various linkage scenarios covering the daily operation and maintenance of trams in the industry. It is at the highest security level in China with great flexibility and integration.	It can be applied to tram construction projects.

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No.	Project name	Estimated total investment	Investment amount in the current period	Cumulative investment amount	Progress or phased achievements	Intended goal	technical level	Specific application prospects
8	Research on intelligent command system of railway freight	2,428	301	2,168	The products of intelligent command system of railway freight have been developed and model applied by Shenyang Railway Bureau.	To develop the products of intelligent command system of railway freight and achieve model application in the railway freight industry.	The purpose of this study is to form a "safety, revenue, efficiency" oriented freight transport pattern and effectively improve the freight transport efficiency, reaching a leading level in the industry.	It can be applied to dispatching offices, freight stations, rolling stock depots, locomotive depots, local railways and special lines of all railway bureaus.
9	Research and development of a new generation of centralized traffic control system	11,500	2,358	4,640	The research and development of a new generation of centralized traffic control system has been completed and the system has been applied in engineering in Shenyang Railway Bureau; carrying out further systematic improvement research in combination with market demand.	To complete the research and development of a new generation of centralized traffic control system and apply it in engineering.	The new generation of centralized traffic control system adopts the principle of intelligent decentralized and self-discipline design to realize the unified control of train and shunting operation, and realize the safety management and card control of station-level operation.	It can be applied to national railway, intercity and regional railway, factory and mine owned railway.
10	Further research on the ITCS train control system of Qinghai-Tibet Railway	9,973	2,147	7,393	The domestic equipment development of ITCS train control system of Qinghai-Tibet Railway has been completed and has been put into trial operation for 9 months in the Qinghai-Tibet Railway, and trial evaluation will be carried out soon.	To complete the domestic equipment development of ITCS train control system of Qinghai-Tibet Railway, and complete the on-track test and trial evaluation.	The ITCS train control system of Qinghai-Tibet Railway studied in this project realizes the redundant structure design of on-board equipment and RBC equipment, and improves the availability of equipment; supports GPS + Beidou dual-mode satellite positioning, and realizes the precise positioning of train; meets the environmental requirements such as severe cold and high altitude, and improves the maintainability.	It can be applied to the Western China's sparse railways with high altitude and in harsh environment and to the countries along the "One Belt, One Road".

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No.	Project name	Estimated total investment	Investment amount in the current period	Cumulative investment amount	Progress or phased achievements	Intended goal	technical level	Specific application prospects
11	Research on wireless dispatching communication system of rail transit based on LTE	2,404	741	2,013	The detailed design of the system platform, the development and field application of the train mounted platform, fixed platform and other equipment prototypes has been completed.	To develop a wireless dispatching communication system of rail transit based on LTE.	The research results can comprehensively upgrade the traditional wireless dispatching communication system of urban rail transit, and will lead the formulation of new standards and the development direction of new technologies, enhance the monitoring and maintainability of equipment, and effectively reduce the cost of equipment operation, maintenance and management.	It can be applied to the comprehensive upgrade of wireless dispatching communication system of urban rail transit.
12	Research and development of integrated security business system	2,072	620	1,911	The research and development of integrated security business system has been completed.	To form an integrated security business system and realize engineering application.	Based on advanced artificial intelligence and in-depth learning technology, the integrated security business system provides all-round, comprehensive and integrated security solutions, reaching a leading level in the industry.	This system can be widely used in the construction and reconstruction of railway regional nodes, a kind of nodes.
13	Research and development of communication integrated bearing platform	2,855	907	2,832	The industrial level access communication equipment development, convergence communication equipment development, SDN network controller development and network management system development has been completed, and some products have been applied in engineering.	To develop a communication integrated bearing platform for different market demands.	This communication platform can effectively support the comprehensive carrying of critical and noncritical business of railway communication, provide service performance of different QoS level, and can implement more diverse protection methods than traditional network protection, reaching the leading level in the industry.	It can be used in marshalling yard, tram, information center, safety data network, agile operation and maintenance, centralized monitoring, overseas, multi-port and high-density access and other scenarios to provide network services.

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No.	Project name	Estimated total investment	Investment amount in the current period	Cumulative investment amount	Progress or phased achievements	Intended goal	technical level	Specific application
								prospects
14	Research on the rail side security computer platform	1,237	375	915	The verification test of the prototype has been completed.	It forms the hardware foundation platform which is suitable for the rail side distributed crossing, axle counter and switch controller system.	The research is oriented to the safety control of rail side distributed function, which has the leading level in the industry.	At present, it can be applied to tramcar, metro and overseas distributed crossing system.
15	Development of new type relay	1,440	418	875	The prototype trial production of locomotive on-board relay and prototype test of on-board relay has been completed.	The research and production of two series of relays (locomotive on-board relay and on-board relay) has been completed. It will meet the domestic and international market demand in the future.	The performance indexes of locomotive on-board relay and on-board relay all meet the requirements of relevant international standards and reach the international advanced level.	The locomotive on-board relay can be applied to train control on-board system, and on-board relay can be applied to all-computer interlocking system.
16	Improvement and promotion of intelligent manufacturing and production process	3,533	1,160	3,388	The installation of hardware equipment of two intelligent production line and single machine debugging has been completed.	The research on new technologies such as laser soldering tin, vacuum reflow soldering and lead-free soldering has been completed; the transformation and renovation of process automation line, material inspection equipment and other intelligent production equipment has been completed; the construction of material quality control system has been completed.	All the contents involved in the research are closely following the development trend of new technologies in the manufacturing industry and have the advanced level in the industry.	It can improve the manufacturing capacity of the Company.

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No.	Project name	Estimated total investment	Investment		Progress or phased achievements	Intended goal	technical level	Specific application prospects
			amount in the current period	Cumulative investment amount				
17	Vehicle research and production of modern tramcar	6,524	178	6,524	The project has finished.	Vehicle research and production of modern tramcar has been completed.	The principal performance parameters of the research are consistent with the mainstream level. Certain performance indicators are better than the industry average level and the overall technical level of the products is in the first-class level of the industry.	It can be applied to the construction and renovation of tramcar.
18	Research on new multi-transit track circuit and ancillary system	3,794	442	2,563	The project has finished.	The research and development of high redundancy and reliability of universal railway comprehensively improving the track circuit, classification of tuning area inspection of high-speed railway to controlling track circuit, optimization of ZPW-2000A frequency shift pulse track circuit, diagnosis system of track circuit, lightning protection device of track circuit and others has been completed. It will meet the domestic and international market demand in the future.	The research is based on the existing domestic leading control technology and is initiative in the industry.	It can be applied to the construction and overhaul of 100,000km universal railway and 35,000km high-speed railway in China.

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No.	Project name	Estimated total investment	Investment amount in the current period	Cumulative investment amount	Progress or phased achievements	Intended goal	technical level	Specific application prospects
19	Basic technology research	6,084	2,175	2,390	1. The mechanism modeling of lightning protection, electromagnetic compatibility and high-speed wheel-rail system of signal products has been completed, and follow-up research is being carried out; 2. The design of hardware synchronization chip of security computer platform has been completed.	The fundamental and deep-level scientific mechanism research on lightning protection and electromagnetic compatibility of signal products in complex environment has been completed, and provided scientific basis for subsequent product research and development.	The research aims to improve the safety and reliability of rail side signal equipment of railway, and has the leading level in the industry.	It can provide basic technical support for the research, development and design of the Company.
Total	/	103,249	21,206	70,742	/	/	/	/

5. Research and development personnel

Unit: 0'000 Yuan Currency: RMB

Educational background

Composition by education	Number (person)	Percentage (%)
Doctoral candidate	58	1.37
Master degree candidate	1,427	33.70
Bachelor's degree	2,495	58.91
College degree	255	6.02
Total	4,235	

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Age structure

Range of age	Number (person)	Percentage (%)
35 and below	2,764	65.27
36 to 40	716	16.91
41 to 45	317	7.49
46 to 50	189	4.46
51 to 54	146	3.45
55 to 59	103	2.43
Total	<u>4,235</u>	

Remuneration

Total remuneration for research and development personnel	78,287.37
Average remuneration for research and development personnel	18.49

6. Other explanations

Not applicable.

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II. EXPLANATION ON MATERIAL CHANGES IN THE COMPANY'S MAJOR ASSETS DURING THE REPORTING PERIOD

Please refer to “(III)Analysis of assets and liabilities” under “III Main Operation during the Reporting Period” of “B. Operation Discussion and Analysis” under Section IV “Report of the Directors”.

III. ANALYSIS OF THE CORE COMPETITIVENESS DURING THE REPORTING PERIOD

(I) Analysis of Core Competitiveness

(I) *Leading market position*

Since its incorporation, the Company has always focused on the national strategic need of ensuring the safety of rail transportation, achieved many significant breakthroughs in the field of rail transportation control system continually leveraging on the rapid development of domestic rail transportation industry and its own accumulation of core technologies developing into a world-leading provider of rail transportation control system solutions.

The Company is a world-leading provider of rail transportation control system solutions. As of the end of 2019, the cumulative contracted mileage covered by the core products and services of high-speed railway control system ranked the first in the world. The core equipment of high-speed railway control system produced by the Company, such as track circuit, centralized traffic control system, computer interlocking, CTCS-3 on-board ATP system, RBC and train control center, has taken up leading market shares. Meanwhile, the Company also holds a significant leading position in the urban transit market in the PRC and is the largest domestic provider of urban transit control system solutions. While the Company keeps growing in the domestic market, it also actively responds to the national call, takes the opportunities of “Belt and Road Initiative” to further develop overseas markets and enhances its influence in the global market.

(II) *Outstanding comprehensive technology innovation strength and core technology reserves*

The Company has adhered to independent innovation with more than 1,900 registered patents and realized the absolute independent ownership of intellectual property rights and 100% domestic-production of products for the core technologies of train operation control, thus helping its technologies regarding high-speed railways and automatic control for freight marshaling yards hold a leading position among global peers. Relying on the Company's world-leading comprehensive research and development strength, the Company has developed core technologies of rail transportation control system with independent intellectual property rights and its products and services have been widely used in fields including railway and urban transit, which has established the Company's leading position in the industry.

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The Company is the responsible department for the equipment standards, technical standards and product standards of China's rail transportation control system and has led the establishment of the most important and advanced technical standards for railway and urban transit control system in the PRC, such as CTCS and CBTC. The Company has constructed and operated more than 19,000 kilometers of high-speed railway control system, and had over 40,000 test cases in the Company's special database for railway control system. In addition, the Company also has advanced research and development ("R&D"), experiment and test institutions. The completeness and scale of its laboratory facilities are at a leading position in the world.

(III) The whole-industry-chain characteristics of rail transportation control system industry

The Company can provide integrated services covering design and integration, equipment manufacturing and system implementation for rail transportation control system, and it is the only company in the world that can provide a full range of products and services independently in the entire industry chain of rail transportation control system. Meanwhile, it possesses domestic-leading core technologies and crafts in every aspect. With its prominent design and integration capabilities, the Company can provide the customers with rail transportation control system solutions and a full range of equipment, thus providing one-stop services for customers covering system design, research and development, equipment manufacturing, on-site supply, system debugging, system implementation, after-sale service and other aspects, which reduces the construction, operation and management costs of customers and the system compatibility risk in the case of complex lines. While this business mode satisfies common requirement, it improves the customization capability and provides customers with a flexible combination of different products and services. It also drives the equipment manufacturing and system implementation service business in an all-round manner, reduces marketing cost and lays a solid foundation for the follow-up maintenance, repair and businesses upgrade.

(IV) Highly reliable and safe core services and products

The Company establishes classified enterprise standards according to relevant international, national and industrial standards, implements strict and prudent quality and safety control measures, so as to ensure the high reliability and safety of rail transportation control system solutions and core products, and provides support for the safe and efficient operation of national rail transportation. The Company's quality management follows the requirements of ISO9001: 2015 Standard, with quality control standards and system procedures to maintain continuous improvement and certification obtained from independent third parties. All subordinate enterprises of the Company which engage in the fields of R&D and design, system integration and industrial manufacturing have passed the ISO/TS22163: 2017 (the upgraded standard of International Railway Industry Standard (IRIS)) certification; all subordinate enterprises of the Company engaged in the field of R&D and design have passed the maturity assessment and certification of CMMI software. The Company's rail transportation control system products meet the European EN50126 standard for railway product safety and meet the generally accepted international quality requirements regarding safety, reliability, availability and maintenance.

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(V) Experienced management team and high-level technical professionals

The management team of the Company is composed of professionals with extensive experience in rail transportation industry, stable in composition and strong in management, which plays an important role in efficiently leading the Company's business development and enables the Company to become a global leader in the industry.

The Company has many high-level technical professionals. More than 4,200 employees of the Company are engaged in technology research and development, representing more than 20% of the total employees, more than one-third of whom have graduate degrees or above. The excellent talent team has laid a solid foundation for the Company to develop core technologies and maintain technical advantages.

(VI) Events which have a serious impact on the Company's core competitiveness, impact analysis and measures

Not applicable.

B. DISCUSSION AND ANALYSIS ON BUSINESS OPERATIONS

I. DISCUSSION AND ANALYSIS ON BUSINESS OPERATIONS

CRSC adhered to the general working style of seeking improvement in stable work, focused on deepening the supply-side structural reform, optimized business structure, expanded rail transit market vigorously, accelerated the pace of scientific and technological innovation, continued to carry out cost reduction and efficiency improvement, promoted high-quality development of enterprises, and continued to maintain a steady growth momentum. In 2019, the aggregate amount of newly-signed contracts amounted to RMB70.61 billion, representing an increase of 3.4% as compared to the corresponding period of last year. Among which, the value of newly-signed contracts in railway sector amounted to RMB26.07 billion, representing an increase of 3.9% as compared to the corresponding period of last year; the value of newly-signed contracts in urban transit sector amounted to RMB11.51 billion, representing a decrease of 0.9% as compared to the corresponding period of last year; the value of newly-signed contracts in overseas sector amounted to RMB2.41 billion, representing an increase of 153.3% as compared to the corresponding period of last year; the total value of contracts for general contracting and newly-signed contracts for other sectors amounted to RMB30.62 billion, representing a decrease of 0.1% as compared to the corresponding period of last year. As of the end of 2019, the Company's order in hand amounted to RMB104.94 billion.

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In the field of rail transportation control system, the value of newly-signed contracts of the Company maintained a rapid growth, and successively won bids for major projects including Anqing-Jiujiang Railway, South Shandong Railway, Xuzhou-Lianyungang Railway, Ganzhou-Shenzhen Railway, Yuxi-Mohan Railway and Hangzhou-Shaoxing-Taizhou Railway, and continued to take a leading position in the market. At the same time, the Company has won the bid for the general contracting in Hangzhou-Wenzhou High-speed Railway Project and has achieved significant breakthroughs in participating in the EPC High-speed Railway Project; under the fierce market competition in the field of urban transit control system, the Company's CBTC system has successively won the bidding of key projects, such as Kunming Subway Line 5, Xi'an Subway Line 9, Nantong Subway Line 1, Tianjin Subway Line 4, Suzhou Subway Line S1 and Shenzhen Subway Line 16. In general contracting and other sectors, the amount of newly-signed contracts of the Company basically remained flat and decreased slightly as compared to the corresponding period of last year, mainly because the Company focused on the high-quality development requirements, and properly controlled the contracting of general contracting projects.

II. RISK FACTORS

(I) Risk of Making No Profits Yet

Not applicable.

(II) Risk of Sharp Decline or Loss of Results

Not applicable.

(III) Risk of Core Competitiveness

The Company's advanced technology R&D capability ensures its long-term technological advantages and plays an important role in the Company's development. Given that the rail transportation control system industry is developing rapidly, there is a growing demand for talents in the industry and increasing competition for talents, maintaining a stable technician team and attracting new talents are the key for the Company to maintain its industry-leading technological advantages. Under the fierce competition for talents, the Company may be exposed to risks arising from loss of technicians and declining R&D level in the event of decrease in the effectiveness of recruiting, training and motivating mechanism for technical talents.

The rail transportation control system industry in which we are engaged is in a stage of rapid development. Companies in the industry need to continuously improve, design and develop new technologies and products that closely follow the technological development trend and customers' needs. If we encounter delays in technology development, fail to meet market demands, fail to follow technological trends, or our R&D achievements are lower than expected, our operating results may be adversely affected.

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(IV) Operating Risk

Given the nature of the Company's business, liability for compensation or punishment from the government may be incurred from the design, R&D, manufacturing, installation, testing, repair and sales of the products or services of rail transportation control system. Despite the limited quality guarantee period of products or services provided by the Company to customers, the Company may still have to be liable for any loss caused by the defects of its products or services upon identification of the accidents in the event of occurrence of accidents beyond the quality guarantee period. If the Company's products or services are proved to be defective, causing rail transportation passengers to suffer any personal injury, property loss or any other loss, the Company shall be liable for compensation in accordance with relevant laws.

In addition, if the Company's products or services are proved to be problematic, failing to meet national or industry standards, or presenting potential risks to personal and property safety, the Company may have to recall relevant products or modify product design, which may therefore incur huge expenses to the Company. In addition, product recall or any negative news coverage related to product defects may affect the Company's reputation and brand, resulting in a decline in product demand.

(V) Industry Risk

The development of rail transportation control system industry largely depends on the government's investments in rail transportation projects and the overall tendering and bidding plans of China State Railway Group Co., Ltd. In general, the rail transportation projects are determined by multiple factors, including but not limited to the overall investment plans, approval procedures and tendering and bidding arrangements of China's government and China State Railway Group Co., Ltd. for rail transportation systems. In terms of industrial surroundings, the State Railway Group's infrastructure investment has a gradual reduction trend; the urban transit market will also be affected by overall economic policy regulation and generated certain range of fluctuation. In the event of any future change in policies issued by the government in favor of the industry reducing policies benefits or any temporary change in the tendering and bidding plans of China State Railway Group Co., Ltd., the Company's business development may be adversely affected. If the financial or monetary policies tend to be tightened in future, causing decline in demand of or slowdown in payment by government-related customers in the market where the Company operates, the Company's business development or financial position may be adversely affected.

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(VI) Macro-environmental Risk

To some extent, the market demand of the rail transportation and relevant construction contracting in which the Company engages is affected by the macroeconomy. In general, although difficulties and challenges have increased in current and future periods, the basic trend of national economy's good momentum and positive long-term result has not changed. In terms of international situation, the world economic growth continues to slow down and still in adjusting stage after the international financial crisis. The features of accelerated evolution in world's thorough change are becoming more obvious, while the sources of global unrest and risk points have increased significantly. In terms of the domestic situation, China is in the tackling phase of transforming the development mode, optimizing the economic structure, and transforming the driving force for growth, structural, institutional, and cyclical issues are intertwined. Economic downward pressure is increasing, which may cause risk such as overall infrastructure investment decline.

(VII) Risk Relating to Depository Receipts

Not applicable.

(VIII) Other Material Risks

1. Credit risks

The change in the financing environment may pose a risk of failing to meet the cash demand for production operations and investment activities; the change in the product market may pose a risk of failing to satisfy capital demand for production operations due to imbalanced production volume and higher capital demand during the peak production season of the Group; under the impact of the economic environment, the operations of certain customers may suffer considerably due to the volatile market, making it more difficult for the Company to collect its accounts receivables.

The Company's credit risk mainly comes from monetary funds, accounts receivable, other receivables, long-term receivables and other financial assets. The company has established policies to manage the amount of funds deposited with each reputable financial institution in accordance with its market reputation, operating scale and financial strength in order to control the credit risk on the deposits of any single financial institution. Most of the Company's bank deposits are held at large Chinese financial institutions that management considers to be of high credit quality.

SECTION IV REPORT OF THE DIRECTORS

2. *Liquidity risks*

Domestic market competition is becoming more intensive, and the strict control of the scale of local debt regarding the construction of urban transit by local authorities has resulted in a tendency to adopt a PPP model for the construction of rail transportation such as the construction of metro, resulting in longer investment duration and higher occupied capital, which may cause the risk of failure to meet the funds necessary for production and operation.

The liquidity risk of the Company depends primarily on its ability to maintain operating cash inflows sufficient to meet maturing obligations and its ability to obtain external financing to meet committed future expenses. Through various bank loans and other loans with different repayment maturities, the Company ensures that funds are continuously sufficient and flexible, and that the Company's liability for outstanding loans is free from any significant repayment risk in any year.

III. MAIN OPERATIONS DURING THE REPORTING PERIOD

In 2019, CRSC focused on high-quality development, centered on the main responsibility and business, adhered to drive of scientific and technological innovation, and accelerated adjustment of business structure. The operating quality improved while maintaining stable. In 2019, the Company realized revenue of RMB41,646 million, representing an increase of 4.08% as compared to the corresponding period of last year, and realized net profit of RMB4,177 million, representing an increase of 12.38% as compared to the corresponding period of last year.

SECTION IV REPORT OF THE DIRECTORS

(I) Analysis of main businesses

1. Table of analysis of changes in relevant items in the income statement and cash flow statement

Unit: Yuan Currency: RMB

Items	Amount for the		Change (%)
	Amount for the current corresponding period	of last year	
Revenue	41,646,286,792.57	40,012,601,322.24	4.08
Cost of sales	32,112,103,467.88	30,931,739,704.16	3.82
Selling and distribution expenses	878,468,933.38	701,572,032.88	25.21
General and administrative expenses	2,530,027,201.64	2,462,903,609.57	2.73
Research and development expenses	1,583,455,766.97	1,323,503,188.98	19.64
Finance costs	-144,051,571.49	-86,429,029.18	-
Net cash flows generated from operating activities	3,371,360,784.87	-1,586,789,943.14	-
Net cash flows generated from investing activities	-4,597,419,037.28	-641,840,754.81	-
Net cash flows generated from financing activities	8,247,476,594.75	1,621,554,143.21	408.62

2. Analysis of revenue and cost

Explanation on reasons for changes in revenue: revenue increased by 4.08% as compared to the corresponding period of last year, mainly due to China's increasing investment in rail transit infrastructure construction, contributing to steady growth in railway business volume of the Company.

Explanation on reasons for changes in cost of sales: cost of sales rose 3.82% as compared to the corresponding period of last year, mainly due to the rise in cost as a result of the increase in revenue, but the growth in cost of sales was lower than that of revenue under the influence of product structure.

SECTION IV REPORT OF THE DIRECTORS

(1). Performance of main businesses by sector, product and region

Unit: Yuan Currency: RMB

Main Businesses by Segment

Segment	Revenue	Cost of sales	Gross profit margin (%)	Increase/decrease in revenue as compared to last year (%)	Increase/decrease in cost of sales as compared to last year (%)	Increase/decrease
						in gross profit margin as compared to last year (%)
Rail transit control system	30,377,203,415.51	22,203,151,061.55	26.91	6.88	6.14	Increased by 0.51 percentage point
Equipment manufacturing	6,422,267,748.61	3,731,164,014.41	41.90	-3.11	-0.93	Decreased by 1.28 percentage points
Design and integration	10,189,550,308.55	6,515,591,839.09	36.06	18.99	17.28	Increased by 0.94 percentage point
System implementation	13,765,385,358.35	11,956,395,208.05	13.14	4.04	3.09	Increased by 0.80 percentage point
Construction contracting	11,210,805,083.97	9,882,279,967.61	11.85	-2.77	-1.11	Decreased by 1.48 percentage points
Others	58,278,293.09	26,672,438.72	54.23	-3.25	39.48	Decreased by 14.02 percentage points

Main Businesses by Business Lines

Business Lines	Revenue	Cost of sales	Gross profit margin (%)	Increase/decrease in revenue as compared to last year (%)	Increase/decrease in cost of sales as compared to last year (%)	Increase/decrease
						in gross profit margin as compared to last year (%)
Railway	20,394,660,583.80	14,624,817,516.30	28.29	10.38	12.05	Decreased by 1.07 percentage points
Urban transit	9,435,160,688.08	7,172,796,725.81	23.98	0.28	-3.64	Increased by 3.09 percentage points
Construction contracting	11,210,805,083.97	9,882,279,967.61	11.85	-2.77	-1.11	Decreased by 1.48 percentage points
Others	58,278,293.09	26,672,438.72	54.23	-3.25	39.48	Decreased by 14.02 percentage points
Overseas businesses	547,382,143.63	405,536,819.44	25.91	1.94	-4.31	Increased by 4.83 percentage points

SECTION IV REPORT OF THE DIRECTORS

Main Businesses by Region

Region	Revenue	Cost of sales	Gross profit margin (%)	Increase/decrease in revenue as compared to last year (%)	Increase/decrease in cost of sales as compared to last year (%)	Increase/decrease
						in gross profit margin as compared to last year (%)
China	41,098,904,648.94	31,706,566,648.44	22.85	4.11	3.93	Increased by 0.14 percentage point
Other countries and regions	547,382,143.63	405,536,819.44	25.91	1.94	-4.31	Increased by 4.83 percentage points

Explanation of main businesses by segment, business lines and region

Segment and business lines:

Revenue from design and integration and system implementation in this year increased by 18.99% and 4.04% as compared to the last year, respectively, and revenue from equipment manufacturing decreased by 3.11% as compared to the last year, mainly due to the steady increase in the investment by China in construction of rail transit and the good reputation of the Company in the industry, making the order volume increase steadily, which drove the increase in overall income of the Company. Meanwhile, many lines opened in 2019. In order to ensure the progress of construction period, equipment were supplied gradually from the second half of 2018, and field joint commissioning and joint test were mainly carried out in 2019, all of which led to a slight decrease in revenue from equipment manufacturing for this year.

Revenue from railway and urban transit segments increased by 10.38% and 0.28% for this year as compared to the last year, respectively, mainly because the Company firmly captured the development opportunities in the rail transit industry, proactively gave full play to the leading role of brand and the advantages of independent technology, vigorously expanded the rail transit market and accelerated the construction progress of projects, which made the revenue from railway and urban transit segments increase steadily.

Revenue from construction contracting decreased by 2.77% as compared to the last year, mainly due to the Company's efforts to further optimize its business structure by rationally controlling the scale of construction contracting according to the requirements of high-quality development.

Other business segments contributed to a small portion of revenue, mainly comprised of revenue from bidding agency and centralized procurement.

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Region:

Revenue from overseas business for this year increased by 1.94% as compared to the last year, mainly because overseas projects such as Budapest-Belgrade project and Jakarta-Bandung project were commenced, and revenue was recognized according to construction progress.

(2). *Table of analysis of output and sales volume*

Main products	Unit	Output	Sales volume	Inventory	Increase/ decrease in output as compared to last year (%)	Increase/ decrease in sales volume as compared to last year (%)	Increase/ decrease in inventory as compared to last year (%)
Track circuit equipment	Set	16,327	18,271	5,111	-5.09	24	27.84
Train control and chain system equipment	Set	2,362	2,455	246	10.94	1.45	134.29
Signal relay	10,000 sets	71.07	69	9.24	-9.43	-19.46	87.68
Turnout conversion equipment	Set	17,807	19,011	1,834	-28.63	-28.25	268.27
Transponder device	Set	34,221	30,332	8,662	-8.01	-4.54	73.31

SECTION IV REPORT OF THE DIRECTORS

(3). Table of cost analysis

Unit: Yuan

By segment

Segment	Cost item	Amount for the current period	Percentage of amount for the current period in total costs (%)	Amount for the corresponding period of last year	Percentage of amount for the corresponding period of last year in total costs (%)	Change of the amount for the current period as compared to that for the corresponding period of last year (%)
Equipment manufacturing	Raw material, subcontracting costs, labor cost, etc.	3,731,164,014.41	11.62	3,766,094,750.39	12.18	-0.93
Design and integration	Raw material, subcontracting costs, labor cost, etc.	6,515,591,839.09	20.29	5,555,430,699.33	17.96	17.28
System implementation service	Raw material, subcontracting costs, labor cost, etc.	11,956,395,208.05	37.23	11,597,619,017.03	37.49	3.09
Construction contracting	Raw material, subcontracting costs, labor cost, etc.	9,882,279,967.61	30.78	9,993,472,311.11	32.31	-1.11
Others	Labor cost, subcontracting costs, etc.	26,672,438.72	0.08	19,122,926.30	0.06	39.48

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By business lines

Business lines	Cost item	Amount for the current period	Percentage	Amount for the corresponding period of last year	Percentage of	Change of the amount for the current period as compared to that for the corresponding period of last year (%)
			of amount for the current period in total costs (%)		amount for the corresponding period of last year in total costs (%)	
Railway	Raw material, subcontracting costs, labor cost, etc.	14,624,817,516.30	45.54	13,051,494,627.07	42.19	12.05
Urban transit	Raw material, subcontracting costs, labor cost, etc.	7,172,796,725.81	22.34	7,443,859,811.50	24.07	-3.64
Construction contracting	Raw material, subcontracting costs, labor cost, etc.	9,882,279,967.61	30.78	9,993,472,311.11	32.31	-1.11
Others	Labor cost, subcontracting costs, etc.	26,672,438.72	0.08	19,122,926.31	0.06	39.48
Overseas business	Raw materials, subcontracting costs, labor cost, etc.	405,536,819.44	1.26	423,790,028.17	1.37	-4.31

Other explanations of cost analysis

Business cost in 2019 was RMB32.112 billion, representing an increase of 3.82% which was 0.26 percentage point lower than the increase in revenue, as compared to RMB30.932 billion in the corresponding period of last year. The cost of equipment manufacturing was RMB3.731 billion, representing a decrease of 0.93% as compared to the corresponding period of last year; the cost of design and integration segment was RMB6.516 billion, representing an increase of 17.28% as compared to the corresponding period of last year; the cost of system implementation service was RMB11.956 billion, representing an increase of 3.09% as compared to the corresponding period of last year; the cost of construction contracting was RMB9.882 billion, representing a decrease of 1.11% as compared to the corresponding period of last year.

The consolidated gross profit of the Company was RMB9.534 billion, representing an increase of 4.99% as compared to RMB9.081 billion in the corresponding period of last year.

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(4). Information about main customers and main suppliers

A. Information about main customers of the Company

The sales to top five customers was RMB18,054.912 million, accounting for 43.34% of annual total sales, of which sales to related parties was RMB0.00, accounting for 0.00% of annual total sales.

Top five customers of the Company

Unit: Yuan Currency: RMB

No.	Name of customer	Sales	Percentage in annual total sales (%)
1	China State Railway Group Co., Ltd.	11,678,870,871.87	28.04
2	China Railway Engineering Group Company Limited	2,829,002,838.58	6.79
3	China Railway Construction Group Co., Ltd. (中國鐵道建築集團有限公司)	1,912,682,904.10	4.59
4	Shandong Railway Investment Holding Group Co., Ltd.	882,976,790.23	2.12
5	Shenzhen Metro Group Co., Ltd.	<u>751,378,625.69</u>	<u>1.80</u>
Total /		<u>18,054,912,030.47</u>	<u>43.34</u>

SECTION IV REPORT OF THE DIRECTORS

B. Information about main suppliers of the Company

The purchase from top five suppliers was RMB2,829.2727 million, accounting for 9.24% of annual total purchase amount, of which purchase from related parties was RMB0.00, accounting for 0.00% of annual total purchase amount.

Top five suppliers of the Company

Unit: Yuan Currency: RMB

No.	Name of supplier	Purchase amount	Percentage in annual total purchase amount (%)
1	China Railway Engineering Group Company Limited (中國鐵路工程集團有限公司)	1,491,270,349.05	4.87
2	China State Railway Group Co., Ltd.	556,176,428.33	1.82
3	Fujian Anxi Zhenxing Signalling & Communication Engineering Co., Ltd. (福建省安溪振興電務工程有限公司)	380,996,846.55	1.24
4	Beijing InfoCross Security Networks Co.,Ltd.(北京信達環宇安全網絡技術有限公司)	203,901,237.73	0.67
5	Libra Success Holdings Limited (天秤成功控股有限公司)	196,927,865.34	0.64
Total /		<u>2,829,272,727.00</u>	<u>9.24</u>

In 2019, none of the Directors, their close associates or Shareholders of the Company (who, to the best knowledge of the Directors, own more than 5% of the Company's issued share capital) had any interests in the Group's top five customers or top five suppliers.

SECTION IV REPORT OF THE DIRECTORS

3. Expenses

The analysis of sale expense changes: the sale expenses in this year was RMB878 million, an increase of 25.21% compared with the same period of the last year, primarily due to further strengthened market operation by the Company and the increased expenses of labor cost, post-sale service and on-site equipment maintenance.

The analysis of management expense changes: the management fees in this year was RMB2,530 million, an increase of 2.73% compared with the same period of the last year, lower than the net profit growth of 9.65 percentage points, primarily due to the continual improved management ability of the Company in this year, actively reducing costs and increasing efficiency, and vigorously reducing non-productive expenditures.

The analysis of financial expense changes: the financial income in this year was RMB144 million, an increase of 66.67% compared with the same period of the last year, mainly due to the increase of interest income generated by the Company's initial public offering of A shares.

The analysis of research and development expense changes: the research and development expense in this year was 1,583 million, an increase of 19.64% with the same period of the last year, mainly due to the further increase of the intensity of research and development investment to consolidate the leading position of the Company in the industry.

4. Cash flow

Net cash flow from operating activities for this year was a net inflow of RMB3.371 billion, while there was a net outflow of RMB1.587 billion in the corresponding period of last year, the change was mainly due to the significant increase in net cash inflows due to the fact that cash received from the sale of goods and provision of services in this year was much higher than cash paid for the purchase of goods and payment of services received.

Net cash flow from investment activities for this year was a net outflow of RMB4.597 billion, while there a net outflow of RMB642 million in the corresponding period of last year, the change was mainly due to an increase in time deposits with maturity over three months in this year.

Net cash flow from financing activities for this year was a net inflow of RMB8.247 billion, comparing with the net inflow of RMB1.622 billion in the corresponding period of last year, the change was mainly due to the increase in cash inflow as a result of the offering of A shares on the STAR Market in this year.

SECTION IV REPORT OF THE DIRECTORS

(II) Explanation on material changes in profit due to non-main businesses

Not applicable.

(III) Analysis of assets and liabilities

1. Assets-Liabilities analysis table

Unit: Yuan

Name of item	Amount at the end of the current period	Percentage of amount at the end of the current period to the total assets (%)	Amount at the end of last period	Percentage of amount at the end of last period to the total assets (%)	Change of the amount at the end of the current period as compared to that of last period (%)
Cash and bank balances	24,000,333,948.30	24.61	11,712,483,332.67	14.70	104.91
Accounts receivables	16,757,628,007.95	17.19	13,598,595,282.88	17.07	23.23
Receivables for financing	1,478,647,844.54	1.52	1,845,116,686.79	2.32	-19.86
Inventories	2,200,762,577.00	2.26	4,086,551,784.60	5.13	-46.15
Contract assets	33,034,982,342.51	33.88	30,941,474,817.79	38.83	6.77
Long-term receivables	6,422,130,017.28	6.59	4,616,553,337.79	5.79	39.11
Investments in other equity instruments	806,064,229.20	0.83	653,814,229.20	0.82	23.29
Fixed assets	4,329,298,247.74	4.44	3,936,432,967.69	4.94	9.98
Construction in progress	160,740,323.63	0.16	637,726,255.10	0.80	-74.79
Intangible assets	2,416,808,796.77	2.48	2,506,699,954.55	3.15	-3.59
Other non-current assets	502,162,296.48	0.51	62,593,288.55	0.08	702.26
Short-term borrowings	238,066,170.39	0.24	1,117,556,312.99	1.40	-78.70
Bills payable	1,278,194,766.35	1.31	849,268,364.25	1.07	50.51
Accounts payable	39,943,249,975.12	40.96	35,119,238,956.99	44.08	13.74
Contract liability	7,177,237,816.91	7.36	7,033,233,380.49	8.83	2.05
Tax payable	916,296,853.22	0.94	1,189,672,548.28	1.49	-22.98
Long-term borrowings	1,941,098,540.80	1.99	856,163,032.09	1.07	126.72
Capital reserve	15,964,398,557.22	16.37	7,409,464,897.08	9.30	115.46

SECTION IV REPORT OF THE DIRECTORS

Other explanations

The increase in cash and bank balances was mainly due to receipt of the funds raised from listing on the STAR Market and the increase in net cash inflows generated from operating activities in this year.

The increase in accounts receivables was mainly due to the increase in income of the Company, a further expansion of business scale, and an increase in undue accounts receivables in the current year.

The decrease in receivables for financing was mainly due to acceptance of bills which were received in the last year by the Company during the current period.

The decrease in inventories was mainly due to disposal of the real estate companies leading to a significant reduction of the real estate development costs.

The increase in contract assets was mainly due to the increase in contract assets in line with the further expansion of business scale. However, the growth rate slowed down significantly compared with the same period of last year.

The increase of long-term receivables was mainly due to the increase of amounts arising from the PPP project investments.

The increase of investments in other equity instruments was mainly due to the newly added investment in Ganzhou-Shenzhen Railway (Guangdong) Company Limited invested by the Company in this year.

The decrease in construction in progress was mainly due to the transfer of completed part of Changsha industrial park under construction to fixed assets this year.

The increase in other non-current assets was mainly due to prepayment for purchase of fixed assets by subsidiaries which was not incurred during last year.

The decrease in short-term borrowings was mainly due to repayment of several short-term bank borrowings due in this year.

The increase in bills payable was mainly due to the increase of undue bills at the end of the year.

The increase in accounts payable was mainly due to the increase in payments for purchase of raw materials and labour cost as a result of further expansion of the business scale in this year.

The increase of contract liability was mainly due to the increase in pre-settlement from owners of properties to ensure the successful operation of the project.

SECTION IV REPORT OF THE DIRECTORS

The decrease in tax payable was mainly due to a reduction of corporate tax burden as a result of implementation of the national tax reduction policy by the Company.

The increase of long-term borrowings was mainly due to the increase in the borrowings dedicated to the working capital of PPP project construction.

The increase in capital reserve was mainly due to the share capital premium generated from the listing of the Company on the STAR Market.

2. Major assets subject to restriction by the end of the reporting period

Unit: Yuan Currency: RMB

Item	Book value at the end of period
Cash and bank balances	266,335,538.79
Receivables financing	67,084,139.66
Long-term receivables	3,586,890,185.27

3. Other explanations

Not applicable.

(IV) Analysis of operations information in the industry

Analysis of operations information in the industries related to air, ship and railway transportation equipment manufacturing

1 The Company's orders during the reporting period

Unit: 100 million Currency: RMB

Item	Railway transportation equipment manufacturing	
	Amount of orders increased	Amount of orders in hand of the Company
Market order	260.67	287.79

SECTION IV REPORT OF THE DIRECTORS

2 *High value-added ships*

Not applicable.

3 *Earnings during the reporting period*

Unit: Yuan Currency: RMB

Item	Revenue	Cost of sales	Gross profit margin (%)	Increase/ decrease in revenue as compared to last year (%)	Increase/ decrease in cost of sales as compared to last year (%)	Increase/ decrease in gross profit margin as compared to last year (%)
Railway	20,394,660,583.80	14,624,817,516.30	28.29	10.38	12.05	Decreased by 1.07 percentage points

4 *Businesses contributing more than 10% of the Company's revenue from its main businesses during the reporting period*

Not applicable.

5 *Repair and modification business during the reporting period*

Unit: 0'000 Currency: RMB

Item	Railway transportation equipment manufacturing Revenue
Modification and renovation	352,148
Operation and maintenance	171,469

6 *Major projects*

Not applicable.

SECTION IV REPORT OF THE DIRECTORS

(V) Analysis of investment

1. Overall analysis of investment in external equities

As at the end of the reporting period, the long-term equity investment of the Group was RMB982 million, representing a decrease of RMB24 million, or 2.42%, as compared to the beginning of the year. For details, please refer to Note VII. 17 in Section XI Financial Report.

(1) Material equity investment

Not applicable.

(2) Material non-equity investment

Not applicable.

(3) Financial assets measured at fair value

Unit: Yuan Currency: RMB

Item	Opening balance	Changes in fair value for the period	Accumulated changes in value fair recognized in equity	Impairment accrued for the period	Other changes (increase/decrease) for the period	Closing balance
Financial assets						
1. Other equity instrument investments	653,814,229.20	-	-	-	152,250,000.00	806,064,229.20
Including: non-listed equity investments	653,814,229.20	-	-	-	152,250,000.00	806,064,229.20
2. Receivables for financing	1,845,116,686.79	-	-	-	-366,468,842.25	1,478,647,844.54
Subtotal	<u>2,498,930,915.99</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-214,218,842.25</u>	<u>2,284,712,073.74</u>

(VI) Disposal of significant assets and equity interest

Not applicable.

SECTION IV REPORT OF THE DIRECTORS

(VII) Analysis of major companies controlled and invested by the Company

For details, please refer to Note VII. 17 and Note IX of Section XI Financial Report.

(VIII) Status of the structured entity controlled by the Company

Not applicable.

(IX) Use of proceeds raised from H shares

The proceeds raised from H shares amounted to approximately RMB9,104 million. As of 31 December 2019, a total of RMB5,862 million of proceeds raised from H shares has been used, of which RMB2,731 million was used in long-term research and development, including the construction of the CRSC Railway Transportation Research Center and technology research projects; RMB1,430 million was used in the fixed asset investments, including the technical overhaul of CRSC Xi'xin, the Company's subsidiary, and Changsha Industrial Park; RMB108 million was used in general equity acquisition; RMB693 million was used in investment of Tianshui Tramcar project and other PPP projects related to railway transportation; and RMB900 million was used to supplement working capital. The use of the aforesaid proceeds is consistent with the use of proceeds as disclosed in the H share prospectus.

Apart from the aforesaid use of funds, as of 31 December 2019, the Company's remaining proceeds raised from H shares amounting to RMB3,242 million have not been used and have been deposited in the Company's designated bank account for proceeds. The funds in the designated account for proceeds, which have not been withdrawn, are expected to be used up in the coming three years, of which RMB391 million will be used for fixed asset investments, RMB1,713 million will be used for equity acquisition, RMB1,128 million will be used for investments in PPP projects related to railway transportation and RMB10 million will be used to supplement working capital. The proposed use of the aforesaid proceeds is consistent with the use of proceeds as disclosed in the H share prospectus.

Based on the interests of the Company and its shareholders as a whole and in light of market conditions and the Company's business needs, the Company, for the sake of enhancing the efficiency and effectiveness of capital utilization, convened the 18th meeting of the third session of the Board on 25 March 2020 and considered and approved the Proposal on the Change of Use of Proceeds from Issuance of H Shares, according to which, the Company intends to change the portion of the proceeds of RMB1,713 million allocated for equity acquisition to general domestic and overseas purposes. In the event that there are suitable acquisitions of equity interests in the future, the Company shall still use its own funds directly for the acquisitions, and the Company's merger and acquisition strategy will not be affected because of the change in the use of proceeds raised. The above change will enable the Company to deploy financial resources in a more efficient manner, which will help the Company to flexibly deploy its business development in accordance with changes in market conditions. Save for the above change, there will be no other changes in the use of the Company's remaining proceeds from the global offering. The change of use of proceeds from issuance of H Shares will take effect upon consideration and approval by the general meeting of the Company.

SECTION IV REPORT OF THE DIRECTORS

IV. DISCUSSION AND ANALYSIS OVER THE FUTURE DEVELOPMENT OF THE COMPANY

(I) Industry landscape and trends

In terms of the industry, the national railway construction continues to maintain a certain investment intensity. China Railway Group plans to operate new lines of 4,000 kilometers in 2020, of which 2,000 kilometers are high-speed railways. The strategy of the regional coordinated development will be further implemented, and the development of the intercity and municipal (suburban) railways will be enhanced. The acceleration of the construction of the transportation power, the enhancement of effective investment, the adjustment of transportation structure, the transformation of new technology and industries have also brought new historical opportunities for railway industry. With the operating time of the high-speed railway lines operated in around 2010 has been at or near 10 years, the control system of relevant train is also gradually entering into the update and upgrade cycle, and the markets for upgrading, operation and maintenance will be gradually opened up. With an increasing extension of the scale of railway infrastructure and equipment in use, the railway operational system gradually become rigid demand for railway construction, and this market space pave the way for the rolling development of enterprise. In terms of competition landscape, in addition to CRSC, China Academy Of Railway Sciences Corporation Limited has the national railway group background that can provide trunk railway lines, the intercity railway train operation control system and relevant equipment manufacturing services, and Helishi Automation Technology Co., Ltd. is also one of the main suppliers of the operation control system of trunk railway and intercity railway in China, both of which have strong competitive strength and occupy a certain market share. In addition, Beijing Jiaoda Microunion Tech. Co., Ltd. is also competitive in some system fields.

The urban rail transit market will continue to maintain a steady growth trend. In 2020, the operating mileage of China will exceed 6,000 kilometers, and the future market space can be expected. Meanwhile, the planning and construction of new medium and low volume urban rail transit represented by modern tram is in the ascendant, and it also provides a wide market space for enterprises. While some subway lines built in the early stage have the need of upgrading and transformation to meet the operational needs, and the related engineering technology is difficult and the threshold is high, which will provide a stage for leading enterprises in the industry to show their strength. In terms of the competition landscape, except for CRSC, Traffic Control Technology Co., Ltd. developed rapidly in recent years, and UniTTEC Co., Ltd. has completed the transformation to independent research and development of technology from purely inputing, forming the first echelon in the field of urban rail transit signal control system together with CRSC. In addition, enterprises such as China Academy Of Railway Sciences Corporation Limited, Shanghai Thales Saic Transport Co. Ltd. and Shanghai Fuxin Intelligent Transportation Solutions Co., Ltd. are also dominant players in the market.

SECTION IV REPORT OF THE DIRECTORS

(II) Development strategies of the Company

As a leading integrated rail transportation control system solution provider in the world, for the purpose of continuously consolidating and strengthening our leadership in the global market, and in view of the development trend in the industry and the Company's abundant resources, we formulated the overall development strategies as follows:

the Company will adhere to the quality and safety as the first principle, and shoulder the mission of introducing the national railway communication and signal industry to the world. The Company will expedite technological innovation, accelerate transformation and upgrading, take advantage of industry chain integration, and put an emphasis on making strategic breakthroughs in the structural adjustments to industry products, historical breakthroughs in core technologies, and international breakthroughs in high-speed train standards and industry export of China. The Company will continuously enhance our management standards as a modern enterprise and actively integrate into the global competitive landscape, building up a cross-national industry group with international standards featuring rail transportation control technology.

(III) Business plans

In 2020, the Company will continue to maintain the general working ideas of steady growth of economic indicators and steady promotion of high-quality development, make scientific decisions, make overall arrangements and take market-oriented operation as leading force to accelerate high-quality development; take safety and quality as dams to ensure high-quality development; take advantage of science and technology innovation to achieve high-quality development; take deepening reform as method to boost high-quality development; facilitate high-quality development through strengthening management.

(IV) Others

Not applicable.

SECTION IV REPORT OF THE DIRECTORS

V. MATTERS THAT THE COMPANY FAILED TO DISCLOSE ACCORDING TO THE RULES AS THE RULES WERE NOT APPLICABLE OR STATE SECRETS OR TRADE SECRETS WERE INVOLVED OR FOR OTHER SPECIAL REASONS AND DESCRIPTIONS OF SUCH REASONS

Not applicable.

VI. OTHER DISCLOSURES

(I) Corporate Information and Initial Public Offering

The Company was incorporated as a joint stock company in the PRC with limited liability on 29 December 2010. The H shares of the Company have been listed on the Main Board of the Hong Kong Stock Exchange since 7 August 2015. The A shares of the Company have been listed on the STAR Market of Shanghai Stock Exchange since 22 July 2019.

Basic information about the Company is set out in section III “Basic Corporate Information and Key Financial Indicators” of this report.

(II) Environmental Policies and Performance of the Company

Environmental policies and performance of the Company are set out in section V “Significant Events” of this report.

Further details of the environmental policies and performance of the Company will be set out in the “Environmental, Social and Governance Report” to be published within 3 months of the date of the 2019 annual report of the Company.

(III) Compliance with Laws and Regulations

As the Group’s main businesses are to provide specialized one-stop solution of design and integration, equipment manufacturing and system implementation services for rail transportation control systems to our customers, the Group is subject to relevant PRC policies, laws and regulations, including the Railway Law of the People’s Republic of China 《中華人民共和國鐵路法》 and the Production Safety Law of the People’s Republic of China 《中華人民共和國安全生產法》 and is under supervision of other government authorities. Such laws, regulations and policies mainly govern the operation and management of railway industry. In addition, all business operations of the Group are subject to the laws and regulations regarding quality, safety production, environmental protection, intellectual property and labor. Any violation of those laws and regulations may result in sanctions, including warnings, penalties and order to rectify, which may have an adverse impact on the Group’s business operation and future development.

SECTION IV REPORT OF THE DIRECTORS

In addition, the Group is required to obtain and maintain valid permits, licenses, certificates and approvals from various governmental authorities or institutions under relevant laws and regulations for our businesses of design and integration, product manufacturing and system delivery services. The Group must comply with the restrictions and conditions imposed by various levels of governmental authorities to maintain the Group's permits, licenses, certificates and approvals. Should the Group fail to comply with any of the regulations or meet any of the conditions required for the maintenance of the Group's permits, licenses, certificates and approvals, such permits, licenses, certificates and approvals could be temporarily suspended or even revoked, or the renewal thereof, upon expiry of their original terms, may be delayed or rejected, which could materially and adversely impact our Group's business, financial condition and results of operations.

As a company incorporated in the PRC with limited liabilities and listed on Hong Kong Stock Exchange and Science and Technology Innovation Board of Shanghai Stock Exchange, the Company is governed by various applicable domestic laws and regulations including Company Law, the Production Safety Law of the People's Republic of China 《中華人民共和國安全生產法》 and the Guideline on Comprehensive Risk of Central Enterprises 《中央企業全面風險指引》 promulgated by the SASAC, as well as the Hong Kong Listing Rules, Listing Rules of Shanghai Stock Exchange and other securities regulatory rules.

The Group has implemented internal control measures to ensure its compliance with such laws and regulations. Based on a comprehensive review of the business performance of the Group, the Board is of the view that the Group has been in compliance with the requirements of relevant laws and regulations in all material respects.

(IV) Performance and Distribution

The performance of the Group for the year ended 31 December 2019 and the financial position of the Group as at 31 December 2019 are set out in the section XI "Financial Report" of this report.

The implementation of cash dividend policy of the Company during the reporting period is set out in the section V "Significant Events" of this report.

(V) Distribution Plan and Policy of Dividend

The Company's distribution plan and policy of dividend is set out in the section V "Significant Events" and section IX "Corporate Governance Report" of this report.

SECTION IV REPORT OF THE DIRECTORS

(VI) Issued Share Capital

As of 31 December 2019, the total share capital of the Company was RMB10,589,819,000, divided into 10,589,819,000 shares with a nominal value of RMB1.00 each. Details of the change of the share capital of the Company during the reporting period are set out in the note VII. 53 to financial statements.

(VII) Repurchase, Sale or Redemption of Listed Securities of the Company

During the reporting period, neither the Company nor any of its subsidiary repurchased, sold or redeemed any of the listed securities of the Company under the Hong Kong Listing Rules.

(VIII) Property, Plant and Equipment

Details of property, plant and equipment of the Group for 2019 are set out in the note VII. 21 to financial statements.

At the end of the reporting period, the Group had no investment properties or properties held for development and/or sale with one or more of the percentage ratios (as defined under Rule 14.04 (9) of the Hong Kong Listing Rules) exceeding 5%.

(IX) Taxation

Details of the taxation of the Group for 2019 are set out in note VI to the financial statements.

(X) Events After the Balance Sheet Date

Details of the events after the balance sheet date of the Group are set out in the note XV to financial statements.

(XI) Capital Reserve, Surplus Reserve and Special Reserve

Details of the capital reserve, surplus reserve and special reserve of the Group for 2019 are set out in the note VII. 55, 59, 58 to financial statements.

(XII) Distributable Reserve

The distributable reserve of the Company as of 31 December 2019 is set out in the note VII. 60 to financial statements.

SECTION IV REPORT OF THE DIRECTORS

(XIII) Key Relationships with Staff, Customers, Suppliers and Others

Staff is the key for the Group's sustainable development. Details of the staff of the Group are set out in section VIII "Directors, Supervisors, Senior Management and Employees" of this report.

Details of the major customers and major suppliers of the Group are set out in "B. Discussion and Analysis on Business Operations" under Section IV "Report of the Directors" of this report.

The Company is not aware of any key relationships with its staff, customers, suppliers and others that have a significant impact on the Company and on which the Company's success depends.

(XIV) Bank and Other Borrowings

Details of the bank and other borrowings of the Group as of 31 December 2019 are set out in the note VII. 32, 45 to financial statements.

(XV) Entrusted Deposits and Overdue Term Deposits

As of 31 December 2019, the Group had no entrusted deposits with financial institutions in China, or term deposits which were due but unrecovered.

(XVI) External Donations

In 2019, the Company donated a total of RMB0.256 million to various organizations including local charities and governments of impoverished counties.

(XVII) Directors, Supervisors and Senior Management

The information on the Directors, Supervisors and Senior Management of the Company is set out in section VIII "Directors, Supervisors, Senior Management and Employees" of this report.

(XVIII) Changes In Directors, Supervisors and Senior Management

Changes in the Directors, Supervisors and Senior Management are set out in section VIII "Directors, Supervisors, Senior Management and Employees" of this report.

(XIX) Biographies of Directors, Supervisors and Senior Management

Biographical details of the Directors, Supervisors and Senior Management are set out in section VIII "Directors, Supervisors, Senior Management and Employees" of this report.

SECTION IV REPORT OF THE DIRECTORS

(XX) Service Contracts of Directors and Supervisors

Each of the Directors and Supervisors has entered into a service contract with the Company, the principal particulars of which comprise: (1) the term is from the date of appointment and until the date of the expiration of the incumbent Board/the incumbent Supervisory Committee; and (2) it could be terminated in accordance with their respective terms.

Save as disclosed above, none of the Directors or Supervisors has entered into or intends to enter into a service contract with any member of the Group (other than contracts expiring or determinable by the relevant employer within one year without payment of compensation (other than statutory compensation)).

(XXI) Remuneration of Directors, Supervisors and Senior Management

Remuneration of the Directors and Supervisors are paid in the form of fees, salaries, pension-defined contribution, discretionary bonuses, housing allowances and other allowances and benefits in kind.

Details of the Directors, Supervisors and five highest paid individuals of the Company are set out in the note XII. 5 to financial statements.

During the reporting period, the remuneration scale of the Senior Management members (except for Ms. NG Wing Shan, one of the joint company secretaries of the Company, who serves as the assistant vice president of SWCS Corporate Services Group (Hong Kong) Limited (formerly known as SW Corporate Services Group Limited)) whose biographical details are set out in “Biographies of Directors, Supervisors and Senior Management” of this report is disclosed in section VIII “Directors, Supervisors, Senior Management and Employees” of this report.

(XXII) Interests of Directors and Supervisors in Transactions, Arrangements or Contracts

During the reporting period, the Group did not participate in, directly or indirectly, concluding transactions, arrangements or contracts of significance in which any Director or the Supervisor or any entity which he or she was related to was materially interested, and related to the businesses of the Company and were subsisting during or by the end of the year.

(I) Interests of Directors in Competing Businesses

During the reporting period, save as disclosed in this report, none of the Directors or any of their respective associates had any competing interests in the businesses which, directly or indirectly, competed or were likely to compete with the Company.

SECTION IV REPORT OF THE DIRECTORS

(II) Directors and Supervisors Serving in Competing Businesses

The businesses of the Group are partially competing with those of CRSC Group. The Company's executive Directors, Mr. ZHOU Zhiliang, Mr. XU Zongxiang and Mr. YANG Yongsheng, devote most of their time into the management of the Company's daily operations.

The information about the Directors of the Company who held positions in CRSC Group is set out in section VIII "Directors, Supervisors, Senior Managers and Employees" of this report.

Save as disclosed in this report, none of the Directors, Supervisors or their respective associates had any interests in the businesses which competed or were likely to compete with the Group, or had any other conflict of interests with the Group.

The Company further confirms that, save as disclosed above, as at the date of this report, members of the Senior Management of the Company have not involved in the daily operations of the businesses of CRSC Group which compete with the Group's businesses.

(XXIII) Directors', Supervisors' and the Company's Chief Executives' Interests and Short Positions in Shares, Underlying Shares and Debentures of the Company and its Associated Corporations

As at 31 December 2019, none of the Directors, Supervisors or chief executives of the Company had any interests and/or short positions in the Shares, underlying Shares or debentures of the Company or its associated corporations (within the meaning of Part XV of the SFO) which will have to be notified to the Company and the Stock Exchange pursuant to Divisions 7 and 8 of Part XV of the Securities and Futures Ordinance (the "SFO") (including interests or short positions which he is taken or deemed to have under such provisions of the SFO) or which will be required, pursuant to Section 352 of the SFO, to be entered in the register referred to therein, or will be required, pursuant to the Model Code, to be notified to the Company and the Stock Exchange.

(XXIV) Directors' and Supervisors' Rights to Acquire Shares or Debentures

None of the Directors or Supervisors or any of their respective associates was granted by the Company or its subsidiaries any right to acquire the shares or debentures of the Company or any other corporate body, or had exercised any such right.

SECTION IV REPORT OF THE DIRECTORS

(XXV) Financial, Business and Family Relationships Among Directors, Supervisors and Senior Management Members

As at the date of this report, there were no financial, business or family relationships among the Directors, Supervisors and Senior Management members of the Company.

(XXVI) Directors' Insurance

As at the date of this report, the Company maintained effective directors' insurance for the Directors of the Company.

(XXVII) Interests and Short Positions of Substantial Shareholders in Shares and Underlying Shares

The shareholdings of substantial shareholders in the Company are set out in the section VI "Changes in Share Capital and Information of Shareholders – (VI) Interests and Short Positions of Substantial Shareholders in the Company's Shares and Underlying Shares" of this report.

(XXVIII) Arrangements for Share Pre-Emptive Right and Stock Option

In 2019, no arrangement for Share pre-emptive right and stock option was made by the Company, as there are no specific provisions under the PRC laws or the Articles of Associations of the Company regarding share pre-emptive right.

(XXIX) Compliance of CRSC Corporation Group with the Non-Competition Undertaking

The performance of CRSC Corporation Group's non-competition undertakings is set out in section V "Significant Events – III. The Performance of Undertakings" of this report.

(XXX) Public Float

According to the information publicly available to the Company, and to the knowledge of the Directors of the Company, the Company has sufficient public float to meet the minimum requirement for public float under Rule 8.08 of the Hong Kong Listing Rules.

SECTION IV REPORT OF THE DIRECTORS

(XXXI) Connected Transactions

The connected transactions of the Company are set out in section V “Significant Events” of this report.

(XXXII) Related Party Transactions

The Group entered into certain transactions with the relevant parties considered to be “related parties” pursuant to applicable accounting standards during the reporting period. Details of the related party transactions entered into by the Group during the reporting period are disclosed in the note 12 to the financial statements. Save as those disclosed in this report, the related parties transactions disclosed in the note 12 were either not considered to be connected transactions as defined by the Hong Kong Listing Rules or be exempted from the reporting, announcement and shareholders’ approval requirements pursuant to the Hong Kong Listing Rules.

(XXXIII) Non-Exempt Connected Transactions

Save as those disclosed in this report, there were no other non-exempt connected transactions as defined by the Hong Kong Listing Rules entered into by the Company with its connected persons during the reporting period.

(XXXIV) Audit and Risk Management Committee

The Audit and Risk Management Committee of the Company has reviewed the annual results and the annual report of the Company for 2019 as well as the audited consolidated financial statements for the year ended 31 December 2019.

(XXXV) Accounting Policies

Changes to the accounting policies of the Company are set out in the section V “Significant Events” of this report.

SECTION IV REPORT OF THE DIRECTORS

(XXXVI) Auditors

In March 2019, the Board proposed to appoint Ernst & Young Hua Ming LLP as the auditor for the A Share Offering and Listing, and proposed at the Shareholders' general meeting to authorize the Board of the Company to finalize the audit fees based on market prices and audit workload. This proposal has been effective upon approval at the 2019 first extraordinary general meeting of the Company.

In March 2019, the Board proposed to appoint Ernst & Young and Ernst & Young Hua Ming LLP as the auditors of the Company's financial statements for 2019 to be prepared under IFRS and CASBE, respectively. Their terms of appointment were proposed to be effective upon conclusion of the 2018 annual general meeting of the Company and until the conclusion of 2019 annual general meeting of the Company, and this proposal has been effective upon approval at the 2018 annual general meeting of the Company.

On 13 June 2019, the Company held the 2018 annual general meeting, deliberated and passed the Proposal on Appointment of External Auditors for 2019. Considering that the Company planned to prepare financial statements only under CASBE, it decided to cease to renew the appointment of Ernst & Young as the overseas auditor for 2019, but to continue to renew the appointment of Ernst & Young Hua Ming LLP as the external auditor for 2019 to audit the Company's financial statements for 2019.

In March 2020, the Board proposed to reappoint Ernst & Young Hua Ming LLP as the Company's external auditor for the year of 2020, and the term of the appointment was proposed to be effective upon conclusion of the Company's 2019 annual general meeting and until the conclusion of the Company's 2020 annual general meeting. This proposal shall take effect upon approval at the Company's 2019 annual general meeting.

By order of the Board
China Railway Signal & Communication Corporation Limited
ZHOU Zhiliang
Chairman

SECTION V SIGNIFICANT EVENTS

I. PLAN FOR DISTRIBUTION OF PROFITS FROM ORDINARY SHARES OR TRANSFER OF CAPITAL RESERVE FUND

(I) Formulation, implementation or adjustment of cash dividend policy

1. *Implementation of cash dividend policy during the reporting period*

On 15 April 2019, the 2019 first extraordinary general meeting of the Company reviewed and approved a special dividend payment of the remaining profit available for distribution as of 31 December 2017 (after deducting the dividends actually distributed in 2018). Calculated based on the total share capital of 8,789,819,000 shares, cash dividends of RMB0.20 per share were distributed, which had been completed.

2. *Formulation and implementation of the Company's cash dividend policy*

While maintaining its sustained and steady development, the Company attaches great importance to the reasonable return on investment of shareholders. According to the relevant regulations of the CSRC, the Articles of Association have clearly stipulated the review procedures for cash dividend policies and profit distribution policies. The Company's profit distribution policy complies with the provisions of the Articles of Association and the review procedures. The dividend standards and ratios are explicit and clear, and the relevant decision-making mechanism and procedures are complete.

3. *Explanation of profit distribution plan for 2019*

The Company held the 18th meeting of the third session of the Board on 25 March 2020. The meeting reviewed and approved the Annual Profit Distribution Plan for 2019 with 7 affirmative votes, 0 dissenting vote and 0 vote abstaining from voting, and agreed to submit the profit distribution plan to the Company's 2019 annual general meeting for review. The plan decides to distribute dividends for 2019 to all shareholders, and a cash dividend of RMB2.0 (tax inclusive) will be paid for every 10 shares, of which domestic shareholders will be paid in RMB and H shareholders will be paid in Hong Kong dollars. The exchange rate of Hong Kong dollars will be calculated in accordance with the average forex closing price published by the People's Bank of China for the three working days before the day when the dividend distribution announcement is made. As of 31 December 2019, the total share capital of the Company was 10,589,819,000 shares. Based on this calculation, the total proposed cash dividends to be distributed is RMB2,117,963,800, accounting for 55.50% of net profit attributable to shareholders of listed companies in the 2019 consolidated statement of the Company. The independent Directors of the Company performed their duties diligently, carefully reviewed the proposal on the cash dividend policy and issued independent opinions.

If the above profit distribution plan is reviewed and approved by the Company's general meeting, the cash dividends are expected to be distributed on or before 30 August 2020. When the specific time is determined for convening the general meeting, the Company will separately announce on further details including the closure of the registration of members of the H shares and the expected cash dividend payment date, if updated, in respect of the relevant cash dividend distribution.

SECTION V SIGNIFICANT EVENTS

The time arrangement such as the record date and the cash payment date for Shanghai-Hong Kong Stock Connect and Shenzhen-Hong Kong Stock Connect investors is in line with that for H shareholders of the Company.

- (II) The Company's plans for distribution of dividends from ordinary shares or transfer of capital reserve funds in the recent three years (including the reporting period)

Unit: Yuan Currency: RMB

Year	Bonus shares for every 10 shares (shares)	Dividends distributed per 10 shares (yuan) (tax inclusive)	New shares for every 10 shares (shares)	Amount of cash dividends (tax inclusive)	Net profits in the consolidated statements for the dividend year attributable to ordinary shareholders of the listed company	Percentage in the net profits in the consolidated statements attributable to ordinary shareholders of the listed company (%)
2019	0	2.0	0	2,117,963,800.00	3,815,874,901.39	55.50
2018	0	2.0	0	1,757,963,800.00	3,408,545,542.62	51.58
2017	0	1.5	0	1,318,472,850.00	3,222,483,597.72	40.91

- (III) Share repurchase by cash counted into cash dividends

Not applicable.

- (IV) Provided that the Company has made profits and the parent company's profits distributable to ordinary shareholders are positive, but no plan for distribution of profits from ordinary shares by cash has been proposed during the reporting period, the Company shall disclose in details the reasons therefor and use and plan of usage of the undistributed profit

Not applicable.

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II. TAX AND TAX REDUCTION AND EXEMPTION

Cash dividend income tax applicable to overseas shareholders

Withholding and Payment of EIT on behalf of Overseas Non-Resident Enterprise Shareholders

Pursuant to the applicable provisions of the Enterprise Income Tax Law of the People's Republic of China (《中華人民共和國企業所得稅法》) and its implementing rules and the requirements under the Notice on the Issues Concerning Withholding and Payment of the Enterprise Income Tax on the Dividends Paid by Chinese Resident Enterprises to H shareholders Who Are Overseas Non-resident Enterprises (Guo Shui Han [2008] No. 897) issued by the State Administration of Taxation (《關於中國居民企業向境外H股非居民企業股東派發股息代扣代繳企業所得稅有關問題的通知》(國稅函[2008]897號)), the Company will withhold and pay EIT at the rate of 10% when it distributes the cash dividend to overseas non-resident enterprise holders of H Shares (including any H Shares of the Company registered in the name of HKSCC Nominees Limited, but excluding any H Shares of the Company registered in the name of HKSCC Nominees Limited and are held by China Securities Depository and Clearing Corporation Limited as nominee shareholder on behalf of investors who invest in the H shares of the Company through Shanghai Connect).

Withholding and Payment of Individual Income Tax on behalf of Overseas Individual Shareholders

Pursuant to the applicable provisions of the Individual Income Tax Law of the People's Republic of China (《中華人民共和國個人所得稅法》) and its implementing rules, the Tax Notice, the Notice of the State Administration of Taxation on Issues Concerning the Administration of Individual Income Tax Collection after the Annulment of Document Guo Shui Fa [1993] No. 045 (Guo Shui Han [2011] No. 348) (國家稅務總局關於國稅發[1993]045號文件廢止後有關個人所得稅徵管問題的通知)(國稅函[2011]348號)) and other relevant laws, regulations and requirements under normative documents, the Company will implement the following arrangements in relation to the withholding and payment of individual income tax on behalf of the overseas individual H shareholders:

- For individual H shareholders who are Hong Kong or Macao residents or whose country (region) of domicile is a country (region) which has entered into a tax treaty with the PRC stipulating a tax rate of 10%, the Company will withhold and pay individual income tax at the rate of 10% on behalf of these individual H shareholders in the distribution of the cash dividend;

SECTION V SIGNIFICANT EVENTS

- For individual H shareholders whose country (region) of domicile is a country (region) which has entered into a tax treaty with the PRC stipulating a tax rate of less than 10%, the Company will temporarily withhold and pay individual income tax at the rate of 10% on behalf of these individual H shareholders in the distribution of the cash dividend. If relevant individual H shareholders would like to apply for a refund of the excess amount of tax withheld and paid, the Company will handle, on their behalf, the applications for tax preferential treatments under relevant tax treaties according to the Tax Notice. Qualified Shareholders please submit in time a letter of entrustment and all application materials as required under the Tax Notice to the Company's H Share Registrar, Computershare Hong Kong Investor Services Limited. The Company will then submit the above documents to the competent tax authorities and, after their examination and if and when the documents are approved, the Company will assist in refunding the excess amount of tax withheld and paid;
- For individual H shareholders whose country (region) of domicile is a country (region) which has entered into a tax treaty with the PRC stipulating a tax rate of more than 10% but less than 20%, the Company will withhold and pay individual income tax at the effective tax rate stipulated in the relevant tax treaty on behalf of these individual H shareholders in the distribution of the cash dividend; and
- For individual H shareholders whose country (region) of domicile is a country (region) which has entered into a tax treaty with the PRC stipulating a tax rate of 20%, or a country (region) which has not entered into any tax treaties with the PRC, or under any other circumstances, the Company will withhold and pay individual income tax at the rate of 20% on behalf of these individual H shareholders in the distribution of the cash dividend.

Cash dividend income tax applicable to shareholders in Mainland China investing in H shares of the Company through Southbound Trading Link

Withholding and Payment of Individual Income Tax on behalf of Domestic Individual Shareholders Investing through Southbound Trading Link

- **Shanghai Connect:** Pursuant to the Notice on Tax Policies for Shanghai Connect Pilot Program (Cai Shui [2014] No. 81) (《關於滬港股票市場交易互聯互通機制試點有關稅收政策的通知》(財稅[2014]81號)), for domestic individual shareholders who invest in H Shares of the Company through Shanghai Connect (such H shares are registered in the name of HKSCC Nominees Limited and held by China Securities Depository and Clearing Corporation Limited as nominee shareholder), the Company will withhold and pay individual income tax at the rate of 20% on their behalf in the distribution of the cash dividend. For domestic shareholders who are securities investment funds investing in H Shares of the Company through Shanghai Connect (such H shares are registered in the name of HKSCC Nominees Limited and held by China Securities Depository and Clearing Corporation Limited as nominee shareholder), the Company will withhold and pay individual income tax at the rate of 20% on their behalf in the distribution of the cash dividend.

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- **Shenzhen Connect:** Pursuant to the Notice on Tax Policies for Shenzhen Connect Pilot Program (Cai Shui [2016] No. 127) 《關於深港股票市場交易互聯互通機制試點有關稅收政策的通知》(財稅[2016]127號)), for domestic individual shareholders who invest in H shares of the Company through Shenzhen Connect (such H shares are registered in the name of HKSCC Nominees Limited and held by China Securities Depository and Clearing Corporation Limited as nominee shareholder), the Company will withhold and pay individual income tax at the rate of 20% on their behalf in the distribution of the cash dividend. For domestic shareholders who are securities investment funds investing in H shares of the Company through Shenzhen Connect (such H shares are registered in the name of HKSCC Nominees Limited and held by China Securities Depository and Clearing Corporation Limited as nominee shareholder), the Company will withhold and pay individual income tax at the rate of 20% on their behalf in the distribution of the cash dividend.

No Withholding or Payment of EIT on behalf of Domestic Enterprise Shareholders Investing through Southbound Trading Link

- **Shanghai Connect:** Pursuant to the Notice on Tax Policies for Shanghai Connect Pilot Program (Cai Shui [2014] No. 81) 《關於滬港股票市場交易互聯互通機制試點有關稅收政策的通知》(財稅[2014]81號)), for domestic enterprise shareholders who invest in H shares of the Company through Shanghai Connect (such H Shares are registered in the name of HKSCC Nominees Limited and held by China Securities Depository and Clearing Corporation Limited as nominee shareholder), the Company will not withhold or pay EIT on their behalf in the distribution of the cash dividend, and the domestic enterprise shareholders shall report and pay the relevant taxes payable by themselves. Any dividend received in respect of H shares of the Company which have been continuously held by a domestic enterprise shareholder for 12 months shall be exempted from EIT.
- **Shenzhen Connect:** Pursuant to the Notice on Tax Policies for Shenzhen Connect Pilot Program (Cai Shui [2016] No. 127) 《關於深港股票市場交易互聯互通機制試點有關稅收政策的通知》(財稅[2016]127號)), for domestic enterprise shareholders who invest in H shares of the Company through Shenzhen Connect (such H Shares are registered in the name of HKSCC Nominees Limited and held by China Securities Depository and Clearing Corporation Limited as nominee shareholder), the Company will not withhold or pay EIT on their behalf in the distribution of the cash dividend, and the domestic enterprise shareholders shall report and pay the relevant taxes payable by themselves. Any dividend received in respect of H shares of the Company which have been continuously held by a domestic enterprise shareholder for 12 months shall be exempted from EIT.

H shareholders of the Company are recommended to consult their own tax advisors on the relevant tax impact in China, Hong Kong and other countries (regions) on the possession and disposal of H shares of the Company.

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III. THE PERFORMANCE OF UNDERTAKINGS

- (I) Undertakings during or carried forward to the reporting period by the Company's actual controller, shareholders, related parties, acquirers and the Company and other relevant parties

Background of undertakings	Category of undertakings	Party providing undertakings	Contents of undertakings	Time and term of undertakings	Is there a term for performance	Whether or not timely and strictly performed	If the undertaking fails to be performed timely, please explain the specific reasons for the failure	If the undertaking fails to be performed timely, please state the plan in the next step
Undertakings associated with the initial public offering	Restricted shares	CRSC Group	The CRSC Group has made the following undertakings in respect of shares lock-up: (1) if the CRSC Group, within 36 months from the date when the CRSC's A shares upon initial public offering are listed on the Shanghai Stock Exchange, holds the CRSC's A shares, it shall not transfer or entrust others to manage the CRSC's domestic shares directly or indirectly held by it prior to the issuance, nor shall CRSC repurchase such shares. (2) if the closing price of CRSC's stocks for 20 consecutive trading days (except for all-day suspension of CRSC's stocks) is lower than the issue price of this offering within six months after the listing of CRSC, or the closing price at the end of six months after listing (if the day is not a trading day, it is the first trading day after that day) is lower than the issue price of this offering, the lock-up period of CRSC's A shares held by CRSC Group will be automatically extended for six months after the expiration of the above lock-up period. The issue price refers to the issue price of this offering of CRSC. If CRSC, after being listed, performs the dividend and ex-right for reasons such as profit distribution, capital reserves to increase share capital, additional issuance, placement etc., it shall do so in accordance with the relevant provisions of the Shanghai Stock Exchange. (3) if CRSC Group violates the above undertakings, it will assume all legal liabilities arising therefrom. (4) if relevant laws, regulations and regulatory documents or other securities regulatory authorities such as China Securities Regulatory Commission and Shanghai Stock Exchange have other requirements for the lock-up period of shares, CRSC Group agrees to adjust the lock-up period of CRSC's shares held by it accordingly.	Time of undertakings: 15 April 2019; term: within 36 months from the date of the listing of CRSC's A shares	Yes	Yes	-	-

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Background of undertakings	Category of undertakings	Party providing undertakings	Contents of undertakings	Time and term of undertakings	Is there a term for performance	Whether or not timely and strictly performed	If the undertaking fails to be performed timely, please explain the specific reasons for the failure	If the undertaking fails to be performed timely, please state the plan in the next step
Undertakings associated with the initial public offering	Restricted shares	Chengtong Group, SINOMACH, CICC Jiacheng	The Chengtong Group, SINOMACH and CICC Jiacheng have made the following undertakings in respect of shares lock-up: (1) if they, within 12 months from the date when the CRSC's A shares upon initial public offering are listed on the Shanghai Stock Exchange, hold the CRSC's A shares, they shall not transfer or entrust others to manage the CRSC's domestic shares directly or indirectly held by them prior to the issuance, nor shall CRSC repurchase such shares. (2) if they violate the above undertakings, they will assume all legal liabilities arising therefrom. (3) if relevant laws, regulations and regulatory documents or other securities regulatory authorities such as China Securities Regulatory Commission and Shanghai Stock Exchange have other requirements for the lock-up period of shares, they agree to adjust the lock-up period of CRSC's shares held by them accordingly.	Time of undertakings by Chengtong Group: 26 March 2019; time of undertakings by SINOMACH and CICC Jiacheng: 15 April 2019; term: within 12 months from the date of the listing of CRSC's A shares	Yes	Yes	-	-

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Background of undertakings	Category of undertakings	Party providing undertakings	Contents of undertakings	Time and term of undertakings	Is there a term for performance	Whether or not timely and strictly performed	If the undertaking fails to be performed timely, please explain the specific reasons for the failure	If the undertaking fails to be performed timely, please explain the specific reasons for the failure
Undertakings associated with the initial public offering	Restricted shares	CRHC	CRHC has made the following undertakings in respect of shares lock-up: (1) if CRHC, within 12 months from the date when the CRSC's A shares upon initial public offering are listed on the Shanghai Stock Exchange, holds the CRSC's A shares, it shall not transfer the CRSC's domestic shares directly or indirectly held by it prior to the issuance, nor shall CRSC repurchase such shares. (2) if CRHC violates the above undertakings, it will assume all legal liabilities arising therefrom. (3) if relevant laws, regulations and regulatory documents or other securities regulatory authorities such as China Securities Regulatory Commission and Shanghai Stock Exchange have other requirements for the lock-up period of shares, CRHC agrees to adjust the lock-up period of CRSC's shares held by it accordingly.	Time of undertakings: 15 April 2019; term: within 12 months from the date of the listing of CRSC's A shares	Yes	Yes	-	-

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Background of undertakings	Category of undertakings	Party providing undertakings	Contents of undertakings	Time and term of undertakings	Is there a term for performance	Whether or not timely and strictly performed	If the undertaking fails to be performed timely, please explain the specific reasons for the failure	If the undertaking fails to be performed timely, please state the plan in the next step
Undertakings associated with the initial public offering	Restricted shares	Broker collective assets management plans set up by senior management and core employees participating in the strategic placement, have made the following undertakings in respect of shares lockup: the employee stock ownership plan agrees that the final shares of strategic placement will be locked up for 12 months from the date of the listing of the shares issued.	Broker collective assets management plans set up by senior management and core employees participating in the strategic placement, have made the following undertakings in respect of shares lockup: the employee stock ownership plan agrees that the final shares of strategic placement will be locked up for 12 months from the date of the listing of the shares issued.	Time of undertakings: 21 June 2019; term: within 12 months from the date of the listing of CRSC's A shares	Yes	Yes	-	-
Undertakings associated with the initial public offering	Profit distribution	CRSC	CRSC has made the following undertakings in respect of profit distribution policies: the Company will distribute profits to shareholders in strict accordance with the profit distribution policies stipulated by relevant laws and regulations, the Articles of Association of China Railway Signal & Communication Corporation Limited, and Dividend Distribution Plan within the Three Years after the Initial Public Offering and Listing of A Shares of CRSC (2019 – 2021), and strictly implement the review procedures for the profit distribution plan. If the violation of the above undertakings causes losses to the investors, the Company shall be liable to the investors according to law.	Time of undertakings: 15 April 2019, term: long-term effective	No	Yes	-	-

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Background of undertakings	Category of undertakings	Party providing undertakings	Contents of undertakings	Time and term of undertakings	Is there a term for performance	Whether or not timely and strictly performed	If the undertaking fails to be performed timely, please explain the specific reasons for the failure	If the undertaking fails to be performed timely, please explain the specific reasons for the failure	
Undertakings associated with the initial public offering	Non-competition undertakings	CRSC Group	CRSC Group have made the following undertakings in respect of the non-competition undertakings: (1) as of the date of the issuance of letter of undertakings, CRSC Group and the holding enterprises of CRSC Group (excluding CRSC and its holding enterprises, same hereinafter) have not engaged in or participated in the businesses or activities that constitute or may constitute a direct or indirect competitive relationship with the principal business currently engaged in by CRSC and its holding enterprises in any form domestically or abroad. (2) CRSC Group and its holding enterprises do not, currently or in the future, solely or jointly with others, directly or indirectly, in any form (including but not limited to investment, merger and acquisition, associates, joint ventures, cooperation, partnership, contracting or leasing operation, purchase of shares of listed companies or equity participation) domestically or abroad engage in or participate in, or assist to engage in or participate in any businesses or activities which compete or is likely to compete with the principal business engaged currently or in the future by CRSC and its holding enterprises. (3) if CRSC Group or its holding enterprises and any new business opportunities which directly or indirectly compete or is likely to compete with the principal business of CRSC and its holding enterprises, they will immediately notify CRSC in writing and try their best to procure that these business opportunities are first provided to CRSC and its holding enterprises on reasonable and fair terms and conditions. (4) if CRSC and its holding	Time of undertakings: 15 April 2019; term: the letter of undertakings takes effect from the date of issuance and is terminated upon the occurrence of the following circumstances (whichever is earlier): CRSC Group is no longer the controlling shareholder of CRSC, CRSC terminates its listing (except for the suspension of trading of CRSC's stock for any reason)	Yes	Yes	Yes	-	-

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Background of undertakings	Category of undertakings	Party providing undertakings	Contents of undertakings	Time and term of undertakings	Is there a term for performance	Whether or not timely and strictly performed	If the undertaking fails to be performed timely, please explain the specific reasons for the failure	If the undertaking fails to be performed timely, please state the plan in the next step
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enterprises waive the above new business opportunities and CRSC Group or its holding enterprises engage in these competitive businesses, CRSC and its holding enterprises have the right to acquire any equity, assets and other interests in the above-mentioned competitive business from CRSC Group or its holding enterprises at one or multiple times at any time, or choose to entrust operation, lease or contract to operate the assets or business of the above-mentioned competitive business in accordance with the PRC laws and regulations. (5) if CRSC Group or its holding enterprises intend(s) to transfer, sell, lease, license or otherwise transfer or permit to use the asset and business which competes or is likely to compete, directly or indirectly, with the principal business of CRSC and its holding enterprises, CRSC Group and its holding enterprises will provide priority transfer rights to CRSC and its holding enterprises. (6) CRSC Group will indemnify CRSC and its holding enterprises against all actual loss, damage and expenses suffered/occurred for CRSC Group or its holding enterprises' breach of any terms in the letter of undertaking. (7) the letter of undertakings takes effect from the date of issuance and is terminated upon the occurrence of the following circumstances (whichever is earlier): CRSC Group is no longer the controlling shareholder of CRSC; CRSC terminates its listing (except for the suspension of trading of CRSC's stock for any reason)

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Background of undertakings	Category of undertakings	Party providing undertakings	Contents of undertakings	Time and term of undertakings	Is there a term for performance	Whether or not timely and strictly performed	If the undertaking fails to be performed timely, please explain the specific reasons for the failure	If the undertaking fails to be performed timely, please explain the specific reasons for the failure
Undertakings associated with the initial public offering	Related Party Transactions	CRSC Group	<p>CRSC Group have made the following undertakings in respect of regulating Related Party Transactions: (1) CRSC Group and the holding enterprises of CRSC Group (excluding CRSC and its holding enterprises, same hereinafter) will try their best to minimize the Related Party Transactions with CRSC and its holding enterprises. (2) for the Related Party Transactions related with operating activities of CRSC that are not avoidable, CRSC Group and the holding enterprises of CRSC Group will perform the decision-making procedures of Related Party Transactions to ensure fair pricing and timely fulfill information disclosure obligations with strict compliance with the relevant laws and regulations and regulatory documents as well as the relevant requirements in CRSC's internal system related with Related Party Transactions. (3) CRSC Group will not take advantage of its position as a controlling shareholder to seek any favorable conditions or benefits over independent third parties for CRSC Group and its holding enterprises from CRSC and its holding enterprises in business operation and other business. (4) CRSC Group will indemnify CRSC and its holding enterprises against all actual loss, damage and expenses suffered/occurred for CRSC Group and its holding enterprises' violation of above-mentioned undertakings. (5) the above-mentioned undertakings remain effective when CRSC Group has the control right over CRSC and cannot be changed or cancelled.</p>	Time of undertakings 15 April 2019; term: the letter of undertakings takes effect from the date of issuance and is terminated upon the occurrence of the following circumstances (whichever is earlier): CRSC Group is no longer the controlling shareholder of CRSC, CRSC terminates its listing (except for the suspension of trading of CRSC's stock for any reason)	Yes	Yes	-	-

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Background of undertakings	Category of undertakings	Party providing undertakings	Contents of undertakings	Time and term of undertakings	Is there a term for performance	Whether or not timely and strictly performed	If the undertaking fails to be performed timely, please explain the specific reasons for the failure	If the undertaking fails to be performed timely, please state the plan in the next step
Undertakings associated with the initial public offering	Others	CRSC	CRSC has made the following undertakings in respect of restraints on failure to comply with relevant public undertakings: (1) if the relevant undertakings made publicly by the Company in the prospectus has already contained the restraints, such restraints specified in those undertakings shall prevail; if the Company breaches those undertakings, the Company agrees to adopt the restraints already specified in those undertakings. (2) if the Company fails to perform its undertakings, confirms that it is unable to perform or fails to perform as scheduled (except for the objective reasons beyond the control of the Company such as changes in relevant laws and regulations and policies, natural disasters and other force majeure), the Company will take the following measures: 1) publicly explain the specific reasons for the failure to perform, inability to perform or to perform as scheduled, the undertakings in the media designated by the CSRC. 2) make supplementary or substitute undertakings to the Company and its shareholders to protect the rights and interests of the Company and its shareholders as much as possible.	Time of undertakings: 15 April 2019; term: long-term effective	No	Yes	-	-

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Background of undertakings	Category of undertakings	Party providing undertakings	Contents of undertakings	Time and term of undertakings	Is there a term for performance	Whether or not timely and strictly performed	If the undertaking fails to be performed timely, please explain the specific reasons for the failure	If the undertaking fails to be performed timely, please explain the specific reasons for the failure
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3) If the public investors suffer losses due to their reliance on the undertakings of the Company in transactions, the Company will compensate them in the way and amount determined by the securities regulatory authorities or judicial authorities.

(3) In the event that the Company fails to perform its undertakings, confirms that it is unable to perform or fails to perform as scheduled due to objective reasons beyond the control of the Company such as changes in relevant laws and regulations and policies, natural disasters and other force majeure, the Company will take the following measures:

- 1) publicly explain the specific reasons for the failure to perform, inability to perform or to perform as scheduled, the undertakings in the media designated by the CSRC.
- 2) make supplementary or substitute undertakings to the Company and its shareholders to protect the rights and interests of the Company and its shareholders as much as possible.

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Background of undertakings	Category of undertakings	Party providing undertakings	Contents of undertakings	Time and term of undertakings	Is there a term for performance	Whether or not timely and strictly performed	If the undertaking fails to be performed timely, please explain the specific reasons for the failure	If the undertaking fails to be performed timely, please state the plan in the next step
Undertakings associated with the initial public offering	Others	CRSC Group	<p>CRSC Group has made the following undertakings in respect of restraints on failure to comply with relevant public undertakings:</p> <p>(1) CRSC Group will strictly implement the public undertakings made by CRSC Group in the prospectus for this issue and actively accept public supervision. (2) If the CRSC Group fails to fulfill its undertakings, confirms that it is unable to perform or fails to perform as scheduled (except for the objective reasons beyond the control of the Group such as changes in relevant laws and regulations and policies, natural disasters and other force majeure), the CRSC Group will take the following measures:</p> <p>1) publicly explain the specific reasons for the failure to perform, inability to perform or to perform as scheduled, the undertakings in the media designated by the CSRC.</p> <p>2) make supplementary or substitute undertakings to the CRSC and its shareholders to protect the rights and interests of the CRSC and its shareholders as much as possible.</p> <p>3) in case of any gains (if any) due to the failure to perform the relevant undertakings, the gains shall be owned by CRSC.</p>	Time of undertakings: 15 April 2019; term: long-term effective	No	Yes	-	-

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Background of undertakings	Category of undertakings	Party providing undertakings	Contents of undertakings	Time and term of undertakings	Is there a term for performance	Whether or not timely and strictly performed	If the undertaking fails to be performed timely, please explain the specific reasons for the failure	If the undertaking fails to be performed timely, please explain the specific reasons for the failure
			<p>4) if the public investors suffer losses due to their reliance on the undertakings of CRSC Group in transactions, the CRSC Group will compensate them in the way and amount determined by the securities regulatory authorities or judicial authorities.</p> <p>(3) in the event that the CRSC Group fails to perform its undertakings, confirms that it is unable to perform or fails to perform as scheduled due to objective reasons beyond the control of the CRSC Group such as changes in relevant laws and regulations and policies, natural disasters and other force majeure, the CRSC Group will take the following measures:</p> <p>1) publicly explain the specific reasons for the failure to perform, inability to perform or to perform as scheduled, the undertakings in the media designated by the CSRC.</p> <p>2) make supplementary or substitute undertakings to the CRSC and its shareholders to protect the rights and interests of the CRSC and its shareholders as much as possible.</p>					

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Background of undertakings	Category of undertakings	Party providing undertakings	Contents of undertakings	Time and term of undertakings	Is there a term for performance	Whether or not timely and strictly performed	If the undertaking fails to be performed timely, please explain the specific reasons for the failure	If the undertaking fails to be performed timely, please state the plan in the next step
Undertakings associated with the initial public offering	Others	The Company's Directors, Supervisors and senior management	<p>The Company's Directors, Supervisors and senior management have made the following undertakings in respect of restraints on failure to comply with relevant public undertakings:</p> <p>(1) I will strictly perform the public undertakings made in the prospectus for this issue and actively accept public supervision.</p> <p>(2) If I fail to perform my undertakings, confirm that I am unable to perform or fail to perform as scheduled (except for the objective reasons beyond my control such as changes in relevant laws and regulations and policies, natural disasters and other force majeure), I will take the following measures:</p> <ol style="list-style-type: none"> publicly explain the specific reasons for the failure to perform, inability to perform or to perform as scheduled, the undertakings in the media designated by the CSRC. make supplementary or substitute undertakings to the CRSC and its shareholders to protect the rights and interests of the CRSC and its shareholders as much as possible. in case of any gains (if any) due to the failure to perform the relevant undertakings, the gains shall be owned by CRSC. if the public investors suffer losses due to their reliance on my undertakings in transactions, I will compensate them in the way and amount determined by the securities regulatory authorities or judicial authorities; if I receive the salary from CRSC, I agree that CRSC can stop paying the salary to me and use it directly to perform my unfulfilled undertakings or to compensate for the loss caused to CRSC and its shareholders by my unfulfilled undertakings. 	Time of undertakings: 15 April 2019; term: long-term effective	No	Yes	-	-

SECTION V SIGNIFICANT EVENTS

Background of undertakings	Category of undertakings	Party providing undertakings	Contents of undertakings	Time and term of undertakings	Is there a term for performance	Whether or not timely and strictly performed	If the undertaking fails to be performed timely, please explain the specific reasons for the failure	If the undertaking fails to be performed timely, please explain the specific reasons for the failure
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(3) in the event that I fail to perform my undertakings, confirm that I am unable to perform or fail to perform as scheduled due to objective reasons beyond my control such as changes in relevant laws and regulations and policies, natural disasters and other force majeure, I will take the following measures:

- 1) publicly explain the specific reasons for the failure to perform, inability to perform or to perform as scheduled, the undertakings in the media designated by the CSRC.
- 2) make supplementary or substitute undertakings to the CRSC and its shareholders to protect the rights and interests of the CRSC and its shareholders as much as possible.

SECTION V SIGNIFICANT EVENTS

Background of undertakings	Category of undertakings	Party providing undertakings	Contents of undertakings	Time and term of undertakings	Is there a term for performance	Whether or not timely and strictly performed	If the undertaking fails to be performed timely, please explain the specific reasons for the failure	If the undertaking fails to be performed timely, please state the plan in the next step
Undertakings associated with the initial public offering	Restricted shares	CRSC Group	<p>The CRSC Group has made the following undertakings in respect of shares lock-up: (1) within 36 months from the date when the CRSC's A shares upon initial public offering are listed on the Shanghai Stock Exchange, the CRSC Group shall not transfer the CRSC's A shares held by it and entrust others to manage the CRSC's domestic shares directly or indirectly held by it prior to the issuance, nor shall CRSC repurchase such shares. (2) if the closing price of CRSC's stocks for 20 consecutive trading days (except for all-day suspension of CRSC's stocks) is lower than the issue price of this offering within six months after the listing of CRSC, or the closing price at the end of six months after listing (if the day is not a trading day, it is the first trading day after that day) is lower than the issue price of this offering, the lock-up period of CRSC's A shares held by CRSC Group will be automatically extended for six months after the expiration of the above lock-up period. The issue price refers to the issue price of this offering of CRSC, if CRSC, after being listed, performs the dividend and ex-right for reasons such as profit distribution, capital reserves to increase share capital, additional issuance, placement etc., it shall do so in accordance with the relevant provisions of the Shanghai Stock Exchange. (3) if CRSC Group violates the above undertakings, it will assume all legal liabilities arising therefrom. (4) If relevant laws, regulations and regulatory documents or other securities regulatory authorities such as China Securities Regulatory Commission and Shanghai Stock Exchange have other requirements for the lock-up period of shares, CRSC Group agrees to adjust the lock-up period of CRSC's shares held by it accordingly.</p>	Time of undertakings: 15 April 2019; term: within 36 months from the date of the listing of CRSC's A shares	Yes	Yes	-	-

SECTION V SIGNIFICANT EVENTS

Background of undertakings	Category of undertakings	Party providing undertakings	Contents of undertakings	Time and term of undertakings	Is there a term for performance	Whether or not timely and strictly performed	If the undertaking fails to be performed timely, please explain the specific reasons for the failure	If the undertaking fails to be performed timely, please explain the specific reasons for the failure
Other undertakings	Restricted shares	Chengtong Group, SINOMACH, CICC Jiacheng	<p>The Chengtong Group, SINOMACH and CICC Jiacheng have made the following undertakings in respect of shares lock-up: (1) within 12 months from the date when the CRSC's A shares upon initial public offering are listed on the Shanghai Stock Exchange, they shall not transfer the CRSC's A shares held by them and entrust others to manage the CRSC's domestic shares directly or indirectly held by them prior to the issuance; nor shall CRSC repurchase such shares. (2) if they violate the above undertakings, they will assume all legal liabilities arising therefrom. (3) if relevant laws, regulations and regulatory documents or other securities regulatory authorities such as China Securities Regulatory Commission and Shanghai Stock Exchange have other requirements for the lock-up period of shares, they agree to adjust the lock-up period of CRSC's shares held by them accordingly.</p>	<p>Time of undertakings by Chengtong Group: 26 March 2019; time of undertakings by SINOMACH and CICC Jiacheng: 15 April 2019; term: within 12 months from the date of the listing of CRSC's A shares</p>	Yes	Yes	-	-

SECTION V SIGNIFICANT EVENTS

Background of undertakings	Category of undertakings	Party providing undertakings	Contents of undertakings	Time and term of undertakings	Is there a term for performance	Whether or not timely and strictly performed	If the undertaking fails to be performed timely, please explain the specific reasons for the failure	If the undertaking fails to be performed timely, please state the plan in the next step
Other undertakings	Non-competition undertaking	CRSC Group	On 20 July 2015, CRSC Group issued to us a letter of non-competition undertakings, which is effective in the Relevant Period (as defined in the H share prospectus). Pursuant to the letter of non-competition undertakings, CRSC Group has confirmed that, as at the date of the letter of non-competition undertakings, CRSC Group has not engaged in or participated in any form of business activities which, directly or indirectly, compete with the Company's principal businesses. For further details of the letter of non-competition undertakings, please refer to the H share prospectus of the Company.	20 July 2015; term: the letter of undertakings takes effect from the date of issuance and is terminated upon the occurrence of the following circumstances (whichever is earlier): CRSC Group is no longer the controlling shareholder of CRSC; CRSC terminates its listing (except for the suspension of trading of CRSC's stock for any reason).	Yes	Yes	-	-

SECTION V SIGNIFICANT EVENTS

Background of undertakings	Category of undertakings	Party providing undertakings	Contents of undertakings	Time and term of undertakings	Is there a term for performance	Whether or not timely and strictly performed	If the undertaking fails to be performed timely, please explain the specific reasons for the failure	If the undertaking fails to be performed timely, please explain the specific reasons for the failure
Other Undertakings	Others	CRSC	The Company undertook to the Hong Kong Stock Exchange that the Company would not use the proceeds from the global offering, as well as any other funds raised through the Hong Kong Stock Exchange, to finance or assist any activities or business, directly or indirectly, (i) relating to or with the target of any sanction, or relating to, with, or in any countries subject to sanctions administered by the U.S., the E.U., Hong Kong, Australia or the U.N. authorities, or (ii) relating to CRSC International, one of the Company's subsidiaries, considering the amount of its annual revenue related to projects in Iran during the Track Record Period. In addition, the Company also undertook to the Hong Kong Stock Exchange that the Company would not undertake any sanctionable transactions that would expose the relevant persons or us to risk of being sanctioned.	28 July 2015; term: long-term effective	No	Yes	-	-

SECTION V SIGNIFICANT EVENTS

- (II) If the Company has made profit forecasts for its assets or projects and the reporting period is still in the profit forecast period, explanation made by the Company in regard to whether the assets or projects have reached the profit forecasts and the reasons thereof

Not applicable.

- (III) Performance of result-related undertakings and the impact on test of goodwill impairment

Not applicable.

IV. APPROPRIATION OF FUNDS AND SETTLEMENT PROGRESS DURING THE REPORTING PERIOD

Not applicable.

V. EXPLANATION OF THE COMPANY ON ISSUANCE OF A “NON-STANDARD AUDITING REPORT” BY ACCOUNTING FIRMS

Not applicable.

VI. THE COMPANY’S ANALYSIS AND EXPLANATION ON THE REASONS FOR AND IMPACTS OF CHANGES OF ACCOUNTING POLICIES AND ACCOUNTING ESTIMATES OR CORRECTION OF SIGNIFICANT ACCOUNTING ERRORS

- (I) The Company’s analysis and explanation on the reasons for and impacts of changes of accounting policies and accounting estimates

In 2018, the Ministry of Finance issued the revised “Accounting Standard for Business Enterprises No. 21-Leasing” (the “New Lease Standard”). Since 1 January 2019, the Group has conducted accounting treatment in accordance with the New Lease Standard. According to the transitional requirements, the information for the comparable period will not be adjusted and retained earnings at the beginning of current reporting period will be retrospectively adjusted based on the difference between the New Lease Standard and the current lease standard on the first day of implementation:

New Lease Standard adopts the single model similar to that used for the current accounting treatment for finance lease which requires the lessee to recognize right-of-use asset and lease liability for all leases other than short-term lease and low-value assets leases and recognize depreciation and interest expenses, respectively. Adoption of the New Lease Standard will not have cumulative material effects on the Group’s uncompleted contracts as at 1 January 2019, and will not have material impact on the financial statements of the Group for the period.

SECTION V SIGNIFICANT EVENTS

- (II) The Company's analysis and explanation on the reasons for and impacts of correction of significant accounting errors

Not applicable.

- (III) Communication with the former accounting firm

Not applicable.

- (IV) Other explanations

Not applicable.

VII. APPOINTMENT AND REMOVAL OF ACCOUNTING FIRM

Unit: Yuan Currency: RMB

Appointed currently

Name of the domestic accounting firm	Ernst & Young Hua Ming LLP
Remuneration of the domestic accounting firm	6,600,000.00
Service year limit of the domestic accounting firm	5 years

Explanation on appointment and removal of accounting firms

As at 13 June 2019, the Company considered and approved the Proposal on Appointment of External Auditors for 2019 at the 2018 annual general meeting, where the Company decided not to reappoint Ernst & Young as its overseas auditor for the year of 2019 and decided to reappoint Ernst & Young Hua Ming LLP as the external auditor of the Company for the year of 2019 to audit the financial statements of the Company for 2019 because it will adopt the CASBE only to prepare its financial statements

Explanation on change in the accounting firms during the auditing period

Not applicable.

SECTION V SIGNIFICANT EVENTS

VIII. EXPOSURE TO TERMINATION OF LISTING AND REASONS THEREFOR

Not applicable.

IX. EVENTS REGARDING BANKRUPTCY AND RESTRUCTURING

Not applicable.

X. MATERIAL LITIGATION AND ARBITRATION

The Company was not involved in material litigation or arbitration in the year.

XI. PUNISHMENTS AND RECTIFICATIONS INVOLVED BY THE LISTED COMPANY, ITS DIRECTORS, SUPERVISORS, SENIOR MANAGEMENT, CONTROLLING SHAREHOLDER, ACTUAL CONTROLLER OR ACQUIRER

Not applicable.

XII. EXPLANATION ON CREDIBILITY OF THE COMPANY AND ITS CONTROLLING SHAREHOLDER AND ACTUAL CONTROLLER DURING THE REPORTING PERIOD

Not applicable.

XIII. INFORMATION ABOUT THE COMPANY'S SHARE INCENTIVE PLAN, EMPLOYEE STOCK OWNERSHIP PLAN OR OTHER EMPLOYEE INCENTIVE MEASURES AND THEIR IMPACTS

- (I) Relevant incentive events disclosed in the temporary announcements and with no progress or change in subsequent implementation

Not applicable.

SECTION V SIGNIFICANT EVENTS

- (II) Incentives not disclosed in the temporary announcements or with subsequent progress

Share incentives

Not applicable.

Other explanations

Not applicable.

Employee stock ownership plan

Not applicable.

Other incentive measures

Not applicable.

XIV. MATERIAL RELATED PARTY TRANSACTIONS

- (I) The related party transactions in relation to the ordinary operations

1. *Events disclosed in the temporary announcements and with no progress or change in subsequent implementation*

Not applicable.

2. *Events disclosed in the temporary announcements but with progress or change in subsequent implementation*

Not applicable.

3. *Events not disclosed in the temporary announcements*

Not applicable.

SECTION V SIGNIFICANT EVENTS

(II) Related party transactions arising from acquisition or disposal of assets or equity interests

1. *Events disclosed in the temporary announcements and with no progress or change in subsequent implementation*

Not applicable.

2. *Events disclosed in the temporary announcements but with progress or change in subsequent implementation*

Not applicable.

3. *Events not disclosed in temporary announcements*

Not applicable.

4. *Where an agreement on performance is involved, the performance achievements during the reporting period shall be disclosed*

Not applicable.

(III) Significant related party transactions on the joint external investment

1. *Events disclosed in the temporary announcements and with no progress or change in subsequent implementation*

Not applicable.

2. *Events disclosed in the temporary announcements but with progress or change in subsequent implementation*

Not applicable.

3. *Events not disclosed in temporary announcements*

Not applicable.

SECTION V SIGNIFICANT EVENTS

(IV) Claims and liabilities between related parties

1. *Events disclosed in the temporary announcements and with no progress or change in subsequent implementation*

Not applicable.

2. *Events disclosed in the temporary announcements but with progress or change in subsequent implementation*

Not applicable.

3. *Events not disclosed in temporary announcements*

Unit: Yuan Currency: RMB

Related party	Related party relationship	Provision of funds to related party			Provision of funds to the listed company by related party		
		Opening balance	Accrual	Ending balance	Opening balance	Accrual	Ending balance
CRSC Group	Controlling Shareholder	-	-	-	1,000,000,000.00	1,000,000,000.00	-
Total		-	-	-	1,000,000,000.00	1,000,000,000.00	-

Reasons for the formation of claims and liabilities between related parties In 2019, the Company borrowed RMB2,500,000,000.00 from CRSC Group (the parent company) in the form of entrusted loans with a term of one year, and the interest rate of loans was 4.35%, the entrusted loans repaid for this year was RMB3,500,000,000.00. As at 31 December 2019, the balance of entrusted loans borrowed by the Company from CRSC Group was nil.

Impact of claims and liabilities between related parties on the Company No significant impact.

SECTION V SIGNIFICANT EVENTS

(V) Connected transactions under the Hong Kong Listing Rules

During the reporting period, the Group conducted the following connected transactions under the Hong Kong Listing Rules:

1. EXEMPT CONTINUING CONNECTED TRANSACTIONS

The following continuing connected transactions of the Group have been entered into on normal commercial terms. Pursuant to Chapter 14A of the Hong Kong Listing Rules, such continuing connected transactions are exempt from the requirements of reporting, annual review, announcement and approval by independent shareholders under Chapter 14A of the Hong Kong Listing Rules.

Property Leasing Framework Agreement between CRSC Group and the Company

Reference is made to the Property Leasing Framework Agreement entered into by and between the Company and CRSC Group on 19 July 2015. Since the Property Leasing Framework Agreement will expire after three years commencing from the Listing Date, its corresponding annual caps will be expired on 31 December 2017, and the Company intends to continue to conduct transactions under the agreement after 31 December 2017, therefore, the Company entered into a new Property Leasing Framework Agreement (New Property Leasing Framework Agreement) with CRSC Group on 20 December 2017. Pursuant to the New Property Leasing Framework Agreement, the Group and CRSC Group and/or its associates may lease properties, including land and buildings, from each other according to actual need.

The principal terms of the New Property Leasing Framework Agreement include: (1) rental pricing policy (see below); (2) that the Group and CRSC Group and/or its associates must enter into specific agreements to stipulate specific terms and conditions, including property rental, payment method and other usage fees, in respect of the relevant leasing property and facilities based on the principles as set out in the New Property Leasing Framework Agreement; and (3) that the New Property Leasing Framework Agreement will have a term of three years, commencing from 1 January 2018 to 31 December 2020, and may be renewed with mutual consent after negotiation.

According to the rental pricing policy of the New Property Leasing Framework Agreement, the rental price shall be determined at arm's length negotiations between relevant parties and by reference to the prevailing market price of local properties with similar size and quality.

The New Property Leasing Framework Agreement was entered into on normal commercial terms. Pursuant to Chapter 14A of the Hong Kong Listing Rules, all relevant annual "applicable percentage ratios" of the relevant transactions are less than 0.1%. Pursuant to Rule 14A.76(1) (a) of the Hong Kong Listing Rules, the aforesaid continuing connected transactions are exempt from the requirements of reporting, annual review, announcement and approval by independent shareholders under Chapter 14A of the Hong Kong Listing Rules.

SECTION V SIGNIFICANT EVENTS

General Services Framework Agreement between CRSC Group and the Company

Reference is made to the General Services Framework Agreement entered into by and between the Company and CRSC Group on 19 July 2015. Since the general services framework agreement will expire after three years commencing from the Listing Date, its corresponding annual caps will be expired on 31 December 2017, and the Company will continue to conduct transactions under the agreement after 31 December 2017, therefore, the Company entered into a new general services framework agreement (New CRSC Group General Services Framework Agreement) with CRSC Group on 20 December 2017. Pursuant to the New CRSC Corporation Group General Services Framework Agreement, CRSC Group and/or its associates may provide general services, such as logistics, to us according to actual needs, and we can provide property entrustment, technical services and other general services to CRSC Group and/or its associates.

The principal terms of the New CRSC Group General Services Framework Agreement include: (1) pricing policy of service fee (see below); (2) except for public tender, both parties must confirm the service demand plan for the next year or the service adjustment plan of the current year on a stipulated date of each year; (3) the Group and CRSC Group and/or its associates must enter into specific agreements to stipulate specific terms and conditions, including specific scope of service, form of service and payment method, in respect of the relevant services based on the principles as set out in the New CRSC Group General Services Framework Agreement; and (4) the New CRSC Group General Services Framework Agreement will have a term of three years, commencing from 1 January 2018 to 31 December 2020, and may be renewed with mutual consent after negotiation.

According to the pricing policy of the New CRSC Group General Services Framework Agreement, the provision of logistics and other integrated services to the Group by CRSC Group and/or its associates is priced at the cost of the service without making any profit to ensure the service fee is fair and reasonable or more favorable to the Group than being available from Independent Third Parties. The service fees of property entrustment service provided by the Group to CRSC Group and/or its associates will be determined at arm's length negotiations between the relevant parties by reference to the market price of service fees required by local properties with similar size and quality. The pricing of technical services provided by the Group to CRSC Group and/or its associates shall comply with the terms of agreement between CRSC Group and the contractual party of the project. CRSC Group will purchase technical services from the Group at the price agreed between itself and the contractual party of the project and then supply the same to the contractual party of the project, without making any profit.

SECTION V SIGNIFICANT EVENTS

The New CRSC Group General Services Framework Agreement was entered into on normal commercial terms. Pursuant to Chapter 14A of the Hong Kong Listing Rules, all relevant annual “applicable percentage ratios” of the relevant transactions are less than 0.1%. Pursuant to Rule 14A.76(1) (a) of the Hong Kong Listing Rules, the aforesaid continuing connected transactions are exempt from the requirements of reporting, annual review, announcement and approval by independent shareholders under Chapter 14A of the Hong Kong Listing Rules.

Domain Name Usage Licensing Agreement between CRSC Group and the Company

The Company entered into a domain name usage licensing agreement (the Domain Name Usage Licensing Agreement) with CRSC Group on 19 July 2015, pursuant to which, CRSC Group has agreed to authorize the Group to use the domain names “csrc.cn”, “csrc.com.cn” and “csrc.中國” owned by it at nil consideration. The licensing period of domain name usage will commence from the Listing Date for a term of ten years.

The Domain Name Usage Licensing Agreement was entered into on normal commercial terms. Pursuant to Chapter 14A of the Hong Kong Listing Rules, all relevant annual “applicable percentage ratios” of the relevant transactions are less than 0.1%. Pursuant to Rule 14A.76(1) (a) of the Hong Kong Listing Rules, the aforesaid continuing connected transactions are exempt from the requirements of reporting, annual review, announcement and approval by independent shareholders under Chapter 14A of the Hong Kong Listing Rules.

Service Agreement between CRSC CASCO and ALSTOM IC

CRSC CASCO and ALSTOM IC entered into a service agreement (the Service Agreement) on 27 April 2015, pursuant to which, ALSTOM IC would designate personnel to CRSC CASCO for the provision of supportive service, and CRSC CASCO would pay an annual service fee and annual bonus for the designated personnel to ALSTOM IC. The agreement shall remain valid during the operation period of CRSC CASCO. The Service Agreement will be effective from 1 June 2015.

According to the pricing policy of the Service Agreement, during the period from 1 March 2006 to 31 March 2007, the annual service fee under the Service Agreement was RMB1,650,165, and the amount of annual fee in subsequent years would be adjusted after negotiation between the parties according to the actual expenses incurred for the provision of this service by ALSTOM IC. The annual bonus for personnel designated under the Service Agreement shall be determined by the chairman and vice chairman of CRSC CASCO.

SECTION V SIGNIFICANT EVENTS

The Service Agreement was entered into on normal commercial terms. Pursuant to Chapter 14A of the Hong Kong Listing Rules, all relevant annual “applicable percentage ratios” of the relevant transactions are less than 1%. The transaction above constitutes a connected transaction under the Listing Rules only because it involves a connected person at the subsidiary level, therefore, according to Rule 14A.76(1) (b) of the Hong Kong Listing Rules, the aforesaid continuing connected transactions are exempt from the requirements of reporting, annual review, announcement and approval by independent shareholders under Chapter 14A of the Hong Kong Listing Rules.

U888 Technology Transfer Framework Agreement between CRSC CASCO and ALSTOM Transport S.A.

CRSC CASCO and ALSTOM Transport S.A. entered into the U888 technology transfer framework agreement (the U888 Technology Transfer Framework Agreement) on 10 September 2008, pursuant to which, ALSTOM Transport S.A. agreed to transfer the relevant technology to CRSC CASCO and CRSC CASCO agreed to accept such technology for application in URBALIS 888 solution plans and for the production and sales of UNIVIC and 2oo3 Platform. For this purpose, ALSTOM Transport S.A. granted the right to use relevant technology to CRSC CASCO which is non-transferable and cannot be sub-licensed. The agreement will remain valid until 4 March 2023.

According to the pricing policy of the U888 Technology Transfer Framework Agreement, based on the value of the transferred technology, the required product assembly, inspection and testing, maintenance, training as well as other services that will be provided by ALSTOM Transport S.A. during the transferring process, a price quotation will be provided by ALSTOM Transport S.A. and the final price will be determined at arm’s length negotiation between both parties.

The U888 Technology Transfer Framework Agreement was entered into on normal commercial terms. Pursuant to Chapter 14A of the Hong Kong Listing Rules, all relevant annual “applicable percentage ratios” of the relevant transactions are less than 1%. The transaction above constitutes a connected transaction under the Hong Kong Listing Rules only because it involves a connected person at the subsidiary level, therefore, according to Rule 14A.76(1) (a) of the Hong Kong Listing Rules, the aforesaid continuing connected transactions are exempt from the requirements of reporting, annual review, announcement and approval by independent shareholders under Chapter 14A of the Hong Kong Listing Rules.

SECTION V SIGNIFICANT EVENTS

Technical Services Framework Agreements on Mutual Provision of Support among the Company, ALSTOM Transport S.A. and Alstom Transport Holdings

Reference is made to the Alstom General Services Framework Agreements entered into by and between the Company and ALSTOM Transport S.A. and Alstom Transport Holdings B.V. (the “Alstom Transport Holdings”), respectively, on 13 July 2015. Since the Alstom General Services Framework Agreements will expire after three years commencing from the Listing Date, their corresponding annual caps will be expired on 31 December 2017, and the Company will continue to conduct transactions under the agreements after 31 December 2017, therefore, the Company entered into New General Services Framework Agreements (New Alstom General Services Framework Agreements) with ALSTOM Transport S.A. and Alstom Transport Holdings on 20 December 2017 for a term of three years, commencing from 1 January 2018 to 31 December 2020.

They are subject to renewal after mutual negotiation. Under the New Alstom General Services Framework Agreements, we may engage in mutual supply of technical services with ALSTOM Transport S.A. and Alstom Transport Holdings and/or their respective subsidiaries.

According to the pricing policy of the New Alstom General Services Framework Agreements, with respect to technical services required by the Company, the Company generally selects suppliers through tender process, the price will be determined on the basis of the specific competitive bidding in the market and by considering various factors comprehensively, such as, among others, the quality of service provided by ALSTOM, work load and labour cost. With respect to the technical services provided by the Company to ALSTOM, the price will be determined by considering comprehensively the prevailing conditions, scale, needs of the project, and the costs of labour, materials, transportation and logistics, together with the market competition in bidding for the project.

The New Alstom General Services Framework Agreements were entered into on normal commercial terms. Pursuant to Chapter 14A of the Hong Kong Listing Rules, all relevant annual “applicable percentage ratios” of the relevant transactions are less than 0.1%. According to Rule 14A.76(1) (a) of the Hong Kong Listing Rules, the aforesaid continuing connected transactions are exempt from the requirements of reporting, annual review, announcement and approval by independent shareholders under Chapter 14A of the Hong Kong Listing Rules.

SECTION V SIGNIFICANT EVENTS

General Services Framework Agreements among the Company, ALSTOM Transport S.A. and Alstom Transport Holdings

Reference is made to the Alstom General Services Framework Agreements entered into by and between the Company, ALSTOM Transport S.A. and Alstom Transport Holdings, respectively, on 13 July 2015. Since the Alstom General Services Framework Agreements will expire after three years commencing from the Listing Date, their corresponding annual caps will be expired on 31 December 2017, and the Company will continue to conduct transactions under the agreements after 31 December 2017, therefore, the Company entered into New Alstom General Services Framework Agreements with ALSTOM Transport S.A. and Alstom Transport Holdings on 20 December 2017 for a term of three years, commencing from 1 January 2018 to 31 December 2020.

They are subject to renewal after mutual negotiation. Under the New Alstom General Services Framework Agreements, we may procure products from or sell products to ALSTOM Transport S.A. and Alstom Transport Holdings and/or their respective subsidiaries.

According to the pricing policy of the New Alstom General Services Framework Agreements, the sales are based on the Alstom's project conditions, scale, demand, and costs for labour, materials, transportation & logistics, as well as comprehensive consideration of market supply & demand; with respect to procurement of products required by the Company, the Company generally selects suppliers through tender process, the price will be determined by considering comprehensively, among others, the specific competitive bidding in the market, price quotation from ALSTOM, specific conditions of the project and product cost. If the tender process will not be carried out, then the price will be determined with reference to historical price through negotiations and communications between the parties.

The New Alstom General Services Framework Agreements were entered into on normal commercial terms. Pursuant to Chapter 14A of the Hong Kong Listing Rules, all relevant annual "applicable percentage ratios" of the relevant transactions are less than 0.1%. The transaction above constitutes a connected transaction under the Listing Rules only because it involves a connected person at the subsidiary level, therefore, according to Rule 14A.76(1) (b) of the Hong Kong Listing Rules, the aforesaid continuing connected transactions are exempt from the requirements of reporting, annual review, announcement and approval by independent shareholders under Chapter 14A of the Listing Rules.

SECTION V SIGNIFICANT EVENTS

2. NON-EXEMPT CONTINUING CONNECTED TRANSACTIONS

The following continuing connected transactions of the Group have been entered into on normal commercial terms. Pursuant to Chapter 14A of the Hong Kong Listing Rules, such continuing connected transactions are subject to the requirements of reporting, annual review, announcement and (as the case may be) independent shareholders' approval under Chapter 14A of the Listing Rules.

Purchases and Sales Framework Agreement between the Company and CRSC Group

Reference is made to the purchases and sales framework agreement entered into by and between the Company and CRSC Group on 19 July 2015. Since the purchases and sales framework agreement will expire after three years commencing from the Listing Date, its corresponding annual caps will be expired on 31 December 2017, and the Company intends to continue to conduct transactions under the agreement after 31 December 2017, therefore, the Company entered into a new purchases and sales framework agreement (New CRSC Group Purchases and Sales Framework Agreement) with CRSC Corporation Group on 20 December 2017. Pursuant to the New CRSC Group Purchases and Sales Framework Agreement, the Group and CRSC Group may purchase, among others, raw materials, excipients, accessories, components and parts, packaging materials, semi-finished products, finished products, commodities and related products from each other or sell the same to each other.

The principal terms of the New CRSC Group Purchases and Sales Framework Agreement include: (1) pricing policy (see below); (2) that except for public tender, both parties must confirm the demand plan for the next year or the demand adjustment plan of the current year on a stipulated date of each year; (3) that the Group and CRSC Group must enter into specific agreements to stipulate specific terms and conditions, including specific scope of business, quality standards and payment method, in respect of the relevant business based on the principles as set out in the New CRSC Group Purchases and Sales Framework Agreement; and (4) that the New CRSC Group Purchases and Sales Framework Agreement will have a term of three years, commencing from 1 January 2018 to 31 December 2020, and may be renewed with mutual consent after negotiation.

The pricing of various products under the New CRSC Group Purchases and Sales Framework Agreement will be determined on the basis of market price, together with purchasing costs of materials, labor costs, manufacturing costs, management costs, financial costs, transportation and packaging costs incurred by sales, tax burden and profitability standards. The pricing of products provided by the Group to CRSC Group will be by reference to and subject to the terms of agreement between CRSC Group and the contractual party of the Overseas Project. CRSC Group will purchase products from the Group at the price agreed between itself and the contractual party of the Overseas Project and then supply the same to the contractual party of the Overseas Project, without making any profit.

SECTION V SIGNIFICANT EVENTS

During the reporting period, the caps of the purchases/sales of this continuing connected transaction for 2019 were RMB110,000 thousand and RMB32,000 thousand, respectively. The actual total transaction amounts of purchases/sales by the Group and CRSC Corporation Group under the aforesaid agreements were RMB90,089 thousand and RMB5,481 thousand, respectively.

Construction Contracting Framework Agreement between the Company and CRSC Group

On 14 June 2019, the Company and CRSC Corporation Group signed a Construction Contracting Framework Agreement (the “Construction Contracting Framework Agreement”), pursuant to which the Group provides project construction and ancillary services, including but not limited to project design and general contracting of construction, to CRSC Group and its associates in the ordinary and usual course of its business, and CRSC Group and its associates will pay service fee to the Group.

The principal terms of the Construction Contracting Framework Agreement include: (1) pricing policy (see below); (2) that except for public tender, the contracting parties must confirm the service demand plan for the next year or adjustment to the service demand plan of the current year on a stipulated date of each year; (3) that the Group and CRSC Group must enter into specific agreements to stipulate specific terms and conditions, including specific scope of the project construction and ancillary services, form of service and payment method, in respect of the relevant project construction and ancillary services under the Construction Contracting Framework Agreement; and (4) that the term of the Construction Contracting Framework Agreement is from the date on which the said agreement takes effect to 31 December 2020, and is renewable with the consent of the contracting parties.

According to the Construction Contracting Framework Agreement, the service fee of the Group for providing project construction and ancillary services to CRSC Group and its associates will be determined after fair negotiation with CRSC Group and its associates with reference to the following factors: (1) availability and cost of raw materials and equipment, and machinery, labor and subcontractors; (2) the guided prices provided by the local housing and urban-rural construction bureaus for various raw materials and other construction costs where the Company conducts businesses; (3) project schedule, the complexity and scale of the construction project, and potential adjustment of the work scope; (4) the geographical location and environmental conditions of the project; and (5) for competitive tender, the evaluation and analysis conducted by relevant functional departments of the Group taking into account relevant information about its competitors, specific needs of the project, the impact of the project on the macro strategy of the Company and other factors.

SECTION V SIGNIFICANT EVENTS

In order to ensure that the service fee charged by the Group for the provision of project contracting services is fair and reasonable and is consistent with market prices, the Group will have an independent third-party construction cost consulting agency review the charged fee to follow closely the current market price level and market conditions. In addition, the Group will also refer to the fees previously charged for providing similar project contracting services to independent third-party customers.

During the reporting period, the cap of this continuing connected transaction for 2019 (i.e. from the date of completion of the equity transfer to 31 December 2019) was RMB760,000 thousand. The actual total transaction amount between the Group and CRSC Corporation Group under the aforesaid agreement was RMB334,674 thousand.

3. *CONFIRMATION BY INDEPENDENT NON-EXECUTIVE DIRECTORS*

The independent non-executive Directors of the Company have reviewed the aforesaid continuing connected transactions and have confirmed that they have been entered into: in the ordinary and usual course of the Group's business; on normal commercial or better terms; on conditions no less favourable to the Company than those offered to or by (as the case may be) independent third parties, if it was not practical to make such judgement based on comparable transactions as to whether such transactions have been carried out on normal commercial terms; and in accordance with relevant agreements whose terms are fair and reasonable and in the interest of the shareholders of the Company as a whole.

4. *AUDITOR'S LETTER*

In accordance with Rule 14A.56 of the Hong Kong Listing Rules, the Company has engaged its auditor, Ernst & Young Hua Ming LLP ("Ernst & Young Hua Ming"), to report on the Group's continuing connected transactions in accordance with Hong Kong Standards on Assurance Engagements 3000 "Assurance Business Other Than Audits or Reviews of Historical Financial Information" and Practice Note 740 "Auditor's Letter on Continuing Connected Transactions under the Hong Kong Listing Rules" issued by the Hong Kong Institute of Certified Public Accountants. Based on its work, Ernst & Young Hua Ming has provided the Board with a letter confirming that, with respect to the aforesaid continuing connected transactions:

- (a) nothing has come to Ernst & Young Hua Ming's attention that causes it to believe that the aforesaid continuing connected transactions have not been approved by the Board;

SECTION V SIGNIFICANT EVENTS

- (b) in relation to the transactions involving products and services supplied by the Group, nothing has come to Ernst & Young Hua Ming's attention that causes it to believe that the transactions have not followed the Group's pricing policy in any material aspect;
- (c) nothing has come to Ernst & Young Hua Ming's attention that causes it to believe that the transactions have not been carried out in any material aspect in accordance with the relevant agreements;
- (d) in relation to the aggregate amounts for each of the aforesaid continuing connected transactions, nothing has come to Ernst & Young Hua Ming's attention that causes it to believe that the actual transaction amount of any of the aforesaid continuing connected transactions has not exceeded the cap determined by the Company for the year.

XV. MAJOR CONTRACTS AND PERFORMANCE

(I) Trust, contracting and leasing matters

1. *Trust*

Not applicable.

2. *Contracting*

Not applicable.

3. *Leasing*

Not applicable.

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(II) Guarantees

Unit: Yuan Currency: Renminbi

Total amount of external guarantees provided by the Company (excluding guarantees provided for its subsidiaries)

Total guarantee incurred during the reporting period (excluding those provided to subsidiaries)	-
Total balance of guarantee as at the end of the reporting period (A) (excluding those provided to subsidiaries)	-
Guarantee provided by the Company and its subsidiaries to its subsidiaries	
Total guarantee to subsidiaries incurred during the reporting period	3,991,905,066.66
Total balance of guarantee to subsidiaries as at the end of the reporting period (B)	6,327,652,516.02

Aggregate guarantee of the Company (including those provided to subsidiaries)

Aggregate guarantee (A+B)	6,327,652,516.02
Percentage of aggregate guarantee to net assets of the Company (%)	15.39
Representing:	
Amount of guarantee provided for shareholders, actual controller and related parties (C)	-
Amount of debts guarantee directly or indirectly provided to guaranteed parties with gearing ratio over 70% (D)	5,349,315,881.16
Excess amount of aggregate guarantee over 50% of net assets (E)	-
Aggregate amount of the above three categories (C+D+E)	5,349,315,881.16

Statement on the contingent joint and several liability in connection with unexpired guarantee

Statement on guarantee

Percentage of the total guarantee amount to net assets of the Company = guarantee amount/equity attributable to owners of the parent company. As at the end of 31 December 2019, the balance of guarantee amounted to RMB6,328 million, accounting for 15.39% of the Company's net assets, of which, the balance of guarantees for wholly-owned subsidiaries was RMB5,989 million; the balance of guarantees for controlling subsidiaries was RMB339 million. The Company did not provide any guarantee for any of its controlling shareholders, actual controllers or related parties. As at the end of the reporting period, the balance of guarantee provided by the Company for its subsidiaries with an asset-liability ratio of more than 70% amounted to RMB5,349 million.

Note: please refer to the attachment to this annual report for the details for the guarantee to subsidiaries incurred during the reporting period.

SECTION V SIGNIFICANT EVENTS

(III) Entrusted Cash Asset Management

1. Entrusted wealth management

(1) Overall picture about entrusted wealth management

Unit and Currency: RMB0'000

Type	Sources of funds	Balance	Outstanding balance	Overdue amount
Cash management products of bank	Fundraising	270,000	270,000	0

Other information

Not applicable.

(2) Individual entrusted wealth management

Not applicable.

Other information

Not applicable.

(3) Provision for impairment of entrusted wealth management

Not applicable.

2. Entrusted loans

(1) Overall picture about entrusted loans

Not applicable.

Other information

Not applicable.

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(2) *Individual entrusted loan*

Not applicable.

Other information

Not applicable.

(3) *Provision for impairment of entrusted loans*

Not applicable.

3. *Other information*

Not applicable.

(IV) **Other Material Contracts**

Not applicable.

XVI. OTHER IMPORTANT EVENTS

Not applicable.

XVII. THE WORK ON SOCIAL RESPONSIBILITIES

(I) **The work of the listed company on poverty alleviation**

1. *The plan of targeted poverty alleviation*

The Company and CRSC Group, our controlling shareholder, undertook the designated poverty alleviation task in Sheqi county, Henan Province. According to the policies and arrangements of the poverty alleviation made by the CPC Central Committee and the State Council, as well as the SASAC's requirements for the designated poverty alleviation, we focused on the overall goal of the poverty alleviation in Sheqi county, adhered to the basic strategies of the targeted poverty alleviation, brought all parties involved to play their respective strengths, and strictly complied with the requirements on assuring the rural poor population that their food and clothing needs will be met and guaranteeing that they have access to compulsory education, basic medical services, and safe housing (hereinafter referred to as the “**two assurances and three guarantees**”), made great efforts to lift Sheqi county out of poverty completely by carrying out “EIGHT” key measures in accordance with the yearly poverty alleviation plan of Sheqi county from 2016 to 2019. (1) Promoting poverty alleviation through industrial development. We attached great importance

SECTION V SIGNIFICANT EVENTS

to the poverty alleviation through industrial development, increased inputs in industrial support, and developed and expanded industries including the planting and the agricultural byproducts processing. (2) Accelerating poverty alleviation through education. We carried out the “CRSC Student Aid” activity, to help fresh college students in Sheqi county who were registered to have lived in poverty receive higher education, and provide primary schools in poor rural areas with targeted support including multimedia teaching and the construction of reading rooms. We continued to carry out the “CRSC Relief for Orphans” initiative to provide charitable assistance to orphans in the middle and primary school. (3) Enhancing poverty alleviation through consumption. We established operation and management model of integration of supply-production-sale by taking agricultural products trading service companies in Sheqi as its platform, and built the “Internet +” sales model through strengthening the cooperation with E-commerce platforms, to enhance promotion efforts for poverty relief products. (4) Focusing poverty alleviation through healthcare. We continued to deeply implement the “Public Welfare Insurance Project for Poverty Alleviation through Healthcare” to bring more concrete benefits to the people in the poverty-stricken areas. The “Central Government-administered Enterprises Aid to Those with Emergencies and Difficulties” action was carried out to preferentially help families in poverty-stricken areas where they were suffering difficulties in basic living due to illness, emergency event or accident. The activity of “presenting love and sending warmth” was carried out to provide the basic living assistance to those poor families due to disabilities, no labor available and overburden, and provide special succor to families eligible for “Five Guarantees” (food, clothing, medical care, housing and burial expenses) and other special groups with living difficulties. We contacted and organized experts in provincial medical institutions to carry out on-site and voluntary medical services in rural areas. (5) Paying attention to poverty alleviation through living standard increase. We organically combined the implementation of poverty alleviation with rural vitalization strategies to promote the construction of beautiful countryside. We actively coordinated funds to help poor villages for renovating roads in villages, improving waste and sewage treatment facilities, improving people’s living environment, improving village appearance, and promoting green development in rural areas. (6) Highlighting poverty alleviation through Party’s building. We helped poor villages to improve Party’s building, strengthen the Party branch’s ability to organize, power to unite and energy to fight, and improve the basic governance of the village’s “Two Committees”. We held agricultural technology training courses, organized the impoverished people to learn skills, master science and production methods to improve their ability to get rid of poverty and become better off.

SECTION V SIGNIFICANT EVENTS

2. *Summary of annual targeted poverty alleviation*

The Company and its controlling shareholder, CRSC Group, focused on the target task of lifting Sheqi county out of poverty as a whole in 2019. We implemented industrial assistance and has established 6 industrial projects in relation to poverty alleviation, including a mushroom cultivation base. We provided financial support to poverty areas to sell agricultural products worth RMB347,300, which drove the industrial development in poverty areas. We contributed our force to education and built one multi-functional teaching building, assisted 65 college students from poverty families and 100 students who are orphans in education, and trained 210 poverty alleviation cadres and 300 agricultural technicians. We focused on health care and built one inpatient building and provided one ambulance, which provided assistance to a population of 2,762 people who lived in poverty. We adhered to Party building and improved the construction of basic Party organizations in 12 poverty villages, turning the advantages of Party building into a driving force for poverty alleviation. We improved the livelihood of people who lived in poverty, specifically, we maintained and/or constructed village roads, improved sewerage networks and installed solar street lights, in a view to contribute our force to building a beautiful country.

3. *Effect of targeted poverty alleviation*

Not applicable.

4. *Subsequent targeted poverty alleviation plan*

The Company and its controlling shareholder, CRSC Group, will earnestly implement the policies issued by the Central Party Committee and the State Council in relation to poverty alleviation and the work requirements set up by SASAC to alleviate poverty in a targeted manner, adhere to the basic strategy to support poverty alleviation and lift people out of poverty in a targeted manner, focus on the prominent issues in relation to “two cares and three guarantees”. We will strengthen the leadership of poverty alleviation organizations to carry out in-depth research on poverty alleviation work, then resolve problems based on researches and analysis; provide in-depth guidance for basic assistance work and ensure the implementation of assistance measures, so as to continue to consolidate and improve the achievements we have obtained in the poverty alleviation battle, and strive to embracing the complete victory in the poverty alleviation battle.

(II) Social Responsibility Work

For details, please refer to 2019 Social Responsibility Report of China Railway Signal & Communication Corporation Limited* disclosed by the Company on the websites of SSE and the Hong Kong Stock Exchange on the same date.

SECTION V SIGNIFICANT EVENTS

(III) Environmental Information

1. *Explanation on environmental protection of companies and their significant subsidiaries classified as the key pollutant discharging units announced by the environmental protection department*

Guided by Xi Jinping's thought on ecological civilization, CRSC has been implementing the spirit of the 19th National Congress of the CPC and the National Ecological Environmental Protection Conference, firmly establishes the concept of socialist ecological civilization, and promotes the notion of green development. Focusing on protecting the environment and saving resources, CRSC follows the relevant laws and regulations of the state on ecological environmental protection, implements pollutant reduction and environmental governance simultaneously, and actively fulfills the social responsibility. Only Shenyang Railway Signal Co., Ltd. under CRSC is a key pollutant discharging unit announced by the local ecological environmental protection department, and the relevant environmental protection information and detection of this enterprise are disclosed on the website of the local ecological environment department in accordance with the relevant regulations.

(1) *Pollutant discharging information*

CRSC is an environmentally friendly "general class" enterprise with "low pollution emission". Pollutant discharge is mainly divided into three categories: air pollutants, water pollutants and hazardous wastes. Air pollution emissions mainly include a small amount of nitrogen oxide and sulfur dioxide produced by boiler heating in the factory, and a small amount of volatile organic compounds (VOCS) in the production process; water pollution emissions mainly include ammonia nitrogen and chemical oxygen demand (COD); the hazardous waste is HW08, HW09, HW13, HW17, and HW49, mainly including the electroplating sludge and organic solvents produced during mechanical processing, organic solvent produced in the process of electronic product assembly and cable extrusion, and emulsions and waste oils generated during equipment maintenance. In 2019, the COD emission in sewage was 2.63 tons, the ammonia nitrogen emission was 0.41 ton, and the hazardous waste treatment capacity was 168.53 tons, maintaining a reasonable level. The emission of sulfur dioxide and nitrogen oxide in the air pollutants were 0.021 ton and 1.01 tons, respectively. The discharge method of wastewater is mainly based on recycling, and unified discharge after complying with the standard treatment. The discharge method of VOCS and exhaust boiler is based on organized emission after adsorption treatment. All hazardous wastes are entrusted to professional enterprises with hazardous waste operation license, road transport of dangerous cargos license and other qualifications to handle. The discharge of major pollutants meets the discharge requirements stipulated by the state or local authorities.

SECTION V SIGNIFICANT EVENTS

(2) *Construction and operation of pollution prevention and control facilities*

CRSC has effectively treated the discharge outlets of pollution sources produced in all links of the production process, and the pollution control equipment is running well. For the links involved in the production of VOCS by cable processing, mechanical product processing, and electronic product assembly in industrial enterprises, treatment devices, such as flue gas electronic purification systems, activated carbon purification systems, low temperature plasma and UV photolysis purification systems, are also equipped to ensure the standard emission of volatile organic gas. The additional and upgraded enterprise-level sewage treatment stations resulted in a substantial increase in sewage treatment capacity and strong monitoring of water pollution discharge indicators. Hazardous wastes shall be stored and managed in strict compliance with the relevant regulations. In the process of transfer and disposal of hazardous wastes, the joint bills of hazardous wastes transfer shall be filled out in accordance with the provisions of the Administrative Measures on the Joint bills for the Transfer of Hazardous Wastes (《危險廢物轉移聯單管理辦法》), and qualified units shall be entrusted to carry out harmless and safe disposal according to law.

(3) *Environmental impact assessment of construction projects and other administrative licenses in relation to environmental protection*

In the implementation of construction projects, CRSC implements the Environmental Impact Assessment Law (《環境影響評價法》) and the “three simultaneous” system of simultaneous design, construction and operation of environmental protection facilities and main projects. The total amount of pollutants shall be controlled and the principle of combining prevention with treatment shall be implemented to treat and bury all kinds of pollutants generated so as to ensure the discharge up to the standard. CRSC has formulated the Administrative Measures for Safety and Environmental Protection of Construction Projects (《建設項目安全環保管理辦法》) to ensure that the construction projects were approved by the local government before the start of construction, and the environmental protection acceptance has been carried out in full accordance with the requirements of the Administrative Regulations on Environmental Protection of Construction Projects (《建設項目環境保護管理條例》).

(4) *Emergency plan for contingent environmental incidents*

According to the Safe Production Contingency Management Measures (《安全生產應急管理辦法》), CRSC has set up emergency organizations, classified emergency responsibilities at all levels, refined the classification of events, formulated emergency plans and conducted practical exercises, carried out relevant safety education and training, strengthened safety awareness and effectively improved the level of response to emergency.

SECTION V SIGNIFICANT EVENTS

(5) *Environmental self-monitoring program*

CRSC strengthens the supervision and inspection of relevant enterprises' pollution sources. Each of relevant enterprises has formulated pollution discharge monitoring and management systems and third-party testing plans according to the actual conditions of the enterprise. In order to improve the monitoring effects, some enterprises have installed on-line monitoring system for wastewater and exhaust gas at the key pollutant discharge outlets as required, realizing 24-hour monitoring and warning of pollutant discharge and establishing a sound pollutant emission monitoring system.

(6) *Other environmental information that should be disclosed*

According to the requirements of the local ecological environment department of the place where the enterprise is located, major pollutant discharging units of CRSC will disclose relevant information on the quantity of major pollutant emission and environmental treatment construction projects of the enterprises on the website of the local environmental protection department.

2. *Environmental protection of companies other than those classified as the key pollutant discharging units*

Not Applicable.

3. *Explanation of reasons for non-disclosure of environmental information by companies other than those classified as the key pollutant discharging units*

Not Applicable.

4. *Explanation of the follow-up progress of or changes in the disclosure of environmental information during the reporting period*

Not Applicable.

(IV) **Other Descriptions**

Not Applicable.

XVIII. CONVERTIBLE CORPORATE BONDS

Not Applicable.

SECTION VI

CHANGES IN SHARES AND PARTICULARS OF SHAREHOLDERS

I. THE MOVEMENTS IN ORDINARY SHARE CAPITAL

(I) Table of Changes in Ordinary Shares

1. Table of changes in ordinary shares

Unit: share

	Before the changes		Changes for the period(+, -)		After the changes	
	Number of shares	Percentage (%)	New shares	Subtotal	Number of shares	Percentage (%)
I. Shares subject to trading moratorium	6,821,018,000	77.60	615,629,400	615,629,400	7,436,647,400	70.22
1. State-owned shares	-	-	-	-	-	-
2. State-owned legal person shares	6,794,948,000	77.30	312,878,000	312,878,000	7,107,826,000	67.12
3. Other domestic shares	26,070,000	0.30	302,751,400	302,751,400	328,821,400	3.11
Of which held by: domestic non-state-owned legal person	26,070,000	0.30	302,751,400	302,751,400	328,821,400	3.11
II. Circulating shares not subject to trading moratorium	1,968,801,000	22.40	1,184,370,600	1,184,370,600	3,153,171,600	29.77
1. RMB ordinary shares	-	-	1,184,370,600	1,184,370,600	1,184,370,600	11.18
2. Domestic listed foreign shares	-	-	-	-	-	-
3. Overseas listed foreign shares	1,968,801,000	22.40	-	-	1,968,801,000	18.59
III. Total number of ordinary shares	8,789,819,000	100.00	1,800,000,000	1,800,000,000	10,589,819,000	100.00

2. Explanation on changes in ordinary shares

Upon approval for registration by the China Securities Regulatory Commission in the Reply to Approval for the Registration of Initial Public Offering of Shares by China Railway Signal & Communication Corporation Limited* (Zheng Jian Xu Ke [2019] No. 1135) on 27 June 2019, the Company issued to the public RMB1.8 billion ordinary shares (A shares), which were listed on the Science and Technology Innovation Board of Shanghai Stock Exchange on 22 July 2019. After the issuance, the total share capital is 10,589,819,000 shares, including 7,436,647,400 shares subject to trading moratorium.

CHANGES IN SHARES AND PARTICULARS OF SHAREHOLDERS

3. *The impact of changes in ordinary shares on financial indicators such as earnings per share, net asset per share for the latest year and the latest period (if any)*

As of 31 December 2019, the Company has received a total of RMB1.8 billion of new paid up share capital in this issuance, of which the issued shares were ordinary shares with the par value of RMB1 each, the issue number was 1,800,000,000 shares, accounting for 17.00% of the changed total share capital, and the issue price was RMB5.85 per share. Total fund raised amounted to RMB10.53 billion, and the net fund raised after deducting the issuance and listing expenses (excluding VAT) payable of RMB0.18 billion was RMB10.35 billion, all of which were funded in currency. 1,800,000,000 ordinary shares were added this year.

After the proceeds from the issuance were in place, the total share capital and net assets of the Company will increase correspondingly compared with that before the issuance. However, it takes a certain period of time for the Company's proceeds from the issuance to generate benefits from the capital investments, and the realization of the return on the investment project also requires a certain period of time. Therefore, there is a risk that the earnings per share and net assets per share of the Company would be diluted upon the issuance.

4. *Other discloseable contents that the Company deemed necessary or were required by securities regulatory authorities*

Not applicable.

SECTION VI

CHANGES IN SHARES AND PARTICULARS OF SHAREHOLDERS

(II) Changes in Shares Subject to Trading Moratorium

Unit: share

Name of Shareholder	Number of shares subject to trading moratorium at the beginning of the year	Number of shares released from trading moratorium for the year	Number of new shares subject to trading moratorium for the year	Number of shares subject to trading moratorium at the end of the year	Reason for the trading moratorium	Date of release from trading moratorium
China Railway Signal and Communication (group) Corporation Limited	6,604,426,424	-	-	6,604,426,424	subject to trading moratorium under the initial public offering	22 July 2022
China Chengtong Holdings Group Ltd.	63,507,192	-	-	63,507,192	subject to trading moratorium under the initial public offering	22 July 2020
China Reform Holdings Corporation Ltd.	63,507,192	-	-	63,507,192	subject to trading moratorium under the initial public offering	22 July 2020
China National Machinery Industry Corporation	63,507,192	-	-	63,507,192	subject to trading moratorium under the initial public offering	22 July 2020
CICC Jiacheng Investment Management Co., Ltd.	26,070,000	-	-	26,070,000	subject to trading moratorium under the initial public offering	22 July 2020
CICC-Guangfa Bank-CICC Feng Zhong No. 1 collective assets management plan for employee participation in STAR MARKET strategic allotment	-	-	18,901,500	18,901,500	subject to trading moratorium under the strategic allotment of the initial public offering	22 July 2020
CICC-Guangfa Bank-CICC Feng Zhong No. 2 collective assets management plan for employee participation in STAR MARKET strategic allotment	-	-	44,713,112	44,713,112	subject to trading moratorium under the strategic allotment of the initial public offering	22 July 2020

CHANGES IN SHARES AND PARTICULARS OF SHAREHOLDERS

Name of Shareholder	Number of shares subject to trading moratorium at the beginning of the year	Number of shares released from trading moratorium for the year	Number of new shares subject to trading moratorium for the year	Number of shares subject to trading moratorium at the end of the year	Reason for the trading moratorium	Date of release from trading moratorium
CICC-Guangfa Bank-CICC Feng Zhong No. 3 collective assets management plan for employee participation in STAR MARKET strategic allotment	-	-	34,227,038	34,227,038	subject to trading moratorium under the strategic allotment of the initial public offering	22 July 2020
CICC-Guangfa Bank-CICC Feng Zhong No. 4 collective assets management plan for employee participation in STAR MARKET strategic allotment	-	-	1,621,102	1,621,102	subject to trading moratorium under the strategic allotment of the initial public offering	22 July 2020
CICC-Guangfa Bank-CICC Feng Zhong No. 5 collective assets management plan for employee participation in STAR MARKET strategic allotment	-	-	9,270,248	9,270,248	subject to trading moratorium under the strategic allotment of the initial public offering	22 July 2020
China CICC Wealth Management Securities Company Limited(former China Investment Securities Co., Ltd.)	-	-	36,000,000	36,000,000	subject to trading moratorium under the strategic allotment of the initial public offering	22 July 2021
Guoxin Investment Co., Ltd.	-	-	85,470,000	85,470,000	subject to trading moratorium under the strategic allotment of the initial public offering	22 July 2020
China Railway Investment Co., Ltd.	-	-	34,188,000	34,188,000	subject to trading moratorium under the strategic allotment of the initial public offering	22 July 2020

SECTION VI

CHANGES IN SHARES AND PARTICULARS OF SHAREHOLDERS

Name of Shareholder	Number of shares subject to trading moratorium at the beginning of the year	Number of shares released from trading moratorium for the year	Number of new shares subject to trading moratorium for the year	Number of shares subject to trading moratorium at the end of the year	Reason for the trading moratorium	Date of release from trading moratorium
Sinomach Capital Holdings Ltd.	-	-	23,677,500	23,677,500	subject to trading moratorium under the strategic allotment of the initial public offering	22 July 2020
Zhongdian Electronics Information Industry Investment Fund (Tianjin) Partnership (Limited Partnership)	-	-	23,677,500	23,677,500	subject to trading moratorium under the strategic allotment of the initial public offering	22 July 2020
Guangdong Hengjian Capital Management Co., Ltd.	-	-	23,677,500	23,677,500	subject to trading moratorium under the strategic allotment of the initial public offering	22 July 2020
Hunan Rail Transit Holding Group Co., Ltd.	-	-	23,677,500	23,677,500	subject to trading moratorium under the strategic allotment of the initial public offering	22 July 2020
Shandong Railway Development Fund Co., Ltd.	-	-	23,677,500	23,677,500	subject to trading moratorium under the strategic allotment of the initial public offering	22 July 2020
National Railway (Tianjin) Equity Investment Partnership (Limited Partnership)	-	-	11,839,000	11,839,000	subject to trading moratorium under the strategic allotment of the initial public offering	22 July 2020

CHANGES IN SHARES AND PARTICULARS OF SHAREHOLDERS

Name of Shareholder	Number of shares subject to trading moratorium at the beginning of the year	Number of shares released from trading moratorium for the year	Number of new shares subject to trading moratorium for the year	Number of shares subject to trading moratorium at the end of the year	Reason for the trading moratorium	Date of release from trading moratorium
China Railway Construction Corporation Limited	-	-	11,839,000	11,839,000	subject to trading moratorium under the strategic allotment of the initial public offering	22 July 2020
COSCO SHIPPING Development Co., Ltd.	-	-	11,839,000	11,839,000	subject to trading moratorium under the strategic allotment of the initial public offering	22 July 2020
Power Construction Corporation of China, Ltd	-	-	11,839,000	11,839,000	subject to trading moratorium under the strategic allotment of the initial public offering	22 July 2020
CITIC Industrial Investment Group Corp., Ltd.	-	-	11,839,000	11,839,000	subject to trading moratorium under the strategic allotment of the initial public offering	22 July 2020
Sichuan Transportation Investment Innovation Development Co., Ltd.	-	-	11,839,000	11,839,000	subject to trading moratorium under the strategic allotment of the initial public offering	22 July 2020
Sichuan Expressway Company Limited	-	-	11,839,000	11,839,000	subject to trading moratorium under the strategic allotment of the initial public offering	22 July 2020

SECTION VI

CHANGES IN SHARES AND PARTICULARS OF SHAREHOLDERS

Name of Shareholder	Number of shares subject to trading moratorium at the beginning of the year	Number of shares released from trading moratorium for the year	Number of new shares subject to trading moratorium for the year	Number of shares subject to trading moratorium at the end of the year	Reason for the trading moratorium	Date of release from trading moratorium
New China Life Insurance Company Ltd.	-	-	11,839,000	11,839,000	subject to trading moratorium under the strategic allotment of the initial public offering	22 July 2020
China Life Insurance Company Ltd.	-	-	11,839,000	11,839,000	subject to trading moratorium under the strategic allotment of the initial public offering	22 July 2020
Huaxia 3-year Closed Operation Strategic Allocation Flexible Allocation Hybrid Securities Investment Fund (LOF)	-	-	11,839,000	11,839,000	subject to trading moratorium under the strategic allotment of the initial public offering	22 July 2020
Bosera Science Theme 3-year Closed Operation Flexible Allocation Hybrid Securities Investment Fund	-	-	11,839,000	11,839,000	subject to trading moratorium under the strategic allotment of the initial public offering	22 July 2020
SIG Asset Management Co., Ltd.	-	-	11,602,000	11,602,000	subject to trading moratorium under the strategic allotment of the initial public offering	22 July 2020
BOC Financial Asset Investment Co., Ltd.	-	-	6,037,500	6,037,500	subject to trading moratorium under the strategic allotment of the initial public offering	22 July 2020

SECTION VI

CHANGES IN SHARES AND PARTICULARS OF SHAREHOLDERS

Name of Shareholder	Number of shares subject to trading moratorium at the beginning of the year	Number of shares released from trading moratorium for the year	Number of new shares subject to trading moratorium for the year	Number of shares subject to trading moratorium at the end of the year	Reason for the trading moratorium	Date of release from trading moratorium
China Southern Power Grid Capital Holdings Co., Ltd. (南方電網資本控股有限公司)	-	-	5,801,000	5,801,000	subject to trading moratorium under the strategic allotment of the initial public offering	22 July 2020
Minmetals Capital Holdings Limited (五礦資本控股有限公司)	-	-	3,552,000	3,552,000	subject to trading moratorium under the strategic allotment of the initial public offering	22 July 2020
Offline allotment participants (92 accounts) ^{Note 1}	-	-	75,629,400	75,629,400	subject to trading moratorium under the offline allotment of the initial public offering	22 January 2020
Total	<u>6,821,018,000</u>	<u>-</u>	<u>615,629,400</u>	<u>7,436,647,400</u>	/	/

Note 1: For the details of the offline allotment accounts, please see the Schedule 1, Table of Lottery Results of the Offline Allotment (《網下配售搖號中籤結果表》), to the Announcement on the Results of the Initial Public Offering and the Listing on the STAR Market of China Railway Signal & Communication Corporation Limited issued on 19 July 2019 on the SSE (www.sse.com.cn).

SECTION VI

CHANGES IN SHARES AND PARTICULARS OF SHAREHOLDERS

II. SECURITIES ISSUE AND LISTING

(I) Issue of Securities as at the Reporting Period

Unit: share Currency: RMB Yuan

Type of shares and their derivatives	Issue date	Issue price (or interest rate)	Issue number	Listing date	Number of shares permitted for listing and trading	Termination date of trading
Ordinary shares						
A Share	22 July 2019	RMB5.85	1,800,000,000	22 July 2019	1,800,000,000	-

Explanation on securities issue as at the reporting period (for bonds with different interest rates during the duration, please specify separately):

For details, please refer to Section VI “Changes in Shares and Particulars of Shareholders” of this report.

(II) Changes in the Total Number of Ordinary Shares and Shareholders Structure of the Company and Changes in the Company’s Assets and Liabilities Structure

On 27 June 2019, the Company received the Reply to Approval for the Registration of Initial Public Offering of Shares by China Railway Signal & Communication Corporation Limited* (Zheng Jian Xu Ke [2019] No. 1135) from the China Securities Regulatory Commission to approve the Company to issue no more than 1,800,000,000.00 A shares. The Company issued 1,800,000,000.00 A shares in the initial public offering on 22 July 2019. As of 31 December 2019, the Company’s total share capital was 10,589,819,000 shares, of which 70.22% were shares subject to trading moratorium.

The Company’s net assets increased due to the initial public offering of A shares. As of 31 December 2019, the Company’s asset-liability ratio was 56.19%.

SECTION VI

CHANGES IN SHARES AND PARTICULARS OF SHAREHOLDERS

III. SHAREHOLDERS AND ACTUAL CONTROLLERS

(I) Total Number of Shareholders

Total number of ordinary shareholders as at the end of the reporting period (account)	177,267
Total number of ordinary shareholders at the end of the previous month before the disclosure date of annual report (account)	152,235
Total number of shareholders of preference shares with restored voting rights as at the end of the reporting period (account)	Not applicable
Total number of shareholders of preference shares with restored voting rights at the end of the previous month before the disclosure date of the annual report	Not applicable

Note: As of the end of the reporting period, the Company had 177,020 A Share Shareholders and 247 registered H Share Shareholders; as of the end of the previous month before the disclosure date of the annual report, the Company had 151,990 A Share Shareholders and 245 registered H Share Shareholders.

Number of depositary receipt holders

Not applicable.

SECTION VI

CHANGES IN SHARES AND PARTICULARS OF SHAREHOLDERS

(II) Particulars of Shareholdings of the Top Ten Shareholders and the Top Ten Shareholders of Tradable Shares (or Shareholders Not Subject to Trading Moratorium) as at the End of the Reporting Period

Unit: share

Particulars of shareholdings of the top ten Shareholders

Name of Shareholder (full name)	Change of shareholding during the reporting period	Number of shares held as at the end of the period	Percentage (%)	Number of shares held subject to trading moratorium	Number of restricted shares including lending shares for securities financing	Shares pledged or frozen		Nature of shareholder
						Status of shares	Number of shares	
China Railway Signal and Communication (group) Corporation Limited	-	6,604,426,424	62.37	6,604,426,424	6,604,426,424	No shares being pledged or froze	-	State-owned corporation
HKSCC NOMINEES LIMITED ^{Note 1}	95,000	1,967,800,000	18.58	-	-	Unknown	-	Overseas corporation
Guoxin Investment Co., Ltd.	85,470,000	85,470,000	0.81	85,470,000	85,470,000	Unknown	-	State-owned corporation
China National Machinery Industry Corporation	-	63,507,192	0.60	63,507,192	63,507,192	Unknown	-	State-owned corporation
China Reform Holdings Corporation Ltd.	-	63,507,192	0.60	63,507,192	63,507,192	Unknown	-	State-owned corporation
China Chengtong Holdings Group Ltd.	-	63,507,192	0.60	63,507,192	63,507,192	Unknown	-	State-owned corporation
CICC-Guangfa Bank-CICC Feng Zhong No. 2 collective assets management plan for employee participation in STAR MARKET strategic allotment	44,713,112	44,713,112	0.42	44,713,112	44,713,112	Unknown	-	Other
CICC-Guangfa Bank-CICC Feng Zhong No. 3 collective assets management plan for employee participation in STAR MARKET strategic allotment	34,227,038	34,227,038	0.32	34,227,038	34,227,038	Unknown	-	Other
China Railway Investment Co., Ltd.	34,188,000	34,188,000	0.32	34,188,000	34,188,000	Unknown	-	State-owned corporation
CICC Jiacheng Investment Management Co., Ltd.	-	26,070,000	0.25	26,070,000	26,070,000	Unknown	-	Other

SECTION VI

CHANGES IN SHARES AND PARTICULARS OF SHAREHOLDERS

Particulars of shareholdings of the top ten Shareholders not subject to trading moratorium

Name of Shareholder	Number of circulating shares held not subject to trading moratorium	Type and number of shares	
		Type	Number
HKSCC NOMINEES LIMITED	1,967,800,000	Overseas listed foreign shares	1,967,800,000
Guotai Junan Securities Co., Ltd.	17,592,400	RMB ordinary shares	17,592,400
CITIC Securities Co., Ltd.	4,551,357	RMB ordinary shares	4,551,357
Qushuihui Xinmaotong High-tech Partnership (Limited Partnership)	3,658,310	RMB ordinary shares	3,658,310
Shenwan Hongyuan Securities Co., Ltd.	2,770,000	RMB ordinary shares	2,770,000
Huatai Securities Co., Ltd.	2,617,447	RMB ordinary shares	2,617,447
WENG Longshun (翁龍順)	2,270,000	RMB ordinary shares	2,270,000
HUANG Shiwen	2,210,909	RMB ordinary shares	2,210,909
ZHAO Zhongbao (趙忠寶)	2,114,500	RMB ordinary shares	2,114,500
CAO Xi	2,090,023	RMB ordinary shares	2,090,023
Explanation on the related party relationship or acting-in-concert arrangement among the above shareholders	China Railway Signal and Communication (group) Corporation Limited, the first largest shareholder, does not have any related party relationship with the other shareholders nor is it a person acting in concert with them. The Company is not aware whether the other shareholders have related party relationship or acting-in-concert arrangement.		
Explanation on the preference shareholders with voting right restored and their shareholdings	Not applicable		

Note 1: H shares held by HKSCC NOMINEES LIMITED are held on behalf of various clients.

SECTION VI

CHANGES IN SHARES AND PARTICULARS OF SHAREHOLDERS

The top ten Shareholders subject to trading moratorium and conditions of such trading moratorium

Unit: share

No.	Name of Shareholder subject to trading moratorium	Number of Shares held subject to trading moratorium	Shares subject to trading moratorium available for listing and trading		Conditions of trading moratorium
			Time available for listing and trading	Number of additional shares available for listing and trading	
1	China Railway Signal and Communication (group) Corporation Limited	6,604,426,424	22 July 2022	–	36 months from the date when the Company's shares are listed at the SSE
2	Guoxin Investment Co., Ltd.	85,470,000	22 July 2020	–	12 months from the date when the Company's shares are listed at the SSE
3	China National Machinery Industry Corporation Ltd	63,507,192	22 July 2020	–	12 months from the date when the Company's shares are listed at the SSE
4	China Reform Holdings Corporation Ltd.	63,507,192	22 July 2020	–	12 months from the date when the Company's shares are listed at the SSE
5	China Chengtong Holdings Group Ltd.	63,507,192	22 July 2020	–	12 months from the date when the Company's shares are listed at the SSE
6	CICC–Guangfa Bank–CICC Feng Zhong No. 2 collective assets management plan for employee participation in STAR MARKET strategic allotment	44,713,112	22 July 2020	–	12 months from the date when the Company's shares are listed at the SSE
7	CICC–Guangfa Bank–CICC Feng Zhong No. 3 collective assets management plan for employee participation in STAR MARKET strategic allotment	34,227,038	22 July 2020	–	12 months from the date when the Company's shares are listed at the SSE
8	China Railway Investment Co., Ltd.	34,188,000	22 July 2020	–	12 months from the date when the Company's shares are listed at the SSE

CHANGES IN SHARES AND PARTICULARS OF SHAREHOLDERS

No.	Name of Shareholder subject to trading moratorium	Number of Shares held subject to trading moratorium	Shares subject to trading moratorium available for listing and trading		Conditions of trading moratorium
			Time available for listing and trading	Number of additional shares available for listing and trading	
9	CICC Jiacheng Investment Management Co., Ltd.	26,070,000	22 July 2020	–	12 months from the date when the Company's shares are listed at the SSE
10	China CICC Wealth Management Securities Company Limited	24,846,446	22 July 2021	–	24 months from the date when the Company's shares are listed at the SSE
Explanation on the related party relationship or acting-in-concert arrangement among the above shareholders			The Company is not aware whether the shareholders have related party relationship or acting-in-concert arrangement		

Particulars of the top ten domestic depository receipts holders of the Company as at the end of the reporting period

Not applicable.

Number of shareholdings of the top ten holders of depository receipts subject to trading moratorium and conditions of such trading moratorium

Not applicable.

(III) Particulars of Top Ten Shareholders with Voting Rights as at the End of the Reporting Period

Not applicable.

SECTION VI

CHANGES IN SHARES AND PARTICULARS OF SHAREHOLDERS

(IV) Top 10 Shareholders from Strategic Investors or General Legal Persons Participating in the Placing of the New Shares/Depository Receipts

Name of strategic investor or general legal person	Stipulated start date of shareholding	Stipulated end date of shareholding
Guoxin Investment Co., Ltd.	22 July 2019	–
CICC–Guangfa Bank–CICC Feng Zhong No. 2 collective assets management plan for employee participation in STAR MARKET strategic allotment	22 July 2019	–
CICC–Guangfa Bank–CICC Feng Zhong No. 3 collective assets management plan for employee participation in STAR MARKET strategic allotment	22 July 2019	–
China Railway Investment Co., Ltd.	22 July 2019	–
Explanation on agreed holding period of strategic investors or general legal persons participating in placing of new shares	None	

(V) Strategic Placement of IPO

1. Particulars of shareholding of senior management and core employees by setting up a special asset management plan to participate in the strategic placement of IPO

Unit: share

Name of Shareholder/holder	Number of allocated shares/ depository receipts	Time available for listing and trading	Changes of number in the reporting period	Number of holdings at the end of the period
CICC–Guangfa Bank–CICC Feng Zhong No. 1 collective assets management plan for employee participation in STAR MARKET strategic allotment	18,901,500	22 July 2020	–	18,901,500
CICC–Guangfa Bank–CICC Feng Zhong No. 2 collective assets management plan for employee participation in STAR MARKET strategic allotment	44,713,112	22 July 2020	–	44,713,112

SECTION VI

CHANGES IN SHARES AND PARTICULARS OF SHAREHOLDERS

Name of Shareholder/holder	Number of allocated shares/ depositary receipts	Time available for listing and trading	Changes of number in the reporting period	Number of holdings at the end of the period
CICC–Guangfa Bank–CICC Feng Zhong No. 3 collective assets management plan for employee participation in STAR MARKET strategic allotment	34,227,038	22 July 2020	–	34,227,038
CICC–Guangfa Bank–CICC Feng Zhong No. 4 collective assets management plan for employee participation in STAR MARKET strategic allotment	1,621,102	22 July 2020	–	1,621,102
CICC–Guangfa Bank–CICC Feng Zhong No. 5 collective assets management plan for employee participation in STAR MARKET strategic allotment	9,270,248	22 July 2020	–	9,270,248

2. *Particulars of shareholding of relevant subsidiaries of sponsors participating in the strategic placement of IPO*

Unit: share

Name of Shareholder	Relationship with the sponsor	Number of allocated shares/ depositary receipts	Time available for listing and trading	Changes of number in the reporting period	Number of holdings at the end of the period
China CICC Wealth Management Securities Company Limited (Formerly known as China Investment Securities Company Limited)	A wholly-owned subsidiary of the sponsor	36,000,000	22 July 2021	–	24,846,446

Note: Restricted shares including lending shares for securities financing were 36,000,000 shares as at the end of the period.

SECTION VI

CHANGES IN SHARES AND PARTICULARS OF SHAREHOLDERS

(VI) Interests and Short Positions of Substantial Shareholders in Shares And Underlying Shares of the Company

As at 31 December 2019, so far as is known to the Directors, the following persons (other than the Directors, the Supervisors or chief executives of the Company) had interests or short positions in the shares or underlying shares of the Company which would be required to be disclosed to the Company under the provisions of Divisions 2 and 3 of Part XV of the SFO and which were entered in the register required to be kept by the Company pursuant to section 336 of the SFO:

Name of Shareholder	Class of shares	Capacity	Number of shares held	Approximate percentage of shares in the relevant class of shares of the Company	Approximate percentage of shares in the total issued shares of the Company
China Railway Signal and Communication (group) Corporation Limited	A shares	Beneficial owner	6,604,426,424 (Long position)	76.61%	62.37%
National Council for Social Security Fund of the PRC	H shares	Beneficial owner	176,952,000 (Long position)	8.99%	1.67%
Shanghai Zhenhua Heavy Industries Co., Ltd. ⁽¹⁾	H shares	Interests in a controlled corporation	123,063,000 (Long position)	6.25%	1.16%
Shanghai Zhenhua Port Machinery (Hong Kong) Company Limited ⁽¹⁾	H shares	Beneficial owner	123,063,000 (Long position)	6.25%	1.16%
China Railway Group Investment (Hong Kong) Limited ⁽²⁾	H shares	Beneficial owner	123,063,000 (Long position)	6.25%	1.16%
China Railway Engineering Corporation ⁽²⁾	H shares	Interests in a controlled corporation	123,063,000 (Long position)	6.25%	1.16%
China Railway Group Limited ⁽²⁾	H shares	Interests in a controlled corporation	123,063,000 (Long position)	6.25%	1.16%
China Railway International Group Co., Limited ⁽²⁾	H shares	Interests in a controlled corporation	123,063,000 (Long position)	6.25%	1.16%
BlackRock, Inc. ⁽³⁾	H shares	Interests in a controlled corporation	115,762,869 (Long position)	5.88%	1.09%

SECTION VI

CHANGES IN SHARES AND PARTICULARS OF SHAREHOLDERS

Notes:

As at 31 December 2019, the number of issued shares of the Company was 10,589,819,000 shares, of which 1,968,801,000 shares were H shares and 8,621,018,000 shares were A shares.

1. Shanghai Zhenhua Heavy Industries Co., Ltd. had interests in such shares through Shanghai Zhenhua Port Machinery (Hong Kong) Company Limited.
2. China Railway Engineering Corporation had interests in such shares through China Railway Group Limited, China Railway International Group Co., Limited and China Railway Group Investment (Hong Kong) Limited.
3. BlackRock, Inc. had interests in such shares through the corporations it directly or indirectly held.

Save as disclosed above, as at 31 December 2019, the Directors were not aware of any persons (other than the Directors, the Supervisors or chief executives of the Company) who had interests and/or short positions in the shares or underlying shares of the Company which would be required to be disclosed to the Company under the provisions of Divisions 2 and 3 of Part XV of the SFO and which were entered in the register required to be kept by the Company pursuant to section 336 of the SFO.

SECTION VI

CHANGES IN SHARES AND PARTICULARS OF SHAREHOLDERS

IV. THE CONTROLLING SHAREHOLDER AND ACTUAL CONTROLLER

(I) Controlling Shareholder

1 Legal person

Name	China Railway Signal and Communication (group) Corporation Limited
Leader or legal representative	ZHOU Zhiliang
Date of establishment	7 January 1984
Main business	Business scope: Dispatching expatriate labor required to undertake overseas projects that are compatible with the Company's strength, scale, and performance; production of railway (including subway) equipment used in communications, signals, electricity, and automatic control; scientific research, survey, design, installation, construction and construction supporting projects of the afore-said projects; import and export businesses; contracting overseas railways and electricity projects and international tender projects in PRC; contracting survey, consultation, design and supervision of the afore-said overseas projects; survey, design, installation, construction and ancillary building construction of communication, signal, electricity, and automatic control projects of roadway traffic, airport, port, industrial and mining enterprises; technical consultation and technical services related to the afore-said projects; leasing of the equipment and self-owned building. (Enterprises can freely choose the operating projects and carry out business activities according to laws; projects subject to approval according to laws shall be launched to carry out business activities with approval of the competent authorities and based on the content of the approval; business activities of the forbidden and restricted projects as required by the municipal industry policies are not allowed.)
Equity in other domestic and overseas listed companies controlled and invested during the reporting period	China Railway Signal and Communication (group) Corporation Limited holds 36,686,852 RMB ordinary shares of Tianjin Keyvia Electric Co., Ltd. (stock code: 300407). The shareholding percentage is 12.03%.
Other explanations	None

CHANGES IN SHARES AND PARTICULARS OF SHAREHOLDERS

2 *Natural person*

Not applicable.

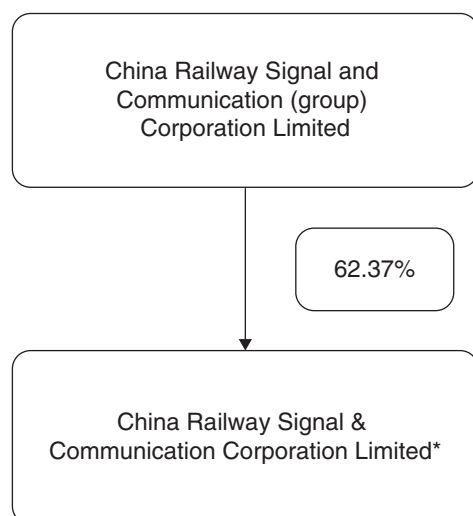
3 *Special explanation for the Company's absence of controlling shareholder*

Not applicable.

4 *Index and date of changes in controlling shareholder during the reporting period*

Not applicable.

5 *Diagram of the property rights and control relationship between the Company and the controlling shareholder*



SECTION VI

CHANGES IN SHARES AND PARTICULARS OF SHAREHOLDERS

(II) Actual Controllers

1 *Legal person*

Actual controller of the Company – State-owned Assets Supervision and Administration Commission of the State Council, which is the ministry level institution directly under the State Council, and was set up in accordance with the Institutional Reform Plan of the State Council and the Notice of the State Council on Establishment of Institutions passed at the First Session of the 10th National People’s Congress. The State-owned Assets Supervision and Administration Commission is authorised by the State Council to perform its duties as an investor on behalf of the State. The scope of supervision of the State-owned Assets Supervision and Administration Commission extends to the state-owned assets of central government owned enterprises (excluding financial enterprises).

2 *Natural person*

Not applicable.

3 *Special explanation for absence of the Company’s actual controllers*

Not applicable.

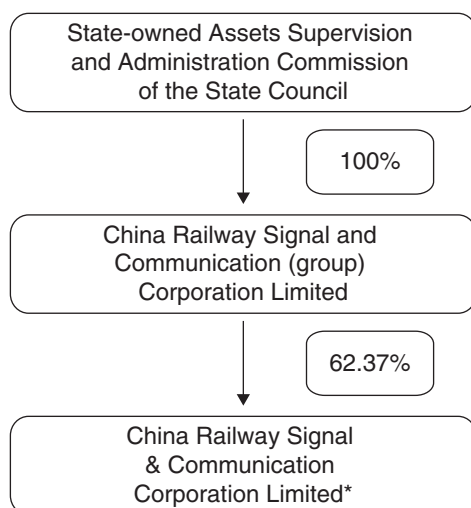
4 *Index and date of changes in actual controllers during the reporting period*

Not applicable.

SECTION VI

CHANGES IN SHARES AND PARTICULARS OF SHAREHOLDERS

- 5 *Diagram of the property rights and control relationship between the Company and the actual controllers*



- 6 *Controlling the Company by the actual controllers through trust or other asset management methods*

Not applicable.

(III) Other Information of Controlling Shareholder And Actual Controllers

Not applicable.

V. OTHER LEGAL PERSON HOLDING MORE THAN 10% OF THE SHARES

Not applicable.

VI. EXPLANATION OF RESTRICTIONS ON REDUCTION OF HOLDING OF SHARES/DEPOSITARY RECEIPTS

Not applicable.

VII. IMPLEMENTATION AND CHANGES OF ARRANGEMENTS RELATED TO DEPOSITARY RECEIPTS DURING THE REPORTING PERIOD

Not applicable.

VIII. SHARES WITH SPECIAL VOTING RIGHTS

Not applicable.

SECTION VII

PARTICULARS OF PREFERENCE SHARES

Not applicable.

SECTION VIII DIRECTORS, SUPERVISORS, SENIOR MANAGEMENT AND EMPLOYEES

I. CHANGES IN SHAREHOLDING AND REMUNERATION

(I) The Changes in Shareholding and Remunerations of Current and Resigned Directors, Supervisors, Senior Management and core Technicians During the Reporting Period

Name	Position (note)	Gender	Age	Start date of term of office	Termination date of term of office	Shareholding at the beginning of the year	Shareholding at the end of the year	Changes in shareholding during the year	Reason for change	Total before-tax remuneration obtained from the Company during the reporting period (RMB' 000)	Whether to receive any remuneration from any related party of the Company	Unit: share
												No
ZHOU Zhiliang	Executive Director, the Chairman	Male	55	January 2012	August 2021	-	-	-	-	121.72	No	
XU Zongxiang	Executive Director President	Male	57	February 2020 December 2019	August 2021	-	-	-	-	-	No	
YANG Yongsheng	Executive Director	Male	51	August 2018	August 2021	-	-	-	-	79.90	No	
WANG Jiajie	Independent non-executive Director	Male	69	May 2015	August 2021	-	-	-	-	12.30	No	
CHEN Jin'en	Independent non-executive Director	Male	65	May 2015	August 2021	-	-	-	-	6	No	
CHAN Ka Keung Peter	Independent non-executive Director	Male	68	August 2018	August 2021	-	-	-	-	14.10	No	
YAO Guiqing	Independent non-executive Director	Male	64	August 2018	August 2021	-	-	-	-	6	No	
KONG Ning	Chairman of the Supervisory Committee Supervisor	Male	55	March 2020 February 2020	August 2021	-	-	-	-	-	No	
LI Tienan	Supervisor	Female	50	February 2020	August 2021	-	-	-	-	-	No	
CHEN Shikui	Employee representative supervisor	Male	48	August 2018	August 2021	-	-	-	-	42.88	No	
HU Shaofeng	Chief Accountant	Male	52	July 2016	-	-	-	-	-	102.95	No	
ZHAO Xiaodong	Vice president	Male	45	January 2019	-	-	-	-	-	69.40	No	
HUANG Weizhong	Vice president	Male	54	April 2013	-	-	-	-	-	109.55	No	

SECTION VIII DIRECTORS, SUPERVISORS, SENIOR MANAGEMENT AND EMPLOYEES

Name	Position (note)	Gender	Age	Start date of term of office	Termination date of term of office	Shareholding at the beginning of the year	Shareholding at the end of the year	Changes in shareholding during the year	Reason for change	Total before-tax remuneration obtained from the Company during the reporting period (RMB'000)	Whether to receive any remuneration from any related party of the Company
ZHANG Zhihui	Vice president	Male	44	January 2019	-	-	-	-	-	69.40	No
	Chief Engineer			October 2016	-	-	-	-	-		
	Secretary to the Board	Female	46	October 2019	-	-	-	-	-	11.70	No
	Chief engineer of CRSC Research & Design Institute Group Co., Ltd. (北京全路通信信号研究设计院集团有限公司)	Male	40	July 2018	-	-	-	-	-	56.25	No
MA Lilan	Deputy chief engineer of CRSC Research & Design Institute Group Co., Ltd. (北京全路通信信号研究设计院集团有限公司)	Female	53	June 2009	-	-	-	-	-	70	No
	Deputy chief Engineer of CRSC Research & Design Institute Group Co., Ltd. (北京全路通信信号研究设计院集团有限公司)	Male	42	February 2017	-	-	-	-	-	80.86	No
JIANG Ming	Deputy chief Engineer of CRSC Research & Design Institute Group Co., Ltd. (北京全路通信信号研究设计院集团有限公司)	Male	39	June 2017	-	-	-	-	-	65	No
	Chief engineer of Basic Research Institute of CRSC Research & Design Institute Group Co., Ltd. (北京全路通信信号研究设计院集团有限公司)	Female	41	April 2018	-	-	-	-	-	60	No
LIU Zhen	Chairwoman of CRSC Institute of Smart City Research & Design (通号智慧城市研究设计院有限公司)	Female	41	April 2018	-	-	-	-	-	60	No

SECTION VIII DIRECTORS, SUPERVISORS, SENIOR MANAGEMENT AND EMPLOYEES

Name	Position (note)	Gender	Age	Start date of term of office	Termination date of term of office	Shareholding at the beginning of the year	Shareholding at the end of the year	Changes in shareholding during the year	Reason for change	Total before-tax remuneration obtained from the Company during the reporting period (RMB'000)	Whether to receive any remuneration from any related party of the Company
DENG Hongyuan	Chief engineer of CRSC Urban Rail Transit Technology Co., Ltd. (通號城市軌道交通技術有限公司)	Male	45	May 2018	-	-	-	-	-	58.53	No
JIANG Jianhua	Vice president of Technology of Casco Signal Ltd. (卡斯柯信號有限公司)	Male	53	January 2011	-	-	-	-	-	194.21	No
CUI Ke	Chief engineer of Research and Design Institute of Casco Signal Ltd. (卡斯柯信號有限公司研究設計院)	Male	49	January 2018	-	-	-	-	-	131.08	No
LI Hongyan	Chief engineer of Security Technology Branch of CRSC Communication & Information Group Company Ltd. (通號通信信息集團有限公司安防技術分公司)	Male	41	April 2017	-	-	-	-	-	35	No
WANG Xiangtao	Deputy general manager of Technology of CRSC Railway Vehicles Co., Ltd. (通號軌道車輛有限公司)	Male	55	April 2015	-	-	-	-	-	35	No
YIN Gang	Former executive Director and president	Male	57	May 2015	December 2019	-	-	-	-	114.92	No
KONG Ning	Former vice president	Male	55	July 2016	December 2019	-	-	-	-	81.57	No
TIAN Liyan	Former Chairwoman of the Supervisory Committee	Female	46	May 2015	February 2020	-	-	-	-	34.12	No
WU Zuowei	Former Supervisor	Male	42	May 2018	February 2020	-	-	-	-	-	No
Total	/	/	/	/	/	-	-	-	/	1,666.75	/

SECTION VIII DIRECTORS, SUPERVISORS, SENIOR MANAGEMENT AND EMPLOYEES

- Notes: 1. The total annual reward before tax for 2019 for executive Directors and senior management (excluding Secretary to the Board) of the Company includes the incentive income during the term of 2016-2018 (YANG Yongsheng and HU Shaofeng served a term of less than three years in 2016-2018);
2. The total annual reward before tax for 2019 for Directors, Supervisors, senior management and core technical personnel of the Company is the total remuneration paid to them during their terms of office and does not include social security and annuities paid by the enterprise for individuals;
3. Supervisor WU Zuwei does not receive remuneration from the Company;
4. In December 2019, YIN Gang ceased to serve as executive Director and president, and KONG Ning ceased to serve as vice president;
5. In December 2019, XU Zongxiang was appointed as president, and in February 2020, XU Zongxiang was appointed as executive Director;
6. In October 2019, QIU Wei was appointed as the Secretary to the Board, and HU Shaofeng ceased to serve as the Secretary to the Board.
7. The above statistics on the number of shares held are the number of shares held directly by individuals. As of the end of the reporting period, HUANG Weizhong indirectly held shares in the Company by holding 0.4975% shares in Fengzhong No. 3 Asset Management Plan, ZHANG Zhihui and LIU Zhen indirectly held shares in the Company by holding 0.3808% shares in Fengzhong No. 2 Asset Management Plan, respectively, MA Lilan indirectly held shares in the Company by holding 0.7617% shares in Fengzhong No. 2 Asset Management Plan, QIU Wei and FU Gang indirectly held shares in the Company by holding 0.9009% shares in Fengzhong No. 1 Asset Management Plan, respectively, and DENG Hongyuan indirectly held shares in the Company by holding 1.3514% shares in Fengzhong No. 1 Asset Management Plan. The restricted period for holding shares of the Company via the aforesaid asset management plans is 12 months, starting from the date when the shares for the public offering are listed on SSE.
8. Due to the difference in year, remuneration and statistical calibre for staff, the remunerations of persons in charge of the enterprises in the above table are inconsistent with those disclosed in the official website of the enterprise. Investors should pay attention to this.

SECTION VIII DIRECTORS, SUPERVISORS, SENIOR MANAGEMENT AND EMPLOYEES

Name	Major working experience
ZHOU Zhiliang	<p>He has been the Company's executive Director and chairman since January 2012 and is mainly responsible for overseeing the overall work of the Board and formulating the Company's business strategies and nomination of Directors and Senior Management. He has been the secretary of the Party Committee of the Company since June 2017. Mr. ZHOU has been the chairman and secretary of the Party Committee of CRSC Corporation Group since May 2017, and was the general manager and deputy secretary of the Party Committee since January 2012 to May 2017. Mr. ZHOU was a vice president and a member of the Standing Committee of the the Party Committee of China Railway Construction Corporation Ltd. (listed on the Hong Kong Stock Exchange, stock code: 1186; listed on the SSE, stock code: 601186) from October 2007 to January 2012, during which Mr. ZHOU served as the chairman of China Railway Construction Investment Group Co., Ltd. (中國鐵建投資有限公司) from March 2011 to January 2012. From December 2004 to October 2007, Mr. ZHOU was a deputy general manager and a member of the Standing Committee of the Party Committee of China Railway Construction Corp. (中國鐵道建築總公司). From November 2001 to December 2004, Mr. ZHOU was the director and deputy secretary of the Party Committee of MOR No.4 Survey & Design Group Co., Ltd. (鐵道部第四勘察設計院). From January 2000 to November 2001, Mr. ZHOU served as the chairman of Labor Union of MOR No.4 Survey & Design Group Co., Ltd. From November 1996 to January 2000, Mr. ZHOU served as the director at No.2 Railway Survey and Design Department(第二勘測設計研究處) of MOR No.4 Survey & Design Group Co., Ltd.</p>
XU Zongxiang	<p>He served as the deputy head of Zhuzhou Electric Locomotive Works, the director and general manager, director and general manager and deputy Party secretary, executive director and general manager and deputy Party secretary of CRRC Zhuzhou Locomotive Co., Ltd., a standing member of the Party Committee of CSR Group, and a deputy general manager of CRRC Group Co., Ltd. He served as a vice president and standing member of the Party Committee of CSR Corporation Limited from October 2012 to May 2015. He served as a standing member of the Party Committee of CRRC Corporation Limited from May 2017 to November 2019 and an executive director of CRRC Corporation Limited from June 2017 to November 2019. He has served as the deputy Party secretary, director and general manager of CRSC Group since November 2019. He served as president and executive Director of the Company, respectively, since December 2019 and February 2020.</p>

SECTION VIII DIRECTORS, SUPERVISORS, SENIOR MANAGEMENT AND EMPLOYEES

Name	Major working experience
YANG Yongsheng	<p>He has served as an executive Director of the Company since August 2018 and deputy secretary of the Party Committee of the Company since August 2017. He has been the adjunct professor of China Business Executives Academy, Dalian since June 2018. He has been the extramural tutor of the Executive Education of School of Economics Peking University since November 2017. He has been the deputy secretary of the Party Committee of CRSC Group since July 2017 and the employee supervisor of CRSC Group since November 2017. Mr. YANG was the provisional secretary of the Party Committee and the chairman of China Urban and Rural Construction Group Ltd. (中國城鄉建設集團有限公司) from April 2017 to July 2017. From February 2016 to April 2017, Mr. YANG was the secretary of the Party Committee and vice chairman of China Road & Bridge Corporation. From December 2010 to February 2016, Mr. YANG served in several positions in China Communications Construction Company Limited, including serving as the deputy director of the general office, the general manager of the human resources department, the general manager of the human resources department, the head of the organizational department of the Party Committee, the executive vice president of the management college and the executive deputy principal of the party school. Mr. YANG has been the vice director of the general manager department of Sinohydro Group Ltd. from March 2010 to December 2010. From July 1988 to July 2006, Mr. YANG served in several positions in No.5 Bureau of Sinohydro, including serving as the principal of the staff children secondary school, the director of the education department, the director of the human resources department, the head of the organizational department of the Party Committee, the director of the system reform office, vice director and the chief economist.</p>
WANG Jiajie	<p>He has been the Company's independent non-executive Director since May 2015. Mr. WANG is currently the arbitrator of China International Economic and Trade Arbitration Commission and the arbitrator of Beijing Arbitration Commission. Mr. WANG served in several positions in China General Technology (Group) Holding Co., Ltd. (中國通用技術(集團)控股有限責任公司), including serving as its general counsel from December 2004 to December 2010 and as the general manager of its legal department from July 1999 to December 2004. Mr. WANG also served in several positions in China National Technical Imp. & Exp. Corp. (中國技術進出口總公司), including serving as the general manager of its legal department from November 1998 to July 1999; and the vice general manager of its legal department from December 1991 to November 1998.</p>

SECTION VIII DIRECTORS, SUPERVISORS, SENIOR MANAGEMENT AND EMPLOYEES

Name	Major working experience
CHEN Jin'en	<p>He has been the independent non-executive Director since May 2015. From March 2010 to August 2013, Mr. CHEN was the secretary of the Party Committee and vice chairman of China Energy Conservation and Environmental Protection Group (中國節能環保集團公司). Mr. CHEN served as a non-executive director of Billion Industrial Holdings Limited (listed on the Stock Exchange, stock code: 2299) from September 2012 to March 2013. Mr. CHEN also served several positions in China Energy Conservation and Environmental Protection Investment Co., Ltd. (中國節能環保投資公司), including serving as its secretary of the Party Committee and deputy general manager from October 2004 to March 2010, its vice chairman from September 2001 to October 2004. From November 2000 to September 2001, Mr. CHEN was the head of the working department of the supervisory committee of Central Work Committee for Enterprises (中央企業工委). From August 1998 to November 2000, Mr. CHEN was the deputy director of General Administration Office of Special Inspector of Ministry of Personnel (人事部稽查特派員總署辦公室). From July 1988 to August 1998, Mr. CHEN served as a deputy director, director and assistant supervisor of the Department of Title of Ministry of Personnel (人事部職稱司).</p>
CHAN Ka Keung Peter	<p>He has served as an independent non-executive Director of the Company since August 2018. Mr. CHAN has been the independent non-executive director of Metallurgical Corporation of China Ltd. (listed on the Stock Exchange, stock code: 1618; listed on the Shanghai Stock Exchange, stock code: 601618) since November 2014, and independent non-executive director of Minmetals Resources Limited (listed on the Stock Exchange, stock code: 1208) since December 2019. He was the independent non-executive director of CRRC Corporation Limited (listed on the Stock Exchange, stock code: 1766; listed on the Shanghai Stock Exchange, stock code: 601766) from May 2015 to May 2018. Mr. CHAN served as a senior assistant of the Assurance Department, manager of the Tax Department and senior manager of China Service Department in Ernst & Young Hua Ming LLP and the chief financial officer of Dransfield Group. Mr. CHAN served as a Beijing based partner, a Beijing-based managing partner of Tax and Investment Advisory Service Department and a Beijing-based managing partner of the NPA Transaction Advisory Service Department of Ernst & Young Hua Ming LLP from January 1994 to December 2008. He served as a member of the executive committee of Hong Kong Chamber of Commerce in China, and served as the chairman of Hong Kong Chamber of Commerce in China in 2000 and 2003.</p>

SECTION VIII DIRECTORS, SUPERVISORS, SENIOR MANAGEMENT AND EMPLOYEES

Name	Major working experience
YAO Guiqing	<p>He has served as an independent non-executive Director of the Company since August 2018, and served in several positions in China Railway Engineering Corporation from February 1990 to March 2018, including serving as its deputy secretary of the Party Committee, chairman of the labour union, employee representative director, general manager and vice chairman. From September 2007 to March 2018, Mr. YAO served in several positions in China Railway Group Ltd. (listed on the Stock Exchange, stock code: 390; listed on the Shanghai Stock Exchange, stock code: 601390), including serving as its vice president, deputy secretary of the Party Committee, chairman of the labour union, chairman of the supervisory committee and vice chairman; and he served as its executive director from August 2010 to March 2018. From December 1971 to February 1990, Mr. YAO served in several positions in Engineering No.3 Bureau of the Ministry of Railway* (中國鐵道部第三工程局), including serving as its head of the organizational department of the committee of the Communist Youth League of China and the secretary to the committee of the Communist Youth League of China.</p>
KONG Ning	<p>He has served as a Supervisor of the Company since February 2020 and chairman of the Supervisory Committee since March 2020. He was a vice president of the Company from July 2016 to November 2019 and a member of the Standing Committee of the Party Committee of the Company from December 2010 to November 2019. He served as the Company's chief accountant from December 2010 to July 2016, and is mainly in charge of the financial work. He was a member of the Standing Committee of the Party Committee of CRSC Corporation Group from December 2010 to November 2019. Mr. KONG was the chief accountant of CRSC Corporation Group from November 2004 to May 2015, and served as the accountant in the finance department of China Huanqiu Contracting & Engineering Co. Ltd. (中國寰球工程公司) and the head of finance department and the chief accountant of the HQCEC (HB) (華北規劃設計院) from August 2001 to November 2004; as deputy chief of financial department of Anhui Medicament Joint Venture Company (安徽省醫藥聯合經營公司)(renamed as Anhui Hua Shi Medicament Co., Ltd. (安徽華氏醫藥有限公司)) from April 1996 to August 2001.</p>

SECTION VIII DIRECTORS, SUPERVISORS, SENIOR MANAGEMENT AND EMPLOYEES

Name	Major working experience
CHEN Shikui	<p>He has served as an employee representative Supervisor of the Company since August 2018 and has been the head of the legal compliance department of the Company since July 2018. Mr. CHEN has been a director of CRSC Institute of Smart City Research & Design (通號智慧城市研究設計院有限公司) since July 2019 and has been a director of CRSC Construction Group Co., Ltd. (通號建設集團有限公司) since August 2016. He also served as the director of CRSC Communication & Information Group Company Ltd. (通號通信信息集團有限公司) since February 2016 and the supervisor of CRSC (Zhengzhou) Electrification Bureau Co., Ltd. (通號(鄭州)電氣化局有限公司) since May 2015. From November 2015 to July 2018, Mr. CHEN worked as the deputy head of the legal affairs department of the Company, and from January 2010 to November 2015, Mr. CHEN served in several positions in Beijing National Railway Research & Design Institute of Signal & Communication Co., Ltd., including deputy general counsel, head of legal archives of the enterprise development and legal affairs department and head of enterprise development and legal affairs department. In the meantime, from August 2013 to November 2015, he was an assistant in the legal affairs department of the Company. From July 2007 to January 2010, he served as the assistant economist and economist of the eastern China region operation & command department of China Railway 22nd Bureau Group Co., Ltd. From May 1997 to September 2004, Mr. CHEN worked in the People's Court of Heze City, Shandong Province and the People's Court of Mudan District, Heze City, Shandong Province.</p>

SECTION VIII DIRECTORS, SUPERVISORS, SENIOR MANAGEMENT AND EMPLOYEES

Name	Major working experience
LI Tienan	<p>She has served as an external Supervisor of the Company since February 2019 and has been the general manager of China Reform Asset Management Co., Ltd. (中國國新資產管理有限公司) since February 2020 and a director of Guoxin Ronghui Equity Investment Fund Management Co., Ltd. (國新融匯股權投資基金管理有限公司) since March 2019. Ms. LI served as a First-level Superintendent of Pre-trial Division of Shenyang Public Security Bureau (瀋陽市公安局預審處) of Liaoning Province from August 1992 to December 1999, a lawyer of Jinde Law Firm from December 1999 to December 2002, a contract director of the legal department of China National Coal Group Corp. (中國中煤能源集團有限公司) from December 2002 to August 2003, a general legal counsel and a director of the legal department of China Coal & Coke Holdings Ltd. (中煤焦化控股有限責任公司) from August 2003 to April 2011, a deputy general manager of the legal department of China National Coal Group Corp. (中國中煤能源集團有限公司) from April 2011 to June 2011, a deputy general manager of the legal department of China Reform Holdings Corporation Ltd. (中國國新控股有限責任公司) from June 2011 to July 2014, during which she also served as a deputy general manager of the legal department of CNIC Corporation Limited (國新國際投資有限公司) from January 2013 to September 2014. Ms. LI served as a general manager of the legal department of CNIC Corporation Limited (國新國際投資有限公司) from September 2014 to March 2019, during which she also served as a general manager of the legal department of CNIC Consulting Corporation Limited (國新國際投資諮詢有限公司) from February 2017 to March 2019. She served as the deputy general manager of China Reform Asset Management Co., Ltd. (中國國新資產管理有限公司) from March 2019 to February 2020. Ms. LI has been an external director of China Culture Development Corporation Ltd. (中國文化產業發展集團有限公司) since March 2019, a director of China North Industries Corporation (中國北方工業有限公司) since October 2019, a director of China Aviation Supplies Co., Ltd. (中國航空器材有限責任公司) since July 2019, a supervisor of China Tower Corporation Limited (中國鐵塔股份有限公司) (listed on the Hong Kong Stock Exchange, stock code: 0788) since July 2019.</p>

SECTION VIII DIRECTORS, SUPERVISORS, SENIOR MANAGEMENT AND EMPLOYEES

Name	Major working experience
HU Shaofeng	<p>He has been the chief accountant and a member of the Standing Committee of the Party Committee of the Company since July 2016. He has been a director of Guangdong Utrust Financial Leasing Co., Ltd. (廣東粵財金融租賃股份有限公司) since November 2016. He was the Company's Board Secretary from May 2013 to October 2019. He has been a member of the Standing Committee of the Party Committee of CRSC Corporation Group since June 2016. Mr. HU has been the director of CRSC Innovation Investment Company Ltd from August 2012 to February 2016. He served as the Company's deputy chief accountant from July 2012 to July 2016. Mr. HU served as deputy general manager, chief accountant and general counsel of China Railway Construction Heavy Industry Co., Ltd. (中國鐵建重工集團有限公司) from December 2011 to July 2012. Mr. HU served as the chief accountant and a member of the Standing Committee of the Party Committee of China Railway Track Systems Group Co., Ltd. (中鐵軌道系統集團有限公司) from May 2007 to December 2011. Mr. HU served as deputy chief accountant of the MOR No.4 Survey & Design Group Co., Ltd. (鐵道部第四勘察設計院) from February 2004 to October 2006, as the director of financial department of the China Railway No. 4 Survey & Design Group Co., Ltd. from February 2004 to April 2005, as the assistant to director and deputy director of financial department of the China Railway No. 4 Survey & Design Group Co., Ltd. from February 2002 to February 2004.</p>
ZHAO Xiaodong	<p>He has served as a vice president of the Company since January 2019. He has served as a member of the Standing Committee of the Party Committee of the Company and CRSC Corporation Group respectively since December 2018. Mr. ZHAO has served as assistant to the president of the Company since October 2016. He has served as the chairman of CRSC Research & Design Institute Group Co., Ltd. (CRSCD), a wholly-owned subsidiary of the Company, since April 2019. From September 2015 to October 2016, he served as general manager, director and deputy secretary of the Party Committee of CRSCD, and served as deputy general manager (responsible for the comprehensive work of operation management) and the director of CRSCD from November 2014 to September 2015. He has served as the deputy general manager of CRSCD from July 2013 to November 2014, during which period, he served as the dean of the Ground Control Research and Design Institute and the general manager of the System Integration Center and secretary of Party General Branch. From March 2012 to July 2013, he served as the dean of the Ground Control Research and Design Institute of CRSCD. From January 2011 to March 2012, he served as director of CRSC Research & Design Institute Station, during which period, he served as manager of Beijing Guotie Xintong Technology Development Co., Ltd. (北京國鐵信通科技發展有限公司).</p>

SECTION VIII DIRECTORS, SUPERVISORS, SENIOR MANAGEMENT AND EMPLOYEES

Name	Major working experience
HUANG Weizhong	He has served as the vice president and a member of the Standing Committee of the Party Committee of the Company since April 2013. Mr. HUANG served as the chairman of CRSCD from November 2012 to September 2014, during which he served as the secretary of the Party Committee of the company, as the director and general manager of the company from November 2010 to November 2012, as the vice president of CRSC Research & Design Institute from January 2004 to November 2010, as the director of the institute from December 1996 to January 2004.
ZHANG Zhihui	He has served as a vice president of the Company since January 2019. He has served as a member of the Standing Committee of the Party Committee of the Company since December 2018. Mr. ZHANG has been the chief engineer of the Company since October 2016. From November 2015 to October 2016, he served as the deputy chief engineer of the Company and the chief engineer of CRSCD. From March 2012 to November 2015, he served as the chief engineer and director of CRSCD. From June 2015 to November 2015, he served as the dean of CRSCD Electrification Design Institute. From January 2005 to March 2012, he served as the director of CRSCD Signal Station.
QIU Wei	She has served as the secretary to the Board of the Company since October 2019. Ms. QIU has been a director of Guogai Shuangbai Development Fund Management Co., Ltd. (國改雙百發展基金管理有限公司) since July 2019 and has been the chairwoman of supervisory committee of CRSC Innovation Investment Co., Ltd. (通號創新投資有限公司) since February 2016. She has been the director of the development and planning department of the Company from September 2019 to February 2020. Ms. QIU served successively as the deputy director and director of the finance department of the Company from December 2012 to September 2019 and the head of the development and planning department and the head of the finance department of the Company from November 2008 to December 2012. Prior to the above, Ms. QIU served successively as an assistant accountant of the finance department and an auditor of the audit department of China Railway Signal & Communication Company (中國鐵路通信信號總公司) from August 1995 to February 2001; as the audit supervisor of the supervision and audit department and an accountant of the funds settlement centre of China Railway Signal & Communication Corporation (中國鐵路通信信號集團公司, currently known as China Railway Signal and Communication (group) Corporation Limited (中國鐵路通信信號集團有限公司)) from February 2001 to April 2003; as the manager of the finance department of Beijing Nera Stentofon Communication Equipment Co., Ltd. (北京那拉斯坦特芬通信設備有限公司) from April 2003 to November 2008; and as the head of the development and planning department and the head of the finance department of China Railway Signal & Communication Corporation Limited* (中國鐵路通信信號股份有限公司) from November 2008 to December 2012.

SECTION VIII DIRECTORS, SUPERVISORS, SENIOR MANAGEMENT AND EMPLOYEES

Name	Major working experience
FU Gang	<p>He has served as director, a member of the Standing Committee of the Party Committee, deputy general manager and chief engineer of CRSC Research & Design Institute Group Co., Ltd., a wholly-owned subsidiary of the Company since June 2018. Mr. FU served as assistant to the general manager of CRSC Research & Design Institute Group Co., Ltd. from February 2017 to June 2018; as senior engineer of CRSC Research & Design Institute Group Co., Ltd. from January 2017 to February 2017; as the secretary to the General Party Branch and dean of the Signal & Communication Design Institute of CRSC Research & Design Institute Group Co., Ltd. from May 2016 to January 2017; as the dean of the Signal & Communication Design Institute and the secretary to the General Party Branch of the Signal & Communication Institute of CRSC Research & Design Institute Group Co., Ltd. from July 2015 to May 2016; as the dean of the Signal & Communication Design Institute and the secretary to the General Party Branch of the Signal & Communication Institute of Beijing National Railway Research & Design Institute of Signal & Communication Co., Ltd. from October 2014 to July 2015; and as engineer, deputy director and director of the Technology Management Center, deputy dean of the Signal & Communication Design Institute of Beijing National Railway Research & Design Institute of Signal & Communication Co., Ltd. among other roles from March 2011 to October 2014.</p>
MA Lilan	<p>She served as deputy chief engineer of CRSC Research & Design Institute Group Co., Ltd., a wholly-owned subsidiary of the Company, since July 2015. Ms. MA served as the deputy chief engineer of Beijing National Railway Research & Design Institute of Signal & Communication Co., Ltd. from March 2012 to July 2015, during which she also served as, among other roles, the director of the Quality Center and the chief engineer of the Signal & Communication Institute; as the deputy chief engineer and director of General Engineer Office of the CRSC Research & Design Institute from June 2009 to March 2012; as a senior engineer, deputy director of the General Engineer Office, director of the Technology Department and director of the General Engineer Office of CRSC Research & Design Institute among other roles from December 1997 to June 2009.</p>

SECTION VIII DIRECTORS, SUPERVISORS, SENIOR MANAGEMENT AND EMPLOYEES

Name	Major working experience
JIANG Ming	He served as deputy chief engineer of CRSC Research & Design Institute Group Co., Ltd., a wholly-owned subsidiary of the Company, since February 2017. Mr. JIANG served as chief engineer of Security Control Institute of CRSC Research & Design Institute Group Co., Ltd. from May 2016 to November 2018; as chief engineer of Research Institute of CRSC Research & Design Institute Group Co., Ltd. from July 2015 to May 2016; as chief engineer of Research Institute of Beijing National Railway Research & Design Institute of Signal & Communication Co., Ltd. from March 2012 to July 2015, during which he served as the dean of Research Institute of Beijing National Railway Research & Design Institute of Signal & Communication Co., Ltd. from December 2012 to October 2013; as engineer, senior engineer and chief engineer of the R & D Center of CRSC Research & Design Institute among other roles from August 2007 to March 2012.
LIU Zhen	Since June 2017, he has been the chief engineer of the Basic Equipment Technology Research Institute of CRSC Research & Design Institute Group Co., Ltd., a wholly-owned subsidiary of the Company. Mr. LIU was the senior engineer of CRSC Research & Design Institute Group Co., Ltd. from January 2017 to June 2017, and he served as the deputy director of the Hardware Research Institute of CRSC Research & Design Institute Group Co., Ltd. from May 2016 to January 2017, the deputy director of the Hardware Research Institute of CRSC Research & Design Institute Group Co., Ltd. from January 2016 to May 2016 and senior engineer of CRSC Research & Design Institute Group Co., Ltd. from December 2012 to January 2016.

SECTION VIII DIRECTORS, SUPERVISORS, SENIOR MANAGEMENT AND EMPLOYEES

Name	Major working experience
LUO Jing	<p>Since April 2018, she has been the chairman (-legal representative) and Party branch secretary of CRSC Institute of Smart City Research & Design Co., Ltd., a wholly-owned subsidiary of the Company. Since February 2020, she has also served as the director of Information Center of the Company. Ms. LUO served as the vice chairman of the board (-legal representative) and the head of Party organization of CRSC Institute of Smart City Research & Design Co., Ltd., and director of Information Center and deputy director of the office of China Railway Signal & Communication Corporation Limited from August 2016 to April 2018; from January 2016 to August 2016, she served as the deputy dean (chair) of the Smart City Engineering Research Institute (Information Center) and the deputy director of office of China Railway Signal & Communication Corporation Limited, during which from February 2016 to August 2016, she served as a director of CRSC Communication & Information Group Company Ltd., a wholly-owned subsidiary of the Company; from January 2015 to January 2016, she served as the director of Smart City Research & Application Center of CRSC Communication & Information Group Company Ltd. (通號通信信息集團有限公司智慧城市研究應用中心); from January 2014 to January 2015, she served as the deputy chief engineer of CRSC Communication & Information Group Company Ltd., and the director of Smart City Research & Application Center; from July 2013 to January 2014, she served as the deputy general manager and chief engineer of CRSC Information Industry Co., Ltd.; from July 2009 to July 2013, she served successively as an assistant researcher, an associate researcher of Human Resource Development Center of Ministry of Housing and Urban-Rural Development (住房和城鄉建設部人力資源開發中心), and an associate researcher of China Academy of Urban Planning & Design among other roles.</p>
DENG Hongyuan	<p>Since April 2018, he has served as a director, the deputy general manager and chief engineer of CRSC Urban Rail Transit Technology Co., Ltd., a wholly-owned subsidiary of the Company. Mr. DENG served as the deputy general manager and chief engineer of Beijing National Railway Research & Design Institute of Signal & Communication Co., Ltd. from January 2017 to April 2018, and served as the deputy chief engineer of Beijing National Railway Research & Design Institute of Signal & Communication Co., Ltd. from April 2016 to January 2017, during which he also served as the deputy general manager and chief engineer of Beijing Urban Transit Technology Co., Ltd. (北京通號國鐵城市軌道技術有限公司). From October 2014 to January 2015, he was the director of the Integration Center of Beijing National Railway Research & Design Institute of Signal & Communication Co., Ltd. He served successively as the deputy chief engineer, the chief engineer, the deputy branch dean, and the dean of the City Traffic Branch of Beijing National Railway Research & Design Institute of Signal & Communication (北京全路通信信號研究設計院城交分院) from September 2007 to December 2014, during which he also served as deputy general manager and deputy director of the Integration Center.</p>

SECTION VIII DIRECTORS, SUPERVISORS, SENIOR MANAGEMENT AND EMPLOYEES

Name	Major working experience
JIANG Jianhua	Since January 2011, he has served as the vice president of technology of the R&D Center of Casco Signal Ltd., a subsidiary controlled by the Company. Mr. JIANG has served as the vice president of technology of the Research & Design Institute of Casco Signal Ltd.(卡斯柯信號有限公司研究設計院) since August 2015. From July 1998 to January 2011, he served successively as the deputy chief engineer and the chief engineer of Casco Signal Ltd. From July 1988 to July 1998, he served successively as a software engineer, the deputy department manager and the department manager of the software department of Casco Signal Ltd.
CUI Ke	Since January 2018, he has served as the chief engineer of the Research & Design Institute of Casco Signal Ltd., a subsidiary controlled by the Company. From January 2014 to December 2017, Mr. CUI served as the urban rail product director of Urban Rail System Development Department of Casco Signal Ltd.; from August 2010 to December 2013, he served as the urban rail technical director of R&D Department of Casco Signal Ltd.; and from August 2000 to July 2010, he served as the department manager of R&D Department of Casco Signal Ltd.
LI Hongyan	Since December 2018, he has been the chief engineer of Security Technology Branch of CRSC Communication & Information Group Company Ltd. (通號通信信息集團有限公司安防技術分公司), a wholly-owned subsidiary of the Company. Mr. LI was the chief engineer of Security Technology Branch of CRSC Communication & Information Group Company Ltd. from April 2017 to December 2018, and served successively as the deputy chief engineer and chief engineer of CRSC Communication & Information Group Company Ltd. from January 2014 to April 2017. From September 2013 to July 2015, he served as the dean of Beijing Research Institute of CRSC Communication & Information Group Company Ltd. (通號通信信息集團有限公司北京研究院). From January 2010 to September 2013, he served successively as the deputy manager and manager of the Technology Development Research Department of Beijing Guotie Huachen Communication Technology Co., Ltd. (北京國鐵華晨通信技術有限公司). From June 2006 to January 2010, he served successively as a senior engineer of the Engineering Technology Department (工程技術部) and the manager of Research & Development Department (研究開發部) of Beijing Nera Stentofon Communication Equipment Co., Ltd.

SECTION VIII DIRECTORS, SUPERVISORS, SENIOR MANAGEMENT AND EMPLOYEES

Name	Major working experience
WANG Xiangtao	<p>Since April 2015, he has served as the deputy general manager of technology of CRSC Railway Vehicles Co., Ltd., a subsidiary controlled by the Company. Since November 2016, Mr. WANG has been a director of CRSC Airbus Co., Ltd., a subsidiary invested by the Company. From May 2011 to April 2015, he served as the deputy general manager of technology of Xiangtan Electric Urban Rail Vehicle Co., Ltd. (湘電城軌車輛有限公司). From May 2009 to May 2011, he served as the deputy general manager of technology of Xiangtan Electric Urban Rail Equipment Co., Ltd. (湘電城軌裝備有限公司). From August 2007 to May 2011, he served as the institute director of the Vehicle Research Institute of Xiangtan Electric Heavy Equipment Co., Ltd. (湘電重型裝備有限公司車輛研究所), and as a supervisor of the same company. From June 2001 to August 2007, he served as the institute director of the Vehicle Research Institute of Xiangtan Electric Co., Ltd. (湘電股份有限公司車輛研究所), and from July 1985 to June 2001, he served as an engineer of the Technical Center of Xiangtan Electric Plant (湘潭電機廠技術中心).</p>
YIN Gang	<p>From May 2015 to December 2019, he served as an executive Director and president of the Company, and was mainly responsible for overseeing the management of the Company's daily production and operations. From June 2017 to November 2019, he served as the deputy secretary of the Party Committee of the Company. From June 2018 to July 2018, he concurrently served as chairman of CRSC (Beijing) Rail Industry Group Co., Ltd. From December 2010 to May 2015, Mr. YIN was a vice president and a member of the Standing Committee of the Party Committee of the Company, during which Mr. YIN concurrently served as the chairman of Beijing National Railway Research & Design Institute of Signal & Communication Co., Ltd. from January 2012 to November 2012 and as the Secretary to the Board of the Company from April 2011 to May 2013. Mr. YIN has been the general manager, director and deputy secretary of the Party Committee of CRSC Group since June 2017. From August 2001 to May 2015, Mr. YIN was the deputy general manager of CRSC Group. From December 1996 to August 2001, Mr. YIN successively served as deputy general manager and the general manager of Shenyang Railway Signal Factory (瀋陽鐵路信號工廠) (the predecessor of Shenyang Railway Communication Co., Ltd. (瀋陽鐵路信號有限責任公司)).</p>

SECTION VIII DIRECTORS, SUPERVISORS, SENIOR MANAGEMENT AND EMPLOYEES

Name	Major working experience
TIAN Liyan	<p>From May 2015 to February 2020, she served as the chairwoman of the Supervisory Committee of the Company, and was mainly responsible for overall work of the Supervisory Committee, organizing supervisors to supervise the Board and management and making relevant suggestions. Meanwhile, she has also served as the head of the audit department of the Company from May 2015 to September 2019. Ms. TIAN has been the director of CRSC Innovation Investment Company Ltd. (通號創新投資有限公司) from February 2016 to February 2020 and the general counsel of the Company from September 2017 to December 2018. Ms. TIAN has served several positions in Beijing National Railway Research & Design Institute of Signal & Communication Co., Ltd., including serving as its general counsel from August 2013 to July 2015, as its director from February 2012 to July 2015 and as its chief accountant from February 2007 to July 2015. Ms. TIAN has also been a director of Thales Transport Automation Control Systems (Beijing) Co., Ltd. (北京泰雷茲交通自動化控制系統有限公司) from October 2013 to July 2015. From June 2012 to October 2013, Ms. TIAN was a supervisor of Thales Transport Automation Control Systems (Beijing) Co., Ltd. From November 2005 to February 2007, Ms. TIAN was a deputy chief accountant and head of the asset and finance department of Beijing National Railway Research & Design Institute of Signal & Communication Co., Ltd.; from October 2005 to November 2005, Ms. TIAN was an accountant and deputy head of the asset and finance department of Beijing National Railway Research & Design Institute of Signal & Communication Co., Ltd.; from July 1999 to October 2005, Ms. TIAN was also an audit manager of the audit department of Deloitte Touche Tohmatsu CPA Ltd. (Beijing Branch).</p>
WU Zuowei	<p>From May 2018 to February 2020, he served as an external Supervisor of the Company. He has been the head of the asset management division of the capital operation management department of China Reform Holdings Corporation Ltd. since February 2018. Mr. WU served as a senior manager of the asset management department (subsequently renamed as the capital operation management department) of China Reform Holdings Corporation Ltd. from August 2012 to February 2018. He served as the deputy head of the strategic development department of Zhongbing Optoelectronics Technology Co., Ltd.* (中兵光電科技股份有限公司) (now known as North Navigation Control Technology Co., Ltd.* (中國兵器北方導航控制技術股份有限公司) and listed on the Shanghai Stock Exchange, Stock Code: 600435) from March 2011 to August 2012. He served as the deputy head of the operation planning department of Zhongbing Optoelectronics Technology Co., Ltd.* from May 2009 to March 2011. He successively served as a technician of the technology institute, a staff of the technical reform office, a staff of the development planning department, the deputy head of the asset management department, the deputy head of the asset operation department and the deputy head of the operation planning department of Beijing Huabei Optical Instrument Co., Ltd.* (北京華北光學儀器有限公司) successively from July 2002 to May 2009.</p>

SECTION VIII DIRECTORS, SUPERVISORS, SENIOR MANAGEMENT AND EMPLOYEES

Other explanations

Not applicable.

(II) The Equity Incentives Granted to the Directors, Senior Management and Core Technicians during the Reporting Period

1. *Stock option*

Not applicable.

2. *The first type of restricted stocks*

Not applicable.

3. *The second type of restricted stocks*

Not applicable.

(III) Directors, Supervisors and the Company's Chief Executives' Interests and Short Positions in the Shares, Underlying Shares and Debentures of the Company and Its Associated Corporations

As at 31 December 2019, none of the Directors, Supervisors and chief executives of the Company had any interests and/or short positions in the shares, underlying shares or debentures of the Company or its associated corporations (within the meaning of Part XV of the SFO) which should be notified to the Company and the Hong Kong Stock Exchange pursuant to Divisions 7 and 8 of Part XV of the SFO (including interests or short positions which he is taken or deemed to have under such provisions of the SFO) or which would be required, pursuant to Section 352 of the SFO, to be entered in the register referred to therein, or would be required, pursuant to the Model Code for Securities Transactions by Directors of Listed Issuers (Model Code) set out in Appendix 10 to the Hong Kong Listing Rules, to be notified to the Company and the Hong Kong Stock Exchange.

(IV) Securities Transactions Conducted by Directors and Supervisors

The Company has adopted a code of conduct no less exacting than the code of conduct as provided in the Model Code as the code of conduct for all the Directors and Supervisors trading securities of the Company ("code of conduct"). All the Directors and Supervisors of the Company have confirmed that they have complied with the standards as stipulated by the code of conduct for the period ended 31 December 2019.

SECTION VIII DIRECTORS, SUPERVISORS, SENIOR MANAGEMENT AND EMPLOYEES

II. POSITIONS HELD BY CURRENT AND RESIGNED DIRECTORS, SUPERVISORS AND SENIOR MANAGEMENT DURING THE REPORTING PERIOD

(I) Positions Held in Shareholder Entities

Name	Name of Shareholder Entity	Position held in the Shareholder Entity	Start date of term of office	Termination date of term of office
ZHOU Zhiliang	China Railway Signal and Communication (group) Corporation Limited	Secretary of the Party Committee, and Chairman	May 2017	–
XU Zongxiang	China Railway Signal and Communication (group) Corporation Limited	Deputy Party secretary, director, and general manager	November 2019	–
YANG Yongsheng	China Railway Signal and Communication (group) Corporation Limited	Deputy secretary of the Party Committee, Employee representative director	July 2017 and November 2017	–
HU Shaofeng	China Railway Signal and Communication (group) Corporation Limited	A member of the Standing Committee of the Party Committee	June 2016	–
ZHAO Xiaodong	China Railway Signal and Communication (group) Corporation Limited	A member of the Standing Committee of the Party Committee	December 2018	–
YIN Gang	China Railway Signal and Communication (group) Corporation Limited	Deputy secretary of the Party Committee, Director, and general manager	June 2017	November 2019
KONG Ning	China Railway Signal and Communication (group) Corporation Limited	A member of the Standing Committee of the Party Committee	December 2010	November 2019
Explanation on positions held in Shareholder Entities		None		

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(II) Positions Held in Other Entities

Name	Name of other entities	Positions held in other entities	Start date of term of office	Termination date of term of office
CHEN Jin'en	State Grid Corporation of China	Director	July 2015	June 2021
	China National Building Material Group Co., Ltd.	Director	August 2016	–
CHAN Ka Keung Peter	Metallurgical Corporation of China Ltd.	Director	November 2014	–
	Minmetals Resources Limited	Director	December 2019	December 2022
YAO Guiqing	China General Technology Group Co., Ltd.(中國通用技術集團有限公司)	Director	November 2018	November 2021
HU Shaofeng	Guangdong Ultrust Financial Leasing Co., Ltd.(廣東粵財金融租賃股份有限公司)	Director	November 2016	–
CHEN Shikui	CRSC (Zhengzhou) Electrification Bureau Co., Ltd. (通號(鄭州)電氣化局有限公司)	Supervisor	May 2015	–
	CRSC Construction Group Co., Ltd. (通號建設集團有限公司)	Director	August 2016	–
	CRSC Communication & Information Group Company Ltd.(通號通信信息集團有限公司)	Director	February 2016	–
	CRSC Institute of Smart City Research & Design(通號智慧城市研究設計院有限公司)	Director	July 2019	–
LI Tienan	China Reform Asset Management Co., Ltd.(中國國新資產管理有限公司)	Deputy general manager	March 2019	February 2020
	CNIC Corporation Limited(國新國際投資有限公司)	General manager of the legal department	September 2014	March 2019
	CNIC Consulting Corporation Limited(國新國際投資諮詢有限公司)	General manager of the legal department	February 2017	March 2019
	Guoxin Ronghui Equity Investment Fund Management Co., Ltd.(國新融匯股權投資基金管理有限公司)	Director	March 2019	–
	China Culture Development Corporation Ltd.(中國文化產業發展集團有限公司)	Director	March 2019	–
	China Aviation Supplies Co., Ltd. (中國航空器材有限責任公司)	Director	July 2019	–

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Name	Name of other entities	Positions held in other entities	Start date of term of office	Termination date of term of office
	China Tower Corporation Limited (中國鐵塔股份有限公司)	Supervisor	July 2019	–
	China Northern Industry Co., Ltd. (中國北方工業有限公司)	Director	October 2019	–
	China Reform Asset Management Co., Ltd.(中國國新資產管理有限公司)	General manager	February 2020	–
ZHAO Xiaodong	CRSC Research & Design Institute Group Co., Ltd. (北京全路通信信號研究設計院集團有限公司)	Chairman	April 2019	–
QIU Wei	CRSC Innovation Investment Company Ltd. (通號創新投資有限公司)	Chairwoman of the supervisory committee	February 2016	–
	Guogai Shuangbai Development Fund Management Co., Ltd. (國改雙百發展基金管理有限公司)	Director	July 2019	–
TIAN Liyan	CRSC Innovation Investment Company Ltd. (通號創新投資有限公司)	Director	February 2016	February 2020
WU Zuwei	China Reform Holdings Corporation Ltd. (中國國新控股有限責任公司)	Head of the asset management division of the capital operation management department	February 2018	–
	China Railway No.8 Engineering Group Co., Ltd.	Director	June 2018	July 2019
	China Huaxin Post and Telecom Technologies Co., Ltd. (中國華信郵電科技有限公司)	Supervisor	October 2017	September 2019
	Guoxin Hongsheng Investment (Beijing) Co., Ltd. (國新宏盛投資(北京)有限公司)	Supervisor	April 2016	–
Explanation on positions held in other entities		None		

SECTION VIII DIRECTORS, SUPERVISORS, SENIOR MANAGEMENT AND EMPLOYEES

III. REMUNERATION OF DIRECTORS, SUPERVISORS, SENIOR MANAGEMENT AND CORE TECHNICAL PERSONNEL

Unit:RMB0'000 Currency: RMB

The decision-making procedure for the remunerations of Directors, Supervisors and senior management	The Remuneration and Evaluation Committee of the Board makes recommendations to the Board on the remunerations of Directors and Senior Management of the Company. The Board shall make decision on remuneration and awards for senior management, and the general meetings shall make decision on remuneration matters for Directors and Supervisors.
The basis for determining remunerations of Directors, Supervisors and senior management	The remunerations of the Company's Directors, Supervisors and senior management are determined in accordance with the Articles of Association of China Railway Signal & Communication Corporation Limited* and relevant rules.
Actual payment of remunerations of Directors, Supervisors and senior management	WU Zuowei, a Supervisor of the Company, does not receive remuneration from the Company. The remuneration of other Directors, Supervisors and senior management shall be paid by the Company in accordance with relevant rules.
Total actual remunerations received by all Directors, Supervisors and senior management at the end of the reporting period	RMB8.8082 million
Total actual compensations received by core technical personnel at the end of the reporting period	RMB7.8593 million

SECTION VIII DIRECTORS, SUPERVISORS, SENIOR MANAGEMENT AND EMPLOYEES

IV. THE CHANGES IN THE COMPANY'S DIRECTORS, SUPERVISORS, SENIOR MANAGEMENT AND CORE TECHNICAL PERSONNEL

On 21 January 2019, the Proposal on Appointment of ZHAO Xiaodong as Vice President of the Company and the Proposal on Appointment of ZHANG Zhihui as Vice President of the Company were considered and approved at the 5th meeting of the third session of the Board of the Company, pursuant to which, ZHAO Xiaodong and ZHANG Zhihui were appointed as vice presidents of the Company.

On 29 October 2019, the Proposal on Appointment of QIU Wei as the Secretary to the Board, Joint Company Secretary and Related Authorized Representative of the Company was considered and approved at the 14th meeting of the third session of the Board of the Company, pursuant to which, HU Shaofeng no longer served as the Secretary to the Board and Joint Company Secretary of the Company due to work arrangements, while QIU Wei was appointed as the Secretary to the Board and Joint Company Secretary of the Company.

On 4 December 2019, the Proposal on the Nomination of Candidates for Executive Director of the Third Session of the Board of Directors of the Company and the Proposal on the Appointment of the President of the Company were considered and approved at the 15th meeting of the third session of the Board of Directors of the Company, pursuant to which, YIN Gang resigned as executive Director and president of the Company, KONG Ning resigned as vice president of the Company and XU Zongxiang was appointed as president of the Company and nominated as a candidate for executive Director according to work arrangements.

On 21 January 2020, the Proposal on Nominating Candidates for Shareholder Representative Supervisors of the Third Session of the Supervisory Committee of the Company was considered and approved at the sixth meeting of the third session of the Supervisory Committee, pursuant to which, TIAN Liyan and WU Zuwei resigned as Shareholder representative Supervisors of the third session of the Supervisory Committee of the Company due to work arrangements, and KONG Ning and LI Tienan were nominated as Shareholder representative Supervisors.

On 12 February 2020, the Proposal on Electing XU Zongxiang as Executive Director of China Railway Signal & Communication Corporation Limited* was considered and approved at the first extraordinary general meeting for 2020 of the Company, pursuant to which, XU Zongxiang was elected as executive Director; the Proposal on Electing Shareholder Representative Supervisors of the Third Session of the Supervisory Committee of China Railway Signal & Communication Corporation Limited* was also considered and approved at such meeting, pursuant to which, KONG Ning and LI Tienan were elected as shareholder representative Supervisors.

SECTION VIII DIRECTORS, SUPERVISORS, SENIOR MANAGEMENT AND EMPLOYEES

Name	Position held	Changes	The reason of changes
ZHAO Xiaodong	Vice president	Appointment	Work needs
ZHANG Zhihui	Vice president	Appointment	Work needs
QIU Wei	Secretary to the Board	Appointment	Work needs
HU Shaofeng	Secretary to the Board	Resignation	Work needs
YIN Gang	President	Resignation	Work needs
KONG Ning	Vice president	Resignation	Work needs
XU Zongxiang	President	Appointment	Work needs
TIAN Liyan	Chairwoman of the Supervisory Committee	Resignation	Work needs
WU Zuowei	Supervisor	Resignation	Work needs
XU Zongxiang	Executive Director	Appointment	Work needs
KONG Ning	Supervisor	Appointment	Work needs
LI Tienan	Supervisor	Appointment	Work needs

V. EXPLANATION ON PENALTIES IMPOSED BY SECURITIES REGULATORY AUTHORITIES IN THE RECENT THREE YEARS

Not applicable.

VI. EMPLOYEES OF THE PARENT COMPANY AND MAJOR SUBSIDIARIES

(I) Employee

Number of in-service employees of the parent company	128
Number of in-service employees of major subsidiaries	20,047
Total number of in-service employees	20,175
Number of resigned and retired employees with expenses borne by the parent company and major subsidiaries	81

SECTION VIII DIRECTORS, SUPERVISORS, SENIOR MANAGEMENT AND EMPLOYEES

Professional composition

Category	Number
Operation and management talent	3,963
Research and development personnel	4,235
Production personnel	10,202
Sales personnel	1,208
Support staff	413
Others	154
Total	20,175

Educational background

Category	Number (person)
Master degree	2,528
Bachelor degree	10,628
Associate degree	3,950
Secondary school diploma and below	3,069
Total	20,175

(II) Remuneration Policy

In accordance with various policies and guidelines of the state in relation to income distribution and considering the requirements of modern enterprise system, the Company has been continuously improving the remuneration management system and established a salary determination and normal increment mechanism which is basically adapted to the labor market and linked with the enterprise benefits and labour productivity. The Company gives full play to the incentive and constraint functions that remuneration distribution may serve to attract and retain the core talents of the Company, and focuses on the cultivation and reward of scientific and technological talents and technical talents.

In terms of total remuneration adjustment, the Company strictly follows the management measures of total remuneration, and adheres to the basic principle of efficiency-based wages, i.e., the enterprises with high efficiency and benefit set high wage levels, which reflects the fairness of distribution; in terms of management of the remuneration of responsible persons, the remuneration of responsible persons are linked with the operating performance and the management of the Company, which has good guiding and supporting effects on achieving the operation and management objectives; in terms of the remuneration management of employees of the Company, the Company established a salary system based on basic wages and performance-based bonus, to reflect the job value orientation and work achievement orientation of internal income distribution, effectively enhance the working positivity of employees and improve the vitality of enterprises.

SECTION VIII DIRECTORS, SUPERVISORS, SENIOR MANAGEMENT AND EMPLOYEES

(III) Training Plan

In 2019, according to training management measures of CRSC, the Company prepared the 2019 Annual Training Plan of the Company based on employees' needs. To ensure the implementation of training plan, the Company cultivated talents by adopting the "going out and introducing" method and other methods, set up staff training files, followed and supervised the implementation of training plan, and evaluated the training effect. In light of actual situation, each subsidiary organized the trainings for whole year. The training content included the work procedure of business, relevant specialized knowledge and business skills.

The 2019 Headquarters Training Plan of CRSC was prepared. All departments of the headquarters have carried out trainings according to the plan to strengthen the business training of the Group and the trainings on management ability and professional ability the headquarters staff, and enhance the management and control ability of the Group.

The Company conscientiously implements the requirements of SASAC and the Party Committee of the Company, strengthens the political construction and capacity building of leading cadres, strengthens the training of cadres, organizes in-depth study of Xi Jinping Thought on Socialism with Chinese Characteristics for a New Era, strengthens the Party's basic theoretical education to executives in state-owned enterprises, and develops online training resources. The Company organizes training classes for talents of English Language of international engineering management of "The Belt and Road" to cultivate international talents, and carries out a series of training such as the international cooperation on production capacity, the high-end applied translation of central enterprises, personnel files, digital transformation, About Famous Enterprises (Alibaba Group) for Learning Management and "Benchmarking Famous Enterprises" for Learning Management from Huawei. The Company cultivates international talents, management talents, technical talents and skilled talents which meet the development of the Company by strengthening the trainings to enhance the quality of talents.

In 2019, the Company organized 4,599 trainings with 62,646 participants, of which 11,848 participants were management personnel, 37,634 participants were professional technicians and 13,164 participants were technical personnel. CRSC continues to improve the talent training system, which provides strong support for the realization of CRSC talent strategy.

(IV) Labor Outsourcing

Total number of working hours of outsourced labor	57.8 million hours
Total remuneration paid to outsourced labor	RMB1,870.5 million

VII. OTHERS

Not applicable.

SECTION IX CORPORATE GOVERNANCE REPORT

I. RELEVANT EXPLANATIONS ON CORPORATE GOVERNANCE

During the reporting period, the Company conducted corporate governance in strict accordance with the Company Law of the People's Republic of China, Securities Law of the People's Republic of China, Code of Corporate Governance for Listed Companies and other laws and regulations as well as relevant requirements of the Shanghai Stock Exchange and the Stock Exchange. Directors, Supervisors and Senior Management worked diligently and responsibly, and the corporate governance and operating and management level was further improved.

The Company strives to maintain high standards of corporate governance to safeguard the interests of its Shareholders and to enhance corporate value and accountability.

In order to ensure that the Company is able to fully perform its obligations under the Hong Kong Listing Rules, the Company has established an effective corporate governance structure and, from time to time, reviews and improves its internal control and corporate governance mechanism.

The Company also operates in strict compliance with the Articles of Association of the Company, terms for reference for Board Committees, the Company Law and the requirements of relevant laws, regulations and regulatory documents, as well as the relevant rules and regulations of the Hong Kong Stock Exchange in relation to corporate information disclosure and investors' relations management and services.

The Company's corporate governance practices are based on the principles and code provisions as provided by the Corporate Governance Code set out in Appendix 14 to the Hong Kong Listing Rules. The Board is of the view that the Company had complied with all the code provisions as set out in the Corporate Governance Code during the reporting period.

Reasons for any significant difference between corporate governance and relevant requirements of the CSRC

Not applicable.

SECTION IX CORPORATE GOVERNANCE REPORT

II. BRIEF INTRODUCTION TO THE GENERAL MEETINGS

Name of meeting	Time of meeting	Index of website designated for publication of the resolutions	Disclosure date of the publication of the resolutions
2019 First Extraordinary General Meeting of China Railway Signal & Communication Corporation Limited*	15 April 2019	www.hkexnews.hk	15 April 2019
2018 Annual General Meeting of China Railway Signal & Communication Corporation Limited*	13 June 2019	www.hkexnews.hk	13 June 2019

Explanation on the General Meetings

- On 15 April 2019, the Company convened on site the 2019 first extraordinary general meeting, 2019 first domestic shareholders class meeting and 2019 first H shareholders class meeting, at which 19 proposals were considered and resolved, including Proposal on the Plan of Initial Public Offering of A Shares, Proposal on Authorizations to the Board of Directors of the Company to Deal with Matters in Relation to the Initial Public Offering and Listing of A Shares in Its Full Discretion, Proposal on the Use of Proceeds from the Initial Public Offering and Listing of A Shares and the Feasibility Analysis Report, Proposal on the Distribution Plan of Accumulated Profits Before the Initial Public Offering and Listing of A Shares, Proposal on the Dilution of Immediate Returns and the Remedial Measures on the Initial Public Offering and Listing of A Shares, Proposal on Dividend Distribution Plan within Three Years after the Initial Public Offering and Listing of A Shares, Proposal on the Plan on Stabilizing the Price of A Shares of the Company within the Three Years after the Initial Public Offering and Listing of A Shares, Proposal on the Undertakings Regarding Information Disclosure in the Prospectus Published in Connection with the Initial Public Offering and Listing of A Shares, Proposal on Amendments to the Articles of Association, Proposal on Amendments to the Procedure Rules of the General Meetings, Proposal on Amendments to the Procedure Rules of the Board of Directors, Proposal on Amendments to the Procedure Rules for the Supervisory Committee, Proposal on Amendments to the Working Rules of the Independent Non-executive Directors, Proposal on Formulation of the Rules on Amendments to the Management of Transactions with Related Parties under A Shares, Proposal on Formulation of the Rules for the Management of External Guarantees and Proposal on the Special Profits Distribution Plan. Announcement of relevant resolutions was published on the website of the Hong Kong Stock Exchange on the same day.

SECTION IX CORPORATE GOVERNANCE REPORT

2. On 13 June 2019, the Company convened on site the 2018 annual general meeting, at which nine resolutions were considered and resolved, including Report of the Board of Directors for 2018 of China Railway Signal & Communication Corporation Limited*, Report of the Board of Supervisors for 2018 of China Railway Signal & Communication Corporation Limited*, Final Account Report for 2018 of China Railway Signal & Communication Corporation Limited*, Proposal on Amendments to the Articles of Association of China Railway Signal & Communication Corporation Limited*, Proposal on Remuneration Plan for Independent Non-executive Directors for 2019, Resolution in Relation to General Authorizations for the Issuance of Debt Financing Instruments, Resolution in Relation to Appointment of External Auditor for 2019. Announcement of relevant resolutions was published on the website of the Hong Kong Stock Exchange on the same day.

III. SHAREHOLDERS' RIGHTS

To safeguard shareholders' interests and rights, the Company will propose a separate resolution for each substantially separate issue at general meetings, including the election of individual Directors.

All resolutions put forward at general meetings will be voted on by poll pursuant to the Hong Kong Listing Rules and poll results will be posted on the websites of the Company and the Stock Exchange after each general meeting.

Shareholders who intend to put forward their enquiries to the Board could send their enquiries to the Company's headquarters in the PRC (at 20/F, CRSC Building A, 1 Compound, Automobile Museum South Road, Fengtai District, Beijing, PRC) or by email to ir@crsc.cn, or by fax at +86-10-51846610. H shareholders may contact Computershare Hong Kong Investor Services Limited, the H Share Registrar of the Company, if they have any enquiries about their shareholdings and entitlements to dividend.

1. Convening of Extraordinary General Meeting on Requisition by Shareholders

According to the Articles of Association of the Company, where shareholders request to hold an extraordinary general meeting or class meeting, the following procedures shall be followed:

- (I) Shareholders who individually or jointly hold 10% or more of the voting Shares at the proposed meeting may make a proposal to the Board on holding an extraordinary general meeting or class meeting by signing one or several written requests with same contents in the same format and define the meeting topic. The above shareholders shall guarantee that the contents of the proposal shall be in compliance with the laws, regulations and the Articles of Association of the Company. The Board shall convene such meeting as soon as possible upon receipt of the aforesaid written request. The aforesaid number of shares shall be calculated as of the close of the date on which such Shareholders request to convene the meeting in writing or, if it falls on a non-trading date, the prior trading date on which such shareholders request to convene the meeting in writing;

SECTION IX CORPORATE GOVERNANCE REPORT

- (II) If the Board is unable to or fails to perform its duty of convening an extraordinary general meeting or class meeting, the Supervisory Committee shall convene and preside over such meeting in a timely manner; if the Supervisory Committee cannot convene and preside over such meeting, shareholders who individually or jointly hold more than 10% of the Company's shares for more than 90 consecutive days may independently convene and preside over such meeting.

2. Putting Forward Proposals at General Meetings

According to the Articles of Association of the Company, in the event the Company convenes a general meeting, the Board, the Supervisory Committee and shareholders individually or jointly holding more than 3% of the Company's shares are entitled to submit proposals in writing to the Company. Shareholders individually or jointly holding more than 3% of the Company's shares may submit ad hoc proposals to the convener in writing ten days prior to the general meeting. The convener shall issue a supplementary notice of the general meeting and announce the content of such ad hoc proposals within two days after receipt thereof. Except as provided above, the convener shall not amend the proposals set out in the notice of the general meeting or add any new proposals subsequent to the issue of the notice of the general meeting. The general meeting shall not carry out the voting and adopt resolutions on the proposals that are not stated in the notice of the general meeting or fail to meet the requirements under Article 76 of the Articles of Association of the Company.

3. Communication with Shareholders and Investors/Investors Relations

The Company considers effective communication with shareholders essential for enhancing investor relations and investors' understanding of the Group's business performance and strategies. The Company also fully recognizes the importance of transparency and timely disclosure of corporate information, which will enable shareholders and investors to make the best investment decisions. General meetings of the Company provide a forum for face-to-face communication between the Board and the shareholders. The chairman of the Board as well as chairmen of the Nomination Committee, the Remuneration and Evaluation Committee and the Audit and Risk Management Committee or, in their absence, other members of the respective committees and, where applicable, the chairman of the independent Board committee, are available to answer questions at general meetings.

To promote effective communication, the Company establishes its website and posts latest information and updates on the Company's business operations and developments, financial information, corporate governance practices and other information for public access.

SECTION IX CORPORATE GOVERNANCE REPORT

IV. PERFORMANCE OF DUTIES OF DIRECTORS

(I) Directors and Board of Directors

1. *Composition of the Board*

During the reporting period, the Board consists of executive Directors, namely Mr. ZHOU Zhiliang, Mr. YIN Gang and Mr. YANG Yongsheng and the independent non-executive Directors, namely Mr. WANG Jiajie, Mr. CHEN Jin'en, Mr. CHAN Ka Keung Peter and Mr. YAO Guiqing. Mr. YIN Gang resigned as executive Director with effect from 4 December 2019. Upon approval by the shareholders at the Company's first extraordinary general meeting for 2020 held on 12 February 2020, Mr. XU Zongxiang was appointed as the executive Director with effect on the same date.

There is no relationship (including financial, business, family or other material/relevant relationship(s)) among the members of the Board, especially between the chairman and the president.

Biographies of the Directors are set out in the section "Directors, Supervisors, Senior Management and Employees".

According to the requirements of the Articles of Association, every Director shall be elected or replaced by the general meeting and serve a term of three years. At the expiry of their terms, Directors may continue to serve as such if re-elected. The term of office of a Director shall commence from the date on which the resolution is passed at the general meeting and end upon expiry of the term of the incumbent Board. If an election is not held in a timely manner upon the expiry of the term of service of a Director, the incumbent Director shall continue to perform his or her duties as a Director in accordance with laws and the Articles of Association until the incoming Director assumes his or her position.

Under the code provision of the Corporate Governance Code, Directors are required to disclose to the issuer the number and nature of offices held in public companies or organizations and other significant commitments as well as the natures of such companies or organizations and the time involved in such offices. Each Director has agreed to disclose their commitments to the Company in a timely manner.

2. *Independent non-executive Directors*

For the year ended 31 December 2019, the Board had complied with the requirements of the Hong Kong Listing Rules relating to the appointment of at least three independent non-executive Directors with at least one independent non-executive Director possessing appropriate professional qualifications or accounting or related financial management expertise.

The Company has appointed a sufficient number of independent non-executive Directors in compliance with Rule 3.10A of the Hong Kong Listing Rules which requires the number of independent non-executive Directors represents at least one third of the Board.

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The Company has received the annual written confirmation on independence from each of the independent non-executive Directors in accordance with Rule 3.13 of the Hong Kong Listing Rules. The Company is of the view that all independent non-executive Directors are independent in accordance with the independence guidelines set out in the Hong Kong Listing Rules.

3. *Chairman of the Board and president*

The roles, duties and responsibilities of the chairman of the Board and the president of the Company are held by different individuals and are explicitly defined in writing.

Mr. ZHOU Zhiliang serves as the chairman of Board of the Company, while Mr. XU Zongxiang acts as the president of the Company. The positions of chairman of the Board and president are held by different individuals to maintain independence as well as the balance of views and judgments.

According to the Articles of Association, the chairman of the Board is entitled to the following powers:

- (1) to preside over general meetings and to convene and preside over Board meetings;
- (2) to supervise and check on the implementation of resolutions of the Board;
- (3) to supervise and check on the work of the special committees;
- (4) to listen to the regular or non-regular work reports of the president and other Senior Management members of the Company and provide guidance on the execution of the resolutions of the Board;
- (5) to exercise special rights over the Company's affairs that are in line with the requirements under the laws and the interests of the Company when the chairman of the Board is unable to convene a Board meeting in time in the event of force majeure, critical crisis or situations resulting in significant effect to the production and operation of the Company and report to the Board and general meeting afterwards;
- (6) to nominate candidates for secretary to the Board of the Company;
- (7) to sign the share certificates, corporate bonds and other securities certificates issued by the Company;
- (8) to sign the significant documents of the Board and to represent the Company in signing with third parties important documents that are legally-binding;

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- (9) to organize the formulation of various rules and regulations for the operation of the Board and coordinate the Board's work;
- (10) to review and approve the plan for using funds of the Board;
- (11) to exercise the duties and powers as the legal representative;
- (12) to exercise other duties and powers provided for in laws and regulations or the Articles of Association and those granted by the Board.

According to the requirement of the Articles of Association, the Company shall have one president, several vice presidents and one chief accountant; the president of the Company shall be accountable to the Board and exercise the following powers:

- (1) to lead the Company's production, operation and management, to organize the implementation of the resolutions of the Board and to report to the Board;
- (2) to organize the implementation of the Company's annual plan and investment plan;
- (3) to draft plans for the establishment of the Company's internal management structure;
- (4) to draft the Company's basic management system;
- (5) to formulate the specific rules and regulations of the Company;
- (6) to propose to the Board the appointment or dismissal of vice presidents and chief accountant of the Company;
- (7) to appoint or dismiss other management members of the Company other than those required to be appointed or dismissed by the Board in accordance with relevant principles and procedures;
- (8) to exercise other duties and powers conferred by the Articles of Association or the Board.

The chairman is responsible for the management of the operations of the Board, while the president is responsible for the operations of the Company. The chairman is required to keep close communication with the president and all Directors to keep them fully informed of all substantive matters relating to the Company's business development, and is also responsible for building and maintaining a highly efficient administrative support team to support him to discharge the assigned duties in this position.

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4. *Term of office for Directors*

Each of the Directors (including independent non-executive Directors) has entered into a service contract with the Company. The principal particulars of these service contracts comprise, among other things, (a) the term of office of three years commencing from the date when their respective appointments are approved by the Shareholders, and (b) termination provisions in accordance with their respective terms.

5. *Nomination, appointment and removal of Directors*

The procedures and processes for appointment, re-election and removal of Directors are set out in the Articles of Association. The Nomination Committee is responsible for reviewing the structure, number of members and composition of the Board, advising on any proposed changes to the Board in response to the Company's strategies, and reviewing the independence of the independent non-executive Directors.

6. *Duties of the Board*

The Board shall be accountable to the general meeting. According to the requirement of the Articles of Association, duties of the Board shall include the exercise of the following functions and powers:

- (1) to convene general meetings and to report on its work to the general meeting;
- (2) to implement the resolutions of the general meeting;
- (3) to decide on the business plans and investment plans of the Company;
- (4) to formulate the annual financial budgets and final accounts of the Company;
- (5) to formulate the profit distribution plans and plans for making up losses of the Company;
- (6) to formulate plans for the increase or reduction of the registered capital of the Company;
- (7) to formulate plans for the issuance of corporate bonds, any class of Shares, warrants and other similar securities;
- (8) to formulate plans for significant acquisition by the Company, repurchase of Shares of the Company or merger, division, reorganization or dissolution of the Company and changes in the corporate form of the Company;
- (9) to decide on the provision by the Company of any external guarantee other than those to be approved by the general meeting as required by the Articles of Association;

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- (10) to decide on significant acquisition or disposal within one year by the Company of assets not more than 30% of the latest audited total assets of the Company;
- (11) to decide on connected transactions other than those to be approved by the general meeting as required by laws and regulations and regulatory rules in the place where Shares of the Company are listed;
- (12) to decide on significant investment projects of the Company with the single amount not more than 30% of the latest audited net assets of the Company;
- (13) to decide on entrusted wealth management and asset mortgages or pledges with the accumulated amount not more than 30% of the latest audited net assets of the Company;
- (14) to decide on extra costs and expenses with the single amount not more than 10% of the latest audited net assets of the Company;
- (15) to decide on plans of external donation and sponsorship of the Company with the single amount not more than RMB5 million;
- (16) to formulate amendments to the Articles of Association, the Rules of Procedure for the general meeting and the Rules of Procedure for the Board;
- (17) to engage or dismiss the Company's president and secretary to the Board; to engage or dismiss vice presidents and the chief accountant of the Company, as proposed by the president, and decide on matters relating to their remuneration, rewards and punishments;
- (18) to decide on the establishment of the Company's internal management organization;
- (19) to decide on the establishment of each special committee under the Board and to consider and approve resolutions proposed by each special committee under the Board;
- (20) to formulate the basic management systems of the Company;
- (21) to formulate development strategies, long and medium term development plans and corporate culture development plans, and to monitor the implementation of such plans;
- (22) to decide on the Company's risk management system, including risk evaluation, financial control, internal audit and legal risk control, and to monitor the implementation of such systems;
- (23) to propose to the general meeting the appointment, removal or termination of reappointment of an accounting firm;

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- (24) to listen to the work reports of the Company's president and inspect the work of the president and other Senior Management members;
- (25) to perform duties of corporate governance and to evaluate and improve the corporate governance of the Company regularly in accordance with the regulatory rules in the place where Shares of the Company are listed;
- (26) to formulate equity incentive scheme;
- (27) to manage the Company's information disclosure matters;
- (28) other duties and powers provided in laws and regulations, regulatory rules in the place where Shares of the Company are listed or specified in the Articles of Association or granted by the general meeting.

Resolutions by the Board on the matters mentioned above shall, be passed by the affirmative vote of more than one half of all the Directors with the exception of resolutions on the matters referred to in items (6), (7), (8), (16) and (26), which shall require the affirmative vote of at least two-thirds of all the Directors for adoption. Besides the affirmative vote of more than one half of all the Directors, the affirmative vote of at least two-thirds of all the Directors present is also required when the matters referred to in item (9) are considered by the Board.

The abovementioned duties and powers of the Board as well as any transaction or arrangement of the Company shall be proposed at the general meeting for approval as prescribed by the regulatory rules in the place where Shares of the Company are listed.

The duties and powers of the Board and the management have been defined in the Articles of Association. The Board is responsible for decision making in the Company's significant matters, including the approval and monitoring of all policy matters, overall strategies and budgets, internal control and risk management systems, material transactions (in particular those that may involve conflict of interests), financial information and other significant financial and operational matters.

All Directors have full and timely access to all relevant information as well as the advice and services of the company secretary, with a view to ensuring that Rules of Procedure for Board meetings and all applicable laws, rules and regulations are followed. Upon making request to the Board, a Director is generally able to seek independent professional advice in appropriate circumstances at the Company's expense.

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In strict accordance with the Articles of Association and the authorization of general meetings, the Board takes and fulfils its decision-making responsibilities seriously, supervises management's implementation of the resolutions of the Board to ensure their effective implementation, and implements the resolutions of the general meetings and reports the work to general meetings.

The day-to-day management, administration and operation of the Company are delegated to the president and the Senior Management.

The Board shall be responsible for the fulfilment of the following corporate governance responsibilities:

- (1) to formulate, review and make recommendations on the corporate governance policies and practices of the Company;
- (2) to review and monitor the training and continuous professional development of Directors and Senior Management;
- (3) to review and monitor the Company's policies and practices with regard to complying with laws and regulatory requirements;
- (4) to formulate, review and monitor the code of conduct and compliance manual (if any) applicable to employees and Directors;
- (5) to review the Company's compliance with the Corporate Governance Code and disclosures made in the Corporate Governance Report of the annual report of the Company.

The Board and the Audit and Risk Management Committee have reviewed and approved the disclosures made in the Corporate Governance Report. The Board has also reviewed the Company's compliance with the corporate governance policies, practices, laws and regulatory requirements, and monitored and organised the training courses designed for Directors and Senior Management.

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(II) Directors' Attendance at Board Meetings and General Meetings

Name of Director	Independent director or not	Number of attendances required this year	Number of attendances in person	Attendance at Board meetings			Number of absences	Failure to attend meetings in person for two consecutive times	Attendance at the general meetings Number of attendances at the general meetings
				Number of attendances by means of telecommunications	Number of attendances by proxy				
ZHOU Zhiliang	No	11	11	4	0	0	No	2	
YIN Gang*	No	10	10	4	0	0	No	2	
YANG Yongsheng	No	11	10	4	1	0	No	2	
WANG Jiajie	Yes	11	10	4	1	0	No	2	
CHEN Jin'en	Yes	11	11	4	0	0	No	1	
CHAN Ka Keung Peter	Yes	11	10	4	1	0	No	2	
YAO Guiqing	Yes	11	11	4	0	0	No	1	

Note: Attendances by means of telecommunications include circulation of written resolutions

* Mr. YIN Gang resigned as Director on 4 December 2019.

Explanations for failure to attend Board meetings in person for two consecutive times

Not applicable.

Number of the Board meetings held for the year	11
Including: number of meetings held onsite	7
Number of meetings held by means of telecommunications	4
Number of meetings held onsite and by means of telecommunications simultaneously	0

Note: Attendances by means of telecommunications include circulation of written resolutions

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Board meetings include regular meetings and extraordinary meetings of the Board. The Company shall deliver a written meeting notice to all the Directors and Supervisors of the Company by hand, mail, fax or other means permitted by the regulatory rules in the place where Shares of the Company are listed 14 days prior to the date of a regular meeting or 5 days prior to an extraordinary meeting. If service is made indirectly, confirmation by telephone and record thereof shall be required as well.

In the event of emergencies where an extraordinary Board meeting needs to be convened as soon as possible, such notice may be served via telephone or by other verbal means, provided that an explanation shall be made at the meeting by the convener and the same be entered into the meeting minutes.

As required by the Articles of Association, if any Director has connection with or significant interest in the enterprise involved in the resolution proposed at a Board meeting, the said Director shall not vote on the said resolution for himself or on behalf of any other Director. The aforesaid Board meeting may be held when more than half of the Directors without connection or significant interest attend the meeting. The resolution of the said Board meeting shall be passed by more than half of the unrelated or non-interested Directors. If the number of unrelated or non-interested Directors attending the meetings is less than three, the matter shall be submitted to the general meeting for consideration.

Agenda of the Board meeting together with all appropriate, complete and reliable information shall be sent to all Directors and/or members of the respective Board Committee at least three days before each Board meeting or Board Committee meeting to keep the Directors and/or members of the respective Board Committee being aware of the latest developments and financial position of the Company and to enable them to make informed decisions. The Board and each Director also have separate and independent access to the Senior Management where necessary.

Draft minutes are circulated to the Directors for review within a reasonable time after each meeting and final version is available for Directors' inspection.

For the year ended 31 December 2019, the chairman of Board of the Company and all the independent non-executive Directors held one meeting without the attendance of other Directors.

(III) Objections Raised by Independent Directors against Relevant Matters of the Company

Not applicable.

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(IV) Others

During the reporting period, the Board focused on the continuous professional development of Directors and actively encouraged and organized Directors to participate in the trainings. In order to keep their knowledge and skills up to date as well as improve their capacities of duty performance, all members of the Board of Directors continued to learn all kinds of regulatory information and the latest regulatory documents in their daily duties, including relevant laws and regulations and regulatory documents such as corporate governance and Listing Rules, meanwhile they read industry, professional books and publications. All Directors attended the tutorial training of CSRC's Beijing Bureau for enterprises that apply for listing on the STAR Market and passed the tutorial acceptance; Mr. WANG Jiajie and Mr. CHEN Jin'en participated in the onsite training for independent directors of listed companies held by Shanghai Stock Exchange; four independent Directors participated in the video training for independent directors of companies listed on the STAR Market held by Shanghai Stock Exchange and the thematic training courses held by the SASAC; and Mr. YANG Yongsheng, the executive Director, participated in the training for the program of practical operation of the board of directors held by the SASAC in Singapore. Thanks to such trainings, all Directors further understood the regulations of domestic and overseas regulatory institutions, code of conduct for the performance of duties as directors and requirements for information disclosure which A+H listed companies should follow.

V. FOR IMPORTANT OPINIONS AND SUGGESTIONS PROPOSED BY THE SPECIAL COMMITTEES UNDER THE BOARD OF DIRECTORS IN DUTY PERFORMANCE DURING THE REPORTING PERIOD, ANY OBJECTIONS SHOULD BE DISCLOSED IN DETAIL

The Board has delegated certain of its duties to various committees. In accordance with the relevant PRC laws and regulations and provisions with regard to the corporate governance practice prescribed in the Listing Rules and the Articles of Association, the Company has established five Board committees, namely the Strategy and Investment Committee, the Nomination Committee, the Remuneration and Evaluation Committee, the Audit and Risk Management Committee and the Quality and Safety Committee.

(I) Audit and Risk Management Committee

The Audit and Risk Management Committee currently consists of independent non-executive Directors Mr. CHAN Ka Keung Peter, Mr. WANG Jiajie and Mr. CHEN Jin'en. In particular, Mr. CHAN Ka Keung Peter is a member of the Hong Kong Institute of Certified Public Accountants, International Association of Accounting Professionals and CPA Australia, with rich knowledge and experience in accounting. He serves as chairman of the Audit and Risk Management Committee.

The Audit and Risk Management Committee is accountable to the Board, and is primarily responsible for proposing appointment or change of external auditors, supervising and evaluating the work of external auditors, reviewing the Company's financial information and disclosure thereof, supervising internal auditing rules and implementation thereof, examining the Company's internal control and risk management rules and systems and communication between internal auditors and external auditors.

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During the reporting period, the Audit and Risk Management Committee actively carried out work mainly in such aspects as audit supervision, financial monitoring, internal system building and comprehensive risk management, further enhanced the long-term mechanism for regular communication with the accounting firm responsible for financial auditing, reviewed the Company's financial information and disclosure thereof, repeatedly examined and studied the financial information disclosed in the Company's reports and financial statements, carefully reviewed the proposals on the relevant financial reports of the Company; examined the implementation of the Company's internal control and risk management; guided the internal audit work of the Company, listened to the reports of internal audit department of the Company on auditing work and determined the audit work plan of the Company for 2019.

During the reporting period, the Audit and Risk Management Committee held four meetings and considered nine proposals including regular performance reports of CRSC, report on annual internal control evaluation and summary and plan of annual internal audit work. The committee put forward various suggestions to the Board on the review and auditing of the Company's financial statements, management of cash flows from operations, control of accounts receivables and gearing ratio and others, which were adopted by the Board.

Records of attendance of the members at the meetings of the Audit and Risk Management Committee during the reporting period are set out as follows:

Name of Director	Number of meetings required to attend	Number of meetings actually attended	Number of meetings not attended
CHAN Ka Keung Peter	4	4	0
CHEN Jin'en	4	4	0
WANG Jiajie	4	4	0

The Audit and Risk Management Committee has reviewed the annual results of the Group for the year ended 31 December 2018 and the unaudited interim results of the Group for the six months ended 30 June 2019. The Audit and Risk Management Committee has discussed the accounting policies and practices adopted by the Company, internal control and financial reporting matters with the senior management of the Company, and has reviewed the effectiveness of the accounting policies and practices adopted by the Group, financial control, the risk management and internal control system and the internal audit function of the Group, and considers that the Group's risk management and internal control system and the operation of the internal audit department remain effective. Meanwhile, the Audit and Risk Management Committee had two meetings with external auditors.

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The Audit and Risk Management Committee has also reviewed the compliance of the Company with the Corporate Governance Code and the corporate governance report of the Company.

The Audit and Risk Management Committee has also listened to the special report on major risk assessment and major risk measures of the Company in 2018, conducted special audit in this regard and proposed dynamic tracking of the implementation of major risk control measures, to ensure the efficiency and effectiveness of risk control measures.

(II) Remuneration and Evaluation Committee

The Remuneration and Evaluation Committee consists of independent non-executive Directors Mr. CHEN Jin'en, Mr. CHAN Ka Keung Peter and Mr. YAO Guiqing. Mr. CHEN Jin'en serves as chairman of the committee.

The Remuneration and Evaluation Committee is accountable to the Board. Its primary duties are advising the Board on the overall remuneration policy and framework for Directors and Senior Management members, and on the establishment of standardized and transparent remuneration policy formulation procedures; reviewing the remuneration policies and plans for Directors and Senior Management members, formulating assessment criteria for Directors and senior management members, conducting performance appraisal and evaluation over Directors and senior management members in relation to duty performance; reviewing and supervising continuous professional development of Directors and senior management members and supervising the implementation of the Company's remuneration policies.

During the reporting period, the Remuneration and Evaluation Committee held one meeting and considered and approved the Plan for Fulfilment of Remuneration of Deputy Leaders of CRSC in 2018 and In-Term Incentive Income for 2016-2018. Records of attendance of the members at the meeting of the Remuneration and Evaluation Committee are set out as follows:

Name of Director	Number of meetings required to attend	Number of meetings attended	Number of meetings not attended
CHEN Jin'en	1	1	0
CHAN Ka Keung Peter	1	1	0
YAO Guiqing	1	1	0

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(III) Nomination Committee

The Nomination Committee consists of chairman of the Board Mr. ZHOU Zhiliang and independent non-executive Directors Mr. WANG Jiajie and Mr. YAO Guiqing, and Mr. ZHOU Zhiliang serves as Chairman.

The Nomination Committee is accountable to the Board. Its primary duties are studying and advising on the standards, procedures and methods for the election of Directors and senior management members; evaluating the eligibility of candidates for Directors and senior management members, reporting to the Board its opinions and advising on the relevant appointment to the Board; reviewing the independence of the independent non-executive Directors; advising to the Board on the appointment or re-appointment of Directors and senior management members, as well as the succession plan for Directors and senior management members.

During the reporting period, the Nomination Committee held one meeting and considered and approved the Proposal on Nomination of Candidate for Vice President of CRSC. Records of attendance of the members at the meeting of the Nomination Committee are set out as follows:

Name of Director	Number of meetings required to attend	Number of meetings attended	Number of meetings not attended
ZHOU Zhiliang	1	1	0
WANG Jiajie	1	1	0
YAO Guiqing	1	1	0

The Nomination Committee adopts the following procedures for selection and appointment of Directors and senior management members:

- (1) actively studying the Company's demands for new Directors and senior management members and preparing written materials;
- (2) searching for candidates for Directors and senior management members in the Company and its wholly-owned and holding (joint-stock) enterprises and the talent market;
- (3) gathering information of preliminary candidates, including occupation, education, job title, detailed work experience and all part-time jobs, and preparing written materials;
- (4) seeking the consent of the nominees for nomination;

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- (5) convening a meeting of the Nomination Committee to conduct a qualification check of the preliminary candidates based on the appointment criteria for Directors and senior management members;
- (6) submitting to the Board its recommendations on the candidates for Directors and senior management members and relevant materials prior to the election of new Directors or the appointment of new senior management members;
- (7) implementing other follow-up work in accordance with the decisions and feedback of the Board.

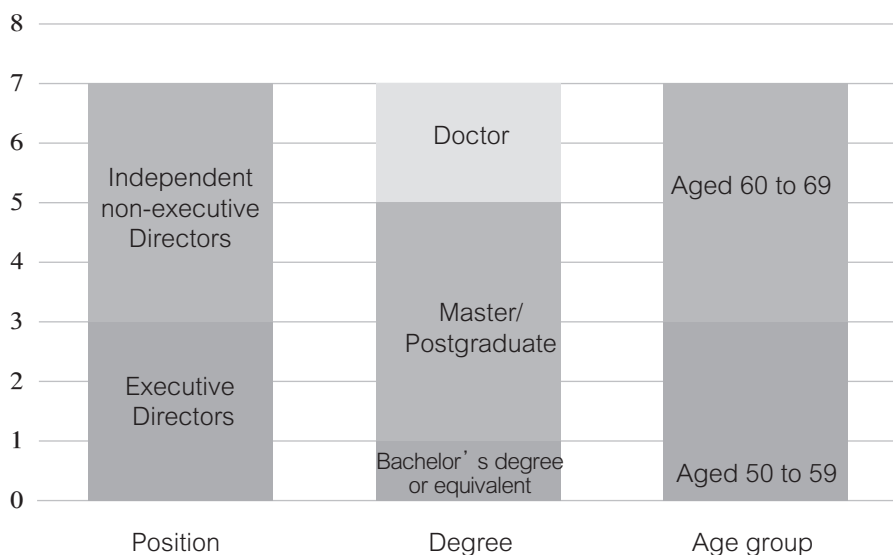
In reviewing the structure of the Board, the Nomination Committee considers Board members diversity from various aspects, including but not limited to cultural, educational background, professional experience, skills and knowledge. All appointments of Board members are based on meritocracy, and candidates are considered with due regard for the capacity, skill and experience required for the overall operation of the Board, so as to ensure the proper balance of the Board members.

Diversity policy of Board members

The Company understands and firmly believes that a diversified Board is an important factor for maintaining the Company's competitive edges and promoting sustainable development of the Company. In designing the Board's composition, the Company considers Board members diversity from various aspects, including but not limited to gender, age, cultural and educational background, race, professional experience, skills, knowledge and years of service. The Nomination Committee fully considers the benefits of Board members diversity when making recommendations or suggestions to the Board regarding appointment of new Directors of the Company. Meanwhile, the Company considers the above factors based on its own business modes and specific needs arising from time to time and makes final decisions according to the candidates' advantages and potential contributions to the Board.

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The following chart shows the diversity position/overview of the Company's Board members on the date of this report:



The Nomination Committee, when considering the composition of the Board, through evaluating the capabilities and experiences of every Director and their suitability to the business of the Company, considers that the existing structure of the Board is reasonable, the Board members have balanced talents, experience and professional knowledge needed for the Company's business development, and the existing structure of the Board is in line with the Diversity Policy of Board Members that the Company has adopted.

(IV) Quality and Safety Committee

During the reporting period, the Quality and Safety Committee consists of executive Director Mr. YIN Gang and independent non-executive Directors Mr. WANG Jiajie and Mr. YAO Guiqing. Mr. YIN Gang serves as chairman (resigned in December 2019).

The Quality and Safety Committee is accountable to the Board. Its primary duties are studying and advising on the Company's quality and safety management plan; studying, reviewing and advising on the targets and measures for the construction of the Company's long-term quality and safety mechanism; reviewing the Company's annual key quality and safety works; supervising and guiding the establishment, implementation and maintenance of the Company's quality and safety management system; solving and dealing with the severe quality and safety accidents, failures and quality issues, and putting forward suggestions for rectification.

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During the reporting period, the Quality and Safety Committee held one meeting and considered and approved the Report on the Overall Safety and Quality Situation and Deficiencies in 2019 and the Key Safety and Quality Works Arrangement in 2020 of the CRSC. Records of attendance of the members at the meeting of the Quality and Safety Committee are set out as follows:

Name of Director	Number of meetings required to attend	Number of meetings actually attended	Number of meetings not attended
WANG Jiajie	1	1	0
YAO Guiqing	1	1	0

Note: When the meeting was held, Mr. YIN Gang has ceased to serve as executive Director and director of the Quality and Safety Committee; on February 2020, Mr. XU Zongxiang served as the executive Director and chairman of the Quality and Safety Committee.

(V) Strategy and Investment Committee

The Company has established the Strategy and Investment Committee with written terms of reference. The Strategy and Investment Committee of the Company currently consists of 5 Directors, including executive Directors Mr. ZHOU Zhiliang, Mr. XU Zongxiang and Mr. YANG Yongsheng, and independent non-executive Directors Mr. CHEN Jin'en and Mr. YAO Guiqing. Mr. ZHOU Zhiliang, an executive Director, currently serves as the chairman. Mr. YIN Gang ceased to be a member of the Strategy and Investment Committee from 4 December 2019. The primary duties of the Strategy and Investment Committee include, but are not limited to, the following:

- (1) establishing the basic framework for the Company's strategy-making procedures, and studying and advising on the Company's medium and long-term strategic development plan;
- (2) studying and advising on major financing and investment plans which, according to the Articles of Association of the Company, should be approved by the Board or at a general meeting;
- (3) auditing and advising on the Company's annual business plan;
- (4) studying and advising on major capital operation and asset management projects which are required to be approved by the Board or at a general meeting according to the Articles of Association of the Company;

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- (5) studying and advising on the plans for corporate reorganization, mergers and acquisitions, equity transfer, restructuring, and organizational restructuring of the Company which should be approved by the Board or at a general meeting;
- (6) studying and advising on other major events which may have influence on the Company's development;
- (7) supervising and examining the implementation of the above matters;
- (8) other duties authorized by the Board.

VI. SUPERVISORY COMMITTEE

During the reporting period, the Supervisory Committee of the Company consists of 3 members, namely Ms. TIAN Liyan, Mr. WU Zuowei and Mr. CHEN Shikui and Ms. TIAN Liyan served as the chairwoman. The Supervisory Committee is made up of representatives of the Shareholders and an appropriate proportion of representatives of the Company's staff. The actual proportion shall be stipulated in the Articles of Association of the Company, provided that the proportion of representatives of the Company's staff shall not be less than one-third.

Representatives of the Company's staff at the Supervisory Committee shall be democratically elected by the Company's staff at the staff representative assembly, general staff meeting or otherwise. A Supervisor shall serve a term of three years, and may seek re-election upon expiry of the said term. A Supervisor shall continue to perform his or her duties in accordance with the laws, administrative regulations and the Company's Articles of Association until a duly re-elected Supervisor takes office, if re-election is not conducted in a timely manner upon the expiry of his or her term of office or if the resignation of Supervisors results in the number of Supervisors being less than the quorum.

The Company received the resignation reports of Supervisors Ms. TIAN Liyan and Mr. WU Zuowei in January 2020. Due to work arrangements, Ms. TIAN Liyan and Mr. WU Zuowei tendered their resignations as Supervisors of the third session of the Supervisory Committee of the Company. After resignation, Ms. TIAN Liyan and Mr. WU Zuowei will not hold any position in the Company. Ms. TIAN Liyan and Mr. WU Zuowei shall continue to perform their duties as Supervisors before new Supervisors take office upon election. Upon approval by the shareholders at the Company's first extraordinary general meeting for 2020 on 12 February 2020, Mr. KONG Ning and Ms. LI Tienan were appointed as Shareholder representative Supervisors of the third session of the Supervisory Committee of the Company and Ms. TIAN Liyan and Mr. WU Zuowei ceased to serve as Supervisors of the Company from 12 February 2020. The Supervisory Committee held a meeting of Supervisory Committee on 25 March 2020 where the Supervisory Committee considered and approved, among other matters, the resolution on electing KONG Ning as chairman of the Supervisory Committee, electing Mr. KONG Ning as the chairman of the third session of the Supervisory Committee of the Company for a term commencing from the date of approval at the meeting until the expiration of the term of the third session of the Supervisory Committee.

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The Supervisory Committee shall be accountable to the general meeting and may exercise the following powers:

- (1) to review the Company's financial position;
- (2) to supervise the Directors, president and other senior management in their performance of their duties of the Company and to propose the removal of Directors and senior management who have violated laws, regulations, the Articles of Association or resolutions of general meetings;
- (3) when the acts of a Director, president and other senior management are detrimental to the Company's interests, to require him/her to correct such acts;
- (4) to propose the convening of extraordinary general meetings and to convene and preside over general meetings when the Board fails to perform the duty of convening and presiding over general meetings according to laws;
- (5) to put forward proposals to general meetings;
- (6) to review and issue written review comments on the periodic reports of the Company prepared by the Board;
- (7) to initiate proceedings against Directors and the senior management in accordance with relevant laws;
- (8) to initiate investigations into any irregularities identified in the operation of the Company and, where necessary, to engage professional institutions, such as an accounting firm and a law firm, to assist its work;
- (9) other powers authorized by the Articles of Association or general meeting.

During the reporting period, Supervisory Committee had during the year monitored Directors and managers' performance of functions and lawful operation of the Company, reviewed periodical reports of the Company prepared by the Board, reviewed the financial statements of the Company and conducted daily supervision and paid close attention to possible risks that may occur during the Company's operation.

VII. EXPLANATION OF THE SUPERVISORY COMMITTEE ON DISCOVERY OF THE COMPANY'S RISKS

Not applicable.

SECTION IX CORPORATE GOVERNANCE REPORT

VIII. EXPLANATION OF THE COMPANY ON LOSING INDEPENDENCE OR INDEPENDENT MANAGEMENT ABILITY WITH RESPECT TO ISSUES CONCERNING BUSINESS, PERSONNEL, ASSETS, INSTITUTIONS, FINANCE, ETC. WITH ITS CONTROLLING SHAREHOLDERS

The Company is strictly independent from its controlling shareholder in business, personnel, assets, institutions, finance, etc., without losing independence or independent management ability.

During the reporting period, regarding the Company's president YIN Gang serving as general manager of the controlling shareholder CRSC Corporation Group, the Company has obtained the Reply on Application for Exempting the Senior Management of China Railway Signal and Communication (group) Corporation Limited from Restrictions on Concurrent Positions as Senior Management (Letter No. 321 [2019] of the Department of Listed Company Supervision) issued by the Department of Listed Company Supervision, CSRC, which agreed to exempt Mr. YIN Gang from restrictions on Concurrent Positions as Senior Management.

On 4 December 2019, Mr. XU Zongxiang served as the Company's president. Regarding his serving concurrently as general manager of the Controlling Shareholder CRSC Group, the Company has obtained the Letter on Approving the Exemption of the Senior Management of China Railway Signal and Communication (group) Corporation Limited from Restrictions on Concurrent Positions as Senior Management (Letter No. 15 [2020] of the Department of Listed Company Supervision) Jobs issued by the Department of Listed Company Supervision, CSRC in January 2020, which agreed to exempt Mr. XU Zongxiang from restrictions on Concurrent Positions as Senior Management, and the Company published the Announcement of CRSC on Exempting the President and Senior Management of the Company from Restrictions on Concurrent Positions as Senior Management on 21 January 2020.

In case of horizontal competition, the Company's relevant solutions, work progress and follow-up work plans.

Not applicable.

IX. ESTABLISHMENT AND IMPLEMENTATION OF EVALUATION AND INCENTIVE MECHANISMS FOR SENIOR MANAGEMENT DURING THE REPORTING PERIOD

The Company establishes a standardized and sound governance structure, under which it implements annual performance assessment and evaluation for senior management members, and comprehensively assesses and evaluates management team members from such aspects as performance in the work in charge, personal target behaviour and teamwork. The remunerations of senior management consist of basic salary (position salary) and performance-based salary, which are determined based on the Company's performance and personal assessment for the current year.

SECTION IX CORPORATE GOVERNANCE REPORT

X. WHETHER THE SELF-EVALUATION REPORT ON INTERNAL CONTROL IS DISCLOSED

For details, please refer to the report on China Railway Signal & Communication Corporation Limited* 2019 annual internal control evaluation disclosed by the Company at the website of SSE on the same day.

Explanation of any significant defects in internal control during the reporting period

Not applicable.

XI. RELEVANT INFORMATION ABOUT AUDIT REPORT ON INTERNAL CONTROL

Not applicable.

Whether to disclose the audit report of internal control: no

XII. RISK MANAGEMENT AND INTERNAL CONTROL

(I) *Accountability and Audit*

Directors acknowledge their responsibility for preparing the consolidated financial statements of the Company for the year ended 31 December 2019. The Directors consider that the Group has adequate resources to continue in business for the foreseeable future and are not aware of material uncertainties that may cast significant doubt on the Company's ability to continue as a going concern.

The Board is responsible for presenting a balanced, clear and understandable assessment of annual and interim reports, inside information announcements and other disclosures required under the Listing Rules and other statutory and regulatory requirements.

The management has provided the Board with such explanation and information necessary to enable the Board to carry out an informed assessment of the Company's consolidated financial statements which are put to the Board for approval.

SECTION IX CORPORATE GOVERNANCE REPORT

(II) Risk Management and Internal Control Systems

1. Risk management and internal control management responsibilities

The Board of the Company is responsible for determining the overall risk management objectives, risk tolerance, major risk management solutions and internal control construction implementation plans of the Company and is accountable to the general meeting for the effectiveness of overall risk management and internal control. The management of the Company is responsible for organizing, establishing and improving the Company's overall risk management and internal control system. The legal compliance department of the Company is responsible for the construction and overall operation of the overall risk management and internal control system as well as the organization, coordination and centralized management of overall risk management and internal control. The audit department of the Company is responsible for evaluating the effectiveness of overall risk management and internal control, and conducting internal control audit and supervision. Such risk management and internal control management are designed to manage rather than eliminating the risk of failure to meet business objectives and to only provide a reasonable, but not absolute, assurance that there will be no material misrepresentations or losses.

2. Risk management and internal control management systems and procedures

The Company has formulated the "Measures for the Administration of Overall Risk Management and Internal Control of the Company" and the "Measures for the Administration of Risk Evaluation of the Company". In accordance with the regulations, the legal compliance department of the Company conducts a comprehensive risk evaluation on the whole system of the Company at the beginning of each year to examine the effectiveness of overall risk management and control in the previous year and identify the major risks that will be faced in the next year and the countermeasures taken by it. The audit department of the Company conducts an internal control assessment at the beginning of each year to assess the effectiveness of internal control of the whole system, identify any internal control defects and implement the rectification of internal control defects. The legal compliance department and audit department of the Company report to the Audit and Risk Management Committee on risk management and internal control, including but not limited to the effectiveness and defects of internal control of the Company, overall risk evaluation results and management and control measures.

SECTION IX CORPORATE GOVERNANCE REPORT

3. *Non-compliance report policy and procedure*

The discipline inspection and supervision department of the Company is responsible for accepting reports on corrupt practices of internal staff of the Company, the violation of the Company's rules and regulations, the dereliction of duty or malfeasance, etc., and carrying out investigation and handling in accordance with the "Interim Provisions on Handling the Violation of Discipline and Non-compliance by Staff of the Company". Employees, customers, suppliers and other stakeholders of the Company can obtain the report telephone number from the official website of CRSC. Specifically, in accordance with the "Implementation Measures for Handling Complaints about Tender and Bidding of the Company", it takes the lead in forming an investigation team to conduct investigations into complaints about the tender and bidding of equipment and materials of CRSC and their handling, and makes decisions on handling and gives replies, etc. according to law pursuant to permissions.

4. *Key business risks and internal control*

In accordance with the requirements of the "Guidelines for Overall Risk Management of Central Enterprises" of SASAC, the Company implements risk management in the operation of all its businesses and effectively manages and controls its business activities through the internal control system and the internal control process. In accordance with the "Measures for the Administration of Rules and Regulations of Stock Company", the legal compliance department of the Company is responsible for the construction and improvement of the internal control system and evaluating and improving the effectiveness, operability and system coordination of the Company's internal rules and regulations each year. In accordance with the "Interim Measures for Investment Management of Stock Company", the "Interim Measures for Investment Management of Capital Operation Projects of Stock Company" and other regulations, the relevant business departments of the Company conduct special risk evaluations on important management activities such as investment and generate special risk evaluation reports as an important basis for decision making.

SECTION IX CORPORATE GOVERNANCE REPORT

5. *Overall situation of risk management and internal control for 2019*

In 2019, the legal compliance department and the audit department of the Company organized all functional departments and enterprises of all levels to conduct overall risk evaluations, internal control assessments, rationalize internal control system and procedure, and continue to improve the internal control system, conduct investigations on special risk, track the implementation of major risk control measures, and give risk warning at the beginning of the year in accordance with the regulations and the requirements of the Board of Directors and management of the Company and organized special risk evaluations on and took countermeasures against each major project in order to improve the Company's overall risk management and internal control management system and ensure that the Company's risks are controllable, the internal control system and procedure continue to be effective and internal control measures are effectively implemented. For the year ended 31 December 2019, the Board has reviewed the Company's risk management and internal control system through the legal compliance department and the audit department and considers that the system is still effective and sufficient.

Meanwhile, the Audit and Risk Management Committee has reviewed the effectiveness of the Group's risk management and internal control systems, covering annual material risks and response measures, financial monitoring, internal control and risk management system. The Audit and Risk Management Committee has also considered the adequacy of the Group's resources, employee qualifications and experience in respect of accounting and financial reporting functions, and has reported the relevant matters to the Board. No significant defect in internal control was identified in relevant review.

6. *Handling and releasing inside information*

In accordance with the Company's information disclosure management regulation, the Company has defined the scope of inside information and relevant staff, established a sensitive information submission and release approval mechanism and reviewed the content of the list on a regular basis so as to quickly identify and promptly report any material which may constitute inside information. When receiving any material which may constitute inside information, the information disclosure management department will immediately evaluate the information and monitor the information before the release of the information to ensure that only a small number of those who need to know the information receive such information and ensure that these persons are well aware of their confidentiality responsibility. If such material is judged to be inside information, the information disclosure management department will coordinate the release of inside information as soon as possible through the electronic publication system operated by the Stock Exchange.

SECTION IX CORPORATE GOVERNANCE REPORT

XIII. SPECIAL ARRANGEMENT OF CORPORATE GOVERNANCE SUCH AS VIE STRUCTURE

Not applicable.

XIV. EXTERNAL AUDITOR AND AUDITOR'S REMUNERATION

For the year ended 31 December 2019, the remuneration paid/payable to the Company's independent auditor, Ernst & Young Hua Ming LLP, is set out below:

	Amount (RMB in thousand)
Interim review	1,600
Annual audit	6,600
Non-auditor services	—
Total fees	8,200

XV. AMENDMENTS TO THE ARTICLES OF ASSOCIATION OF THE COMPANY

On 25 March 2019, the Board considered and approved, among other things, the proposal to amend the Articles of Association of the Company. The Board amended and improved certain articles of Articles of Association of the Company in conjunction with the actual situation of the Company to further improve and standardize the Articles of Association of the Company, and to comply with the relevant provisions of the Company Law of the PRC, the Guidelines for Articles of Listed Companies issued by the CSRC and the Rules Governing the Listing Rules of Stocks on the Science and Technology Innovation Board of the Shanghai Stock Exchange 《上海證券交易所科創板股票上市規則》, and other relevant laws, regulations and normative documents. Due to the addition and deletion of certain articles on the proposed amendments, the serial number of the terms of the original Articles of Association has been adjusted accordingly. The revised Articles of Association of the Company has been approved by shareholders through special resolution at the 2019 first extraordinary general meeting of the Company and shall become effective as from 19 July 2019. The full Articles of Association has been published on the websites of the Stock Exchange and the Company. For details, please refer to the Company's announcements dated 25 March 2019 and 15 April 2019 and the circular dated 26 March 2019 published on the website of the Stock Exchange.

SECTION IX CORPORATE GOVERNANCE REPORT

On 24 May 2019, the Board considered and approved, among other things, the proposal to amend the Articles of Association of the Company. In view of the fact that the Company intends to adopt only Chinese accounting standards, rather than international accounting standards or that of the overseas place where the Shares of the Company are listed, for business enterprises to prepare financial statements, the Company has revised certain articles of its Articles of Association. The revised Articles of Association of the Company has been approved by shareholders through special resolution at the 2018 annual general meeting of the Company and shall become effective as from 13 June 2019. The full Articles of Association has been published on the websites of the Stock Exchange and the Company. For details, please refer to the Company's announcement dated 24 May 2019 and 13 June 2019 and the circular dated 27 May 2019 published on the website of the Stock Exchange.

Save as disclosed above, for the year ended 31 December 2019, the Company did not make any significant changes to its Articles of Association.

Reference is made to the announcement of the Company dated 25 March 2020, in relation to the proposal on amendments to the Articles of Association. In light of the Company's initial public offering of A shares and actual conditions of listing on the Science and Technology Innovation Board of Shanghai Stock Exchange, and according to the requirements of the Official Reply of the State Council regarding Adjusting the Application of Provisions to Matters Including the Notice Period for Convention of Shareholders' Meetings by Overseas Listed Companies (No. 97 [2019] of the State Council), in the spirit of caution, suitability and necessity, the Board proposed to amend relevant provisions of the Articles of Association on registered capital and registration of change of the register of members, notice period and convening procedure of the general meeting. This proposal shall be submitted to the general meeting of the Company for review and approval by a special resolution. The amended Articles of Association shall take effect as from the date of approval of the relevant proposal at the general meeting of the Company. The existing Articles of Association of the Company shall remain valid before the relevant proposal is approved at the general meeting.

XVI. DIVIDEND POLICY

The dividend policy of the Company has been defined in the Articles of Association of the Company. According to the Articles of Association, the Company shall withdraw 10% of profits as the statutory reserve fund of the Company when the Company distributes the annual profits after taxation. If the statutory reserve fund of the Company is insufficient to make up for the losses of the preceding year, the profits of the current year shall first be used to make up for the said losses before any statutory reserve fund is withdrawn as per above. After statutory reserve fund is withdrawn by the Company out of the profits after taxation, discretionary reserve fund may also be withdrawn out of the same as per a resolution made at a general meeting.

SECTION IX CORPORATE GOVERNANCE REPORT

The Company may distribute dividends in the form of cash, shares or other forms as permitted by laws and regulations and the regulatory rules in the place where the shares are listed. Cash dividends and other monies paid by the Company to A shareholders shall be paid in RMB. Cash dividends and other monies paid by the Company to holders of overseas-listed foreign shares shall be stated and announced in RMB and paid in foreign currency. Foreign currency needed by the Company to pay cash dividends and other monies to holders of overseas-listed foreign shares shall be obtained pursuant to relevant state regulations on foreign exchange. In distributing dividends to shareholders, the Company shall withhold and pay taxes payable by the shareholders for their dividend income pursuant to PRC tax laws.

After the profit distribution plan has been resolved at the shareholders' general meeting of the Company, the Board of the Company shall complete the dividends (or shares) distribution within 2 months after the conclusion of the Shareholders' general meeting.

XVII. JOINT COMPANY SECRETARIES

References are hereby made to the Company's announcements dated 29 October 2019 and 4 November 2019 concerning (among other things) the change of joint company secretary of the Company. Due to the work needs, Mr. HU Shaofeng no longer served as a joint company secretary of the Company and Ms. QIU Wei has been appointed as a joint company secretary of the Company, effective from the date when the Stock Exchange granted the waiver letter to the new joint company secretary of the Company on 4 November 2019.

The Company has engaged Ms. NG Wing Shan, the assistant vice president of SWCS Corporate Services Group (Hong Kong) Limited, as one of the joint company secretaries of the Company. Her primary contact person of the Company is Ms. QIU Wei, being the other joint company secretary of the Company. Ms. NG and Ms. QIU undertook no less than 15 hours of relevant professional training for the year ended 31 December 2019.

XVIII. OTHERS

Not applicable.

SECTION X PARTICULARS OF CORPORATE BONDS

Not applicable.

INDEPENDENT AUDITOR'S REPORT

I. AUDIT REPORT

Applicable Not applicable

AUDIT REPORT

Ernst & Young Hua Ming (2020) Shen Zi No.61172338_A02
China Railway Signal & Communication Corporation Limited

To the Shareholders of China Railway Signal & Communication Corporation Limited

I. OPINION

We have audited the financial statements of China Railway Signal & Communication Corporation Limited ("CRSC"), which comprise the consolidated and company balance sheets as at 31 December 2019, and the consolidated and company income statements, the statements of changes in shareholders' equity and the cash flow statements for the year then ended, and notes to the financial statements.

In our opinion, the accompanying financial statements of CRSC give a true and fair view, in all material respects, of the consolidated and company financial position as of 31 December 2019, and the consolidated and company financial performance and cash flows for the year then ended in accordance with Accounting Standards for Business Enterprises.

II. BASIS FOR OPINION

We conducted our audit in accordance with China Standards on Auditing. Our responsibilities under those standards are further described in the Auditor's Responsibilities for the Audit of the Financial Statements section of our report. We are independent of CRSC in accordance with the Code of Ethics for Chinese Certified Public Accountants ("the Code"), and we have fulfilled our other ethical responsibilities in accordance with the Code. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

III. KEY AUDIT MATTER

Key audit matters are those matters that, in our professional judgement, were of most significance in our audit of the financial statements for the current year. These matters were addressed in the context of our audit of the financial statements as a whole, and in forming our opinion thereon, and we do not provide a separate opinion on these matters. For each matter below, our description of how our audit addressed the matter is provided in that context.

We have fulfilled the responsibilities described in the Auditor's responsibilities for the audit of the financial statements section of our report, including in relation to these matters. Accordingly, our audit included the performance of procedures designed to respond to our assessment of the risks of material misstatement of the financial statements. The results of our audit procedures, including the procedures performed to address the matters below, provide the basis for our audit opinion on the accompanying financial statements.

INDEPENDENT AUDITOR'S REPORT

AUDIT REPORT (Continued)

Ernst & Young Hua Ming (2020) Shen Zi No.61172338_A02
China Railway Signal & Communication Corporation Limited

III. KEY AUDIT MATTER (Continued)

Key audit matters

How our audit addressed the key audit matters

Revenue from construction contract

The revenue of CRSC is mainly derived from construction service contracts that recognise revenue according to performance progress. Recognition of revenue in accordance with performance progress may involve significant management judgements and estimates, including estimated contract revenue, estimated contract costs, and work progress. When conditions change, the contract revenue, costs, and gross profit recognised may vary (sometimes significantly) from the original estimates due to those changes in conditions. During the execution of contracts, the management of CRSC evaluated and revised the estimated contract revenue and estimated contract costs based on factors such as scope of contract delivery and estimate to completion.

For the accounting policies and the disclosure of information for the recognition of construction contract revenue, please refer to Note V.38 and Note VII.61 to the financial statements.

We tested and evaluated the internal control of revenue recognition of China Railway Signal & Communication Corporation Limited. We obtained major construction contracts, reviewed key contract terms and verified the accuracy of estimated contract revenue and estimated contract costs.

We performed sampling inspection of relevant documents to verify contract costs incurred; recalculated the performance progress and revenue based on incurred costs and estimated contract costs; carried out cut-off test procedures to check whether relevant contract costs are recorded in the appropriate accounting period; underwent an analytical review process for the gross profit margin of major construction contracts.

INDEPENDENT AUDITOR'S REPORT

AUDIT REPORT (Continued)

Ernst & Young Hua Ming (2020) Shen Zi No.61172338_A02
China Railway Signal & Communication Corporation Limited

III. KEY AUDIT MATTER (Continued)

Impairment of receivables

CRSC recognises provision for bad debts in respect of accounts receivable based on expected credit losses. The application of this method involves significant judgements and estimations of the management. Specific factors considered by the management in its recoverability analysis include ageing, customers' repayment plans, credit ratings and historical repayment records, and other qualitative and quantitative data available to the management.

When the management evaluates the estimated credit loss of the account receivables throughout their duration periods, it is required to infer the expected changes in the credit risk of the debtor based on historical repayment data combined with economic policies, macroeconomic indicators, industry risks and other factors, and consider forward-looking information.

For the accounting policies and the disclosure of information for provision for bad debts in respect of accounts receivable, please refer to Note V.10 and Note VII.5 to the financial statements.

We tested and evaluated the internal control of CRSC's accrual process for provision for bad debts in respect of account receivable, reviewed the management's analysis and evaluation of historical data migration of receivables, and checked relevant supporting documents for selected samples to verify the accuracy of the ageing of receivables; for major receivables, we assessed the appropriateness of the management's conclusions of the significance of the credit risks.

For individual recognition of impairment provision for receivables, we realised the reasons for the management's judgement and evaluated the adequacy of the impairment provision.

For receivables assessed to be impaired by reference to the credit risk portfolio, we reviewed the management's settings for the credit risk portfolio, and reviewed key information such as ageing, and checked the management's calculation for bad debts provision for receivables.

INDEPENDENT AUDITOR'S REPORT

AUDIT REPORT (Continued)

Ernst & Young Hua Ming (2020) Shen Zi No.61172338_A02
China Railway Signal & Communication Corporation Limited

IV. OTHER INFORMATION

The management of CRSC is responsible for the other information. The other information comprises the information included in the Annual Report, but does not include the financial statements and our independent auditor's report thereon.

Our opinion on the financial statements does not cover the other information and we do not express any form of assurance conclusion thereon.

In connection with our audit of the financial statements, our responsibility is to read the other information and, in doing so, consider whether the other information is materially inconsistent with the financial statements or our knowledge obtained in the audit or otherwise appears to be materially misstated.

If, based on the work we have performed, we conclude that there is a material misstatement of this other information, we are required to report that fact. We have nothing to report in this regard.

V. RESPONSIBILITIES OF THE MANAGEMENT AND THOSE CHARGED WITH GOVERNANCE FOR THE FINANCIAL STATEMENT

The management of CRSC is responsible for the preparation of the financial statements that give a true and fair view in accordance with Accounting Standard for Business Enterprises, and designing, implementing and maintaining the necessary internal control to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the financial statements, the management is responsible for assessing CRSC's ability to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless the management either intends to liquidate CRSC or to cease operations, or has no realistic alternative but to do so.

Those charged with governance are responsible for overseeing CRSC's financial reporting process.

VI. AUDITOR'S RESPONSIBILITIES FOR THE AUDIT OF THE FINANCIAL STATEMENTS

Our objectives are to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an independent auditor's report that includes our opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with China Standards on Auditing will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these financial statements.

INDEPENDENT AUDITOR'S REPORT

AUDIT REPORT (Continued)

Ernst & Young Hua Ming (2020) Shen Zi No.61172338_A02
China Railway Signal & Communication Corporation Limited

VI. AUDITOR'S RESPONSIBILITIES FOR THE AUDIT OF THE FINANCIAL STATEMENTS (Continued)

As part of an audit in accordance with China Standards on Auditing, we exercise professional judgement and maintain professional skepticism throughout the audit. We also:

- (1) Identify and assess the risks of material misstatement of the financial statements, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.
- (2) Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the internal control.
- (3) Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by the management.
- (4) Conclude on the appropriateness of the management' use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Company's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our independent auditor's report to the related disclosures in the financial statements or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our independent auditor's report. However, future events or conditions may cause CRSC to cease to continue as a going concern.
- (5) Evaluate the overall presentation, structure and content of the financial statements, including the disclosures, and whether the financial statements represent the underlying transactions and events in a manner that achieves fair presentation.
- (6) Obtain sufficient appropriate audit evidence regarding the financial information of the entities or business activities within CRSC to express an opinion on the financial statements. We are responsible for the direction, supervision and performance of the group audit. We remain solely responsible for our audit opinion.

INDEPENDENT AUDITOR'S REPORT

AUDIT REPORT (Continued)

Ernst & Young Hua Ming (2020) Shen Zi No.61172338_A02
China Railway Signal & Communication Corporation Limited

VI. AUDITOR'S RESPONSIBILITIES FOR THE AUDIT OF THE FINANCIAL STATEMENTS (Continued)

We communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any the deficiencies in internal control that we identify during our audit and deserve attention.

We also provide those charged with governance with a statement that we have complied with relevant ethical requirements regarding independence, and to communicate with them all relationships and other matters that may reasonably be thought to bear on our independence, and where applicable, related safeguards.

From the matters communicated with those charged with governance, we determine those matters that were of most significance in the audit of the financial statements of the current year and are therefore the key audit matters. We describe these matters in our independent auditor's report unless law or regulation precludes public disclosure about the matter or when, in extremely rare circumstances, we determine that a matter should not be communicated in our report because the adverse consequences of doing so would reasonably be expected to outweigh the public interest benefits of such communication.

Ernst & Young Hua Ming LLP

PRC Certified public accountant
ZHANG Xiaoliang
(Engagement Partner)

PRC Certified public accountant
WANG Min

Beijing, China

25 March 2020

CONSOLIDATED BALANCE SHEET

31 December 2019

II. FINANCIAL STATEMENTS

Prepared by: China Railway Signal & Communication Corporation Limited*

Unit: Yuan Currency: RMB

ITEM	Notes	31 December 2019	31 December 2018
Current assets:			
Cash and bank balances	VII. 1	24,000,333,948.30	11,712,483,332.67
Balances with clearing companies			
Placements with banks and other financial institutions			
Held-for-trading financial assets			
Financial assets measured at fair value through profit or loss			
Derivative financial assets			
Bills receivable			
Accounts receivable	VII. 5	16,757,628,007.95	13,598,595,282.88
Receivables for financing	VII. 6	1,478,647,844.54	1,845,116,686.79
Prepayments	VII. 7	924,649,290.25	907,020,051.18
Premiums receivable			
Reinsurance accounts receivable			
Deposits receivable from reinsurance treaty			
Other receivables	VII. 8	1,148,124,174.34	1,340,863,519.49
Including: Interest receivable			
Dividends receivable		—	3,100,000.00
Financial assets held under resale agreements			
Inventories	VII. 9	2,200,762,577.00	4,086,551,784.60
Contract assets	VII. 10	33,034,982,342.51	30,941,474,817.79
Assets held for sale			
Non-current assets due within one year	VII. 12	19,022,697.66	102,922,228.08
Other current assets	VII. 13	940,133,548.13	780,404,375.83
Total current assets		<u>80,504,284,430.68</u>	<u>65,315,432,079.31</u>

CONSOLIDATED BALANCE SHEET

31 December 2019

ITEM	Notes	31 December 2019	31 December 2018
Non-current assets:			
Loans and advances to customers			
Debt investment	VII. 14	273,172,183.50	—
Available-for-sale financial assets			
Other debt investment			
Held-to-maturity investment			
Long-term receivables	VII. 16	6,422,130,017.28	4,616,553,337.79
Long-term equity investments	VII. 17	981,541,601.50	1,005,921,400.68
Other equity instrument investment	VII. 18	806,064,229.20	653,814,229.20
Other non-current financial assets			
Investment properties	VII. 20	217,533,676.51	230,407,814.40
Fixed assets	VII. 21	4,329,298,247.74	3,936,432,967.69
Construction in progress	VII. 22	160,740,323.63	637,726,255.10
Productive biological assets			
Oil and gas assets			
Right-of-use-assets	VII. 25	158,427,539.85	—
Intangible assets	VII. 26	2,416,808,796.77	2,506,699,954.55
Development expenditure	VII. 27	47,507,051.83	30,019,437.59
Goodwill	VII. 28	305,324,128.58	305,324,128.58
Long-term prepaid expenses	VII. 29	56,221,830.76	41,748,151.25
Deferred tax assets	VII. 30	331,374,950.05	335,864,583.78
Other non-current assets	VII. 31	502,162,296.48	62,593,288.55
Total non-current assets		<u>17,008,306,873.68</u>	<u>14,363,105,549.16</u>
Total assets		<u>97,512,591,304.36</u>	<u>79,678,537,628.47</u>

CONSOLIDATED BALANCE SHEET

31 December 2019

ITEM	Notes	31 December 2019	31 December 2018
Current liabilities:			
Short-term borrowings	VII. 32	238,066,170.39	1,117,556,312.99
Borrowings from central bank			
Placements from banks and other financial institutions			
Held-for-trading financial liabilities			
Financial liabilities measured at fair value through profit or loss			
Derivative financial liabilities			
Bills payable	VII. 35	1,278,194,766.35	849,268,364.25
Accounts payable	VII. 36	39,943,249,975.12	35,119,238,956.99
Advance receipts			
Contract liabilities	VII. 38	7,177,237,816.91	7,033,233,380.49
Financial assets sold for repurchase			
Customers deposits and deposits from banks and other financial institutions			
Amount paid for agency securities trading			
Amount paid for agency securities underwriting			
Employee benefits payable	VII. 39	587,348,839.09	513,369,547.72
Tax payable	VII. 40	916,296,853.22	1,189,672,548.28
Other payables	VII. 41	1,120,169,597.60	1,299,694,068.26
Including: Interest payable		–	8,000.00
Dividends payable		34,391,330.43	19,800,372.35
Fees and commissions payable			
Reinsurance accounts payable			
Liabilities held for sale			
Non-current liabilities due within one year	VII. 43	257,586,818.00	370,399,261.69
Other current liabilities	VII. 44	240,541,829.73	107,498,117.03
Total current liabilities		<u>51,758,692,666.41</u>	<u>47,599,930,557.70</u>

CONSOLIDATED BALANCE SHEET

31 December 2019

ITEM	Notes	31 December 2019	31 December 2018
Non-current liabilities:			
Insurance contract reserve			
Long-term borrowings	VII. 45	1,941,098,540.80	856,163,032.09
Bonds payable			
Including: Preference shares			
Perpetual bonds			
Lease liabilities	VII. 47	75,374,177.82	—
Long-term payables	VII. 48	74,981,014.21	26,088,533.74
Long-term employee benefits payable	VII. 49	660,246,000.00	657,084,000.00
Provisions	VII. 50	73,524,439.45	67,220,249.39
Deferred income	VII. 51	155,820,852.92	151,370,878.40
Deferred tax liabilities	VII. 30	48,176,031.73	48,598,827.97
Other non-current liabilities			
Total non-current liabilities		<u>3,029,221,056.93</u>	<u>1,806,525,521.59</u>
Total liabilities		<u>54,787,913,723.34</u>	<u>49,406,456,079.29</u>
Shareholder' s equity:			
Share capital	VII. 53	10,589,819,000.00	8,789,819,000.00
Other equity instruments	VII. 54	2,800,000,000.00	2,800,000,000.00
Including: Preference shares			
Perpetual bonds		2,800,000,000.00	2,800,000,000.00
Capital reserve	VII. 55	15,964,398,557.22	7,409,464,897.08
Less: treasury stocks			
Other comprehensive income	VII. 57	-272,865,585.12	-248,471,666.82
Special reserve	VII. 58	412,165,921.09	372,846,705.67
Surplus reserve	VII. 59	1,342,479,759.71	1,104,399,533.39
General risk reserve			
Retained earnings	VII. 60	10,283,609,709.60	8,680,338,212.67
Total equity attributable to Shareholders of the parent company		41,119,607,362.50	28,908,396,681.99
Non-controlling interests		1,605,070,218.52	1,363,684,867.19
Total Shareholders' equity		<u>42,724,677,581.02</u>	<u>30,272,081,549.18</u>
Total liabilities and Shareholders' equity		<u>97,512,591,304.36</u>	<u>79,678,537,628.47</u>

Legal Representative: ZHOU Zhiliang Chief Financial Officer: HU Shaofeng Head of Accounting Department: ZHANG Shihu

PARENT COMPANY'S BALANCE SHEET

31 December 2019

Prepared by: China Railway Signal & Communication Corporation Limited *

Unit: Yuan Currency: RMB

Item	Notes	31 December 2019	31 December 2018
Current assets:			
Cash and bank balances		19,237,599,410.15	7,867,718,577.23
Held-for-trading financial assets			
Financial assets measured at fair value through profit or loss			
Derivative financial assets			
Bills receivable			
Accounts receivables	XVII. 1	2,191,166,790.85	2,409,246,518.13
Receivables for financing		626,265,688.56	1,500,000.00
Prepayments		347,440,401.68	112,367,914.62
Other receivables	XVII. 2	6,438,023,339.85	8,709,730,090.36
Including: Interest receivable			
Dividends receivable		249,665,430.31	822,550,930.31
Inventories			
Contract assets		1,652,006,155.11	2,941,779,728.47
Assets held for sale			
Non-current assets due within one year		767,827.47	99,451,446.39
Other current assets		82,849,952.98	119,018,399.31
Total current assets		30,576,119,566.65	22,260,812,674.51

PARENT COMPANY'S BALANCE SHEET

31 December 2019

Item	Notes	31 December 2019	31 December 2018
Non-current assets:			
Debt investment		273,172,183.50	–
Financial assets available-for-sale			
Other debt investment			
Held-to-maturity investment			
Long-term receivables		379,891,751.29	242,154,529.98
Long-term equity investments	XVII. 3	16,391,064,832.98	14,938,871,805.43
Other equity instrument investment		476,408,221.20	376,408,221.20
Other non-current financial assets			
Investment properties		1,536,429,244.36	1,611,821,546.97
Fixed assets		566,043,569.32	640,480,041.23
Construction in progress		4,290,783.53	11,783,511.39
Productive biological assets			
Oil and gas assets			
Right-of-use-assets			
Intangible assets		475,132,006.77	537,353,435.36
Development expenditure			
Goodwill			
Long-term prepaid expenses			
Deferred tax assets		19,150,297.26	15,898,119.90
Other non-current assets		125,525,324.69	985,356.46
Total non-current assets		<u>20,247,108,214.90</u>	<u>18,375,756,567.92</u>
Total assets		<u>50,823,227,781.55</u>	<u>40,636,569,242.43</u>

PARENT COMPANY'S BALANCE SHEET

31 December 2019

Item	Notes	31 December 2019	31 December 2018
Current liabilities:			
Short-term borrowings		–	1,000,000,000.00
Held-for-trading financial liabilities			
Financial liabilities measured at fair value through profit or loss			
Derivative financial liabilities			
Bills payable			
Accounts payable		4,842,936,842.45	5,745,791,677.93
Receipts in advance			
Contract liabilities		1,098,443,771.29	1,088,476,460.82
Employee benefits payable		25,100,010.53	25,441,456.96
Tax payable		56,439,643.28	65,020,085.47
Other payables		11,462,182,244.05	10,153,841,565.13
Including: Interest payable			
Dividends payable			
Liabilities held for sale			
Non-current liabilities due within one year			
Other current liabilities		28,994,307.85	–
Total current liabilities		17,514,096,819.45	18,078,571,246.31
Non-current liabilities:			
Long-term borrowings			
Bonds payable			
Including: Preference shares			
Perpetual bonds			
Lease liabilities			
Long-term payables			
Long-term employee benefits payable		75,866,000.00	81,338,000.00
Provisions		2,511,736.34	2,521,924.70
Deferred income		4,081,692.25	32,924,206.92
Deferred tax liabilities			
Other non-current liabilities			
Total non-current liabilities		82,459,428.59	116,784,131.62
Total liabilities		17,596,556,248.04	18,195,355,377.93

PARENT COMPANY'S BALANCE SHEET

31 December 2019

Item	Notes	31 December 2019	31 December 2018
Shareholder' s equity:			
Share capital		10,589,819,000.00	8,789,819,000.00
Other equity instruments		2,800,000,000.00	2,800,000,000.00
Including: Preference shares			
Perpetual bonds		2,800,000,000.00	2,800,000,000.00
Capital reserve		16,356,470,432.63	7,802,128,059.41
Less: treasury stocks			
Other comprehensive income		-49,451,003.24	-50,941,000.00
Special reserve		37,577,577.81	40,585,186.44
Surplus reserve		1,342,479,759.71	1,104,399,533.39
Retained earnings		2,149,775,766.60	1,955,223,085.26
Total Shareholders' equity		<u>33,226,671,533.51</u>	<u>22,441,213,864.50</u>
Total liabilities and Shareholders' equity		<u>50,823,227,781.55</u>	<u>40,636,569,242.43</u>

Legal Representative: ZHOU Zhiliang Chief Financial Officer: HU Shaofeng Head of Accounting Department: ZHANG Shihu

CONSOLIDATED STATEMENT OF PROFIT OR LOSS AND OTHER COMPREHENSIVE INCOME

January to December 2019

Unit: Yuan Currency: RMB

Item	Notes	2019	2018
1. Total revenue		41,646,286,792.57	40,012,601,322.24
Including: Revenue	VII. 61	41,646,286,792.57	40,012,601,322.24
Interest income			
Premiums earned			
Fees and commissions income			
2. Total cost of sales		37,220,022,565.63	35,589,030,164.38
Including: Cost of sales	VII. 61	32,112,103,467.88	30,931,739,704.16
Interest expenses			
Fees and commissions expense			
Surrenders			
Net payments for insurance claims			
Net provisions for insurance contract reserve			
Policy dividend expenses			
Reinsurance costs			
Taxes and surcharges	VII. 62	260,018,767.25	255,740,657.97
Selling and distribution expenses	VII. 63	878,468,933.38	701,572,032.88
General and administrative expenses	VII. 64	2,530,027,201.64	2,462,903,609.57
Research and development expenses	VII. 65	1,583,455,766.97	1,323,503,188.98
Finance costs	VII. 66	-144,051,571.49	-86,429,029.18
Including: Interest expenses		121,490,363.95	139,007,999.72
Interest income		305,460,588.36	222,458,809.36
Add: Other income	VII. 67	213,181,016.26	171,651,177.97
Investment income (with "-" for losses)	VII. 68	372,775,072.48	55,167,907.21
Including: Share of profits of associates and joint ventures		50,057,361.46	57,206,876.72
Derecognition of income from financial assets at amortized cost			
Foreign exchange gains (with "-" for losses)			
Net gains from hedging exposure (with "-" for losses)			
Gains from changes in fair value (with "-" for losses)			
Credit impairment losses (with "-" for losses)	VII. 71	-33,715,270.74	-113,310,088.29
Assets impairment losses (with "-" for losses)	VII. 72	2,287,468.78	-110,408.35
Gains from disposal of assets (with "-" for losses)	VII. 73	-1,382,312.77	-4,136,576.96
3. Operating profits(with "-" for losses)		4,979,410,200.95	4,532,833,169.44
Add: Non-operating income	VII. 74	61,799,594.90	45,181,935.07
Less: Non-operating expenses	VII. 75	13,735,278.90	58,345,128.80
4. Total profits(with "-" for total losses)		5,027,474,516.95	4,519,669,975.71
Less: Income tax expenses	VII. 76	850,426,160.91	802,874,717.84

CONSOLIDATED STATEMENT OF PROFIT OR LOSS AND OTHER COMPREHENSIVE INCOME

January to December 2019

Item	Notes	2019	2018
5. Net profit(with "-" for net losses)		4,177,048,356.04	3,716,795,257.87
(1) Classified by continuity of operation			
1. Profit or loss from continuing operation (with "-" for net losses)		4,177,048,356.04	3,716,795,257.87
2. Profit or loss from discontinued operations (with "-" for net losses)			
(2) Classified by the ownership			
1. Profit or loss attributable to the owners of parent company (with "-" for net losses)		3,815,874,901.39	3,408,545,542.62
2. Profit or loss attributable to non-controlling interests (with "-" for net losses)		361,173,454.65	308,249,715.25
6. Other comprehensive income, net of tax		-24,393,918.30	-20,924,390.95
(I) Net other comprehensive income attributable to the owners of the parent company, net of tax	VII. 77	-24,393,918.30	-20,924,390.95
1. Other comprehensive income not be reclassified to profit or loss		-28,696,000.00	-9,391,000.00
(1) Changes of re-measurement of defined benefit plans	VII. 77	-28,696,000.00	-9,391,000.00
(2) Other comprehensive income under equity method that cannot be reclassified into profit or loss			
(3) Changes in fair value of other equity instrument investments			
(4) Changes in fair value of the Company's own credit risk			
2. Other comprehensive income to be reclassified to profit or loss		4,302,081.70	-11,533,390.95
(1) Other comprehensive income under equity method that can be reclassified into profit or loss			
(2) Changes in fair value of other debt investments			
(3) Gains or losses from changes in fair value of available-for-sale financial assets			
(4) The amount of financial assets reclassified into other comprehensive income			
(5) Gains or losses from held-to-maturity investments reclassified as available-for-sale financial assets			
(6) Credit impairment provisions for other debt investments			
(7) Hedging reserve arising from cash flows (valid part of hedging profit or loss of cash flow)	VII. 77	4,251,224.77	-11,565,319.12

CONSOLIDATED STATEMENT OF PROFIT OR LOSS AND OTHER COMPREHENSIVE INCOME

January to December 2019

Item	Notes	2019	2018
(8) Exchange differences on translation of foreign operations	VII. 77	50,856.93	31,928.17
(II) Other comprehensive income attributable to non-controlling interests, net of tax			
7. Total comprehensive income		4,152,654,437.74	3,695,870,866.92
(I) Total comprehensive income attributable to Shareholders of the parent company		3,791,480,983.09	3,387,621,151.67
(II) Total comprehensive income attributable to non-controlling interests		361,173,454.65	308,249,715.25
8. Earnings per share:			
(I) Basic earnings per share (RMB/share)		0.38	0.38
(II) Diluted earnings per share (RMB/share)		0.38	0.38

For the business combination under common control occurs during the current period, net profit of the acquiree realised before business combination was RMB0. Net profit of the acquiree realised during the last period was RMB0.

Legal Representative: ZHOU Zhiliang Chief Financial Officer: HU Shaofeng Head of Accounting Department: ZHANG Shihu

PARENT COMPANY'S STATEMENT OF PROFIT OR LOSS AND OTHER COMPREHENSIVE INCOME

January to December 2019

Unit: Yuan Currency: RMB

Item	Notes	2019	2018
1. Revenue	XVII. 4	5,928,077,472.53	4,574,086,345.37
Less: cost of sale	XVII. 4	5,549,253,869.98	4,174,957,426.80
Taxes and surcharges		39,345,668.76	38,127,618.62
Selling and distribution expenses		18,866,431.82	-44,966,842.62
General and administrative expenses		236,530,736.16	268,408,449.15
Research and development expenses		37,439,063.07	31,094,983.03
Finance costs		-74,219,248.23	-28,645,092.57
Including: Interest expenses		175,756,521.41	173,673,573.32
Interest income		259,014,205.99	177,498,041.21
Add: Other income		1,833,000.00	8,403,600.00
Investment income (with "-" for loss)	XVII. 5	2,329,743,079.15	2,067,676,908.17
Including: Share of profits of associates and joint ventures		10,837,720.66	16,663,872.80
Derecognition of income from financial assets measured at amortized cost			
Net gains from exposure hedges (with "-" for loss)			
Gains from changes in fair values (with "-" for loss)			
Credit impairment losses (with "-" for loss)		-13,142,485.36	19,148,940.88
Assets impairment losses (with "-" for loss)			
Gains from disposal of assets (with "-" for loss)		8,522,358.13	-40,182.34
2. Operating profit (with "-" for loss)		2,447,816,902.89	2,230,299,069.67
Add: Non-operating income		32,869,035.24	2,943,991.71
Less: Non-operating expenses		23,692.31	6,177,744.78
3. Total profit (with "-" for total loss)		2,480,662,245.82	2,227,065,316.60
Less: Income tax expenses		99,859,982.61	111,082,810.04
4. Net profit (with "-" for net loss)		2,380,802,263.21	2,115,982,506.56
(1) Net profit from continuing operations (with "-" for net loss)		2,380,802,263.21	2,115,982,506.56
(2) Net profit of discontinued operations (with "-" for net loss)			
5. Other comprehensive income, net of tax		1,489,996.76	-1,597,000.00
(I) Other comprehensive income not reclassified to profit or loss		1,503,000.00	-1,597,000.00
1. Changes of the re-measurement of defined benefit plans		1,503,000.00	-1,597,000.00
2. Other comprehensive income under equity method that can not be reclassified to profit or loss			

PARENT COMPANY'S STATEMENT OF PROFIT OR LOSS AND OTHER COMPREHENSIVE INCOME

January to December 2019

Item	Notes	2019	2018
3. Change in fair value of other investments in equity instruments			
4. Changes in fair value of the Company's own credit risks			
(II) Other comprehensive income that will be reclassified to profit or loss		-13,003.24	—
1. Other comprehensive income that may be transferred to profit or loss under equity method			
2. Change in fair value of other debt investments			
3. Gains or loss from changes in fair value of available-for-sale financial assets			
4. Amount of financial assets reclassified to other comprehensive income			
5. Gain or loss on held-to-maturity investments reclassified to available-for-sale financial assets			
6. Provision for credit impairment of other debt investments			
7. Hedging reserve arising from cash flows (valid part of hedging profit or loss of cash flow)			
8. Exchange differences on translation of foreign operations		-13,003.24	—
9. Others			
6. Total comprehensive income		2,382,292,259.97	2,114,385,506.56
7. Earnings per share:			
(I) Basic earnings per share (RMB/share)			
(II) Diluted earnings per share (RMB/share)			

Legal Representative: ZHOU Zhiliang Chief Financial Officer: HU Shaofeng Head of Accounting Department: ZHANG Shihu

CONSOLIDATED STATEMENT OF CASH FLOWS

January to December 2019

Unit: Yuan Currency: RMB

Item	Notes	2019	2018
1. Cash flows generated from operating activities:			
Cash received from the sale of goods or rendering of services		38,547,322,958.43	27,620,884,427.56
Refunds of taxes		199,581,740.40	101,824,788.47
Cash received relating to other operating activities	VII. 78(1)	601,852,044.89	525,573,712.17
Sub-total of cash inflows from operating activities		39,348,756,743.72	28,248,282,928.20
Cash paid for purchase of goods and services received		26,392,033,781.71	20,306,783,321.38
Cash paid to and on behalf of employees		5,073,281,185.76	4,479,279,657.27
Cash paid for all types of taxes		2,685,108,450.87	2,588,618,698.09
Cash paid relating to other operating activities	VII. 78(2)	1,826,972,540.51	2,460,391,194.60
Sub-total of cash outflows from operating activities		35,977,395,958.85	29,835,072,871.34
Net cash flows generated from operating activities	VII. 79(1)	3,371,360,784.87	-1,586,789,943.14
2. Cash flows generated from investing activities:			
Cash received from disposal of investments		185,852,739.72	108,052,105.70
Cash received from return on investment		61,958,760.28	48,500,000.00
Net cash received from disposal of fixed assets, intangible assets and other long-term assets		10,112,468.95	15,167,198.04
Decrease in unsecured/pledged and unrestricted time deposits with maturity over three months		—	770,695,482.27
Cash received relating to other investing activities	VII. 78(3)	1,761,265,043.32	153,734,293.86
Sub-total of cash inflows from investing activities		2,019,189,012.27	1,096,149,079.87
Cash paid for acquisition of fixed assets, intangible assets and other long-term assets		819,998,883.45	1,042,644,682.29
Cash paid for investments		594,104,014.52	602,898,458.29
Net cash paid on acquisition of subsidiaries and other operating units		—	92,446,694.10
Increase in unsecured/pledged and unrestricted time deposits with maturity over three months		5,135,277,835.34	—
Cash paid relating to other investing activities	VII. 78(4)	67,227,316.24	—
Sub-total of cash outflows from investing activities		6,616,608,049.55	1,737,989,834.68
Net cash flows generated from investing activities		-4,597,419,037.28	-641,840,754.81

CONSOLIDATED STATEMENT OF CASH FLOWS

January to December 2019

Item	Notes	2019	2018
3. Cash flows generated from financing activities:			
Cash received as capital contributions		10,568,705,566.04	2,851,930,000.00
Including: Cash received by subsidiaries from minority Shareholders' investment		187,715,000.00	51,930,000.00
Cash received from borrowings		4,026,119,058.00	4,377,335,041.48
Sub-total of cash inflows from financing activities		14,594,824,624.04	7,229,265,041.48
Cash paid on repayment of borrowings		3,886,916,163.90	3,851,595,001.41
Cash paid on distribution of dividends or profits and for interest expenses		2,337,938,526.70	1,728,115,896.86
Cash paid for other financing activities	VII. 78(6)	122,493,338.69	28,000,000.00
Sub-total of cash outflows from financing activities		6,347,348,029.29	5,607,710,898.27
Net cash flows generated from financing activities		8,247,476,594.75	1,621,554,143.21
4. Effect of foreign exchange rate changes on cash and cash equivalents		25,328,564.25	50,300,294.34
5. Net increase in cash and cash equivalents		7,046,746,906.59	-556,776,260.40
Add: Cash and cash equivalents at the beginning of the period	VII. 79(3)	10,808,205,777.53	11,364,982,037.93
6. Cash and cash equivalents at end of the period	VII. 79(3)	17,854,952,684.12	10,808,205,777.53

Legal Representative: ZHOU Zhiliang Chief Financial Officer: HU Shaofeng Head of Accounting Department:ZHANG Shihu

STATEMENT OF CASH FLOWS OF THE PARENT COMPANY

January to December 2019

Unit: Yuan Currency: RMB

Item	Notes	2019	2018
1. Cash flows generated from operating activities:			
Cash received from the sale of goods or rendering of services		9,256,502,967.91	4,451,447,596.89
Refunds of taxes		70,942,309.15	50,451,853.97
Cash received relating to other operating activities		279,443,430.50	33,691,790.22
Sub-total of cash inflows from operating activities		9,606,888,707.56	4,535,591,241.08
Cash paid for purchase of goods and services received		7,417,252,069.55	4,481,331,715.11
Cash paid to and on behalf of employees		101,355,188.45	88,880,399.79
Cash paid for all types of taxes		267,590,180.65	169,382,132.86
Cash paid relating to other operating activities		393,860,535.49	1,336,548,817.28
Sub-total of cash outflows from operating activities		8,180,057,974.14	6,076,143,065.04
Net cash flows generated from operating activities		1,426,830,733.42	-1,540,551,823.96
2. Cash flows generated from investing activities:			
Cash received from disposal of investments		144,044,000.00	100,000,000.00
Cash received from return on investment		1,907,108,490.63	1,597,730,569.20
Net cash received from disposal of fixed assets, intangible assets and other long-term assets		48,134.23	240,975.10
Decrease in unsecured/pledged and unrestricted time deposits with maturity over three months		—	480,611,200.00
Cash received relating to other investing activities		1,857,394,902.28	380,978,338.61
Sub-total of cash inflows from investing activities		3,908,595,527.14	2,559,561,082.91
Cash paid for acquisition of fixed assets, intangible assets and other long-term assets		102,165,523.97	118,537,763.78
Cash paid for investments		1,138,295,164.50	1,255,708,458.75
Net cash paid for acquisition of subsidiaries and other operating units			
Increase in unsecured/pledged and unrestricted time deposits with maturity over three months		5,571,982,800.00	—
Cash paid relating to other investing activities		99,329,438.08	1,627,386,612.04
Sub-total of cash outflows from investing activities		6,911,772,926.55	3,001,632,834.57
Net cash flows generated from investing activities		-3,003,177,399.41	-442,071,751.66

STATEMENT OF CASH FLOWS OF THE PARENT COMPANY

January to December 2019

Item	Notes	2019	2018
3. Cash flows generated from financing activities:			
Cash received as capital contributions		10,380,990,566.04	2,800,000,000.00
Cash received from borrowings		2,500,000,000.00	8,500,000,000.00
Sub-total of cash inflows from financing activities		12,880,990,566.04	11,300,000,000.00
Cash paid on repayments of borrowings		3,500,000,000.00	8,700,000,000.00
Cash paid on distribution of dividends or profits and for interest expenses		2,027,723,755.81	1,511,608,827.58
Cash paid relating to other financing activities		26,648,192.82	28,000,000.00
Sub-total of cash outflows from financing activities		5,554,371,948.63	10,239,608,827.58
Net cash flows generated from financing activities		<u>7,326,618,617.41</u>	<u>1,060,391,172.42</u>
4. Effect of fluctuations in exchange rates on cash and cash equivalents		<u>25,312,529.16</u>	<u>48,149,888.70</u>
5. Net increase in cash and cash equivalents		<u>5,775,584,480.58</u>	<u>-874,082,514.50</u>
Add: Cash and cash equivalents at the beginning of the period		<u>7,716,529,085.80</u>	<u>8,590,611,600.30</u>
6. Cash and cash equivalents at end of the period		<u><u>13,492,113,566.38</u></u>	<u><u>7,716,529,085.80</u></u>

Legal Representative: Zhou Zhiliang Chief Financial Officer: HU Shaofeng Head of Accounting Department: ZHANG Shihu

CONSOLIDATED STATEMENT OF CHANGES IN SHAREHOLDERS' EQUITY

January to December 2019

Unit: Yuan Currency: RMB

Item	2019											Total Shareholders' equity
	Equity attributable to Shareholders of the Parent Company											
	Paid-in capital (or share capital)			Other comprehensive income			General risk reserve			Subtotal		Non-controlling interest
	Preferred share	Perpetual bonds	Others	Capital reserve	Less: treasury stocks	Other comprehensive income	Special reserve	Surplus reserve	General risk reserve	Retained earnings	Others	
I. As at 31 December 2018	8,789,819,000.00	-	2,800,000,000.00	7,409,464,697.08	-	-248,471,666.82	372,646,765.67	1,104,393,333.39	-	8,600,339,212.97	-	30,272,081,546.18
Add: changes in accounting policies	-	-	-	-	-	-	-	-	-	-	-	-
Corrections of errors in prior period	-	-	-	-	-	-	-	-	-	-	-	-
Business combination under common control	-	-	-	-	-	-	-	-	-	-	-	-
Others	-	-	-	-	-	-	-	-	-	-	-	-
II. As at 1 January 2019	8,789,819,000.00	-	2,800,000,000.00	7,409,464,697.08	-	-248,471,666.82	372,646,765.67	1,104,393,333.39	-	8,600,339,212.97	-	30,272,081,546.18
III. Increases/(decreases) during the period (with "+" for increase)												
(1) Total comprehensive income	1,800,000,000.00	-	-	6,554,333,660.14	-	-24,333,916.30	39,319,215.42	238,080,226.32	-	1,603,271,466.53	-	12,452,566,031.84
(2) Capital contributions and withdrawals by shareholders	1,800,000,000.00	-	-	6,554,333,660.23	-	-	-	-	-	-3,953,194.59	-	10,536,587,132.46
1. Ordinary shares contributed by Shareholders	1,800,000,000.00	-	-	6,554,332,373.22	-	-	-	-	-	-	-	10,354,342,373.22
2. Capital contributed by holders of other equity instruments	-	-	-	-	-	-	-	-	-	-	-	-
3. Capital contributions from minority interests	-	-	-	-	-	-	-	-	-	-	-	-
4. Acquisition of minority interests	-	-	-	-6,022.99	-	-	-	-	-	-	-	-
5. Disposal of a subsidiary	-	-	-	-	-	-	-	-	-	-	-	-
6. Others	-	-	-	-	-	-	-	-	-	-3,953,194.59	-	-
	-	-	-	-	-	-	-	-	-	-	-4,488,944.21	-5,442,188.80

CONSOLIDATED STATEMENT OF CHANGES IN SHAREHOLDERS' EQUITY

January to December 2019

Item	Equity attributable to Shareholders of the Parent Company											Total Shareholders' equity			
	Paid-in capital (or share capital)	Preferred share	Perpetual bonds	Others	Capital reserve	Less: treasury stocks	Other comprehensive income	Special reserve	Surplus reserve	General risk reserve	Retained earnings		Others	Sub-total	Non-controlling interest
(3) Profit distribution	-	-	-	-	-	-	-	-	238,080,226.32	-	-2,203,650,209.87	-	-1,970,569,983.55	-304,383,837.28	-2,274,953,920.83
1. Appropriation of surplus reserves	-	-	-	-	-	-	-	-	238,080,226.32	-	-2,203,650,209.87	-	-1,970,569,983.55	-	-
2. Accual of general risk reserves	-	-	-	-	-	-	-	-	238,080,226.32	-	-238,080,226.32	-	-	-	-
3. Distribution to owners (or shareholders)	-	-	-	-	-	-	-	-	-	-	-1,757,953,800.00	-	-1,757,953,800.00	-282,861,765.28	-2,040,825,665.28
4. Distribution to other holders of equity	-	-	-	-	-	-	-	-	-	-	-199,205,555.55	-	-199,205,555.55	-	-199,205,555.55
5. Others	-	-	-	-	-	-	-	-	-	-	-22,400,628.00	-	-22,400,628.00	-21,522,172.00	-43,922,800.00
(4) Gains and loss directly included in Shareholders' equity	-	-	-	-	586,169.91	-	-	-	-	-	-	-	586,169.91	-	586,169.91
(5) Special reserves	-	-	-	-	-	-	-	39,319,215.42	-	-	-	-	39,319,215.42	-1,618,002.86	37,701,212.56
1. Appropriation to the current period	-	-	-	-	-	-	-	423,300,667.73	-	-	-	-	423,300,667.73	14,881,130.55	438,181,798.28
2. Utilization for current period	-	-	-	-	-	-	-	383,981,452.31	-	-	-	-	383,981,452.31	16,490,133.41	400,471,685.72
(6) Others	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
(1) As at 31 December 2019	10,899,819,000.00	-	2,800,000,000.00	-	15,964,399,557.22	-	-272,665,395.12	412,165,921.09	1,342,479,759.71	-	10,283,609,709.60	-	41,119,607,362.50	1,665,070,218.52	42,784,677,681.02

- (3) Profit distribution
 1. Appropriation of surplus reserves
 2. Accual of general risk reserves
 3. Distribution to owners (or shareholders)
 4. Distribution to other holders of equity
 5. Others
- (4) Gains and loss directly included in Shareholders' equity
- (5) Special reserves
 1. Appropriation to the current period
 2. Utilization for current period
- (6) Others

(1) As at 31 December 2019

CONSOLIDATED STATEMENT OF CHANGES IN SHAREHOLDERS' EQUITY

January to December 2019

Item	Equity attributable to Shareholder of the Parent Company											Total Shareholders' equity			
	Paid-in capital (or share capital)	Preferred share	Perpetual bonds	Others	Capital reserve	Treasury stocks	Other comprehensive income	Special reserve	Surplus reserve	General risk reserve	Retained earnings		Others	Subtotal	Non-controlling interest
I. As at 31 December 2017	8,789,819,000.00	-	-	-	7,409,536,221.30	-	-227,547,275.87	282,399,066.15	892,801,282.73	-	6,892,042,625.95	-	24,019,050,920.26	1,265,546,695.74	25,224,597,616.00
Adj: changes in accounting policies	-	-	-	-	-	-	-	-	-	-	-370,469.02	-	-370,469.02	-	-370,469.02
Corrections in prior period	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Business combination under common control	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Others	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
II. As at 1 January 2018	8,789,819,000.00	-	-	-	7,409,536,221.30	-	-227,547,275.87	282,399,066.15	892,801,282.73	-	6,891,672,156.93	-	24,019,680,451.24	1,265,546,695.74	25,224,227,146.98
III. Increases/(decreases) during the period (with "•" for decrease)	-	-	2,800,000,000.00	-	-71,324.22	-	-20,924,300.95	110,447,636.32	211,590,250.66	-	1,780,660,065.74	-	4,689,716,230.75	156,136,171.45	5,047,854,402.20
(1) Total comprehensive income	-	-	-	-	-	-	-20,924,300.95	-	-	-	3,408,545,542.92	-	3,397,621,151.67	308,249,715.25	3,695,870,866.92
(2) Capital contributions and withdrawals by Shareholders	-	-	2,800,000,000.00	-	-	-	-	-	-	-	-	-	2,800,000,000.00	51,930,000.00	2,851,930,000.00
1. Ordinary shares contributed by Shareholders	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2. Capital contributions from minority interests	-	-	-	-	-	-	-	-	-	-	-	-	-	51,930,000.00	51,930,000.00
3. Capital contributed by holders of other equity instrument	-	-	2,800,000,000.00	-	-	-	-	-	-	-	-	-	2,800,000,000.00	-	2,800,000,000.00
4. Share-based payment recorded in Shareholders' equity	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5. Others	-	-	-	-	-	-	-	-	-	-	-	-	-	21,168.95	21,168.95

CONSOLIDATED STATEMENT OF CHANGES IN SHAREHOLDERS' EQUITY

January to December 2019

Item	Equity attributable to Shareholder of the Parent Company										Total Shareholders' equity				
	Other equity instruments			Other comprehensive income		General risk reserve		Non-controlling interest		Subtotal					
	Paid-in capital (or share capital)	Preferred share	Perpetual bonds	Others	Capital reserve	Less: treasury stocks	Other comprehensive income	Special reserve	Surplus reserve	General risk reserve	Retained earnings	Others	Subtotal	Non-controlling interest	Total Shareholders' equity
(3) Profit distribution	-	-	-	-	-	-	-	-	211,598,250.66	-	-1,619,879,466.88	-	-1,408,281,236.22	-205,347,682.02	-1,613,629,068.24
1. Appropriation of surplus reserves	-	-	-	-	-	-	-	-	211,598,250.66	-	-211,598,250.66	-	-	-	-
2. Accrual of general risk reserves	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3. Distribution to owners (or shareholders)	-	-	-	-	-	-	-	-	-	-	-1,318,472,850.00	-	-1,318,472,850.00	-188,297,596.02	-1,506,770,446.02
4. Distribution to other holders of equity	-	-	-	-	-	-	-	-	-	-	-72,082,222.22	-	-72,082,222.22	-	-72,082,222.22
5. Others	-	-	-	-	-	-	-	-	-	-	-17,746,164.00	-	-17,746,164.00	-17,059,236.00	-34,795,400.00
(4) Gains and loss directly included in shareholders' equity	-	-	-	-	-71,324.22	-	-	-	-	-	-	-	-71,324.22	-	-71,324.22
(5) Special reserves	-	-	-	-	-	-	-	110,447,638.32	-	-	-	-	110,447,638.32	9,285,119.27	119,732,757.59
1. Appropriation in current period	-	-	-	-	-	-	-	483,483,514.19	-	-	-	-	483,483,514.19	16,018,835.04	499,502,349.23
2. Utilization in current period	-	-	-	-	-	-	-	-373,045,874.67	-	-	-	-	-373,045,874.67	-12,724,715.77	-385,770,590.44
(6) Others	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
(IV) As at 31 December 2018	8,789,819,000.00	-	2,800,000,000.00	-	7,409,464,897.08	-	-248,471,666.82	372,846,705.67	1,104,393,339.39	-	8,880,232,125.67	-	28,908,396,811.99	1,368,684,667.19	30,277,081,479.18

Legal Representative: ZHOU Zhiliang Chief Financial Officer: HU Shaofeng Head of Accounting Department: ZHANG Shihu

PARENT COMPANY'S STATEMENT OF CHANGES IN SHAREHOLDERS' EQUITY

January to December 2019

Unit: Yuan Currency: RMB

Item	2019										Total Shareholders' equity
	Paid-in capital (or share capital)	Preferred share	Perpetual bonds	Others	Capital reserve	Less: treasury stocks	Other comprehensive income	Special reserve	Surplus reserve	Retained earnings	
I. As at 31 December 2018	8,789,819,000.00	-	2,800,000,000.00	-	7,802,128,059.41	-	-50,941,000.00	40,585,186.44	1,104,399,533.39	1,955,223,085.26	22,441,213,864.50
Add: changes in accounting policies	-	-	-	-	-	-	-	-	-	-	-
Correction of errors in prior periods	-	-	-	-	-	-	-	-	-	-	-
Others	-	-	-	-	-	-	-	-	-	-	-
II. As at 1 January 2019	8,789,819,000.00	-	2,800,000,000.00	-	7,802,128,059.41	-	-50,941,000.00	40,585,186.44	1,104,399,533.39	1,955,223,085.26	22,441,213,864.50
III. Increases/(decreases) during the period (with "*" for decrease)											
(I) Total comprehensive income	1,800,000,000.00	-	-	-	8,554,342,373.22	-	1,489,996.76	-3,007,608.63	238,080,226.32	194,552,661.34	10,785,457,669.01
(II) Capital contributions and withdrawals by Shareholders	1,800,000,000.00	-	-	-	-	-	1,489,996.76	-	-	2,380,802,263.21	2,382,292,259.97
1. Ordinary shares contributed by Shareholders	1,800,000,000.00	-	-	-	8,554,342,373.22	-	-	-	-	-	10,354,342,373.22
2. Capital contributed by the holder of other equity instruments	-	-	-	-	-	-	-	-	-	-	-
3. Share-based payment recorded in Shareholders' equity	-	-	-	-	-	-	-	-	-	-	-
4. Others	-	-	-	-	-	-	-	-	-	-	-
(III) Profit distribution	-	-	-	-	-	-	-	-	238,080,226.32	-2,186,249,561.87	-1,948,169,355.55
1. Appropriation of surplus reserve	-	-	-	-	-	-	-	-	238,080,226.32	-238,080,226.32	-
2. Profits distributed to owners (or shareholders)	-	-	-	-	-	-	-	-	-	-1,757,963,800.00	-1,757,963,800.00
3. Others	-	-	-	-	-	-	-	-	-	-190,205,555.55	-190,205,555.55

PARENT COMPANY'S STATEMENT OF CHANGES IN SHAREHOLDERS' EQUITY

January to December 2019

Item	2019										Total Shareholders' equity	
	Other equity instruments					Other						
	Paid-in capital (or share capital)	Preferred share	Perpetual bonds	Others	Capital reserve	Less: treasury stocks	Other comprehensive income	Special reserve	Surplus reserve	Retained earnings		
(IV) Internal transfer of Shareholders' equity	-	-	-	-	-	-	-	-	-	-	-	-
1. Transfer of capital reserve into capital (or share capital)	-	-	-	-	-	-	-	-	-	-	-	-
2. Transfer of surplus reserve into capital (or share capital)	-	-	-	-	-	-	-	-	-	-	-	-
3. Recover of loss by surplus reserve offsetting losses	-	-	-	-	-	-	-	-	-	-	-	-
4. Changes in defined benefit plan transferred to retained earnings	-	-	-	-	-	-	-	-	-	-	-	-
5. Other comprehensive income transferred to retained earnings	-	-	-	-	-	-	-	-	-	-	-	-
6. Others	-	-	-	-	-	-	-	-	-	-	-	-
(V) Special reserve	-	-	-	-	-	-	-	-3,007,608.63	-	-	-	-3,007,608.63
1. Appropriation in current period	-	-	-	-	-	-	-	2,368,274.32	-	-	-	2,368,274.32
2. Utilization in current period	-	-	-	-	-	-	-	5,375,882.95	-	-	-	5,375,882.95
(VI) Others	-	-	-	-	-	-	-	-	-	-	-	-
IV. As at 31 December 2019	10,589,819,000.00	-	2,800,000,000.00	-	16,356,470,432.63	-	-49,451,003.24	37,577,577.81	1,342,479,759.71	2,149,775,766.60	33,226,671,533.51	

PARENT COMPANY'S STATEMENT OF CHANGES IN SHAREHOLDERS' EQUITY

January to December 2019

Item	2018							Total Shareholders' equity
	Paid-in capital (or share capital)	Preferred share	Perpetual bonds	Others	Capital reserve	Less: treasury stocks	Other comprehensive income	
I. As at 31 December 2017	8,789,819,000.00	-	-	-	7,802,128,059.41	-	-49,344,000.00	18,906,846,182.71
Plus: changes in accounting policies	-	-	-	-	-	-	-	3,370,994.82
Correction of errors in prior periods	-	-	-	-	-	-	-	-
Others	-	-	-	-	-	-	-	-
II. As at 1 January 2018	8,789,819,000.00	-	-	-	7,802,128,059.41	-	-49,344,000.00	18,910,217,177.53
III. Increases/(decreases) during the period (with "-" for decrease)								
(I) Total comprehensive income	-	-	2,800,000,000.00	-	-	-	-1,597,000.00	513,849,183.68
(II) Capital contributions and withdrawals by shareholder	-	-	-	-	-	-	-1,597,000.00	2,115,982,506.56
1. Ordinary shares contributed by Shareholders	-	-	-	-	-	-	-	-
2. Capital contributed by the holder of other equity instruments	-	-	2,800,000,000.00	-	-	-	-	2,800,000,000.00
3. Share-based payment recorded in Shareholders' equity	-	-	-	-	-	-	-	-
4. Others	-	-	-	-	-	-	-	-
(III) Profit distribution	-	-	-	-	-	-	-1,602,133,322.88	-1,390,535,072.22
1. Appropriation of surplus reserve	-	-	-	-	-	-	-211,598,250.66	-
2. Profits distributed to owners (or shareholders)	-	-	-	-	-	-	-1,318,472,850.00	-1,318,472,850.00

PARENT COMPANY'S STATEMENT OF CHANGES IN SHAREHOLDERS' EQUITY

January to December 2019

2018

Item	Other equity instruments						Total Shareholders' equity					
	Paid-in capital (or share capital)	Preferred share	Perpetual bonds	Others	Capital reserve	Less: treasury stocks		Other comprehensive income	Special reserve	Surplus reserve	Retained earnings	
3. Distribution to other holders of equity	-	-	-	-	-	-	-	-	-	-72,062,222.22	-72,062,222.22	-
4. Others	-	-	-	-	-	-	-	-	-	-	-	-
(IV) Internal transfer of Shareholders' equity	-	-	-	-	-	-	-	-	-	-	-	-
1. Transfer of capital reserve into capital (or share capital)	-	-	-	-	-	-	-	-	-	-	-	-
2. Transfer of surplus reserve into capital (or share capital)	-	-	-	-	-	-	-	-	-	-	-	-
3. Recover of loss by surplus reserve	-	-	-	-	-	-	-	-	-	-	-	-
4. Changes arising from defined benefit plan carried forward to retained earnings	-	-	-	-	-	-	-	-	-	-	-	-
5. Other comprehensive income carried forward to retained earnings	-	-	-	-	-	-	-	-	-	-	-	-
6. Others	-	-	-	-	-	-	-	-	-	-	-	-
(V) Special reserve	-	-	-	-	-	-	-	7,146,252.63	-	-	-	7,146,252.63
1. Appropriation in current period	-	-	-	-	-	-	-	9,798,320.98	-	-	-	9,798,320.98
2. Utilization in current period	-	-	-	-	-	-	-	2,652,068.35	-	-	-	2,652,068.35
(VI) Others	-	-	-	-	-	-	-	-	-	-	-	-
IV. As at 31 December 2018	8,789,619,000.00	-	2,800,000,000.00	-	7,802,128,059.41	-	-50,941,000.00	40,585,186.44	1,104,369,533.39	1,955,223,085.26	22,441,213,864.50	

Legal Representative: ZHOU Zhiliang Chief Financial Officer: HU Shaofeng Head of Accounting Department: ZHANG Shihu

NOTES TO FINANCIAL STATEMENTS

Year ended 31 December 2019

RMB

III. CORPORATE INFORMATION

1. Company profile

Applicable Not applicable

China Railway Signal & Communication Corporation Limited (the “Company”) is a joint stock company limited liability company jointly sponsored on 29 December 2010 by China Railway Signal & Communication Corporation (renamed as China Railway Signal and Communication (Group) Corporation Limited in 2017, here in after referred to as the “CRSC Group”) as the promoter, in association with China National Machinery Industry Corporation, China Chengtong Holdings Group Ltd., China Reform Holdings Corporation Ltd., and CICC Jiacheng Investment Management Co., Ltd. (these four companies are collectively referred to as the “Other Promoters”) approved by the State-owned Assets Supervision and Administration Commission of the State Council (國務院國有資產監督管理委員會) (the “SASAC”) via Guo Zi Gai Ge [2010] No. 876 on 17 August 2010 in accordance with the relevant provisions of laws and administrative regulations of the PRC. The Company’s domicile is at 20th floor of Block A, CRSC Building, 1 Compound Automobile Museum South Road, Fengtai District, Beijing.

Upon approval of the China Securities Regulatory Commission’s “Reply on Issuance of Overseas Listed Foreign Shares by China Railway Signal & Communication Corporation Limited” (Zheng Jian Xu Ke [2015] No. 1630), the Company has issued 1,789,819,000 H Shares with a nominal value of RMB1 each at an issue price of HK\$6.30 per share that were listed on the Hong Kong Stock Exchange from July to September 2015. The total amount of funds raised before deducting the issuance expenses was approximately HK\$11,275,859,700.00 and such H Shares commenced for trading on the Main Board of the Hong Kong Stock Exchange in August and September 2015. The Company’s four state-owned shareholders, the CRSC Group, China National Machinery Industry Corporation, China Chengtong Holdings Group Ltd. and China Reform Holdings Corporation Ltd., converted a total of 178,982,000 state-owned legal person shares to H Shares during August and September 2015, which were then transferred to the National Council for Social Security Fund of the People’s Republic of China.

According to the China Securities Regulatory Commission’s “Approval for Consent to the Registration of China Railway Signal & Communication Corporation Limited’s Initial Public Offering” (Zheng Jian Xu Ke [2019] No. 1135), as of 16 July 2019, the Company has issued 1,800,000,000 ordinary shares with a nominal value of RMB1 each at an issue price of RMB5.85 per share that were listed on the Sci-Tech innovation board of the Shanghai Stock Exchange. The total amount of funds raised before deduction of issuance expenses was RMB10,530,000,000.00 and such ordinary shares were commenced for trading on the Shanghai Stock Exchange’s Sci-Tech innovation board on 22 July 2019.

As of 31 December 2019, the Company has accumulatively issued a total issued share capital of 10,589,819,000 shares with the accumulated share capital amounting RMB10,589,819,000.00.

NOTES TO FINANCIAL STATEMENTS

Year ended 31 December 2019

RMB

III. CORPORATE INFORMATION (Continued)

1. Company profile (Continued)

The Company and its subsidiaries (collectively referred to as the “Group”) are mainly engaged in the following businesses: design and integration of rail transportation control system which mainly includes the provision of comprehensive planning for investigation, design and control systems for rail transportation control system; equipment manufacturing of rail transportation control system which mainly includes production and sales of signal systems, communication systems, infrastructure equipment, information systems and other products; and system implementation services for rail transportation control system which include provision of construction, installation, testing, operation and maintenance services for rail transportation control system; and provision of services relating to municipal engineering projects and other construction projects.

The parent company and the ultimate controlling party of the Company are the CRSC Group based in the PRC.

The financial statements were approved by resolution by the Board of Directors of the Company on 25 March 2020.

2. Scope of consolidated financial statements

Applicable Not applicable

The scope of consolidation of the consolidated financial statements was determined on the basis of control. For changes during the reporting period, please refer to Note IX. 1.

IV. BASIS OF PREPARATION OF THE FINANCIAL STATEMENTS

1. Basis of preparation

The financial statements have been prepared in accordance with Accounting Standards for Business Enterprises – Basic Standards issued by the Ministry of Finance and the specific accounting standards, application guidelines, interpretations and other relevant provisions (collectively referred to as the “Accounting Standards for Business Enterprises”) promulgated and revised thereafter.

The financial statements are presented on a going concern basis.

The financial statements have been prepared under the historical cost as the pricing principle, except for certain financial instruments. If the assets are impaired, the corresponding provisions for impairment shall be made in accordance with related requirements.

NOTES TO FINANCIAL STATEMENTS

Year ended 31 December 2019

RMB

IV. BASIS OF PREPARATION OF THE FINANCIAL STATEMENTS (Continued)

2. Continuing operations

Applicable Not applicable

There were no events or circumstances that resulted in material doubts about the Group's ability of continuing operations within 12 months since the end of the Reporting Period.

V. SIGNIFICANT ACCOUNTING POLICIES AND ACCOUNTING ESTIMATES

Specific accounting policies and accounting estimates are indicated as follows:

Applicable Not applicable

According to the characteristics of its production and operation, the Group formulated a series of specific accounting policies and made accounting estimates, the detail of which are as follows:

1. Statement of compliance with accounting Standards for Business enterprises

The financial statements present fairly and fully the financial position, operating results, changes in equity of Shareholders at 31 December 2019 and cash flows of the Company in 2019 in accordance with Accounting Standards for Business Enterprises.

2. Accounting period

The accounting year of the Company is from 1 January to 31 December of each calendar year.

3. Operating cycle

Applicable Not applicable

Operating cycle refers to the period from the purchase of assets of an enterprise for the purpose of processing to the realization of cash or cash equivalents. The Group's operating cycle is usually 12 months.

NOTES TO FINANCIAL STATEMENTS

Year ended 31 December 2019

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V. SIGNIFICANT ACCOUNTING POLICIES AND ACCOUNTING ESTIMATES (Continued)

4. Functional currency

The functional currency of and the currency adopted for the preparation of these financial statements by the Group is RMB. Unless otherwise stated, all financial statements are denominated in RMB.

5. Accounting methods for business combinations involving entities under common control and business combinations involving entities not under common control

Applicable Not applicable

(1) Business combinations involving entities under common control

A business combination involving entities under common control is a business combination in which all of the combining entities are ultimately controlled by the same party or parties both before and after the combination, and that control is not transitory. For a business combination involving entities under common control, the party that, on the combination date, obtains control of another entity participating in the combination is the acquirer, while the other entity participating in the combination is the acquiree. The combination date is the date on which the acquirer effectively obtains control of the acquiree.

Assets and liabilities (including the goodwill recognised by the ultimate controlling party in acquisition of the acquiree) that are obtained by the acquirer in a business combination shall be measured at their carrying amounts at the date of combination as recorded by the ultimate controlling party. The difference between the carrying amount of the net assets obtained and the carrying amount of the consideration paid for the combination (or the aggregate face value of the shares issued as consideration) shall be adjusted to share premium under capital reserve and the balance of the capital reserve transferred under the original system. If the capital reserve is not sufficient to absorb the difference, any excess shall be adjusted against retained earnings.

NOTES TO FINANCIAL STATEMENTS

Year ended 31 December 2019

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V. SIGNIFICANT ACCOUNTING POLICIES AND ACCOUNTING ESTIMATES (Continued)

5. Accounting methods for business combinations involving entities under common control and business combinations involving entities not under common control (Continued)

(2) Business combinations involving entities not under common control

A business combination involving entities not under common control is a business combination in which all of the combining entities are not ultimately controlled by the same party or parties both before and after the combination. For a business combination involving entities not under common control, the party that, on the acquisition date, obtains control of another entity participating in the combination is the acquirer, while the other entity participating in the combination is the acquiree. The acquisition date is the date on which the acquirer effectively obtains control of the acquiree.

The acquiree's identifiable assets, liabilities and contingent liabilities acquired by the acquirer in a business combination involving entities not under common control shall be measured at their fair values on the acquisition date.

Goodwill is measured at cost being the excess of the aggregate of the fair value of the consideration transferred (or the fair value of the equity securities issued) and any fair value of the acquirer's previously held equity interest in the acquiree over the fair value of the acquiree's net identifiable net assets. If the aggregate of the fair value of consideration transferred (or the fair value of the equity securities issued) and any fair value of the acquirer's previously held equity interest in the acquiree is lower than the fair value of the acquiree's net identifiable net assets, the difference is, after reassessment of the fair value of each identifiable asset, liability and contingent liability acquired from the acquiree and the fair value of consideration transferred (or the fair value of the equity securities issued) and any fair value of the acquirer's previously held equity interest in the acquiree, recognised in profit or loss for the current period.

V. SIGNIFICANT ACCOUNTING POLICIES AND ACCOUNTING ESTIMATES (Continued)

6. Preparing methods of consolidated financial statements

Applicable Not applicable

The scope of consolidation in the consolidated financial statements is determined on the basis of control, including the financial statements of the Company and all of its subsidiaries. Subsidiaries refer to the entities controlled by the Company (including an enterprise, a separable part of the invested company, and the structured entities controlled by the Company, etc.).

When preparing the consolidated financial statements, the subsidiaries shall adopt the accounting year and accounting policies consistent with the Company. Assets, liabilities, equity, revenues, expenses and cash flows arising from all transactions between companies within the Group are eliminated in full on combinations.

When the amount of loss for the period attributable to the minority shareholders of a subsidiary exceeds the minority shareholders' portion of the opening balance of owners' equity of the subsidiary, the excess amount is still allocated against minority interests.

For a subsidiary that is acquired in a business combination involving enterprises not under common control, the operating results and cash flows of the acquiree shall be included in the consolidated financial statements from the date on which the Group obtains control, until the Group ceases its control. In the preparation of the consolidated financial statements, the financial statements of the subsidiaries shall be adjusted based on the fair values of the identifiable assets, liabilities and contingent liabilities determined on the acquisition date.

For a subsidiary that is acquired in a business combination involving enterprises under common control, the operating results and cash flows of the acquiree shall be included in the consolidated financial statements from the beginning of the period of combination. In the preparation of the comparative consolidated financial statements, the relative items of the previous financial statements shall be adjusted, and treated as if the reporting entity formed after the combination has existed since the ultimate controlling party began to implement the control.

If changes in relevant facts and circumstances gives rise to one or more changes in controlling factors, the Group will reassess whether it controls the investee.

Changes in the equity of the minority shareholders without a loss of control is accounted for as an equity transaction.

NOTES TO FINANCIAL STATEMENTS

Year ended 31 December 2019

RMB

V. SIGNIFICANT ACCOUNTING POLICIES AND ACCOUNTING ESTIMATES (Continued)

7. Accounting treatment of joint arrangement and joint operations

Applicable Not applicable

A joint arrangement is either a joint operation or a joint venture. A joint operation is a joint arrangement whereby the parties that have joint control of the arrangement have rights to the assets, and obligations for the liabilities, relating to the arrangement. A joint venture is a joint arrangement whereby the parties that have joint control of the arrangement have rights to the net assets of the arrangement.

A party of joint venture recognises its interest in a joint operation: its assets held separately and its share of any assets held jointly; its liabilities, assumed separately and its share of any liabilities assumed jointly; its revenue from the sale of its share of the output arising from the joint operation; its share of the revenue from the sale of the output by the joint operation; and its expenses incurred separately and its share of any expenses incurred jointly.

8. Recognition Standard for cash and cash equivalents

Cash equivalents are short-term (usually due within three months from the date of purchase), highly liquid investments held by an enterprise, that are readily convertible into known amounts of cash and which are subject to an insignificant risk of changes in value.

9. Foreign currency transactions and foreign currency translations

Applicable Not applicable

The Group translates the amounts of foreign currency transactions into its functional currency.

Foreign currency transactions are initially recorded using the functional currency spot exchange rate ruling at the date of transactions. At the balance sheet date, monetary items denominated in foreign currencies are translated into functional currencies at the spot exchange rates ruling at the balance sheet date. All differences are recognised in profit or loss, except those related to a specific-purpose borrowing denominated in foreign currency that qualify for capitalisation for the purpose of acquisition or construction of qualifying assets. Non-monetary items denominated in foreign currencies that are measured at historical cost are translated into functional currencies using the foreign spot exchange rates at the transaction dates and do not change the amounts of functional currency. Non-monetary items denominated in foreign currencies that are measured at fair value are translated using the foreign exchange spot rate at the date the fair value is determined; the exchange differences are recognised in profit or loss or other comprehensive income depending on the nature of the non-monetary items.

NOTES TO FINANCIAL STATEMENTS

Year ended 31 December 2019

RMB

V. SIGNIFICANT ACCOUNTING POLICIES AND ACCOUNTING ESTIMATES (Continued)

9. Foreign currency transactions and foreign currency translations (Continued)

For foreign operations, the Group translates its functional currencies into RMB in preparing the financial statements. All assets and liabilities in the balance sheet are translated at the spot exchange rates ruling at the balance sheet date; the shareholders' equity, with the exception of "retained earnings", is translated at the spot exchange rates ruling at the transaction dates; income and expenditure in the statement of profit or loss are translated at the spot exchange rates at the transaction dates. Exchange fluctuations arising from the translations mentioned above are recognised as other comprehensive income. When an overseas business is disposed of, the component of other comprehensive income related to the overseas business will be transferred to profit or loss in the same period and part of the disposal will be calculated according to the disposal ratio.

Foreign currency cash flows and cash flows of overseas subsidiaries are translated into RMB at the spot exchange rates ruling at the dates of the cash flows. The effect of changes in exchange rates on cash is presented as a reconciled item separately in the statement of cash flows.

10. Financial instruments

Applicable Not applicable

Financial instruments refer to contracts that form the financial assets of an enterprise and form financial liabilities or equity instruments of other units.

NOTES TO FINANCIAL STATEMENTS

Year ended 31 December 2019

RMB

V. SIGNIFICANT ACCOUNTING POLICIES AND ACCOUNTING ESTIMATES (Continued)

10. Financial instruments (Continued)

Recognition and derecognition of financial instruments

The Group recognises a financial asset or a financial liability when it becomes a party to the contractual provisions of a financial instrument.

A financial asset (or part of a financial asset, or a portion of a group of similar financial assets) is derecognised if it meets the following conditions, that is, it is written off from its account and balance sheet:

- (1) The rights to receive cash flows from financial assets expire;
- (2) Transfer the right to receive cash flows from financial assets, or undertake the obligation to pay the full amount of received cash flows to third parties in a timely manner under the “pass-through agreement”; and (a) transfer substantially all the risks and rewards of ownership of the financial asset, or (b) abandon the control of the financial asset, although the Group does not substantially transfer or retain almost all of the risks and rewards of ownership of the financial asset.

If the liability of a financial liability has been fulfilled, revoked or expired, the financial liability shall be derecognised. If an existing financial liability is replaced by another financial liability of the same creditor with substantially different terms, or if the terms of the existing liability are substantially all modified, such replacement or modification shall be deemed to have derecognised the original liability and to have recognised the new liability, the difference of which shall be included in the profit or loss for the period.

Financial assets traded in regular ways are recognised and derecognised on a trading date. Trading of financial assets in regular ways refers to the collection or delivery of financial assets within the time limit stipulated by regulations or common practices in accordance with the contractual terms. Trading day is the date on which the Group undertakes to buy or sell the financial assets.

V. SIGNIFICANT ACCOUNTING POLICIES AND ACCOUNTING ESTIMATES (Continued)

10. Financial instruments (Continued)

Classification and measurement of financial assets

The financial assets of the Group are classified upon the initial recognition based on the business model of the Group's corporate management financial assets and the characteristics of the financial assets' contractual cash flows: financial assets measured at fair value through profit or loss (FVTPL), financial assets measured at amortised cost, and financial assets measured at fair value through other comprehensive income (FVTOCI). All affected financial assets would be reclassified if and only if the Group changes its business model for managing financial assets.

Financial assets are measured at fair value at initial recognition. However, if the accounts receivable or bills receivable arising from the sale of goods or the provision of services do not contain significant financing components or do not consider financing components not exceeding one year, the financial assets shall be initially measured at the transaction price.

For financial assets measured at fair value through profit or loss, the related transaction costs are directly recognised in profit or loss for the period. Transaction costs of other types of financial assets are included in the value initially recognised.

Subsequent measurement of financial assets depends on their classification:

Debt instrument investments measured at amortised cost

Financial assets are classified as financial assets measured at amortised cost if they meet the following conditions: the business model for managing the financial assets is to collect contractual cash flows; the contractual terms of the financial assets stipulate that cash flows on a specific date are solely for the payments of the principals and interests incurred from the outstanding principal amount. Such financial assets are recognised as interest income using the effective interest rate method. The gains or losses arising from derecognition, modification or impairment are recognised in profit or loss for the period.

NOTES TO FINANCIAL STATEMENTS

Year ended 31 December 2019

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V. SIGNIFICANT ACCOUNTING POLICIES AND ACCOUNTING ESTIMATES (Continued)

10. Financial instruments (Continued)

Classification and measurement of financial assets (Continued)

Debt instrument investments measured at fair value through other comprehensive income (FVTOCI)

Financial assets are classified as financial assets measured at fair value through other comprehensive income if they meet the following conditions: the Group's business model for managing the financial assets is to both collect contractual cash flows and sell the financial assets; the contractual terms of the financial assets stipulate that cash flows on a specific date are solely for the payments of the principals and interests incurred from the outstanding principal amounts. Such financial assets are recognised as interest income using the effective interest rate method. Other changes in fair values are included in other comprehensive income except for interest income, impairment losses and exchange differences which are recognised in profit or loss for the period. When the financial assets are derecognised, the cumulative gains or losses previously recognised in other comprehensive income are transferred from it and included in profit or loss for the period.

Equity instrument investments measured at fair value through other comprehensive income

The Group irrevocably chooses to designate certain non-trading equity instrument investments as financial assets measured at fair value through other comprehensive income, and only the relevant dividend income (excluding dividend income explicitly recovered as part of investment cost) is included in profit or loss for the period. Subsequent changes in fair value are included in other comprehensive income with no impairment provision required. When the financial assets are derecognised, the cumulative gains or losses previously recognised in other comprehensive income are transferred from it and included in retained earnings.

Financial assets measured at fair value through profit or loss

Financial assets other than the above-mentioned financial assets measured at amortised cost and financial assets measured at fair value through other comprehensive income are classified as financial assets at fair value through profit or loss. For such financial assets, fair value is used for subsequent measurement, and all changes in fair value are recognised in profit or loss for the period.

A financial asset designated as financial assets measured at fair value through profit or loss for the period by enterprises at initial recognition shall not be reclassified as other financial assets; other financial assets shall not be re-designated as financial assets measured at fair value through profit or loss for the period after initial recognition.

V. SIGNIFICANT ACCOUNTING POLICIES AND ACCOUNTING ESTIMATES (Continued)

10. Financial instruments (Continued)

Classification and measurement of financial liabilities

Upon initial recognition, financial liabilities of the Group are classified as financial liabilities at fair value through profit or loss, other financial liabilities, and derivatives designated as effective hedging instruments. For financial liabilities measured at fair value through profit or loss, the relevant transaction fee is directly recognised in profit or loss for the period, and the related transaction fee of other financial liabilities is included in their initial amount recognised.

Subsequent measurement of financial liabilities depends on their classification:

Financial liabilities measured at fair value through profit or loss

Financial liabilities measured at fair value through profit or loss include financial liabilities held for trading (including derivatives that are financial liabilities) and those designated as financial liabilities at fair value through profit or loss upon initial recognition. Held for trading financial liabilities (including derivatives that are financial liabilities) are subsequently measured at fair value. Except for hedging accounting, all changes in fair value are recognised in profit or loss for the period. Financial liabilities designated to be measured at fair value through profit or loss are subsequently measured at fair value. Changes in fair value caused by changes in the Group's own credit risk are recognised in other comprehensive income, while other changes in fair value are included in profit or loss for the period. When changes in fair value caused by changes in the Group's own credit risk included in other comprehensive income may result in or enlarge accounting mismatches in profit or loss, the Group shall include all changes in fair value (including the amount of impact of changes in its own credit risk) in profit or loss for the period.

Only if one of the following conditions is met can financial liabilities be designated as financial liabilities at fair value through profit or loss at initial recognition:

- (1) It can eliminate or significantly reduce accounting mismatch.
- (2) The financial instrument portfolio is managed, evaluated and reported to key management on fair value basis according to the documented written risk management or investment strategy.
- (3) Hybrid instruments that contain one or more embedded derivatives, unless the embedded derivatives have no significant effect on the cash flow of the hybrid instrument, or the embedded derivatives should obviously not be separated from the related hybrid instruments.
- (4) Hybrid instruments containing embedded derivatives that need to be separated but cannot be measured individually after it has been acquired or on the subsequent dates of balance sheet.

NOTES TO FINANCIAL STATEMENTS

Year ended 31 December 2019

RMB

V. SIGNIFICANT ACCOUNTING POLICIES AND ACCOUNTING ESTIMATES (Continued)

10. Financial instruments (Continued)

Classification and measurement of financial liabilities (Continued)

Financial liabilities measured at fair value through profit or loss (Continued)

A financial liability designated as financial liabilities measured at fair value through profit or loss for the period by enterprises at initial recognition shall not be reclassified as other financial liabilities; other financial liabilities shall not be re-designated as financial liabilities measured at fair value through profit or loss for the period after initial recognition.

Other financial liabilities

For such financial liabilities, subsequent measurement is made at amortised cost using effective interest method.

Impairment of financial assets

Based on expected credit losses, the Group performs impairment treatment on the financial assets at amortised cost, debt instrument investments measured at fair value through other comprehensive income, lease receivables, contract assets, loan commitments, and financial guarantee contracts and recognises loss allowance.

For receivables that do not contain significant financing components and contractual assets, the Group uses a simplified measurement approach to measure loss allowance at the full lifetime expected credit loss.

For lease receivables, receivables that contain significant financing components and contractual assets, the Group uses a simplified measurement approach to measure loss allowance at the full lifetime expected credit loss.

V. SIGNIFICANT ACCOUNTING POLICIES AND ACCOUNTING ESTIMATES (Continued)

10. Financial instruments (Continued)

Impairment of financial assets (Continued)

In addition to the above-mentioned financial assets, loan commitments and financial guarantee contracts using the simplified measurement method, the Group assesses whether its credit risk has increased significantly since the initial recognition on each balance sheet date. If the credit risk has not increased significantly since the initial recognition, it is at the first stage, and the Group measures loss allowance according to the amount of expected credit losses during the next 12 months and calculates the interest income according to the book balance and the actual interest rate; if the credit risk has increased significantly since the initial recognition, but no credit impairment has occurred, it is at the second stage, and the Group measures loss allowance at the full lifetime expected credit loss and calculates the interest income according to the book balance and the actual interest rate. If credit impairment occurs after the initial recognition, it is at the third stage, and the Group measures loss allowance at the full lifetime expected credit loss and calculates the interest income according to the amortised cost and the actual interest rate. For financial instruments with relatively low credit risk only on the balance sheet date, the Group assumes that their credit risk has not increased significantly since the initial recognition.

The Group evaluates the expected credit losses of financial instruments on individual items and portfolios. Taking into account the credit risk characteristics of different customers, the Group evaluates the expected credit losses of receivables based on the combination of aging.

Please refer to Note X for the Group's criteria for judging the significant increase in credit risk, the definition of credit-impaired assets, the assumption of measuring expected credit losses, and disclosures.

When the Group no longer reasonably expects to be able to recover all or part of the contractual cash flows of the financial assets, the Group will write down the carrying amount of the financial assets directly.

Offsetting of financial instruments

If the following conditions are met, financial assets and financial liabilities are presented in the balance sheet with the net amount after offsetting each other; there is a currently enforceable legal right to offset the recognised; net settlement, or simultaneous realisation of the financial assets and settlement of the financial liabilities is planned.

NOTES TO FINANCIAL STATEMENTS

Year ended 31 December 2019

RMB

V. SIGNIFICANT ACCOUNTING POLICIES AND ACCOUNTING ESTIMATES (Continued)

10. Financial instruments (Continued)

Financial guarantee contracts

A financial guarantee contract is a contract by which the issuer pays a specified amount to a contract holder who has suffered a loss when the specific debtor fails to pay the debt when due in accordance with terms of the debt instrument. Financial guarantee contracts are measured at fair value at initial recognition. Except for the financial guarantee contracts that are designated as financial liabilities at fair value through profit and loss, the other financial guarantee contracts are subsequently measured after initial recognition according to the amount of expected credit loss allowance determined on the balance sheet date and the balance of the initial recognition amount after deducting the accumulated amortisation amount recognised according to the revenue recognition principle, whichever is higher.

Derivative financial instruments

The Group uses derivative financial instruments, such as forward contracts, forward commodity contracts and interest rate swaps, to hedge exchange rate risk, commodity price risk and interest rate risk, respectively. Derivative financial instruments are initially measured at fair value at the date when the derivative contracts are entered into and are subsequently measured at their fair values. Derivative financial instruments with a positive fair value are recognised as an asset, and that with a negative fair value is recognised as a liability.

Other than hedging accounting, gains or losses arising from changes in the fair value of derivatives are directly recognised in profit or loss for the period.

Transfer of financial assets

The Group derecognises a financial asset when it has transferred substantially all the risks and rewards of ownership of the financial asset to the transferee; the Group does not derecognise the financial asset when it retains substantially all the risks and rewards of ownership of the financial asset.

If the Group neither transfers nor retains substantially all the risks and rewards of ownership of financial assets, the related accounting treatments of such financial assets are as follows: if the control of the financial assets is abandoned, the financial assets are derecognised and the assets and liabilities arising are recognised. If the control of the financial assets is not abandoned, the relevant financial assets are recognised according to the extent to which they continue to be involved in the transferred financial asset and the related liabilities are recognised accordingly.

If the transferred financial assets continue to be involved through the provision of financial guarantee method, the assets that continue to be involved are recognised according to carrying amount of the financial assets and the financial guarantee amount, whichever is lower. The amount of the financial guarantee is the maximum amount of the consideration received that will be required to be repaid.

NOTES TO FINANCIAL STATEMENTS

Year ended 31 December 2019

RMB

V. SIGNIFICANT ACCOUNTING POLICIES AND ACCOUNTING ESTIMATES (Continued)

11. Bills receivable

Methods for determining and accounting of ECL of bills receivable

Applicable Not applicable

12. Accounts receivable

Method for determining and accounting of expected credit loss of accounts receivable

Applicable Not applicable

Please refer to Note V. 10

13. Receivable for financing

Applicable Not applicable

Please refer to Note V. 10

14. Other receivables

Methods for determining and accounting of ECL of other receivables

Applicable Not applicable

Please refer to Note V. 10

15. Inventories

Applicable Not applicable

The Group's inventories include commodities, raw materials, semi-finished goods and turnover materials.

Inventories are initially measured at cost. Cost of inventories comprises costs of purchase, costs of processing and other costs. The actual cost of inventories transferred out is determined using the weighted average method. Turnover materials include low value consumables and packing materials, which are amortised using immediate write off.

Inventories are accounted for using the perpetual inventory system.

NOTES TO FINANCIAL STATEMENTS

Year ended 31 December 2019

RMB

V. SIGNIFICANT ACCOUNTING POLICIES AND ACCOUNTING ESTIMATES (Continued)

15. Inventories (Continued)

At the balance sheet date, inventories are measured at the lower of cost and net realisable value. If the cost is higher than the new realizable value, provision for impairment of inventories is made and recognized in profit or loss for the period. If the factors that give rise to the provision in prior years are not in effect in the current year, as a result that the net realisable value of inventories is higher than their carrying amount, the original amount of the written-down is reversed within previously impaired amount and the reversed amount is included in profit or loss for the period.

Net realisable value is the estimated selling price in the ordinary course of business less the estimated costs of completion, the estimated selling expenses and relevant taxes. Provision is considered on a category basis for inventories in large quantity and with relatively low unit prices and on an individual basis for all other inventories.

16. Contract assets

(1). Method and standard for determination of contract assets

Applicable Not applicable

The Group presents the contract assets or contract liabilities in the balance sheet according to the relationship between satisfying performance obligations and customer payments. The Group presents the net amount after offsetting the contract assets and contract liabilities under the same contract. A contract asset is the right to receive the consideration in exchange for goods transferred to the customer, and this right depends upon factors other than the time.

(2). Methods for determining and accounting of ECL of contract assets

Applicable Not applicable

For details of how to determine the expected credit losses of contractual assets and accounting treatment methods, please refer to Note V.10.

17. Asset held for sale

Applicable Not applicable

18. Debt investments

(1). Methods for determining and accounting of ECL of debt investments

Applicable Not applicable

Please refer to Note V.10.

NOTES TO FINANCIAL STATEMENTS

Year ended 31 December 2019
RMB

V. SIGNIFICANT ACCOUNTING POLICIES AND ACCOUNTING ESTIMATES (Continued)

19. Other debt investments

(1). Methods for determining and accounting of ECL of other debt investments

Applicable Not applicable

20. Long-term receivables

(1). Methods for determining and accounting of ECL of long-term receivables

Applicable Not applicable

Please refer to Note V.10.

NOTES TO FINANCIAL STATEMENTS

Year ended 31 December 2019

RMB

V. SIGNIFICANT ACCOUNTING POLICIES AND ACCOUNTING ESTIMATES (Continued)

21. Long-term equity investments

Applicable Not applicable

Long-term equity investments include equity investments in subsidiaries, joint ventures and associates.

Long-term equity investments are initially measured at its initial investment cost when acquired. For a long-term equity investment acquired through business combination involving enterprises under common control, the initial investment cost is the attributable share of the carrying amount of the owners' equity of the acquiree in the ultimate controlling party's consolidated financial statements on the date of combination. The difference between initial investment cost and the carrying amount of the consolidated consideration is adjusted to capital reserve (if the balance of capital reserve is not sufficient to absorb the difference, any excess shall be adjusted to retained earnings). For other comprehensive income before the combination date, the same basis as direct disposal of the related assets or liabilities of the investee is adopted when the investment is disposed of. Shareholders' equity recognised as a result of changes in Shareholders' equity other than net profit or loss, other comprehensive income and profits distribution of the investee is transferred to profit or loss for the period when the investment is disposed of. Among which, after the disposal, the long-term equity investments will still be carried forward in proportion, and if it is converted into financial instruments after the disposal, it will be carried forward in full. For a long-term equity investment acquired through business combination not involving enterprises under common control, the combination cost is taken as the initial investment cost (if the business combination not involving enterprises under common control is realised step by step through multiple transactions, the initial investment cost will be the sum of the carrying amount of the equity investment held by the acquiree prior to the acquisition date and the new investment cost on the acquisition date). The combination cost includes the sum of the assets paid by the purchaser, the liabilities incurred or assumed, and the fair value of the issued equity securities. For other comprehensive income held before the acquisition date and recognised as a result of the adoption of the equity method, the same basis as direct disposal of the related assets or liabilities of the invest is adopted when the investments are disposed of. Shareholders' equity recognised as a result of changes in Shareholders' equity other than net profit or loss, other comprehensive income and profit distribution of the investee is transferred to the profit or loss for the period when the investment is disposed of. Among which, after the disposal, the long-term equity investments will still be transferred in proportion, and if it is converted into financial instruments after the disposal, it will be transferred in full. Changes in the cumulative fair value changes of the equity investment held before the acquisition date as investment in other equity instrument to be included in other comprehensive income are transferred to retained earnings in full when cost method is adopted.

V. SIGNIFICANT ACCOUNTING POLICIES AND ACCOUNTING ESTIMATES (Continued)

21. Long-term equity investments (Continued)

In addition to the long-term equity investments acquired by the long-term investment formed by business combination, the initial investment cost is determined according to the following methods: if acquired by cash payment, the actual purchase price and the expenses, taxes and other required expenditures directly related to the long-term equity investment will be taken as the initial investment cost; if acquired through issuing equity securities, the fair value of the issued equity instruments will be taken as the initial investment cost.

The long-term equity investments that the Company can exercise control over the investee is accounted for using the cost method in the Company's individual financial statements. Control refers to having the power to the investee to enjoy variable returns by participating in the relevant activities of the investee and having the ability to use the power of the investee to influence the amount of returns.

Under the cost method, a long-term equity investment is measured at initial investment cost. When additional investment is made or the investment is recouped, the cost of the long-term equity investment shall be adjusted. The cash dividends or profits declared by the Investee are recognised as investment income for the period.

When the Group has joint control or significant influence over the investee, the long-term equity investments shall be accounted for using the equity method. Joint control is the contractually agreed sharing of control over an arrangement, and exists only when the decision making about the relevant activities requires the unanimous consent of the parties sharing control. Significant influence is the power to participate in the financial and operating policy decisions of the investee but is not control or joint control over those policies.

Under the equity method, where the initial investment cost of a long-term equity investment exceeds the Group's share of the fair value of the investee's identifiable net assets at the time of acquisition, it will be classified as the initial investment cost of the long-term equity investment. Where the initial investment cost of the long-term investment is less than the Group's share of the fair value of the investee's identifiable net assets at the time of investment, the difference is recognised in profit or loss for the period, and the cost of the long-term equity investment is adjusted accordingly.

NOTES TO FINANCIAL STATEMENTS

Year ended 31 December 2019

RMB

V. SIGNIFICANT ACCOUNTING POLICIES AND ACCOUNTING ESTIMATES (Continued)

21. Long-term equity investments (Continued)

Under the equity method, after a long-term equity investment is acquired, the Group recognises its share of the net profit or loss and other comprehensive income of the investee for the period as investment income or loss and other comprehensive income for the period, respectively, and adjusts the carrying amount of the long-term equity investment. When recognizing the share of the net profit or loss of the investee to be entitled, based on the fair value of the investee's identifiable assets at the time of acquiring the investment, in accordance with the Group's accounting policies and accounting periods, the Group will offset the profits or losses arising from internal transactions between associates and joint ventures to calculate the portion attributable to the investor in proportion to be enjoyed (but if the losses of internal transaction are asset impairment losses, they shall be fully recognised). The net profit of the investee is recognised after the adjustment, except that the assets that are invested or sold constitute businesses. The portion to be enjoyed shall be calculated according to the profit or cash dividend declared to be distributed by the investee, and the carrying amount of the long-term equity investment shall be reduced accordingly. The Group discontinues recognising its share of net losses of the investee after the carrying amount of the long-term equity investment together with any long-term interests that in substance form part of its net investment in the investee is reduced to zero, except that the Group has incurred obligations to assume additional losses. For changes in shareholders' equity other than net profit or loss, other comprehensive income and profit distribution of the investee, the carrying amount of long-term equity investment shall be adjusted and recognised in shareholders' equity.

For disposal of a long-term equity investment, the difference between the carrying amount and the actual price is recognised in profit or loss for the period. For long-term equity investments under the equity method, if the equity method is adopted due to the termination of the disposal, other comprehensive income related to the original equity method is accounted for on the same basis as the investee's directly disposes of the related assets or liabilities. Shareholders' equity recognised as a result of changes in Shareholders' equity other than net profit or loss, other comprehensive income and profit distribution of the investee is all transferred to profit or loss for the period; under the equity method, other comprehensive income related to the original equity method is accounted for on the same basis as the investee's direct disposal of relevant assets or liabilities, and is transferred to the profit or loss for the period in proportion. Shareholders' equity recognised as a result of changes in Shareholders' equity other than net profit or loss, other comprehensive income and profit distribution of the investee is transferred to the profit or loss for the period according to the corresponding proportion.

V. SIGNIFICANT ACCOUNTING POLICIES AND ACCOUNTING ESTIMATES (Continued)

22. Investment properties

(1). In respect of investment properties measured at cost:

An investment property is a property held to earn rentals or for capital appreciation or for both purposes. It includes a building for the purpose of leasing out and a building that will be used for leasing out during construction or development.

An investment property is measured initially at cost. Subsequent expenditures incurred for such investment properties are included in the cost of the investment properties when it is probable that economic benefits associated with an investment property will flow to the Group and the cost can be measured reliably. Otherwise, they are recognised in profit or loss for the period in which they are incurred.

The Group uses the cost model for subsequent measurement of investment properties, and adopts a depreciation or amortisation policy for the investment properties which is consistent with that for buildings and land use rights.

23. Fixed assets

(1). Recognition criteria

Applicable Not applicable

A fixed asset is recognised only when it is probable that economic benefits associated with the asset will flow to the Group and the cost of the asset can be measured reliably. Subsequent expenditures incurred for the fixed asset that meet the recognition criteria shall be included in the cost of the fixed asset, and the carrying amount of the component of the fixed asset that is replaced shall be derecognised. Otherwise, such subsequent expenditures shall be recognised in profit or loss for the period in which they are incurred.

Fixed assets are initially measured at cost, and taking into account the impact of factors such as projected disposal costs. The purchase cost of a fixed asset comprises its purchase price, related taxes and any directly attributable expenditure for bringing the asset to its working condition for its intended use.

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V. SIGNIFICANT ACCOUNTING POLICIES AND ACCOUNTING ESTIMATES (Continued)

23. Fixed assets (Continued)

(2). Depreciation method

Applicable Not applicable

Depreciation is calculated on the straight-line basis to write off the cost of each item of fixed assets to its residual value over its estimated useful life. The estimated useful lives, estimated residual value and annual depreciation rates of fixed assets are as follows:

Categories	Depreciation method	Useful life (year)	Residual value rate	Annual depreciation rate
Houses and buildings	Straight-line method	20-40 years	3%-10%	2.25%-4.85%
Machinery equipment	Straight-line method	5-10 years	3%-10%	9.00%-19.40%
Means of transportation vehicles	Straight-line method	5-8 years	3%-10%	11.25%-19.40%
Electronic equipment and others	Straight-line method	3-10 years	3%-10%	9.00%-32.33%

The Group reviews the useful life, estimated net residual value of a fixed asset and the depreciation method applied at least once at each year-end, and make adjustments when necessary.

(3). The basis, valuation and depreciation method for the fixed assets acquired under financing leases

Applicable Not applicable

24. Construction in progress

Applicable Not applicable

Construction in progress is recognised based on the actual construction expenditures incurred. It includes all types of expenditures necessary to be incurred during the construction period, capitalised borrowing costs on related borrowings before the asset is ready for intended use, and other relevant expenditures.

Construction in progress is transferred to fixed assets, intangible assets and investment properties when the asset is ready for its intended use.

V. SIGNIFICANT ACCOUNTING POLICIES AND ACCOUNTING ESTIMATES (Continued)

25. Borrowing costs

Applicable Not applicable

Borrowing costs refer to interest and other related costs arising from the Group's borrowing. Borrowing costs include interest, amortisation of discounts or premiums, ancillary expenses and exchange differences arising from foreign currency borrowings.

Borrowing costs directly attributable to the acquisition, construction or production of a qualifying asset are capitalised when such costs fulfil the conditions of capitalisation, whereas other borrowing costs are recorded in profit or loss for the period. Qualifying assets are assets (fixed assets, inventories, etc.) that necessarily take a substantially long period of time for acquisition, construction or production to get ready for their intended use or sale.

The capitalisation of borrowing costs commences only when all of the following conditions are satisfied:

- (1) Expenditures for the asset have been incurred;
- (2) Borrowing costs have been incurred; and
- (3) Activities relating to the acquisition, construction or production of the asset that are necessary to bring the asset to get ready for its intended use or sale have commenced.

Capitalisation of borrowing costs ceases when the qualifying asset being acquired, constructed or produced becomes ready for its intended use or sale. Any borrowing costs subsequently incurred shall be recognised in profit or loss for the period in which they are incurred.

During the capitalisation period, the amount of interest to be capitalised for each accounting period shall be determined as follows:

- (1) for specific borrowings, the borrowing costs eligible for capitalisation are the actual interest costs incurred during the current period deducted by any temporary interest or investment income;
- (2) for general borrowings, the borrowing costs eligible for capitalisation are determined by applying a capitalisation rate to the excess amounts of cumulative expenditures on the asset over the weighted average of cumulative expenditures on the asset of specific borrowings multiplying the weight average rate of general borrowings.

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V. SIGNIFICANT ACCOUNTING POLICIES AND ACCOUNTING ESTIMATES (Continued)

25. Borrowing costs (Continued)

Capitalisation of borrowing costs shall be suspended during periods in which the acquisition, construction or production of qualifying assets is interrupted abnormally for a continuous period of more than three months except the necessary procedures for the assets to get ready for their intended use or sale. The borrowing costs incurred during the suspension period shall be recognised as expenses in profit or loss for the period until the acquisition, construction or production of the asset is resumed.

26. Biological assets

Applicable Not applicable

27. Oil and gas assets

Applicable Not applicable

28. Right-of-use assets

Applicable Not applicable

The Group's right-of-use assets include buildings and means of transportation vehicles.

On the commencement date of the lease term, the Group recognises its right to use the leased assets over the lease term as right-of-use assets, the amount of which includes: the amount of the initial measurement of the lease liability; any lease payments made at or before the commencement date of the lease term less any lease incentives already received; any initial direct costs incurred by the lessee; an estimate of costs to be incurred by the lessee in dismantling and removing the leased asset, restoring the site on which it is located or restoring the leased asset to the condition required by the terms and conditions of the lease. The Group depreciates the right-of-use assets by using the straight-line method. If it is reasonable to determine the ownership of the leased asset at the expiration of the lease term, the Group shall depreciate the leased assets over the remaining useful life. If it is not reasonable to determine that the ownership of the leased assets can be obtained at the expiry of the lease term, the Group shall depreciate the leased assets over the lease term or the remaining useful life of the leased assets, whichever is shorter.

The Group shall remeasure lease liabilities according to the present value of the changed lease payments and adjust the book value of the right-of-use assets accordingly. However, if the carrying amount of the right-of-use assets is reduced to zero, yet there is still a further reduction in the measurement of the lease liabilities, the Group recognises any remaining amount of the remeasurement in profit or loss for the period.

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V. SIGNIFICANT ACCOUNTING POLICIES AND ACCOUNTING ESTIMATES (Continued)

29. Intangible assets

(1). Valuation methods, useful life and impairment test

Applicable Not applicable

Intangible assets are recognised only when it is probable that the economic benefits associated with the asset will flow into the Group and the costs can be measured reliably. Intangible assets are measured initially at cost. Intangible assets acquired through business combination not involving enterprises under common control with a fair value that can be reliably measured are recognised separately as intangible assets and measured at fair value.

The useful life of the intangible assets shall be determined according to the period over which it is expected to generate economic benefits for the Group. An intangible asset shall be regarded as having an indefinite useful life when there is no foreseeable limit to the period over which the asset is expected to generate economic benefits for the Group.

The useful lives of each category of intangible assets are as follows:

Item	Useful life
Land use rights	50 years
Patents	5-8 years
Software	5 years
Unfinished contract	2-3 years
Customer relationships	5-9 years

Land use rights obtained by the Group are usually accounted for as intangible assets. The land use rights of the self-developed buildings including plants are measured as intangible assets and buildings are measured as fixed assets, respectively. With respect to the land use rights purchased together with buildings, the acquisition cost is allocated between the two parts proportionately, or otherwise, is wholly accounted for as fixed assets.

Intangible assets with finite useful lives are amortised over their useful lives using the straight-line method. The Group reviews the useful lives and the amortisation method for intangible assets with finite useful lives at least once at each year-end, and makes adjustments when necessary.

NOTES TO FINANCIAL STATEMENTS

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V. SIGNIFICANT ACCOUNTING POLICIES AND ACCOUNTING ESTIMATES (Continued)

29. Intangible assets (Continued)

(2). Accounting policies for internal research and development expenditure

Applicable Not applicable

The Group classifies the expenditure in an internal research and development project into expenditure at the research phase and expenditure at the development phase. Expenditure at the research phase is recognised in profit or loss for the period in which it is incurred. Expenditure at the development phase is capitalised when the Group can demonstrate all of the followings: the technical feasibility of completing the intangible asset so that it will be available for use or sale; the intention to complete the intangible asset and use or sell it; how the intangible asset will generate probable future economic benefits. Among other things, the Group can demonstrate the existence of a market for the output of the intangible asset or the intangible asset itself or, if it is to be used internally, the usefulness of the intangible asset; the availability of adequate technical, financial and other resources to complete the development and the ability to use or sell the intangible asset; and its ability to measure reliably the expenditure attributable to the intangible asset during its development. Expenditure at the development phase that does not meet the above criteria is recognised in profit or loss for the period in which it is incurred.

30. Long-term impairment of assets

Applicable Not applicable

The Group determines the impairment of assets other than inventories, contract assets, deferred income taxes and financial assets based on the following methods:

The Group assesses at the balance sheet date whether there is any indication that the assets may be impaired. If any indication exists that such assets may be impaired, the Group estimates the recoverable amount of the asset and performs impairment tests. Goodwill arising in a business combination and an intangible asset with an indefinite useful life shall be tested for impairment at least at each year end, irrespective of whether there is any indication that the asset may be impaired. Intangible assets that have not been ready for intended use are tested for impairment each year.

V. SIGNIFICANT ACCOUNTING POLICIES AND ACCOUNTING ESTIMATES (Continued)

30. Long-term impairment of assets (Continued)

The recoverable amount of an asset is the higher of its fair value less costs to sell and the present value of the future cash flows expected to be derived from the asset. The Group estimates the recoverable amount on an individual basis. If it is difficult to estimate the recoverable amount of an individual asset, the Group determines the recoverable amount of the asset group to which the asset belongs. Identification of an asset group shall be based on whether major cash inflows generated by the asset group are independent from the cash inflows from other assets or asset groups.

When the recoverable amount of an asset or asset group is less than its carrying amount, the carrying amount shall be reduced to its recoverable amount by the Group. The reduced amount is recognised in profit or loss for the current period. A provision for impairment loss of the asset is recognised accordingly.

For the purpose of impairment testing for goodwill, the carrying amount of goodwill acquired in a business combination is allocated from the acquisition date on a reasonable basis to each of the related asset groups; if it is difficult to allocate to the related asset groups, it is allocated to each of the related set of asset groups. Each of the related asset groups or set of asset groups is an asset group or set of asset groups that is able to benefit from the synergies of the business combination and is not larger than a reportable segment determined by the Group.

In testing an asset group or a set of asset groups including goodwill for impairment, if there is indication of impairment, the Group shall first test the asset group or the set of asset groups excluding goodwill for impairment. It shall determine and compare the recoverable amount with the related carrying amount and recognise any impairment loss. After that, the Group shall test the asset group or set of asset groups including goodwill for impairment. The carrying amount of the related asset group or set of asset group is compared to its recoverable amount. If the recoverable amount of the asset group or set of asset groups is lower than its carrying amount, an impairment loss is first reduced by the carrying amount of the goodwill allocated to the asset group or set of asset groups and then, the carrying amount of other assets (excluding goodwill) within the asset group or set of asset groups pro rata based on the carrying amount of each asset.

Once the above impairment loss is recognised, it shall not be reversed in subsequent accounting periods.

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V. SIGNIFICANT ACCOUNTING POLICIES AND ACCOUNTING ESTIMATES (Continued)

31. Long-term prepayments

Applicable Not applicable

Long-term prepayments are amortised on the straight-line basis. The amortisation period is as follows:

	Amortisation period
Costs of improvements to fixed assets under operating leases	2-5 years

32. Contract liabilities

(1). Methods for determining contract liabilities

Applicable Not applicable

The Group presents its obligation to transfer goods to customers for the consideration received or receivable from the customer as contractual liabilities, such as payments received by the enterprise prior to the transfer of the promised goods.

The Group will present the net amount after offsetting the contract assets with the contract liabilities under the same contract.

33. Employee benefits

Employee benefits include short-term employee benefits and post-employment benefits provided in various forms of consideration other than share-based payment given by the Group in exchange for service rendered by employees or compensations for the termination of employment relationship. The benefits that the Group provides to the spouse, children and dependents of the employees, the late employees' family and other beneficiaries also shall be deemed as employee benefits.

(1). Accounting methods for short-term remuneration

Applicable Not applicable

During an accounting period when employees render services, short-term remuneration actually incurred are recognised as a liability, and charged to profit or loss or in related costs of assets for the current period.

V. SIGNIFICANT ACCOUNTING POLICIES AND ACCOUNTING ESTIMATES (Continued)

33. Employee Benefits (Continued)

(2). Accounting methods for post-employment benefits

Applicable Not applicable

Post-employment benefits (defined contribution plan)

If employees of the Group participate in the basic pension insurance and unemployment insurance plans managed by local governments, the relevant expenditures are recorded in the relevant asset costs or profit or loss for the current period when incurred. In addition, the Group provides an annuity plan for its eligible employees in accordance with the Labour Law. The Group's withdrawals and deposits for its employees are calculated based on a certain percentage of the total salary of the employees and the length of service.

Post-employment benefits (defined benefit plans)

In addition to the above-mentioned benefit plans, the Group provides supplementary retirement benefits to its retired employees. These plans include monthly pension benefits, medical reimbursement benefits, annual medical insurance premiums and funeral benefits for employees after their retirement. The amount of the subsidies is determined based on the period during which the employee serves the Group and the relevant subsidy benefit policy.

These benefit plans beyond the scope of overall planning are considered to be based on a defined benefit plan. The defined benefit plan is calculated annually by an independent actuary using the projected unit credit method. The present value of the defined benefit obligations determined at the market yield of the government bonds during the defined benefit obligation period, and discounted over estimated future cash outflow. If there is an asset in the defined benefit plan, the present value of the defined benefit obligation minus the fair value of the asset of the defined benefit plan will be recognised as the net liability or net asset of the defined benefit plan. The change in the net liability or net asset of the defined benefit plan is divided into three parts: service cost, net interest on the net liability or net asset of the defined benefit plan, and changes due to re-measurement of net liability or net asset of the defined benefit plan for other comprehensive income.

Any remeasurement caused by the defined benefit plans, including actuarial gains or losses, changes in the impact of the asset cap (net of the amounts included in the net interest on defined benefit plan obligation) and return on the asset in the plan (net of the amounts included in the net interest on defined benefit plan obligation) is recognised in the balance sheet immediately and recorded in shareholders' equity through other comprehensive income in the accounting period the re-measurement occurred, and shall not be reversed to profit or loss in the subsequent accounting periods.

NOTES TO FINANCIAL STATEMENTS

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V. SIGNIFICANT ACCOUNTING POLICIES AND ACCOUNTING ESTIMATES (Continued)

33. Employee Benefits (Continued)

(2). Accounting methods for post-employment benefits (Continued)

Post-employment benefits (defined benefit plans) (Continued)

The previous service costs should be recognised as current expenses at the earlier of the following dates: when the Group modifies the defined benefit plans; and when the Group recognises relevant restructuring costs or termination benefits.

Net interest equals to the net liability or asset in defined benefit plan multiply by the discount rate. The Group recognised changes in the net defined benefit plan obligation as management expenses in the statement of profit or loss and other comprehensive income. Those changes include service costs, including current service costs, previous service costs and gains and losses on settlement, and net interest, including the interest income of the asset in the plan, interest expenses of the obligation under the plan and interest of the impact of the asset cap.

(3). ***Accounting methods for termination benefits***

Applicable Not applicable

The Group recognises a liability for employee remuneration arising from termination benefits, and charged to current profit or loss at the earlier of the following dates: when the Group can no longer withdraw the offer of those benefits unilaterally due to proposed termination of employment or proposal for rundown; and when the entity recognises costs or expenses for restructuring that related to the payment of termination benefits.

For the employee's internal retirement plan, the Group will use the salary of the early retired employee to be paid by the enterprise on a monthly basis and the social insurance premium as the termination benefits from the period when the employee stops providing the service to the normal retirement date, and account for them adopting the same principle as the above-mentioned termination benefits. The specific terms of each termination benefit and the employee's internal retirement plan vary according to the relevant employee's position, service years and regions and other factors.

V. SIGNIFICANT ACCOUNTING POLICIES AND ACCOUNTING ESTIMATES (Continued)

33. Employee Benefits (Continued)

(4). *Accounting methods for other long-term employee benefits*

Applicable Not applicable

Other long-term employee benefits provided to employees shall be recognised in accordance with the relevant provisions of post-employment benefits and used to measure net liabilities or net assets of other long-term employee benefits, but the changes are recognised in profit or loss for the period or related asset costs.

34. Lease liabilities

Applicable Not applicable

On the commencement date of the lease term, the Group recognises the present value of the lease payments that have not been paid as lease liabilities, except for short-term leases and low-value asset leases. In calculating the present value of the lease payments, the Group uses the leased interest rate as the discount rate; if the interest rate of the lease cannot be determined, the lessee's incremental borrowing rate is used as the discount rate. The Group calculates interest expenses of lease liabilities in each period of the lease term based on the constant periodic interest rate and recognises the interest expenses in profit or loss for the current period, except for those that are stipulated to be recognised in related asset costs. The variable lease payments that are not included in the measurement of the lease liabilities are recognised in profit or loss when incurred, except for those that are stipulated to be recognised in related asset costs.

After the commencement date of the lease term, in the event of change in the actual fixed payment amount, change in the amount expected to be payable under a residual value guaranteed, change in the index or ratio used to determine the lease payment, or change in the assessment results or actual exercise rights of the call option, renewal option or termination option, the Group re-measures the lease liability based on the present value of the changed lease payments.

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V. SIGNIFICANT ACCOUNTING POLICIES AND ACCOUNTING ESTIMATES (Continued)

35. Provisions

Applicable Not applicable

Except for contingent consideration and contingent liabilities assumed in business combinations involving enterprises not under common control, the Group recognises an obligation related to a contingency as a provision when all of the following conditions are satisfied:

- (1) the obligation is a present obligation assumed by the Group;
- (2) it is probable that an outflow of economic benefits from the Group will be required to settle the obligation; and
- (3) the amount of the obligation can be measured reliably.

A provision is initially measured at the best estimate of the expenditure required to settle the related present obligation, with a comprehensive consideration of factors such as the risks, uncertainty and time value of money relating to a contingency. The carrying amount of a provision is reviewed at each balance sheet date. If there is clear evidence that the carrying amount does not reflect the current best estimate, the carrying amount is adjusted to the best estimation.

36. Share-based payment

Applicable Not applicable

37. Preference shares, perpetual bonds and other financial instruments

Applicable Not applicable

The perpetual bonds issued by the Group have no maturity date. After the maturity date, the Group has the right to make unlimited renewals. For coupon interest of perpetual bonds, the Group has the right to make deferred payment. Those that the Group has no contractual obligation to pay cash or other financial assets shall be classified as equity instruments.

V. SIGNIFICANT ACCOUNTING POLICIES AND ACCOUNTING ESTIMATES (Continued)

38. Revenue

(1). Accounting policies adopted for revenue recognition and measurement

Applicable Not applicable

The Group recognises revenue when a performance obligation is satisfied, i.e. when “control” of the goods or services underlying the particular performance obligation is transferred to the customer. Acquiring “control” of the goods or services means being able to dominate the use of the goods or the provision of the services and obtain almost all of the economic benefits therefrom.

Sales agreement of goods

The sales agreement of goods entered into between the Group and its customers usually only includes the performance obligations of the transferred goods. The Group usually recognises the revenue at the time of transfer of control, taking into account the following factors: obtaining the current collection rights of the goods, transfer of the key risks and rewards of the ownership of the goods, transfer of the legal ownership of the goods, transfer of physical assets of goods and customers’ acceptance of the goods.

Service agreement

The service agreement entered into between the Group and its customers usually includes performance obligations such as technology development. As the services provided by the Group during the performance of the agreement have irreplaceable uses, and during the entire contract period, the Group has the right to take the revenue from the completion of performance of the agreement accumulated to date as the performance obligation performed within a certain period of time, and recognise the revenue based on the performance progress, except where the performance progress cannot be reasonably determined. The Group determines the performance progress for the services provided in accordance with the input method. When the performance progress cannot be reasonably determined, if the costs incurred by the Group are expected to be compensated, the revenue will be recognised based on the amount of costs incurred, until the performance progress can be reasonably determined.

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V. SIGNIFICANT ACCOUNTING POLICIES AND ACCOUNTING ESTIMATES (Continued)

38. Revenue (Continued)

(1). Accounting policies adopted for revenue recognition and measurement (Continued)

Construction contract

The construction contract entered into between the Group and its customers usually includes performance obligations such as construction services. As the customers can control the assets under construction in the performance of the Group, the Group considers them as performance obligations within a certain period of time, and recognises the revenue based on the performance progress, except where the performance progress cannot be reasonably determined. The Group determines the performance progress for the services provided in accordance with the input method and the costs occurred. When the performance progress cannot be reasonably determined, if the costs incurred by the Group are expected to be compensated, the revenue will be recognised based on the amount of costs incurred, until the performance progress can be reasonably determined.

Significant financing component

If the contract includes significant financing component, the Group determines the transaction price based on the amount payable under the assumption that the customer pays that amount payable in cash when “control” of the goods is obtained by the customer. By discounting the nominal amount of the contract consideration to the discount rate of the current selling price of the goods, the difference between the transaction price determined and the contract consideration of the contract committed shall be amortised within the contract period using effective interest rate method.

If the Group expects that the period between when the Group transfers a promised good to a customer and when the customer pays for that good will be one year or less, the Group needs not to consider the significant financing component.

V. SIGNIFICANT ACCOUNTING POLICIES AND ACCOUNTING ESTIMATES (Continued)

38. Revenue (Continued)

(1). Accounting policies adopted for revenue recognition and measurement (Continued)

Quality assurance obligation

According to the contractual agreement, legal provisions, etc., the Group provides quality assurance for the goods sold or assets constructed. For assurance-type quality assurance to the customers to ensure that the goods sold meet the established standards, the Group performs accounting treatment in accordance with Note III 35. For service-type quality assurance for a separate service provided in addition to ensuring to the customers that the goods sold meet the established standards, the Group considers it as a single performance obligation, and according to the relative proportion of the individual selling prices for providing quality assurance for goods and services, amortises part of the transaction price to the service-type quality assurance, and recognises the revenue when the customer obtains control of the service. In assessing whether the quality assurance provides a separate service in addition to ensuring to the customers that the goods sold meet the established standards, the Group considers whether the quality assurance is a statutory requirement, a quality assurance period and the nature of the Group's commitment to perform its tasks and other factors.

Principal/agent

For the Group to obtain control of the goods or other assets from a third party and then transfer it to the customer, the Group has the right to determine the price of the goods traded at its own discretion, that is, the Group is a principal if it controls the specified good before that good is transferred to a customer, and the revenue shall be recognised based on the total consideration received or receivable; otherwise, the Group is an agent, and the revenue shall be recognised based on the amount of commission or handling fee that is expected to be charged, and such amount shall be determined based on the net amount of the total consideration received or receivable after deducting the prices payable to other related parties or according to the established commission amount or proportion

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V. SIGNIFICANT ACCOUNTING POLICIES AND ACCOUNTING ESTIMATES (Continued)

38. Revenue (Continued)

(1). Accounting policies adopted for revenue recognition and measurement (Continued)

Change in contract

When there is a change to the construction contract entered into between the Group and its customers:

- (1) If the change in contract adds a clearly distinguishable construction service and contract price, and the new contract price reflects the individual selling price of the new construction service, the Group will consider the change in contract as a separate contract for accounting treatment;
 - (2) If the change in contract does not fall within the circumstances stated in item (1) above, and the transferred construction service and the construction service which has not been transferred can be clearly distinguished at the date of change in contract, the Group considers it as termination of the original contract, and at the same time, the non-performance part of the original contract and the modified part of the contract will be combined into a new contract for accounting treatment;
 - (3) If the change in contract does not fall within the circumstances stated in item (1) above, and the transferred construction service and the construction service which has not been transferred cannot be clearly distinguished at the date of change in contract, the Group will make the modified part of the contract as an integral part of the original contract for accounting treatment, of which the impact on the recognised revenue as a result of such change will be adjusted as the revenue for the period on the date of change in contract.
- (2). Differences between the accounting policies for revenue recognition due to different business models adopted by similar business

Applicable Not applicable

V. SIGNIFICANT ACCOUNTING POLICIES AND ACCOUNTING ESTIMATES (Continued)

39. Assets related to contract costs

Applicable Not applicable

The Group's assets relating to contract costs include costs of obtaining a contract and costs to fulfil a contract. The assets are presented as inventories, other current assets and other non-current assets based on its liquidity.

The Group shall recognise as an asset the incremental costs of obtaining a contract with a customer if the entity expects to recover those costs, unless the asset amortisation period does not exceed one year.

If the costs incurred in fulfilling a contract with a customer are not within the scope of other standards (for example, inventories, fixed assets or intangible assets), the Group shall recognise an asset from the costs incurred to fulfil a contract only if those costs meet all of the following criteria:

- (1) the costs relate directly to a current or anticipated contract that the entity can specifically identify, including direct labour cost, directly material cost, manufacturing overheads (or similar expenditure), costs that are explicitly chargeable to the customer under the contract and other costs that are incurred only because of the contract;
- (2) the costs enhance resources of the entity that will be used in satisfying performance obligations in the future; and
- (3) the costs are expected to be recovered.

The Group amortises the asset relating to contract costs on a basis that is consistent with the revenue recognition relating to the asset and recognises it in profit or loss.

The Group shall recognise an impairment loss in profit or loss to the extent that the carrying amount of an asset relating to contract costs exceeds:

- (1) the remaining amount of consideration that the entity expects to receive in exchange for the goods to which the asset relates;
- (2) the costs that relate directly to providing those goods.

If the factors of impairment in the previous period have changed, and the difference between (1) minus (2) is higher than the book value of the asset, it should be transferred back to the original provision for impairment of assets, and included in the current profit or loss, but the reversed book value of the subsequent asset shall not exceed the book value of the asset on the date of reversal, assuming no provision for impairment.

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V. SIGNIFICANT ACCOUNTING POLICIES AND ACCOUNTING ESTIMATES (Continued)

40. Government grants

Applicable Not applicable

Government grants are recognised only when the attached conditions are met and they can be received. Government grants are measured at the amount received or receivable when in the form of a monetary asset, and at fair value when in the form of a non-monetary asset. Where the fair value is not reliably determinable, the government grants are measured at the nominal amount.

Government documents stipulate that if the long-term assets are obtained by acquisitions, constructions or other forms, the grants should be recognised as the government grants related to assets. If the government documents are unclear, they should be judged on the basis of the basic conditions necessary for obtaining such grants, if the long-term assets are obtained by acquisitions, constructions or other forms, the grants should be recognised as the government grants related to assets, and the others should be recognised as income-related government grants.

For government grants related to income, where the grant is a compensation for related expenses or losses to be incurred in the subsequent periods, the grant is recognised as deferred income, and included in profit or loss over the periods in which the related costs are recognised or adjusted against the relevant cost; where the grant is a compensation for related expenses or losses already incurred by the Group, the grant is recognised immediately in profit or loss for the current period or is adjusted against the relevant cost.

Government grants related to assets are adjusted against the book value of the assets or recognised as deferred income and evenly distributed in profit or loss over the useful period of related assets in a reasonable and systematic way. Government grants measured at their nominal amounts shall be recognised immediately in profit or loss for the current period. If the relevant assets are sold, transferred, disposed of or ruined before their useful life ends, the undistributed relevant deferred income shall be transferred to the gain from asset disposal for the current period.

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V. SIGNIFICANT ACCOUNTING POLICIES AND ACCOUNTING ESTIMATES (Continued)

41. Deferred tax assets/deferred tax liabilities

Applicable Not applicable

Income tax comprises current and deferred tax. Income tax is recognised as income tax expense or income in profit or loss for the current period, except for the adjusted goodwill resulting from a business combination or those relating to a transaction or event which is included directly in shareholders' equity, they are included in the shareholder's equity.

Current income tax liabilities or assets for the current and prior periods are measured at the amount of income tax expected to be paid or recovered according to the requirements of tax laws.

For temporary differences between the carrying amounts of assets and liabilities at the balance sheet date and tax bases, and temporary differences between the carrying amounts and the tax bases of items which have not been recognised as assets and liabilities but the tax bases of which can be determined for tax purposes, deferred taxes are provided using the liability method of the balance sheet.

A deferred tax liability is recognised for all taxable temporary differences, except:

- (1) where the taxable temporary differences arise from the initial recognition of goodwill, or the initial recognition of an asset or liability in a transaction which contains both of the following characteristics: (i) the transaction is not a business combination; and (ii) at the time of the transaction, it affects neither accounting profit nor taxable profit or deductible loss.
- (2) in respect of taxable temporary differences associated with investments in subsidiaries, associates and joint ventures, where the timing of the reversal of the temporary differences can be controlled and it is probable that the temporary differences will not be reversed in the foreseeable future.

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V. SIGNIFICANT ACCOUNTING POLICIES AND ACCOUNTING ESTIMATES (Continued)

41. Deferred tax assets/deferred tax liabilities (Continued)

A deferred tax asset is recognised for deductible temporary differences, carryforward of unused deductible tax losses and tax credits, to the extent that it is probable that taxable profit will be available against which the deductible temporary differences, and the carryforward of deductible tax losses and tax credits can be utilised, except:

- (1) where the deferred tax asset arises from a transaction that is not a business combination and, at the time of the transaction, neither the accounting profit nor taxable profit or deductible loss is affected.
- (2) in respect of the deductible temporary differences associated with investments in subsidiaries, associates and joint ventures that satisfy all of the following conditions simultaneously, a deferred tax asset is only recognised to the extent that it is probable that the temporary differences will be reversed in the foreseeable future and taxable profit will be available for deducting against the deductible temporary differences in the future.

At the balance sheet date, deferred tax assets and deferred tax liabilities are measured at the tax rates that are expected to apply to the period when the asset is realised or the liability is settled, according to the requirements of tax laws. The measurement of deferred tax assets and deferred tax liabilities reflects the tax consequences of the manner by which the Group expects to recover the assets or settle the liabilities at the balance sheet date.

The carrying amount of deferred tax assets is reviewed at the balance sheet date and reduced to the extent that it is no longer probable to obtain sufficient taxable profit in future periods to deduct the income of deferred income tax assets. Deferred tax assets which have not been recognised are reassessed at the balance sheet date and are recognised to the extent that it is probable to have sufficient taxable profit available to deduct all or part of the deferred tax asset to be recovered.

When all of the following conditions are satisfied simultaneously, the deferred income tax assets and deferred income tax liabilities are listed in the net amount after offsetting: the Group has a legal right to settle current tax assets and income tax liabilities on a net basis; the deferred income tax assets and deferred income tax liabilities are related to the income tax payable by the same tax payer to the same taxation authority or related to different tax payers, but during the period when each of the significant deferred income tax assets and deferred income tax liabilities is reversed, the tax payer involved intends to settle the current income tax asset and current income tax liability on a net basis, or simultaneously obtain assets and pay off the debts.

V. SIGNIFICANT ACCOUNTING POLICIES AND ACCOUNTING ESTIMATES (Continued)

42. Leases

(1). Accounting method for operating leases

Applicable Not applicable

Recognition of lease

At inception of a contract, the Group assesses whether a contract is, or contains, a lease. A contract is, or contains, a lease if the contract conveys the right to control the use of one or more identified assets for a period of time in exchange of consideration. To determine whether the right to control the use of identified assets within a certain period of time under a contract has been transferred, the Group assesses whether a client in the contract has the right to use almost all of the economic benefits arising from the use of the identified assets during the period of use, and has the right to dominate the use of identified assets during this period of use.

Recognition of separate lease

Where a contract concurrently contains multiple separate leases, the Group splits the contract and conducts accounting treatment for all separate leases respectively. Where the following conditions are concurrently met, use of the rights of identified assets shall constitute a separate lease in the contract:

- (1) A lessee may earn profits from separate use of the assets or joint use with other resources readily available;
- (2) There is no high dependence or high correlation between the assets and other assets in the contract.

Where a contract concurrently includes both leased and non-leased parts, the Group, as the lessor, shall split the leased and non-leased parts and conduct accounting treatment.

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V. SIGNIFICANT ACCOUNTING POLICIES AND ACCOUNTING ESTIMATES (Continued)

42. Leases (Continued)

(1). Accounting method for operating leases (Continued)

Assessment of lease term

The lease term is the period during which the Group has the right to use the leased asset and is irrevocable. The Group has the option to renew the lease, that is, it has the right to choose to renew the lease, and reasonably determine that the option will be exercised. The lease term also includes the period covered by the option to renew the lease. The Group has the option to terminate the lease, that is, it has the right to choose to terminate the lease of the asset but reasonably determine that the option will not be exercised. The lease term includes the period covered by the option to terminate the lease. In the event of a major event or change within the Group's controllable scope, and affecting whether the Group reasonably determines that the option will be exercised, the Group reassesses whether it reasonably determines that it will exercise the option to renew the lease, call option or not to exercise the option to terminate the lease.

As a lessee

For the general accounting treatment of the Group as a lessee, please refer to Note V. 28 and Note V. 34.

V. SIGNIFICANT ACCOUNTING POLICIES AND ACCOUNTING ESTIMATES (Continued)

42. Leases (Continued)

(1). Accounting method for operating leases (Continued)

Modification of lease

Modification of lease is the modification of lease scope, lease consideration, and lease term beyond the original contract terms, including the addition or termination of the rights of use of one or more leased assets, and the extension or shortening of the lease period stipulated in the contract.

If the modification of lease happens and meets the following conditions, the Group will conduct accounting treatment for the modification of lease as a separate lease:

- (1) the modification of lease expands the scope of lease by increasing the rights of use of one or more leased assets;
- (2) the increased consideration and the individual price of the expanded part of lease are equivalent after adjustment is made in accordance with the contract situation.

If accounting treatment for the modification of lease as a separate lease is not conducted, the Group shall redetermine the lease term on the effective date of modification of lease and discount the modified lease payments using the revised discount rate, in order to remeasure the lease liabilities. When calculating the present value of the lease payments after modification, the Group adopts the interest rate contained in the lease for the remaining lease periods as the discount rate; if the lease interest rate contained in the lease for the remaining lease periods cannot be readily determined, the Group's incremental borrowing increase shall then be used as the discount rate on the effective date of modification of lease.

In view of the consequences of the above adjustment of the lease liabilities, the Group conducts accounting treatment based on each of the following cases accordingly:

- (1) if the modification of lease results in a narrower scope of lease or a shorter lease term, the Group reduces the book value of the right-of-use assets to reflect the partial or complete termination of the lease. The Group recognises the gain or loss relevant to the partial or complete termination of the leases in the current profit or loss;
- (2) for other modification of lease, the Group adjusts the book value of the right-of-use assets accordingly.

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V. SIGNIFICANT ACCOUNTING POLICIES AND ACCOUNTING ESTIMATES (Continued)

42. Leases (Continued)

(1). Accounting method for operating leases (Continued)

Short-term leases and low-value asset leases

On the commencement date of the lease term, the Group shall recognise leases with a lease term of less than 12 months and not including a call option as a short-term lease; single leases with a value of less than RMB50,000 when being a new asset are recognised as low-value asset leases. If the Group subleases or expects to sublease the leased assets, the original leases shall not be recognised as low-value asset lease. The Group chooses not to recognise short-term leases and low-value asset leases as right-of-use assets and lease liabilities. During each period over the lease term, short-term leases and low-value asset leases shall be recognised in the related asset cost or current profit and loss on a straight-line basis.

As a lessor

On the commencement date of the lease term, all leases with risks and rewards incident to the ownership of the leased assets are substantially transferred into finance leases, and all other leases are operating leases. The Group classifies the sublease with reference to the right-of-use assets arising from the original lease as a sub-lessor.

As the lessor of a finance lease

At the commencement date, the Group recognises finance lease receivables and derecognises financial leased assets. The Group initially measures finance lease receivables in the amount of net investment in the lease. Net investment in the lease is the sum of unguaranteed residual value and the present value of lease payments not received at the commencement date being discounted at the interest rate contained in the lease.

The Group calculates and recognises interest income in each period during the lease term based on a constant periodic rate of interest. The variable lease payments that are not included in the measurement of the net investment in the lease are recognised in profit or loss when incurred.

V. SIGNIFICANT ACCOUNTING POLICIES AND ACCOUNTING ESTIMATES (Continued)

42. Leases (Continued)

(1). Accounting method for operating leases (Continued)

As a lessor of an operating lease

Lease payments under an operating lease are recognised in current profit or loss on a straight-line basis in each period over the lease term. Contingent rents are recognised in profit or loss in the period in which they actually arise.

In case of modification of an operating lease changes, the Group shall treat it as a new lease from the effective date of modification, and the amount of the advance receipt or receivable related to the lease before the modification shall be regarded as the collection amount of the new lease.

As a lessee of an operating lease

Operating lease expenditures in each period over the lease term shall be recognised in the related asset costs or current profit or loss on a straight-line basis. Contingent rents are recognised in profit or loss in period in which they actually arise.

As a lessor of an operating lease

Lease payments under an operating lease are recognised in current profit or loss on a straight-line basis in each period over the lease term. Contingent rents are recognised in profit or loss in the period in which they actually arise.

(2). Accounting method for financing leases

Applicable Not applicable

(3). Methods for determining and accounting of lease under new lease standards

Applicable Not applicable

Please refer to Note V. 42(1) for details.

NOTES TO FINANCIAL STATEMENTS

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V. SIGNIFICANT ACCOUNTING POLICIES AND ACCOUNTING ESTIMATES (Continued)

43. Other significant accounting policies and estimates

Applicable Not applicable

(1) Hedge accounting

In respect of the methods of hedge accounting, the Group's hedging is classified as:

- (1) fair value hedge, which is a hedge of the exposure to changes in fair value of a recognised asset or liability or an unrecognised firm commitment (excluding foreign exchange risk).
- (2) cash flow hedge, which is a hedge of the exposure to variability in cash flows that is attributable to a particular risk associated with a recognised asset or liability, or a highly probable forecast transaction; or a foreign currency risk in an unrecognised firm commitment.
- (3) hedge of net investment in overseas operations.

At the inception of a hedge relationship, the Group officially designates the hedge relationship and prepares formal written documentation of the hedge relationship, risk management objectives and hedge strategies. The documentation includes identification of the hedging instrument, the hedged item, the nature of the risk being hedged and how the Group will assess the hedging instrument's effectiveness. Hedge effectiveness is the extent to which the changes in cash flow of hedging instruments can offset the cash flow of hedged items caused by hedged risk. Such hedges are assessed on an ongoing basis to meet the requirements for hedge effectiveness on the initial designated date and beyond.

If the hedging instrument expires or is sold, terminated or exercised (but the rollover or replacement of part of a hedging instrument under the hedging strategy is not treated as an expiration or a contract termination), or due to a change in the risk management objective, the hedging relationship no longer meets the risk management objective, or when the hedging no longer meets other conditions of the hedge accounting method, the Group terminates the use of hedge accounting.

Where the hedging relationship no longer meets the hedging effectiveness requirements due to the hedging ratio, but the risk management objectives for the designated hedging relationship have not changed, the Group rebalances the hedging relationship.

V. SIGNIFICANT ACCOUNTING POLICIES AND ACCOUNTING ESTIMATES (Continued)

43. Other significant accounting policies and estimates (Continued)

(1) Hedge accounting (Continued)

Hedges which meet the strict criteria for hedge accounting are accounted for as follow:

Cash flow hedge

The effective portion of the gain or loss on the hedging instrument is recognised directly in other comprehensive income in the cash flow hedge reserve, while any ineffective portion is recognised immediately in the statement of profit or loss and other comprehensive income.

If an anticipated transaction under hedge is subsequently recognised as non-financial assets or non-financial liabilities, or an anticipated transaction of non-financial assets or non-financial liabilities forms a definitive undertaking in fair value hedging, cash flow hedging reserve previously recognised in other comprehensive income shall be transferred out and included in the amount of initial recognition of such assets or liabilities. In respect of the remaining cash flow hedge, if an anticipated sale occurs in the same period when the expected cash flow under hedge affects profit or loss, cash flow hedging reserve recognised in other comprehensive income shall be transferred out and included in current profit or loss.

Net investment hedge for overseas operations

Net investment hedge for overseas operations includes currency hedge as a part of net investment and is dealt with in a similar way as cash flow hedge. The portion of gain or loss of hedge instrument designated as effective hedge shall be credited or charged to other comprehensive income, while ineffective hedge shall be dealt with in current profit or loss. Upon disposal of the overseas operations, the accumulated gains or losses previously accounted for in other comprehensive income shall be transferred to current profit or loss.

NOTES TO FINANCIAL STATEMENTS

Year ended 31 December 2019

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V. SIGNIFICANT ACCOUNTING POLICIES AND ACCOUNTING ESTIMATES (Continued)

43. Other significant accounting policies and estimates (Continued)

(1) Hedge accounting (Continued)

Cost of hedging

The Group separates the intrinsic value and time value of an option contract and designates as the hedging instrument only the change in intrinsic value of an option; or separates the forward element from the spot element of a forward contract and designates as the hedging instrument only the change in the value of the spot element; or separates the foreign currency basis spread of the financial instruments and designates as the hedging instrument only the financial instruments which foreign currency basis spread is separated, the Group recognises the time value of an option, forward element of a forward contract and the part of the hedged items that are relevant to the fair value changes of foreign currency basis spread of the financial instrument into other comprehensive income. If the characteristics of the hedged items are related to the transaction, the same accounting treatment with the cash flow hedge reserve shall be applied. If the characteristics of the hedged items are related to the period of time, the above fair value change shall be amortised on a systematic and reasonable basis over the time when the hedged item affects the profit or loss or other comprehensive income, transferred from other comprehensive income to profit or loss for the current period.

(2) Profit distribution

The Company's cash dividends are recognised as liabilities upon approval by the Shareholders' general meeting.

(3) Production safety expenses

Production safety expenses provided for as required were included in cost of product or the current profit and loss, and credited in special reserve. And the funds are treated separately depending on whether fixed assets are resulted when being used: funds related to expenditure is offset against special reserve directly while those forming fixed assets will consolidate expenditure incurred and recognized as fixed assets when such assets are ready for their intended use, at the same time offsetting equivalent amounts in the special reserve and recognizing equivalent amounts of accumulated depreciation.

V. SIGNIFICANT ACCOUNTING POLICIES AND ACCOUNTING ESTIMATES (Continued)

43. Other significant accounting policies and estimates (Continued)

(4) Fair value measurement

The Group measures listed equity investment instruments at fair value at the end of each reporting period. Fair value is the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. The fair value measurement is based on the presumption that the transaction to sell the asset or transfer the liability takes place in the principal market for the asset or liability or in the most advantageous market for the asset or liability when a principal market is absent. The principal or the most advantageous market must be accessible to by the Group. The fair value of an asset or a liability is measured using the assumptions that market participants would use when pricing the asset or liability, assuming that market participants act in their economic best interest.

A fair value measurement of a non-financial asset takes into account a market participant's ability to generate economic benefits by using the asset in its highest and best use or by selling it to another market participant that would use the asset in its highest and best use.

The Group uses valuation techniques that are appropriate in the circumstances and for which sufficient data and other supporting information are available to measure fair value, giving priority to the use of relevant observable inputs, and using unobservable inputs only when observable inputs are unavailable or not feasible to obtain.

All assets and liabilities for which fair value is measured or disclosed in the financial statements are categorised within the fair value hierarchy, described as follows, based on the lowest level input that is significant to the fair value measurement as a whole: Level 1—Quoted (unadjusted) market prices in active markets for identical assets or liabilities; Level 2—Valuation techniques for which the lowest level input that is significant to the fair value measurement is directly or indirectly observable; Level 3—Valuation techniques for which the lowest level input that is significant to the fair value measurement is unobservable.

For assets and liabilities that are recognised in the financial statements on a recurring basis, the Group determines whether transfers have occurred between levels in the hierarchy by re-assessing categorisation at the end of each reporting period.

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V. SIGNIFICANT ACCOUNTING POLICIES AND ACCOUNTING ESTIMATES (Continued)

44. SIGNIFICANT ACCOUNTING JUDGMENTS AND ESTIMATES

The preparation of the financial statements requires management to make judgements, estimations and assumption that affect the reported amounts and disclosures of revenues, expenses, assets and liabilities, and the disclosure of contingent liabilities at the balance sheet date. However, uncertainty about these assumptions and estimations could result in outcomes that could require a material adjustment to the carrying amounts of the assets or liabilities affected in the future.

Judgements

In the process of applying the Group's accounting policies, management has made the following judgements which have the most significant effect on the amounts recognised in the financial statements:

Operating leases – the Group as lessor

The Group has entered into operating leases on its investment property portfolio. The Group has determined, based on an evaluation of the terms and conditions of the arrangements, that it retains all the significant risks and rewards of ownership of these properties which are leased out on operating leases.

Determination of progress towards completion of the performance of obligations for construction contracts

The Group uses the input method to determine the progress towards completion of the performance obligations for the construction contracts. To be specific, the Group determines the progress towards completion of the performance obligations on the basis of the percentage of the accumulative actual construction costs incurred to the expected total costs. The accumulative actual costs include the direct and indirect costs incurred during the process of transferring goods to the customers. The Group believes that the construction contract price with the customers is determined on the basis of the construction costs, and the actual construction costs as a percentage of the estimated total costs can accurately reflect the progress of the construction service. In view of the long duration of construction contracts, which may span several accounting periods, the Group will review and revise the budget as the construction contracts progress, and adjust the income recognition amount accordingly.

Estimation uncertainty

The key assumptions concerning the future and other key sources of estimation uncertainty at the balance sheet date, that have a significant risk of causing a material adjustment to the carrying amounts of assets and liabilities within the future accounting periods, are described below.

V. SIGNIFICANT ACCOUNTING POLICIES AND ACCOUNTING ESTIMATES (Continued)

44. SIGNIFICANT ACCOUNTING JUDGMENTS AND ESTIMATES (Continued)

Construction contracts and labour service results

The Group recognises revenue based on the percentage of completion of individual contracts providing construction contracts and labour services. The management estimates the percentage of project completion based on the actual costs involved in the total budgeted costs and also estimates the relevant contract revenue. Due to the nature of the activities carried out in the contracts, the dates of the activities and the dates of completion of the activities are usually classified into different accounting periods. The Group will review and revise the budget and contract cost estimates as the contracts process (if the actual contract revenue is less than the estimated or actual contract costs, provision for the estimated contract losses is to be made).

Impairment of financial instruments and contract assets

The Group has adopted the expected credit loss model to evaluate the impairment of financial instruments and contract assets. The application of the expected credit loss model requires significant judgement and estimates and the consideration of all reasonable and soundly based information, including forward-looking information. In making such judgement and estimates, the Group estimates the projected movements of the debtor's credit risk according to past repayment records, economic policies, macro-economic indicators and industry risks, etc. Differences in estimates may have an impact on the provision for impairment. A provision for impairment may not be equal to the actual amount of impairment losses in the future.

Impairment of non-current assets other than financial assets (excluding goodwill)

The Group assesses whether there are any indicators of impairment for non-current assets other than financial assets as at the balance sheet date. Intangible assets with indefinite useful lives are tested for impairment annually and at other times when such an indicator exists. Other non-current assets other than financial assets are tested for impairment when there are indicators that the carrying amounts may not be recoverable. An impairment exists when the carrying value of an asset or asset group exceeds its recoverable amount, which is the higher of its fair value less costs to sell and its present value of future cash flows. The calculation of the fair value less costs to sell is based on available data from binding sales transactions in an arm's length transaction of similar assets or observable market prices less incremental costs for disposing of the asset. When value in use calculations are undertaken, management must estimate the expected future cash flows from the asset or asset group and choose a suitable discount rate in order to calculate the present value of those cash flows.

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V. SIGNIFICANT ACCOUNTING POLICIES AND ACCOUNTING ESTIMATES (Continued)

44. SIGNIFICANT ACCOUNTING JUDGMENTS AND ESTIMATES (Continued)

Impairment of goodwill

Goodwill is tested for impairment at least annually. For the purpose of impairment testing, the present value of future cash flows, which are generated from asset groups or sets of asset groups considered together with allocated goodwill, is estimated. The Group estimates the present value of future cash flows from asset groups or sets of asset groups by forecasting the related cash flow and selecting a suitable discount rate.

Fair value of non-listed equity investments

Non-listed equity investments are valued as expected future cash flows based on the current discount rate of other financial instruments with similar contractual terms and risk characteristics. This requires the Group to estimate future cash flows, credit risks, fluctuations and discount rates and is therefore uncertain.

Impairment of inventories

The Group determines the write-down for obsolescence of inventories. These estimates are made with reference to aged inventory analyses, projections of expected future sales of goods and management experience and judgement. Based on this review, write-down of inventories will be made when the carrying amounts of inventories decline below their estimated net realizable values. Due to changes in market conditions, actual sales of goods may be different from estimation and profit or loss in the current period could be affected by differences in this estimation

Development expenditures

Determination of the capitalisation amount requires estimation of future cash flows of the related assets, choosing a suitable discount rate and estimation of beneficial useful lives in order to calculate the present value by management.

V. SIGNIFICANT ACCOUNTING POLICIES AND ACCOUNTING ESTIMATES (Continued)

44. SIGNIFICANT ACCOUNTING JUDGMENTS AND ESTIMATES (Continued)

Deferred tax assets

Deferred tax assets are recognised for all unused tax losses to the extent that it is probable that taxable profit will be available against which the losses can be utilised. Significant management judgement is required to determine the amount of deferred tax assets that can be recognised, based upon the likely timing and level of future taxable profits together with future tax planning strategies.

Measurement of defined benefit scheme obligations

The Group has recognised the supplementary retirement benefits under the defined benefit scheme as a liability. The estimated amount of these welfare expenses and liabilities shall be calculated and paid on the basis of various assumptions. These assumptions include the discount rate, the growth rate of welfare expenses during relevant period, as well as other factors. Deviations between actual results and actuarial assumptions will affect the accuracy of the relevant accounting estimates. Although the management believes that the above assumptions are reasonable, any changes in assumptions shall still affect the estimated liabilities of the relevant supplementary pension insurance and other external welfare plans.

Useful lives and residual values of fixed assets

The useful lives of fixed assets are estimated based on historical experience of the Group with similar assets used in a similar way. If useful lives of the fixed assets are estimated to be shorter than previously estimated, the Group will increase the depreciation rates accordingly, or dispose of those assets that are idle or technically obsolete.

In determining the useful lives and net residual values of fixed assets, the Group periodically reviews the changes in market conditions, estimated physical wear and tear, and the maintenance of an asset. The estimation of the useful life of the asset is based on historical experience of the Group with similar assets that are used in a similar way. The depreciation amount will be adjusted if the estimated useful lives and/or the net residual values of fixed assets are less than previous estimation. Useful lives and net residual values are reviewed, at the end of each reporting period, based on changes in circumstances.

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Year ended 31 December 2019

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V. SIGNIFICANT ACCOUNTING POLICIES AND ACCOUNTING ESTIMATES (Continued)

44. SIGNIFICANT ACCOUNTING JUDGMENTS AND ESTIMATES (Continued)

Quality guarantee

The Group will make a reasonable estimate of the warranty rate for the contract combination with similar characteristics based on historical warranty data and current warranty conditions, taking into account all relevant information such as product improvement and market changes. The estimate of the warranty rate may not be equal to the actual warranty rate in the future. The Group re-evaluates the warranty rate at least on each balance sheet date and determines the estimated liabilities based on the re-evaluated warranty rate.

Lessee's incremental borrowing rate

For a lease whose rate cannot be readily determined, the Group adopts lessee's incremental borrowing rate as the discount rate in estimating the present value of the lease payment. When determining the incremental borrowing interest rate, the Group uses the observable interest rate as a reference basis for determining the incremental borrowing rate according to the economic environment in which it is located and, on this basis, adjusts the reference interest rate according to the specific circumstances of the lease business, such as its own conditions, the underlying asset's condition, the lease term and the amount of the lease liability for obtaining an appropriate incremental borrowing rate.

V. SIGNIFICANT ACCOUNTING POLICIES AND ACCOUNTING ESTIMATES (Continued)

45. Changes in significant accounting policies and estimates

(1). Changes in significant accounting policies

Applicable Not applicable

New lease standard

In 2018, the Ministry of Finance issued the revised “Accounting Standard for Business Enterprises No. 21-Leasing” (the “New Lease Standard”) which adopts the single model similar to that used for the current accounting treatment for finance lease and requires the lessee to recognize right-of-use asset and lease liability for all leases other than short-term and low-value assets leases and recognise depreciation and interest expenses, respectively. Since 1 January 2019, the Group has conducted accounting treatment in accordance with the newly revised lease standard and elected not to re-evaluate whether the contracts that have existed before the date of first implementation are or contain leases. According to the transitional requirements, the information for the comparable period will not be adjusted and retained earnings at the beginning of current reporting period will be retrospectively adjusted based on the difference between the New Lease Standard and the current lease standard on the first day of implementation:

- (1) The Group presents the right-of-use assets and lease liabilities for finance leases before the date of first implementation at the original book value of the assets acquired under finance leases and finance lease payables, respectively;
- (2) The Group presents the lease liabilities according to the discounted present value of the remaining amount of the lease payments at the incremental borrowing rate, and at the amount equivalent to the lease liabilities with regard to each lease, and presents the right-of-use assets according to the prepaid rents subject to necessary adjustments. The right-of-use assets is presented using the incremental borrowing interest rate of the Group being the lessee on the date of first implementation as the book value of the discount rate, assuming that the New Lease Standard is adopted from the commencement date of the lease term;
- (3) The Group conducted impairment test on the right-of-use assets in accordance with Note V.28 and conducted corresponding accounting treatment.

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Year ended 31 December 2019

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V. SIGNIFICANT ACCOUNTING POLICIES AND ACCOUNTING ESTIMATES (Continued)

45. Changes in significant accounting policies and estimates (Continued)

(1). Changes in significant accounting policies (Continued)

The Group adopted simplified treatment for the operating leases whose leased assets are low-value assets or completed within 12 months before the date of first implementation, and did not recognise the right-of-use asset and lease liability. In addition, the Group adopted the following simplified treatment for the operating leases prior to the date of first implementation:

- (1) When presenting the lease liabilities, the same discount rate may be adopted for leases with similar characteristics; the presentation of right-of-use assets may not include initial direct costs;
- (2) Where a renewal option or a termination option is available to the lease, the Group determines the lease term based on the actual exercise of the option and other recent situations before the date of first implementation;
- (3) As an alternative to the impairment test of the right-of-use assets, the Group assesses whether the contract including the lease is an onerous contract before the date of first implementation according to Note V.39, and adjusts the right-of-use assets based on the provision for losses presented in the balance sheet before the date of first implementation;
- (4) The Group conducts accounting treatment based on the final arrangement of the lease modification for modification of leases before the date of first implementation.

For the significant operating leases disclosed in the 2018 financial statement whose minimum lease payments have not been paid, the Group adjusts the difference between the present value discounted at the incremental borrowing rate of the Group as the lessee on 1 January 2019 and the lease liabilities included in the balance sheet as at 1 January 2019, as follows:

Unit: Yuan Currency: RMB

Minimum lease payments for significant operating leases as at 31 December 2018	154,055,649.46
Less: Minimum lease payments with simplified processing	-12,440,534.65
Including: short-term leases	-12,440,534.65
Minimum lease payments under New Lease Standard at as 1 January 2019	141,615,114.81
Weighted average of incremental borrowing rate as at 1 January 2019	4.75%
Lease liabilities at as 1 January 2019	114,677,184.12

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V. SIGNIFICANT ACCOUNTING POLICIES AND ACCOUNTING ESTIMATES (Continued)

45. Changes in significant accounting policies and estimates (Continued)

(1). Changes in significant accounting policies (Continued)

New lease standard (Continued)

The implementation of New Lease Standard has the following impact on items in the consolidated balance sheet as at 1 January 2019:

Consolidated Balance Sheet

Unit: Yuan Currency: RMB

	Balance sheet value	Presumed value under original standard	Impact on value
Assets			
Right-of-use assets	121,521,710.80	–	121,521,710.80
Other receivables	1,340,435,728.99	1,340,863,519.49	-427,790.50
Prepayments	900,603,315.00	907,020,051.18	-6,416,736.18
Total assets	<u>2,362,560,754.79</u>	<u>2,247,883,570.67</u>	<u>114,677,184.12</u>

Unit: Yuan Currency: RMB

	Balance sheet value	Presumed value under original standard	Impact on value
Liabilities			
Lease liabilities	72,021,808.83	–	72,021,808.83
Non-current liabilities due within one year	413,054,636.98	370,399,261.69	42,655,375.29
Total liabilities	<u>485,076,445.81</u>	<u>370,399,261.69</u>	<u>114,677,184.12</u>

The implementation of New Lease Standard has no impact on items in the Company's balance sheet as at 1 January 2019.

NOTES TO FINANCIAL STATEMENTS

Year ended 31 December 2019

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V. SIGNIFICANT ACCOUNTING POLICIES AND ACCOUNTING ESTIMATES (Continued)

45. Changes in significant accounting policies and estimates (Continued)

(1). Changes in significant accounting policies (Continued)

New lease standard (Continued)

The implementation of New Lease Standard has the following impact on the financial statements as at 31 December 2019:

Consolidated Balance Sheet

Unit: Yuan Currency: RMB

	Balance sheet value	Presumed value under original standard	Impact on value
Assets			
Right-of-use assets	158,427,539.85	–	158,427,539.85
Prepayments	924,649,290.25	925,781,940.26	-1,132,650.01
Other receivables	1,148,124,174.34	1,150,962,360.42	-2,838,186.08
Total assets	<u>2,231,201,004.44</u>	<u>2,076,744,300.68</u>	<u>154,456,703.76</u>

Unit: Yuan Currency: RMB

	Balance sheet value	Presumed value under original standard	Impact on value
Liabilities			
Lease liabilities	75,374,177.82	–	75,374,177.82
Non-current liabilities due within one year	257,586,818.00	185,011,774.29	72,575,043.71
Total liabilities	<u>332,960,995.82</u>	<u>185,011,774.29</u>	<u>147,949,221.53</u>

The implementation of New Lease Standard has no impact on items in the Company's balance sheet as at 31 December 2019.

NOTES TO FINANCIAL STATEMENTS

Year ended 31 December 2019

RMB

V. SIGNIFICANT ACCOUNTING POLICIES AND ACCOUNTING ESTIMATES (Continued)

45. Changes in significant accounting policies and estimates (Continued)

(1). Changes in significant accounting policies (Continued)

New lease standard (Continued)

The implementation of New Lease Standard has the following impact on the financial statements for 2019:

Consolidated Income Statement

Unit: Yuan Currency: RMB

	Balance sheet value	Presumed value under original standard	Impact on value
Operating costs	32,112,103,467.88	32,120,618,474.15	-8,515,006.27
Administrative expenses	2,530,027,201.64	2,538,308,419.74	-8,281,218.10
Selling and distribution expenses	878,468,933.38	878,638,809.53	-169,876.15
Research and development expenses	1,583,455,766.97	1,581,839,126.41	1,616,640.56
Finance costs	-144,051,571.49	-152,893,549.22	8,841,977.73
	<u>36,960,003,798.38</u>	<u>36,966,511,280.61</u>	<u>-6,507,482.23</u>

The implementation of New Lease Standard has no impact on items in the Company's income statement for 2019.

In addition, starting from the date of first implementation, the Group will include the cash paid to repay the principal and interest of lease liabilities in the cash flow statement as cash outflows from financing activities. Payments that have adopted the simplified treatment, including the short-term lease payments and lease payments for low-value assets and the variable lease payments that are not included in the measurement of lease liabilities, are still included in the cash outflows from operating activities.

NOTES TO FINANCIAL STATEMENTS

Year ended 31 December 2019

RMB

V. SIGNIFICANT ACCOUNTING POLICIES AND ACCOUNTING ESTIMATES (Continued)

45. Changes in significant accounting policies and estimates (Continued)

(1). Changes in significant accounting policies (Continued)

Changes in presentation of financial statement

To meet the requirements of the *Notice on Revising and Issuing Format of 2019 Annual Financial Statements for General Business Enterprises* (Cai Kuai [2019] No. 6) (《關於修訂印發2019年度一般企業財務報表格式的通知》(財會[2019]6號)) and the *Notice on Revising and Issuing Format of Consolidated Financial Statements (Version 2019)* (Cai Kuai [2019] No. 16) (《關於修訂印發合併財務報表格式(2019版)的通知》(財會[2019]16號)), in the balance sheet, the “Bills and accounts receivables” shall be split into “Bills receivable” and “accounts receivable”, the “Bills and accounts payables” shall be split into “Bills payable” and “accounts payable”; “accounts receivable” financing is added to present Bills receivable and accounts receivable that are measured at fair value at the balance sheet date and whose changes are included in other comprehensive income; for government grants included in deferred income, if the amortisation period is only one year or less, or the part that is expected to be amortised in the next year (including one year), it shall not be classified as a current liability, nor shall it be transferred to *non-current liabilities due within one year*. It shall be kept as an item in *deferred income*; *interest receivable* under *other receivables* is modified into reflecting only the interest on relevant financial instruments that is due for collection but not yet received at the balance sheet date (interest on financial instruments accrued using effective interest method is included in the book balance of the corresponding financial instruments); *interest payable* under *other payables* is modified into reflecting only the interest on relevant financial instruments that is due for payment but not yet paid at the balance sheet date (interest on financial instruments accrued using effective interest method is included in the book balance of the corresponding financial instruments). In the income statement, *research and development expenses* includes also the amortisation of self-developed intangible assets originally listed in *administrative expenses*, in addition to the revenue expenditures incurred during the research and development process; if the measured financial assets are derecognised due to activities such as discounting, the portion of the discounted interest will be included in the investment income and should at the same time also be separately disclosed in “derecognition gains on financial assets measured at amortised cost” under the investment income in the income statement. The Group retrospectively adjusted the comparative data. The changes in such accounting policy has no impact on consolidated and the Company’s net profit and ownership interest.

NOTES TO FINANCIAL STATEMENTS

Year ended 31 December 2019

RMB

V. SIGNIFICANT ACCOUNTING POLICIES AND ACCOUNTING ESTIMATES (Continued)

45. Changes in significant accounting policies and estimates (Continued)

(2). Changes in significant accounting estimates

Applicable Not applicable

(3). Particulars in relation to adjustments made to relevant items of the financial statements as at the beginning of the year of adoption of new financial instrument standard, new revenue standard and new lease standard from 2019

Applicable Not applicable

Consolidated Balance Sheet

Unit: Yuan Currency: RMB

	Carrying amount listed under the original standard 31 December 2018	Impact of the New Lease Standard	Impact of other changes in financial statement presentation	Carrying amount listed under the new standard 1 January 2019
Bills receivable and accounts receivable	15,443,711,969.67	-	-15,443,711,969.67	-
Accounts receivable	-	-	13,598,595,282.88	13,598,595,282.88
Receivables for financing	-	-	1,845,116,686.79	1,845,116,686.79
Other receivables	1,340,863,519.49	-427,790.50	-	1,340,435,728.99
Prepayments	907,020,051.18	-6,416,736.18	-	900,603,315.00
Right-of-use assets	-	121,521,710.80	-	121,521,710.80
Total assets	17,691,595,540.34	114,677,184.12	-	17,806,272,724.46
Bills payable and accounts payable	35,968,507,321.24	-	-35,968,507,321.24	-
Bills payable	-	-	849,268,364.25	849,268,364.25
Accounts payable	-	-	35,119,238,956.99	35,119,238,956.99
Lease liabilities	-	72,021,808.83	-	72,021,808.83
Other current liabilities	139,210,157.40	-	-31,712,040.37	107,498,117.03
Non-current liabilities due within one year	370,399,261.69	42,655,375.29	-	413,054,636.98
Deferred income	119,658,838.03	-	31,712,040.37	151,370,878.40
Total liabilities	36,597,775,578.36	114,677,184.12	-	36,712,452,762.48

Descriptions on adjustment of each item:

Applicable Not applicable

NOTES TO FINANCIAL STATEMENTS

Year ended 31 December 2019

RMB

V. SIGNIFICANT ACCOUNTING POLICIES AND ACCOUNTING ESTIMATES (Continued)

45. Changes in significant accounting policies and estimates (Continued)

- (3). Particulars in relation to adjustments made to relevant items of the financial statements as at the beginning of the year of adoption of new financial instrument standard, new revenue standard and new lease standard from 2019 (Continued)

Parent Company's Balance Sheet

Unit: Yuan Currency: RMB

	Carrying amount listed under the original standard 31 December 2018	Impact of other changes in financial statement presentation	Carrying amount listed under the new standard 1 January 2019
Bills receivable and accounts receivable	2,410,746,518.13	-2,410,746,518.13	-
Receivables for financing	-	1,500,000.00	1,500,000.00
Accounts receivable	-	2,409,246,518.13	2,409,246,518.13
Total assets	2,410,746,518.13	-	2,410,746,518.13
Bills payable and accounts payable	5,745,791,677.93	-5,745,791,677.93	-
Accounts payable	-	5,745,791,677.93	5,745,791,677.93
Other current liabilities	772,124.28	-772,124.28	-
Deferred income	32,152,082.64	772,124.28	32,924,206.92
Total liabilities	5,778,715,884.85	-	5,778,715,884.85

Descriptions on adjustment of each item:

Applicable Not applicable

- (4). Retrospective adjustment of the previous comparative data by adoption of new financial instrument standards or new lease standards since 2019

Applicable Not applicable

46. Others

Applicable Not applicable

NOTES TO FINANCIAL STATEMENTS

Year ended 31 December 2019

RMB

VI. TAXATION

1. Main taxes and tax rates

Main taxes and tax rates

Applicable Not applicable

Category	Tax determination basis	Tax rate
Value added tax	If the Group is recognised as general VAT taxpayer, it shall pay output tax at the rate of 6%, 10% and 16% of the taxable income before 1 April 2019. After 1 April 2019, the output tax is calculated at the tax rate of 6%, 9%, and 13% of the taxable income, and the value-added tax is paid according to the difference after deducting the input tax amount that is allowed to be deducted in the current period.	3%-16%
City maintenance and construction tax	Levied on the basis of turnover taxes paid.	5%-7%
Educational surcharge	Levied on the basis of turnover taxes paid.	3%
Local educational surcharge	Levied on the basis of turnover taxes paid.	1%-2%
Property tax	Based on 1.2% of the residual value of the original value of the property minus 10%-30%, or 12% of the rental income of the property.	–
Stamp duty	Based on the taxable amount and the applicable tax rate stated on the tax payment certificate.	–
Land use tax	Based on the actual area of land occupied and the applicable tax rate of the location of the land.	–

Disclosure statement of taxable entities subject to different enterprise income tax rates

Applicable Not applicable

Please refer to the tax incentives for details.

NOTES TO FINANCIAL STATEMENTS

Year ended 31 December 2019

RMB

VI. TAXATION (Continued)

2. Tax preferential

Applicable Not applicable

Refund-upon-collection policy for VAT for software enterprises

According to the *Notice of the State Council on Issuing Several Policies on Further Encouraging the Development of the Software and Integrated Circuit Industries* (No. 4 [2011] of the State Council), Beijing National Railway Research & Design Institute of Signal & Communication Co., Ltd., CASCO Signal Ltd., CRSC Communication & Information Group Company Ltd., and CRSC Wanquan Signal Equipment Co., Ltd. enjoy the refund-upon-collection policy for VAT for software enterprises.

Tax preferential policy for high-new technology enterprises

Beijing Xiandai Signal & Communication Engineering Consultant Ltd.

Beijing Xiandai Signal & Communication Engineering Consultant Ltd. applied in 2014 and was finally recognised as a high-new technology enterprise on 30 October 2014. The company submitted the high-tech enterprise qualification review materials to the competent authorities in 2017, and obtained the updated high-new technology enterprise certificate on 25 October 2017. The certificate is valid for three years. The company shall pay corporate income tax at the preferential tax rate of 15% from 2017 to 2020.

Shenyang Railway Signal Co., Ltd.

Shenyang Railway Signal Co., Ltd. applied and was finally recognised as a high-new technology enterprise in 2012. The company submitted the high-tech enterprise qualification review materials to the competent authorities in 2018, and obtained the updated high-new technology enterprise certificate on 12 October 2018. The certificate is valid for three years. The company shall pay corporate income tax at the preferential tax rate of 15% from 2018 to 2021.

Tianjin Railway Signal Co., Ltd.

Tianjin Railway Signal Co., Ltd. applied and was finally recognised as a high-new technology enterprise in 2012. The company submitted the high-tech enterprise qualification review materials to the competent authorities in 2018, and obtained the updated high-new technology enterprise certificate on 23 November 2018. The certificate is valid for three years. The company shall pay corporate income tax at the preferential tax rate of 15% from 2018 to 2021.

VI. TAXATION (Continued)

2. Tax preferential (Continued)

Tax preferential policy for high-new technology enterprises (Continued)

Xi'an Railway Signal Co., Ltd.

Xi'an Railway Signal Co., Ltd. applied in 2015 and was finally recognised as a high-new technology enterprise on 19 November 2015. The company submitted the high-tech enterprise qualification review materials to the competent authorities in 2018, and obtained the updated high-new technology enterprise certificate on 29 October 2018. The certificate is valid for three years. The company shall pay corporate income tax at the preferential tax rate of 15% from 2018 to 2021.

Beijing Railway Signal Co., Ltd.

Beijing Railway Signal Co., Ltd. applied and was finally recognised as a high-new technology enterprise. The certificate is valid for three years in 2011. The company submitted the high-tech enterprise qualification review materials to the competent authorities in 2017, and obtained the updated high-new technology enterprise certificate on 25 October 2017. The certificate is valid for three years. The company paid corporate income tax at the preferential tax rate of 15% from 2017 to 2020.

Shanghai Railway Communication Co., Ltd.

Shanghai Railway Communication Co., Ltd. applied and was finally recognised as a high-new technology enterprise in 2011. The company submitted the high-tech enterprise qualification review materials to the competent authorities in 2017, and obtained the updated high-new technology enterprise certificate on 23 October 2017. The certificate is valid for three years. The company shall pay corporate income tax at the preferential tax rate of 15% from 2017 to 2020.

Shanghai Deuta Electronic & Electrical Equipment Co., Ltd.

Shanghai Deuta Electronic & Electrical Equipment Co., Ltd. applied and was finally recognised as a high-new technology enterprise in 2012. The company submitted the high-tech enterprise qualification review materials to the competent authorities in 2018, and obtained the updated high-new technology enterprise certificate on 2 November 2018. The certificate is valid for three years. The company shall pay corporate income tax at the preferential tax rate of 15% from 2018 to 2021.

NOTES TO FINANCIAL STATEMENTS

Year ended 31 December 2019

RMB

VI. TAXATION (Continued)

2. Tax preferential (Continued)

Tax preferential policy for high-new technology enterprises (Continued)

Tianshui Railway Cable Co., Ltd.

Tianshui Railway Cable Co., Ltd. applied and was finally recognised as a high-new technology enterprise in 2012. The company submitted the high-tech enterprise qualification review materials to the competent authorities in 2018, and obtained the updated high-new technology enterprise certificate on 23 July 2018. The certificate is valid for three years. The company shall pay corporate income tax at the preferential tax rate of 15% from 2018 to 2021.

Jiaozuo Railway Cable Co., Ltd.

Jiaozuo Railway Cable Co., Ltd. applied in 2013 and was finally recognised as a high-new technology enterprise on 23 October 2013. The company submitted the high-tech enterprise qualification review materials to the competent authorities in 2019, and obtained the updated high-new technology enterprise certificate on 3 December 2019. The certificate is valid for three years. The company shall pay corporate income tax at the preferential tax rate of 15% from 2019 to 2022.

Beijing National Railway Research & Design Institute of Signal & Communication Co., Ltd.

Beijing National Railway Research & Design Institute of Signal & Communication Co., Ltd. applied and was finally recognised as a high-new technology enterprise in 2011. The company submitted the high-tech enterprise qualification review materials to the competent authorities in 2017, and obtained the updated high-new technology enterprise certificate on 25 October 2017. The certificate is valid for three years. The company shall pay corporate income tax at the preferential tax rate of 15% from 2017 to 2020.

Beijing Nera Stentofon Communication Equipment Co., Ltd.

Beijing Nera Stentofon Communication Equipment Co., Ltd. applied and was finally recognised as a high-new technology enterprise in 2011. The company submitted the high-tech enterprise qualification review materials to the competent authorities in 2017, and obtained the updated high-new technology enterprise certificate on 6 December 2017. The certificate is valid for three years. The company shall pay corporate income tax at the preferential tax rate of 15% from 2017 to 2020.

VI. TAXATION (Continued)

2. Tax preferential (Continued)

Tax preferential policy for high-new technology enterprises (Continued)

CRSC Communication & Information Group Company Ltd.

CRSC Communication & Information Group Company Ltd. applied and was finally recognised as a high-new technology enterprise in 2011. The company submitted the high-tech enterprise qualification review materials to the competent authorities in 2017, and obtained the updated high-new technology enterprise certificate on 10 August 2017. The certificate is valid for three years. The company shall pay corporate income tax at the preferential tax rate of 15% from 2017 to 2020.

Shanghai China Railway Communication & Signal Testing Co., Ltd.

Shanghai China Railway Communication & Signal Testing Co., Ltd. applied in 2015 and was finally recognised as a high-new technology enterprise on 30 October 2015. The company submitted the high-tech enterprise qualification review materials to the competent authorities in 2018, and passed the vetting process of the Administration of the Certification of High-Tech Enterprises on 27 November 2018, with the result announced. The company shall pay corporate income tax at the preferential tax rate of 15% from 2018 to 2021.

CRSC Wanquan Signal Equipment Co., LTD.

CRSC Wanquan Signal Equipment Co., LTD. applied and was finally recognised as a high-new technology enterprise in 2012. The company submitted the high-tech enterprise qualification review materials to the competent authorities in 2018, and obtained the updated high-new technology enterprise certificate on 30 November 2018. The certificate is valid for three years. The company shall pay corporate income tax at the preferential tax rate of 15% from 2018 to 2021.

CASCO Signal Ltd.

CASCO Signal Ltd. applied in 2014 and was finally recognised as a high-new technology enterprise on 4 September 2014. The company submitted the high-tech enterprise qualification review materials to the competent authorities in 2017, and obtained the updated high-new technology enterprise certificate on 23 November 2017. The certificate is valid for three years. The company shall pay corporate income tax at the preferential tax rate of 15% from 2017 to 2020.

NOTES TO FINANCIAL STATEMENTS

Year ended 31 December 2019

RMB

VI. TAXATION (Continued)

2. Tax preferential (Continued)

Tax preferential policy for high-new technology enterprises (Continued)

CRSC Communication & Information Group Shanghai Company Ltd.

CRSC Communication & Information Group Shanghai Company Ltd. applied in 2014 and was finally recognised as a high-new technology enterprise on 4 September 2014. The company submitted the high-tech enterprise qualification review materials to the competent authorities in 2017, and obtained the updated high-new technology enterprise certificate on 23 November 2017. The certificate is valid for three years. The company shall pay corporate income tax at the preferential tax rate of 15% from 2017 to 2020.

CRSC Information Industry Co., Ltd.

CRSC Information Industry Co., Ltd. applied in 2015 and was finally recognised as a high-new technology enterprise on 21 July 2015. The company submitted the high-tech enterprise qualification review materials to the competent authorities in 2018, and obtained the updated high-new technology enterprise certificate on 10 September 2018. The certificate is valid for three years. The company shall pay corporate income tax at the preferential tax rate of 15% from 2018 to 2021.

Shanghai Xinhai Information Transportation Information Technology Co., Ltd.

Shanghai Xinhai Information Transportation Information Technology Co., Ltd. applied in 2016 and was finally recognised as a high-new technology enterprise on 24 November 2016. The company submitted the high-tech enterprise qualification review materials to the competent authorities in 2019, and passed the vetting process of the Administration of the Certification of High-Tech Enterprises on 30 September 2019, with the result announced. The company paid corporate income tax at the preferential tax rate of 15% from 2019 to 2022.

VI. TAXATION (Continued)

2. Tax preferential (Continued)

Tax preferential policy for high-new technology enterprises (Continued)

Chengdu Railway Communication Equipment Co., Ltd.

Chengdu Railway Communication Equipment Co., Ltd. applied in 2014 and was finally recognised as a high-new technology enterprise on 9 July 2014. The company submitted the high-tech enterprise qualification review materials to the competent authorities in August 2017, and obtained the updated high-new technology enterprise certificate on 29 August 2017. The certificate is valid for three years. The company shall pay corporate income tax at the preferential tax rate of 15% from 2017 to 2020.

CRSCE Beijing Research & Design Experiment Center Ltd.

CRSCE Beijing Research & Design Experiment Center Ltd. applied in 2015 and was finally recognised as a high-new technology enterprise on 24 November 2015. The company submitted the high-tech enterprise qualification review materials to the competent authorities in 2018, and obtained the updated high-new technology enterprise certificate on 31 October 2018. The certificate is valid for three years. The company shall pay corporate income tax at the preferential tax rate of 15% from 2018 to 2021.

CRSC Engineering Bureau Group Information Technology Co., Ltd.

CRSC Engineering Bureau Group Information Technology Co., Ltd. applied in 2015 and was finally recognised as a high-new technology enterprise on 21 July 2015. The company submitted the high-tech enterprise qualification review materials to the competent authorities in 2018, and obtained the updated high-new technology enterprise certificate on 10 September 2018. The certificate is valid for three years. The company shall pay corporate income tax at the preferential tax rate of 15% from 2018 to 2021.

CRSC Engineering Bureau Group Construction Engineering Co., Ltd.

CRSC Engineering Bureau Group Construction Engineering Co., Ltd. applied to the Hunan Provincial Science & Technology Department, Hunan Provincial Department of Finance, Hunan Provincial Tax Service, State Taxation Administration and Hunan Provincial Local Taxation Bureau in 2016 and was finally recognised as a high-new technology enterprise on 6 December 2016. The company submitted the high-tech enterprise qualification review materials to the competent authorities in 2019, and obtained the updated high-new technology enterprise certification on 20 September 2019 and the certificate is valid for three years. The company paid corporate income tax at the preferential tax rate of 15% from 2019 to 2022.

NOTES TO FINANCIAL STATEMENTS

Year ended 31 December 2019

RMB

VI. TAXATION (Continued)

2. Tax preferential (Continued)

Tax preferential policy for high-new technology enterprises (Continued)

CRSC (Changsha) Railway Traffic Control Technology Co., Ltd.

CRSC (Changsha) Railway Traffic Control Technology Co., Ltd. applied to the Hunan Provincial Science & Technology Department, Hunan Provincial Department of Finance, Hunan Provincial Tax Service, State Taxation Administration and Hunan Provincial Local Taxation Bureau in 2017 and was finally recognised as a high-new technology enterprise on 1 December 2017. The certificate is valid for three years. The company shall pay corporate income tax at the preferential tax rate of 15% from 2017 to 2020.

CRSC Guizhou Construction Co., Ltd.

CRSC Guizhou Construction Co., Ltd. applied to Department of Science and Technology of Guizhou Province, Guizhou Provincial Finance Bureau, Guizhou Provincial Tax Service, State Taxation Administration and Local Taxation Bureau of Guizhou Province in 2017 and was finally recognised as a high-new technology enterprise on 13 November 2017. The certificate is valid for three years. The company shall pay corporate income tax at the preferential tax rate of 15% from 2017 to 2020.

CRSCE Tianjin Tongze Railway Engineering Equipment Ltd.

CRSCE Tianjin Tongze Railway Engineering Equipment Ltd. applied to Tianjin Science and Technology Committee, Tianjin Municipal Finance Bureau, Tianjin Municipal Office, SAT and Tianjin Municipal Local Taxation Bureau in 2016 and was finally recognised as a high-new technology enterprise on 9 December 2016. The company submitted the high-tech enterprise qualification review materials to the competent authorities in 2019, and obtained the updated high-new technology enterprise certification on 28 October 2019 and the certificate is valid for three years. The company paid corporate income tax at the preferential tax rate of 15% from 2019 to 2022.

VI. TAXATION (Continued)

2. Tax preferential (Continued)

Tax preferential policy for high-new technology enterprises (Continued)

CRSC Institute of Smart City Research & Design

CRSC Institute of Smart City Research & Design applied to Beijing Science and Technology Committee, Beijing Municipal Finance Bureau, Beijing Municipal Office, SAT and Beijing Municipal Local Taxation Bureau in 2018 and was finally recognised as a high-new technology enterprise on 19 July 2018. The certificate is valid for three years. The company shall pay corporate income tax at the preferential tax rate of 15% from 2018 to 2021.

CRSC Railway Vehicles Co., Ltd.

CRSC Railway Vehicles Co., Ltd. applied to Beijing Science and Technology Committee, Beijing Municipal Finance Bureau, Beijing Municipal Office, SAT and Beijing Municipal Local Taxation Bureau in 2019 and was finally recognised as a high-new technology enterprise on 20 September 2019. The certificate is valid for three years. The company shall pay corporate income tax at the preferential tax rate of 15% from 2019 to 2022.

Preferential taxation policies for the western development

According to the *Notice on the further implementation of the relevant tax policies of the western development strategy* (Cai Shui [2011], No. 58) published by the Ministry of Finance and General Administration of Customs, from 1 January 2011 to 31 December 2020, an enterprise in western area engaged in industries encouraged is subjected to the enterprise income tax rate of 15%. Xi'an Railway Signal Co., Ltd. is eligible for the preferential tax policies related to the western development strategy.

Preferential taxation policies for small low-profit enterprises

According to the *Notice of the Ministry of Finance and the State Administration of Taxation on Expanding the Scope of Preferential Income Tax Policies for Small Low-Profit Enterprises* (Cai Shui [2018], No. 77), for small low-profit enterprises whose annual taxable income is less than RMB1 million (including RMB1 million), their income tax shall be based on the taxable income minus 50% and at the enterprise income tax rate of 20%. Xi'an Tonghao Railway Signal Product Inspection Station Co., Ltd. is eligible for the preferential tax policies for small low-profit enterprises.

3. Others

Applicable Not applicable

NOTES TO FINANCIAL STATEMENTS

Year ended 31 December 2019

RMB

VII. NOTES TO ITEMS IN THE CONSOLIDATED FINANCIAL STATEMENTS

1. Cash and bank balances

Applicable Not applicable

Unit: Yuan Currency: RMB

Item	Closing balance	Opening balance
Cash on hand	1,441,606.54	2,382,812.51
Bank deposits	23,732,556,802.97	11,549,590,855.07
Other monetary funds	266,335,538.79	160,509,665.09
Total	<u>24,000,333,948.30</u>	<u>11,712,483,332.67</u>
Including: Total amount deposited abroad	<u>1,068,559,495.78</u>	<u>911,014,822.32</u>

Unit: Yuan Currency: RMB

	Closing balance	Opening balance
Balance of monetary funds for the year	24,000,333,948.30	11,712,483,332.67
Less: Non-pledged/secured and unrestricted time deposits with maturity of three months or above	-5,879,045,725.39	-743,767,890.05
Less: Other monetary funds with restricted use	-266,335,538.79	-160,509,665.09
Closing balance of cash and cash equivalents for the year	17,854,952,684.12	10,808,205,777.53
Less: Opening balance of cash and cash equivalents for the year	-10,808,205,777.53	-11,364,982,037.93
Increase/(decrease) in cash and cash equivalents	<u>7,046,746,906.59</u>	<u>-556,776,260.40</u>

Other explanation:

As at 31 December 2019, the Group's cash and bank balances deposited abroad were RMB1,068,559,495.78 (31 December 2018: RMB911,014,822.32).

As at 31 December 2019, the Group's cash and bank balances with title restrictions were RMB266,335,538.79 (31 December 2018: RMB160,509,665.09). See Note VII.81.

Interest income from demand deposits is earned at the bank's interest rate on the demand deposits. The Group determines the period of maturity of short-term time deposit on the basis of its needs for cash and earns the interest income at the bank's corresponding interest rate on the time deposits.

2. Held-for-trading financial assets

Applicable Not Applicable

NOTES TO FINANCIAL STATEMENTS

Year ended 31 December 2019

RMB

VII. NOTES TO ITEMS IN THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)

3. Derivative financial assets

Applicable Not Applicable

4. Notes receivable

(1). Classified presentation of notes receivable

Applicable Not Applicable

(2). Notes receivable pledged by the Company at the end of the period

Applicable Not Applicable

(3). Notes receivable endorsed or discounted by the Company at the end of the period and not yet due on the balance sheet date

Applicable Not Applicable

(4). Notes transferred to accounts receivable by the Company due to the drawer's failure to perform the contract at the end of the period

Applicable Not Applicable

(5). Disclosure by classification with the method of provision for bad debt

Applicable Not Applicable

Single provision for bad debt:

Applicable Not Applicable

Provision withdrawn for bad debt on a combination basis:

Applicable Not Applicable

If provision for bad debt is made as per the general model of ECL, please make disclosure with reference to other receivables:

Applicable Not Applicable

NOTES TO FINANCIAL STATEMENTS

Year ended 31 December 2019

RMB

VII. NOTES TO ITEMS IN THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)

4. Notes receivable (Continued)

(6). Provision for bad debt of notes receivable

Applicable Not Applicable

(7). The situation of the write-off of notes receivable for the period

Applicable Not Applicable

Other explanation:

Applicable Not Applicable

5. Accounts receivable

(1). Disclosure by aging

Applicable Not applicable

The credit period of accounts receivable is usually 6 months. The accounts receivable bear no interest.

An aging analysis of accounts receivable is listed as follows:

Unit: Yuan Currency: RMB

Aging	Closing balance	Opening balance
Within 1 year	13,118,530,821.64	10,724,998,490.68
1 to 2 years	2,508,398,816.01	1,918,266,659.29
2 to 3 years	938,711,660.18	746,015,098.93
Over 3 years	841,875,581.18	789,451,562.09
Less: provision for bad debts of accounts receivable	-649,888,871.06	-580,136,528.11
Total	16,757,628,007.95	13,598,595,282.88

NOTES TO FINANCIAL STATEMENTS

Year ended 31 December 2019

RMB

VII. NOTES TO ITEMS IN THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)

5. Accounts receivable (Continued)

(1). Disclosure by aging (Continued)

Movements in the provision for bad debts of accounts receivable are listed as follows:

Unit: Yuan Currency: RMB

	Closing balance	Opening balance
Closing balance for last year	580,136,528.11	624,742,269.64
Changes in accounting policies	–	-155,920,761.57
Opening balance for the year	580,136,528.11	468,821,508.07
Provision for the year	157,745,859.75	188,148,516.13
Transfer of contract assets	97,129,012.18	–
Acquisition of subsidiaries	–	6,725,028.70
Reversal for the year	183,386,094.10	83,462,520.83
Write-off for the year	1,736,434.88	96,003.96
Closing balance for the year	649,888,871.06	580,136,528.11

(2). Disclosure by classification with the method of provision for bad debt

√ Applicable Not applicable

Unit: Yuan Currency: RMB

Category	Closing balance					Opening balance				
	Gross carrying amount		Provision for bad debt			Gross carrying amount		Provision for bad debt		
	Amount	Proportion	Amount	Provision withdrawal		Amount	Proportion	Provision withdrawal		
		(%)		proportion (%)	Carrying amount		(%)	proportion (%)	Carrying amount	
Single provision for bad debt	1,247,585,433.08	7.17	65,993,584.68	5.29	1,181,591,848.40	871,196,032.12	6.14	67,159,618.22	7.71	804,036,413.90
Provision withdrawn for bad debt on a combination basis	16,159,931,445.93	92.83	583,895,286.38	3.61	15,576,036,159.55	13,307,535,778.87	93.86	512,976,909.89	3.85	12,794,558,868.98
Total	<u>17,407,516,879.01</u>	/	<u>649,888,871.06</u>	/	<u>16,757,628,007.95</u>	<u>14,178,731,810.99</u>	/	<u>580,136,528.11</u>	/	<u>13,598,595,282.88</u>

NOTES TO FINANCIAL STATEMENTS

Year ended 31 December 2019

RMB

VII. NOTES TO ITEMS IN THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)

5. Accounts receivable (Continued)

(2). Disclosure by classification with the method of provision for bad debt (Continued)

Single provision for bad debt:

Applicable Not applicable

Unit: Yuan Currency: RMB

Name	Closing balance			Reason
	Gross carrying amount	Provision for bad debt	Provision withdrawal proportion (%)	
Shanghai Yingtai International Trade Co., Ltd.	41,338,848.47	41,338,848.47	100.00	Note
Shangqiu Hongying Coal Co., Ltd.	9,371,840.00	9,371,840.00	100.00	Note
Beijing MTR Construction Administration Corporation	2,385,172.77	1,908,138.22	80.00	Note
Others	1,194,489,571.84	13,374,757.99	1.12	
Total	1,247,585,433.08	65,993,584.68	5.29	/

Unit: Yuan Currency: RMB

Name	Opening balance			Reason
	Gross carrying amount	Provision for bad debt	Provision withdrawal proportion (%)	
Shanghai Yingtai International Trade Co., Ltd.	41,338,848.47	41,338,848.47	100.00	Note
Shangqiu Hongying Coal Co., Ltd.	9,371,840.00	9,371,840.00	100.00	Note
Beijing MTR Construction Administration Corporation	5,018,332.90	4,014,666.32	80.00	Note
Others	815,467,010.75	12,434,263.43	1.52	
Total	871,196,032.12	67,159,618.22	7.71	/

Note: The Group shall make provision for bad debts in whole or in part based on its aging and business conditions with other companies.

NOTES TO FINANCIAL STATEMENTS

Year ended 31 December 2019

RMB

VII. NOTES TO ITEMS IN THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)

5. Accounts receivable (Continued)

(2). Disclosure by classification with the method of provision for bad debt (Continued)

Descriptions of single provision for bad debt:

Applicable Not Applicable

Provision withdrawn for bad debt on a combination basis:

Applicable Not applicable

Items for which provision is withdrawn on a combination basis: Combination of aging

Unit: Yuan Currency: RMB

Name	Closing balance		Percentage of provision (%)
	Accounts receivable	Bad debt provision	
Within 1 year	12,051,236,699.69	60,256,183.50	0.50
1 to 2 years	2,442,209,891.67	122,110,494.58	5.00
2 to 3 years	937,127,187.35	93,712,718.74	10.00
Over 3 years	729,357,667.22	307,815,889.56	42.20
Total	<u>16,159,931,445.93</u>	<u>583,895,286.38</u>	/

NOTES TO FINANCIAL STATEMENTS

Year ended 31 December 2019

RMB

VII. NOTES TO ITEMS IN THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)

5. Accounts receivable (Continued)

(2). Disclosure by classification with the method of provision for bad debt (Continued)

Unit: Yuan Currency: RMB

Name	Opening balance		Percentage of provision (%)
	Accounts receivable	Bad debt provision	
Within 1 year	10,170,397,649.74	50,851,988.32	0.50
1 to 2 years	1,784,287,849.14	89,214,392.51	5.00
2 to 3 years	698,081,329.41	69,808,132.94	10.00
Over 3 years	654,768,950.58	303,102,396.12	46.29
Total	<u>13,307,535,778.87</u>	<u>512,976,909.89</u>	/

Recognition standards and descriptions of provision withdrawn for bad debt on a combination basis:

Applicable Not Applicable

If provisions for bad debts are made as per the general model of ECL, please make disclosure with reference to other receivables:

Applicable Not Applicable

(3). Provision for bad debt

Applicable Not applicable

Unit: Yuan Currency: RMB

Category	Opening balance	Increase/decrease during the period			Closing balance	
		Provision	Transfer of contract assets	Recovery or reversal		Write-off or cancellation
Provision for bad debts of accounts receivable	580,136,528.11	157,745,859.75	97,129,012.18	183,386,094.10	1,736,434.88	649,888,871.06
Total	<u>580,136,528.11</u>	<u>157,745,859.75</u>	<u>97,129,012.18</u>	<u>183,386,094.10</u>	<u>1,736,434.88</u>	<u>649,888,871.06</u>

Significant amounts recovered or reversed to bad debts in the period:

Applicable Not Applicable

NOTES TO FINANCIAL STATEMENTS

Year ended 31 December 2019

RMB

VII. NOTES TO ITEMS IN THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)

5. Accounts receivable (Continued)

(4). The situation of the write-off of accounts receivable for the period

Applicable Not Applicable

(5). Top five debtors with the largest closing balance of accounts receivable

Applicable Not applicable

31 December 2019

Unit: Yuan Currency: RMB

Name of debtor	Gross carrying amount	Provision for bad debt	Proportion of accounts receivable (%)
Luoyang Municipal Construction Investment Co., Ltd. (洛陽市市政建設投資有限公司)	732,918,957.96	3,664,594.79	4.21
Liupanshui Meihuashan Tourism Culture Investment Co., Ltd. (六盤水梅花山旅遊文化投資有限公司)	457,525,708.24	47,032,490.84	2.63
China Railway International Co., Ltd. (中國鐵路國際有限公司)	328,772,897.64	5,694,696.37	1.89
Xihua Economic Development Zone Comprehensive Investment Co., Ltd. (西華經開區綜合投資有限公司)	299,502,750.51	1,497,513.75	1.72
China Railway Electrification Bureau Group Co., Ltd. (中國鐵建電氣化局集團有限公司)	281,514,898.64	8,953,754.70	1.62
Total	<u>2,100,235,212.99</u>	<u>66,843,050.45</u>	<u>12.07</u>

NOTES TO FINANCIAL STATEMENTS

Year ended 31 December 2019

RMB

VII. NOTES TO ITEMS IN THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)

5. Accounts receivable (Continued)

(6). Accounts receivable derecognized due to the transfer of financial assets

Applicable Not applicable

This year, the Group's accounts receivable were factored to financial institutions for non-recourse. The gross carrying amount of the derecognized accounts receivables was RMB1,849,251,870.04 (31 December 2018: nil).

(7). Amount of assets or liabilities resulting from accounts receivable transfer and its continuing involvement

Applicable Not Applicable

Other explanation:

Applicable Not Applicable

6. Receivables for financing

Applicable Not applicable

Unit: Yuan Currency: RMB

Item	Closing balance	Opening balance
Bank acceptance bills	805,952,389.88	978,495,822.00
Commercial acceptance bills	672,695,454.66	866,620,864.79
Total	<u>1,478,647,844.54</u>	<u>1,845,116,686.79</u>

As at 31 December 2019, the ownership of notes receivable with book value of RMB67,084,139.66 (as at 31 December 2018, book value of RMB107,286,312.99) was restricted, see Note VII.81.

NOTES TO FINANCIAL STATEMENTS

Year ended 31 December 2019
RMB

VII. NOTES TO ITEMS IN THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)

6. Receivables for financing (Continued)

Pledged bills receivable are as follows:

Unit: Yuan Currency: RMB

Item	Closing balance	Opening balance
Bank acceptance bills	5,824,991.90	83,898,897.42
Commercial acceptance bills	61,259,147.76	23,387,415.57
Total	67,084,139.66	107,286,312.99

The Group endorses or discounts some of the bank acceptance bills in the daily fund management. The business model for managing the above-mentioned acceptances receivable is aimed at both collection of contractual cash flow and the sale. As a result, the Group reclassifies the notes receivable as financial assets measured at fair value through other comprehensive income, and states them as receivables for financing.

The bills receivable that have been endorsed or discounted but have not expired on the balance sheet date are listed as follows:

Unit: Yuan Currency: RMB

Item	Closing balance		Opening balance	
	Derecognised	Not derecognised	Derecognised	Not derecognised
Bank acceptance bills	541,594,787.67	88,668,931.24	391,910,657.03	149,003,028.37
Commercial acceptance bills	–	268,535,267.23	–	153,050,902.42
Total	541,594,787.67	357,204,198.47	391,910,657.03	302,053,930.79

The increase/decrease and fair value change of receivables for financing in the period:

Applicable Not Applicable

If provisions for bad debts are made as per the general model of ECL, please make disclosure with reference to other receivables:

Applicable Not Applicable

Other explanation:

Applicable Not Applicable

NOTES TO FINANCIAL STATEMENTS

Year ended 31 December 2019

RMB

VII. NOTES TO ITEMS IN THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)

7. Prepayments

(1). Prepayments set out by aging

Applicable Not applicable

Aging analysis of prepayments is as follows:

Unit: Yuan Currency: RMB

Aging	Closing balance		Opening balance	
	Amount	Proportion (%)	Amount	Proportion (%)
Within 1 year	857,270,707.00	92.71	841,470,418.38	92.77
1 to 2 years	41,751,200.05	4.51	45,550,877.83	5.02
2 to 3 years	10,879,140.91	1.18	10,854,490.56	1.20
Over 3 years	14,748,242.29	1.60	9,144,264.41	1.01
Total	<u>924,649,290.25</u>	<u>100.00</u>	<u>907,020,051.18</u>	<u>100.00</u>

As at the balance sheet date, large-amount prepayments with an age of over one year are as follows:

Unit: Yuan Currency: RMB

Debtor	31 December 2019	Aging
Hebei Huahengxin Communication Technology Co., Ltd. (河北華恒信通信技術有限公司)	8,968,023.00	1 to 2 years
Frauscher Sensor Technology	7,176,008.25	1 to 2 years
ALSTOM (SAINT OUEN)	3,202,056.00	2 to 3 years
Eolane Neuilly en Thelle	2,653,585.20	1 to 2 years
Beijing Fengtai Technology Park Construction Development Co., Ltd. (北京豐台科技園建設發展有限公司)	<u>2,560,484.00</u>	3 to 4 years
Total	<u>24,560,156.45</u>	

Reasons for delayed settlement of significant prepayments with an age of over one year:

The above-mentioned large-amount prepayments with an age of over one year were not settled timely mainly because the relevant projects have not been completed or the materials and equipment have not been received.

NOTES TO FINANCIAL STATEMENTS

Year ended 31 December 2019

RMB

VII. NOTES TO ITEMS IN THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)

7. Prepayments (Continued)

(2). Top five entities with the largest closing balances of prepayments by subjects of prepayment

Applicable Not applicable

Unit: Yuan Currency: RMB

Name of debtor	Gross carrying amount	Proportion of total prepayments (%)
China Railway Electrification Bureau Group Co., Ltd. (中鐵電氣化局集團有限公司)	200,761,416.61	21.71
China Railway Seventh Group Co., Ltd. (中鐵七局集團有限公司)	125,781,819.25	13.60
Shanghai Complete Machinery Equipment (Group) Co., Ltd. (上海市機械設備成套(集團)有限公司)	41,536,194.79	4.49
China Electric Import and Export Co. Ltd. (中國電氣進出口有限公司)	28,496,357.79	3.08
NARI Group Corporation. (南瑞集團有限公司)	26,249,645.30	2.84
Total	<u>422,825,433.74</u>	<u>45.72</u>

Other explanation:

Applicable Not Applicable

NOTES TO FINANCIAL STATEMENTS

Year ended 31 December 2019

RMB

VII. NOTES TO ITEMS IN THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)

8. Other receivables

Item

Applicable Not applicable

Unit: Yuan Currency: RMB

Item	Closing balance	Opening balance
Dividends receivable	—	3,100,000.00
Other receivables	<u>1,148,124,174.34</u>	<u>1,337,763,519.49</u>
Total	<u><u>1,148,124,174.34</u></u>	<u><u>1,340,863,519.49</u></u>

Other explanation:

Applicable Not Applicable

Interests receivable

(1). Classification of interests receivable

Applicable Not Applicable

(2). Significant overdue interest

Applicable Not Applicable

(3). Provision for bad debts

Applicable Not Applicable

Other explanation:

Applicable Not Applicable

NOTES TO FINANCIAL STATEMENTS

Year ended 31 December 2019
RMB

VII. NOTES TO ITEMS IN THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)

8. Other receivables (Continued)

(4). Dividends receivable

Applicable Not applicable

Unit: Yuan Currency: RMB

Item (or investee)	Closing balance	Opening balance
Siemens Signalling Company Ltd.	—	3,100,000.00
Total	—	3,100,000.00

(5). Significant dividends receivable with an age over 1 year

Applicable Not Applicable

(6). Provision for bad debts

Applicable Not Applicable

Other explanation:

Applicable Not Applicable

NOTES TO FINANCIAL STATEMENTS

Year ended 31 December 2019

RMB

VII. NOTES TO ITEMS IN THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)

8. Other receivables (Continued)

Other receivables

(1). Disclosure by aging

Applicable Not Applicable

Unit: Yuan Currency: RMB

Aging	Closing gross carrying amount
Within 1 year	739,748,185.28
1 to 2 years	246,590,228.55
2 to 3 years	83,947,773.12
Over 3 years	235,156,779.28
Less: provision for bad debts of other receivables	<u>-157,318,791.89</u>
Total	<u><u>1,148,124,174.34</u></u>

(2). Classification by nature of accounts

Applicable Not applicable

Unit: Yuan Currency: RMB

Nature of accounts	Closing gross carrying amount	Opening gross carrying amount
Performance and tender bonds	696,894,809.40	627,228,516.47
Advance payments	218,867,757.37	506,099,908.92
Various deposits	103,956,939.32	100,156,477.20
Dividends receivable	-	3,100,000.00
Others	285,723,460.14	251,128,997.02
Less: provision for bad debts of other receivables	<u>-157,318,791.89</u>	<u>-146,850,380.12</u>
Total	<u><u>1,148,124,174.34</u></u>	<u><u>1,340,863,519.49</u></u>

NOTES TO FINANCIAL STATEMENTS

Year ended 31 December 2019

RMB

VII. NOTES TO ITEMS IN THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)

8. Other receivables (Continued)

(3). Provision for bad debts

Applicable Not applicable

Unit: Yuan Currency: RMB

	Stage 1 12-month ECL	Stage 2 Lifetime ECL (non-credit impaired)	Stage 3 Lifetime ECL (credit- impaired)	Total
Provision for bad debt				
Amounts due as at 1 January 2019	39,364,329.22	56,046,745.19	51,439,305.71	146,850,380.12
Amounts due for the period as at 1 January 2019				
– Transferred to stage 2	–	–	–	–
– Transferred to stage 3	–	-12,822,871.56	12,822,871.56	–
– Reversed to stage 2	–	–	–	–
– Reversed to stage 1	–	–	–	–
Provision for the period	6,204,135.23	22,167,898.54	6,669,088.18	35,041,121.95
Reversal for the period	11,392,342.92	10,062,631.40	–	21,454,974.32
Write-off for the period	2,146,284.15	–	–	2,146,284.15
Cancellation for the period	–	–	–	–
Other changes	-971,451.71	–	–	-971,451.71
Amount as at 31 December 2019	<u>31,058,385.67</u>	<u>55,329,140.77</u>	<u>70,931,265.45</u>	<u>157,318,791.89</u>

NOTES TO FINANCIAL STATEMENTS

Year ended 31 December 2019

RMB

VII. NOTES TO ITEMS IN THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)

8. Other receivables (Continued)

(3). Provision for bad debts (Continued)

	Unit: Yuan Currency: RMB			
	Stage 1	Stage 2	Stage 3	Total
	12-month ECL	Lifetime ECL (non-credit impaired)	Lifetime ECL (credit- impaired)	
Provision for bad debt				
Amount as at				
31 December 2017	72,892,064.07	67,435,009.69	56,112,117.06	196,439,190.82
Changes in accounting policies	-6,724,236.85	-	-	-6,724,236.85
Amount due as at				
1 January 2018	66,167,827.22	67,435,009.69	56,112,117.06	189,714,953.97
Amounts due for the period as at 1 January 2018				
- Transferred to stage 2	-434,088.37	434,088.37	-	-
- Transferred to stage 3	-	-	-	-
- Reversed to stage 2	-	-	-	-
- Reversed to stage 1	-	-	-	-
Provision for the period	6,333,834.83	10,345,545.67	-	16,679,380.50
Reversal for the period	32,818,125.82	22,167,898.54	4,672,811.35	59,658,835.71
Write-off for the period	-	-	-	-
Cancellation for the period	-	-	-	-
Other changes	114,881.36	-	-	114,881.36
Amount due as at				
31 December 2018	<u>39,364,329.22</u>	<u>56,046,745.19</u>	<u>51,439,305.71</u>	<u>146,850,380.12</u>

Explanation about obvious changes in gross carrying amount of other receivables for which loss provision has changed in the period:

Applicable Not applicable

NOTES TO FINANCIAL STATEMENTS

Year ended 31 December 2019

RMB

VII. NOTES TO ITEMS IN THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)

8. Other receivables (Continued)

(3). Provision for bad debts (Continued)

Unit: Yuan Currency: RMB

	Stage 1 12-month ECL	Stage 2 Lifetime ECL (non-credit impaired)	Stage 3 Lifetime ECL (credit- impaired)	Total
Amount as at				
31 December 2018	1,156,641,515.22	276,533,078.68	51,439,305.71	1,484,613,899.61
Amounts due for the period as at 1 January 2019				
– Transferred to stage 2	–	–	–	–
– Transferred to stage 3	–	-19,951,309.96	19,951,309.96	–
– Reversed to stage 2	–	–	–	–
– Reversed to stage 1	–	–	–	–
Increase during the period	809,092,808.66	–	–	809,092,808.66
Derecognised	774,348,826.02	201,252,627.95	–	975,601,453.97
Cancellation for the period	2,146,284.15	–	–	2,146,284.15
Other changes	-10,516,003.92	–	–	-10,516,003.92
Amount as at 31 December 2019	<u>1,178,723,209.79</u>	<u>55,329,140.77</u>	<u>71,390,615.67</u>	<u>1,305,442,966.23</u>

NOTES TO FINANCIAL STATEMENTS

Year ended 31 December 2019

RMB

VII. NOTES TO ITEMS IN THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)

8. Other receivables (Continued)

(3). Provision for bad debts (Continued)

	Unit: Yuan Currency: RMB			
	Stage 1	Stage 2	Stage 3	
	12-month ECL	Lifetime ECL (non-credit impaired)	Lifetime ECL (credit- impaired)	Total
Amount as at				
31 December 2017	1,548,658,968.70	67,435,009.69	56,112,117.06	1,672,206,095.45
Amounts due for the period as at 1 January 2018				
– Transferred to stage 2	-209,098,068.99	209,098,068.99	–	–
– Transferred to stage 3	–	–	–	–
– Reversed to stage 2	–	–	–	–
– Reversed to stage 1	–	–	–	–
Increase during the period	885,003,281.08	–	–	885,003,281.08
Derecognised	1,080,851,404.59	–	4,672,811.35	1,085,524,215.94
Other changes	12,928,739.02	–	–	12,928,739.02
Amount as at 31 December 2018	<u>1,156,641,515.22</u>	<u>276,533,078.68</u>	<u>51,439,305.71</u>	<u>1,484,613,899.61</u>

Amount of provision for bad debt for the period and basis for evaluating whether credit risk of financial instruments increase significantly:

Applicable Not Applicable

NOTES TO FINANCIAL STATEMENTS

Year ended 31 December 2019

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VII. NOTES TO ITEMS IN THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)

8. Other receivables (Continued)

(4). Provision for bad debt

Applicable Not applicable

Unit: Yuan Currency: RMB

Opening balance	Increase/decrease during the period				Closing balance
	Provision	Disposal of subsidiaries	Recovery or reversal	Write-off or cancellation	
<u>146,850,380.12</u>	<u>35,041,121.95</u>	<u>-971,451.71</u>	<u>21,454,974.32</u>	<u>2,146,284.15</u>	<u>157,318,791.89</u>

In 2019, provisions for bad debts of RMB35,041,121.95 (2018: RMB16,679,380.50) were made, and provisions for bad debts of RMB21,454,974.32 (2018: RMB59,658,835.71) were recovered or reversed.

In 2019, other receivables written off were RMB2,146,284.15 (2018: nil).

Including significant amounts of provision for bad debts recovered or reversed in the period:

Applicable Not Applicable

(5). The situation of the write-off of other receivables for the period

Applicable Not Applicable

NOTES TO FINANCIAL STATEMENTS

Year ended 31 December 2019

RMB

VII. NOTES TO ITEMS IN THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)

8. Other receivables (Continued)

(6). Top five receivables by closing balance collection of the borrowers

√ Applicable □ Not Applicable

As at 12 December 2019, top five debtors with the largest balance of other receivables are as follows:

Unit: Yuan Currency: RMB

Name of entity	Nature of receivable	Closing balance	Aging	Proportion of the closing balance of other receivables (%)	Provision for bad debt Closing balance
Qingdao Xincheng Tianheng Ocean Technology Co., Ltd. (青島鑫誠田橫海洋科技有限公司)	Receivable current payments	95,060,000.00	Within 1 year	7.28	-
Shandong Xincheng Hengye Group Co., Ltd. (山東省鑫誠恒業集團有限公司)	Receivable current payments	88,000,000.00	Within 1 year	6.74	-
Guizhou Construction Engineering Group Co., Ltd. (貴州建工集團有限公司)	Receivable current payments	55,329,140.77	Over 3 years	4.24	55,329,140.77
Pingdingshan Yong'an Transportation and Trade Co., Ltd. (平頂山市永安運輸貿易有限責任公司)	Receivable current payments	40,292,324.40	Over 3 years	3.09	40,292,324.40
Serbia Branch of China Railway International Co., Ltd. (中國鐵路國際有限公司塞爾維亞分公司)	Receivable current payments	35,119,056.26	Within 1 year	2.69	-
Total	/	<u>313,800,521.43</u>	/	<u>24.04</u>	<u>95,621,465.17</u>

NOTES TO FINANCIAL STATEMENTS

Year ended 31 December 2019

RMB

VII. NOTES TO ITEMS IN THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)

8. Other receivables (Continued)

(6). Top five receivables by closing balance collection of the borrowers (Continued)

As at 31 December 2018, top five debtors with the largest balance of other receivables are as follows:

Unit: Yuan Currency: RMB

Name of entity	Nature of receivable	Closing balance	Aging	Proportion of the closing balance of other receivables (%)	Provision for bad debt Closing balance
Tongren Municipal People's Government Land and Mineral Rights Reserve Bureau (銅仁市人民政府土地礦權儲備局)	Demolition receivable	329,896,170.97	Within 1 year and 2-3 years	22.22	10,994,319.03
Tancheng County Urban Construction Integrated Development Company (鄒城縣城市建設綜合開發公司)	Receivable current payments	68,600,000.00	Within 1 year	4.62	-
Guizhou Construction Engineering Group Co., Ltd. (貴州建工集團有限公司)	Receivable current payments	55,329,140.77	Over 3 years	3.73	33,161,242.23
Xihua Economic Development Zone Comprehensive Investment Co., Ltd. (西華經開區綜合投資有限公司)	Receivable current payments	50,000,000.00	Within 1 year	3.37	-
Pingdingshan Yong'an Transportation and Trade Co., Ltd. (平頂山市永安運輸貿易有限責任公司)	Receivable current payments	40,292,324.40	Over 3 years	2.71	40,292,324.40
Total	/	<u>544,117,636.14</u>	/	<u>36.65</u>	<u>84,447,885.66</u>

(7). Receivables involving government subsidies

Applicable Not Applicable

(8). Other receivables derecognized due to the transfer of financial assets

Applicable Not Applicable

During the year, the Group's other receivables were factored to financial institutions with no right of recourse. The carrying amount of the balance of other receivables derecognised was RMB 441,752,441.81 (31 December 2018: Nil).

(9). Amount of assets or liabilities resulting from transfer of other receivables and continuing involvement

Applicable Not Applicable

Other explanation:

Applicable Not Applicable

NOTES TO FINANCIAL STATEMENTS

Year ended 31 December 2019

RMB

VII. NOTES TO ITEMS IN THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)

9. Inventories

(1) Inventory classification

Applicable Not applicable

Unit: Yuan Currency: RMB

Item	Closing balance			Opening balance		
	Gross carrying amount	Provision for decline in value of inventories/ provision for impairment of contract performance cost	Carrying amount	Gross carrying amount	Provision for decline in value of inventories/ provision for impairment of contract performance cost	Carrying amount
Raw materials	781,311,660.39	5,619,190.97	775,692,469.42	686,450,908.11	5,920,362.09	680,530,546.02
Work-in-progress	486,197,098.97	-	486,197,098.97	359,881,337.10	1,814,658.14	358,066,678.96
Finished goods	923,335,095.53	523,909.72	922,811,185.81	788,804,721.10	1,696,377.95	787,108,343.15
Turnover materials	16,061,822.80	-	16,061,822.80	18,889,517.26	-	18,889,517.26
Cost of properties under development	-	-	-	2,241,956,699.21	-	2,241,956,699.21
Total	2,206,905,677.69	6,143,100.69	2,200,762,577.00	4,095,983,182.78	9,431,398.18	4,086,551,784.60

NOTES TO FINANCIAL STATEMENTS

Year ended 31 December 2019

RMB

VII. NOTES TO ITEMS IN THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)

9. Inventories (Continued)

(2) Provision for decline in value of inventories and provision for impairment of contract performance cost

Applicable Not applicable

Changes in provision for decline in value of inventories are as follows:

2019

Unit: Yuan Currency: RMB

Item	Opening balance	Increase during the period		Decrease during the period		Closing balance
		Provision	Others	Reversal or write-off	Others	
Raw materials	5,920,362.09	-	-	301,171.12	-	5,619,190.97
Work-in-progress	1,814,658.14	-	-	1,814,658.14	-	-
Finished goods	1,696,377.95	510,235.27	-	1,682,703.50	-	523,909.72
Total	<u>9,431,398.18</u>	<u>510,235.27</u>	<u>-</u>	<u>3,798,532.76</u>	<u>-</u>	<u>6,143,100.69</u>

2018

Unit: Yuan Currency: RMB

Item	Closing balance for last year	Changes in accounting policies	Opening balance	Increase		Decrease		Closing balance
				Provision	Others	Reversal or write-off	Others	
Raw materials	5,809,079.90	-	5,809,079.90	114,987.10	-	3,704.91	-	5,920,362.09
Work-in-progress	1,855,682.57	-	1,855,682.57	-	-	41,024.43	-	1,814,658.14
Finished goods	1,980,047.25	-	1,980,047.25	108,900.59	-	392,569.89	-	1,696,377.95
Assets derived from construction contract and service contract	7,844,728.03	-7,844,728.03	-	-	-	-	-	-
Total	<u>17,489,537.75</u>	<u>-7,844,728.03</u>	<u>9,644,809.72</u>	<u>223,887.69</u>	<u>-</u>	<u>437,299.23</u>	<u>-</u>	<u>9,431,398.18</u>

NOTES TO FINANCIAL STATEMENTS

Year ended 31 December 2019

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VII. NOTES TO ITEMS IN THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)

9. Inventories (Continued)

(3) Explanation about inclusion of capitalized amount of the borrowing cost in the closing balance of inventories

Applicable Not Applicable

(4) Explanation about current amortization amount of contract performance cost

Applicable Not Applicable

Other explanation:

Applicable Not Applicable

10. Contract assets

(1). Information of contract assets

Applicable Not applicable

Unit: Yuan Currency: RMB

Item	Closing balance			Opening balance		
	Gross carrying amount	Provision for impairment	Carrying amount	Gross carrying amount	Provision for impairment	Carrying amount
Completed but unsettled	33,139,898,460.16	-104,916,117.65	33,034,982,342.51	31,128,735,266.68	-187,260,448.89	30,941,474,817.79
Total	33,139,898,460.16	-104,916,117.65	33,034,982,342.51	31,128,735,266.68	-187,260,448.89	30,941,474,817.79

(2). Amount of and reason for significant change in carrying amount within the reporting period

Applicable Not Applicable

In 2019, significant changes in the gross carrying amount of the contract assets that affect the changes in the provision for loss include the settlement of primary land development project in Tongren, which resulted in a decrease of the gross carrying amount by 3.12% and also a decline in the Lifetime ECL.

NOTES TO FINANCIAL STATEMENTS

Year ended 31 December 2019

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VII. NOTES TO ITEMS IN THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)

10. Contract assets (Continued)

(3). Provision for impairment of contract assets in the period

Applicable Not applicable

Unit: Yuan Currency: RMB

Item	Provision for the period	Reversal for the period	Cancellation or write-off for the period	Others	Reason
Provision for impairment of contract assets	<u>20,481,435.65</u>	<u>-5,696,754.71</u>	<u>-</u>	<u>-97,129,012.18</u>	
Total	<u>20,481,435.65</u>	<u>-5,696,754.71</u>	<u>-</u>	<u>-97,129,012.18</u>	/

Contract assets of the Group are derived from provision of construction services to customers and recognition of revenue over a period of time. At time of settlement of project-related payments, any such contract asset turns into the unconditional right to collect payments and is transferred into the receivables.

As at 31 December 2019, the ECL rate of the contract assets was 0.32% (31 December 2018: 0.59%).

If provisions for bad debts are made as per the general model of ECL, please make disclosure with reference to other receivables:

Applicable Not Applicable

Other explanation:

Applicable Not Applicable

11. Assets held for sale

Applicable Not Applicable

NOTES TO FINANCIAL STATEMENTS

Year ended 31 December 2019

RMB

VII. NOTES TO ITEMS IN THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)

12. Non-current assets due within one year

Applicable Not applicable

Unit: Yuan Currency: RMB

Item	Closing balance	Opening balance
Project quality deposit due within one year	19,118,289.09	103,421,984.10
Less: Provision for bad debt	-95,591.43	-499,756.02
Total	<u>19,022,697.66</u>	<u>102,922,228.08</u>

Significant debt investments and other debt investments at the end of the period:

Applicable Not Applicable

13. Other current assets

Applicable Not applicable

Unit: Yuan Currency: RMB

Item	Closing balance	Opening balance
VAT input to be deducted	888,464,432.91	737,257,994.98
Prepaid corporate income tax	44,653,703.27	10,101,107.23
Other	7,015,411.95	33,045,273.62
Total	<u>940,133,548.13</u>	<u>780,404,375.83</u>

NOTES TO FINANCIAL STATEMENTS

Year ended 31 December 2019

RMB

VII. NOTES TO ITEMS IN THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)

14. Debt investment

(1). Information of debt investment

Applicable Not applicable

Unit: Yuan Currency: RMB

Item	Closing balance			Opening balance		
	Gross carrying amount	Provision for impairment	Carrying amount	Gross carrying amount	Provision for impairment	Carrying amount
Shandong Railway Development Fund Co., Ltd. (山東鐵路發展基金有限公司)	273,172,183.50	-	273,172,183.50	-	-	-
Total	273,172,183.50	-	273,172,183.50	-	-	-

The Company completed its investment in Shandong Railway Development Fund Co., Ltd. on 28 January 2019, with the investment return to be paid by Shandong Development Fund as per 10% off the benchmark interest rate for more-than-5-year loans issued by PBoC (the prevailing interest rate $4.9\% \times 0.9 = 4.41\%$), and the interest was commenced on a phased basis from the date on which Shandong Development Fund received the investment capital, subject to adjustment according to interest rate of the central bank. At the end of the tenth anniversary of the date on which the project cooperation is commenced (i.e., 28 January 2029), Shandong Railway Development Fund Co., Ltd. will receive the equity equivalent to the Company's original capital contribution in lump sum. Therefore, the Company mainly holds the investment for the purpose of obtain contractual cash flows, and cash flows generated on specific dates are solely for the payment of the investment principal and interests incurred from the outstanding amount, and they fall into financial assets measured at amortised cost, therefore, the investment is stated as debt investment.

The Company has assessed that its credit risk has not significantly increased since the initial recognition on the balance sheet date, therefore the Company did not make provision for impairment according to the amount equivalent to the ECL for the next 12 months.

(2). Significant debt investments at the end of the period

Applicable Not Applicable

NOTES TO FINANCIAL STATEMENTS

Year ended 31 December 2019

RMB

VII. NOTES TO ITEMS IN THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)

14. Debt investment (Continued)

(3). Provision for impairment

Applicable Not Applicable

Amount of provision for impairment for the period and basis for evaluating whether or not credit risk in financial instruments increase significantly:

Applicable Not Applicable

Other explanation:

Applicable Not Applicable

15. Other debt investments

(1) Other debt investments

Applicable Not Applicable

(2) Other significant debt investments at the end of the period

Applicable Not Applicable

(3) Provision for impairment

Applicable Not Applicable

Amount of provision for the period and basis for evaluating whether credit risk of financial instruments increase significantly:

Applicable Not Applicable

Other explanation:

Applicable Not Applicable

NOTES TO FINANCIAL STATEMENTS

Year ended 31 December 2019

RMB

VII. NOTES TO ITEMS IN THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)

16. Long-term receivables

(1). Long-term receivables

Applicable Not applicable

Unit: Yuan Currency: RMB

Item	Closing balance			Opening balance			Discount rate range
	Gross carrying amount	Provision for bad debt	Carrying amount	Gross carrying amount	Provision for bad debt	Carrying amount	
"Build-Transfer" project receivables (Note 1)	98,209,322.09	491,046.61	97,718,275.48	655,186,715.04	2,670,548.70	652,516,166.34	
"Build-Operate-Transfer" project receivables (Note 2)	3,943,062,472.22	45,583,709.94	3,897,478,762.28	3,256,724,948.94	20,477,866.00	3,236,247,082.94	
Project receivables	2,438,248,316.26	11,315,336.74	2,426,932,979.52	731,447,325.13	3,657,236.62	727,790,088.51	
Total	6,479,520,110.57	57,390,093.29	6,422,130,017.28	4,643,358,989.11	26,805,651.32	4,616,553,337.79	/

Note 1: The Group signed repurchase agreements in relation to municipal engineering investment and construction with the relevant government bodies, under which those bodies authorize companies of the Group undertaking "build-transfer" projects to implement the investment and financing functions on their behalf to develop municipal projects. Those companies shall, after the completion of the "build-transfer" projects, hand over the projects to such bodies, and then those agencies shall pay the repurchase price within the time limit specified in the repurchase agreement.

Note 2: The Group signed repurchase and franchise agreements in relation to municipal engineering investment and construction with the relevant government bodies, under which those bodies authorize companies of the Group undertaking "build-operate-transfer" projects to implement the investment and financing functions on their behalf to develop and operate municipal projects on a franchise basis. Those companies shall, after the end of the franchise period, hand over the projects to such bodies, and then those agencies shall pay the repurchase price within the time limit specified in the repurchase agreement.

The Group evaluated whether or not the credit risk of the said long-term receivables has been significantly increased since the initial recognition on each balance sheet date. If such credit risk has not significantly increased since the initial recognition, the Group made provisions for loss at the amount equivalent to ECL for the next 12 months; and if the credit risk has significantly increased since the initial recognition but no credit impairment has occurred, the Group made provisions for loss at the amount equivalent to the lifetime ECL.

NOTES TO FINANCIAL STATEMENTS

Year ended 31 December 2019

RMB

VII. NOTES TO ITEMS IN THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)

16. Long-term receivables (Continued)

(1). Long-term receivables (Continued)

As at 31 December 2019, the Group's long-term receivables of RMB3,586,890,185.27 (31 December 2018: RMB1,103,115,389.15) derived from the pledged income right in and to the franchise and all proceeds thereunder were used to obtain long-term loans of RMB1,664,299,760.80 (31 December 2018: RMB625,017,582.09) (Note VII. 45 and 81).

(2). Provision for bad debts

Applicable Not applicable

2019

Unit: Yuan Currency: RMB

Opening balance for the year	Increase/decrease for the year			Closing balance for the year
	Provision	Recovery or reversal	Cancellation or write-off	
26,805,651.32	33,642,701.03	3,058,259.06	-	57,390,093.29

2018

Unit: Yuan Currency: RMB

Closing balance for last year	Changes in accounting policies	Opening balance for the year	Increase/decrease for the year			Closing balance for the year
			Provision	Recovery or reversal	Cancellation or write-off	
-	15,315,202.56	15,315,202.56	11,490,448.76	-	-	26,805,651.32

Explanation about obvious changes in gross carrying amount of long-term receivables for which loss provision has changed in the period:

Applicable Not Applicable

Amount of provision for bad debt for the period and basis for evaluating whether or not credit risk of financial instruments increases significantly:

Applicable Not Applicable

NOTES TO FINANCIAL STATEMENTS

Year ended 31 December 2019

RMB

VII. NOTES TO ITEMS IN THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)

16. Long-term receivables (Continued)

(3). Long-term receivables derecognized due to the transfer of financial assets

Applicable Not Applicable

(4). Amount of assets or liabilities resulting from transfer of long-term receivables

Applicable Not Applicable

Other explanation:

Applicable Not Applicable

17. Long-term equity investment

Applicable Not applicable

Unit: Yuan Currency: RMB

	31 December 2019	31 December 2018
Investments in joint ventures	236,048,139.20	253,491,320.54
Investments in associates	745,493,462.30	752,430,080.14
Subtotal	981,541,601.50	1,005,921,400.68
Less: Provision for impairment of long-term equity investment	—	—
Total	981,541,601.50	1,005,921,400.68

NOTES TO FINANCIAL STATEMENTS

Year ended 31 December 2019

RMB

VII. NOTES TO ITEMS IN THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)

17. Long-term equity investment (Continued)

2019

Unit: Yuan Currency: RMB

Investee	Note	Operating balance	Increase/decrease for the period					Declared and paid cash dividends or profits	Provision for impairment	Others	Closing balance	Closing balance of provision for impairment
			Increase in investment	Decrease in investment	Investment gains/ losses confirmed under equity method	Other comprehensive income adjustment	Other equity changes					
I. Joint venture												
Wenzhou-Hangzhou High-Speed Railway Investment Partnership (LLP) (“Wenzhou-Hangzhou High-Speed Railway” (温州杭州高速铁路投资合伙企业(有限合伙)))	Note 1	-	76,500,000.00	-	3,772.49	-	-	-	-	-	76,503,772.49	-
Xian Schalbau Electric Corp., Ltd. (“Schalbau” (西安沙爾特電氣有限公司))		161,420,044.90	-	-	23,624,321.81	-	-	-	-	-	159,544,366.71	-
CRSC Smart Technology Co., Ltd. (“Smart Technology” (鐵建智惠科技有限公司))	Note 2	15,647,639.72	-	15,647,639.72	-	-	-	-	-	-	-	-
Sichuan Development CRSC Urban Investment Co., Ltd. (“Sichuan Development”) (四川發展鐵建城市投資有限公司)	Note 3	56,733,823.16	-	56,733,823.16	-	-	-	-	-	-	-	-
Beijing CRSC Beifang Real Estate Co., Ltd. (“Beifang Real Estate”) (北京鐵建北方置業有限公司)	Note 4	-	20,400,000.00	20,400,000.00	-	-	-	-	-	-	-	-
Beijing CRSC Construction and Development Co., Ltd. (“CRSC Construction and Development”) (北京鐵建建設開發有限公司)	Note 4	19,689,812.76	-	19,689,812.76	-	-	-	-	-	-	-	-
Subtotal		253,491,920.54	96,900,000.00	112,471,275.64	23,628,094.30	-	-	-	-	-	236,048,139.20	-

NOTES TO FINANCIAL STATEMENTS

Year ended 31 December 2019

RMB

VII. NOTES TO ITEMS IN THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)

17. Long-term equity investment (Continued)

Investee	Note	Increase/decrease for the period						Closing balance of provision for impairment				
		Opening balance	Increase in investment	Decrease in investment	Investment gains/ losses confirmed under equity method	Other comprehensive income adjustment	Other equity changes		Declared and paid cash dividends or profits	Provision for impairment	Others	Closing balance
II. Associates												
Sping Integrated Pipeline Construction Co., Ltd. ("Spring Pipeline") (四平市崇合管廊建設運營有限公司)		134,715,266.36	-	-	-	-	-	-	-	-	134,715,266.36	-
CRSC Airbus Co., Ltd. ("Airbus") (通號空中快車有限公司)	Note 5	20,248,799.36	-	19,746,169.95	-502,629.41	-	-	-	-	-	-	-
CRSC Private Equity Fund (Limited Partnership) ("CRSC Hengqin") (橫琴通號啟權投資基金(有限合伙))		4,650,858.97	-	-	623,845.90	-	-	-	-	-	5,274,704.87	-
Siemens Signalling Company Ltd. ("SSCX") (西門子信號有限公司)		78,427,682.44	-	-	14,104,539.32	-	-	-	-	-	73,632,221.76	-
Guizhou Jiantong Real Estate Development Co., Ltd. ("Guizhou Jiantong") (貴州建通房地產開發有限公司)	Note 6	22,548,652.50	-	21,615,415.95	-933,236.55	-	-	-	-	-	-	-
CSCEC Foshan Joint Investment Co., Ltd. ("CSCEC Foshan") (佛山中遠交通聯合投資有限公司)		82,300,609.21	-	64,240,000.00	-58,934.64	-	-	-	-	-	18,001,674.57	-
CRSC (Beijing) Electronic Technology Co., Ltd. ("CRSC Electronics") (通號(北京)電子科技有限公司)		3,880,751.98	-	-	-1,130,420.27	-	-	-	-	-	2,750,331.71	-
Guangdong Ultrast Financial Leasing Co., Ltd. ("Guangdong Ultrast Financial Leasing") (廣東粵斯金融租賃股份有限公司)		302,243,054.50	-	-	11,395,512.22	-	-	-	-	-	313,638,566.72	-
China Tieqiang Railway Operation Co., Ltd. ("China Tieqiang Railway") (中鐵通號運營有限公司)		13,841,677.43	-	-	5,501,387.70	-	-	-	588,169.91	-	19,941,435.04	-
CRSC Tianshui Tram Co., Ltd. ("Tianshui Tram") (天水通號有軌電車有限責任公司)	Note 7	88,771,761.27	88,771,900.00	-	-	-	-	-	-	-	177,539,261.27	-
CRSC Changxing (Zhejiang) Technology Co., Ltd. ("Changxing Technology") (通號(浙江)科技股份有限公司)		810,966.12	1,004,331.02	-	-1,815,297.14	-	-	-	-	-	-	-
Subtotal		752,430,080.14	88,781,831.02	105,601,585.90	27,184,967.13	-	588,169.91	18,900,000.00	-	-	745,483,462.30	-
Total		1,005,921,400.68	186,681,831.02	218,072,861.54	50,813,061.43	-	588,169.91	44,400,000.00	-	-	981,541,650.50	-

NOTES TO FINANCIAL STATEMENTS

Year ended 31 December 2019

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VII. NOTES TO ITEMS IN THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)

17. Long-term equity investment (Continued)

2018

Unit: Yuan Currency: RMB

Investee	Note	Opening balance	Increase/decrease for the period					Closing balance of provision for impairment	
			Increase in investment	Decrease in investment	Investment gains/ losses confirmed under equity method	Other equity charges	Declared and paid cash dividends or profits		Provision for impairment
I. Joint venture									
Xian Schalibau Electric Corp., Ltd. ("Schalibau") (西安沙爾特實業有限公司)		164,616,695.44	-	-	22,303,349.46	-	25,500,000.00	-	161,420,044.90
CRSC Smart Technology Co., Ltd. ("Smart Technology") (錫麟慧科技有限公司)	Note 2	20,194,840.05	-	-	-4,547,200.33	-	-	-	15,647,639.72
Sichuan Development CRSC Urban Investment Co., Ltd. ("Sichuan Development") (四川發展通誠城市投資有限公司)									
	Note 3	56,048,330.51	-	-	685,492.65	-	-	-	56,733,823.16
Tianhui Tiantong Tramway Co., Ltd. ("Tianhui Tiantong") (天水通祥軌電車有限責任公司)									
		100,038,121.69	-	101,469,410.01	1,431,288.32	-	-	-	-
Beijing CRSC Construction and Development Co., Ltd. ("CRSC Construction and Development") (北京通誠建設開發有限公司)									
	Note 4	20,139,950.19	-	-	-450,137.43	-	-	-	19,689,812.76
Subtotal		361,037,937.88	-	101,469,410.01	19,422,792.67	-	25,500,000.00	-	253,491,320.54

NOTES TO FINANCIAL STATEMENTS

Year ended 31 December 2019

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VII. NOTES TO ITEMS IN THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)

17. Long-term equity investment (Continued)

Investee	Note	Opening balance	Increase/decrease for the period					Closing balance of provision for impairment
			Increase in investment	Decrease in investment	Investment gains/ losses confirmed under equity method	Other equity changes	Declared and paid cash dividends or profits	
II. Associates								
Sping Integrated Pipeline Construction Co., Ltd. ("Sping Pipeline") (四平市綜合管廊建設運營有限公司)		134,715,266.36	-	-	-	-	-	134,715,266.36
CRSC Airbus Co., Ltd. ("Airbus") (總辦空中快車有限公司)	Note5	18,608,547.91	-	-	1,640,251.45	-	-	20,248,799.36
CRSC Private Equity Fund (Limited Partnership) ("CRSC Hengqin") (橫琴瑞聯投資基金(有限合伙))		2,349,909.90	-	-	2,300,949.07	-	-	4,650,858.97
Siemens Signalling Company Ltd. ("SSCX") (西門子信號有限公司)		82,020,017.09	-	-	22,507,665.35	-	26,100,000.00	78,427,682.44
Guizhou Jiantong Real Estate Development Co., Ltd. ("Guizhou Jiantong") (貴州建通房地產開發有限公司)	Note6	22,548,652.50	-	-	-	-	-	22,548,652.50
CSCEC Foshan Joint Investment Co., Ltd. ("CSCEC Foshan") (佛山中建交通聯合投資有限公司)		70,178,157.91	-	-	12,122,451.30	-	-	82,300,609.21
CRSC (Beijing) Electronic Technology Co., Ltd. ("CRSC Electronics") (總辦(北京)電子科技有限公司)		4,868,978.56	-	-	-988,226.58	-	-	3,880,751.98
Guangdong Ultrast Financial Leasing Co., Ltd. ("Guangdong Ultrast Financial Leasing") (廣東粵財金融租賃股份有限公司)		301,442,926.69	-	-	800,127.81	-	-	302,243,054.50
China Tietong Railway Operation Co., Ltd. ("China Tietong Railway") (中鐵通車運營有限公司)		2,580,039.17	10,500,000.00	-	761,638.26	-	-	13,841,677.43
CRSC Tianshui Tram Co., Ltd. ("Tianshui Tram") (天水鐵道有軌電車有限公司)	Note7	-	88,777,500.00	-	-15,738.73	-	-	88,761,761.27
CRSC Changxing (Zhejiang) Technology Co., Ltd. ("Changxing Technology") (總辦鑄行(浙江)科技股份有限公司)		2,156,000.00	-	-	-1,345,033.88	-	-	810,966.12
Ansaldo Signal Transportation System(Beijing) Co., Ltd. ("Ansaldo") (安薩爾多信號系統(北京)有限公司)		737,737.18	-	737,737.18	-	-	-	-
Subtotal		642,206,233.27	99,277,500.00	737,737.18	37,784,084.05	-	26,100,000.00	752,430,080.14
Total		1,003,244,171.15	99,277,500.00	102,207,147.19	57,206,876.72	-	51,600,000.00	1,005,921,400.88

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Year ended 31 December 2019

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VII. NOTES TO ITEMS IN THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)

17. Long-term equity investment (Continued)

Key information of joint ventures and associates

2019

	Principal place of business/place of registration	Nature of business	Registered capital	Shareholding by the Group (%)		Voting ratio of the Group (%)
				Direct	Indirect	
Joint venture						
Schaltbau	Xi'an City	Manufacturing of product	US\$4,400,000.00	–	50.00	33.00
Wenzhou-Hangwen High-Speed Railway	Wenzhou City	Commercial service	5,010,000,000.00	29.99	–	29.99
Associates						
SSCX	Xi'an City	Manufacturing of product	€5,220,000.00	–	30.00	30.00
CSCEC Foshan	Guangzhou City	Investment project construction	16,000,000.00	11.00	–	20.00
Siping Pipeline	Siping City	Project contracting	1,125,608,500.00	20.00	–	20.00
CRSC Hengqin	Zhuhai City	Equity investment management	200,000,000.00	–	40.00	33.00
CRSC Electronics	Beijing City	Manufacturing of product	10,000,000.00	–	49.00	49.00
Guangdong Ultrast Financial Leasing	Guangzhou City	Financial leasing	1,000,000,000.00	30.00	–	30.00
China Tietong Railway	Wenzhou City	Rail transit operation	50,000,000.00	–	30.00	30.00
Tianshui Tram	Tianshui City	Project contracting	498,400,000.00	35.63	–	40.00
Changxing Technology	Taizhou City	Rail transit supplies	22,000,000.00	–	49.00	49.00

NOTES TO FINANCIAL STATEMENTS

Year ended 31 December 2019

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VII. NOTES TO ITEMS IN THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)

17. Long-term equity investment (Continued)

Key information of joint ventures and associates (Continued)

2018

	Principal place of business/place of registration	Nature of business	Registered capital	Shareholding by the Group (%)		Voting ratio of the Group (%)
				Direct	Indirect	
Joint venture						
Schaltbau	Xi'an City	Manufacturing of product	US\$4,400,000.00	-	50.00	33.00
Smart Technology	Guangzhou City	Research and experimental development	61,000,000.00	-	49.18	60.00
Sichuan Development	Chengdu City	Project contracting	1,500,000,000.00	40.00	-	40.00
Tianshui Tiantong	Tianshui City	Project contracting	1,275,510,000.00	49.00	-	49.00
CRSC Construction and Development	Beijing City	Project contracting	100,000,000.00	-	60.00	60.00
Associates						
SSCX	Xi'an City	Manufacturing of product	€5,220,000.00	-	30.00	30.00
Guizhou Jiantong	Guiyang City	Project contracting	80,000,000.00	-	30.00	30.00
CSCEC Foshan	Guangzhou City	Investment and project construction	600,000,000.00	11.00	-	20.00
Siping Pipeline	Siping City	Project contracting	1,125,608,500.00	20.00	-	20.00
Airbus	Wenling City	Rail transit supplies	100,000,000.00	40.00	-	40.00
CRSC Hengqin	Zhuhai City	Equity investment management	200,000,000.00	-	40.00	33.00
CRSC Electronics	Beijing City	Manufacturing of product	10,000,000.00	-	49.00	49.00
Guangdong Ultrast Financial Leasing	Guangzhou City	Financial leasing	1,000,000,000.00	30.00	-	30.00
China Tietong Railway	Wenzhou City	Rail transit operation	50,000,000.00	-	30.00	30.00
Tianshui Tram	Tianshui City	Project contracting	498,400,000.00	35.63	-	40.00
Changxing Technology	Taizhou City	Rail transit supplies	22,000,000.00	-	49.00	49.00
Ansaldo	Beijing City	Rail transit supplies	€836,945.00	-	20.00	20.00

NOTES TO FINANCIAL STATEMENTS

Year ended 31 December 2019

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VII. NOTES TO ITEMS IN THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)

17. Long-term equity investment (Continued)

Key information of joint ventures and associates (Continued)

- Note 1: In January 2019, the Company, Wenzhou Parkson United High-Speed Railway Investment Partnership (LLP) (溫州百盛聯合高鐵投資合夥企業有限合夥), Parkson United Rail Transit Co., Ltd. (百盛聯合軌道交通有限公司), Parkson United Group Co., Ltd. (百盛聯合集團有限公司) and CRSC Jiahe Industrial Investment Fund Management Co., Ltd. (通號嘉和產業投資基金管理有限公司) jointly established Wenzhou-Hangwen High-Speed Railway. The Company subscribed for RMB1,500 million, representing a shareholding of 29.99%. As of 31 December 2019, the Company actually contributed RMB76.5 million. The equity method was used to account for capital contributions made into Wenzhou-Hangwen High-Speed Railway, a joint venture of the Group.
- Note 2: As of 31 December 2019, Innovation Investment, one of subsidiaries of the Company, has transferred 49.18% of the shares it holds in CRSC Smart Technology Co., Ltd. (通號智慧科技有限公司) to Tongshi Capital Operation Co., Ltd. (通實資本運營有限公司) for a consideration of RMB30.1 million.
- Note 3: As of 31 December 2019, the Company has transferred 40% of the shares it holds in Sichuan Development CRSC Urban Investment Co., Ltd. (四川發展通號城市投資有限責任公司) to Sichuan Development Holding Co., Ltd., another shareholder of Sichuan Development CRSC Urban Investment Co., Ltd., for a consideration of RMB60 million.
- Note 4: On 10 June 2019, Innovative Investment, one of subsidiaries of the Company, signed a share transfer agreement with CRSC, the parent of the Company, under which Innovation Investment agreed to transfer 51% of shares it holds in Beifang Real Estate and 60% of shares it holds in CRSC Construction and Development for a consideration of RMB21.3222 million.
- Note 5: On 9 July 2019, the Company has resolved to liquidate and deregister CRSC Airbus Co., Ltd. (通號空中快車有限公司), thereby recovering investment capital of RMB19.8040 million.
- Note 6: At the shareholders meeting dated 20 November 2019, Guizhou Jiantong Real Estate Development Co., Ltd. (貴州建通房地產開發有限公司) resolved to deregister Guizhou Jiantong Real Estate Development Co., Ltd. ("Guizhou Jiantong"), and as of 31 December 2019, liquidation of Guizhou Jiantong has not been completed, thus liquidation proceeds not being recovered.
- Note 7: In 2019, the Company increased its investment in Tianshui Tram by RMB88.7775 million, and as of 31 December 2019, the Company has made cumulative capital contributions of RMB177.5550 million to Tianshui Tram. The Company exercises significant impact on Tianshui Tram. The equity method was used to account for capital contribution made into Tianshui Tram, an associate of the Company.

As of 31 December 2019 and 31 December 2018, the ability of investees in which the Company hold long-term equity investments to transfer funds to the Group has not been restricted.

NOTES TO FINANCIAL STATEMENTS

Year ended 31 December 2019

RMB

VII. NOTES TO ITEMS IN THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)

18. Other equity instrument investments

(1) Other equity instrument investments

Applicable Not applicable

Unit: Yuan Currency: RMB

Item	Closing balance	Opening balance
Beijing Yawan High Speed Railway Co., Ltd. (北京雅萬高速鐵路有限公司)	323,916,888.00	269,266,888.00
China Railway International (USA) Co., Ltd. (中國鐵路國際(美國)有限公司)	5,739,120.00	5,739,120.00
Ganzhou-Shenzhen Railway (Guangdong) Company Limited (贛深鐵路(廣東)有限公司)	100,000,000.00	—
Beijing Rail Transit Operation Control System National Engineering Research Center Co., Ltd. (北京軌道交通 運行控制系統國家工程研究中心有限公司)	2,141,159.20	2,141,159.20
Hunan Maglev Group Co., Ltd. (湖南磁浮集團股份有限公司)	100,000,000.00	100,000,000.00
Dujiangyan Rail Transit Co., Ltd. (都江堰軌道交通有限責任公司)	—	2,400,000.00
Lunan High Speed Railway Co., Ltd. (魯南高速鐵路有限公司)	274,267,062.00	274,267,062.00
Total	806,064,229.20	653,814,229.20

NOTES TO FINANCIAL STATEMENTS

Year ended 31 December 2019

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VII. NOTES TO ITEMS IN THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)

18. Other equity instrument investments (Continued)

(1) Other equity instrument investments (Continued)

31 December 2019

Unit: Yuan Currency: RMB

Item	Cost	Changes in fair value accumulated in other comprehensive income	Fair value	Dividend income for the year		Reason for designating as fair value through other comprehensive income
				Equity instruments derecognized in the year	Equity instrument still held	
Beijing Yawan High Speed Railway Co., Ltd. (北京雅萬高速鐵路有限公司)	323,916,888.00	-	323,916,888.00	-	-	It is expected to be strategically held for a long time
China Railway International (USA) Co., Ltd. (中國鐵路國際(美國)有限公司)	5,739,120.00	-	5,739,120.00	-	-	It is expected to be strategically held for a long time
Ganzhou-Shenzhen Railway (Guangdong) Company Limited (贛深鐵路(廣東)有限公司)	100,000,000.00	-	100,000,000.00	-	-	It is expected to be strategically held for a long time
Beijing Rail Transit Operation Control System National Engineering Research Center Co., Ltd. (北京軌道 交通運行控制系統國家工程研究中心有限公司)	2,141,159.20	-	2,141,159.20	-	-	It is expected to be strategically held for a long time
Shanxi Haixin Iron and Steel Co., Ltd. (山西海鑫鋼鐵有限公司)	716,815.00	-	-	-	-	Insolvency
Hunan Maglev Group Co., Ltd. (湖南磁浮集團股份有限公司)	100,000,000.00	-	100,000,000.00	-	-	It is expected to be strategically held for a long time
Lunan High Speed Railway Co., Ltd. (魯南高速鐵路有限公司)	274,267,062.00	-	274,267,062.00	-	-	It is expected to be strategically held for a long time
Total	<u>806,781,044.20</u>	<u>-</u>	<u>806,064,229.20</u>	<u>-</u>	<u>-</u>	

NOTES TO FINANCIAL STATEMENTS

Year ended 31 December 2019

RMB

VII. NOTES TO ITEMS IN THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)

18. Other equity instrument investments (Continued)

(1) Other equity instrument investments (Continued)

31 December 2018

Item	Cost	Changes in fair value accumulated in other comprehensive income	Fair value	Dividend income for the year		Reason for designation as fair value through other comprehensive income
				Equity instruments derecognized in the year	Equity instrument still held	
Beijing Yawan High Speed Railway Co., Ltd. (北京雅萬高速鐵路有限公司)	269,266,888.00	-	269,266,888.00	-	-	It is expected to be strategically held for a long time
China Railway International (USA) Co., Ltd. (中國鐵路國際(美國)有限公司)	5,739,120.00	-	5,739,120.00	-	-	It is expected to be strategically held for a long time
Dujiangyan Rail Transit Co., Ltd. (都江堰軌道交通有限責任公司)	2,400,000.00	-	2,400,000.00	-	-	It is expected to be strategically held for a long time
Beijing Rail Transit Operation Control System National Engineering Research Center Co., Ltd. (北京軌道交通運行控制系統國家工程研究中心有限公司)	2,141,159.20	-	2,141,159.20	-	-	It is expected to be strategically held for a long time
Shanxi Haixin Iron and Steel Co., Ltd. (山西海鑫鋼鐵有限公司)	716,815.00	-	-	-	-	Insolvency
Hunan Maglev Group Co., Ltd. (湖南磁浮集團股份有限公司)	100,000,000.00	-	100,000,000.00	-	-	It is expected to be strategically held for a long time
Lunan High Speed Railway Co., Ltd. (魯南高速鐵路有限公司)	274,267,062.00	-	274,267,062.00	-	-	It is expected to be strategically held for a long time
Total	<u>654,531,044.20</u>	<u>-</u>	<u>653,814,229.20</u>	<u>-</u>	<u>-</u>	

Other explanation:

Applicable Not Applicable

NOTES TO FINANCIAL STATEMENTS

Year ended 31 December 2019

RMB

VII. NOTES TO ITEMS IN THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)

19. Other non-current financial assets

Applicable Not Applicable

Other explanation:

Applicable Not Applicable

20. Investment properties

Measurement model for investment properties

(1) Investment properties measured under cost method

2019

Unit: Yuan Currency: RMB

Item	Building	Land use right	Total
I. Original book value			
1. Opening balance	234,163,170.34	118,614,400.00	352,777,570.34
2. Increase during the current period	—	—	—
3. Decrease during the current period	—	—	—
4. Closing balance	<u>234,163,170.34</u>	<u>118,614,400.00</u>	<u>352,777,570.34</u>
II. Accumulated depreciation and accumulated amortization			
1. Opening balance	98,376,334.92	23,993,421.02	122,369,755.94
2. Increase during the current period	10,132,032.62	2,742,105.27	12,874,137.89
(1) Provision or amortization	10,132,032.62	2,742,105.27	12,874,137.89
3. Decrease during the current period	—	—	—
4. Closing balance	<u>108,508,367.54</u>	<u>26,735,526.29</u>	<u>135,243,893.83</u>
III. Carrying amount			
1. Closing carrying amount	<u>125,654,802.80</u>	<u>91,878,873.71</u>	<u>217,533,676.51</u>
2. Opening carrying amount	<u>135,786,835.42</u>	<u>94,620,978.98</u>	<u>230,407,814.40</u>

NOTES TO FINANCIAL STATEMENTS

Year ended 31 December 2019

RMB

VII. NOTES TO ITEMS IN THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)

20. Investment properties (Continued)

(1) Investment properties measured under cost method (Continued)

2018

Unit: Yuan Currency: RMB

Item	Building	Land use right	Total
I. Original book value			
1. Opening balance	234,163,170.34	118,614,400.00	352,777,570.34
2. Increase during the current period	—	—	—
3. Decrease during the current period	—	—	—
4. Closing balance	<u>234,163,170.34</u>	<u>118,614,400.00</u>	<u>352,777,570.34</u>
II Accumulated depreciation and accumulated amortization			
1. Opening balance	88,244,303.28	21,251,315.73	109,495,619.01
2. Increase during the current period	10,132,031.64	2,742,105.29	12,874,136.93
(1) Provision or amortization	10,132,031.64	2,742,105.29	12,874,136.93
3. Decrease during the current period	—	—	—
4. Closing balance	<u>98,376,334.92</u>	<u>23,993,421.02</u>	<u>122,369,755.94</u>
III. Carrying amount			
1. Closing carrying amount	<u>135,786,835.42</u>	<u>94,620,978.98</u>	<u>230,407,814.40</u>
2. Opening carrying amount	<u>145,918,867.06</u>	<u>97,363,084.27</u>	<u>243,281,951.33</u>

Investment properties of the Group comprise two buildings in Mainland China, which were valued on 31 December 2019 based on the valuation conducted by Vocation (Beijing) International Asset Assessment Co., Ltd., an independent professionally qualified valuer, at RMB443,519,800.00 (31 December 2018: RMB351,320,000.00).

(2) Information of investment properties for which title certificates have not been obtained

Applicable Not Applicable

Other explanations:

Applicable Not Applicable

NOTES TO FINANCIAL STATEMENTS

Year ended 31 December 2019

RMB

VII. NOTES TO ITEMS IN THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)

21. Fixed assets

Presentation of item

Applicable Not applicable

Unit: Yuan Currency: RMB

Item	Closing balance	Opening balance
Fixed asset	4,329,298,247.74	3,936,432,967.69
Disposal of fixed asset	—	—
Total	<u>4,329,298,247.74</u>	<u>3,936,432,967.69</u>

Other explanations:

Applicable Not Applicable

NOTES TO FINANCIAL STATEMENTS

Year ended 31 December 2019

RMB

VII. NOTES TO ITEMS IN THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)

21. Fixed assets (Continued)

Fixed assets

(1). Information about fixed assets

Applicable Not applicable

2019

Unit: Yuan Currency: RMB

Item	Buildings	Machinery equipment	Means of transportation Vehicles	Electronic equipment and others	Total
I. Original book value					
1. Opening balance	3,934,027,616.54	840,551,330.13	435,159,819.18	1,049,879,454.05	6,259,618,219.90
2. Increase during the current period	527,256,557.94	181,270,499.39	28,877,056.72	172,599,540.33	910,003,654.38
(1) Acquisition	724,828.94	106,810,153.34	28,877,056.72	152,744,411.92	289,156,450.92
(2) Transferred from construction in progress	526,531,729.00	74,460,346.05	-	19,855,128.41	620,847,203.46
3. Decrease during the current period	127,888,546.03	33,827,185.64	21,501,263.44	16,702,716.72	199,919,711.83
(1) Disposal or retirement	-	33,827,185.64	19,760,111.61	11,207,311.70	64,794,608.95
(2) Disposal of subsidiaries	-	-	1,741,151.83	620,212.91	2,361,364.74
(3) Other decreases	127,888,546.03	-	-	4,875,192.11	132,763,738.14
4. Closing balance	4,333,395,628.45	987,994,643.88	442,535,612.46	1,205,776,277.66	6,969,702,162.45
II. Accumulated depreciation					
1. Opening balance	792,383,718.73	587,149,899.38	291,664,086.58	651,955,429.46	2,323,153,134.15
2. Increase during the current period	101,495,845.84	92,249,454.98	59,388,728.64	114,499,460.26	367,633,489.72
(1) Provision	101,495,845.84	92,249,454.98	59,388,728.64	114,383,429.64	367,517,459.10
(2) Other increases	-	-	-	116,030.62	116,030.62
3. Decrease during the current period	-	21,714,937.68	19,055,232.44	9,644,657.10	50,414,827.22
(1) Disposal or retirement	-	21,714,937.68	18,475,861.84	9,155,833.13	49,346,632.65
(2) Disposal of subsidiaries	-	-	579,370.60	488,823.97	1,068,194.57
4. Closing balance	893,879,564.57	657,684,416.68	331,997,582.78	756,810,232.62	2,640,371,796.65
III. Provision for impairment					
1. Opening balance	-	32,118.06	-	-	32,118.06
2. Closing balance	-	32,118.06	-	-	32,118.06
IV. Carrying amount					
1. Closing carrying amount	3,439,516,063.88	330,278,109.14	110,538,029.68	448,966,045.04	4,329,298,247.74
2. Opening carrying amount	3,141,643,897.81	253,369,312.69	143,495,732.60	397,924,024.59	3,936,432,967.69

NOTES TO FINANCIAL STATEMENTS

Year ended 31 December 2019

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VII. NOTES TO ITEMS IN THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)

21. Fixed assets (Continued)

(1). Information about fixed assets (Continued)

2018

Unit: Yuan Currency: RMB

Item	Buildings	Machinery equipment	Means of transportation Vehicles	Electronic equipment and others	Total
I. Original book value					
1. Opening balance	3,357,279,528.08	694,394,258.57	421,942,472.02	927,670,902.82	5,401,287,161.49
2. Increase during the current period	579,297,575.35	166,821,758.20	34,465,611.54	168,990,616.75	949,575,561.84
(1) Acquisition	5,313,328.06	144,570,213.41	30,446,896.57	165,726,445.38	346,056,883.42
(2) Transferred from construction in progress	547,769,413.10	21,576,484.96	–	1,989,540.17	571,335,438.23
(3) Acquisition of subsidiaries	26,214,834.19	675,059.83	4,018,714.97	1,274,631.20	32,183,240.19
3. Decrease during the current period	2,549,486.89	20,664,686.64	21,248,264.38	46,782,065.52	91,244,503.43
(1) Disposal or retirement	2,549,486.89	20,664,686.64	21,248,264.38	46,782,065.52	91,244,503.43
4. Closing balance	3,934,027,616.54	840,551,330.13	435,159,819.18	1,049,879,454.05	6,259,618,219.90
II. Accumulated depreciation					
1. Opening balance	695,345,500.74	534,884,612.33	252,650,214.77	588,115,910.49	2,070,996,238.33
2. Increase during the current period	97,069,030.48	71,051,898.79	58,748,762.02	104,268,613.54	331,138,304.83
(1) Provision	91,654,934.22	70,746,020.23	57,334,408.44	102,797,428.92	322,532,791.81
(2) Acquisition of subsidiaries	5,414,096.26	305,878.56	1,414,353.58	1,471,184.62	8,605,513.02
3. Decrease during the current period	30,812.49	18,786,611.74	19,734,890.21	40,429,094.57	78,981,409.01
(1) Disposal or retirement	30,812.49	18,786,611.74	19,734,890.21	40,429,094.57	78,981,409.01
4. Closing balance	792,383,718.73	587,149,899.38	291,664,086.58	651,955,429.46	2,323,153,134.15
III. Provision for impairment					
1. Opening balance	–	32,118.06	–	–	32,118.06
2. Closing balance	–	32,118.06	–	–	32,118.06
IV. Book value					
1. Closing carrying amount	3,141,643,897.81	253,369,312.69	143,495,732.60	397,924,024.59	3,936,432,967.69
2. Opening carrying amount	2,661,934,027.34	159,477,528.18	169,292,257.25	339,554,992.33	3,330,258,805.10

NOTES TO FINANCIAL STATEMENTS

Year ended 31 December 2019

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VII. NOTES TO ITEMS IN THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)

21. Fixed assets (Continued)

(1). Information about fixed assets (Continued)

As at 31 December 2019, the original value of fixed assets of the Group which have been fully provided for depreciation but are still in use was RMB1, 273,593,019.80 (31 December 2018: RMB1,139,088,195.59).

As at 31 December 2019 and 31 December 2018, the Group had no fixed assets with title restriction.

As at 31 December 2019 and 31 December 2018, none of main fixed assets for production and operation of the Group became temporarily idle.

Note: Other decreases related to buildings are mainly the original temporarily-estimated values subject to actual cost adjustment on the basis of the final completion statement.

(2). Temporarily-idle fixed assets

Applicable Not Applicable

(3). Fixed assets leased in through financial leases

Applicable Not Applicable

(4). Fixed assets leased out through operating leases

Applicable Not Applicable

NOTES TO FINANCIAL STATEMENTS

Year ended 31 December 2019

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VII. NOTES TO ITEMS IN THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)

21. Fixed assets (Continued)

(5). Fixed assets for which title certificates have not been obtained

Applicable Not applicable

Unit: Yuan Currency: RMB

Item	Carrying amount	Reason for failure to obtain title certificate
Buildings	1,539,483,230.92	In progress

As at the approval date of this financial statement, the Group was applying for title certificate and handling registration or transfer procedures for houses and buildings with book values totaling RMB1,539,483,230.92 as of 31 December 2019. The management of the Group believed that the Group has the right to legally and effectively occupy and use the above-mentioned houses, and also believed that the above matters will not have any significant adverse impact on the overall financial position of the Group as at 31 December 2019.

Other explanations:

Applicable Not Applicable

Disposal of fixed asset

Applicable Not Applicable

22. Construction in progress

Presentation by item

Applicable Not applicable

Unit: Yuan Currency: RMB

Item	Closing balance	Opening balance
Construction in progress	160,740,323.63	637,726,255.10
Construction materials	—	—
Total	160,740,323.63	637,726,255.10

NOTES TO FINANCIAL STATEMENTS

Year ended 31 December 2019

RMB

VII. NOTES TO ITEMS IN THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)

22. Construction in progress (Continued)

Other explanations:

Applicable Not Applicable

Construction in progress

(1). Construction in progress

Applicable Not Applicable

(2). Changes in important projects under construction for the current period

Applicable Not applicable

2019

Unit: Yuan Currency: RMB

Project name	Opening balance	Increase during the period	Transferred into fixed assets during the period	Transferred into long-term prepaid expenses during the year	Closing balance	Proportion of total project investment in the budget (%)	Source of fund
Technology upgrade of rail transportation safety control system	112,544,252.80	5,318,339.13	-35,404,602.59	-	82,457,989.34	99.78	Equity fund
CRSC Changsha Industrial Park Project	448,149,601.17	78,125,933.07	-513,772,057.36	-	12,503,476.88	99.04	Equity fund
Other	77,032,401.13	64,900,301.50	-71,670,543.51	-4,483,301.71	65,778,857.41	/	Equity fund
Total	<u>637,726,255.10</u>	<u>148,344,573.70</u>	<u>-620,847,203.46</u>	<u>-4,483,301.71</u>	<u>160,740,323.63</u>	<u>/</u>	<u>/</u>

NOTES TO FINANCIAL STATEMENTS

Year ended 31 December 2019

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VII. NOTES TO ITEMS IN THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)

22. Construction in progress (Continued)

(2). Changes in important projects under construction for the current period (Continued)

2018

Unit: Yuan Currency: RMB

Project name	Opening balance	Increase during the period	Transferred into	Closing balance	Proportion of	Source of fund
			fixed assets during the period		total project investment in the budget (%)	
Technology upgrade of rail transportation safety control system	586,764,245.69	46,572,795.35	-520,792,788.24	112,544,252.80	83.70	Equity fund
CRSC Changsha Industrial Park Project	372,524,955.56	75,624,645.61	-	448,149,601.17	87.77	Equity fund
Office building of Chengdu subsidiary	18,573,955.24	6,182,229.20	-24,756,184.44	-	100.00	Equity fund
Others	14,661,856.05	88,157,010.63	-25,786,465.55	77,032,401.13	/	Equity fund
Total	<u>992,525,012.54</u>	<u>216,536,680.79</u>	<u>-571,335,438.23</u>	<u>637,726,255.10</u>	<u>/</u>	<u>/</u>

As at 31 December 2019 and 31 December 2018, the Group had no construction in progress with title restriction.

As at 31 December 2019 and 31 December 2018, there was no need to make provisions for construction in progress of the Group.

(3). Provision for impairment of construction in progress made during the period

Applicable Not Applicable

Other explanations:

Applicable Not Applicable

Construction materials

(4). Information about construction materials

Applicable Not Applicable

NOTES TO FINANCIAL STATEMENTS

Year ended 31 December 2019

RMB

VII. NOTES TO ITEMS IN THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)

23. Production biological assets

(1). Productive biological assets measured under cost method

Applicable Not Applicable

(2). Productive biological assets measured at fair value

Applicable Not Applicable

Other explanations:

Applicable Not Applicable

24. Oil & gas assets

Applicable Not Applicable

25. Right-of-use assets

Applicable Not applicable

2019

Unit: Yuan Currency: RMB

Item	Buildings	Means of transportation vehicles	Total
I. Original book value			
Closing balance of last year	—	—	—
Add: changes in accounting policies	119,534,605.43	1,987,105.37	121,521,710.80
1. Opening balance	119,534,605.43	1,987,105.37	121,521,710.80
2. Increase during the current period	117,336,033.02	37,429.98	117,373,463.00
3. Closing balance	236,870,638.45	2,024,535.35	238,895,173.80
II. Accumulated depreciation			
1. Opening balance	—	—	—
2. Increase during the current period	79,511,525.30	956,108.65	80,467,633.95
3. Closing balance	79,511,525.30	956,108.65	80,467,633.95
III. Carrying amount			
1. Closing carrying amount	157,359,113.15	1,068,426.70	158,427,539.85
2. Opening carrying amount	119,534,605.43	1,987,105.37	121,521,710.80

NOTES TO FINANCIAL STATEMENTS

Year ended 31 December 2019

RMB

VII. NOTES TO ITEMS IN THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)

26. Intangible assets

(1). Information about intangible assets

√ Applicable □ Not applicable

2019

Unit: Yuan Currency: RMB

Item	Land use right	Patents	Software	Contracts (not completed)	Customer relationship	Total
I. Original book value						
1. Opening balance	2,454,218,896.69	433,153,296.49	274,818,562.86	169,921,119.24	244,325,834.78	3,576,437,710.06
2. Increase during the current period	6,592,902.23	2,830,186.06	40,434,061.79	-	-	49,857,150.08
(1) Acquisition	6,592,902.23	1,071,536.98	40,434,061.79	-	-	48,098,501.00
(2) Internal research and development	-	1,758,649.08	-	-	-	1,758,649.08
3. Decrease during the current period	-	9,859.43	3,032,115.02	-	-	3,041,974.45
(1) Disposal	-	-	391,135.29	-	-	391,135.29
(2) Disposal of subsidiaries	-	-	1,093,904.73	-	-	1,093,904.73
(3) Other transfer-to/out	-	9,859.43	1,547,075.00	-	-	1,556,934.43
4. Closing balance	2,460,811,798.92	435,973,623.12	312,220,509.63	169,921,119.24	244,325,834.78	3,623,252,885.69
II. Accumulated amortization						
1. Opening balance	293,906,132.37	272,753,954.51	224,340,792.83	169,921,119.24	108,815,756.56	1,069,737,755.51
2. Increase during the current period	51,043,726.55	23,767,948.50	36,244,366.12	-	27,253,901.64	138,309,942.81
(1) Provision	51,043,726.55	23,767,948.50	36,244,366.12	-	27,253,901.64	138,309,942.81
3. Decrease during the current period	-	6,216.92	1,597,392.48	-	-	1,603,609.40
(1) Disposal	-	-	391,135.29	-	-	391,135.29
(2) Disposal of subsidiaries	-	-	1,090,226.57	-	-	1,090,226.57
(3) Other transfer-to/out	-	6,216.92	116,030.62	-	-	122,247.54
4. Closing balance	344,949,858.92	296,515,686.09	258,987,766.47	169,921,119.24	136,069,658.20	1,206,444,088.92
III. Carrying amount						
1. Closing carrying amount	2,115,861,940.00	139,457,937.03	53,232,743.16	-	108,256,176.58	2,416,808,796.77
2. Opening carrying amount	2,160,312,764.32	160,399,341.98	50,477,770.03	-	135,510,078.22	2,506,699,954.55

NOTES TO FINANCIAL STATEMENTS

Year ended 31 December 2019

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VII. NOTES TO ITEMS IN THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)

26. Intangible assets (Continued)

(1). Information about intangible assets (Continued)

2018

Unit: Yuan Currency: RMB

Item	Land use right	Patents	Software	Pending contracts	Customer relations	Total
I. Original book value						
1. Opening balance	2,434,287,902.81	376,623,129.72	195,553,107.50	169,921,119.24	244,325,834.78	3,420,711,094.05
2. Increase during the current period	46,795,304.00	56,530,166.77	79,265,455.36	-	-	182,590,926.13
(1) Acquisition	-	515,351.64	77,487,189.95	-	-	78,002,541.59
(2) Internal research and development	-	56,014,815.13	-	-	-	56,014,815.13
(3) Acquisition of subsidiaries	46,795,304.00	-	1,778,265.41	-	-	48,573,569.41
3. Decrease during the current period	26,864,310.12	-	-	-	-	26,864,310.12
(1) Disposal	8,446,660.37	-	-	-	-	8,446,660.37
(2) Transferred to inventories	18,417,649.75	-	-	-	-	18,417,649.75
4. Closing balance for the year	<u>2,454,218,896.69</u>	<u>433,153,296.49</u>	<u>274,818,562.86</u>	<u>169,921,119.24</u>	<u>244,325,834.78</u>	<u>3,576,437,710.06</u>
II. Accumulated amortization						
1. Opening balance	243,739,175.79	244,928,352.57	151,367,980.07	169,921,119.24	81,561,854.92	891,518,482.59
2. Increase during the current period	52,604,379.94	27,825,601.94	72,972,812.76	-	27,253,901.64	180,656,696.28
(1) Provision	50,712,048.90	27,825,601.94	72,261,619.61	-	27,253,901.64	178,053,172.09
(2) Acquisition of subsidiaries	1,892,331.04	-	711,193.15	-	-	2,603,524.19
3. Decrease during the current period	2,437,423.36	-	-	-	-	2,437,423.36
(1) Transferred to inventories	1,031,443.58	-	-	-	-	1,031,443.58
(2) Disposal	1,405,979.78	-	-	-	-	1,405,979.78
4. Closing balance for the year	<u>293,906,132.37</u>	<u>272,753,954.51</u>	<u>224,340,792.83</u>	<u>169,921,119.24</u>	<u>108,815,756.56</u>	<u>1,069,737,755.51</u>
III. Carrying amount						
1. Closing carrying amount	<u>2,160,312,764.32</u>	<u>160,399,341.98</u>	<u>50,477,770.03</u>	<u>-</u>	<u>135,510,078.22</u>	<u>2,506,699,954.55</u>
2. Opening carrying amount	<u>2,190,548,727.02</u>	<u>131,694,777.15</u>	<u>44,185,127.43</u>	<u>-</u>	<u>162,763,979.86</u>	<u>2,529,192,611.46</u>

NOTES TO FINANCIAL STATEMENTS

Year ended 31 December 2019

RMB

VII. NOTES TO ITEMS IN THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)

26. Intangible assets (Continued)

(1). Information about intangible assets (Continued)

As at 31 December 2019 and 31 December 2018, the Group had no intangible assets with title restriction.

As at 31 December 2019, the intangible assets derived from internal research and development accounted for 3.41% of the closing carrying amount of intangible assets (31 December 2018: 3.80%).

As of the approval date of this financial statement, the Group has obtained the title certificates and completed the procedures for registration for the land use rights as at 31 December 2019.

(2). Information about land use rights for which a certificate of title has not been obtained

Applicable Not Applicable

Other explanations:

Applicable Not Applicable

NOTES TO FINANCIAL STATEMENTS

Year ended 31 December 2019

RMB

VII. NOTES TO ITEMS IN THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)

27. Development expenditure

Applicable Not applicable

2019

Unit: Yuan Currency: RMB

Item	Opening balance	Increase during the period	Decrease during the period		Closing balance
		Internal development expenditure	Recognised as intangible assets	Transferred to profit or loss for the period	
Development expenditure	<u>30,019,437.59</u>	<u>61,980,160.37</u>	<u>1,758,649.08</u>	<u>42,733,897.05</u>	<u>47,507,051.83</u>

2018

Unit: Yuan Currency: RMB

Item	Opening balance	Increase during the period	Decrease during the period		Closing balance
		Internal development expenditure	Recognised as intangible assets	Transferred to profit or loss for the period	
Development expenditure	<u>28,305,036.51</u>	<u>553,750,402.18</u>	<u>56,014,815.13</u>	<u>496,021,185.97</u>	<u>30,019,437.59</u>

NOTES TO FINANCIAL STATEMENTS

Year ended 31 December 2019

RMB

VII. NOTES TO ITEMS IN THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)

28. Goodwill

(1). Original carrying amount of goodwill

√ Applicable □ Not applicable

2019

Unit: Yuan Currency: RMB

Name of investee or matters resulting in goodwill	Opening balance	Increase during the period	Decrease during the period	Closing balance
		Arising from business combination	Disposal	
Shanghai Deuta Electronic & Electrical Equipment Co., Ltd. (上海德意達電子電器設備有限公司) (“Shanghai Deuta”)	669,345.89	–	–	669,345.89
Zhengzhou Zhongyuan Railway Engineering Co., Ltd. (鄭州中原鐵道工程有限責任公司) (“Zhengzhou Zhongyuan”)	30,525,980.16	–	–	30,525,980.16
CASCO Signal Co., Ltd. (卡斯柯信號有限公司) (“CRSC CASCO”)	201,027,354.70	–	–	201,027,354.70
CRSC Wanquan Signal Equipment Co., Ltd. (通號萬全信號設備有限公司) (“CRSC Wanquan”)	3,865,524.80	–	–	3,865,524.80
CRSC (Zhengzhou) Zhong’an Engineering Co., Ltd. (中國鐵路通信信號(鄭州)中安工程有限公司) (“Zhengzhou Zhong’an”)	27,673,509.65	–	–	27,673,509.65
CRSC Guizhou Construction Co., Ltd (通號建設集團貴州工程有限公司) (“Guizhou Construction”)	3,802,223.24	–	–	3,802,223.24
Changsha Architectural Design Institute Co., Ltd (長沙市建築設計院有限責任公司) (“Changsha Design Institute”)	37,429,932.37	–	–	37,429,932.37
Others	330,257.77	–	–	330,257.77
Total	305,324,128.58	–	–	305,324,128.58

NOTES TO FINANCIAL STATEMENTS

Year ended 31 December 2019

RMB

VII. NOTES TO ITEMS IN THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)

28. Goodwill (Continued)

(1). Original carrying amount of goodwill (Continued)

2018

Unit: Yuan Currency: RMB

	Opening balance for the year	Increase during the year Business combination not under common control	Closing balance for the year
Shanghai Deuta	669,345.89	–	669,345.89
Zhengzhou Zhongyuan	30,525,980.16	–	30,525,980.16
CRSC CASCO	201,027,354.70	–	201,027,354.70
CRSC Wanquan	3,865,524.80	–	3,865,524.80
Zhengzhou Zhong' an	27,673,509.65	–	27,673,509.65
Guizhou Construction	3,802,223.24	–	3,802,223.24
Changsha Design Institute	–	37,429,932.37	37,429,932.37
Others	330,257.77	–	330,257.77
Total	<u>267,894,196.21</u>	<u>37,429,932.37</u>	<u>305,324,128.58</u>

(2). Provision for impairment of goodwill

Applicable Not Applicable

(3). Information about the asset group or combination of asset groups to which the goodwill belongs

Applicable Not Applicable

NOTES TO FINANCIAL STATEMENTS

Year ended 31 December 2019

RMB

VII. NOTES TO ITEMS IN THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)

28. Goodwill (Continued)

- (4). Explain the process of goodwill impairment test, key parameters (e.g. forecast period growth rate, stable period growth rate, profit rate, discount rate, forecast period, etc. in case of present value of expected future cash flow, if applicable) and the recognition method of goodwill impairment loss.

Applicable Not applicable

The Group allocates the carrying amount of goodwill of CRSC CASCO to the asset group that can benefit from the synergies of the business combination, and performs impairment test on this basis. The recoverable amount of the asset group is determined based on the higher of its net fair value less costs of disposal and the present value of estimated future cash flows of the asset group; indicating that the asset group is not impaired if either of which is more than the carrying amount of the asset group.

The asset group of CRSC CASCO in this year is consistent with the asset group determined at the acquisition date and the goodwill impairment test in previous years, which mainly consists of fixed assets, intangible assets, long-term deferred expenses and qualification business. CRSC CASCO has no plan to sell the asset group in this year, and there is no sales agreement price in fair transaction; There is no active trading market for the asset group, and the best information is not available to estimate the net amount of the fair value of the assets less disposal expenses, therefore, the recoverable amount of the asset group is the present value of the estimated future cash flows of CRSC CASCO. The amounts of key assumptions of the asset group related to impairment tests were consistent with the Group's historical experience and external information. The key assumptions made by management in determining the present value of the cash flow forecast are as follows:

	31 December 2019	31 December 2018
Forecast period	5 years	5 years
Discount rate	17.48%	18.04%
Average growth rate of income in the forecast period	5.00%	3.99%

As at 31 December 2019 and 31 December 2018, the recoverable amount of the CRSC CASCO asset group was greater than its book value and therefore no provision for impairment of goodwill was required.

VII. NOTES TO ITEMS IN THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)

28. Goodwill (Continued)

- (4). Explain the process of goodwill impairment test, key parameters (e.g. forecast period growth rate, stable period growth rate, profit rate, discount rate, forecast period, etc. in case of present value of expected future cash flow, if applicable) and the recognition method of goodwill impairment loss. (Continued)

The Group apportioned goodwill resulting from the acquisition of CRSC Wanquan, Zhengzhou Zhong'an, Zhengzhou Zhongyuan, Guizhou Construction Institute and Changsha Design Institute. The Group signed the derivative financial instrument contracts with more than one to the asset group for impairment test. The asset group mainly consisted of fixed assets, intangible assets and long-term prepaid expenses, which was consistent with the combination of asset groups determined at the date of purchase and during the impairment test for prior years. The recoverable amount was determined according to the present value of the expected future cash flows of those subsidiaries, and the expected future cash flows were determined according to the cash flow forecast based on the 5-year financial budget approved by the management. The pre-tax discount rates used in the cash flow forecast were 17.48%, 15.07%, 15.07%, 15.07% and 19.52% respectively (15.33%, 11.80%, 11.80%, 11.80% and 13.54% respectively in 2018). After testing, the management of the Group believed that the goodwill of the Group has not been impaired and therefore there was no need to make provision for impairment.

Assumptions were used to calculate the present value of the expected future cash flows of CRSC Wanquan, Zhengzhou Zhong'an, Zhengzhou Zhongyuan, Guizhou Construction and Changsha Design Institute as at 31 December 2019 and 31 December 2018. The following details the key assumptions made by the management in determining the cash flow forecast for goodwill impairment test:

Budget gross margin-The determination basis was to appropriately increase the average gross margin that was realized in the year before the budget year on the basis of the expected efficiency improvement and the expected market development.

Discount rate-The discount rate adopted was the pre-tax discount rate that reflects the specific risks of the relevant asset group.

The amounts of key assumptions of the asset group related to impairment tests were consistent with the Group's historical experience and external information.

NOTES TO FINANCIAL STATEMENTS

Year ended 31 December 2019

RMB

VII. NOTES TO ITEMS IN THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)

28. Goodwill (Continued)

(5). Impact of goodwill impairment test

Applicable Not Applicable

Other explanation:

Applicable Not Applicable

29. Long-term prepaid expenses

Applicable Not applicable

2019

Unit: Yuan Currency: RMB

Item	Opening balance	Increase for the period	Transferred from construction in progress	Amortization amount for the period	Closing balance
Costs of improvements to fixed assets under operating leases	41,748,151.25	37,237,038.92	4,483,301.71	-27,246,661.12	56,221,830.76
Total	41,748,151.25	37,237,038.92	4,483,301.71	-27,246,661.12	56,221,830.76

2018

Unit: Yuan Currency: RMB

Item	Opening balance	Increase for the period	Amortization amount for the period	Other decreases	Closing balance
Costs of improvements to fixed assets under operating leases	22,508,387.80	37,571,250.98	-18,331,487.53	-	41,748,151.25
Total	22,508,387.80	37,571,250.98	-18,331,487.53	-	41,748,151.25

NOTES TO FINANCIAL STATEMENTS

Year ended 31 December 2019

RMB

VII. NOTES TO ITEMS IN THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)

30. Deferred tax assets/liabilities

(1). Deferred tax assets not offset

Applicable Not applicable

Unit: Yuan Currency: RMB

Item	Closing balance		Opening balance	
	Deductible temporary difference	Deferred tax Assets	Deductible temporary difference	Deferred tax Assets
Provision for impairment of assets	920,850,782.92	192,664,670.60	915,817,361.98	189,257,896.34
Unrealized profits in intra-group transactions	356,759,192.18	89,189,798.03	386,269,194.38	96,567,298.59
Deferred income	140,543,597.77	24,449,200.36	126,959,069.62	22,274,954.74
Estimated liabilities	77,143,802.01	12,548,661.36	86,989,147.11	13,814,014.59
Unpaid employee benefits payable	40,668,594.04	8,609,387.78	50,177,840.08	8,148,323.06
Other	19,845,073.91	3,913,231.92	19,277,060.60	5,802,096.46
Total	1,555,811,042.83	331,374,950.05	1,585,489,673.77	335,864,583.78

(2). Deferred tax liabilities not offset

Applicable Not applicable

Unit: Yuan Currency: RMB

Item	Closing balance		Opening balance	
	Taxable temporary difference	Deferred tax liabilities	Taxable temporary difference	Deferred tax liabilities
Fair value adjustment of business combination not under common control	163,018,099.40	40,754,524.85	192,821,775.09	48,598,827.97
Depreciation of fixed asset	49,476,712.54	7,421,506.88	-	-
Total	212,494,811.94	48,176,031.73	192,821,775.09	48,598,827.97

NOTES TO FINANCIAL STATEMENTS

Year ended 31 December 2019

RMB

VII. NOTES TO ITEMS IN THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)

30. Deferred tax assets/liabilities (Continued)

(3). Deferred tax assets or liabilities stated on a net basis after offset

Applicable Not Applicable

(4). Breakdown of unrecognised deferred tax assets\

Applicable Not applicable

Unit: Yuan Currency: RMB

Item	Closing balance	Opening balance
Deductible temporary difference	26,278,334.06	27,958,410.09
Deductible loss	317,478,949.16	440,632,733.33
Total	343,757,283.22	468,591,143.42

Note: The Group believes that it is not likely to generate taxable income for deducting the above deductible temporary differences and deductible losses in the future. The deferred income tax assets of the above items as a result are not recognized.

NOTES TO FINANCIAL STATEMENTS

Year ended 31 December 2019

RMB

VII. NOTES TO ITEMS IN THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)

30. Deferred tax assets/liabilities (Continued)

- (5). Deductible loss for which no deferred tax assets are recognised will become due in the following years

Applicable Not applicable

Unit: Yuan Currency: RMB

Year	Closing amount	Opening amount	Remarks
2019	–	13,112,781.87	
2020	13,160,440.49	30,511,256.07	
2021	97,492,106.90	101,491,128.90	
2022	103,115,295.05	147,330,881.13	
2023	82,380,951.08	148,186,685.36	
2024	21,330,155.64	–	
Total	317,478,949.16	440,632,733.33	/

Other explanation:

Applicable Not applicable

Changes in deferred tax assets/liabilities are as follows:

Unit: Yuan Currency: RMB

Deferred tax assets	31 December 2019	31 December 2018
Beginning of the year	335,864,583.78	278,027,702.50
Deferred tax assets included in profit or loss for the year	-3,799,808.38	56,126,903.77
Acquisition (disposal) of subsidiaries	-689,825.35	1,709,977.51
End of the year	331,374,950.05	335,864,583.78
Deferred tax liabilities	31 December 2019	31 December 2018
Beginning of the year	48,598,827.97	42,062,070.87
Deferred tax liabilities included in profit or loss for the year	-422,796.24	-8,086,665.73
Acquisition of subsidiaries	–	14,623,422.83
End of the year	48,176,031.73	48,598,827.97

NOTES TO FINANCIAL STATEMENTS

Year ended 31 December 2019

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VII. NOTES TO ITEMS IN THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)

31. Other non-current assets

Applicable Not applicable

Unit: Yuan Currency: RMB

Item	Closing balance			Opening balance		
	Gross carrying amount	Provision for impairment	Book value	Gross carrying amount	Provision for impairment	Book value
Retention money receivables	196,030,744.12	953,149.98	195,077,594.14	124,863,102.89	552,915.43	124,310,187.46
Prepayment for fixed assets	326,107,400.00	-	326,107,400.00	35,257,909.29	-	35,257,909.29
Prepayment for land	-	-	-	5,947,419.88	-	5,947,419.88
Less: Non-current assets due within one year	-19,118,289.09	-95,591.43	-19,022,697.66	-103,421,984.10	-499,756.02	-102,922,228.08
Total	<u>503,019,855.03</u>	<u>857,558.55</u>	<u>502,162,296.48</u>	<u>62,646,447.96</u>	<u>53,159.41</u>	<u>62,593,288.55</u>

Changes in impairment provision for long-term retention money receivables:

Unit: Yuan Currency: RMB

Item	Closing balance	Opening balance
Closing balance of last year	552,915.43	-
Changes in accounting policies	-	1,331,358.97
Opening balance of the year	552,915.43	1,331,358.97
Provision for the year	942,945.23	-
Reversal for the year	542,710.68	778,443.54
Balance for the year	<u>953,149.98</u>	<u>552,915.43</u>

NOTES TO FINANCIAL STATEMENTS

Year ended 31 December 2019

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VII. NOTES TO ITEMS IN THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)

32. Short-term borrowings

(1). Breakdown of short-term borrowings

Applicable Not applicable

Unit: Yuan Currency: RMB

Item	Notes	Closing balance	Opening balance
Pledged borrowings	Note 1	67,084,139.66	99,556,312.99
Guaranteed borrowings	Note 2	10,000,000.00	12,000,000.00
Credit borrowings		160,982,030.73	1,006,000,000.00
Total		238,066,170.39	1,117,556,312.99

Description of short-term borrowing classification:

Note 1: As at 31 December 2019, the book value of bank acceptances and commercial acceptances secured by the Group was RMB5,824,991.90 and RMB61,259,147.76, respectively, which were made for obtaining short-term borrowings of RMB67,084,139.66; (as at 31 December 2018, bank acceptances and commercial acceptances secured by the Group was RMB76,168,897.42 and RMB23,387,415.57, respectively, which were made to obtain short-term borrowings of RMB99,556,312.99).

Note 2: As at 31 December 2019, the subsidiaries of the Company obtained short-term borrowings of RMB10,000,000.00 by way of guarantee provided by Shanghai Re-guarantee Co., Ltd. at an annual interest rate of 5.22%; (as at 31 December 2018, the subsidiaries of the Company obtained short-term borrowings of RMB9,000,000.00 by way of guarantee provided by Shanghai Small and Medium-sized Enterprises Policy Financing Guarantee Fund Management Center. In addition, a subsidiary of the Company obtained a short-term borrowing of RMB3,000,000.00 by way of guarantee by another subsidiary of the Group).

As at 31 December 2019, the interest rate on the above borrowings ranged from 4.35% to 5.21% (As at 31 December 2018, such rate ranged from 3.71% to 7.70%).

NOTES TO FINANCIAL STATEMENTS

Year ended 31 December 2019

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VII. NOTES TO ITEMS IN THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)

32. Short-term borrowings (Continued)

(2). Overdue but unpaid short-term borrowings

Applicable Not Applicable

Major overdue but unpaid short-term borrowings:

Applicable Not Applicable

Other explanation:

Applicable Not Applicable

33. Financial liabilities held for trading

Applicable Not Applicable

34. Derivative financial liabilities

Applicable Not Applicable

NOTES TO FINANCIAL STATEMENTS

Year ended 31 December 2019
RMB

VII. NOTES TO ITEMS IN THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)

35. Bills payable

(1). Breakdown of bills payable

Unit: Yuan Currency: RMB

Type	Closing balance	Opening balance
Commercial acceptance	567,040,551.95	158,220,285.82
Bank acceptance	711,154,214.40	691,048,078.43
Total	<u>1,278,194,766.35</u>	<u>849,268,364.25</u>

As at 31 December 2019 and 31 December 2018, the Group had no unpaid overdue bills payable.

36. Accounts payable

(1). Breakdown of accounts payable

Applicable Not applicable

Unit: Yuan Currency: RMB

Item	Closing balance	Opening balance
Within 1 year	31,408,960,382.42	29,100,394,911.84
1 to 2 years	5,314,143,581.59	4,009,057,307.01
2 to 3 years	2,027,145,128.81	1,127,094,244.15
Over 3 years	1,193,000,882.30	882,692,493.99
Total	<u>39,943,249,975.12</u>	<u>35,119,238,956.99</u>

NOTES TO FINANCIAL STATEMENTS

Year ended 31 December 2019

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VII. NOTES TO ITEMS IN THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)

36. Accounts payable (Continued)

(2). Major accounts payable aged over one year

Applicable Not applicable

Unit: Yuan Currency: RMB

Item	Closing balance	Reason for unsettlement or carrying forward
Guizhou Jinhongxing Construction Engineering Co., Ltd. (貴州勁泓興建設工程有限公司)	170,772,430.84	Project payment, not settled
Guizhou Rongjibao Labor Service Co., Ltd. (貴州榮季寶勞務有限公司)	160,840,212.25	Project payment, not settled
Guizhou Daqian Agriculture and Forestry Trade Co., Ltd. (貴州大千農林貿易有限公司)	125,270,388.19	Materials payment, not settled
Econ Technology Co., Ltd. (毅康科技有限公司)	100,000,000.00	Materials payment, not settled
Guizhou Shengyuanxing Labor Engineering Co., Ltd. (貴州盛緣興勞務工程有限公司)	81,844,376.00	Project payment, not settled
Total	<u>638,727,407.28</u>	/

Other explanation

Applicable Not Applicable

37. Advance receipts

(1). Breakdown of advance receipts

Applicable Not Applicable

(2). Major advance receipts aged over one year

Applicable Not Applicable

Other explanation:

Applicable Not Applicable

NOTES TO FINANCIAL STATEMENTS

Year ended 31 December 2019

RMB

VII. NOTES TO ITEMS IN THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)

38. Contract liabilities

Applicable Not applicable

Unit: Yuan Currency: RMB

Item	Closing balance	Opening balance
Advances	2,030,173,889.89	3,221,894,444.95
Incomplete project, settled	5,147,063,927.02	3,811,338,935.54
Total	7,177,237,816.91	7,033,233,380.49

Other explanation:

Applicable Not Applicable

39. Employee benefits payable

(1). Breakdown of employee benefits payable

Applicable Not applicable

2019

Unit: Yuan Currency: RMB

Item	Opening balance	Increase for the period	Decrease for the period	Closing balance
I. Short-term benefits	430,553,999.00	4,502,551,312.26	4,424,193,956.44	508,911,354.82
II. Post-employment benefits (defined contribution plan)	25,753,611.93	591,330,221.87	591,905,746.32	25,178,087.48
III. Dismissal benefits	24,936.79	3,245,943.00	3,220,483.00	50,396.79
IV. Other benefits due within one year	57,037,000.00	50,133,000.00	53,961,000.00	53,209,000.00
Total	513,369,547.72	5,147,260,477.13	5,073,281,185.76	587,348,839.09

NOTES TO FINANCIAL STATEMENTS

Year ended 31 December 2019

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VII. NOTES TO ITEMS IN THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)

39. Employee benefits payable (Continued)

(1). Breakdown of employee benefits payable (Continued)

2018

Item	Unit: Yuan Currency: RMB			
	Opening balance	Increase for the period	Decrease for the period	Closing balance
I. Short-term benefits	340,881,078.08	3,973,085,870.18	3,883,412,949.26	430,553,999.00
II. Post-employment benefits (defined contribution plan)	25,858,607.13	535,275,325.37	535,380,320.57	25,753,611.93
III. Dismissal benefits	24,936.79	1,350,387.44	1,350,387.44	24,936.79
IV. Other benefits due within one year	<u>62,779,000.00</u>	<u>53,394,000.00</u>	<u>59,136,000.00</u>	<u>57,037,000.00</u>
Total	<u>429,543,622.00</u>	<u>4,563,105,582.99</u>	<u>4,479,279,657.27</u>	<u>513,369,547.72</u>

NOTES TO FINANCIAL STATEMENTS

Year ended 31 December 2019

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VII. NOTES TO ITEMS IN THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)

39. Employee benefits payable (Continued)

(2). Breakdown of short-term benefits

Applicable Not applicable

2019

Unit: Yuan Currency: RMB

Item	Opening balance	Increase for the period	Decrease for the period	Closing balance
I. Wages, bonuses, allowances and subsidies	96,482,752.26	3,239,357,595.77	3,209,612,439.53	126,227,908.50
II. Employee welfare benefits	150,178,698.19	287,417,236.87	250,665,768.22	186,930,166.84
III. Social insurance premiums	46,700,764.40	349,606,659.34	339,858,642.47	56,448,781.27
Including: medical insurance premiums	44,618,290.05	317,777,340.55	307,580,841.85	54,814,788.75
Industrial injury insurance premiums	1,224,547.20	13,447,691.30	14,047,120.75	625,117.75
Maternity insurance premiums	857,927.15	18,381,627.49	18,230,679.87	1,008,874.77
VI. Housing provident fund	2,614,536.84	305,336,471.71	306,958,369.56	992,638.99
V. Labor union funds and staff education funds	134,131,806.52	108,051,852.29	104,067,138.14	138,116,520.67
VI. Other short-term remunerations	445,440.79	212,781,496.28	213,031,598.52	195,338.55
Total	<u>430,553,999.00</u>	<u>4,502,551,312.26</u>	<u>4,424,193,956.44</u>	<u>508,911,354.82</u>

NOTES TO FINANCIAL STATEMENTS

Year ended 31 December 2019

RMB

VII. NOTES TO ITEMS IN THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)

39. Employee benefits payable (Continued)

(2). Breakdown of short-term benefits (Continued)

2018

Item	Opening balance	Increase for the period	Decrease for the period	Unit: Yuan	Currency: RMB
I. Wages, bonuses, allowances and subsidies	60,065,972.78	3,027,193,466.02	2,990,776,686.54		96,482,752.26
II. Employee welfare benefits	119,902,246.84	214,978,652.99	184,702,201.64		150,178,698.19
III. Social insurance premiums	37,472,999.70	270,227,036.62	260,999,271.92		46,700,764.40
Including: medical insurance premiums	35,645,589.86	241,442,129.94	232,469,429.75		44,618,290.05
Industrial injury insurance premiums	931,637.11	13,594,964.64	13,302,054.55		1,224,547.20
Maternity insurance premiums	895,772.73	15,189,942.04	15,227,787.62		857,927.15
VI. Housing provident fund	2,439,676.67	260,777,338.30	260,602,478.13		2,614,536.84
V. Labor union funds and staff education funds	113,465,786.81	109,580,565.16	88,914,545.45		134,131,806.52
VI. Other remunerations and benefits	7,534,395.28	90,328,811.09	97,417,765.58		445,440.79
Total	<u>340,881,078.08</u>	<u>3,973,085,870.18</u>	<u>3,883,412,949.26</u>		<u>430,553,999.00</u>

NOTES TO FINANCIAL STATEMENTS

Year ended 31 December 2019

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VII. NOTES TO ITEMS IN THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)

39. Employee benefits payable (Continued)

(3). Breakdown of defined contribution plan

Applicable Not applicable

2019

Unit: Yuan Currency: RMB

Item	Opening balance	Increase for the period	Decrease for the period	Closing balance
1. Basic pension insurance	19,073,429.32	443,713,658.62	447,875,069.64	14,912,018.30
2. Unemployment insurance	649,663.64	16,959,492.13	16,838,040.78	771,114.99
3. Enterprise annuity payment	6,030,518.97	130,657,071.12	127,192,635.90	9,494,954.19
Total	<u>25,753,611.93</u>	<u>591,330,221.87</u>	<u>591,905,746.32</u>	<u>25,178,087.48</u>

2018

Unit: Yuan Currency: RMB

Item	Opening balance	Increase for the period	Decrease for the period	Closing balance
1. Basic pension insurance	18,922,895.17	447,686,977.91	447,536,443.76	19,073,429.32
2. Unemployment insurance	854,975.59	11,270,646.18	11,475,958.13	649,663.64
3. Enterprise annuity payment	6,080,736.37	76,317,701.28	76,367,918.68	6,030,518.97
Total	<u>25,858,607.13</u>	<u>535,275,325.37</u>	<u>535,380,320.57</u>	<u>25,753,611.93</u>

Other explanation:

Applicable Not Applicable

NOTES TO FINANCIAL STATEMENTS

Year ended 31 December 2019

RMB

VII. NOTES TO ITEMS IN THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)

40. Taxes payable

Applicable Not applicable

Unit: Yuan Currency: RMB

Item	Closing balance	Opening balance
Value-added tax	392,787,322.99	582,501,526.88
Enterprise income tax	426,702,488.42	457,861,986.04
Individual income tax	67,813,206.44	83,988,512.90
City maintenance and construction tax	13,083,911.62	30,877,601.18
Educational surcharge	9,753,488.04	18,612,412.38
Land use tax and property tax	3,384,509.36	1,227,064.39
Other	2,771,926.35	14,603,444.51
Total	<u>916,296,853.22</u>	<u>1,189,672,548.28</u>

41. Other payables

Presentation of item

Applicable Not applicable

Unit: Yuan Currency: RMB

Item	Closing balance	Opening balance
Interest payable	—	8,000.00
Dividends payable	34,391,330.43	19,800,372.35
Other payables	1,085,778,267.17	1,279,885,695.91
Total	<u>1,120,169,597.60</u>	<u>1,299,694,068.26</u>

Other explanation:

Applicable Not Applicable

NOTES TO FINANCIAL STATEMENTS

Year ended 31 December 2019
RMB

VII. NOTES TO ITEMS IN THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)

41. Other payables (Continued)

Interest payable

(1). *Classified presentation*

Applicable Not applicable

Unit: Yuan Currency: RMB

Item	Closing balance	Opening balance
interest	—	8,000.00
Total	—	8,000.00

Major overdue but unpaid interests:

Applicable Not Applicable

Other explanation:

Applicable Not Applicable

NOTES TO FINANCIAL STATEMENTS

Year ended 31 December 2019

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VII. NOTES TO ITEMS IN THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)

41. Other payables (Continued)

Dividends payable

(2). Classified presentation

Applicable Not applicable

Unit: Yuan Currency: RMB

Item	Closing balance	Opening balance
Guizhou Construction Engineering Group Co., Ltd. (貴州建工集團有限公司)	32,021,628.03	16,811,908.84
ZHAO Zhengping	744,054.24	744,054.24
Shanghai Suwei Communication Technology Co., Ltd. (上海蘇威通信科技有限公司)	564,806.00	—
Jiangxi Huide Xinda Industry Co., Ltd. (江西省匯德信達實業有限公司)	564,806.00	—
WU Jiang	496,036.16	496,036.16
Eltek AS (挪威易達公司)	—	937,521.71
Zenitel Norway AS (挪威贊尼特公司)	—	810,851.40
Total	<u>34,391,330.43</u>	<u>19,800,372.35</u>

NOTES TO FINANCIAL STATEMENTS

Year ended 31 December 2019

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VII. NOTES TO ITEMS IN THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)

41. Other payables (Continued)

Other payables

(1). Breakdown of other payables by nature

Applicable Not applicable

Unit: Yuan Currency: RMB

Item	Closing balance	Opening balance
Current payments	459,889,003.51	555,852,539.68
Deposits and margins	367,034,023.87	338,528,462.51
Acquisition of fixed assets	219,495,027.90	350,149,774.21
Public facility maintenance funds	14,522,807.26	11,516,518.59
Other	24,837,404.63	23,838,400.92
Total	<u>1,085,778,267.17</u>	<u>1,279,885,695.91</u>

(2). Major other payables with an age over 1 year

Applicable Not applicable

Unit: Yuan Currency: RMB

Item	Closing balance	Reasons for non-repayment or non-carryover
China Railway Construction Group Co., Ltd. (中鐵建設集團有限公司)	32,320,207.43	Project payment, not settled
Guizhou Xingqian Yongdao Technology Co., Ltd. (貴州興黔永道科技有限公司)	23,000,000.00	Construction deposit, not returned
Siemens International Trading Shanghai Co., Ltd. (西門子國際貿易(上海)有限公司)	19,367,098.50	Project payment, not settled
Xi'an Thermal Power Corporation (西安市熱力總公司)	16,650,600.00	Providing water, electricity, heating, and property management services, not settled
Bombardier Transport Signal (Thailand) Co., Ltd. (龐巴迪運輸信號(泰國)有限公司)	12,716,091.48	Project payment, not settled
Total	<u>104,053,997.41</u>	/

NOTES TO FINANCIAL STATEMENTS

Year ended 31 December 2019

RMB

VII. NOTES TO ITEMS IN THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)

41. Other payables (Continued)

Other payables (Continued)

Other explanation:

Applicable Not applicable

Aging of other payables:

Unit: Yuan Currency: RMB

Aging	Closing balance	Opening balance
Within 1 year	847,335,342.26	846,731,760.18
1-2 years	103,632,368.41	142,833,894.69
2-3 years	34,345,406.29	31,884,231.71
Over 3 years	100,465,150.21	258,435,809.33
Total	<u>1,085,778,267.17</u>	<u>1,279,885,695.91</u>

NOTES TO FINANCIAL STATEMENTS

Year ended 31 December 2019
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VII. NOTES TO ITEMS IN THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)

42. Liabilities held for sale

Applicable Not Applicable

43. Non-current liabilities due within one year

Applicable Not applicable

Unit: Yuan Currency: RMB

Item	Closing balance	Opening balance
Long-term payables due within one year	30,665,104.29	50,253,806.69
Lease liabilities due within one year	72,575,043.71	–
Long-term loans due within one year	154,346,670.00	320,145,455.00
Total	257,586,818.00	370,399,261.69

44. Other current liabilities

Other current liabilities

Applicable Not applicable

Unit: Yuan Currency: RMB

Item	Closing balance	Opening balance
Product quality guarantee deposit	18,664,590.73	32,827,918.10
Output VAT to be transferred	221,877,239.00	74,670,198.93
Total	240,541,829.73	107,498,117.03

Increase or decrease in short-term bonds payable:

Applicable Not Applicable

Other explanation:

Applicable Not Applicable

NOTES TO FINANCIAL STATEMENTS

Year ended 31 December 2019

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VII. NOTES TO ITEMS IN THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)

45. Long-term borrowings

(1). Classification of long-term borrowings

Applicable Not applicable

Unit: Yuan Currency: RMB

Item	Notes	Closing balance	Opening balance
Pledged borrowings	Note 1	1,664,299,760.80	625,017,582.09
Mortgage borrowings		—	—
Guaranteed borrowings	Note 2	231,000,000.00	231,000,000.00
Credit borrowings		200,145,450.00	320,290,905.00
Less: Long-term borrowings due within one year		<u>-154,346,670.00</u>	<u>-320,145,455.00</u>
Total		<u>1,941,098,540.80</u>	<u>856,163,032.09</u>

Other explanations, including interest rate range:

Applicable Not applicable

Note 1: As at 31 December 2019, the Group's long-term receivables formed by pledges of franchise rights and income rights, and all incomes thereunder accounted for RMB3,586,890,185.27, which were used to obtain long-term loans of RMB1,664,299,760.80.

Note 2: As at 31 December 2019, the Group's guaranteed borrowings amounted to RMB231,000,000.00 was guaranteed by Yibin Tonghao Hongshun Project Management Co., Ltd. (宜賓通號鴻順項目管理有限責任公司), a subsidiary of the Company's subsidiary CRSC Construction Group Co., Ltd.

As at 31 December 2019, the long-term borrowing balance due within one to five years was RMB275,950,000.00, and the long-term borrowing balance due over five years was RMB1,665,148,540.80.

The above loans comprised bank and other loans with variable annual interest rates ranging from 3.30% to 5.39%.

NOTES TO FINANCIAL STATEMENTS

Year ended 31 December 2019

RMB

VII. NOTES TO ITEMS IN THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)

46. Bonds payable

(1). Bonds payable

Applicable Not Applicable

(2). Increase or decrease in bonds payable: (excluding preferred shares, perpetual bonds and other financial instruments classified as financial liabilities)

Applicable Not Applicable

(3). Explanation about the conditions and timing of conversion of convertible corporate bonds

Applicable Not Applicable

(4). Explanation about other financial instruments classified as financial liabilities

Basic information on preferred shares, perpetual bonds and other financial instruments that are outstanding at the end of the period

Applicable Not Applicable

Statement on changes in preferred shares, perpetual bonds and other financial instruments that are outstanding at the end of the period

Applicable Not Applicable

Explanation about basis for classifying other financial instruments as financial liabilities:

Applicable Not Applicable

Other explanation:

Applicable Not Applicable

NOTES TO FINANCIAL STATEMENTS

Year ended 31 December 2019

RMB

VII. NOTES TO ITEMS IN THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)

47. Lease liabilities

Applicable Not applicable

Unit: Yuan Currency: RMB

Item	Closing balance	Opening balance
Lease liabilities	147,949,221.53	–
Less: lease liabilities due within one year	-72,575,043.71	–
Total	<u>75,374,177.82</u>	<u>–</u>

Unit: Yuan Currency: RMB

	2019
Opening balance for the year	114,677,184.12
Increase for the year	120,247,153.58
Interest expense	8,841,977.74
Decrease for the year	-95,817,093.91
Closing balance for the year	<u>147,949,221.53</u>

48. Long-term payables

Presentation of item

Applicable Not applicable

Unit: Yuan Currency: RMB

Item	Closing balance	Opening balance
Long-term payables	74,981,014.21	26,088,533.74
Total	<u>74,981,014.21</u>	<u>26,088,533.74</u>

Other explanation:

Applicable Not Applicable

NOTES TO FINANCIAL STATEMENTS

Year ended 31 December 2019

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VII. NOTES TO ITEMS IN THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)

48. Long-term payables (Continued)

Long-term payables

(1). Breakdown of long-term payables by nature

Applicable Not applicable

Unit: Yuan Currency: RMB

Item	Opening balance	Closing balance
Construction quality guarantee deposits	105,646,118.50	76,342,340.43
Less: long-term payables due within one year	<u>-30,665,104.29</u>	<u>-50,253,806.69</u>
Total	<u>74,981,014.21</u>	<u>26,088,533.74</u>

Special payables

(2). Breakdown of special payables by nature

Applicable Not Applicable

NOTES TO FINANCIAL STATEMENTS

Year ended 31 December 2019

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VII. NOTES TO ITEMS IN THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)

49. Long-term employee benefits payable

Applicable Not applicable

(1). Statement on long-term employee benefits payable

Applicable Not applicable

Unit: Yuan Currency: RMB

Item	Closing balance	Opening balance
I. Post-employment benefits (net liabilities under defined benefit plans)	683,080,000.00	674,956,000.00
II. Dismissal benefits	30,375,000.00	39,165,000.00
Less: remunerations payable within one year	<u>-53,209,000.00</u>	<u>-57,037,000.00</u>
Total	<u>660,246,000.00</u>	<u>657,084,000.00</u>

The Group provides an integrated external supplemental retirement benefit plan (defined benefit plans) for its retired employees. These plans include monthly pension benefits, medical reimbursement benefits, annual medical insurance premiums, and funeral benefits for employees who are retired. The amount of the subsidy is determined based on the period during which the employee serves the Group and the relevant subsidy and welfare policy.

Some employees of the Group have gone through internal retirement. The internal retirement payables are accrued in the relevant legal entities within the Group during the period in which the Group has entered into relevant agreements/documents with relevant employees or informing individual employees of the specific internal retirement terms. The specific terms of internal retirement vary depending on factors such as the position of the relevant employee, length of service and the region of service.

The plan is subject to interest rate risk, risk of changes in life expectancy of pension beneficiaries, and stock market risks.

The Group's supplementary retirement benefits and internal retirement payable in each year/period are calculated by the independent actuary, Towers Watson Management Consulting, using the rolling method or the projected unit credit method.

NOTES TO FINANCIAL STATEMENTS

Year ended 31 December 2019

RMB

VII. NOTES TO ITEMS IN THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)

49. Long-term employee benefits payable (Continued)

(1). Statement on long-term employee benefits payable (Continued)

The following table shows the main actuarial assumptions used on the balance sheet date:

	31 December 2019	31 December 2018
Discount rate	3.25%	3.50%
Mortality rate	Average mortality rate of residents in Mainland China	Average mortality rate of residents in Mainland China
Average life expectancy	17	18
Average annual growth rate of medical expenses	8.00%	8.00%
Growth rate of supplementary pension benefits for retired personnel	3.00%	3.00%
Annual growth rate of benefits for internal retired personnel	4.50%	4.50%

Relevant plans recognised in profit or loss are as follows:

	2019	2018
Historical service costs included in management expenses	–	-113,000.00
Actuarial loss included in management expenses	675,000.00	231,000.00
Net interests included in management expenses	23,924,000.00	28,029,000.00
	24,599,000.00	28,147,000.00

Relevant plans recognised in other comprehensive income are as follows:

	2019	2018
Actuarial loss due to changes in financial assumptions	19,950,000.00	37,744,000.00
Actuarial loss (profit) due to empirical differences	8,746,000.00	-28,353,000.00
	28,696,000.00	9,391,000.00

NOTES TO FINANCIAL STATEMENTS

Year ended 31 December 2019

RMB

VII. NOTES TO ITEMS IN THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)

49. Long-term employee benefits payable (Continued)

(2). Changes in defined benefit plans

Present value of obligations under defined benefit plans:

Applicable Not applicable

Unit: Yuan Currency: RMB

Item	Amount for the current period	Amount for the last period
I. Opening balance	714,121,000.00	735,719,000.00
II. The defined benefit cost included in the current profit and loss	24,599,000.00	28,147,000.00
1. Current service costs	—	—
2. Past service costs	—	-113,000.00
3. Settlement gains (losses indicated by "-")	-675,000.00	-231,000.00
4. Net interests	23,924,000.00	28,029,000.00
III. The defined benefits cost included in other comprehensive income	-28,696,000.00	-9,391,000.00
1. Actuarial gains (losses indicated by "-")	-28,696,000.00	-9,391,000.00
IV. Other changes	53,961,000.00	59,136,000.00
1. Consideration paid at settlement	—	—
2. Benefits paid	53,961,000.00	59,136,000.00
V. Closing balance	713,455,000.00	714,121,000.00

Plan assets:

Applicable Not Applicable

Net liabilities (net assets) under defined benefit plans:

Applicable Not applicable

Explanation about impacts of the details of the defined benefit plan and its associated risks on the Company's future cash flow, timing, and uncertainty:

Applicable Not Applicable

NOTES TO FINANCIAL STATEMENTS

Year ended 31 December 2019

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VII. NOTES TO ITEMS IN THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)

49. Long-term employee benefits payable (Continued)

(2). Changes in defined benefit plans (Continued)

Key actuarial assumptions and sensitivity analysis results of defined benefit plans

Applicable Not applicable

The following table provides a quantitative sensitivity analysis on the key assumptions used:

2019

Unit: Yuan Currency: RMB

	Obligations under defined benefit plans		Obligations under defined benefit plans	
	Increase (%)	Increase/ (decrease)	Decrease (%)	Increase/ (decrease)
Discount rate	0.25	20,114,000.00	0.25	21,142,000.00
Average growth rate of medical expenses	1.00	40,455,000.00	1.00	33,431,000.00

2018

Unit: Yuan Currency: RMB

	Obligations under defined benefit plans		Obligations under defined benefit plans	
	Increase (%)	Increase/ (decrease)	Decrease (%)	Increase/ (decrease)
Discount rate	0.25	19,554,000.00	0.25	20,545,000.00
Average growth rate of medical expenses	1.00	36,593,000.00	1.00	30,255,000.00

The above sensitivity analysis is to infer the impact of reasonable change occurring to the key assumptions on the balance sheet date on the obligations under the defined benefit plans. Sensitivity analysis is made on the basis of changes in significant assumptions while other assumptions remain unchanged. Since changes in assumptions are often not isolated from each other, sensitivity analysis might not represent actual changes in the obligations under defined benefit plans.

Other explanation:

Applicable Not Applicable

NOTES TO FINANCIAL STATEMENTS

Year ended 31 December 2019

RMB

VII. NOTES TO ITEMS IN THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)

50. Provisions

√ Applicable □ Not applicable

2019

Unit: Yuan Currency: RMB

	2019 Product quality guarantee deposits	2019 Pending onerous contracts and others	2019 Total
Opening balance for the year	88,154,716.16	11,893,451.33	100,048,167.49
Increase for the year	54,644,227.25	757,571.02	55,401,798.27
Reversal for the year	-21,998,150.89	—	-21,998,150.89
Use for the year	-41,262,784.69	—	-41,262,784.69
Closing balance for the year	79,538,007.83	12,651,022.35	92,189,030.18
Including: provisions due within one year	-18,664,590.73	—	-18,664,590.73
	<u>60,873,417.10</u>	<u>12,651,022.35</u>	<u>73,524,439.45</u>

2018

Unit: Yuan Currency: RMB

	2018 Product quality guarantee deposits	2018 Pending onerous contracts	2018 Total
Closing balance for last year	154,397,533.40	—	154,397,533.40
Changes in accounting policies	—	7,844,728.03	7,844,728.03
Opening balance for the year	154,397,533.40	7,844,728.03	162,242,261.43
Increase for the year	49,246,013.96	4,048,723.30	53,294,737.26
Reversal for the year	-62,795,546.12	—	-62,795,546.12
Use for the year	-52,693,285.08	—	-52,693,285.08
Closing balance for the year	88,154,716.16	11,893,451.33	100,048,167.49
Including: provisions due within one year	-32,827,918.10	—	-32,827,918.10
	<u>55,326,798.06</u>	<u>11,893,451.33</u>	<u>67,220,249.39</u>

NOTES TO FINANCIAL STATEMENTS

Year ended 31 December 2019

RMB

VII. NOTES TO ITEMS IN THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)

50. Provisions (Continued)

Other descriptions (including the relevant important assumptions and estimates of the significant provisions) are as follow:

The Group estimates the quality guarantee deposits according to the sales revenue and the estimated warranty rate taking into account the different stages of the product life cycle of different products. The estimated rate of warranty occurrence is based on the historical experience data of the actual occurrence of warranty for the same type of products, and may be estimated according to significant changes due to the different stages of product life cycle of different products and similar products. As at the balance sheet date, the quality guarantee deposits that the Group expects to incur in the future under the above method shall be included into the profit or loss for the period.

51. Deferred income

Deferred income

Applicable Not applicable

2019

Unit: Yuan Currency: RMB

Item	Opening balance	Increase for the period	Decrease for the period	Closing balance
Government grants related to assets	79,013,543.46	8,528,909.81	12,591,092.01	74,951,361.26
Government grants related to income	72,357,334.94	62,892,594.88	54,380,438.16	80,869,491.66
Total	151,370,878.40	71,421,504.69	66,971,530.17	155,820,852.92

2018

Unit: Yuan Currency: RMB

Item	Opening balance	Increase for the period	Decrease for the period	Closing balance
Government grants related to assets	93,996,182.20	2,008,541.19	16,991,179.93	79,013,543.46
Government grants related to income	87,144,602.22	40,747,572.33	55,534,839.61	72,357,334.94
Less: Deferred income due within 1 year	-24,469,697.61	-26,978,333.54	-51,448,031.15	-
Total	156,671,086.81	15,777,779.98	21,077,988.39	151,370,878.40

NOTES TO FINANCIAL STATEMENTS

Year ended 31 December 2019

RMB

VII. NOTES TO ITEMS IN THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)

51. Deferred income (Continued)

Projects related to government grants:

Applicable Not applicable

2019

Unit: Yuan Currency: RMB

Liability item	Opening balance	Additions of grants for the period	Included in		Closing balance	Related to assets/income
			non-operating income for the period	Included in other income for the period		
Demolition grants	65,064,299.17	8,528,909.81	-4,153,370.15	–	69,439,838.83	Assets
Industrial development fund	18,963,867.00	15,200,000.00	–	-18,963,867.00	15,200,000.00	Income
Research grants	53,393,467.94	47,692,594.88	–	-35,416,571.16	65,669,491.66	Income
Other	13,949,244.29	–	–	-8,437,721.86	5,511,522.43	Assets

2018

Unit: Yuan Currency: RMB

Liability item	Opening balance	Additions of grants for the period	Included in		Closing balance	Related to assets/income
			non-operating income for the period	Included in other income for the period		
Demolition grants	71,279,227.89	2,008,541.19	-8,223,469.91	–	65,064,299.17	Assets
Industrial development fund	37,927,733.00	–	–	-18,963,866.00	18,963,867.00	Income
Research grants	49,216,869.22	40,747,572.33	–	-36,570,973.61	53,393,467.94	Income
Other	22,716,954.31	–	–	-8,767,710.02	13,949,244.29	Assets

Other explanation:

Applicable Not Applicable

52. Other non-current liabilities

Applicable Not Applicable

NOTES TO FINANCIAL STATEMENTS

Year ended 31 December 2019

RMB

VII. NOTES TO ITEMS IN THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)

53. Share capital

√ Applicable □ Not applicable

Unit: Yuan Currency: RMB

	Opening balance	New shares	Changes for the period (+, -)			Subtotal	Closing balance
			Bonus shares	Conversion of provident fund into shares	Other		
CRSC Group	6,604,426,424.00	-	-	-	-	-	6,604,426,424.00
China National Machinery Industry Corporation (中國機械工業集團有限公司)	63,507,192.00	-	-	-	-	-	63,507,192.00
China Chengtong Holdings Group Limited (中國誠通控股集團有限公司)	63,507,192.00	-	-	-	-	-	63,507,192.00
China Guoxin Holding Co., Ltd. (中國國新控股有限責任公司)	63,507,192.00	-	-	-	-	-	63,507,192.00
CICC Jiacheng Investment Management Co., Ltd. (中金佳成投資管理有限公司)	26,070,000.00	-	-	-	-	-	26,070,000.00
National Council for Social Security Fund (全國社保基金理事會)	178,982,000.00	-	-	-	-	-	178,982,000.00
Overseas-listed H shares	1,789,819,000.00	-	-	-	-	-	1,789,819,000.00
Domestic-listed A shares	-	1,800,000,000.00	-	-	-	1,800,000,000.00	1,800,000,000.00
Total number of shares	<u>8,789,819,000.00</u>	<u>1,800,000,000.00</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>1,800,000,000.00</u>	<u>10,589,819,000.00</u>

Other explanation:

According to the *Reply of China Securities Regulatory Commission on Approving the Registration of Initial Public Offering of Shares of China Railway Signal & Communication Corporation Limited* (Zheng Jian Xu Ke [2019] No. 1135), as of 16 July 2019, the Company has issued 1,800,000,000 ordinary shares with a par value of RMB1.00 on the SSE Star Market at an issuance price of RMB5.85 per share. The total amount of capital raised before deduction of the issuance fee was RMB10,530,000,000.00. These ordinary shares were listed on the SSE Star Market on 22 July 2019.

NOTES TO FINANCIAL STATEMENTS

Year ended 31 December 2019

RMB

VII. NOTES TO ITEMS IN THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)

54. Other equity instruments

- (1). Basic information on preferred shares, perpetual bonds and other financial instruments that are outstanding at the end of the period

Applicable Not applicable

On 3 August 2018, Bridge Trust Co., Ltd. (百瑞信託有限責任公司) made a renewable debt investment to the Company using the fund under the trust plan, with an investment amount of RMB2,800,000,000.00. The initial investment period is 3 years, and the interest rate of the initial investment period is fixed at 6.7% per year. The Group has the right to choose to defer the interest payment. After the expiration, the Group has the right to choose renewal; the reset rate during the renewal period jumped 300 basis points based on the annual interest rate applicable to the previous investment period. The Group classified it as other equity instruments.

- (2). Statement on changes in preferred shares, perpetual bonds and other financial instruments that are outstanding at the end of the period

Applicable Not applicable

Unit: Yuan Currency: RMB

Outstanding financial instruments	Opening balance		Increase		Decrease		Closing balance	
	Number	Carrying value	Number	Carrying value	Number	Carrying value	Number	Carrying value
Bridge-Hengyi 622 Collective Fund Trust Plan	28,000,000	2,800,000,000.00	-	-	-	-	28,000,000	2,800,000,000.00
Total	28,000,000	2,800,000,000.00	-	-	-	-	28,000,000	2,800,000,000.00

Unit: Yuan Currency: RMB

Equity attributable to shareholders of the parent
 Equity attributable to ordinary shareholders of the parent
 Equity attributable to other equity holders of the parent
 Including: Dividends distributed during the period
 Accumulated retained dividends

31 December 2019

38,319,607,362.50

2,800,000,000.00

190,205,555.55

-

NOTES TO FINANCIAL STATEMENTS

Year ended 31 December 2019

RMB

VII. NOTES TO ITEMS IN THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)

54. Other equity instruments (Continued)

(2). Statement on changes in preferred shares, perpetual bonds and other financial instruments that are outstanding at the end of the period (Continued)

Changes (increase or decrease) during the period, reasons for such changes and basis for relevant accounting treatment of other equity instruments:

Applicable Not Applicable

Other explanation:

Applicable Not Applicable

55. Capital reserve

Applicable Not applicable

Unit: Yuan Currency: RMB

Item	Opening balance	Increase for the period	Decrease for the period	Closing balance
Capital premium				
(share capital premium)	6,984,530,894.72	8,554,342,373.22	—	15,538,873,267.94
Fiscal appropriation	8,670,000.00	—	—	8,670,000.00
Acquisition of minority interest of subsidiaries	9,517,659.85	—	6,882.99	9,510,776.86
Adjustment on long-term equity under interest method	82,802.56	598,169.91	—	680,972.47
Other	406,663,539.95	—	—	406,663,539.95
Total	7,409,464,897.08	8,554,940,543.13	6,882.99	15,964,398,557.22

Other explanation, including changes (increase or decrease) during the period, and reasons for such changes:

As of 16 July 2019, the Company has 1,800,000,000 ordinary shares with a par value of RMB1.00 on the SSE Star Market at an issuance price of RMB5.85 per share, resulting in a total of raised funds of RMB10,530,000,000.00. After deducting the transaction costs related to equity transactions, the total increase in share capital premium amounted to RMB8,554,342,373.22.

NOTES TO FINANCIAL STATEMENTS

Year ended 31 December 2019

RMB

VII. NOTES TO ITEMS IN THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)

56. Treasury stock

Applicable Not Applicable

57. Other comprehensive income

Applicable Not applicable

Unit: Yuan Currency: RMB

Item	Opening balance	Balance before income tax during the period	Less: Amount transferred to profit or loss from other comprehensive income	Amount for the period		Less: Income tax expense	Amount attributable to the parent after tax	Amount attributable to the minority shareholders after tax	Closing balance
				Less: Amount transferred to retained earnings from other comprehensive income	Less: Amount transferred to retained earnings from other comprehensive income				
1. Other comprehensive income									
not reclassified into profit or loss	-245,208,000.00	-28,696,000.00	-	-	-	-28,696,000.00	-	-273,904,000.00	
Including: Changes of the re-measurement of defined benefit plans	-245,208,000.00	-28,696,000.00	-	-	-	-28,696,000.00	-	-273,904,000.00	
2. Other comprehensive income									
reclassified to profit or loss	-3,263,666.82	4,302,081.70	-	-	-	4,302,081.70	-	1,038,414.88	
Effective portion of gains or losses on cash flow hedging	-3,311,500.50	4,251,224.77	-	-	-	4,251,224.77	-	939,724.27	
Differences on translation of foreign currency financial statements	47,833.68	50,856.93	-	-	-	50,856.93	-	98,690.61	
Total other comprehensive income	<u>-248,471,666.82</u>	<u>-24,393,918.30</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-24,393,918.30</u>	<u>-</u>	<u>-272,865,585.12</u>	

NOTES TO FINANCIAL STATEMENTS

Year ended 31 December 2019

RMB

VII. NOTES TO ITEMS IN THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)

58. Special reserve

Applicable Not applicable

2019

Unit: Yuan Currency: RMB

Item	Opening balance	Increase	Decrease	Closing balance
Production safety expenses	<u>372,846,705.67</u>	<u>423,300,667.73</u>	<u>383,981,452.31</u>	<u>412,165,921.09</u>
Total	<u>372,846,705.67</u>	<u>423,300,667.73</u>	<u>383,981,452.31</u>	<u>412,165,921.09</u>

2018

Unit: Yuan Currency: RMB

Item	Opening balance	Increase	Decrease	Closing balance
Production safety expenses	<u>262,399,066.15</u>	<u>483,493,514.19</u>	<u>373,045,874.67</u>	<u>372,846,705.67</u>
Total	<u>262,399,066.15</u>	<u>483,493,514.19</u>	<u>373,045,874.67</u>	<u>372,846,705.67</u>

NOTES TO FINANCIAL STATEMENTS

Year ended 31 December 2019

RMB

VII. NOTES TO ITEMS IN THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)

59. Surplus reserve

Applicable Not applicable

2019

Unit: Yuan Currency: RMB

Item	Opening balance	Increase	Decrease	Closing balance
Statutory surplus reserve	<u>1,104,399,533.39</u>	<u>238,080,226.32</u>	—	<u>1,342,479,759.71</u>
Total	<u>1,104,399,533.39</u>	<u>238,080,226.32</u>	—	<u>1,342,479,759.71</u>

2018

Unit: Yuan Currency: RMB

Item	Opening balance	Increase	Decrease	Closing balance
Statutory surplus reserve	<u>892,801,282.73</u>	<u>211,598,250.66</u>	—	<u>1,104,399,533.39</u>
Total	<u>892,801,282.73</u>	<u>211,598,250.66</u>	—	<u>1,104,399,533.39</u>

According to the Company Law and the Articles of Association of the Company, the Company shall withdraw statutory surplus reserve fund at 10% of its net profit. If the accumulative amount of the statutory surplus reserve is more than 50% of the Company's registered capital, the statutory surplus reserve fund shall no longer be withdrawn.

After the Company withdraws the statutory surplus reserve fund, it can withdraw discretionary surplus reserve fund. Upon approval, the discretionary surplus reserve can be used to make up for losses of the preceding year or increase share capital.

NOTES TO FINANCIAL STATEMENTS

Year ended 31 December 2019

RMB

VII. NOTES TO ITEMS IN THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)

60. Retained earnings

Applicable Not applicable

Unit: Yuan Currency: RMB

Item	Current period	Last period
Retained earnings at the end of last period before adjustment	8,680,338,212.67	6,892,042,625.95
Total amount of retained earnings at the beginning of the adjustment period (increase +, decrease -)	—	-370,469.02
Retained earnings at the beginning of the period after adjustment	8,680,338,212.67	6,891,672,156.93
Add: Net profits attributable to owners of the parent during the current period	3,815,874,901.39	3,408,545,542.62
Less: Appropriation to statutory surplus reserve	238,080,226.32	211,598,250.66
Cash dividends payable	1,757,963,800.00	1,318,472,850.00
Dividends paid to other equity holders	190,205,555.55	72,062,222.22
Appropriation to employee reward and welfare fund	22,400,628.00	17,746,164.00
Other	3,953,194.59	—
Retained earnings at the end of the period	<u>10,283,609,709.60</u>	<u>8,680,338,212.67</u>

Note 1: In accordance with the resolution at the 2019 annual general meeting of Company, on 15 April 2019, the Company declared a special dividend for the remaining distributable profits as of 31 December 2017, and distributed cash dividend of RMB0.20 per share (including tax), with total tax-inclusive amount of RMB1,757,963,800.00.

Note 2: CRSC CASCO, a subsidiary of the Company, is a Sino-foreign joint venture that draws employee incentives and welfare funds for non-recurring rewards for employees, subsidies and repairs of housing and so on, in accordance with the relevant laws and regulations of foreign-invested enterprises and the resolutions of the Board of Directors. In 2019, CRSC CASCO accrued employee award and welfare fund totalling RMB43,922,800.00, of which RMB22,400,628.00 was attributable to the parent.

NOTES TO FINANCIAL STATEMENTS

Year ended 31 December 2019

RMB

VII. NOTES TO ITEMS IN THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)

61. Revenue and costs of sales

(1). Revenue and costs of sales

Applicable Not applicable

Unit: Yuan Currency: RMB

Item	Amount for the current period		Amount for the last period	
	Revenue	Cost	Revenue	Cost
Principal operations	41,393,439,891.64	31,984,663,835.75	39,689,361,817.53	30,778,777,996.87
Other operations	252,846,900.93	127,439,632.13	323,239,504.71	152,961,707.29
Total	<u>41,646,286,792.57</u>	<u>32,112,103,467.88</u>	<u>40,012,601,322.24</u>	<u>30,931,739,704.16</u>

Revenue is presented as follows:

Unit: Yuan Currency: RMB

	2019	2018
Rail transportation control system		
Equipment manufacturing	6,422,267,748.61	6,628,180,840.50
System implementation	13,765,385,358.35	13,230,769,370.81
Design and integration	10,189,550,308.55	8,563,090,298.45
Construction contracting	11,210,805,083.97	11,530,324,272.46
Other	58,278,293.09	60,236,540.02
	<u>41,646,286,792.57</u>	<u>40,012,601,322.24</u>

Cost of sales is listed as follows:

Unit: Yuan Currency: RMB

	2019	2018
Rail transportation control system		
Equipment manufacturing	3,731,164,014.41	3,766,094,750.39
System implementation	11,956,395,208.05	11,597,619,017.03
Design and integration	6,515,591,839.09	5,555,430,699.33
Construction contracting	9,882,279,967.61	9,993,472,311.11
Other	26,672,438.72	19,122,926.30
	<u>32,112,103,467.88</u>	<u>30,931,739,704.16</u>

NOTES TO FINANCIAL STATEMENTS

Year ended 31 December 2019

RMB

VII. NOTES TO ITEMS IN THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)

61. Revenue and costs of sales (Continued)

(2). Revenue from contracts

Applicable Not applicable

2019

Unit: Yuan Currency: RMB

Classification of contract	Rail transportation control system	Construction contracting	Other	Total
By region of operation				
China	29,829,821,271.88	11,210,805,083.97	58,278,293.09	41,098,904,648.94
Other countries and regions	547,382,143.63	—	—	547,382,143.63
Total	<u>30,377,203,415.51</u>	<u>11,210,805,083.97</u>	<u>58,278,293.09</u>	<u>41,646,286,792.57</u>

2018

Unit: Yuan Currency: RMB

Classification of contract	Rail transportation control system	Construction contracting	Other	Total
By region of operation				
China	27,885,056,008.70	11,530,324,272.46	60,236,540.02	39,475,616,821.18
Other countries and regions	536,984,501.06	—	—	536,984,501.06
Total	<u>28,422,040,509.76</u>	<u>11,530,324,272.46</u>	<u>60,236,540.02</u>	<u>40,012,601,322.24</u>

Explanation about revenue from contracts:

Applicable Not Applicable

NOTES TO FINANCIAL STATEMENTS

Year ended 31 December 2019

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VII. NOTES TO ITEMS IN THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)

61. Revenue and costs of sales (Continued)

(3). Details of performance obligation

Applicable Not applicable

2019

Unit: Yuan Currency: RMB

Classification of contract	Rail transportation control system	Construction contracting	Other	Total
Time of revenue recognition				
Revenue recognised at a certain point of time	4,654,192,848.92	–	58,278,293.09	4,712,471,142.01
Revenue recognised within a certain period of time	25,723,010,566.59	11,210,805,083.97	–	36,933,815,650.56
	<u>30,377,203,415.51</u>	<u>11,210,805,083.97</u>	<u>58,278,293.09</u>	<u>41,646,286,792.57</u>

2018

Unit: Yuan Currency: RMB

Classification of contract	Rail transportation control system	Construction contracting	Other	Total
Time of revenue recognition				
Revenue recognised at a certain point of time	5,027,604,423.32	–	60,236,540.02	5,087,840,963.34
Revenue recognised within a certain period of time	23,394,436,086.44	11,530,324,272.46	–	34,924,760,358.90
	<u>28,422,040,509.76</u>	<u>11,530,324,272.46</u>	<u>60,236,540.02</u>	<u>40,012,601,322.24</u>

The revenue recognised in the current year and included in the book value of contract liabilities at the beginning of the year is as follows:

Unit: Yuan Currency: RMB

	2019
Rail transportation control system	
Equipment manufacturing	97,950,067.33
System implementation	1,091,014,887.89
Design and integration	2,928,701,493.09
Construction contracting	1,262,518,333.55
Other	1,469,795.69
	<u>5,381,654,577.55</u>

NOTES TO FINANCIAL STATEMENTS

Year ended 31 December 2019

RMB

VII. NOTES TO ITEMS IN THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)

61. Revenue and costs of sales (Continued)

(4). Explanation about allocation to the remaining performance obligations

Applicable Not applicable

Other explanation:

Typically, the construction contracts or service rendering contracts provided by the Group as a whole constitutes a single performance obligation and is a performance obligation performed within a certain period of time. As at 31 December 2019, some of the Group's construction contracts or service rendering contract are still in the process of performance. The transaction price allocated to the outstanding (or partially outstanding) performance obligations is related to the performance progress of the corresponding construction contract or service rendering contract, and will be recognized as revenue on the basis of the performance progress in the future performance period of the corresponding construction contract or service rendering contract.

62. Taxes and surcharges

Applicable Not applicable

Unit: Yuan Currency: RMB

Item	Amount for the current period	Amount for the last period
Urban maintenance and construction tax	85,605,746.65	92,474,692.38
Educational surcharge	62,039,271.60	67,604,002.75
Property tax	52,525,554.40	48,075,106.94
Stamp duty	30,707,472.69	26,188,495.44
Land use tax	11,216,513.91	11,989,939.22
Other	17,924,208.00	9,408,421.24
Total	<u>260,018,767.25</u>	<u>255,740,657.97</u>

For tax determination basis, please refer to Note VI. Taxation

NOTES TO FINANCIAL STATEMENTS

Year ended 31 December 2019

RMB

VII. NOTES TO ITEMS IN THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)

63. Selling and distribution expenses

Applicable Not applicable

Unit: Yuan Currency: RMB

Item	Amount for the current period	Amount for the last period
Employee compensation costs	454,649,714.82	411,246,310.10
Sales service expenses	144,952,749.11	121,411,171.52
Transportation expenses	107,213,854.40	73,889,525.49
Depreciation expenses	6,248,309.26	5,179,762.13
Others	165,404,305.79	89,845,263.64
Total	<u>878,468,933.38</u>	<u>701,572,032.88</u>

64. General and administrative expenses

Applicable Not applicable

Unit: Yuan Currency: RMB

Item	Amount for the current period	Amount for the last period
Employee benefits	1,442,459,577.84	1,354,943,721.14
Production safety expenses	340,806,046.54	359,949,033.66
Depreciation and amortization expenses	256,743,218.28	283,064,982.59
Office and rental expenses	189,426,462.77	154,215,129.24
Travel costs and business entertainment expenses	86,466,626.73	111,200,171.17
Others	214,125,269.48	199,530,571.77
Total	<u>2,530,027,201.64</u>	<u>2,462,903,609.57</u>

NOTES TO FINANCIAL STATEMENTS

Year ended 31 December 2019

RMB

VII. NOTES TO ITEMS IN THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)

65. Research and development expenses

Applicable Not applicable

Unit: Yuan Currency: RMB

Item	Amount for the current period	Amount for the last period
Labor expenses	874,734,434.04	813,372,444.16
Materials expenses	219,032,133.20	176,238,126.38
Testing and processing expenses	96,708,739.50	81,095,164.10
Administrative expenses	95,101,668.27	15,306,156.47
Depreciation and amortization expenses	79,146,821.81	70,568,985.32
Travel costs	40,878,067.02	43,235,793.90
Others	177,853,903.13	123,686,518.65
Total	<u>1,583,455,766.97</u>	<u>1,323,503,188.98</u>

66. Financial costs

Applicable Not applicable

Unit: Yuan Currency: RMB

Item	Amount for the current period	Amount for the last period
Interest expense	121,490,363.95	139,007,999.72
Less: interest income	-305,460,588.36	-222,458,809.36
Exchange gains	-15,990,839.22	-30,108,261.66
Financial institutions commissions	55,909,492.14	27,130,042.12
Total	<u>-144,051,571.49</u>	<u>-86,429,029.18</u>

NOTES TO FINANCIAL STATEMENTS

Year ended 31 December 2019

RMB

VII. NOTES TO ITEMS IN THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)

67. Other income

Applicable Not applicable

Unit: Yuan Currency: RMB

Item	Amount for the current period	Amount for the last period
Government grants related to income:		
Special Fund of Changsha High-tech Zone for Industrial Development (長沙高新區產業發展專項資金)	36,525,867.00	18,963,866.00
Refund of taxes	68,497,010.97	51,372,934.50
Other research grants	108,158,138.29	101,314,377.47
Total	<u>213,181,016.26</u>	<u>171,651,177.97</u>

68. Investment income

Applicable Not applicable

Unit: Yuan Currency: RMB

Item	Amount for the current period	Amount for the last period
Income from long-term equity investments under the equity method	50,057,361.46	57,206,876.72
Investment income from disposal of long-term equity investments	243,011,335.72	20,981.71
Investment income/(loss) from futures transactions	244,814.42	-2,059,951.22
Investment income from disposal of other equity instruments	6,400.00	—
Other	79,455,160.88	—
Total	<u>372,775,072.48</u>	<u>55,167,907.21</u>

NOTES TO FINANCIAL STATEMENTS

Year ended 31 December 2019

RMB

VII. NOTES TO ITEMS IN THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)

69. Gains on net exposure hedges

Applicable Not Applicable

70. Gains on changes in fair value

Applicable Not Applicable

71. Credit impairment losses

Applicable Not applicable

Unit: Yuan Currency: RMB

Item	Amount for the current period	Amount for the last period
Reversal/(losses) from bad debts of accounts receivables	25,640,234.35	-104,685,995.30
Reversal/(losses) from bad debts of other receivables	-13,586,147.63	42,979,455.21
Losses from bad debts of long-term receivables	-30,584,441.97	-10,159,089.79
Reversal/(losses) from bad debts of non-current assets due within one year	404,164.59	-499,756.02
Losses from bad debts of retention money in other non-current assets	-804,399.14	-53,159.41
Losses from impairment of contracted assets	-14,784,680.94	-40,891,542.98
Total	<u>-33,715,270.74</u>	<u>-113,310,088.29</u>

NOTES TO FINANCIAL STATEMENTS

Year ended 31 December 2019

RMB

VII. NOTES TO ITEMS IN THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)

72. Losses from impairment of assets

Applicable Not applicable

Unit: Yuan Currency: RMB

Item	Amount for the current period	Amount for the previous period
Reversal/(losses) from decline in value of inventories and impairment of contract performance cost	<u>2,287,468.78</u>	<u>-110,408.35</u>
Total	<u>2,287,468.78</u>	<u>-110,408.35</u>

73. Gains from disposal of assets

Applicable Not applicable

Unit: Yuan Currency: RMB

Item	Amount for the current period	Amount for the last period
Gains from disposal of fixed assets	<u>1,449,265.17</u>	<u>3,524,978.06</u>
Losses from disposal of fixed assets	<u>-2,831,577.94</u>	<u>-7,661,555.02</u>
Total	<u>-1,382,312.77</u>	<u>-4,136,576.96</u>

NOTES TO FINANCIAL STATEMENTS

Year ended 31 December 2019
RMB

VII. NOTES TO ITEMS IN THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)

74. Non-operating income

Information about non-operating income

Applicable Not applicable

Unit: Yuan Currency: RMB

Item	Amount for the current period	Amount for the previous period	Amount included
			in current non-recurring profit or loss
Government grants	4,153,370.15	8,223,469.91	4,153,370.15
Compensation payments	7,885,413.28	5,096,793.72	7,885,413.28
Accounts payable	38,593,582.39	6,202,580.56	38,593,582.39
Others	11,167,229.08	25,659,090.88	11,167,229.08
Total	<u>61,799,594.90</u>	<u>45,181,935.07</u>	<u>61,799,594.90</u>

Government grants recognized through profit and loss for the period

Applicable Not applicable

Unit: Yuan Currency: RMB

Grant item	Amount for the period	Amount for the previous period	In relation to
			assets/income
Demolition grants	<u>4,153,370.15</u>	<u>8,223,469.91</u>	In relation to assets

Other explanations:

Applicable Not Applicable

NOTES TO FINANCIAL STATEMENTS

Year ended 31 December 2019

RMB

VII. NOTES TO ITEMS IN THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)

75. Non-operating expenses

Applicable Not applicable

Unit: Yuan Currency: RMB

Item	Amount for the current period	Amount for the previous period	Amount included in current non-recurring profit or loss
Lawsuits compensation	2,098,410.14	2,171,289.03	2,098,410.14
External donations	256,080.05	3,585,000.00	256,080.05
Expenditures from "Three Supplies and One Property", i.e. providing water, electricity, heating and property management service	—	48,631,159.47	—
Losses from damage and scrap of non-current assets	1,043,662.29	813,460.22	1,043,662.29
Others	10,337,126.42	3,144,220.08	10,337,126.42
Total	13,735,278.90	58,345,128.80	13,735,278.90

Note: Expenditures from "Three Supplies and One property" refer to the expenditures incurred from implementing the separation and transfer work of "Three Supplies and One property" in the employee family area of state-owned enterprises nationwide that should be borne by the enterprise itself, according to the *Notice on Guiding Opinions about Separation and Transfer of "Three Supplies and One property" in the Employee Family Area of State-owned Enterprises* issued by the State-owned Assets Supervision and Administration Commission of the State Council and the Ministry of Finance.

76. Income tax expenses

(1). Table for income tax expenses

Applicable Not applicable

Unit: Yuan Currency: RMB

Item	Amount for the current period	Amount for the last period
Current income tax expenses	847,049,148.77	867,088,287.36
Deferred income tax expenses	3,377,012.14	-64,213,569.52
Total	850,426,160.91	802,874,717.84

NOTES TO FINANCIAL STATEMENTS

Year ended 31 December 2019

RMB

VII. NOTES TO ITEMS IN THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)

76. Income tax expenses (Continued)

(2). Adjustment process for accounting profit and income tax

Applicable Not applicable

Unit: Yuan Currency: RMB

Item	Amount for the current period	Amount for the last period
Total profit	5,027,474,516.95	4,519,669,975.71
Income tax at the statutory/applicable income tax rate (25%)	1,256,868,629.24	1,129,917,493.93
Effect of different tax rates for subsidiaries	-335,156,969.61	-331,568,166.82
Effect of adjustments in respect of income tax of previous periods	10,409,569.63	9,337,321.21
Effect of non-taxable income	-4,580,174.27	-2,949,650.91
Effect of non-deductible cost, expenses and loss	57,291,952.54	68,530,254.80
Effect of utilization of deductible losses in deferred income tax assets not recognized in previous period	-36,541,003.96	-7,899,783.61
Effect of deductible temporary differences or deductible losses in deferred income tax assets not recognized in the current period	5,332,538.91	35,815,207.92
Share of profits and losses of joint ventures and associates	-12,514,340.37	-14,301,719.18
Tax effect of additional deductions	-85,440,626.58	-83,797,791.20
Effect of tax rate changes on deferred income tax balance at the beginning of the year	-4,872,750.69	11,138.09
Others	-370,663.93	-219,586.39
Income tax expenses	<u>850,426,160.91</u>	<u>802,874,717.84</u>

Other explanations:

Applicable Not applicable

The Group's income tax has been provided at the applicable rate on the estimated profits assessable arising in the PRC during the period. Taxes on profits assessable elsewhere have been calculated at the applicable rates of tax prevailing in the countries/regions in which the Group operates, based on existing legislation, interpretations and practices in respect thereof.

NOTES TO FINANCIAL STATEMENTS

Year ended 31 December 2019

RMB

VII. NOTES TO ITEMS IN THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)

76. Income tax expenses (Continued)

(2). Adjustment process for accounting profit and income tax (Continued)

Share of tax attributable to joint ventures and associates in 2019 were RMB6,417,416.22 (2018: RMB7,161,733.72) and RMB4,424,014.38 (2018: RMB4,456,638.84), respectively. These shares of tax are included in the "income from investments in joint ventures and associates" in the consolidated income statement.

77. Other comprehensive income

Applicable Not applicable

The accumulated balance of other comprehensive income/(losses) attributable to the parent company in the consolidated balance sheet is as follows:

	1 January 2018	Increase/ decrease	31 December 2018	Increase/ decrease	31 December 2019
Changes in re-measurement of defined benefit plan	-235,817,000.00	-9,391,000.00	-245,208,000.00	-28,696,000.00	-273,904,000.00
Differences on translation of foreign currency financial statements	15,905.51	31,928.17	47,833.68	50,856.93	98,690.61
Hedging reserve arising from cash flows	8,253,818.62	-11,565,319.12	-3,311,500.50	4,251,224.77	939,724.27
Total	<u>-227,547,275.87</u>	<u>-20,924,390.95</u>	<u>-248,471,666.82</u>	<u>-24,393,918.30</u>	<u>-272,865,585.12</u>

Unit: yuan Currency: RMB

NOTES TO FINANCIAL STATEMENTS

Year ended 31 December 2019

RMB

VII. NOTES TO ITEMS IN THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)

77. Other comprehensive income (Continued)

The amount for the current year of other comprehensive income/(losses) in the consolidated income statement is as follows:

2019

Unit: Yuan Currency: RMB

	Balance before tax	Income tax	Attributable to the parent company	Attributable to non- controlling interests
Other comprehensive losses not to be reclassified to profit or loss:				
Changes in re-measurement of defined benefit plan	<u>-28,696,000.00</u>	<u>-</u>	<u>-28,696,000.00</u>	<u>-</u>
Other comprehensive losses to be reclassified to profit or loss:				
Differences on translation of foreign currency financial statements	<u>50,856.93</u>	<u>-</u>	<u>50,856.93</u>	<u>-</u>
Hedging reserve arising from cash flows	<u>4,251,224.77</u>	<u>-</u>	<u>4,251,224.77</u>	<u>-</u>
Total	<u><u>-24,393,918.30</u></u>	<u><u>-</u></u>	<u><u>-24,393,918.30</u></u>	<u><u>-</u></u>

NOTES TO FINANCIAL STATEMENTS

Year ended 31 December 2019

RMB

VII. NOTES TO ITEMS IN THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)

77. Other comprehensive income (Continued)

2018

	Unit: Yuan Currency: RMB			
	Balance before tax	Income tax	Attributable to the parent company	Attributable to non- controlling interests
Other comprehensive losses not to be reclassified to profit or loss:				
Changes in re-measurement of defined benefit plan	-9,391,000.00	-	-9,391,000.00	-
Other comprehensive losses to be reclassified to profit or loss:				
Differences on translation of foreign currency financial statements	31,928.17	-	31,928.17	-
Hedging reserve arising from cash flows	-11,565,319.12	-	-11,565,319.12	-
Total	-20,924,390.95	-	-20,924,390.95	-

78. Items in statement of cash flows

(1). Other cash received related to operating activities

Applicable Not applicable

	Unit: Yuan Currency: RMB	
Item	Amount for the current period	Amount for the last period
Income from other businesses	252,846,900.93	323,239,504.71
Government grants	149,133,979.81	46,072,726.09
Interest income	176,665,151.64	68,724,515.50
Others	23,206,012.51	87,536,965.87
Total	601,852,044.89	525,573,712.17

NOTES TO FINANCIAL STATEMENTS

Year ended 31 December 2019

RMB

VII. NOTES TO ITEMS IN THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)

78. Items in statement of cash flows (Continued)

(2). Other cash paid related to operating activities

Applicable Not applicable

Unit: Yuan Currency: RMB

Item	Amount for the current period	Amount for the last period
Research and development expenses	708,721,332.93	694,957,265.70
Safety production expenses	340,806,046.54	359,949,033.66
Travel and business hospitality expenses	127,344,693.75	154,435,965.07
Others	650,100,467.29	1,251,048,930.17
Total	<u>1,826,972,540.51</u>	<u>2,460,391,194.60</u>

(3). Other cash received related to investment activities

Applicable Not applicable

Unit: Yuan Currency: RMB

Item	Amount for the current period	Amount for the last period
Borrowed funds received from former subsidiaries	1,578,170,000.00	—
Interest income	128,795,436.72	153,734,293.86
Others	54,299,606.60	—
Total	<u>1,761,265,043.32</u>	<u>153,734,293.86</u>

NOTES TO FINANCIAL STATEMENTS

Year ended 31 December 2019

RMB

VII. NOTES TO ITEMS IN THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)

78. Items in statement of cash flows (Continued)

(4). Other cash paid related to investment activities

Applicable Not applicable

Unit: Yuan Currency: RMB

Item	Amount for the current period	Amount for the last period
Cash paid for disposal of a subsidiary	67,227,316.24	—
Total	67,227,316.24	—

(5). Cash received related to fund-raising activities

Applicable Not Applicable

(6). Cash paid related to fund-raising activities

Applicable Not applicable

Unit: Yuan Currency: RMB

Item	Amount for the current period	Amount for the last period
Rental expenses and others	122,493,338.69	28,000,000.00
Total	122,493,338.69	28,000,000.00

NOTES TO FINANCIAL STATEMENTS

Year ended 31 December 2019

RMB

VII. NOTES TO ITEMS IN THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)

79. Supplementary information to the statement of cash flows

(1). Supplementary information to the statement of cash flows

√ Applicable □ Not applicable

Unit: Yuan Currency: RMB

Supplementary information	Amount for the period	Amount for the previous period
1. Adjustment of profit or loss to cash flow of operating activities:		
Net profits	4,177,048,356.04	3,716,795,257.87
Add: Provision for impairment of assets	31,427,801.96	113,420,496.64
Depreciation of fixed assets, oil and gas assets, productive biological assets	367,517,459.10	322,532,791.81
Amortization of right-of-use assets	80,467,633.95	-
Amortization of intangible assets	138,309,942.81	178,053,172.09
Amortization of long-term prepaid expenses	27,246,661.12	18,331,487.53
Depreciation and amortization of investment properties	12,874,137.89	12,874,136.93
Loss from disposal of fixed assets, intangible assets and other long-term assets (income as sign "-")	1,382,312.77	4,136,576.96
Losses from scrap of fixed assets (income as sign "-")	-	-
Losses due to changes in fair value (income as sign "-")	-	-
Financial costs (income as sign "-")	547,387.23	-52,839,463.12
Investment loss (income as sign "-")	-372,775,072.48	-55,167,907.21
Decrease in deferred income tax assets (increase as sign "-")	3,799,808.38	-56,126,903.77
Increase in deferred income tax liabilities (decrease as sign "-")	-422,796.24	-8,086,665.75
Decrease in inventories (increase as sign "-")	-59,739,423.66	16,954,490,034.20
Decrease in operating receivables (increase as sign "-")	-5,342,589,106.56	-4,985,298,021.97
Increase in operating payables (decrease as sign "-")	5,591,073,385.63	6,231,864,192.05
Increase in special reserve	37,710,212.56	113,732,758.79
Increase in contract assets	-2,011,163,193.48	-31,128,735,266.68
Increase in contract liabilities	688,645,277.85	7,033,233,380.49
Others	-	-
Net cash flow generated from operating activities	<u>3,371,360,784.87</u>	<u>-1,586,789,943.14</u>

NOTES TO FINANCIAL STATEMENTS

Year ended 31 December 2019

RMB

VII. NOTES TO ITEMS IN THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)

79. Supplementary information to the statement of cash flows (Continued)

(1). Supplementary information to the statement of cash flows (Continued)

Supplementary information	Amount for the period	Amount for the previous period
2. Major investment and financing activities not involving cash receipts and payments:		
Conversion of debt into capital	—	—
Convertible corporate bonds due within one year	—	—
Fixed asset under financial leases	—	—
Discounted bills with maturity	99,556,312.99	107,657,527.95
Right-of-use assets acquired by committing lease liabilities	117,373,463.00	—
3. Net change in cash and cash equivalents:		
Ending Balance of Cash	17,854,952,684.12	10,808,205,777.53
Less: Opening balance of cash	10,808,205,777.53	11,364,982,037.93
Add: Ending balance of cash equivalents	—	—
Less: Opening balance of cash equivalents	—	—
Net increase in cash and cash equivalents	<u>7,046,746,906.59</u>	<u>-556,776,260.40</u>

(2). Net cash paid to acquire subsidiaries during the period

Applicable Not Applicable

(3). Net cash received from disposal of subsidiaries during the period

Applicable Not applicable

Unit: Yuan Currency: RMB

	Amount
Current cash or cash equivalents received from disposal of subsidiaries during the period	253,896,600.00
CRSC Real Estate Co., Ltd. (通號置業有限公司)	253,896,600.00
Less: cash and cash equivalents held by subsidiaries that are no longer in control	321,123,916.24
Cash and bank balances	<u>321,123,916.24</u>
Add: Current cash or cash equivalents received from disposal of subsidiaries during previous periods	—
Net cash received from disposal of subsidiaries	<u>-67,227,316.24</u>

NOTES TO FINANCIAL STATEMENTS

Year ended 31 December 2019

RMB

VII. NOTES TO ITEMS IN THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)

79. Supplementary information to the statement of cash flows (Continued)

(4). Changes in liabilities arising from financing activities

	Unit: Yuan Currency: RMB			
	Interest payable	Borrowings	Dividends payable	Lease liabilities
1 January 2018	12,000.00	1,875,782,287.96	17,884,103.54	-
Dividend distribution	-	-	1,506,770,446.02	-
Distribution to other stakeholders	-	-	72,062,222.22	-
Accrued interest	139,008,509.89	-	-	-
Changes in cash flow from financing activities	-139,012,509.89	525,740,040.07	-1,576,916,771.78	-
Significant financing activities not involving cash	-	-107,657,527.95	-	-
31 December 2018	<u>8,000.00</u>	<u>2,293,864,800.08</u>	<u>19,800,000.00</u>	<u>-</u>
1 January 2019	8,000.00	2,293,864,800.08	19,800,000.00	114,677,184.12
Dividend distribution	-	-	2,040,825,565.28	-
Distribution to other stakeholders	-	-	190,205,555.55	-
Accrued interest	121,490,363.95	-	-	-
Changes in cash flow from financing activities	-121,498,363.95	139,202,894.10	-2,216,440,162.75	-95,817,093.91
Significant financing activities not involving cash	-	-99,556,312.99	-	129,089,131.32
31 December 2019	<u>-</u>	<u>2,333,511,381.19</u>	<u>34,390,958.08</u>	<u>147,949,221.53</u>

(5). Composition of cash and cash equivalents

Applicable Not applicable

	Unit: Yuan Currency: RMB	
Item	Closing balance	Opening balance
I. Cash	17,854,952,684.12	10,808,205,777.53
Including: Cash on hand	1,441,606.54	2,382,812.51
Bank deposits available for payment	17,853,511,077.58	10,805,822,965.02
Other monetary funds available for payment	-	-
Funds deposited with the central bank that are available for payment	-	-
Deposit from other banks	-	-
Loans to other banks	-	-
II. Cash equivalents	-	-
Including: bond investment due within three months	-	-
III. Closing balance of cash and cash equivalents	17,854,952,684.12	10,808,205,777.53
Including: cash and cash equivalents with restrictions on use by the parent or subsidiaries within the Group	-	-

NOTES TO FINANCIAL STATEMENTS

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VII. NOTES TO ITEMS IN THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)

79. Supplementary information to the statement of cash flows (Continued)

(5). Composition of cash and cash equivalents (Continued)

Other explanations:

Applicable Not Applicable

80. Notes to Items in Statement of Changes in Owner's Equity

Explanation of the name of "Others" item that adjusted the closing balance at the end of last year and the amount of adjustment, etc.:

Applicable Not Applicable

81. Assets with restricted ownership or right-of-use

Applicable Not applicable

Unit: Yuan Currency: RMB

Item	Ending book value	Reasons of restriction
Monetary funds	266,335,538.79	Acceptance bill deposits; guarantee letter deposits; other purposes
Notes receivable	67,084,139.66	Note 1
Long-term receivables	<u>3,586,890,185.27</u>	Note 2
Total	<u><u>3,920,309,863.72</u></u>	/

Other explanations:

Note 1: As at 31 December 2019, the Group had no any notes receivable that was pledged for the purpose of issuing bank acceptance bills payable (31 December 2018: the book value of notes receivable pledged by the Group for issuing bank acceptance bills payable was RMB7,730,000.00).

As at 31 December 2019, the book values of bank acceptance bills and commercial acceptance bills pledged by the Group were RMB5,824,991.90 and RMB61,259,147.76 respectively, which were used to obtain short-term loans of RMB67,084,139.66. As at 31 December 2018, the book values of bank acceptance bills and commercial acceptance bills pledged by the Group were RMB76,168,897.42 and RMB23,387,415.57 respectively, which were used to obtain short-term loans of RMB99,556,312.99. See Note VII. 32 for details.

Note 2: As at 31 December 2019, the Group's long-term receivables of RMB3,586,890,185.27 (31 December 2018: RMB1,103,115,389.15), which were formed by the earning rights of the franchise pledged and all proceeds thereunder it, were used to obtain long-term loans of RMB1,664,299,760.80 (31 December 2018: RMB625,017,582.09). See Notes VII.16 and 45 for details.

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VII. NOTES TO ITEMS IN THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)

82. Foreign currency monetary items

(1). Foreign currency monetary items

Applicable Not applicable

Unit: Yuan

Item	Ending balance of foreign currency	Exchange rate	Ending balance in RMB equivalent
Cash and bank balances			
Including: US Dollar	33,465,661.92	6.9762	233,463,150.65
Euro	70,487.18	7.8155	550,892.56
HK dollar	1,127,378,405.03	0.8958	1,009,905,575.23
Rupee	127,014,000.31	0.0980	12,447,372.03
Others	—	—	3,058,688.93
Total			<u>1,259,425,679.40</u>

Unit: Yuan

Item	Ending balance of foreign currency	Exchange rate	Ending balance in RMB equivalent
Accounts payable			
Including: US Dollar	293,408.79	6.9762	2,046,878.40
Euro	890,429.10	7.8155	6,959,148.63
Total			<u>9,006,027.03</u>

(2). Notes on the overseas operating entities, including, for significant overseas operating entities, the necessary disclosure of main overseas operating places, functional currency and selection basis, as well as reasons for changes of the functional currency

Applicable Not Applicable

NOTES TO FINANCIAL STATEMENTS

Year ended 31 December 2019

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VII. NOTES TO ITEMS IN THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)

83. Hedging

Applicable Not applicable

84. Government grants

(1). Basic information about government grants

Applicable Not applicable

Unit: Yuan Currency: RMB

Type	Amount	Items reported	Amount included in current profit or loss
Demolition grants	8,528,909.81	Deferred income/ non-operating income	4,153,370.15
Special Fund of Changsha High-tech Zone for Industrial Development (長沙高新區產業發展專項資金)	32,762,000.00	Deferred income/ other income	36,525,867.00
Refund of taxes	68,497,010.97	Other income	68,497,010.97
Other research grants	111,996,440.16	Deferred income/ other income	108,158,138.29

(2). Return of government grants

Applicable Not Applicable

NOTES TO FINANCIAL STATEMENTS

Year ended 31 December 2019

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VII. NOTES TO ITEMS IN THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)

85. Other

Applicable Not applicable

The supplementary information of the Group's operating costs, sales expenses, management expenses and research and development expenses by nature is set forth as follows:

Unit: Yuan Currency: RMB

Item	Amount for the current period	Amount for the last period
Raw materials and spare parts consumed	20,637,647,161.92	19,980,054,417.26
Subcontracting costs	6,641,806,246.77	6,174,625,983.72
Employee benefits	5,077,803,677.13	4,563,105,582.99
Research and development expenses	708,721,332.93	694,957,265.70
Depreciation and amortization expenses	626,415,834.87	531,791,588.36
Others	3,411,661,116.25	3,475,183,697.56
Total	37,104,055,369.87	35,419,718,535.59

Note: The labor expenses of RMB874,734,434.04 (2018: RMB813,372,444.16) under the research and development expenses have been included in the employee benefits.

VIII. CHANGES ON SCOPE OF CONSOLIDATION

1. Business combination of entities not under common control

Applicable Not Applicable

2. Business combination of entities under common control

Applicable Not Applicable

3. Reverse takeover

Applicable Not Applicable

NOTES TO FINANCIAL STATEMENTS

Year ended 31 December 2019

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VIII. CHANGES ON SCOPE OF CONSOLIDATION (Continued)

4. Disposal of subsidiaries

Whether a single disposal of investment in a subsidiary has resulted in loss of control

Applicable Not Applicable

Unit: Yuan Currency: RMB

Name of subsidiary	Consideration for equity disposal	Equity disposal percentage (%)	Equity disposal method	Date of loss of control	Basis for determining the date of loss of control	The difference between the disposal price and share of subsidiary's net assets corresponding to the disposed investment in the consolidated financial statement	Percentage of remaining equity on the date of loss of control (%)	Book value of remaining equity on the date of loss of control	Fair value of remaining equity on the date of loss of control	Gain or loss from re-measurement of remaining equity at fair value	Determination method and main assumptions for the fair value of remaining equity on the date of loss of control	Amount of other comprehensive income related to investment in the equity interests of former subsidiaries transferred into investment gains or losses
CRSC Real Estate Co., Ltd.	253,896,600.00	100	Transfer of equity interest	30 June 2019	Transfer of control	225,285,681.31	-	-	-	-	-	-

Other explanation:

Applicable Not Applicable

Note 1: CRSC Construction Group Co., Ltd. (通號建設集團有限公司), to which the Group belongs, entered into an equity interest transfer agreement with CRSC Group, the parent of the Company, on 10 June 2019 to sell its 100% equity interests in CRSC Real Estate Co., Ltd. (通號置業有限公司) at a consideration of RMB253,896,600.00. The disposal date was 30 June 2019. Therefore, CRSC Real Estate Co., Ltd. (通號置業有限公司) was no longer included in the scope of consolidation of the Group since 1 July 2019. This equity interest transfer is a connected transaction between the Group and CRSC Group, the controlling shareholder of the Group.

NOTES TO FINANCIAL STATEMENTS

Year ended 31 December 2019

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VIII. CHANGES ON SCOPE OF CONSOLIDATION (Continued)

4. Disposal of subsidiaries (Continued)

Relevant financial information regarding CRSC Real Estate Co., Ltd. (通號置業有限公司) is presented as follows:

	Unit: Yuan	Currency: RMB
	30 June 2019 Book value	31 December 2018 Book value
Cash and bank balances	321,123,916.24	202,429,260.90
Accounts receivable	36,733,200.00	–
Prepayments	870,610.39	1,343,947.56
Other receivables	9,544,552.21	9,541,303.02
Inventories	2,001,329,020.69	2,165,696,128.67
Other current assets	71,869,757.52	100,649,606.76
Fixed assets	1,293,170.17	1,387,517.45
Intangible assets	3,678.16	17,053.15
Deferred income tax assets	689,825.35	689,825.35
Accounts payable	237,482,136.90	175,269,248.02
Contract liabilities	544,640,841.43	637,481,002.00
Taxes payable	254,227.11	19,944.26
Other payables	1,632,469,606.60	1,675,052,930.74
Net assets	28,610,918.69	-6,068,482.16
Interest of non-controlling shareholders	–	–
Add: Gains on disposal	225,285,681.31	–
Consideration of disposal	253,896,600.00	–

NOTES TO FINANCIAL STATEMENTS

Year ended 31 December 2019

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VIII. CHANGES ON SCOPE OF CONSOLIDATION (Continued)

4. Disposal of subsidiaries (Continued)

The operating results of the Company's disposal of a subsidiary from the beginning of the year to the date of disposal are as follows:

Unit: Yuan Currency: RMB

	From the beginning of the year to the date of disposal
Revenue	586,338,931.75
Costs of sales	518,932,362.84
Net profit	34,679,400.85

Unit: Yuan Currency: RMB

	30 June 2019
Price for disposal of subsidiaries	253,896,600.00
Cash and cash equivalents received from disposal of subsidiaries	253,896,600.00
Less: cash and cash equivalents held by the subsidiaries disposed of	321,123,916.24
Net cash received from disposal of subsidiaries	-67,227,316.24

Whether or not the investment in subsidiaries is disposed of step by step through multiple transactions and loss of control occurs in the current period

Applicable Not Applicable

5. Changes in scope of consolidation due to other reasons

Explanation of changes in scope of consolidation due to other reasons (e.g. incorporation of new subsidiaries, and liquidation of subsidiaries, etc.) and relevant information:

Applicable Not Applicable

6. Others

Applicable Not Applicable

NOTES TO FINANCIAL STATEMENTS

Year ended 31 December 2019

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IX. INTERESTS IN OTHER ENTITIES

1. Interests in subsidiaries

(1). Composition of enterprise group

√ Applicable □ Not applicable

Name of subsidiaries	Places of principal activities	Place of registration	Nature of business	Shareholding percentage of the Group (%)		Means of acquisition
				Direct	Indirect	
CRSC (Beijing) Rail Industry Group Co., Ltd. (通號(北京)軌道工業集團有限公司) ("CRSC Beijing Industry Group")	Beijing	Beijing	Equipment manufacturing	100.00	–	Incorporation
CRSC (Xi' an) Rail Industry Group Co., Ltd. (通號(西安)軌道交通工業集團有限公司) ("CRSC Xi' an Industry Group")	Xi' an	Xi' an	Equipment manufacturing	100.00	–	Incorporation
CRSC Cables Company Ltd. (通號電纜集團有限公司) ("CRSC Cables")	Zhengzhou	Zhengzhou	Equipment manufacturing	100.00	–	Incorporation
Beijing National Railway Research & Design Institute of Signal & Communication Co., Ltd. (北京全路通信信號研究設計院集團有限公司) ("CRSCD")	Beijing	Beijing	Design integration	100.00	–	Incorporation
CRSC CASCO (卡斯柯)	Shanghai	Shanghai	Design integration	51.00	–	Business combination not under common control
CRSC Communication & Information Group Company Ltd. (通號通信信息集團有限公司) ("CRSCC")	Beijing	Beijing	Design integration	100.00	–	Incorporation
CRSC Urban Rail Transit Technology Co., Ltd. (通號城市軌道交通技術有限公司) ("Urban Rail Transit")	Beijing	Beijing	Design integration	100.00	–	Incorporation
China Railway Signal & Communication Shanghai Engineering Bureau Group Co., Ltd. (中國鐵路通信信號上海工程局集團有限公司) ("CRSCS")	Shanghai	Shanghai	System delivery service and design integration	100.00	–	Incorporation
CRSC Engineering Group Company Ltd. (通號工程局集團有限公司) ("CRSCE")	Beijing	Beijing	System delivery service	100.00	–	Incorporation
CRSC International Holdings Company Limited (通號國際控股有限公司) ("CRSC International Holdings")	Beijing	Beijing	Design integration	100.00	–	Incorporation
CRSC Innovation Investment Co., Ltd. (通號創新投資有限公司) ("Innovation Investment")	Beijing	Beijing	Investment management	100.00	–	Incorporation
CRSC Material Group Company Ltd. (通號物資集團有限公司) ("CRSCM")	Beijing	Beijing	Trade	100.00	–	Incorporation
CRSC Inspection Co., Ltd. (通號檢驗檢測有限公司) ("CRSC Inspection")	Beijing	Beijing	System delivery service	100.00	–	Incorporation
CRSC (Changsha) Rail Transit Control Technology Company Limited (通號(長沙)軌道交通控制技術有限公司) ("CRSC Changsha Railway")	Changsha	Changsha	System delivery service	100.00	–	Incorporation
CRSC Wanquan (通號萬全)	Taizhou	Taizhou	Equipment manufacturing	70.00	–	Business combination not under common control

NOTES TO FINANCIAL STATEMENTS

Year ended 31 December 2019

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IX. INTERESTS IN OTHER ENTITIES (Continued)

1. Interests in subsidiaries (Continued)

(1). Composition of enterprise group (Continued)

Name of subsidiaries	Places of principal activities	Place of registration	Nature of business	Shareholding percentage of the Group (%)		Means of acquisition
				Direct	Indirect	
CRSC Construction Group Co., Ltd.(通號建設集團有限公司) ("CRSC Construction")	Changsha	Changsha	General engineering contracting	100.00	–	Incorporation
Zhengzhou Zhongyuan (鄭州中原)	Zhengzhou	Zhengzhou	General engineering contracting and system delivery service	65.00	–	Business combination not under common control
CRSC Railway vehicles Co., Ltd.(通號軌道車輛有限公司) ("CRSC Railway vehicles")	Changsha	Changsha	Equipment manufacturing	66.00	–	Incorporation
CRSC (Zhengzhou) Electrification Bureau Co., Ltd. (通號(鄭州)電氣化局有限公司)("CRSC Electrification Bureau")	Zhengzhou	Zhengzhou	General engineering contracting	65.00	–	Business combination not under common control
CRSC Jishou Huatai Pipeline Project Management Co., Ltd. (吉首通號華泰管廊項目管理有限責任公司)("CRSC Huatai")	Jishou	Jishou	Project management, operation and maintenance of engineering	90.00	–	Incorporation
CRSC Jishou Tengda Project Management Co., Ltd. (吉首通號騰達項目管理有限責任公司)("CRSC Tengda")	Jishou	Jishou	Project management, operation and maintenance of engineering	90.00	–	Incorporation
CRSC Institute of Smart City Research & Design Co., Ltd. (通號智慧城市研究設計院有限公司) ("Smart City Research & Design")	Beijing	Beijing	Design integration	100.00	–	Incorporation
China Railway Signal & Communication International Co., Ltd. (中國通號國際有限公司)("CRSC International")	Hong Kong, the PRC	Hong Kong, the PRC	Technical exchange and trade	100.00	–	Incorporation
CRSC Communications Construction Co., Ltd. (通號交通建設有限公司)("CRSC Communications")	Taizhou	Taizhou	General engineering contracting	90.00	–	Business combination not under common control
CRSC (Jiangsu) Smart City Construction & Development Co., Ltd. (通號(江蘇)智慧城市建設開發有限公司)("CRSC Jiangsu Smart")	Taixing	Taixing	Design integration	90.00	–	Incorporation

NOTES TO FINANCIAL STATEMENTS

Year ended 31 December 2019

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IX. INTERESTS IN OTHER ENTITIES (Continued)

1. Interests in subsidiaries (Continued)

(2). Significant non-wholly owned subsidiaries

Applicable Not applicable

Unit: Yuan Currency: RMB

Name of subsidiary	Shareholding percentage of non-controlling shareholders (%)	Current profits and losses attributable to non-controlling shareholders	Current dividends declared and paid to non-controlling shareholders	Capital invested by non-controlling shareholders for the period	Ending balance of interest of non-controlling shareholders
CRSC CASCO	49	299,598,460.10	255,401,720.00	156,800,000.00	834,272,252.00

Explanations for the inconsistency of shareholding percentage of non-controlling shareholders of subsidiaries with proportion of their voting rights:

Applicable Not Applicable

Other explanations:

Applicable Not Applicable

NOTES TO FINANCIAL STATEMENTS

Year ended 31 December 2019

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IX. INTERESTS IN OTHER ENTITIES (Continued)

1. Interests in subsidiaries (Continued)
- (3). Main financial information of significant non-wholly owned subsidiaries

√ Applicable □ Not applicable

The table below sets forth the main financial information of the above subsidiaries. These information is the amounts of enterprises within the Group before offsetting:

Unit: Yuan Currency: RMB

Name of subsidiary	Closing balance			Opening balance		
	Current assets	Non-current assets	Total assets	Current liabilities	Non-current liabilities	Total liabilities
CASCO	4,388,997,224.53	612,256,839.49	5,001,254,064.02	3,230,847,983.55	67,809,647.83	3,298,657,631.38
				4,089,439,243.60	553,104,406.93	4,642,543,650.53
				3,274,210,045.27	32,767,686.47	3,306,977,731.74

Unit: Yuan Currency: RMB

Name of subsidiary	Amount for the current period			Amount for the previous period		
	Revenue	Net profit	Total comprehensive income	Revenue	Net profit	Total comprehensive income
CASCO	3,724,631,558.93	611,425,428.78	611,425,428.78	3,481,902,645.55	503,789,281.03	503,789,281.03
				503,789,281.03	503,789,281.03	503,789,281.03
				593,898,054.15		593,898,054.15

NOTES TO FINANCIAL STATEMENTS

Year ended 31 December 2019

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IX. INTERESTS IN OTHER ENTITIES (Continued)

1. Interests in subsidiaries (Continued)

(4). Major restrictions on the use of assets of the Group and repayment of debts of the Group

Applicable Not Applicable

(5). Financial support or other support provided for structured entities included in the scope of consolidated financial statements

Applicable Not Applicable

Other explanations:

Applicable Not Applicable

2. Transaction in which the share of owner's interests in the subsidiary changes while control over the subsidiary remaining unchanged

Applicable Not Applicable

3. Interests in the joint venture or associate

Applicable Not applicable

See Note VII. 17 for details.

(1). Significant joint ventures or associates

Applicable Not Applicable

(2). Main financial information of significant joint ventures

Applicable Not Applicable

(3). Main financial information of significant associates

Applicable Not Applicable

NOTES TO FINANCIAL STATEMENTS

Year ended 31 December 2019

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IX. INTERESTS IN OTHER ENTITIES (Continued)

3. Interests in the joint venture or associate (Continued)

(4). Summary of financial information of insignificant joint ventures and associates

√ Applicable □ Not applicable

Unit: Yuan Currency: RMB

	Balance at the end of the period/ amount incurred in the period	Balance at the beginning of the period/ amount incurred in the previous period
Joint ventures:		
Total book value of investment	236,048,139.20	253,491,320.54
Total amount of the following items calculated on the basis of shareholding percentage		
– Net profit	23,628,094.30	19,422,792.67
– Other comprehensive income	–	–
– Total comprehensive income	23,628,094.30	19,422,792.67
Associates:		
Total book value of investment	745,493,462.30	752,430,080.14
Total amount of the following items calculated on the basis of shareholding percentage		
– Net profit	27,184,967.13	37,784,084.05
– Other comprehensive income	–	–
– Total comprehensive income	27,184,967.13	37,784,084.05

NOTES TO FINANCIAL STATEMENTS

Year ended 31 December 2019

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IX. INTERESTS IN OTHER ENTITIES (Continued)

3. Interests in the joint venture or associate (Continued)

(5). Explanation for the significant restrictions on the ability of joint ventures or associates to transfer funds to the Company

Applicable Not Applicable

(6). Excessive loss incurred by joint ventures or associates

Applicable Not Applicable

Unit: Yuan Currency: RMB

Name of joint ventures or associates	Accumulated unrecognized losses for the previous period	Loss recognized at the end of the period (or net profit shared during the period)	Accumulated unrecognized losses as at the end of the period
CRSC Changxing (Zhejiang) Technology Co., Ltd.	–	755,699.97	755,699.97

(7). Unrecognised commitments related to investments in joint ventures

Applicable Not Applicable

(8). Contingent liabilities related to investments in joint ventures or associates

Applicable Not Applicable

4. Significant joint operation

Applicable Not Applicable

5. Interests in structured entities not included in the scope of consolidated financial statements

Explanation about structured entities not included in the scope of consolidated financial statements:

Applicable Not Applicable

6. Others

Applicable Not Applicable

NOTES TO FINANCIAL STATEMENTS

Year ended 31 December 2019

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X. RISKS RELATED TO FINANCIAL INSTRUMENTS

√ Applicable □ Not applicable

1. Category of financial instruments

Book values of various financial instruments as of the balance sheet date are as follows:

31 December 2019

Financial assets

Unit: Yuan Currency: RMB

	Measurement at amortized cost	Measurement at fair value through other comprehensive income	Total
Cash and bank balances	24,000,333,948.30	–	24,000,333,948.30
Receivables for financing	–	1,478,647,844.54	1,478,647,844.54
Accounts receivable	16,757,628,007.95	–	16,757,628,007.95
Other receivables	1,148,124,174.34	–	1,148,124,174.34
Debt investment	273,172,183.50	–	273,172,183.50
Other equity instrument investments	–	806,064,229.20	806,064,229.20
Long-term receivables	6,422,130,017.28	–	6,422,130,017.28
Financial assets included in other non-current assets	195,077,594.14	–	195,077,594.14
	<u>48,796,465,925.51</u>	<u>2,284,712,073.74</u>	<u>51,081,177,999.25</u>

Financial liabilities

Unit: Yuan Currency: RMB

	Other financial liabilities	Total
Short-term borrowings	238,066,170.39	238,066,170.39
Bills payable	1,278,194,766.35	1,278,194,766.35
Accounts payable	39,943,249,975.12	39,943,249,975.12
Other payables	1,120,169,597.60	1,120,169,597.60
Long-term borrowings	1,941,098,540.80	1,941,098,540.80
Non-current financial liabilities due within one year	257,586,818.00	257,586,818.00
Lease liabilities	75,374,177.82	75,374,177.82
Long-term payables	74,981,014.21	74,981,014.21
	<u>44,928,721,060.29</u>	<u>44,928,721,060.29</u>

NOTES TO FINANCIAL STATEMENTS

Year ended 31 December 2019

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X. RISKS RELATED TO FINANCIAL INSTRUMENTS (Continued)

1. Category of financial instruments (Continued)

31 December 2018

Financial assets

	Unit: Yuan Currency: RMB		
	Measurement at amortized cost	Measurement at fair value through other comprehensive income	Total
Cash and bank balances	11,712,483,332.67	–	11,712,483,332.67
Accounts receivable	13,598,595,282.88	–	13,598,595,282.88
Receivables for financing	–	1,845,116,686.79	1,845,116,686.79
Other receivables	1,340,863,519.49	–	1,340,863,519.49
Other equity instrument investments	–	653,814,229.20	653,814,229.20
Long-term receivables	4,616,553,337.79	–	4,616,553,337.79
Financial assets included in other non-current assets	124,310,187.46	–	124,310,187.46
	<u>31,392,805,660.29</u>	<u>2,498,930,915.99</u>	<u>33,891,736,576.28</u>

Financial liabilities

	Unit: Yuan Currency: RMB	
	Other financial liabilities	Total
Short-term borrowings	1,117,556,312.99	1,117,556,312.99
Accounts payable	35,119,238,956.99	35,119,238,956.99
Bills payable	849,268,364.25	849,268,364.25
Other payables	1,299,694,068.26	1,299,694,068.26
Long-term borrowings	856,163,032.09	856,163,032.09
Non-current liabilities due within one year	370,399,261.69	370,399,261.69
Long-term payables	26,088,533.74	26,088,533.74
	<u>39,638,408,530.01</u>	<u>39,638,408,530.01</u>

NOTES TO FINANCIAL STATEMENTS

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X. RISKS RELATED TO FINANCIAL INSTRUMENTS (Continued)

2. Transfer of financial assets

Transferred financial assets that are not derecognized in their entirety

As at 31 December 2019, the book value of bank acceptance bills and commercial acceptance bills that the Group has endorsed or discounted to suppliers for settlement of trade payables were RMB88,668,931.24 and RMB268,535,267.23 respectively (31 December 2018: RMB149,003,028.37 and RMB153,050,902.42). The Group believed that almost all risks and rewards have been retained, including related default risks. Therefore, it continued to recognise the full carrying amounts of the Endorsed Bills and the associated trade payables settled. After endorsement, the Group no longer reserves the right to use it, including the right to sell, transfer or pledge it to other third parties. The aggregate carrying amount of the trade payables settled by the endorsed bills as at 31 December 2019 was RMB357,204,198.47 (31 December 2018: RMB302,053,930.79).

Transferred financial assets that are derecognised in their entirety in which continuing involvement exists

As at 31 December 2019, the Group have endorsed bank acceptance bills to certain of its suppliers in order to settle the trade payables due to such suppliers with a carrying amount of RMB541,594,787.67 (31 December 2018: RMB391,910,657.03). As at 31 December 2019, the derecognised bills had a maturity of one to twelve months. In accordance with the Law of Negotiable Instruments, the holders of the derecognised bills have the right of recourse against the Group if the accepting banks default (the "Continuing Involvement"). In the opinion of the Group, the Group has transferred substantially all risks and rewards relating to the Derecognised Bills. Accordingly, it has derecognised the carrying amounts of such Derecognised Bills and the associated trade payables. The maximum exposure to loss from the Group's Continuing Involvement in the Derecognised Bills and the undiscounted cash flows to repurchase these Derecognised Bills is equal to their carrying amounts. In the opinion of the Group, the fair values of the Group's Continuing Involvement in the Derecognised Bills are not significant.

In 2019, the Group did not recognise any profit or loss on the date of transfer of the derecognised bills. The Group had no current or accumulated gains or expenses related to continuing involvement of financial assets which had been derecognized. The endorsement and discount happen evenly throughout the year.

X. RISKS RELATED TO FINANCIAL INSTRUMENTS (Continued)

3. Risk of financial instruments

The Group is faced with risks of various financial instruments in daily activities, which mainly include credit risk, liquidity risk and market risk (including exchange rate risk and interest rate risk). The main financial instruments of the Group include monetary funds, equity investment, borrowings, accounts receivable, receivables for financing, bills payable and accounts payable and others. The risks associated with these financial instruments and the risk management strategies adopted by the Group to mitigate these risks are described below.

The board of directors shall be responsible for planning and establishing the risk management framework of the Group, formulating the Group's risk management policies and relevant guidelines, and supervising the implementation of risk management measures. The Group has formulated risk management policies to identify and analyze risks faced by the Group. These risk management policies specify specific risks and cover market risks, credit risks, liquidity risk management and many other aspects. The Group regularly evaluates changes in the market environment and the Group's business activities to determine whether to update risk management policies and systems. The risk management of the Group shall be carried out by the Risk Management Committee in accordance with the policies approved by the board of directors. The Risk Management Committee works closely with other business units of the Group to identify, assess and mitigate risks. The internal audit department of the Group conducts regular audits on risk management control and procedures and reports the audit results to the Group's Audit Committee.

The Group diversifies the risk of financial instruments through appropriate diversification of investments and business portfolios, and reduces the risk of concentration in any single industry, specific region or specific counterparty by formulating appropriate risk management policies.

Credit risk

Credit risk is the risk that one party to a financial instrument will cause a financial loss for the other party by failing to discharge an obligation.

The Group only deals with recognized and reputable third parties. According to the Group's policy, credit review is required for all customers who seek to carry out credit-based transactions. In addition, the Group continuously monitors the balance of accounts receivable to ensure that the Group is not exposed to significant bad debt risks. For transactions that are not settled in the functional currency of the relevant business entity, the Group does not provide credit-based transactions unless specifically approved by the credit control department of the Group.

Financial assets of the Group include monetary funds, account receivable, other equity instruments investment and other receivables. The credit risk of these financial assets originates from the default of the counterparty. The maximum risk exposure is equal to the book value of these instruments.

NOTES TO FINANCIAL STATEMENTS

Year ended 31 December 2019

RMB

X. RISKS RELATED TO FINANCIAL INSTRUMENTS (Continued)

3. Risk of financial instruments (Continued)

Credit risk (Continued)

As the Group only deals with recognized and reputable third parties, no collateral is required. Credit risk is centrally managed by customers/counterparties, geographic region and industry. Customers owing accounts receivables to the Group were widely engaged in different sectors and industries, therefore, there was no concentration of significant credit risks within the Group. The Group did not hold any collateral or other credit enhancement against the balance of accounts receivable.

Criteria for judgment of significant increase in credit risk

On each balance sheet date, the Group assessed whether or not the credit risk of relevant financial instruments has increased significantly since initial recognition. In determining whether or not the credit risk has increased significantly since the initial recognition, the Group considered that the reasonable and reliable information could be obtained without unnecessary extra costs or efforts, including qualitative and quantitative analysis based on the Group's historical data, external credit risk rating and forward-looking information. Based on a single financial instrument or a combination of financial instruments with similar credit risk characteristics, the Group compared the risk of default of financial instruments as at the balance sheet date with the risk of default on the initial recognition date to determine the changes in the default risk of financial instruments during their lifetime.

The Group believed that the credit risk of financial instruments has increased significantly when one or more of the following quantitative and qualitative criteria or upper limit indicators are triggered:

- The quantitative criteria is satisfied if the probability of default for the remaining lifetime on the reporting date rises by more than a certain proportion compared with the probability of default at time of the initial recognition;
- Qualitative criteria mainly comprises material adverse changes in the debtor's business or financial position, and alert list of customers;
- The upper limit indicator is defined as the debtor's contract payment (including principal and interest) has been overdue for more than 30 days.

X. RISKS RELATED TO FINANCIAL INSTRUMENTS (Continued)

3. Risk of financial instruments (Continued)

Credit risk (Continued)

Definition of assets with credit impairment

In order to determine whether or not credit impairment has occurred, the Group adopted the definition criteria consistent with the internal credit risk management objectives for relevant financial instruments, while considering both quantitative and qualitative indicators. When the Group evaluated whether or not the debtor suffers from credit impairment, it mainly considered the following factors:

- the issuer or debtor is in material financial difficulties;
- the debtor violates the contract, such as default or overdue payment of interest or principal, etc.;
- the creditor gives concessions that it would not make under any other circumstance based on economic or contractual considerations related to the debtor's financial difficulties;
- the debtor is likely to go bankrupt or undergo other financial restructuring;
- financial difficulties of the issuer or debtor result in the disappearance of the active market of the financial asset;
- purchase or generate a financial asset at a substantial discount, which reflects the fact that credit impairment has occurred.

Credit impairment of financial assets might be caused by the combined action of multiple events, but not necessarily by separately identifiable events.

NOTES TO FINANCIAL STATEMENTS

Year ended 31 December 2019

RMB

X. RISKS RELATED TO FINANCIAL INSTRUMENTS (Continued)

3. Risk of financial instruments (Continued)

Credit risk (Continued)

Parameters for Measuring Expected Credit Loss

Depending on whether credit risk has increased significantly and whether credit impairment has occurred, the Group measures impairment provision for different assets with the expected credit loss for 12 months or the lifetime period, respectively. The key parameters for expected credit loss measurement include default probability, default loss rate and default risk exposure. Considering the quantitative analysis and forward-looking information of historical statistical data (such as counterparty ratings, guarantees and collateral types, repayment methods and others), the Group establishes a default probability, default loss rate and default risk exposure model.

The relevant definitions are as follows:

- Probability of default (PD) refers to the possibility that the debtor will not be able to fulfill its obligations of repayment over the next 12 months or throughout the entire remaining lifetime. The Group's PD is adjusted based on the results of the historical mobility model of receivables, taking into account the forward-looking information and deducting the prudential adjustment to reflect the debtor's PD under the current macroeconomic environment;
- Loss given default (LGD) refers to the Group's expectation of the extent of the loss resulting from the default exposure. Depending on the type of counterparty, the method and priority of the recourse, and the type of collaterals, the LGD varies. The LGD is the percentage of loss of risk exposure at the time of default, calculated over the next 12 months or over the entire remaining lifetime;
- Exposure at default (EAD) is the amount that the Group should be reimbursed at the time of the default in the next 12 months or throughout the entire remaining lifetime.

The assessment of a significant increase in credit risk and the calculation of ECL both involve forward-looking information. Through the analysis of historical data, the Group identified the key economic indicators that affect the credit risk of each business type and ECL.

See Notes VII. 5, 8 and 10 for the risk exposure information of receivables, other receivables and contract assets.

See Notes VII. 5, 8, 10, 16 and 12 for the quantitative data of credit risk exposure of the Group due to receivables, other receivables, contract assets, long-term receivables and non-current assets due within one year (long-term receivables).

NOTES TO FINANCIAL STATEMENTS

Year ended 31 December 2019

RMB

X. RISKS RELATED TO FINANCIAL INSTRUMENTS (Continued)

3. Risk of financial instruments (Continued)

Liquidity risk

The Group monitors its risk of deficiency of funds using a recurring liquidity planning tool. This tool considers the maturity of both its financial instruments and estimated cash flows from the Group's operations.

The Group sets its objective as maintaining a balance between continuity of funding and flexibility through the use of several financing methods such as notes settlement and bank borrowings, as well as optimizing financing structure through the combination of long and short-term financing. The Group has obtained banking facilities from several commercial banks to fund the working capital requirements and capital expenditure.

The management of the Company monitors the liquidity position of the Company on an ongoing basis to ensure the availability of sufficient liquid funds to meet all obligations as they fall due and to make the most efficient use of the Company's financial resources.

The table below summarizes the maturity profile of the Group's financial liabilities based on the undiscounted contractual cash flows:

31 December 2019

Unit: Yuan Currency: RMB

	Within 1 year	1 to 2 years	2 to 5 years	Over 5 years	Total
Short-term borrowings	238,066,170.39	-	-	-	238,066,170.39
Bills payable	1,278,194,766.35	-	-	-	1,278,194,766.35
Accounts payable	39,943,249,975.12	-	-	-	39,943,249,975.12
Other payables	1,120,169,597.60	-	-	-	1,120,169,597.60
Long-term borrowings (including maturity within 1 year)	154,346,670.00	275,950,000.00	-	1,665,148,540.80	2,095,445,210.80
Interests arising from long-term and short-term loans	55,418,074.97	97,774,481.52	253,152,433.89	694,656,571.57	1,101,001,561.95
Long-term payables (including maturity within 1 year)	30,665,104.29	74,981,014.21	-	-	105,646,118.50
	<u>42,820,110,358.72</u>	<u>448,705,495.73</u>	<u>253,152,433.89</u>	<u>2,359,805,112.37</u>	<u>45,881,773,400.71</u>

NOTES TO FINANCIAL STATEMENTS

Year ended 31 December 2019

RMB

X. RISKS RELATED TO FINANCIAL INSTRUMENTS (Continued)

3. Risk of financial instruments (Continued)

Liquidity risk (Continued)

31 December 2018

	Unit: Yuan Currency: RMB				
	Within 1 year	1 to 2 years	2 to 5 years	Over 5 years	Total
Short-term borrowings	1,117,556,312.99	-	-	-	1,117,556,312.99
Bills payable	849,268,364.25	-	-	-	849,268,364.25
Accounts payable	35,119,238,956.99	-	-	-	35,119,238,956.99
Other payables	1,299,694,068.26	-	-	-	1,299,694,068.26
Long-term loan (including maturity within 1 year)	320,145,455.00	154,346,670.00	275,950,000.00	425,866,362.09	1,176,308,487.09
Interests arising from long-term and short-term loans	81,020,825.81	42,231,780.83	126,346,308.33	419,105,141.95	668,704,056.92
Long-term payables (including maturity within 1 year)	50,253,806.69	26,088,533.74	-	-	76,342,340.43
	<u>38,837,177,789.99</u>	<u>222,666,984.57</u>	<u>402,296,308.33</u>	<u>844,971,504.04</u>	<u>40,307,112,586.93</u>

Market risk

Interest rate risk

The Group's exposure to the risk of changes in market interest rates relates primarily to the Group's borrowings and deposit and bank current deposit in large amount with floating interest rates.

The Group regularly reviews and monitors the mix of fixed and floating interest rate in order to manage its interest rate risk. Borrowings and monetary funds are stated at amortized cost and are not revalued on a periodic basis. Floating rate interest income and expenses are credited/charged to the profit or loss as earned/incurred.

As at 31 December 2019, floating interest rate loans and fixed interest rate loans accounted for 92% and 8% of the Group's borrowings respectively. The management would adjust the floating rate assets based on changes in the market interest rates to reduce the material impact arising from interest rate risk.

X. RISKS RELATED TO FINANCIAL INSTRUMENTS (Continued)

3. Risk of financial instruments (Continued)

Market risk (Continued)

Interest rate risk (Continued)

If there was a general increase/decrease in the interest rate of bank and other borrowings with floating interest rates by 1 percentage point, with all other variables held constant, the consolidated net profits and other comprehensive income net of tax would have decreased/increased by approximately RMB7,857,374.10 for 2019 (2018: RMB4,783,500.00), and there is no impact on other components of the consolidated equity, except for retained earnings, of the Group. The sensitivity analysis above has been determined assuming that the change in interest rates had occurred as at 31 December 2019 and the exposure to interest rate risk has been applied to those financial instruments in existence at that date. The estimated 1% of increase or decrease represents management's assessment of a reasonably possible change in interest rates over the period from the year until the date of balance sheet of the next year.

If there was a general increase/decrease in the interest rate of bank and other borrowings with floating interest rates by 0.1 percentage point, with all other variables held constant, the consolidated net profits and other comprehensive income net of tax would have decreased/increased by approximately RMB14,189,729.00 for 2019 (2018: RMB5,563,508.00), and there is no impact on other components of the consolidated equity, except for retained earnings, of the Group. The sensitivity analysis above has been determined assuming that the change in interest rates had occurred as at 31 December 2019 and the exposure to interest rate risk has been applied to those financial instruments in existence at that date. The estimated 0.1 percentage point of increase or decrease represents management's assessment of a reasonably possible change in interest rates over the period from the year until the date of balance sheet of the next year.

Foreign currency risk

As a result of its significant business operations in Mainland China, the Group's revenue, expenses and over 95% of the financial assets and liabilities are denominated in RMB. The effect of the fluctuations in the exchange rates of RMB against foreign currencies on the Group's results of operations is therefore minimal and the Group has not entered into any hedging transactions as at 31 December 2019 and 31 December 2018 in order to reduce the Group's exposure to foreign currency risk in this regard.

NOTES TO FINANCIAL STATEMENTS

Year ended 31 December 2019

RMB

X. RISKS RELATED TO FINANCIAL INSTRUMENTS (Continued)

3. Risk of financial instruments (Continued)

Market risk (Continued)

Foreign currency risk (Continued)

The following table demonstrates the sensitivity analysis on the foreign currency risk, reflecting the influence of reasonable possible change in the exchange rates of the United States dollar and Hong Kong dollar, with all other variables held constant, on the Group's net profit net of tax.

	Increase/ (decrease) in United States dollars	Increase/ (decrease) in net profit or loss	Increase/ (decrease) in total shareholder's interest
2019			
Depreciation of RMB against United States dollar	5%	8,753,916.54	8,753,916.54
Appreciation of RMB against United States dollar	-5%	<u>-8,753,916.54</u>	<u>-8,753,916.54</u>
	Increase/ (decrease) in Hong Kong dollars	Increase/ (decrease) in net profit or loss	Increase/ (decrease) in total shareholder's interest
Depreciation of RMB against Hong Kong dollar	5%	41,953,712.63	41,953,712.63
Appreciation of RMB against Hong Kong dollar	-5%	<u>-41,953,712.63</u>	<u>-41,953,712.63</u>
2018			
Depreciation of RMB against United States dollar	5%	10,171,565.94	10,171,565.94
Appreciation of RMB against United States dollar	-5%	<u>-10,171,565.94</u>	<u>-10,171,565.94</u>
	Increase/ (decrease) in Hong Kong dollars	Increase/ (decrease) in net profit or loss	Increase/ (decrease) in total shareholder's interest
Depreciation of RMB against Hong Kong dollar	5%	39,952,459.27	39,952,459.27
Appreciation of RMB against Hong Kong dollar	-5%	<u>-39,952,459.27</u>	<u>-39,952,459.27</u>

X. RISKS RELATED TO FINANCIAL INSTRUMENTS (Continued)

3. Risk of financial instruments (Continued)

Market risk (Continued)

Foreign currency risk (Continued)

The sensitivity analysis above has been determined assuming that the change in foreign exchange rates had occurred as at 31 December 2019 and 31 December 2018 and the exposure to foreign currency risk has been applied to those monetary assets and liabilities in existence at that date. The estimated percentage increase or decrease represents management' s assessment of a reasonable possible change in foreign exchange rates over the period from the year until the date of balance sheet of the next year.

4. Capital management

The Group' s primary objectives for capital management are to safeguard the Group' s ability to continue as a going concern and keep the capital ratio at a healthy level, so that it can support business development and maximize the value of Shareholders.

The Group manages its capital structure and makes adjustments to it in light of changes in economic conditions and the risk characteristics of the underlying assets. In order to maintain or adjust the capital structure, the Group may adjust the profit distribution to Shareholders, return capital to Shareholders, issue new shares or sell assets to reduce debts. The Group is not bound by external compulsory capital requirements. In 2019 and 2018, no changes were made in the objectives, policies or processes for managing capital.

NOTES TO FINANCIAL STATEMENTS

Year ended 31 December 2019

RMB

X. RISKS RELATED TO FINANCIAL INSTRUMENTS (Continued)

4. Capital management (Continued)

The Group monitors capital using a gearing ratio, which is net debt and capital after adjustment plus net debt. Net debt includes all loans, bills payable, accounts payable, interest payable, dividends payable, other payables, long-term payables, and net non-current liabilities due within one year and less monetary funds. Capital comprises equity attributable to Shareholders of the parent and equity of non-controlling interests. The gearing ratios as at the balance sheet date are as follows:

Unit: Yuan Currency: RMB

	31 December 2019	31 December 2018
Short-term borrowings	238,066,170.39	1,117,556,312.99
Bills payable	1,278,194,766.35	849,268,364.25
Accounts payable	39,943,249,975.12	35,119,238,956.99
Other payables	1,120,169,597.60	1,299,694,068.26
Long-term borrowings	1,941,098,540.80	856,163,032.09
Long-term payables	74,981,014.21	26,088,533.74
Financial liabilities in non-current liabilities due within one year	257,586,818.00	370,399,261.69
Less: Cash and bank balances	24,000,333,948.30	11,712,483,332.67
Net liabilities	20,853,012,934.17	27,925,925,197.34
Equity attributable to shareholders of the parent	41,119,607,362.50	28,908,396,681.99
Non-controlling shareholder interests	1,605,070,218.52	1,363,684,867.19
Adjusted capital	42,724,677,581.02	30,272,081,549.18
Capital and net liabilities	63,577,690,515.19	58,198,006,746.52
Gearing ratio	33%	48%

NOTES TO FINANCIAL STATEMENTS

Year ended 31 December 2019

RMB

XI. DISCLOSURE OF FAIR VALUE

1. Ending fair value of assets and liabilities measured at fair value

√ Applicable □ Not applicable

31 December 2019

Unit: Yuan Currency: RMB

	Inputs of fair value measurement			Total
	Quoted prices in active markets (Level 1)	Significant observable inputs (Level 2)	Significant unobservable inputs (Level 3)	
Continuous measurement of fair value				
Receivables for financing	–	–	1,478,647,844.54	1,478,647,844.54
Other equity instrument investments	–	–	806,064,229.20	806,064,229.20
Total	–	–	2,284,712,073.74	2,284,712,073.74

31 December 2018

Unit: Yuan Currency: RMB

	Inputs of fair value measurement			Total
	Quoted prices in active markets (Level 1)	Significant observable inputs (Level 2)	Significant unobservable inputs (Level 3)	
Continuous measurement of fair value				
Receivables for financing	–	–	1,845,116,686.79	1,845,116,686.79
Other equity instrument investments	–	–	653,814,229.20	653,814,229.20
Total	–	–	2,498,930,915.99	2,498,930,915.99

NOTES TO FINANCIAL STATEMENTS

Year ended 31 December 2019

RMB

XI. DISCLOSURE OF FAIR VALUE (Continued)

2. Assets and liabilities disclosed at fair value

√ Applicable □ Not applicable

31 December 2019

Unit: Yuan Currency: RMB

	Inputs of fair value measurement			Total
	Quoted prices in active markets (Level 1)	Significant observable inputs (Level 2)	Significant unobservable inputs (Level 3)	
Long-term receivables	-	6,533,734,597.00	-	6,533,734,597.00
Financial assets included in other non-current assets	-	168,071,500.22	-	168,071,500.22
Interests arising from long-term and short-term loans	-	2,356,113,853.48	-	2,356,113,853.48
Long-term payables	-	73,643,282.52	-	73,643,282.52

31 December 2018

Unit: Yuan Currency: RMB

	Inputs of fair value measurement			Total
	Quoted prices in active markets (Level 1)	Significant observable inputs (Level 2)	Significant unobservable inputs (Level 3)	
Long-term receivables	-	4,744,787,238.00	-	4,744,787,238.00
Financial assets included in other non-current assets	-	20,418,099.65	-	20,418,099.65
Interests arising from long-term and short-term loans	-	2,301,606,804.94	-	2,301,606,804.94
Long-term payables	-	25,488,646.56	-	25,488,646.56

NOTES TO FINANCIAL STATEMENTS

Year ended 31 December 2019

RMB

XI. DISCLOSURE OF FAIR VALUE (Continued)

3. Fair value valuation

Applicable Not applicable

The following is a comparison of the book value and fair value of various types of financial instruments other than financial instruments with small differences between book value and fair value:

Unit: Yuan Currency: RMB

	Carrying amount		Fair value	
	31 December 2019	31 December 2018	31 December 2019	31 December 2018
Long-term receivables	6,422,130,017.28	4,616,553,337.79	6,533,734,597.00	4,744,787,238.00
Financial assets included in other non-current assets	176,054,896.48	21,387,959.38	168,071,500.22	20,418,099.65
Interests arising from long-term and short-term loans	2,333,511,381.19	2,293,864,800.08	2,356,113,853.48	2,301,606,804.94
Long-term payables	74,981,014.21	26,088,533.74	73,643,282.52	25,488,646.56
Total	9,006,677,309.16	6,957,894,630.99	9,131,563,233.22	7,092,300,789.15

The management has assessed the cash and bank balances, accounts receivable, receivables for financing, other receivables, short-term loans, bills payable, accounts payable and other payables. In each case, the fair value and book value are similar due to short remaining period.

On each balance sheet date, the Group analyzes the changes in the value of financial instruments and determines the key inputs to which the valuation applies.

The fair values of long-term receivables, long-term loans, long-term payables, and bonds payable determined by discounting the future cash flows using rates currently available for other instruments with similar terms, credit risk and remaining maturities. As at 31 December 2019 and 31 December 2018, the fair value of long-term receivables and long-term payables was similar to the book value, and the Group's own non-performance risk for long-term and short-term borrowings was assessed to be insignificant.

For financial instruments traded in an active market, the Group determines its fair value based on its active market quotation; and for financial instruments that are not traded in an active market, the Group uses valuation techniques to determine their fair values. The valuation models used are mainly cash flow discount models and market comparable company models. The input values of valuation techniques mainly include risk-free interest rates, benchmark interest rates, exchange rates, credit spreads, liquidity premiums, EBITDA multipliers, and lack of liquidity discounts etc.

NOTES TO FINANCIAL STATEMENTS

Year ended 31 December 2019

RMB

XI. DISCLOSURE OF FAIR VALUE (Continued)

3. Fair value valuation (Continued)

The Group signed the derivative financial instrument contracts with more than one counterparties (mainly refer to financial institutions with higher credit rating). Derivative financial instruments (including forward exchange contracts and return swaps) are measured using the valuation techniques of forward pricing, swap model and present value method. The model covers multiple input values of observable market, including credit quality of counterparty, spot and forward exchange rate and interest rate curve. The book value and fair value of forward exchange contract and return swap are the same. As at 31 December 2019, the market-to-market value of the derivative financial assets is the net value after offsetting the credit valuation of default risk attributable to derivative instrument counterparty after adjustment. The change of counterparty credit risk had no significant impact on the assessment on hedging effectiveness of the designated derivative hedging instrument in the hedging relationship and other financial instrument measured at fair value.

The fair value measurement of Level 3 uses cash flow discount method, and the unobservable input value is the weighted average cost of capital and the growth rate of long-term income.

4. Adjustment and level transformation of fair value measurement

Applicable Not applicable

In 2019 and 2018, there was no transfer of the fair value measurement of financial assets and financial liabilities between Level 1 and Level 2, nor was there any transfer to or out of Level 3.

5. Basis for determining market price of continuous and non-continuous Level-1 fair value measurement items

Applicable Not Applicable

6. Valuation techniques adopted and the qualitative and quantitative information of important parameters for continuous and non-continuous level-2 fair value measurement items

Applicable Not Applicable

7. Valuation techniques adopted and the qualitative and quantitative information of important parameters for continuous and non-continuous Level-3 fair value measurement items

Applicable Not Applicable

8. Information on adjustment between opening and closing book values and sensitivity analysis of unobservable parameters for continuous Level-3 fair value measurement items

Applicable Not Applicable

NOTES TO FINANCIAL STATEMENTS

Year ended 31 December 2019

RMB

XI. DISCLOSURE OF FAIR VALUE (Continued)

9. Reason for conversion for transfer between levels during the current period for continuous fair value measurement items, and policies for determination of time point of the conversion

Applicable Not Applicable

10. Changes in valuation techniques during the current period and reason for such change

Applicable Not Applicable

11. Fair value of financial assets and financial liabilities not measured at fair value

Applicable Not Applicable

12. Others

Applicable Not Applicable

XII. RELATED PARTIES AND CONNECTED TRANSACTIONS

1. Parent of the Company

Applicable Not applicable

Unit: 0,000 Yuan Currency: RMB

Name of the parent	Place of registration	Nature of business	Registered capital	Shareholding percentage of the parent to the Company (%)	Percentage of voting right of the parent to the Company (%)
CRSC Group	Beijing	Railway communication, signal power and production of automatic control equipment	1,000,000	62.37	62.37

Explanation about the parent of the Company

None

The Company's ultimate holding company is CRSC Group.

NOTES TO FINANCIAL STATEMENTS

Year ended 31 December 2019

RMB

XII. RELATED PARTIES AND CONNECTED TRANSACTIONS (Continued)

2. Subsidiaries of the Company

Applicable Not applicable

For details of the subsidiaries of the Company, see the Note IX. 1.

3. Details of the joint ventures and associates of the Company

Applicable Not applicable

For details of joint ventures or associates of the Company, see the Note VII. 17.

Information for other joint ventures and associates which form balance through related transaction during the current or previous periods

Applicable Not Applicable

Other explanation

Applicable Not Applicable

NOTES TO FINANCIAL STATEMENTS

Year ended 31 December 2019

RMB

XII. RELATED PARTIES AND CONNECTED TRANSACTIONS (Continued)

4. Other related parties

√ Applicable □ Not applicable

Name of other related parties	Relationship between other related parties and the Company
Zhongxin Diantong Co., Ltd. (中信電通有限公司)	Associate of the Parent
Gu'an Beixin Railway Signal Co., Ltd. (固安北信鐵路信號有限公司)	Associate of the subsidiary under control of the same parent
Xi'an Tongxin Railway Equipment Manufacturing Co., Ltd. (西安同鑫鐵路器材製造有限責任公司)	Associate of the subsidiary under control of the same parent
Tianshui Tonghao Electric Power Equipment Co., Ltd. (天水通號電力設備有限公司)	Associate of the subsidiary under control of the same parent
Shanghai Zhongrui Communication Equipment Co., Ltd. (上海中瑞特通訊設備有限公司)	Associate of the subsidiary under control of the same parent
China Railway Transportation Equipment Co., Ltd. (中國城軌交通設備有限公司)	Under the common control of the ultimate controlling party
Beijing Erqi Communication Factory Co., Ltd. (北京二七通信工廠有限公司)	Under the common control of the ultimate controlling party
Beijing Railways Signal & Communication Complete Equipment Company Ltd. (北京鐵路通信信號成套設備有限公司)	Under the common control of the ultimate controlling party
Shanghai Xinlicheng Communication Technology Service Co., Ltd. (上海信立城通信技術服務有限公司)	Under the common control of the ultimate controlling party
Xi'an Weixun Monitoring Equipment Co., Ltd. (西安唯迅監控設備有限公司)	Under the common control of the ultimate controlling party
Beijing Beixin Fengyuan Railway Electronic Equipment Co., Ltd. (北京北信豐元鐵路電子設備有限公司)	Under the common control of the ultimate controlling party
CRSC Real Estate Co., Ltd. (通號置業有限公司)	Under the common control of the ultimate controlling party
CRSC Foshan Real Estate Co., Ltd. (通號佛山置業有限公司)	Under the common control of the ultimate controlling party
CRSC Guizhou Real Estate Co., Ltd. (通號貴州置業有限公司)	Under the common control of the ultimate controlling party
Beijing CRSC Construction and Development Co., Ltd. (北京通號建設開發有限公司)	Under the common control of the ultimate controlling party
Beijing CRSC Beifang Real Estate Co., Ltd. (北京通號北房置業有限公司)	Under the common control of the ultimate controlling party
Alstom Investment (Shanghai) Co., Ltd. (阿爾斯通投資(上海)有限公司)	Minority shareholder having material influence on the Group
Alstom (China) Investment Co., Ltd. (阿爾斯通(中國)投資有限公司)	Related party of a minority shareholder having material influence on the Group
Alstom Transport Spain Co., Ltd. (阿爾斯通交通西班牙有限公司)	Related party of a minority shareholder having material influence on the Group
Alstom Technical Service (Shanghai) Co., Ltd. (阿爾斯通技術服務(上海)有限公司)	Related party of a minority shareholder having material influence on the Group
ALSTOM Transport S.A.	Related party of a minority shareholder having material influence on the Group
Alstom Signaling Inc.	Related party of a minority shareholder having material influence on the Group

NOTES TO FINANCIAL STATEMENTS

Year ended 31 December 2019

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XII. RELATED PARTIES AND CONNECTED TRANSACTIONS (Continued)

4. Other related parties (Continued)

Name of other related parties	Relationship between other related parties and the Company
ALSTOM Aix en Provence	Related party of a minority shareholder having material influence on the Group
ALSTOM (Villeurbanne)	Related party of a minority shareholder having material influence on the Group
Alstom Belgium SA	Related party of a minority shareholder having material influence on the Group
ALSTOM Transport India	Related party of a minority shareholder having material influence on the Group

5. Related party transactions

(1). Related party transactions of purchasing or selling goods and rendering or receiving services

Statement on procurement of goods/receipt of labour services

Applicable Not applicable

Unit: Yuan Currency: RMB

Related parties	Contents of related party transactions	Amount for the current period	Amount for the last period
Beijing Beixin Fengyuan Railway Electronic Equipment Co., Ltd. (北京北信豐元鐵路電子設備有限公司) (Note 1)	Procurement of goods	83,585,025.68	76,758,154.28
SSCX	Procurement of goods	72,973,981.97	44,785,312.21
ALSTOM Transport S.A. (Note 1)	Procurement of goods	50,283,839.70	59,504,941.36
Gu'an Beixin Railway Signal Co., Ltd. (固安北信鐵路信號有限公司)	Procurement of goods	38,725,289.21	20,776,653.74
ALSTOM Aix en Provence (Note 1)	Procurement of goods	755,485.55	4,962,739.33
Xi'an Tongxin Railway Equipment Manufacturing Co., Ltd. (西安同鑫鐵路器材製造有限責任公司)	Procurement of goods	12,295,456.14	12,443,506.78
Alstom Signaling Inc. (Note 1)	Procurement of goods	64,412,120.90	31,783,424.79

NOTES TO FINANCIAL STATEMENTS

Year ended 31 December 2019

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XII. RELATED PARTIES AND CONNECTED TRANSACTIONS (Continued)

5. Related party transactions (Continued)

(1). Related party transactions of purchasing or selling goods and rendering or receiving services (Continued)

Related parties	Contents of related party transactions	Amount for the current period	Amount for the last period
Xi'an Weixun Monitoring Equipment Co., Ltd. (西安唯迅監控設備有限公司) (Note 1)	Procurement of goods	4,029,334.87	2,375,562.12
Beijing Erqi Communication Factory Co., Ltd. (北京二七通信工廠有限公司) (Note 1)	Procurement of goods	2,474,823.38	1,479,936.19
Schaltbau	Procurement of goods	563,358.78	460,789.04
Alstom (China) Investment Co., Ltd. (阿爾斯通(中國)投資有限公司) (Note 1)	Procurement of goods	–	389,700.00
ALSTOM(Villeurbanne) (Note 1)	Procurement of goods	28,605,761.77	–
Alstom Investment (Shanghai) Co., Ltd. (阿爾斯通投資(上海)有限公司) (Note 1)	Procurement of goods	5,162,777.52	–
CRSC Changxing (Zhejiang) Technology Co., Ltd. (通號暢行(浙江)科技股份有限公司)	Procurement of goods	497,774.47	644,607.77
ALSTOM Transport S.A. (Note 1)	Receiving technology transfer services	114,396,941.08	187,554,132.95
ALSTOM Aix en Provence (Note 1)	Receiving technology transfer services	3,819,423.73	–
Alstom Investment (Shanghai) Co., Ltd. (阿爾斯通投資(上海)有限公司) (Note 1)	Receiving technology transfer services	3,100,910.00	3,160,168.86
Shanghai Xinlicheng Communication Technology Service Co., Ltd. (上海信立城通信技術服務有限公司) (Note 1)	Receipt of labour service	3,828,503.76	2,954,041.66
ALSTOM Transport S.A. (Note 1)	Receipt of labour service	257,172.86	–
Beijing Railways Signal & Communication Complete Equipment Company Ltd. (北京鐵路通信信號成套設備有限公司) (Note 1)	Receipt of labour service	22,928,296.15	–
SSCX	Receipt of labour service	1,257,146.25	–

NOTES TO FINANCIAL STATEMENTS

Year ended 31 December 2019

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XII. RELATED PARTIES AND CONNECTED TRANSACTIONS (Continued)

5. Related party transactions (Continued)

(1). Related party transactions of purchasing or selling goods and rendering or receiving services (Continued)

Statement on sales of goods/provision of labour services

Applicable Not applicable

Unit: Yuan Currency: RMB

Related parties	Contents of related party transactions	Amount for the current period	Amount for the last period
SSCX	Providing technology transfer services	375,184.96	283,340.72
SSCX	Sale of goods	64,161,092.09	52,400,933.60
Gu'an Beixin Railway Signal Co., Ltd. (固安北信鐵路信號有限公司)	Sale of goods	2,088,752.39	7,843,897.06
CRSC Group (Note 1)	Sale of goods	-	2,303,500.07
Xi'an Tongxin Railway Equipment Manufacturing Co., Ltd. (西安同鑫鐵路器材製造有限責任公司)	Sale of goods	6,356,141.63	5,714,995.50
Beijing Beixin Fengyuan Railway Electronic Equipment Co., Ltd. (北京北信豐元鐵路電子設備有限公司) (Note 1)	Sale of goods	5,181,523.89	2,784,641.84
Beijing Erqi Communication Factory Co., Ltd. (北京二七通信工廠有限公司) (Note 1)	Sale of goods	279,238.53	227,544.81
Schaltbau	Sale of goods	-	1,301,101.96
Xi'an Weixun Monitoring Equipment Co., Ltd. (西安唯迅監控設備有限公司) (Note 1)	Sale of goods	20,000.00	-
Tianshui Tram	Sale of goods	155,225,000.00	87,750,000.00
Siping Pipeline	Provision of labour service	364,003.56	7,107,568.96
CRSC Group (Note 1)	Provision of labour service	-	251,478.42
ALSTOM Transport S.A. (Note 1)	Provision of labour service	8,191,386.00	-
SSCX	Provision of labour service	1,630,000.00	-
CRSC Real Estate Co., Ltd. (通號置業有限公司) (Note 1)	Provision of labour service	162,394,187.22	-
CRSC Foshan Real Estate Co., Ltd. (通號佛山置業有限公司) (Note 1)	Provision of labour service	150,353,114.87	-
CRSC Guizhou Real Estate Co., Ltd. (通號貴州置業有限公司) (Note 1)	Provision of labour service	21,926,532.09	-
Tianshui Tram	Provision of labour service	172,094,821.00	300,358,189.72

Explanation about connected transactions of purchasing or selling goods and rendering or receiving services

Applicable Not applicable

The prices of goods and services traded between the Group and related parties were determined by both parties through negotiation with referring to market prices and other factors.

NOTES TO FINANCIAL STATEMENTS

Year ended 31 December 2019

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XII. RELATED PARTIES AND CONNECTED TRANSACTIONS (Continued)

5. Related party transactions (Continued)

(2). Connected entrusted management/contracting and entrusted management/outsourcing

Statement on entrusted management/contracting by the Company:

Applicable Not Applicable

Description of connected custody/contracting

Applicable Not Applicable

Statement on entrusted management/outsourcing by the Company

Applicable Not Applicable

Description of connected management/outsourcing

Applicable Not Applicable

(3) Leases with related parties

The Company as lessor:

Applicable Not applicable

		Unit: Yuan	Currency: RMB
Name of lessee	Type of leased assets	Rental income recognised in the current period	Rental income recognised in the previous period
CRSC Hengqin	Fixed asset	2,596,338.33	2,585,747.65
Xi'an Weixun Monitoring Equipment Co., Ltd. (西安唯迅監控設備有限公司) (Note 1)	Fixed asset	548,499.00	598,407.89
Beijing Railways Signal & Communication Complete Equipment Company Ltd. (北京鐵路通信信號成套設備有限公司) (Note 1)	Fixed asset	10,955,671.73	-

NOTES TO FINANCIAL STATEMENTS

Year ended 31 December 2019

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XII. RELATED PARTIES AND CONNECTED TRANSACTIONS (Continued)

5. Related party transactions (Continued)

(3) Leases with related parties (Continued)

The Company as lessee:

Applicable Not applicable

Name of lessor	Type of leased assets	Unit: Yuan Currency: RMB	
		Rental expense recognised in the current period	Rental expense recognised in the previous period
Beijing Railways Signal & Communication Complete Equipment Company Ltd. (北京鐵路通信信號成套設備有限公司) (Note 1)	Fixed asset	282,815.07	191,600.00
Beijing Erqi Communication Factory Co., Ltd. (北京二七通信工廠有限公司) (Note 1)	Fixed asset	8,495.58	138,000.00

Explanation about leases with related parties

Applicable Not applicable

Note 1: Related party transactions in connection with the above items also constitute connected transactions or continuing connected transactions as defined in Chapter 14A of the Hong Kong Listing Rules (《香港上市規則》).

Note 2: The prices of the rental between the Group and related parties were determined by both parties through negotiation with referring to market prices.

(4). Related guarantee

As of 31 December 2019, the Company has not provided joint and several liability guarantee for joint ventures and associates. (On 27 December 2016, the Company provided joint and several liability guarantee for loans made by Foshan Zhongjian, a joint venture of the Company, with the guarantee amount of RMB145,200,000.00, for a period of two years. The guarantee was released in September 2018).

NOTES TO FINANCIAL STATEMENTS

Year ended 31 December 2019
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XII. RELATED PARTIES AND CONNECTED TRANSACTIONS (Continued)

5. Related party transactions (Continued)

(5). Capital lending to/borrowing from related parties

Applicable Not applicable

Funds deposited by subsidiaries of the Company in the Company's fund management center bear interest at bank interest rates on demand or time deposits.

In 2019, the Company borrowed RMB2,500,000,000.00 from the parent CRSC in the form of entrusted loans, with a loan interest rate of 4.35% and a term of one year. The entrusted loans of RMB3,500,000,000.00 were repaid in the year. As of 31 December 2019, the entrusted loan borrowed by the Company from the Group has no balance.

(6). Asset transfer and debt restructuring of related parties

Applicable Not Applicable

(7). Emolument of key management

Applicable Not applicable

Unit: Yuan Currency: RMB

Item	Amount for the current period	Amount for the last period
Emolument of key management	<u>10,399,400.58</u>	<u>6,794,052.16</u>

Key management personnel comprise executive directors, supervisors, independent non-executive directors and senior management.

Emolument of directors and supervisors

Unit: Yuan Currency: RMB

Item	2019	2018
Directors' and supervisors' remuneration	<u>5,066,713.97</u>	<u>3,914,822.66</u>

NOTES TO FINANCIAL STATEMENTS

Year ended 31 December 2019

RMB

XII. RELATED PARTIES AND CONNECTED TRANSACTIONS (Continued)

5. Related party transactions (Continued)

(7). Emolument of key management (Continued)

Within the year, the names of directors and supervisors and their remunerations were as follows:

Unit: Yuan Currency: RMB

	Total pre-tax emolument (Note 1)	Social insurance premium and housing provident fund	Supplementary pension insurance	Total remunerations
2019				
Executive directors				
Mr. ZHOU Zhiliang (周志亮)	1,217,187.00	126,103.20	36,948.30	1,380,238.50
Mr. YIN Gang (Note 2) (尹刚)	1,149,180.50	115,733.98	31,065.50	1,295,979.98
Mr. YANG Yongsheng (楊永勝)	799,005.00	126,103.20	23,611.13	948,719.33
Subtotal	3,165,372.50	367,940.38	91,624.93	3,624,937.81
Independent Non-executive Directors				
Mr. WANG Jiajie (王嘉傑)	123,004.00	-	-	123,004.00
Mr. CHEN Jin'en (陳津恩)	60,000.00	-	-	60,000.00
Mr. CHAN Ka Keung Peter (陳嘉強)	141,008.00	-	-	141,008.00
Mr. YAO Guiqing (姚桂清)	60,000.00	-	-	60,000.00
Subtotal	384,012.00	-	-	384,012.00
Supervisors				
Ms. TIAN Liyan (田麗艷)	341,220.00	115,733.98	27,065.93	484,019.91
Mr. CHEN Shikui (陳世奎)	428,833.00	126,103.20	18,808.05	573,744.25
Mr. WU Zuwei (Note 3) (吳作威)	-	-	-	-
Subtotal	770,053.00	241,837.18	45,873.98	1,057,764.16
Total	4,319,437.50	609,777.56	137,498.91	5,066,713.97

NOTES TO FINANCIAL STATEMENTS

Year ended 31 December 2019

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XII. RELATED PARTIES AND CONNECTED TRANSACTIONS (Continued)

5. Related party transactions (Continued)

(7). Emolument of key management (Continued)

Unit: Yuan Currency: RMB

	Total pre-tax remunerations (Note 1)	Social insurance premium and housing provident fund	Supplementary pension insurance	Total remunerations
2018				
Executive directors				
Mr. ZHOU Zhiliang (周志亮)	855,600.00	125,096.00	29,808.81	1,010,504.81
Mr. YIN Gang (尹剛)	812,965.00	125,096.00	27,393.12	965,454.12
Mr. YANG Yongsheng (Note 4) (楊永勝)	223,868.50	45,639.92	8,027.65	277,536.07
Subtotal	1,892,433.50	295,831.92	65,229.58	2,253,495.00
Independent Non-executive Directors				
Mr. WANG Jiajie (王嘉杰)	113,004.00	-	-	113,004.00
Mr. SUN Patrick (Note 5) (辛定華)	82,672.00	-	-	82,672.00
Mr. CHEN Jin'en (陳津恩)	60,000.00	-	-	60,000.00
Mr. GAO Shutang (Note 5) (高樹堂)	40,000.00	-	-	40,000.00
Mr. CHAN Ka Keung Peter (Note 6) (陳嘉強)	56,670.00	-	-	56,670.00
Mr. YAO Guiqing (Note 6) (姚桂清)	25,000.00	-	-	25,000.00
Subtotal	377,346.00	-	-	377,346.00
Supervisors				
Ms. TIAN Liyan (田麗艷)	627,150.00	125,096.00	23,736.36	775,982.36
Ms. ZHAO Xiumei (Note 7) (趙秀梅)	72,581.00	33,570.08	4,935.50	111,086.58
Mr. CHEN Shikui (Note 8) (陳世奎)	301,517.00	85,333.72	10,062.00	396,912.72
Mr. WU Zuowei (Note 3) (吳作威)	-	-	-	-
Subtotal	1,001,248.00	243,999.80	38,733.86	1,283,981.66
Total	3,271,027.50	539,831.72	103,963.44	3,914,822.66

NOTES TO FINANCIAL STATEMENTS

Year ended 31 December 2019

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XII. RELATED PARTIES AND CONNECTED TRANSACTIONS (Continued)

5. Related party transactions (Continued)

(7). Emolument of key management (Continued)

Notes:

Note 1: The total pre-tax remunerations include basic salary, seniority wage, post salary, performance based salary, bonus, and meeting allowance, etc. These remunerations of Executive directors in 2019 contain incentive payment for executive directors in 2016 to 2018 when they were holding a post in the Company (Mr. Yang Yongsheng was holding a post in 2016-2018, whose term of office was less than 3 years).

Note 2: Mr. Yin Gang resigned as executive director in November 2019.

Note 3: Mr Wu Zuwei was appointed as a supervisor from 25 May 2018. He received no emoluments for the year ended 31 December 2019, because he did not receive any remuneration in the capacity as a supervisor.

Note 4: Mr. Yang Yongsheng was appointed as an executive director effective from 28 August 2018.

Note 5: Mr. Sun Patrick and Mr. Gao Shutang resigned as independent non-executive directors from 28 August 2018.

Note 6: Mr. Chen Jiaqiang and Mr. Yao Guiqing were appointed as independent non-executive directors from 28 August 2018.

Note 7: Ms. Zhao Xiumei resigned as a supervisor effective from 28 August 2018.

Note 8: Mr. Chen Shikui was appointed as a supervisor effective from 28 August 2018.

NOTES TO FINANCIAL STATEMENTS

Year ended 31 December 2019

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XII. RELATED PARTIES AND CONNECTED TRANSACTIONS (Continued)

5. Related party transactions (Continued)

(7). Emolument of key management (Continued)

Five highest paid employees

An analysis of the headcounts of the five highest paid employees within the Group for the year is as follows:

	2019	2018
Non-director and non-supervisor employees	<u>5</u>	<u>5</u>

Details of the remuneration of the above non-director and non-supervisor highest paid employees are as follows:

Unit: Yuan Currency: RMB

	2019	2018
Total pre-tax remunerations	10,260,494.70	11,172,785.25
Social insurance premium and housing provident fund	571,732.40	538,511.10
Supplementary pension insurance	321,800.40	–
	<u>11,154,027.50</u>	<u>11,711,296.35</u>

The number of non-director and non-supervisor highest paid employees whose remuneration fell within the following bands is as follows:

	2019	2018
HK\$2,000,001 to HK\$3,000,000	<u>5</u>	<u>5</u>
HK\$3,000,001 to HK\$4,000,000	<u>–</u>	<u>–</u>
	<u>5</u>	<u>5</u>

(8). Other connected transactions

Applicable Not Applicable

NOTES TO FINANCIAL STATEMENTS

Year ended 31 December 2019

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XII. RELATED PARTIES AND CONNECTED TRANSACTIONS (Continued)

6. Amounts due from/to related parties

(1). Receivable

Applicable Not applicable

Unit: Yuan Currency: RMB

Item	Related parties	Closing balance		Opening balance	
		Gross carrying amount	Provision for bad debt	Gross carrying amount	Provision for bad debt
Accounts receivable	CRSC Group	546,495.10	-	80,379,560.79	-
Accounts receivable	Siping Pipeline	40,039,914.76	-	22,587,024.82	-
Accounts receivable	SSCX	23,191,169.78	-	32,808,651.42	-
Accounts receivable	Xi'an Weixun Monitoring Equipment Co., Ltd. (西安唯迅監控設備有限公司)	-	-	41,500.80	-
Accounts receivable	Tianshui Tonghao Electric Power Equipment Co., Ltd. (天水通號電力設備有限公司)	43,067.00	-	43,067.00	-
Accounts receivable	CRSC Real Estate Co., Ltd. (通號置業有限公司) (Note 1)	113,849,054.63	-	-	-
Accounts receivable	CRSC Foshan Real Estate Co., Ltd. (通號佛山置業有限公司) (Note 1)	106,619,072.09	-	-	-
Accounts receivable	Tianshui Tram	93,297,405.19	-	214,772,720.11	-
Prepayments	ALSTOM Transport S.A.	3,202,056.00	-	11,002,413.82	-
Prepayments	Xi'an Weixun Monitoring Equipment Co., Ltd. (西安唯迅監控設備有限公司)	-	-	944,779.78	-
Prepayments	Beijing Railways Signal & Communication Complete Equipment Company Ltd. (北京鐵路通信信號成套設備有限公司)	211,962.09	-	-	-
Prepayments	Schaltbau	156,060.16	-	-	-
Prepayments	ALSTOM(Villeurbanne)	1,985,889.50	-	-	-
Prepayments	CRSC Group	-	-	62,115.00	-
Other receivables	CRSC Group	2,361,800.00	-	19,973,249.73	-
Other receivables	Beijing Erqi Communication Factory Co., Ltd. (北京二七通信工廠有限公司)	-	-	535,383.54	-
Other receivables	Xi'an Tongxin Railway Equipment Manufacturing Co., Ltd. (西安同鑫鐵路器材製造有限責任公司)	489,630.15	-	-	-
Other receivables	Xi'an Weixun Monitoring Equipment Co., Ltd. (西安唯迅監控設備有限公司)	-	-	598,407.89	-
Other receivables	China Railway Transportation Equipment Co., Ltd. (中國城軌交通設備有限公司)	-	-	310,000.00	-
Other receivables	SSCX	266,515.00	-	435,149.09	-
Other receivables	Tianshui Tram	2,315,154.61	-	-	-
Other receivables	Beijing Railways Signal & Communication Complete Equipment Company Ltd. (北京鐵路通信信號成套設備有限公司)	12,100.00	-	-	-
Other receivables	CRSC Real Estate Co., Ltd. (通號置業有限公司) (Note 1)	174,000.00	-	-	-
Other receivables	Alstom (China) Investment Co., Ltd.(阿爾斯通(中國)投資有限公司)	-	-	614,095.39	-

NOTES TO FINANCIAL STATEMENTS

Year ended 31 December 2019

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XII. RELATED PARTIES AND CONNECTED TRANSACTIONS (Continued)

6. Amounts due from/to related parties (Continued)

(2). Payable

Applicable Not applicable

Unit: Yuan Currency: RMB

Project name	Related parties	Closing book balance	Opening book balance
Accounts payable	Beijing Beixin Fengyuan Railway Electronic Equipment Co., Ltd. (北京北信豐元鐵路電子設備有限公司)	139,513,155.14	144,298,641.46
Accounts payable	ALSTOM Transport S.A.	149,039,509.65	174,411,653.60
Accounts payable	Gu'an Beixin Railway Signal Co., Ltd. (固安北信鐵路信號有限公司)	5,172,842.02	41,837,663.22
Accounts payable	SSCX	32,265,363.35	29,847,437.08
Accounts payable	Xi'an Tongxin Railway Equipment Manufacturing Co., Ltd. (西安同鑫鐵路器材製造有限責任公司)	-	2,664,711.18
Accounts payable	ALSTOM Aix en Provence	1,957,396.03	-
Accounts payable	Zhongxin Diantong	50,500.50	50,500.50
Accounts payable	Xi'an Weixun Monitoring Equipment Co., Ltd. (西安唯迅監控設備有限公司)	112,190.00	571,536.05
Accounts payable	Schaltbau	567,969.93	-
Accounts payable	Beijing Erqi Communication Factory Co., Ltd. (北京二七通信工廠有限公司)	282,681.67	681,713.11
Accounts payable	Changxing Technology	-	1,162,462.65
Accounts payable	Alstom Signaling Inc.	66,651,637.76	-
Accounts payable	ALSTOM (Villeurbanne)	9,919,803.78	2,884,397.75
Notes payable	Beijing Beixin Fengyuan Railway Electronic Equipment Co., Ltd. (北京北信豐元鐵路電子設備有限公司)	300,000.00	1,450,000.00
Contract liabilities	Xi'an Weixun Monitoring Equipment Co., Ltd. (西安唯迅監控設備有限公司)	1,530,252.51	-
Contract liabilities	SSCX	-	1,928,617.26
Other payables	CRSC Group	7,500.00	74,535,607.49
Other payables	Xi'an Tongxin Railway Equipment Manufacturing Co., Ltd. (西安同鑫鐵路器材製造有限責任公司)	300,000.00	-
Other payables	Beijing Railways Signal & Communication Complete Equipment Company Ltd. (北京鐵路通信信號成套設備有限公司)	792,339.37	4,653,349.24
Other payables	Xi'an Weixun Monitoring Equipment Co., Ltd. (西安唯迅監控設備有限公司)	338,373.00	-
Other payables	Gu'an Beixin Railway Signal Co., Ltd. (固安北信鐵路信號有限公司)	-	16,500.00
Other payables	Alstom (China) Investment Co., Ltd. (阿爾斯通(中國)投資有限公司)	-	389,700.00

Note 1: CRSC Construction Group Co., Ltd. (通號建設集團有限公司), a subsidiary of the Group, entered into an equity interest transfer agreement with China Railway Signal and Communication (group) Corporation Limited (中國鐵路通信信號集團有限公司), the parent of the Company, on 10 June 2019 to sell its 100% equity interests in CRSC Real Estate Co., Ltd. (通號置業有限公司) (including the subsidiaries: CRSC Foshan Real Estate (通號佛山置業) and CRSC Guizhou Real Estate (通號貴州置業)) at a consideration of RMB253,896,600.00. The disposal date was 30 June 2019. Therefore, CRSC Real Estate Co., Ltd. (通號置業有限公司) was no longer included in the scope of consolidation of the Group since 1 July 2019. This equity interest transfer is a connected transaction between the Group and China Railway Signal and Communication (group) Corporation Limited (中國鐵路通信信號集團有限公司), the controlling shareholder of the Group.

Note 2: As of 31 December 2019, the Group's receivables from and payables to related parties were interest-free, unsecured and have no fixed repayment period.

NOTES TO FINANCIAL STATEMENTS

Year ended 31 December 2019

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XII. RELATED PARTIES AND CONNECTED TRANSACTIONS (Continued)

7. Commitment of related parties

√ Applicable □ Not applicable

The following are the significant outstanding contracts in connection with related parties of the Group at the balance sheet date:

Unit: Yuan Currency: RMB

	31 December 2019	31 December 2018
SSCX	5,878,049.51	13,686,811.12
Gu'an Beixin Railway Signal Co., Ltd. (固安北信鐵路信號有限公司)	1,799,768.50	4,064,610.00
Alstom Signaling Inc.	–	1,220,000.00
ALSTOM Transport S.A.	62,876,403.00	22,198,393.00
CRSC Tianshui Tram Co., Ltd. (天水通號有軌電車有限責任公司)	43,000,000.00	–
ALSTOM Transport India	20,732,025.00	336,469.00
Alstom Transport Spain Co., Ltd. (阿爾斯通交通西班牙有限公司)	15,267,803.00	–
Total	<u>149,554,049.01</u>	<u>41,506,283.12</u>

Purchasing goods from/receiving technology transfer services from related parties

Unit: Yuan Currency: RMB

	31 December 2019	31 December 2018
ALSTOM Transport S.A.	208,585,399.60	21,293,902.92
Alstom Signaling Inc.	1,561,266.00	49,791,775.08
Beijing Beixin Fengyuan Railway Electronic Equipment Co., Ltd. (北京北信豐元鐵路電子設備有限公司)	2,354,815.84	3,285,211.12
ALSTOM Aix en Provence	4,455,472.00	–
SSCX	24,284,841.45	10,810,240.00
Gu'an Beixin Railway Signal Co., Ltd. (固安北信鐵路信號有限公司)	828,468.14	661,505.90
Alstom Investment (Shanghai) Co., Ltd. (阿爾斯通投資(上海)有限公司)	1,401,270.71	–
Xi'an Schaltbau Electric Corp., Ltd. (西安沙爾特寶電氣有限公司)	669,744.16	–
Total	<u>244,141,277.90</u>	<u>85,842,635.02</u>

NOTES TO FINANCIAL STATEMENTS

Year ended 31 December 2019

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XII. RELATED PARTIES AND CONNECTED TRANSACTIONS (Continued)

7. Commitment of related parties (Continued)

Providing labour service for related parties:

Unit: Yuan Currency: RMB

	31 December 2019	31 December 2018
Siping Pipeline	205,361,702.63	135,284,967.70
Tianshui Tram	41,428,807.46	213,523,628.50
	<u>246,790,510.09</u>	<u>348,808,596.20</u>

8. Other

Applicable Not Applicable

XIII SHARE-BASED PAYMENT

1. Overview of share-based payment

Applicable Not Applicable

2. Equity-settled share-based payments

Applicable Not Applicable

3. Cash-settled share-based payments

Applicable Not Applicable

4. Modification and termination of share-based payment

Applicable Not Applicable

5. Other

Applicable Not Applicable

NOTES TO FINANCIAL STATEMENTS

Year ended 31 December 2019

RMB

XIV. COMMITMENTS AND CONTINGENCIES

1. Significant commitments

Applicable Not applicable

Major external commitments, nature and amount thereof as at the balance sheet date

Unit: Yuan Currency: RMB

	Closing balance	Opening balance
Contracted, but not provided for		
Capital commitment	6,366,618.00	100,035,075.45
Investment commitment	255,946,600.00	460,713,100.00
Total	<u>262,313,218.00</u>	<u>560,748,175.45</u>

2. Contingencies

(1). Important contingencies existing as at the balance sheet date

Applicable Not Applicable

(2). The Company has no discloseable important contingencies, and shall also give an explanation:

Applicable Not Applicable

3. Other

Applicable Not Applicable

NOTES TO FINANCIAL STATEMENTS

Year ended 31 December 2019

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XV. EVENTS AFTER THE BALANCE SHEET DATE

1. Important non-adjusting matters

Applicable Not Applicable

2. Explanation about profit distribution

On 25 March 2020, the board of directors of the Company resolved to recommend the distribution of a cash dividend of RMB0.20 per share (including tax) with the profit available for distribution as of 31 December 2019. The profit distribution plan will be submitted to the Company's 2019 annual general meeting for the shareholders' consideration and approval.

3. Sales return

Applicable Not Applicable

4. Other events after the balance sheet date

Applicable Not Applicable

Since the outbreak of the COVID-19, the Group has been making consistent efforts to carry out its epidemic prevention and control work in accordance with the unified arrangement of the Central Committee of CPC and that of SASAC, and has recorded "zero confirmed cases and zero suspicious cases" among its employees. While maintaining its efforts in COVID-19 prevention and control, the Group accelerated its paces to resume work and production, and carried out scientific research and development, equipment manufacturing and construction of key engineering projects with all resources at its command, striving to minimize the impact of the COVID-19 on its production and operation. As at the reporting date, no significant adverse impact has been identified.

NOTES TO FINANCIAL STATEMENTS

Year ended 31 December 2019

RMB

XVI. OTHER IMPORTANT EVENTS

1. Early correction of accounting error

(1). Retrospective restatement

Applicable Not Applicable

(2). Prospective application

Applicable Not Applicable

2. Debt restructuring

Applicable Not Applicable

3. Asset replacement

(1). Exchange of non-monetary assets

Applicable Not Applicable

(2). Other asset replacement

Applicable Not Applicable

4. Annuity plan

Applicable Not Applicable

5. Discontinuing operations

Applicable Not Applicable

XVI. OTHER IMPORTANT EVENTS (Continued)

6. Segment information

(1). Basis for determining and accounting policies of reportable segments

Applicable Not applicable

For management purposes, the Group is organized into the following 3 operating segments based on their products and services:

- (1) the rail transportation control system segment mainly provides specialized “three-in-one” services of design and integration, equipment manufacturing and system implementation services for rail transportation control systems;
- (2) construction contracting segment engages in the provision of services relating to municipal and other construction projects;
- (3) other segments mainly engage in trading and etc.

Management monitors the operating results of the Group’s operating segments separately for the purpose of making decisions about resources allocation and performance assessment. Segment performance is evaluated based on reporting segment profit. The indicator is consistent with the total profit of the Group.

Inter-segment transfer pricing is determined by reference to prices adopted in sales or rendering of services to third parties.

NOTES TO FINANCIAL STATEMENTS

Year ended 31 December 2019

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XVI. OTHER IMPORTANT EVENTS (Continued)

6. Segment information (Continued)

(2). Financial information of reporting segment

√ Applicable □ Not applicable

2019

Unit: Yuan Currency: RMB

Item	Rail transportation control system	Construction contracting	Other	Inter-segment offset	Total
Revenue from external customers	30,276,639,044.29	11,311,369,455.19	58,278,293.09	-	41,646,286,792.57
Revenue from inter-segment transactions	126,581,636.87	65,168,351.90	80,875,392.72	-272,625,381.49	-
	30,403,220,681.16	11,376,537,807.09	139,153,685.81	-272,625,381.49	41,646,286,792.57
Share of profits of joint ventures and associates	50,366,752.11	-309,390.65	-	-	50,057,361.46
Losses from impairment of assets/(reversal)	-2,287,468.78	-	-	-	-2,287,468.78
Credit impairment loss/(reversal)	51,846,908.49	-18,365,411.89	233,774.14	-	33,715,270.74
Depreciation and amortization	589,539,950.68	36,382,452.32	493,431.87	-	626,415,834.87
Total profit					5,027,474,516.95
Income tax expense					-850,426,160.91
Net profits					4,177,048,356.04
Total assets	<u>67,992,177,947.50</u>	<u>30,632,341,443.85</u>	<u>183,048,506.24</u>	<u>-1,294,976,593.23</u>	<u>97,512,591,304.36</u>
Total liabilities	<u>32,504,878,646.82</u>	<u>23,501,149,275.97</u>	<u>65,074,329.89</u>	<u>-1,283,188,529.34</u>	<u>54,787,913,723.34</u>
Other disclosures:					
Long-term equity investments in joint ventures and associates	976,266,896.63	5,274,704.87	-	-	981,541,601.50
Capital expenditures (Note)	<u>585,173,987.82</u>	<u>74,489,213.87</u>	<u>1,252,168.40</u>	<u>-</u>	<u>660,915,370.09</u>

NOTES TO FINANCIAL STATEMENTS

Year ended 31 December 2019

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XVI. OTHER IMPORTANT EVENTS (Continued)

6. Segment information (Continued)

(2). Financial information of reporting segment (Continued)

2018

Unit: Yuan Currency: RMB

Item	Rail transportation control system	Construction contracting	Other	Inter-segment offset	Total
Revenue from external customers	28,422,040,509.76	11,530,324,272.46	60,236,540.02	-	40,012,601,322.24
Revenue from inter-segment transactions	<u>57,586,182.40</u>	<u>118,171,309.23</u>	<u>171,046,767.27</u>	<u>-346,804,258.90</u>	<u>-</u>
	28,479,626,692.16	11,648,495,581.69	231,283,307.29	-346,804,258.90	40,012,601,322.24
Share of profits of joint ventures and associates	59,903,265.41	-2,696,388.69	-	-	57,206,876.72
Losses from impairment of assets	110,408.35	-	-	-	110,408.35
Credit impairment loss/(reversal)	24,617,464.04	88,971,488.48	-278,864.23	-	113,310,088.29
Depreciation and amortization	500,090,637.22	31,161,102.40	539,848.74	-	531,791,588.36
Total profit					4,519,669,975.71
Income tax expense					-802,874,717.84
Net profits					3,716,795,257.87
Total assets	<u>51,949,897,562.57</u>	<u>28,987,124,862.87</u>	<u>183,656,845.85</u>	<u>-1,442,141,642.82</u>	<u>79,678,537,628.47</u>
Total liabilities	<u>28,218,711,739.89</u>	<u>22,513,750,171.63</u>	<u>77,337,347.48</u>	<u>-1,403,343,179.71</u>	<u>49,406,456,079.29</u>
Other disclosures:					
Long-term equity investments in joint ventures and associates	943,384,436.73	62,536,963.95	-	-	1,005,921,400.68
Capital expenditures (Note)	<u>666,142,369.13</u>	<u>79,584,406.39</u>	<u>755,214.20</u>	<u>-</u>	<u>746,481,989.72</u>

Note: Capital expenditure consists of additions to investment properties, fixed assets, construction in progress, right-of-use assets, intangible assets, development expenditure and long-term prepaid expenses.

(3). If the Company has no reporting segment or cannot disclose the total assets and liabilities of each reporting segment, the reasons shall be stated.

Applicable Not Applicable

NOTES TO FINANCIAL STATEMENTS

Year ended 31 December 2019

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XVI. OTHER IMPORTANT EVENTS (Continued)

6. Segment information (Continued)

(4). Other explanation:

Applicable Not applicable

Geographic information

Revenue from external customers

Unit: Yuan Currency: RMB

	2019	2018
Mainland China	41,098,904,648.94	39,475,616,821.18
Other countries or regions	547,382,143.63	536,984,501.06
	<u>41,646,286,792.57</u>	<u>40,012,601,322.24</u>

Revenue from external customers is based on the locations of the customers.

Total non-current assets

Unit: Yuan Currency: RMB

	2019	2018
Mainland China	9,175,565,493.65	8,756,873,398.39

Non-current assets are analyzed by geographic locations where the assets (excluding financial assets and deferred tax assets) are located.

Key customer information

In 2019, the revenue without single customer of the Group reached or exceeded 10% of the Group's revenue.

NOTES TO FINANCIAL STATEMENTS

Year ended 31 December 2019

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XVI. OTHER IMPORTANT EVENTS (Continued)

7. Other important transactions and events that have impact on investors' decision-making

Applicable Not Applicable

8. Others

Applicable Not applicable

(1) Lease arrangements

1. As lessor

Significant operating leases

Profit and loss related to operating lease are listed as follows:

Unit: Yuan Currency: RMB

	2019
Rental income	<u>19,524,848.39</u>

According to the lease contracts entered into with the lessees, the minimum lease receivables under non-cancellable leases are as follows:

Unit: Yuan Currency: RMB

	Closing balance
Less than 1 year (including 1 year)	30,735,877.92
2 to 5 years (including 5 years)	77,782,195.79
Over 5 years	<u>45,284,155.08</u>
Total	<u>153,802,228.79</u>

NOTES TO FINANCIAL STATEMENTS

Year ended 31 December 2019

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XVI. OTHER IMPORTANT EVENTS (Continued)

8. Others (Continued)

(1) Lease arrangements (Continued)

2. As lessee

Unit: Yuan Currency: RMB

	Amount for the current period
Interest expense of lease liabilities	8,841,977.74
Short-term lease expenses subject to simplified treatment and included in current profits and losses	109,173,774.73
Total cash outflow related to lease	<u>95,817,093.91</u>

Significant operating leases (only for 2018): According to the lease contracts entered into with the lessors, the minimum lease payables under non-cancellable leases are as follows:

Unit: Yuan Currency: RMB

	2018
Less than 1 year (including 1 year)	71,858,934.32
1 to 2 years (including 2 years)	32,694,195.84
2 to 3 years (including 3 years)	19,998,125.10
Over 3 years	<u>29,504,394.20</u>
Total	<u>154,055,649.46</u>

NOTES TO FINANCIAL STATEMENTS

Year ended 31 December 2019
RMB

XVII. NOTES TO MAJOR ITEMS IN FINANCIAL STATEMENTS OF THE PARENT

1. Accounts receivable

(1). Disclosure by aging

Applicable Not applicable

Unit: Yuan Currency: RMB

Aging

Within 1 year
1 to 2 years
2 to 3 years
Over 3 years
Less: Provision for bad debt of accounts receivable
Total

Closing book balance

1,553,899,510.86
486,523,013.96
115,432,430.35
101,806,851.76
<u>-66,495,016.08</u>
<u>2,191,166,790.85</u>

NOTES TO FINANCIAL STATEMENTS

Year ended 31 December 2019

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XVII. NOTES TO MAJOR ITEMS IN FINANCIAL STATEMENTS OF THE PARENT (Continued)

1. Accounts receivable (Continued)

(2). Disclosure by classification with the method of provision for bad debt

Applicable Not applicable

Unit: Yuan Currency: RMB

Category	Closing balance					Opening balance				
	Gross carrying amount		Provision for bad debt		Book value	Gross carrying amount		Provision for bad debt		Book value
	Amount	Proportion	Amount	Provision withdrawal		Amount	Proportion	Amount	Provision withdrawal	
		(%)		proportion (%)	(%)		proportion (%)			
Single provision for bad debt	499,568,139.70	22.13	4,754,209.42	0.95	494,813,930.28	653,601,545.58	34.69	6,127,166.22	0.72	647,474,379.36
Provision withdrawn for bad debt on a combination basis	1,758,093,667.23	77.87	61,740,806.66	3.51	1,696,352,860.57	1,607,051,030.12	65.31	45,278,891.35	2.82	1,561,772,138.77
Total	2,257,661,806.93	/	66,495,016.08	/	2,191,166,790.85	2,490,652,575.70	/	51,406,057.57	/	2,439,246,518.13

Single provision for bad debt:

Applicable Not applicable

Unit: Yuan Currency: RMB

Name	Gross carrying amount	Provision for bad debt	Closing balance	
			Provision withdrawal proportion (%)	Reason for provision
Beijing Metro Construction Administration Corporation Ltd. (北京市轨道交通建设管理有限公司)	2,385,172.77	1,908,138.22	80.00	The Company has made provision for some bad debts based on the aging of the accounts and the business conditions of the other party.
Others	497,182,966.93	2,846,071.20	0.57	
Total	499,568,139.70	4,754,209.42	0.95	/

NOTES TO FINANCIAL STATEMENTS

Year ended 31 December 2019

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XVII. NOTES TO MAJOR ITEMS IN FINANCIAL STATEMENTS OF THE PARENT (Continued)

1. Accounts receivable (Continued)

(2). Disclosure by classification with the method of provision for bad debt (Continued)

Descriptions of single provision for bad debt:

Applicable Not Applicable

Provision withdrawn for bad debt on a combination basis:

Applicable Not applicable

Items under combination-based withdrawal: Aging combination

31 December 2019

Unit: Yuan Currency: RMB

Name	Accounts receivable	Closing balance	
		Provision for bad debt	Provision withdrawal proportion (%)
Within 1 year	1,135,218,616.10	5,676,093.08	0.50
1 to 2 years	448,096,033.81	22,404,801.69	5.00
2 to 3 years	113,650,309.82	11,365,030.98	10.00
Over 3 years	61,128,707.50	22,294,880.91	36.47
Total	<u>1,758,093,667.23</u>	<u>61,740,806.66</u>	3.51

31 December 2018

Unit: Yuan Currency: RMB

Name	Accounts receivable	Closing balance	
		Provision for bad debt	Provision withdrawal proportion (%)
Within 1 year	1,310,348,413.81	6,551,742.07	0.50
1 to 2 years	185,595,200.94	9,279,760.05	5.00
2 to 3 years	52,310,359.31	5,231,035.93	10.00
Over 3 years	58,797,056.06	24,216,353.30	41.19
Total	<u>1,607,051,030.12</u>	<u>45,278,891.35</u>	2.82

NOTES TO FINANCIAL STATEMENTS

Year ended 31 December 2019

RMB

XVII. NOTES TO MAJOR ITEMS IN FINANCIAL STATEMENTS OF THE PARENT (Continued)

1. Accounts receivable (Continued)

(2). Disclosure by classification with the method of provision for bad debt (Continued)

Recognition standards and descriptions of provision withdrawn for bad debt on a combination basis:

Applicable Not Applicable

If provisions for bad debts are made as per the general model of ECL, please make disclosure with reference to other receivables:

Applicable Not Applicable

(3). Provision for bad debts

Applicable Not applicable

2019

Unit: Yuan Currency: RMB

Category	Opening balance	Increase/decrease during the period			Closing balance
		Provision	Recovery or reversal	Write-off or cancellation	
Accounts receivable	51,406,057.57	16,311,693.50	-1,222,734.99	-	66,495,016.08
Total	51,406,057.57	16,311,693.50	-1,222,734.99	-	66,495,016.08

2018

Unit: Yuan Currency: RMB

Category	Closing balance for last year	Changes in accounting policies	Provision	Increase/decrease during the period			Closing balance
				Recovery or reversal	Write-off or cancellation	Other changes	
Accounts receivable	58,879,537.42	-13,738,264.54	13,870,530.78	-7,605,746.09	-	-	51,406,057.57
Total	58,879,537.42	-13,738,264.54	13,870,530.78	-7,605,746.09	-	-	51,406,057.57

NOTES TO FINANCIAL STATEMENTS

Year ended 31 December 2019
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XVII. NOTES TO MAJOR ITEMS IN FINANCIAL STATEMENTS OF THE PARENT (Continued)

1. Accounts receivable (Continued)

(3). Provision for bad debt of notes receivable (Continued)

Significant amounts recovered or reversed to bad debts in the period:

Applicable Not Applicable

(4). The situation of the write-off of accounts receivable for the period

Applicable Not Applicable

Writing-off of important accounts receivable

Applicable Not Applicable

(5). Top five accounts receivable by closing balance collection of the borrowers

Applicable Not applicable

As of 31 December 2019, the accounts receivable from the top five debtors were as follows:

Unit: Yuan Currency: RMB

Name of debtor	Gross carrying amount	Provision for bad debt	Percentage to total accounts receivable(%)
China Railway International Co., Ltd.	328,772,897.64	5,694,696.37	14.56
CRSC Jishou Tengda Project Management Co., Ltd. (吉首通號騰達項目管理有限責任公司)	228,927,477.00	-	10.14
Lunan High Speed Railway Co., Ltd. (魯南高速鐵路有限公司)	143,228,451.24	716,142.26	6.34
CRSC Jishou Huatai Pipeline Project Management Co., Ltd. (吉首通號華泰管廊項目管理有限責任公司)	137,942,290.45	-	6.11
China Road and Bridge Corporation	87,194,167.89	435,970.85	3.86
Total	926,065,284.22	6,846,809.48	41.01

NOTES TO FINANCIAL STATEMENTS

Year ended 31 December 2019

RMB

XVII. NOTES TO MAJOR ITEMS IN FINANCIAL STATEMENTS OF THE PARENT (Continued)

1. Accounts receivable (Continued)

(5). Top five accounts receivable by closing balance collection of the borrowers (Continued)

As of 31 December 2018, the accounts receivable from the top five debtors were as follows:

Name of debtor	Gross carrying amount	Provision for bad debt	Unit: Yuan	Currency: RMB
			Percentage to total accounts receivable(%)	
CRSC Jishou Tengda Project Management Co., Ltd. (吉首通號騰達項目管理有限責任公司)	378,069,486.57	-		15.36
China Road and Bridge Corporation	259,280,276.58	308,641.54		10.54
CRSC Jishou Huatai Pipeline Project Management Co., Ltd. (吉首通號華泰管廊項目管理有限責任公司)	236,496,898.71	-		9.61
CRSC Tianshui Tram Co., Ltd. (天水通號有軌電車有限責任公司)	195,022,720.11	-		7.93
Construction Command Headquarters of Jinan Railway Bureau for Jinan Hub Project of Shijiazhuang-Jinan Passenger Dedicated Line (濟南鐵路局石濟客專濟南樞紐工程建設指揮部)	106,751,391.00	533,756.96		4.34
Total	<u>1,175,620,772.97</u>	<u>842,398.50</u>		<u>47.78</u>

(6). Accounts receivable derecognized due to the transfer of financial assets

Applicable Not Applicable

(7). Amount of assets or liabilities resulting from continuing involvement

Applicable Not Applicable

Other explanation:

Applicable Not Applicable

NOTES TO FINANCIAL STATEMENTS

Year ended 31 December 2019

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XVII. NOTES TO MAJOR ITEMS IN FINANCIAL STATEMENTS OF THE PARENT (Continued)

2. Other receivables

Presentation of item

Applicable Not applicable

Unit: Yuan Currency: RMB

Item	Closing balance	Opening balance
Dividends receivable	249,665,430.31	822,550,930.31
Other receivables	<u>6,188,357,909.54</u>	<u>7,887,179,160.05</u>
Total	<u><u>6,438,023,339.85</u></u>	<u><u>8,709,730,090.36</u></u>

Other explanation:

Applicable Not Applicable

Interests receivable

(1). *Classification of interests receivable*

Applicable Not Applicable

(2). *Significant overdue interest*

Applicable Not Applicable

(3). *Provision for bad debts*

Applicable Not Applicable

Other explanation:

Applicable Not Applicable

NOTES TO FINANCIAL STATEMENTS

Year ended 31 December 2019

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XVII. NOTES TO MAJOR ITEMS IN FINANCIAL STATEMENTS OF THE PARENT (Continued)

2. Other receivables (Continued)

(4). Dividends receivable

Applicable Not applicable

Unit: Yuan Currency: RMB

Item (or investee)	Closing balance	Opening balance
CRSCD	119,484,500.00	328,677,000.00
CRSC Beijing Industry Group	—	99,621,000.00
CRSC Xi'an Industry Group	—	205,614,000.00
CRSCE	—	57,996,000.00
CRSCS	—	48,642,000.00
CRSCC	—	26,838,000.00
Urban Rail Transit	—	3,129,000.00
CRSC International	—	3,972,000.00
CRSC Wanquan	3,616,930.31	3,616,930.31
Changsha Railway	—	12,639,000.00
CRSC Construction	126,564,000.00	29,682,000.00
CRSC Jiangsu Smart	—	2,124,000.00
Total	<u>249,665,430.31</u>	<u>822,550,930.31</u>

(5). Significant dividends receivable with an age over 1 year

Applicable Not Applicable

(6). Provision for bad debts

Applicable Not Applicable

Other explanation:

Applicable Not Applicable

NOTES TO FINANCIAL STATEMENTS

Year ended 31 December 2019

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XVII. NOTES TO MAJOR ITEMS IN FINANCIAL STATEMENTS OF THE PARENT (Continued)

2. Other receivables (Continued)

Other receivables

(1). Disclosure by aging

Applicable Not applicable

Unit: Yuan Currency: RMB

	Closing book balance
Aging	
Within 1 year	5,882,140,591.13
1 to 2 years	121,139,068.33
2 to 3 years	1,340,768.63
Over 3 years	184,304,325.78
Less: Provision for bad debts of other receivables	-566,844.33
Total	<u>6,188,357,909.54</u>

(2). Classification by nature of accounts

Applicable Not Applicable

NOTES TO FINANCIAL STATEMENTS

Year ended 31 December 2019

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XVII. NOTES TO MAJOR ITEMS IN FINANCIAL STATEMENTS OF THE PARENT (Continued)

2. Other receivables (Continued)

(3). Provision for bad debts

Applicable Not applicable

Unit: Yuan Currency: RMB

	Stage 1	Stage 2	Stage 3	
	12-month ECL	Lifetime ECL (non-credit impaired)	Lifetime ECL (credit impaired)	Total
Provision for bad debt				
Amount as at 1 January 2019	420,451.00	69,160.92	-	489,611.92
Amounts due for the period as at 1 January 2019				
- Transferred to stage 2	-	-	-	-
- Transferred to stage 3	-	-	-	-
- Reversed to stage 2	-	-	-	-
- Reversed to stage 1	-	-	-	-
Provision for the period	-	93,632.41	-	93,632.41
Reversal for the period	16,400.00	-	-	16,400.00
Write-off for the period	-	-	-	-
Cancellation for the period	-	-	-	-
Other changes	-	-	-	-
Amount as at 31 December 2019	<u>404,051.00</u>	<u>162,793.33</u>	<u>-</u>	<u>566,844.33</u>

NOTES TO FINANCIAL STATEMENTS

Year ended 31 December 2019

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XVII. NOTES TO MAJOR ITEMS IN FINANCIAL STATEMENTS OF THE PARENT (Continued)

2. Other receivables (Continued)

(3). Provision for bad debts (Continued)

Unit: Yuan Currency: RMB

	Stage 1	Stage 2	Stage 3	
	12-month ECL	Lifetime ECL (non-credit impaired)	Lifetime ECL (credit impaired)	Total
Amount as at 1 January 2018	429,763.40	25,028,888.66	-	25,458,652.06
Changes in accounting policies	1,359,946.78	-6,555.47	-	1,353,391.31
Amounts due for the period as at 1 January 2018				
– Transferred to stage 2	-	-	-	-
– Transferred to stage 3	-	-	-	-
– Reversed to stage 2	-	-	-	-
– Reversed to stage 1	-	-	-	-
Provision for the period	7,250.00	46,827.73	-	54,077.73
Reversal for the period	1,376,509.18	25,000,000.00	-	26,376,509.18
Write-off for the period	-	-	-	-
Cancellation for the period	-	-	-	-
Other changes	-	-	-	-
Amount as at 31 December 2018	<u>420,451.00</u>	<u>69,160.92</u>	<u>-</u>	<u>489,611.92</u>

Explanation about obvious changes in gross carrying amount of other receivables for which loss provision has changed in the period:

Applicable Not Applicable

Amount of provision for bad debt for the period and basis for evaluating whether credit risk of financial instruments increase significantly:

Applicable Not Applicable

NOTES TO FINANCIAL STATEMENTS

Year ended 31 December 2019

RMB

XVII. NOTES TO MAJOR ITEMS IN FINANCIAL STATEMENTS OF THE PARENT (Continued)

2. Other receivables (Continued)

(3). Provision for bad debts (Continued)

Significant changes in gross carrying amount of other receivables that influenced changes in the loss provision during the period:

Unit: Yuan Currency: RMB

	Stage 1	Stage 2	Stage 3	
	12-month ECL	Lifetime ECL (non-credit impaired)	Lifetime ECL (credit- impaired)	Total
Amount as at 1 January 2019	7,887,398,834.65	269,937.32	-	7,887,668,771.97
Amounts due for the period as at 1 January 2019				
- Transferred to stage 2	-	-	-	-
- Transferred to stage 3	-	-	-	-
- Reversed to stage 2	-	-	-	-
- Reversed to stage 1	-	-	-	-
Increase during the period	7,057,535,527.57	-	-	7,057,535,527.57
Derecognised	8,756,279,545.67	-	-	8,756,279,545.67
Cancellation for the period	-	-	-	-
Other changes	-	-	-	-
Amount as at 31 December 2019	<u>6,188,654,816.55</u>	<u>269,937.32</u>	<u>-</u>	<u>6,188,924,753.87</u>

NOTES TO FINANCIAL STATEMENTS

Year ended 31 December 2019

RMB

XVII. NOTES TO MAJOR ITEMS IN FINANCIAL STATEMENTS OF THE PARENT (Continued)

2. Other receivables (Continued)

(3). Provision for bad debts (Continued)

Unit: Yuan Currency: RMB

	Stage 1	Stage 2	Stage 3	
	12-month ECL	Lifetime ECL (non-credit impaired)	Lifetime ECL (credit- impaired)	Total
Amount as at 1 January 2018	6,162,135,113.07	50,269,937.32	-	6,212,405,050.39
Amounts due for the period as at 1 January 2018	-	-	-	-
- Transferred to stage 2	-	-	-	-
- Transferred to stage 3	-	-	-	-
- Reversed to stage 2	-	-	-	-
- Reversed to stage 1	-	-	-	-
Increase during the period	6,420,369,244.81	-	-	6,420,369,244.81
Derecognised	4,695,105,523.23	50,000,000.00	-	4,745,105,523.23
Other changes	-	-	-	-
Amount as at 31 December 2018	<u>7,887,398,834.65</u>	<u>269,937.32</u>	<u>-</u>	<u>7,887,668,771.97</u>

NOTES TO FINANCIAL STATEMENTS

Year ended 31 December 2019

RMB

XVII. NOTES TO MAJOR ITEMS IN FINANCIAL STATEMENTS OF THE PARENT (Continued)

2. Other receivables (Continued)

(4). Provision for bad debt of notes receivable

Applicable Not applicable

2019

Unit: Yuan Currency: RMB

Category	Opening balance	Increase/decrease during the period			Closing balance
		Provision	Recovery or reversal	Write-off or cancellation	
Other receivables	489,611.92	93,632.41	-16,400.00	-	566,844.33
Total	489,611.92	93,632.41	-16,400.00	-	566,844.33

2018

Unit: Yuan Currency: RMB

Category	Closing balance for last year	Changes in accounting policies	Opening balance	Increase/decrease during the period			Closing balance
				Provision	Recovery or reversal	Write-off or cancellation	
Other receivables	25,458,652.06	1,353,391.31	26,812,043.37	54,077.73	-26,376,509.18	-	489,611.92
Total	25,458,652.06	1,353,391.31	26,812,043.37	54,077.73	-26,376,509.18	-	489,611.92

Including significant amounts of provision for bad debts recovered or reversed in the period:

Applicable Not Applicable

(5). The situation of the write-off of other receivables for the period

Applicable Not Applicable

NOTES TO FINANCIAL STATEMENTS

Year ended 31 December 2019

RMB

XVII. NOTES TO MAJOR ITEMS IN FINANCIAL STATEMENTS OF THE PARENT (Continued)

2. Other receivables (Continued)

(6). Top five receivables by closing balance collection of the borrowers

Applicable Not applicable

As at 31 December 2019, the other receivables with the top 5 amounts were as follows:

Unit: Yuan Currency: RMB

Name of entity	Nature of receivable	Closing balance	Aging	Proportion of the closing balance of other receivables (%)	Provision for bad debt Closing balance
CRSCE (通號工程局)	Internal borrowing	2,480,000,000.00	Within 1 year	40.07	-
CRSCS (上海工程局)	Internal borrowing	580,000,000.00	Within 1 year	9.37	-
Beijing Railway Signal Co., Ltd. (北京鐵路信號有限公司)	Internal borrowing	515,000,000.00	Within 1 year	8.32	-
CRSC Communications (通號交通)	Internal borrowing	400,000,000.00	Within 1 year	6.46	-
CRSC Innovation (Tongren) Development Co., Ltd. (通號創新(銅仁)開發有限公司)	Internal borrowing	387,843,130.00	1 to 2 years	6.27	-
Total	/	<u>4,362,843,130.00</u>	/	<u>70.49</u>	-

(7). Receivables involving government subsidies

Applicable Not Applicable

(8). Other receivables derecognized due to the transfer of financial assets

Applicable Not Applicable

NOTES TO FINANCIAL STATEMENTS

Year ended 31 December 2019

RMB

XVII. NOTES TO MAJOR ITEMS IN FINANCIAL STATEMENTS OF THE PARENT (Continued)

2. Other receivables (Continued)

(9). Amount of assets or liabilities resulting from transfer of other receivables and continuing involvement

Applicable Not Applicable

Other explanation:

Applicable Not Applicable

3. Long-term equity investment

Applicable Not applicable

Unit: Yuan Currency: RMB

Item	Closing balance			Opening balance		
	Gross carrying amount	Provision for impairment	Carrying amount	Gross carrying amount	Provision for impairment	Carrying amount
Investment in subsidiaries	15,670,666,291.57	-	15,670,666,291.57	14,253,868,491.57	-	14,253,868,491.57
Investments in joint ventures and associates	720,398,541.41	-	720,398,541.41	685,003,313.86	-	685,003,313.86
Total	<u>16,391,064,832.98</u>	<u>-</u>	<u>16,391,064,832.98</u>	<u>14,938,871,805.43</u>	<u>-</u>	<u>14,938,871,805.43</u>

NOTES TO FINANCIAL STATEMENTS

Year ended 31 December 2019

RMB

XVII. NOTES TO MAJOR ITEMS IN FINANCIAL STATEMENTS OF THE PARENT (Continued)

3. Long-term equity investment (Continued)

(1). Investment in subsidiaries

Applicable Not applicable

2019

Unit: Yuan Currency: RMB

Investee	Opening balance	Increase during the period	Decrease during the period	Closing balance	Provision for impairment during the period	Closing balance of provision for impairment
CRSCS	515,168,395.36	500,000,000.00	-	1,015,168,395.36	-	-
CRSCD	1,529,072,621.04	-	-	1,529,072,621.04	-	-
CRSCC	320,790,731.45	-	-	320,790,731.45	-	-
Urban Rail Transit	100,000,000.00	-	-	100,000,000.00	-	-
CRSC International Holdings	463,000,000.00	-	-	463,000,000.00	-	-
Innovation Investment	3,000,000,000.00	-	-	3,000,000,000.00	-	-
CRSC Communications	180,000,000.00	-	-	180,000,000.00	-	-
CRSCM	100,000,000.00	-	-	100,000,000.00	-	-
CRSCE	995,447,494.77	-	-	995,447,494.77	-	-
CRSC Cables	389,223,087.50	-	-	389,223,087.50	-	-
CRSC Inspection	88,600,178.96	-	-	88,600,178.96	-	-
Changsha Railway	1,153,750,000.00	-	-	1,153,750,000.00	-	-
CRSC Wanquan	119,950,600.00	-	-	119,950,600.00	-	-
CRSC CASCO	568,260,709.51	163,200,000.00	-	731,460,709.51	-	-
CRSC Beijing Industry Group	1,348,703,706.17	-	-	1,348,703,706.17	-	-
CRSC Xi'an Industry Group	851,255,688.70	665,597,800.00	-	1,516,853,488.70	-	-
Zhengzhou Zhongyuan	325,000,000.00	-	-	325,000,000.00	-	-
CRSC Railway Vehicles	225,720,000.00	-	-	225,720,000.00	-	-
CRSC Construction	1,000,344,078.11	-	-	1,000,344,078.11	-	-
Smart City Research & Design	50,000,000.00	-	-	50,000,000.00	-	-
CRSC International	2,581,200.00	-	-	2,581,200.00	-	-
CRSC Tengda	405,000,000.00	-	-	405,000,000.00	-	-
CRSC Huatai	522,000,000.00	-	-	522,000,000.00	-	-
CRSC Jiangsu Smart (Note)	-	88,000,000.00	-	88,000,000.00	-	-
Total	14,253,868,491.57	1,416,797,800.00	-	15,670,666,291.57	-	-

NOTES TO FINANCIAL STATEMENTS

Year ended 31 December 2019

RMB

XVII. NOTES TO MAJOR ITEMS IN FINANCIAL STATEMENTS OF THE PARENT (Continued)

3. Long-term equity investment (Continued)

(1). Investment in subsidiaries (Continued)

2018

Unit: Yuan Currency: RMB

Investee	Opening balance	Increase during the period	Decrease during the period	Closing balance	Provision for impairment during the period	Closing balance of provision for impairment
CRSCS	515,168,395.36	-	-	515,168,395.36	-	-
CRSCD	1,529,072,621.04	-	-	1,529,072,621.04	-	-
CRSCC	316,026,834.70	4,763,896.75	-	320,790,731.45	-	-
Urban Rail Transit	100,000,000.00	-	-	100,000,000.00	-	-
CRSC International Holdings	463,000,000.00	-	-	463,000,000.00	-	-
Innovation Investment	3,000,000,000.00	-	-	3,000,000,000.00	-	-
CRSC Communications	-	180,000,000.00	-	180,000,000.00	-	-
CRSCM	100,000,000.00	-	-	100,000,000.00	-	-
CRSCE	595,447,494.77	400,000,000.00	-	995,447,494.77	-	-
CRSC Cables	389,223,087.50	-	-	389,223,087.50	-	-
CRSC Inspection	88,600,178.96	-	-	88,600,178.96	-	-
Changsha Railway	1,153,750,000.00	-	-	1,153,750,000.00	-	-
CRSC Wanquan	119,950,600.00	-	-	119,950,600.00	-	-
CRSC CASCO	568,260,709.51	-	-	568,260,709.51	-	-
CRSC Beijing Industry Group	1,348,703,706.17	-	-	1,348,703,706.17	-	-
CRSC Xi'an Industry Group	851,255,688.70	-	-	851,255,688.70	-	-
Zhengzhou Zhongyuan	325,000,000.00	-	-	325,000,000.00	-	-
CRSC Railway Vehicles	225,720,000.00	-	-	225,720,000.00	-	-
CRSC Construction	1,000,344,078.11	-	-	1,000,344,078.11	-	-
Smart City Research & Design	50,000,000.00	-	-	50,000,000.00	-	-
CRSC International	2,581,200.00	-	-	2,581,200.00	-	-
CRSC Tengda	197,100,000.00	207,900,000.00	-	405,000,000.00	-	-
CRSC Huatai	522,000,000.00	-	-	522,000,000.00	-	-
Total	13,461,204,594.82	792,663,896.75	-	14,253,868,491.57	-	-

Note: In July 2019, the Company increased its long-term equity investment in CRSC Jiangsu Smart with an investment of RMB88,000,000, resulting in an ending shareholding ratio of 88%.

NOTES TO FINANCIAL STATEMENTS

Year ended 31 December 2019

RMB

XVII. NOTES TO MAJOR ITEMS IN FINANCIAL STATEMENTS OF THE PARENT (Continued)

3. Long-term equity investment (Continued)

(2). Investments in joint ventures and associates

Applicable Not applicable

2019

Unit: Yuan Currency: RMB

Investee	Increase/decrease during the period										
	Opening balance	Increase in investment	Decrease in investment	Investment gains/losses confirmed under equity method	Other comprehensive income adjustment	Other equity changes	Declared and paid cash dividends or profits	Provision for impairment	Others	Closing balance	Closing balance of provision for impairment
I. Joint ventures											
Wenzhou-Hangzhou High-Speed Railway											
	-	76,500,000.00	-	3,772.49	-	-	-	-	-	76,503,772.49	-
Sichuan Development											
	56,733,823.16	-	56,733,823.16	-	-	-	-	-	-	-	-
Subtotal											
	56,733,823.16	76,500,000.00	56,733,823.16	3,772.49	-	-	-	-	-	76,503,772.49	-
II. Associates											
CSCEC Foshan											
	82,300,609.21	-	64,240,000.00	-58,934.64	-	-	-	-	-	18,001,674.57	-
Siping Pipeline											
	134,715,266.36	-	-	-	-	-	-	-	-	134,715,266.36	-
Airbus											
	20,248,799.36	-	19,746,169.95	-502,629.41	-	-	-	-	-	-	-
Guangdong Ultrast Financial Leasing											
	302,243,054.50	-	-	11,395,512.22	-	-	-	-	-	313,638,566.72	-
Tianshui Tram											
	88,761,761.27	88,777,500.00	-	-	-	-	-	-	-	177,539,261.27	-
Subtotal											
	628,269,490.70	88,777,500.00	83,986,169.95	10,833,948.17	-	-	-	-	-	643,894,768.92	-
Total											
	685,003,313.86	165,277,500.00	140,719,993.11	10,837,720.66	-	-	-	-	-	720,398,541.41	-

NOTES TO FINANCIAL STATEMENTS

Year ended 31 December 2019

RMB

XVII. NOTES TO MAJOR ITEMS IN FINANCIAL STATEMENTS OF THE PARENT (Continued)

3. Long-term equity investment (Continued)

(2). Investments in joint ventures and associates (Continued)

2018

Unit: Yuan Currency: RMB

Investee	Opening balance	Increase/decrease during the period							Closing balance	Closing balance of provision for impairment	
		Increase in investment	Decrease in investment	Investment gains/losses confirmed under equity method	Other comprehensive income adjustment	Other equity changes	Declared and paid cash dividends or profits	Provision for impairment			Others
I. Joint ventures											
Tianshui Tiantong	100,038,121.69	-	101,469,410.01	1,431,288.32	-	-	-	-	-	-	-
Sichuan Development	56,048,330.51	-	-	685,492.65	-	-	-	-	-	56,733,823.16	-
Subtotal	156,086,452.20	-	101,469,410.01	2,116,780.97	-	-	-	-	-	56,733,823.16	-
II. Associates											
CSCEC Foshan	70,178,157.91	-	-	12,122,451.30	-	-	-	-	-	82,300,609.21	-
Siping Pipeline	134,715,266.36	-	-	-	-	-	-	-	-	134,715,266.36	-
Airbus	18,608,547.91	-	-	1,640,251.45	-	-	-	-	-	20,248,799.36	-
Guangdong Ultrust											
Financial Leasing	301,442,926.69	-	-	800,127.81	-	-	-	-	-	302,243,054.50	-
Tianshui Tram	-	88,777,500.00	-	-15,738.73	-	-	-	-	-	88,761,761.27	-
Subtotal	524,944,898.87	88,777,500.00	-	14,547,091.83	-	-	-	-	-	628,269,490.70	-
Total	681,031,351.07	88,777,500.00	101,469,410.01	16,663,872.80	-	-	-	-	-	685,003,313.86	-

NOTES TO FINANCIAL STATEMENTS

Year ended 31 December 2019

RMB

XVII. NOTES TO MAJOR ITEMS IN FINANCIAL STATEMENTS OF THE PARENT (Continued)

4. Revenue and costs

(1). Revenue and costs

Applicable Not applicable

Unit: Yuan Currency: RMB

Item	Amount for the current period		Amount for the last period	
	Revenue	Cost	Revenue	Cost
Principal operations	5,778,276,156.96	5,501,877,507.03	4,417,743,377.69	4,114,653,451.21
Other operations	149,801,315.57	47,376,362.95	156,342,967.68	60,303,975.59
Total	<u>5,928,077,472.53</u>	<u>5,549,253,869.98</u>	<u>4,574,086,345.37</u>	<u>4,174,957,426.80</u>

Operating revenue is presented as follows:

Unit: Yuan Currency: RMB

	Amount for the current period	Amount for the last period
Design and integration	4,843,601,842.85	2,611,261,413.27
Construction contracting	511,360,971.97	962,698,064.97
System implementation	419,887,669.57	836,450,693.67
Others	153,226,988.14	163,676,173.46
Total	<u>5,928,077,472.53</u>	<u>4,574,086,345.37</u>

Operating costs are listed as follows:

Unit: Yuan Currency: RMB

	Amount for the current period	Amount for the last period
Design and integration	4,655,306,140.88	2,526,018,703.45
Construction contracting	468,877,542.72	831,453,055.26
System implementation	371,100,721.10	741,569,711.82
Others	53,969,465.28	75,915,956.27
Total	<u>5,549,253,869.98</u>	<u>4,174,957,426.80</u>

NOTES TO FINANCIAL STATEMENTS

Year ended 31 December 2019

RMB

XVII. NOTES TO MAJOR ITEMS IN FINANCIAL STATEMENTS OF THE PARENT (Continued)

4. Revenue and costs (Continued)

(2). Revenue from contracts

Applicable Not Applicable

(3). Details of performance obligation

Applicable Not Applicable

(4). Explanation about allocation to the remaining performance obligations

Applicable Not Applicable

5. Investment income

Applicable Not applicable

Unit: Yuan Currency: RMB

Item	Amount for the current period	Amount for the last period
Income from long-term equity investments under the cost method	2,065,912,380.00	1,823,768,990.62
Income from long-term equity investments under the equity method	10,837,720.66	16,663,872.80
Investment income from disposal of long-term equity investments	3,324,006.89	-
Investment income from borrowing/loan	249,668,971.60	227,244,044.75
Total	<u>2,329,743,079.15</u>	<u>2,067,676,908.17</u>

Note: The investment income from borrowing/loan is the interest charged by the Company for providing capital for subsidiaries.

6. Others

Applicable Not Applicable

NOTES TO FINANCIAL STATEMENTS

Year ended 31 December 2019

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XVIII. SUPPLEMENTARY INFORMATION

1. Breakdown of current non-recurring profit or loss

Applicable Not applicable

Unit: Yuan Currency: RMB

Item	Amount	Note
Profit and loss on disposal of non-current assets	-1,382,312.77	
Tax refund or relief for which approval is not authorized or no formal approval is issued		
Government grants recognized through profit or loss (other than government grants which are closely related to corporate business and granted based on a fixed amount or a fixed quantity unified by the state)	67,680,990.59	
Capital occupation fee charged to non-financial enterprises included in current profits and losses		
Gain from the excess of the fair value of the identifiable net assets of investee companies on acquisition of the investment over the cost of investment in the Company's subsidiaries, associates and joint ventures		
Profit or loss from exchange of non-monetary assets		
Gain or loss on entrusted investments or asset under management		
Provision for impairment on assets due to force majeure events, such as natural disasters		
Gain or loss on debt restructuring		
Corporate restructuring costs, such as employee relocation expenses and integration costs		
Gain or loss on transactions with obviously unfair transaction price for amount which exceeds fair value		
Net gains or losses of subsidiaries for the current period from the beginning of the period to the date of combination arising from business combination under common control		
Gain or loss on other contingencies which are not related to the Company's normal operations		
Gain or loss on changes in fair value and investment income from disposal of financial assets held for trading, financial liabilities held for trading and available-for-sale financial assets, except for effective hedging transactions that are closely related to the Company's normal operation		

NOTES TO FINANCIAL STATEMENTS

Year ended 31 December 2019

RMB

XVIII. SUPPLEMENTARY INFORMATION (Continued)

1. Breakdown of current non-recurring profit or loss (Continued)

Item	Amount	Note
Reversal of the impairment provision for receivables and contract assets which are tested individually for impairment	54,934,954.40	
Gain or loss on entrusted loans		
Gain or loss arising from changes in fair value of investment properties under fair value model on subsequent measurement		
Effect of one-time adjustment to current profit or loss according to the requirements of tax and accounting laws and regulations on current profit or loss		
Entrusted fee income from entrusted operations		
Other non-operating income and expenses apart from the aforesaid items	43,910,945.85	
Other gain or loss items falling within the definition of extraordinary items	243,017,735.72	Other gain or loss items falling within the definition of extraordinary items in 2019 are mainly investment income from disposal of the equity of the subsidiary CRSC Real Estate Co., Ltd. (通號置業有限 公司).
Effect of income tax	-93,569,492.27	
Effect of minority interest	-224.46	
Total	<u>314,592,597.06</u>	

Reasons shall be given with respect to the Company classifying the non-recurring profit and loss items defined and listed in *the Explanatory Notice on Information Disclosure of Companies with Public Offering No. 1-Non-recurring Profit and Loss* (《公開發行證券的公司信息披露解釋性公告第1號—非經常性損益》) as recurring profit and loss items.

Applicable Not Applicable

NOTES TO FINANCIAL STATEMENTS

Year ended 31 December 2019

RMB

XVIII. SUPPLEMENTARY INFORMATION (Continued)

2. Return on Net Assets and Earnings Per Share

Applicable Not applicable

2019

	Weighted Average Return on Net Assets (%)	Earnings per share	
		Basic earnings per share	Diluted earnings per share
Profit for reporting period			
Net profits attributable to ordinary shareholders of the Company	12.77	0.38	0.38
Net profits attributable to ordinary shareholders of the Company after deducting non-recurring gains and losses	11.72	0.35	0.35

2018

	Weighted Average Return on Net Assets (%)	Earnings per share	
		Basic earnings per share	Diluted earnings per share
Profit for reporting period			
Net profit attributable to ordinary shareholders of the Company	13.58	0.38	0.38
Net profit attributable to ordinary shareholders of the Company after deducting non-recurring profits and losses	13.13	0.37	0.37

Earnings per share

	2019 RMB/share	2018 RMB/share
Basic earnings per share		
Continuous operation	0.38	0.38
Diluted earnings per share		
Continuous operation	0.38	0.38

The basic earnings per share is calculated by dividing the current net profit attributable to the ordinary shareholders of the Company by the weighted average number of outstanding ordinary shares.

NOTES TO FINANCIAL STATEMENTS

Year ended 31 December 2019

RMB

XVIII. SUPPLEMENTARY INFORMATION (Continued)

2. Return on Net Assets and Earnings Per Share (Continued)

The numerator of diluted earnings per share are determined on the basis of the current net profit attributable to the ordinary shareholders of the Company after adjusting the following factors: (1) interest on diluted potential ordinary shares recognized as expenses in the current period; (2) the income or expenses that will be generated during the conversion of diluted potential ordinary shares; and (3) the income tax impact related to the above adjustments.

The denominator of diluted earnings per share is equal to the sum of the following two items: (1) the weighted average of the issued common shares of the parent in the basic earnings per share; and (2) the weighted average number of ordinary shares increased on the assumption that dilutive potential ordinary shares are converted into ordinary shares.

When calculating the weighted average of the number of ordinary shares increased by the conversion of diluted potential ordinary shares into issued ordinary shares, the diluted potential ordinary shares issued in the previous period are assumed to be converted at the beginning of the current period; and diluted potential common shares issued in the current period are assumed to be converted on the issue date.

The basic earnings per share and diluted earnings per share are calculated as follows:

	Unit: Yuan Currency: RMB	
	2019	2018
Income		
Current net profits from continuous operation attributable to the ordinary shareholders of the Company	3,815,874,901.39	3,408,545,542.62
Less: dividend distribution with respect to other equity instruments in the year	-190,205,555.55	-72,062,222.22
Current net profits attributable to ordinary shareholders of the Company after adjustment	3,625,669,345.84	3,336,483,320.40
Attributable to:		
Continuous operation	3,625,669,345.84	3,336,483,320.40
Weighted average number of ordinary shares issued by the Company	9,539,819,000.00	8,789,819,000.00

3. Differences in Accounting Data under Domestic and Overseas Accounting Standards

Applicable Not Applicable

4. Other

Applicable Not Applicable

SECTION XII FIVE-YEAR FINANCIAL SUMMARY

CONSOLIDATED STATEMENT OF PROFIT OR LOSS AND OTHER COMPREHENSIVE INCOME

Unit: Yuan Currency: RMB

Item	2019	2018	2017	2016	2015
Revenue	41,646,286,792.57	40,012,601,322.24	34,585,933,621.04	29,770,196,558.84	24,498,173,891.39
Cost of sales	32,112,103,467.88	30,931,739,704.16	26,057,557,005.89	21,969,499,356.70	17,927,158,302.14
Taxes and surcharges	260,018,767.25	255,740,657.97	221,523,069.81	416,897,973.95	546,621,692.68
Selling and distribution expenses	878,468,933.38	701,572,032.88	692,597,465.78	684,272,422.97	646,558,083.34
General and administrative expenses	2,530,027,201.64	2,462,903,609.57	2,216,705,978.69	2,050,958,820.59	2,757,324,937.10
Research and development expenses	1,583,455,766.97	1,323,503,188.98	1,180,165,035.71	1,050,429,299.45	/
Finance costs	-144,051,571.49	-86,429,029.18	98,770,611.39	-110,018,771.30	-426,756,288.39
Impairment losses on assets	-2,287,468.78	110,408.35	160,789,320.07	67,791,516.04	117,916,635.79
Credit impairment losses	33,715,270.74	113,310,088.29	/	/	/
Investment income	372,775,072.48	55,167,907.21	46,809,804.53	47,502,154.71	60,933,850.04
Gains or losses from disposal of assets	-1,382,312.77	-4,136,576.96	975,322.77	-1,948,710.86	/
Other income	213,181,016.26	171,651,177.97	180,532,715.27	113,184,747.07	/
Operating profit	4,979,410,200.95	4,532,833,169.44	4,186,142,976.27	3,799,104,131.36	2,990,284,378.77
Non-operating income	61,799,594.90	45,181,935.07	34,620,143.00	31,448,456.63	204,586,413.55
Non-operating expenses	13,735,278.90	58,345,128.80	10,974,862.04	7,429,217.34	15,357,171.41
Total profit	5,027,474,516.95	4,519,669,975.71	4,209,788,257.23	3,823,123,370.65	3,179,513,620.91
Income tax expenses	850,426,160.91	802,874,717.84	772,593,993.70	624,641,464.42	520,683,804.06
Net profit	4,177,048,356.04	3,716,795,257.87	3,437,194,263.53	3,198,481,906.23	2,658,829,816.85
Profit or loss attributable to owners of the parent company	3,815,874,901.39	3,408,545,542.62	3,222,483,597.72	3,045,000,334.08	2,521,873,862.26
Profit or loss attributable to non-controlling interests	361,173,454.65	308,249,715.25	214,710,665.81	153,481,572.15	136,955,954.59
Basic earnings per share	0.38	0.38	0.37	0.35	0.33
Diluted earnings per share	0.38	0.38	0.37	0.35	0.33

CONSOLIDATED BALANCE

Unit: Yuan Currency: RMB

Item	2019	2018	2017	2016	2015
Total assets	97,512,591,304.36	79,678,537,628.47	61,244,644,570.65	50,295,006,595.27	41,992,158,296.37
Total liabilities	54,787,913,723.34	49,406,456,079.29	36,020,046,954.65	27,604,534,318.88	22,256,976,729.88
Total Shareholders' equity	42,724,677,581.02	30,272,081,549.18	25,224,597,616.00	22,690,472,276.39	19,735,181,566.49

SECTION XIII DOCUMENTS AVAILABLE FOR INSPECTION

Documents Available for Inspection	The financial report signed and stamped by the legal representative, chief financial officer and head of accounting department of the Company
Documents Available for Inspection	Original copies of all documents and announcements of the Company disclosed on websites designated by the CSRC during the reporting period

Chairman: ZHOU Zhiliang
Date of approval by the Board for submission: 25 March 2020

INFORMATION ON AMENDMENT

Not applicable.

SECTION XIII DOCUMENTS AVAILABLE FOR INSPECTION

Note: Guarantee provided by the Company to its subsidiaries and incurred among subsidiaries

Guarantors	Relationship between guarantors and the listed company	Secured parties	Relationship between secured parties and the listed company	Amount guaranteed	Date of guarantee (Date of agreement signed)	Starting date of guarantee	Ending date of guarantee	Types of guarantee	Whether the guarantee has been duly performed or not	Whether the guarantee is past due or not	Amount guaranteed past due	Whether counter-guarantee existed or not
The Company	Company/home office	Beijing Railway Signal Co., Ltd.	Wholly-owned subsidiary	10,000,000.00	15 June 2019	15 June 2019	14 August 2020	Guarantee with joint responsibilities	No	No	0	No
The Company	Company/home office	CRSC (Beijing) Rail Industry Group Co., Ltd.	Wholly-owned subsidiary	40,000,000.00	15 June 2019	15 June 2019	14 August 2020	Guarantee with joint responsibilities	No	No	0	No
The Company	Company/home office	Chengdu Railway Communications Equipment Co., Ltd.	Wholly-owned subsidiary	1,527,555.00	21 November 2018	21 November 2018	10 October 2020	Guarantee with joint responsibilities	No	No	0	No
The Company	Company/home office	Chengdu Railway Communications Equipment Co., Ltd.	Wholly-owned subsidiary	205,000.00	21 December 2018	21 December 2018	31 December 2020	Guarantee with joint responsibilities	No	No	0	No
The Company	Company/home office	Chengdu Railway Communications Equipment Co., Ltd.	Wholly-owned subsidiary	59,850.00	27 February 2019	27 February 2019	19 February 2020	Guarantee with joint responsibilities	No	No	0	No
The Company	Company/home office	Chengdu Railway Communications Equipment Co., Ltd.	Wholly-owned subsidiary	69,200.00	24 June 2019	24 June 2019	11 June 2020	Guarantee with joint responsibilities	No	No	0	No
The Company	Company/home office	Chengdu Railway Communications Equipment Co., Ltd.	Wholly-owned subsidiary	57,600.00	24 June 2019	24 June 2019	11 June 2020	Guarantee with joint responsibilities	No	No	0	No
The Company	Company/home office	Chengdu Railway Communications Equipment Co., Ltd.	Wholly-owned subsidiary	202,000.00	4 June 2019	4 June 2019	19 June 2020	Guarantee with joint responsibilities	No	No	0	No
The Company	Company/home office	Chengdu Railway Communications Equipment Co., Ltd.	Wholly-owned subsidiary	30,000.00	11 June 2019	11 November 2019	23 January 2020	Guarantee with joint responsibilities	No	No	0	No
The Company	Company/home office	Chengdu Railway Communications Equipment Co., Ltd.	Wholly-owned subsidiary	40,000.00	29 June 2019	29 November 2019	12 February 2020	Guarantee with joint responsibilities	No	No	0	No
The Company	Company/home office	Chengdu Railway Communications Equipment Co., Ltd.	Wholly-owned subsidiary	198,538.00	7 June 2019	7 November 2019	1 February 2022	Guarantee with joint responsibilities	No	No	0	No
The Company	Company/home office	Chengdu Railway Communications Equipment Co., Ltd.	Wholly-owned subsidiary	13,600.00	20 June 2019	20 December 2019	13 November 2021	Guarantee with joint responsibilities	No	No	0	No
The Company	Company/home office	CRSC International Co., Ltd.	Wholly-owned subsidiary	600,000,000.00	1 December 2019	1 December 2019	28 February 2025	Guarantee with joint responsibilities	No	No	0	No
The Company	Company/home office	CRSC International Co., Ltd.	Wholly-owned subsidiary	3,000,000.00	10 January 2019	10 January 2019	10 January 2021	Guarantee with joint responsibilities	No	No	0	No
The Company	Company/home office	CRSC International Co., Ltd.	Wholly-owned subsidiary	615,526.00	6 June 2019	6 June 2019	31 May 2020	Guarantee with joint responsibilities	No	No	0	No
The Company	Company/home office	China Railway Signal & Communication Shanghai Engineering Bureau Group Co., Ltd.	Wholly-owned subsidiary	3,753,734.00	15 May 2019	15 May 2019	31 December 2020	Guarantee with joint responsibilities	No	No	0	No
The Company	Company/home office	China Railway Signal & Communication Shanghai Engineering Bureau Group Co., Ltd.	Wholly-owned subsidiary	2,900,000.00	3 June 2019	3 June 2019	31 December 2019	Guarantee with joint responsibilities	Yes	No	0	No
The Company	Company/home office	China Railway Signal & Communication Shanghai Engineering Bureau Group Co., Ltd.	Wholly-owned subsidiary	35,876,441.76	29 June 2019	29 June 2019	31 December 2021	Guarantee with joint responsibilities	No	No	0	No
The Company	Company/home office	China Railway Signal & Communication Shanghai Engineering Bureau Group Co., Ltd.	Wholly-owned subsidiary	1,600,000,000.00	7 May 2018	7 May 2018	7 May 2020	Guarantee with joint responsibilities	No	No	0	No
The Company	Company/home office	China Railway Signal & Communication Shanghai Engineering Bureau Group Co., Ltd.	Wholly-owned subsidiary	700,000,000.00	18 November 2019	18 November 2019	23 October 2020	Guarantee with joint responsibilities	No	No	0	No
The Company	Company/home office	China Railway Signal & Communication Shanghai Engineering Bureau Group Co., Ltd.	Wholly-owned subsidiary	500,000,000.00	12 December 2019	12 December 2019	11 December 2020	Guarantee with joint responsibilities	No	No	0	No
The Company	Company/home office	China Railway Signal & Communication Shanghai Engineering Bureau Group Co., Ltd.	Wholly-owned subsidiary	150,000,000.00	1 November 2019	1 November 2019	31 October 2020	Guarantee with joint responsibilities	No	No	0	No

SECTION XIII DOCUMENTS AVAILABLE FOR INSPECTION

Guarantors	Relationship between guarantors and the listed company	Secured parties	Relationship between secured parties and the listed company	Amount guaranteed	Date of guarantee (Date of agreement signed)	Starting date of guarantee	Ending date of guarantee	Types of guarantee	Whether the guarantee has been duly performed or not	Whether the guarantee is past due or not	Amount guaranteed past due	Whether counter-guarantee existed or not
The Company	Company/home office	CRSC Institute of Smart City Research & Design	Wholly-owned subsidiary	17,500,000.00	1 November 2019	1 November 2019	3 July 2021	Guarantee with joint responsibilities	No	No	0	No
The Company	Company/home office	CRSC Urban Rail Transit Technology Co., Ltd.	Wholly-owned subsidiary	21,514,542.52	23 September 2015	23 September 2015	1 July 2020	Guarantee with joint responsibilities	No	No	0	No
The Company	Company/home office	CRSC Urban Rail Transit Technology Co., Ltd.	Wholly-owned subsidiary	35,256,667.00	9 April 2018	9 April 2018	20 March 2020	Guarantee with joint responsibilities	No	No	0	No
The Company	Company/home office	CRSC Urban Rail Transit Technology Co., Ltd.	Wholly-owned subsidiary	800,000.00	26 April 2019	26 April 2019	28 February 2020	Guarantee with joint responsibilities	No	No	0	No
The Company	Company/home office	CRSC Urban Rail Transit Technology Co., Ltd.	Wholly-owned subsidiary	800,000.00	18 November 2019	18 November 2019	30 September 2020	Guarantee with joint responsibilities	No	No	0	No
The Company	Company/home office	CRSC Urban Rail Transit Technology Co., Ltd.	Wholly-owned subsidiary	136,715,297.10	22 November 2018	22 November 2018	5 February 2020	Guarantee with joint responsibilities	No	No	0	No
The Company	Company/home office	CRSC Urban Rail Transit Technology Co., Ltd.	Wholly-owned subsidiary	58,066,888.80	22 November 2018	22 November 2018	10 February 2023	Guarantee with joint responsibilities	No	No	0	No
The Company	Company/home office	CRSC Urban Rail Transit Technology Co., Ltd.	Wholly-owned subsidiary	30,663,325.00	22 November 2018	22 November 2018	5 February 2020	Guarantee with joint responsibilities	No	No	0	No
The Company	Company/home office	CRSC Urban Rail Transit Technology Co., Ltd.	Wholly-owned subsidiary	19,270,194.40	15 November 2019	15 November 2019	31 December 2020	Guarantee with joint responsibilities	No	No	0	No
The Company	Company/home office	CRSC Urban Rail Transit Technology Co., Ltd.	Wholly-owned subsidiary	4,000,000.00	15 November 2019	15 November 2019	17 June 2020	Guarantee with joint responsibilities	No	No	0	No
The Company	Company/home office	CRSC Urban Rail Transit Technology Co., Ltd.	Wholly-owned subsidiary	3,000,000.00	17 December 2019	17 December 2019	31 December 2020	Guarantee with joint responsibilities	No	No	0	No
The Company	Company/home office	Beijing Xiandai Signal & Communication Engineering Consultant Ltd.	Wholly-owned subsidiary	6,544,256.40	15 November 2019	15 November 2019	29 September 2020	Guarantee with joint responsibilities	No	No	0	No
The Company	Company/home office	CRSC Communication & Information Group Company Ltd.	Wholly-owned subsidiary	50,000,000.00	24 June 2018	24 June 2018	24 June 2020	Guarantee with joint responsibilities	No	No	0	No
The Company	Company/home office	CRSC Communication & Information Group Company Ltd.	Wholly-owned subsidiary	370,000,000.00	15 November 2019	15 November 2019	29 September 2020	Guarantee with joint responsibilities	No	No	0	No
The Company	Company/home office	CRSC Communication & Information Group Company Ltd.	Wholly-owned subsidiary	200,000.00	15 November 2019	15 November 2019	2 January 2020	Guarantee with joint responsibilities	No	No	0	No
The Company	Company/home office	CRSC Communication & Information Group Company Ltd.	Wholly-owned subsidiary	200,000.00	15 November 2019	15 November 2019	2 January 2020	Guarantee with joint responsibilities	No	No	0	No
The Company	Company/home office	CRSC Communication & Information Group Company Ltd.	Wholly-owned subsidiary	200,000.00	15 November 2019	15 November 2019	2 January 2020	Guarantee with joint responsibilities	No	No	0	No
The Company	Company/home office	CRSC Communication & Information Group Company Ltd.	Wholly-owned subsidiary	750,000.00	15 November 2019	15 November 2019	10 January 2020	Guarantee with joint responsibilities	No	No	0	No
The Company	Company/home office	CRSC Communication & Information Group Company Ltd.	Wholly-owned subsidiary	2,700,000.00	15 November 2019	15 November 2019	10 January 2020	Guarantee with joint responsibilities	No	No	0	No
The Company	Company/home office	CRSC Communication & Information Group Company Ltd.	Wholly-owned subsidiary	46,500.00	15 November 2019	15 November 2019	26 December 2019	Guarantee with joint responsibilities	Yes	No	0	No
The Company	Company/home office	CRSC Communication & Information Group Company Ltd.	Wholly-owned subsidiary	40,500.00	15 November 2019	15 November 2019	26 December 2019	Guarantee with joint responsibilities	Yes	No	0	No
The Company	Company/home office	CRSC Communication & Information Group Company Ltd.	Wholly-owned subsidiary	180,000.00	15 November 2019	15 November 2019	29 December 2019	Guarantee with joint responsibilities	Yes	No	0	No
The Company	Company/home office	CRSC Communication & Information Group Company Ltd.	Wholly-owned subsidiary	525,000.00	15 November 2019	15 November 2019	31 December 2019	Guarantee with joint responsibilities	Yes	No	0	No
The Company	Company/home office	CRSC Communication & Information Group Company Ltd.	Wholly-owned subsidiary	336,222.80	15 November 2019	15 November 2019	31 December 2020	Guarantee with joint responsibilities	No	No	0	No
The Company	Company/home office	CRSC Communication & Information Group Company Ltd.	Wholly-owned subsidiary	124,800.00	15 November 2019	15 November 2019	31 October 2021	Guarantee with joint responsibilities	No	No	0	No
The Company	Company/home office	CRSC Communication & Information Group Company Ltd.	Wholly-owned subsidiary	172,500.00	21 November 2019	21 November 2019	28 February 2020	Guarantee with joint responsibilities	No	No	0	No
The Company	Company/home office	CRSC Communication & Information Group Company Ltd.	Wholly-owned subsidiary	172,500.00	21 November 2019	21 November 2019	28 February 2020	Guarantee with joint responsibilities	No	No	0	No
The Company	Company/home office	CRSC Communication & Information Group Company Ltd.	Wholly-owned subsidiary	209,999.20	21 November 2019	21 November 2019	31 December 2019	Guarantee with joint responsibilities	Yes	No	0	No

SECTION XIII DOCUMENTS AVAILABLE FOR INSPECTION

Guarantors	Relationship between guarantors and the listed company	Secured parties	Relationship between secured parties and the listed company	Amount guaranteed	Date of guarantee (Date of agreement signed)	Starting date of guarantee	Ending date of guarantee	Types of guarantee	Whether the guarantee has been duly performed or not	Whether the guarantee is past due or not	Amount guaranteed past due	Whether counter-guarantee existed or not
The Company	Company/home office	CRSC Communication & Information Group Company Ltd.	Wholly-owned subsidiary	150,000.00	29 November 2019	29 November 2019	17 January 2020	Guarantee with joint responsibilities	No	No	0	No
The Company	Company/home office	CRSC Communication & Information Group Company Ltd.	Wholly-owned subsidiary	164,700.00	29 November 2019	29 November 2019	17 January 2020	Guarantee with joint responsibilities	No	No	0	No
The Company	Company/home office	CRSC Communication & Information Group Company Ltd.	Wholly-owned subsidiary	79,050.00	29 November 2019	29 November 2019	17 January 2020	Guarantee with joint responsibilities	No	No	0	No
The Company	Company/home office	CRSC Communication & Information Group Company Ltd.	Wholly-owned subsidiary	22,950.00	29 November 2019	29 November 2019	17 January 2020	Guarantee with joint responsibilities	No	No	0	No
The Company	Company/home office	CRSC Communication & Information Group Company Ltd.	Wholly-owned subsidiary	3,000.00	28 November 2019	28 November 2019	1 March 2020	Guarantee with joint responsibilities	No	No	0	No
The Company	Company/home office	CRSC Communication & Information Group Company Ltd.	Wholly-owned subsidiary	3,000.00	28 November 2019	28 November 2019	1 March 2020	Guarantee with joint responsibilities	No	No	0	No
The Company	Company/home office	CRSC Communication & Information Group Company Ltd.	Wholly-owned subsidiary	58,000.00	28 November 2019	28 November 2019	1 March 2020	Guarantee with joint responsibilities	No	No	0	No
The Company	Company/home office	CRSC Communication & Information Group Company Ltd.	Wholly-owned subsidiary	6,000.00	28 November 2019	28 November 2019	1 March 2020	Guarantee with joint responsibilities	No	No	0	No
The Company	Company/home office	CRSC Communication & Information Group Company Ltd.	Wholly-owned subsidiary	40,000.00	28 November 2019	28 November 2019	5 May 2020	Guarantee with joint responsibilities	No	No	0	No
The Company	Company/home office	CRSC Communication & Information Group Company Ltd.	Wholly-owned subsidiary	20,000.00	28 November 2019	28 November 2019	5 May 2020	Guarantee with joint responsibilities	No	No	0	No
The Company	Company/home office	CRSC Communication & Information Group Company Ltd.	Wholly-owned subsidiary	55,105.60	28 November 2019	28 November 2019	31 December 2020	Guarantee with joint responsibilities	No	No	0	No
The Company	Company/home office	CRSC Communication & Information Group Company Ltd.	Wholly-owned subsidiary	55,000.00	5 November 2019	5 November 2019	11 February 2020	Guarantee with joint responsibilities	No	No	0	No
The Company	Company/home office	CRSC Communication & Information Group Company Ltd.	Wholly-owned subsidiary	200,000.00	5 November 2019	5 November 2019	19 April 2020	Guarantee with joint responsibilities	No	No	0	No
The Company	Company/home office	CRSC Communication & Information Group Company Ltd.	Wholly-owned subsidiary	478,806.00	5 November 2019	5 November 2019	30 September 2020	Guarantee with joint responsibilities	No	No	0	No
The Company	Company/home office	CRSC Communication & Information Group Company Ltd.	Wholly-owned subsidiary	45,000.00	14 November 2019	14 November 2019	24 April 2020	Guarantee with joint responsibilities	No	No	0	No
The Company	Company/home office	CRSC Communication & Information Group Company Ltd.	Wholly-owned subsidiary	136,940.00	14 November 2019	14 November 2019	31 December 2022	Guarantee with joint responsibilities	No	No	0	No
The Company	Company/home office	CRSC Communication & Information Group Company Ltd.	Wholly-owned subsidiary	223,060.00	14 November 2019	14 November 2019	31 December 2022	Guarantee with joint responsibilities	No	No	0	No
The Company	Company/home office	CRSC Communication & Information Group Company Ltd.	Wholly-owned subsidiary	190,000.00	21 November 2019	21 November 2019	26 March 2020	Guarantee with joint responsibilities	No	No	0	No
The Company	Company/home office	CRSC Communication & Information Group Company Ltd.	Wholly-owned subsidiary	90,000.00	21 November 2019	21 November 2019	26 March 2020	Guarantee with joint responsibilities	No	No	0	No
The Company	Company/home office	CRSC Communication & Information Group Company Ltd.	Wholly-owned subsidiary	50,000.00	21 November 2019	21 November 2019	26 March 2020	Guarantee with joint responsibilities	No	No	0	No
The Company	Company/home office	CRSC Communication & Information Group Company Ltd.	Wholly-owned subsidiary	230,000.00	21 November 2019	21 November 2019	26 March 2020	Guarantee with joint responsibilities	No	No	0	No
The Company	Company/home office	CRSC Communication & Information Group Company Ltd.	Wholly-owned subsidiary	45,000.00	21 November 2019	21 November 2019	26 March 2020	Guarantee with joint responsibilities	No	No	0	No
The Company	Company/home office	CRSC Communication & Information Group Company Ltd.	Wholly-owned subsidiary	220,000.00	21 November 2019	21 November 2019	26 March 2020	Guarantee with joint responsibilities	No	No	0	No
The Company	Company/home office	CRSC Communication & Information Group Company Ltd.	Wholly-owned subsidiary	10,000.00	22 November 2019	22 November 2019	26 March 2020	Guarantee with joint responsibilities	No	No	0	No
The Company	Company/home office	CRSC Communication & Information Group Company Ltd.	Wholly-owned subsidiary	30,000.00	22 November 2019	22 November 2019	27 April 2020	Guarantee with joint responsibilities	No	No	0	No
The Company	Company/home office	CRSC Communication & Information Group Company Ltd.	Wholly-owned subsidiary	30,000.00	22 November 2019	22 November 2019	27 April 2020	Guarantee with joint responsibilities	No	No	0	No
The Company	Company/home office	CRSC Communication & Information Group Company Ltd.	Wholly-owned subsidiary	2,252,523.00	22 November 2019	22 November 2019	30 September 2021	Guarantee with joint responsibilities	No	No	0	No
The Company	Company/home office	CRSC Communication & Information Group Company Ltd.	Wholly-owned subsidiary	2,100.00	22 November 2019	22 November 2019	26 February 2020	Guarantee with joint responsibilities	No	No	0	No

SECTION XIII DOCUMENTS AVAILABLE FOR INSPECTION

Guarantors	Relationship between guarantors and the listed company	Secured parties	Relationship between secured parties and the listed company	Amount guaranteed	Date of guarantee (Date of agreement signed)	Starting date of guarantee	Ending date of guarantee	Types of guarantee	Whether the guarantee has been duly performed or not	Whether the guarantee is past due or not	Amount guaranteed	Whether the guarantee existed or not
The Company	Company/home office	CRSC Communication & Information Group Company Ltd.	Wholly-owned subsidiary	140,000.00	26 December 2019	26 December 2019	31 December 2020	Guarantee with joint responsibilities	No	No	0	No
The Company	Company/home office	CRSC Communication & Information Group Company Ltd.	Wholly-owned subsidiary	7,519,991.80	26 December 2019	26 December 2019	31 December 2021	Guarantee with joint responsibilities	No	No	0	No
The Company	Company/home office	CRSC Communication & Information Group Company Ltd.	Wholly-owned subsidiary	490,000.00	27 December 2019	27 December 2019	1 May 2020	Guarantee with joint responsibilities	No	No	0	No
The Company	Company/home office	CRSC Communication & Information Group Company Ltd.	Wholly-owned subsidiary	20,000.00	27 December 2019	27 December 2019	6 May 2020	Guarantee with joint responsibilities	No	No	0	No
The Company	Company/home office	CRSC Communication & Information Group Company Ltd.	Wholly-owned subsidiary	20,000.00	27 December 2019	27 December 2019	6 May 2020	Guarantee with joint responsibilities	No	No	0	No
The Company	Company/home office	CRSC Communication & Information Group Company Ltd.	Wholly-owned subsidiary	110,000.00	27 December 2019	27 December 2019	6 May 2020	Guarantee with joint responsibilities	No	No	0	No
The Company	Company/home office	CRSC Communication & Information Group Company Ltd.	Wholly-owned subsidiary	4,604,754.75	27 December 2019	27 December 2019	31 December 2020	Guarantee with joint responsibilities	No	No	0	No
The Company	Company/home office	CRSC Communication & Information Group Company Ltd.	Wholly-owned subsidiary	1,000,000.00	18 November 2019	18 November 2019	7 April 2020	Guarantee with joint responsibilities	No	No	0	No
The Company	Company/home office	CRSC Communication & Information Group Company Ltd.	Wholly-owned subsidiary	1,000,000.00	24 November 2019	24 November 2019	23 April 2020	Guarantee with joint responsibilities	No	No	0	No
The Company	Company/home office	CRSC Communication & Information Group Company Ltd.	Wholly-owned subsidiary	1,000,000.00	18 November 2019	18 November 2019	28 May 2020	Guarantee with joint responsibilities	No	No	0	No
The Company	Company/home office	CRSC Communication & Information Group Company Ltd.	Wholly-owned subsidiary	4,000,000.00	18 November 2019	18 November 2019	28 May 2020	Guarantee with joint responsibilities	No	No	0	No
The Company	Company/home office	CRSC Communication & Information Group Company Ltd.	Wholly-owned subsidiary	300,000.00	18 November 2019	18 November 2019	28 May 2020	Guarantee with joint responsibilities	No	No	0	No
The Company	Company/home office	CRSC Communication & Information Group Company Ltd.	Wholly-owned subsidiary	200,000.00	18 November 2019	18 November 2019	28 May 2020	Guarantee with joint responsibilities	No	No	0	No
The Company	Company/home office	CRSC Communication & Information Group Company Ltd.	Wholly-owned subsidiary	500,000.00	18 November 2019	18 November 2019	28 May 2020	Guarantee with joint responsibilities	No	No	0	No
The Company	Company/home office	CRSC Communication & Information Group Shanghai Company Ltd.	Wholly-owned subsidiary	823,500.00	23 October 2017	23 October 2017	1 October 2022	Guarantee with joint responsibilities	No	No	0	No
The Company	Company/home office	CRSC Communication & Information Group Shanghai Company Ltd.	Wholly-owned subsidiary	263,200.00	25 May 2018	25 May 2018	1 October 2022	Guarantee with joint responsibilities	No	No	0	No
The Company	Company/home office	CRSC Communication & Information Group Shanghai Company Ltd.	Wholly-owned subsidiary	792,540.00	21 May 2019	21 May 2019	1 October 2022	Guarantee with joint responsibilities	No	No	0	No
The Company	Company/home office	CRSC Communication & Information Group Shanghai Company Ltd.	Wholly-owned subsidiary	337,500.00	25 June 2019	25 June 2019	1 October 2022	Guarantee with joint responsibilities	No	No	0	No
The Company	Company/home office	CRSC Communication & Information Group Shanghai Company Ltd.	Wholly-owned subsidiary	722,250.00	25 June 2019	25 June 2019	1 October 2022	Guarantee with joint responsibilities	No	No	0	No
The Company	Company/home office	CRSC Communication & Information Group Shanghai Company Ltd.	Wholly-owned subsidiary	1,444,500.00	25 June 2019	25 June 2019	1 October 2022	Guarantee with joint responsibilities	No	No	0	No
The Company	Company/home office	Beijing Nera Station Communication Equipment Co., Ltd.	Controlled subsidiary	1,996,916.00	15 September 2017	15 September 2017	30 September 2022	Guarantee with joint responsibilities	No	No	0	No
The Company	Company/home office	Beijing Nera Station Communication Equipment Co., Ltd.	Controlled subsidiary	336,076.00	1 November 2017	1 November 2017	31 December 2021	Guarantee with joint responsibilities	No	No	0	No
The Company	Company/home office	Beijing Nera Station Communication Equipment Co., Ltd.	Controlled subsidiary	44,960.00	13 February 2018	13 February 2018	31 January 2022	Guarantee with joint responsibilities	No	No	0	No
The Company	Company/home office	Beijing Nera Station Communication Equipment Co., Ltd.	Controlled subsidiary	975,000.00	26 April 2019	26 April 2019	22 April 2021	Guarantee with joint responsibilities	No	No	0	No
The Company	Company/home office	CRSC Information Industry Co., Ltd.	Wholly-owned subsidiary	55,000.00	27 May 2019	27 May 2019	31 May 2020	Guarantee with joint responsibilities	No	No	0	No
The Company	Company/home office	Tianhui Railway Cable Co., Ltd.	Wholly-owned subsidiary	2,063,990.00	22 August 2018	22 August 2018	1 November 2020	Guarantee with joint responsibilities	No	No	0	No
The Company	Company/home office	Tianhui Railway Cable Co., Ltd.	Wholly-owned subsidiary	774,000.00	22 August 2018	22 August 2018	1 November 2020	Guarantee with joint responsibilities	No	No	0	No
The Company	Company/home office	Tianhui Railway Cable Co., Ltd.	Wholly-owned subsidiary	1,308,414.94	24 October 2018	24 October 2018	31 December 2019	Guarantee with joint responsibilities	Yes	No	0	No

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Guarantors	Relationship between guarantors and the listed company	Secured parties	Relationship between secured parties and the listed company	Amount guaranteed	Date of agreement signed)	Starting date of guarantee	Ending date of guarantee	Types of guarantee	Whether the guarantee has been duly performed or not	Whether the guarantee is past due or not	Amount guaranteed	Whether counter-guarantee existed or not
The Company	Company/home office	Tanshui Railway Cable Co., Ltd.	Wholly-owned subsidiary	27,162,478.15	25 October 2018	25 October 2018	31 December 2019	Guarantee with joint responsibilities	Yes	No	0	No
The Company	Company/home office	Tanshui Railway Cable Co., Ltd.	Wholly-owned subsidiary	3,604,369.44	30 October 2018	30 October 2018	31 December 2019	Guarantee with joint responsibilities	Yes	No	0	No
The Company	Company/home office	Tanshui Railway Cable Co., Ltd.	Wholly-owned subsidiary	829,920.85	28 June 2019	28 June 2019	21 May 2020	Guarantee with joint responsibilities	No	No	0	No
The Company	Company/home office	Tanshui Railway Cable Co., Ltd.	Wholly-owned subsidiary	1,380,383.70	19 June 2019	19 June 2019	25 June 2020	Guarantee with joint responsibilities	No	No	0	No
The Company	Company/home office	Tanshui Railway Cable Co., Ltd.	Wholly-owned subsidiary	1,209,221.00	11 November 2019	11 November 2019	15 August 2020	Guarantee with joint responsibilities	No	No	0	No
The Company	Company/home office	Tanshui Railway Cable Co., Ltd.	Wholly-owned subsidiary	59,300.00	11 November 2019	11 November 2019	17 January 2020	Guarantee with joint responsibilities	No	No	0	No
The Company	Company/home office	Tanshui Railway Cable Co., Ltd.	Wholly-owned subsidiary	59,300.00	11 November 2019	11 November 2019	17 January 2020	Guarantee with joint responsibilities	No	No	0	No
The Company	Company/home office	Tanshui Railway Cable Co., Ltd.	Wholly-owned subsidiary	619,500.00	11 November 2019	11 November 2019	17 January 2020	Guarantee with joint responsibilities	No	No	0	No
The Company	Company/home office	Tanshui Railway Cable Co., Ltd.	Wholly-owned subsidiary	514,500.00	11 November 2019	11 November 2019	19 January 2020	Guarantee with joint responsibilities	No	No	0	No
The Company	Company/home office	Tanshui Railway Cable Co., Ltd.	Wholly-owned subsidiary	150,000.00	11 November 2019	11 November 2019	12 January 2020	Guarantee with joint responsibilities	No	No	0	No
The Company	Company/home office	Tanshui Railway Cable Co., Ltd.	Wholly-owned subsidiary	568,500.00	11 November 2019	11 November 2019	19 January 2020	Guarantee with joint responsibilities	No	No	0	No
The Company	Company/home office	Tanshui Railway Cable Co., Ltd.	Wholly-owned subsidiary	225,000.00	11 November 2019	11 November 2019	19 January 2020	Guarantee with joint responsibilities	No	No	0	No
The Company	Company/home office	Tanshui Railway Cable Co., Ltd.	Wholly-owned subsidiary	510,000.00	11 November 2019	11 November 2019	29 February 2020	Guarantee with joint responsibilities	No	No	0	No
The Company	Company/home office	Tanshui Railway Cable Co., Ltd.	Wholly-owned subsidiary	800,000.00	11 November 2019	11 November 2019	29 February 2020	Guarantee with joint responsibilities	No	No	0	No
The Company	Company/home office	Tanshui Railway Cable Co., Ltd.	Wholly-owned subsidiary	1,209,221.00	11 November 2019	11 November 2019	12 June 2020	Guarantee with joint responsibilities	No	No	0	No
The Company	Company/home office	Tanshui Railway Cable Co., Ltd.	Wholly-owned subsidiary	111,000.00	11 November 2019	11 November 2019	1 March 2020	Guarantee with joint responsibilities	No	No	0	No
The Company	Company/home office	Tanshui Railway Cable Co., Ltd.	Wholly-owned subsidiary	150,000.00	6 November 2019	6 November 2019	20 March 2020	Guarantee with joint responsibilities	No	No	0	No
The Company	Company/home office	Tanshui Railway Cable Co., Ltd.	Wholly-owned subsidiary	645,000.00	6 November 2019	6 November 2019	29 February 2020	Guarantee with joint responsibilities	No	No	0	No
The Company	Company/home office	Tanshui Railway Cable Co., Ltd.	Wholly-owned subsidiary	42,000.00	2 December 2019	2 December 2019	17 April 2020	Guarantee with joint responsibilities	No	No	0	No
The Company	Company/home office	Tanshui Railway Cable Co., Ltd.	Wholly-owned subsidiary	42,000.00	2 December 2019	2 December 2019	17 April 2020	Guarantee with joint responsibilities	No	No	0	No
The Company	Company/home office	Tanshui Railway Cable Co., Ltd.	Wholly-owned subsidiary	96,000.00	2 December 2019	2 December 2019	17 April 2020	Guarantee with joint responsibilities	No	No	0	No
The Company	Company/home office	Tanshui Railway Cable Co., Ltd.	Wholly-owned subsidiary	195,000.00	2 December 2019	2 December 2019	17 April 2020	Guarantee with joint responsibilities	No	No	0	No
The Company	Company/home office	Tanshui Railway Cable Co., Ltd.	Wholly-owned subsidiary	800,000.00	2 December 2019	2 December 2019	17 April 2020	Guarantee with joint responsibilities	No	No	0	No
The Company	Company/home office	Tanshui Railway Cable Co., Ltd.	Wholly-owned subsidiary	849,367.50	9 December 2019	9 December 2019	27 November 2020	Guarantee with joint responsibilities	No	No	0	No
The Company	Company/home office	Tanshui Railway Cable Co., Ltd.	Wholly-owned subsidiary	514,889.99	9 December 2019	9 December 2019	15 February 2021	Guarantee with joint responsibilities	No	No	0	No
The Company	Company/home office	Jiaozuo Railway Cable Co., Ltd.	Wholly-owned subsidiary	432,646.60	1 August 2016	1 August 2016	31 December 2019	Guarantee with joint responsibilities	Yes	No	0	No
The Company	Company/home office	Jiaozuo Railway Cable Co., Ltd.	Wholly-owned subsidiary	426,095.00	1 March 2017	1 March 2017	30 June 2020	Guarantee with joint responsibilities	No	No	0	No

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Guarantors	Relationship between guarantors and the listed company	Secured parties	Relationship between secured parties and the listed company	Amount guaranteed	Date of guarantee (Date of agreement signed)	Starting date of guarantee	Ending date of guarantee	Types of guarantee	Whether the guarantee has been duly performed or not	Whether the guarantee is past due or not	Amount guaranteed past due	Whether counter-guarantee existed or not
The Company	Company/home office	Jiaozuo Railway Cable Co., Ltd.	Wholly-owned subsidiary	1,809,670.00	1 January 2018	1 January 2018	30 December 2021	Guarantee with joint responsibilities	No	No	0	No
The Company	Company/home office	Jiaozuo Railway Cable Co., Ltd.	Wholly-owned subsidiary	336,000.00	1 February 2018	1 February 2018	31 December 2020	Guarantee with joint responsibilities	No	No	0	No
The Company	Company/home office	Jiaozuo Railway Cable Co., Ltd.	Wholly-owned subsidiary	1,376,103.30	1 January 2018	1 January 2018	31 December 2019	Guarantee with joint responsibilities	Yes	No	0	No
The Company	Company/home office	Jiaozuo Railway Cable Co., Ltd.	Wholly-owned subsidiary	723,641.71	1 May 2018	1 May 2018	31 December 2020	Guarantee with joint responsibilities	No	No	0	No
The Company	Company/home office	Jiaozuo Railway Cable Co., Ltd.	Wholly-owned subsidiary	890,012.23	1 May 2018	1 May 2018	30 May 2020	Guarantee with joint responsibilities	No	No	0	No
The Company	Company/home office	Jiaozuo Railway Cable Co., Ltd.	Wholly-owned subsidiary	100,000.00	1 June 2018	1 June 2018	31 December 2019	Guarantee with joint responsibilities	Yes	No	0	No
The Company	Company/home office	Jiaozuo Railway Cable Co., Ltd.	Wholly-owned subsidiary	1,361,297.60	1 June 2018	1 June 2018	31 December 2019	Guarantee with joint responsibilities	Yes	No	0	No
The Company	Company/home office	Jiaozuo Railway Cable Co., Ltd.	Wholly-owned subsidiary	3,990,656.40	1 June 2018	1 June 2018	31 August 2020	Guarantee with joint responsibilities	No	No	0	No
The Company	Company/home office	Jiaozuo Railway Cable Co., Ltd.	Wholly-owned subsidiary	2,119,959.60	1 July 2018	1 July 2018	31 January 2020	Guarantee with joint responsibilities	No	No	0	No
The Company	Company/home office	Jiaozuo Railway Cable Co., Ltd.	Wholly-owned subsidiary	1,224,983.80	1 July 2018	1 July 2018	31 December 2019	Guarantee with joint responsibilities	Yes	No	0	No
The Company	Company/home office	Jiaozuo Railway Cable Co., Ltd.	Wholly-owned subsidiary	1,257,806.40	1 August 2018	1 August 2018	31 January 2020	Guarantee with joint responsibilities	No	No	0	No
The Company	Company/home office	Jiaozuo Railway Cable Co., Ltd.	Wholly-owned subsidiary	4,417,470.50	1 August 2018	1 August 2018	31 December 2019	Guarantee with joint responsibilities	Yes	No	0	No
The Company	Company/home office	Jiaozuo Railway Cable Co., Ltd.	Wholly-owned subsidiary	22,719.50	1 September 2018	1 September 2018	30 September 2020	Guarantee with joint responsibilities	No	No	0	No
The Company	Company/home office	Jiaozuo Railway Cable Co., Ltd.	Wholly-owned subsidiary	64,000.00	1 September 2018	1 September 2018	31 December 2019	Guarantee with joint responsibilities	Yes	No	0	No
The Company	Company/home office	Jiaozuo Railway Cable Co., Ltd.	Wholly-owned subsidiary	663,888.70	1 September 2018	1 September 2018	31 December 2020	Guarantee with joint responsibilities	Yes	No	0	No
The Company	Company/home office	Jiaozuo Railway Cable Co., Ltd.	Wholly-owned subsidiary	397,504.80	1 September 2018	1 September 2018	31 December 2019	Guarantee with joint responsibilities	Yes	No	0	No
The Company	Company/home office	Jiaozuo Railway Cable Co., Ltd.	Wholly-owned subsidiary	36,386.42	1 September 2018	1 September 2018	31 December 2019	Guarantee with joint responsibilities	Yes	No	0	No
The Company	Company/home office	Jiaozuo Railway Cable Co., Ltd.	Wholly-owned subsidiary	53,600.20	1 October 2018	1 October 2018	31 December 2019	Guarantee with joint responsibilities	Yes	No	0	No
The Company	Company/home office	Jiaozuo Railway Cable Co., Ltd.	Wholly-owned subsidiary	3,682,408.20	1 November 2018	1 November 2018	31 December 2019	Guarantee with joint responsibilities	Yes	No	0	No
The Company	Company/home office	Jiaozuo Railway Cable Co., Ltd.	Wholly-owned subsidiary	330,414.02	1 November 2018	1 November 2018	31 December 2019	Guarantee with joint responsibilities	Yes	No	0	No
The Company	Company/home office	Jiaozuo Railway Cable Co., Ltd.	Wholly-owned subsidiary	230,330.59	1 November 2018	1 November 2018	31 December 2019	Guarantee with joint responsibilities	Yes	No	0	No
The Company	Company/home office	Jiaozuo Railway Cable Co., Ltd.	Wholly-owned subsidiary	12,733.20	1 December 2018	1 December 2018	31 December 2019	Guarantee with joint responsibilities	Yes	No	0	No
The Company	Company/home office	Jiaozuo Railway Cable Co., Ltd.	Wholly-owned subsidiary	53,512.50	1 December 2018	1 December 2018	31 December 2019	Guarantee with joint responsibilities	Yes	No	0	No
The Company	Company/home office	Jiaozuo Railway Cable Co., Ltd.	Wholly-owned subsidiary	24,601.80	1 December 2018	1 December 2018	31 December 2019	Guarantee with joint responsibilities	Yes	No	0	No
The Company	Company/home office	Jiaozuo Railway Cable Co., Ltd.	Wholly-owned subsidiary	25,652.10	1 December 2018	1 December 2018	31 December 2019	Guarantee with joint responsibilities	Yes	No	0	No
The Company	Company/home office	Jiaozuo Railway Cable Co., Ltd.	Wholly-owned subsidiary	729,000.80	1 December 2018	1 December 2018	30 May 2020	Guarantee with joint responsibilities	No	No	0	No
The Company	Company/home office	Jiaozuo Railway Cable Co., Ltd.	Wholly-owned subsidiary	54,377.50	1 December 2018	1 December 2018	30 May 2020	Guarantee with joint responsibilities	No	No	0	No
The Company	Company/home office	Jiaozuo Railway Cable Co., Ltd.	Wholly-owned subsidiary	34,948.30	1 December 2018	1 December 2018	31 January 2020	Guarantee with joint responsibilities	No	No	0	No

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Guarantors	Relationship between guarantors and the listed company	Secured parties	Relationship between secured parties and the listed company	Amount guaranteed	Date of agreement signed	Starting date of guarantee	Ending date of guarantee	Types of guarantee	Whether the guarantee has been duly performed or not	Whether the guarantee is past due or not	Amount guaranteed	Whether the counter-guarantee existed or not
The Company	Company/home office	Jiaozuo Railway Cable Co., Ltd.	Wholly-owned subsidiary	4,970,804.40	1 December 2018	1 December 2018	31 December 2021	Guarantee with joint responsibilities	No	No	0	No
The Company	Company/home office	Jiaozuo Railway Cable Co., Ltd.	Wholly-owned subsidiary	688,066.60	1 December 2018	1 December 2018	31 December 2021	Guarantee with joint responsibilities	No	No	0	No
The Company	Company/home office	Jiaozuo Railway Cable Co., Ltd.	Wholly-owned subsidiary	433,042.50	1 March 2019	1 March 2019	31 January 2020	Guarantee with joint responsibilities	No	No	0	No
The Company	Company/home office	Jiaozuo Railway Cable Co., Ltd.	Wholly-owned subsidiary	190,259.90	1 March 2019	1 March 2019	31 January 2020	Guarantee with joint responsibilities	No	No	0	No
The Company	Company/home office	Jiaozuo Railway Cable Co., Ltd.	Wholly-owned subsidiary	332,077.10	1 April 2019	1 April 2019	31 December 2022	Guarantee with joint responsibilities	No	No	0	No
The Company	Company/home office	Jiaozuo Railway Cable Co., Ltd.	Wholly-owned subsidiary	998,200.20	1 April 2019	1 April 2019	31 December 2019	Guarantee with joint responsibilities	Yes	No	0	No
The Company	Company/home office	Jiaozuo Railway Cable Co., Ltd.	Wholly-owned subsidiary	58,003.29	1 April 2019	1 April 2019	30 June 2020	Guarantee with joint responsibilities	No	No	0	No
The Company	Company/home office	Jiaozuo Railway Cable Co., Ltd.	Wholly-owned subsidiary	420,910.03	1 June 2019	1 June 2019	30 June 2020	Guarantee with joint responsibilities	No	No	0	No
The Company	Company/home office	Jiaozuo Railway Cable Co., Ltd.	Wholly-owned subsidiary	315,000.00	17 November 2019	17 November 2019	17 January 2020	Guarantee with joint responsibilities	No	No	0	No
The Company	Company/home office	Jiaozuo Railway Cable Co., Ltd.	Wholly-owned subsidiary	660,000.00	17 November 2019	17 November 2019	17 January 2020	Guarantee with joint responsibilities	No	No	0	No
The Company	Company/home office	Jiaozuo Railway Cable Co., Ltd.	Wholly-owned subsidiary	40,000.00	17 November 2019	17 November 2019	24 January 2020	Guarantee with joint responsibilities	No	No	0	No
The Company	Company/home office	Jiaozuo Railway Cable Co., Ltd.	Wholly-owned subsidiary	525,000.00	17 November 2019	17 November 2019	19 January 2020	Guarantee with joint responsibilities	No	No	0	No
The Company	Company/home office	Jiaozuo Railway Cable Co., Ltd.	Wholly-owned subsidiary	207,000.00	17 November 2019	17 November 2019	19 January 2020	Guarantee with joint responsibilities	No	No	0	No
The Company	Company/home office	Jiaozuo Railway Cable Co., Ltd.	Wholly-owned subsidiary	500,000.00	17 November 2019	17 November 2019	25 January 2020	Guarantee with joint responsibilities	No	No	0	No
The Company	Company/home office	Jiaozuo Railway Cable Co., Ltd.	Wholly-owned subsidiary	356,640.30	17 November 2019	17 November 2019	6 September 2020	Guarantee with joint responsibilities	No	No	0	No
The Company	Company/home office	Jiaozuo Railway Cable Co., Ltd.	Wholly-owned subsidiary	853,991.10	1 November 2019	1 November 2019	26 October 2020	Guarantee with joint responsibilities	No	No	0	No
The Company	Company/home office	Jiaozuo Railway Cable Co., Ltd.	Wholly-owned subsidiary	800,000.00	1 November 2019	1 November 2019	29 February 2020	Guarantee with joint responsibilities	No	No	0	No
The Company	Company/home office	Jiaozuo Railway Cable Co., Ltd.	Wholly-owned subsidiary	10,000.00	1 November 2019	1 November 2019	29 February 2020	Guarantee with joint responsibilities	No	No	0	No
The Company	Company/home office	Jiaozuo Railway Cable Co., Ltd.	Wholly-owned subsidiary	150,000.00	26 November 2019	26 November 2019	26 March 2020	Guarantee with joint responsibilities	No	No	0	No
The Company	Company/home office	Jiaozuo Railway Cable Co., Ltd.	Wholly-owned subsidiary	45,000.00	26 November 2019	26 November 2019	26 March 2020	Guarantee with joint responsibilities	No	No	0	No
The Company	Company/home office	Jiaozuo Railway Cable Co., Ltd.	Wholly-owned subsidiary	750,000.00	26 November 2019	26 November 2019	26 March 2020	Guarantee with joint responsibilities	No	No	0	No
The Company	Company/home office	Jiaozuo Railway Cable Co., Ltd.	Wholly-owned subsidiary	800,000.00	26 November 2019	26 November 2019	26 March 2020	Guarantee with joint responsibilities	No	No	0	No
The Company	Company/home office	Jiaozuo Railway Cable Co., Ltd.	Wholly-owned subsidiary	853,991.10	23 November 2019	23 November 2019	4 November 2020	Guarantee with joint responsibilities	No	No	0	No
The Company	Company/home office	Jiaozuo Railway Cable Co., Ltd.	Wholly-owned subsidiary	530,000.00	27 November 2019	27 November 2019	27 March 2020	Guarantee with joint responsibilities	No	No	0	No
The Company	Company/home office	Jiaozuo Railway Cable Co., Ltd.	Wholly-owned subsidiary	600,000.00	27 November 2019	27 November 2019	27 March 2020	Guarantee with joint responsibilities	No	No	0	No
The Company	Company/home office	Jiaozuo Railway Cable Co., Ltd.	Wholly-owned subsidiary	207,000.00	27 November 2019	27 November 2019	27 March 2020	Guarantee with joint responsibilities	No	No	0	No
The Company	Company/home office	Jiaozuo Railway Cable Co., Ltd.	Wholly-owned subsidiary	53,200.80	17 December 2019	17 December 2019	21 December 2020	Guarantee with joint responsibilities	No	No	0	No
The Company	Company/home office	Jiaozuo Railway Cable Co., Ltd.	Wholly-owned subsidiary	116,000.00	17 December 2019	17 December 2019	17 April 2020	Guarantee with joint responsibilities	No	No	0	No

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Guarantors	Relationship between guarantors and the listed company	Secured parties	Relationship between secured parties and the listed company	Amount guaranteed	Date of guarantee (Date of agreement signed)	Starting date of guarantee	Ending date of guarantee	Types of guarantee	Whether the guarantee has been duly performed or not	Whether the guarantee is past due or not	Amount guaranteed past due	Whether counter-guarantee existed or not
The Company	Company/home office	Jiaozuo Railway Cable Co., Ltd.	Wholly-owned subsidiary	220,000.00	17 December 2019	17 December 2019	17 April 2020	Guarantee with joint responsibilities	No	No	0	No
The Company	Company/home office	Jiaozuo Railway Cable Co., Ltd.	Wholly-owned subsidiary	10,000.00	17 December 2019	17 December 2019	17 April 2020	Guarantee with joint responsibilities	No	No	0	No
The Company	Company/home office	Jiaozuo Railway Cable Co., Ltd.	Wholly-owned subsidiary	800,000.00	17 December 2019	17 December 2019	17 April 2020	Guarantee with joint responsibilities	No	No	0	No
The Company	Company/home office	Jiaozuo Railway Cable Co., Ltd.	Wholly-owned subsidiary	260,000.00	17 December 2019	17 December 2019	17 April 2020	Guarantee with joint responsibilities	No	No	0	No
The Company	Company/home office	Jiaozuo Railway Cable Co., Ltd.	Wholly-owned subsidiary	200,000.00	17 December 2019	17 December 2019	17 April 2020	Guarantee with joint responsibilities	No	No	0	No
The Company	Company/home office	Jiaozuo Railway Cable Co., Ltd.	Wholly-owned subsidiary	10,000.00	17 December 2019	17 December 2019	17 April 2020	Guarantee with joint responsibilities	No	No	0	No
The Company	Company/home office	Jiaozuo Railway Cable Co., Ltd.	Wholly-owned subsidiary	150,000.00	17 December 2019	17 December 2019	17 April 2020	Guarantee with joint responsibilities	No	No	0	No
The Company	Company/home office	Jiaozuo Railway Cable Co., Ltd.	Wholly-owned subsidiary	250,000.00	17 December 2019	17 December 2019	17 April 2020	Guarantee with joint responsibilities	No	No	0	No
The Company	Company/home office	Jiaozuo Railway Cable Co., Ltd.	Wholly-owned subsidiary	15,000.00	17 December 2019	17 December 2019	17 April 2020	Guarantee with joint responsibilities	No	No	0	No
The Company	Company/home office	CRSC Engineering Bureau Group Construction Engineering Co., Ltd.	Wholly-owned subsidiary	600,000,000.00	29 March 2019	29 March 2019	30 March 2022	Guarantee with joint responsibilities	No	No	0	No
The Company	Company/home office	CRSC Engineering Group Electric Engineering Co., Ltd.	Wholly-owned subsidiary	130,000.00	12 November 2019	12 November 2019	8 January 2020	Guarantee with joint responsibilities	No	No	0	No
The Company	Company/home office	CRSCE Beijing Research & Design Experiment Center Ltd.	Wholly-owned subsidiary	40,000.00	19 June 2019	19 June 2019	30 July 2021	Guarantee with joint responsibilities	No	No	0	No
The Company	Company/home office	CRSCE Beijing Research & Design Experiment Center Ltd.	Wholly-owned subsidiary	60,000.00	14 September 2018	14 September 2018	8 May 2020	Guarantee with joint responsibilities	No	No	0	No
The Company	Company/home office	CRSC Engineering Bureau Group Information Technology Co., Ltd.	Wholly-owned subsidiary	1,027,220.42	19 June 2019	19 June 2019	30 June 2023	Guarantee with joint responsibilities	No	No	0	No
The Company	Company/home office	CRSC Engineering Group Company Ltd.	Wholly-owned subsidiary	500,000,000.00	20 November 2019	20 November 2019	20 November 2021	Guarantee with joint responsibilities	No	No	0	No
The Company	Company/home office	CRSC Engineering Group Company Ltd.	Wholly-owned subsidiary	610,538.93	24 April 2019	24 April 2019	20 March 2020	Guarantee with joint responsibilities	No	No	0	No
The Company	Company/home office	CRSC Engineering Group Company Ltd.	Wholly-owned subsidiary	610,538.93	24 April 2019	24 April 2019	13 July 2020	Guarantee with joint responsibilities	No	No	0	No
The Company	Company/home office	CRSC Engineering Group Company Ltd.	Wholly-owned subsidiary	211,103.30	24 April 2019	24 April 2019	20 March 2020	Guarantee with joint responsibilities	No	No	0	No
The Company	Company/home office	Xian Railway Signal Co., Ltd.	Wholly-owned subsidiary	3,496,108.93	21 February 2019	21 February 2019	11 January 2020	Guarantee with joint responsibilities	No	No	0	No
The Company	Company/home office	Xian Railway Signal Co., Ltd.	Wholly-owned subsidiary	358,193.00	17 June 2019	17 June 2019	20 May 2020	Guarantee with joint responsibilities	No	No	0	No
The Company	Company/home office	Xian Railway Signal Co., Ltd.	Wholly-owned subsidiary	997,443.00	17 June 2019	17 June 2019	20 May 2020	Guarantee with joint responsibilities	No	No	0	No
The Company	Company/home office	Xian Railway Signal Co., Ltd.	Wholly-owned subsidiary	307,551.00	18 November 2019	18 November 2019	8 October 2020	Guarantee with joint responsibilities	No	No	0	No
The Company	Company/home office	Xian Railway Signal Co., Ltd.	Wholly-owned subsidiary	359,060.10	18 November 2019	18 November 2019	30 September 2020	Guarantee with joint responsibilities	No	No	0	No
The Company	Company/home office	Xian Railway Signal Co., Ltd.	Wholly-owned subsidiary	896,964.00	14 November 2019	14 November 2019	9 April 2021	Guarantee with joint responsibilities	No	No	0	No
The Company	Company/home office	Xian Railway Signal Co., Ltd.	Wholly-owned subsidiary	210,874.08	14 November 2019	14 November 2019	20 June 2020	Guarantee with joint responsibilities	No	No	0	No
The Company	Company/home office	Xian Railway Signal Co., Ltd.	Wholly-owned subsidiary	333,991.32	26 November 2019	26 November 2019	20 December 2020	Guarantee with joint responsibilities	No	No	0	No

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Guarantors	Relationship between guarantors and the listed company	Secured parties	Relationship between secured parties and the listed company	Amount guaranteed	Date of guarantee (Date of agreement signed)	Starting date of guarantee	Ending date of guarantee	Types of guarantee	Whether the guarantee has been duly performed or not	Whether the guarantee is past due or not	Amount guaranteed	Whether the counter-guarantee existed or not
The Company	Company/home office	Xian Railway Signal Co., Ltd.	Wholly-owned subsidiary	104,418.20	26 December 2019	26 December 2019	2 March 2020	Guarantee with joint responsibilities	No	No	0	No
The Company	Company/home office	Tianjin Railway Signal Co., Ltd.	Wholly-owned subsidiary	3,633,701.90	6 January 2017	6 January 2017	20 October 2020	Guarantee with joint responsibilities	No	No	0	No
The Company	Company/home office	Tianjin Railway Signal Co., Ltd.	Wholly-owned subsidiary	194,364.30	16 November 2017	16 November 2017	31 December 2019	Guarantee with joint responsibilities	Yes	No	0	No
The Company	Company/home office	Tianjin Railway Signal Co., Ltd.	Wholly-owned subsidiary	169,848.60	23 March 2018	23 March 2018	7 March 2020	Guarantee with joint responsibilities	No	No	0	No
The Company	Company/home office	Tianjin Railway Signal Co., Ltd.	Wholly-owned subsidiary	63,326.30	28 August 2018	28 August 2018	31 December 2019	Guarantee with joint responsibilities	Yes	No	0	No
The Company	Company/home office	Tianjin Railway Signal Co., Ltd.	Wholly-owned subsidiary	488,000.00	28 August 2018	28 August 2018	30 December 2020	Guarantee with joint responsibilities	No	No	0	No
The Company	Company/home office	Tianjin Railway Signal Co., Ltd.	Wholly-owned subsidiary	119,448.26	8 October 2018	8 October 2018	31 December 2019	Guarantee with joint responsibilities	Yes	No	0	No
The Company	Company/home office	Tianjin Railway Signal Co., Ltd.	Wholly-owned subsidiary	490,000.00	8 October 2018	8 October 2018	31 December 2019	Guarantee with joint responsibilities	Yes	No	0	No
The Company	Company/home office	Tianjin Railway Signal Co., Ltd.	Wholly-owned subsidiary	153,000.00	17 December 2018	17 December 2018	31 December 2019	Guarantee with joint responsibilities	Yes	No	0	No
The Company	Company/home office	Tianjin Railway Signal Co., Ltd.	Wholly-owned subsidiary	75,500.00	4 January 2019	4 January 2019	31 December 2019	Guarantee with joint responsibilities	Yes	No	0	No
The Company	Company/home office	Tianjin Railway Signal Co., Ltd.	Wholly-owned subsidiary	830,576.50	24 January 2019	24 January 2019	31 December 2019	Guarantee with joint responsibilities	Yes	No	0	No
The Company	Company/home office	Tianjin Railway Signal Co., Ltd.	Wholly-owned subsidiary	950.37	8 March 2019	8 March 2019	8 March 2019	Guarantee with joint responsibilities	Yes	No	0	No
The Company	Company/home office	Tianjin Railway Signal Co., Ltd.	Wholly-owned subsidiary	21,000.00	8 March 2019	8 March 2019	31 December 2019	Guarantee with joint responsibilities	Yes	No	0	No
The Company	Company/home office	Tianjin Railway Signal Co., Ltd.	Wholly-owned subsidiary	27,648.68	8 March 2019	8 March 2019	30 March 2020	Guarantee with joint responsibilities	No	No	0	No
The Company	Company/home office	Tianjin Railway Signal Co., Ltd.	Wholly-owned subsidiary	3,978.80	12 March 2019	12 March 2019	30 March 2020	Guarantee with joint responsibilities	No	No	0	No
The Company	Company/home office	Tianjin Railway Signal Co., Ltd.	Wholly-owned subsidiary	982.23	23 April 2019	23 April 2019	30 May 2020	Guarantee with joint responsibilities	No	No	0	No
The Company	Company/home office	Tianjin Railway Signal Co., Ltd.	Wholly-owned subsidiary	252,000.00	31 May 2019	31 May 2019	1 June 2021	Guarantee with joint responsibilities	No	No	0	No
The Company	Company/home office	Tianjin Railway Signal Co., Ltd.	Wholly-owned subsidiary	253,000.00	31 May 2019	31 May 2019	1 June 2021	Guarantee with joint responsibilities	No	No	0	No
The Company	Company/home office	Tianjin Railway Signal Co., Ltd.	Wholly-owned subsidiary	15,000.00	28 June 2019	28 June 2019	4 January 2020	Guarantee with joint responsibilities	No	No	0	No
The Company	Company/home office	Tianjin Railway Signal Co., Ltd.	Wholly-owned subsidiary	30,000.00	28 June 2019	28 June 2019	4 January 2020	Guarantee with joint responsibilities	No	No	0	No
The Company	Company/home office	Tianjin Railway Signal Co., Ltd.	Wholly-owned subsidiary	386,880.00	3 June 2019	3 June 2019	15 October 2020	Guarantee with joint responsibilities	No	No	0	No
The Company	Company/home office	Tianjin Railway Signal Co., Ltd.	Wholly-owned subsidiary	30,000.00	17 June 2019	17 June 2019	24 January 2020	Guarantee with joint responsibilities	No	No	0	No
The Company	Company/home office	Tianjin Railway Signal Co., Ltd.	Wholly-owned subsidiary	31,000.00	17 June 2019	17 June 2019	25 January 2020	Guarantee with joint responsibilities	No	No	0	No
The Company	Company/home office	Tianjin Railway Signal Co., Ltd.	Wholly-owned subsidiary	7,500.00	29 June 2019	29 June 2019	6 February 2020	Guarantee with joint responsibilities	No	No	0	No
The Company	Company/home office	Tianjin Railway Signal Co., Ltd.	Wholly-owned subsidiary	46,250.91	6 June 2019	6 June 2019	31 July 2020	Guarantee with joint responsibilities	No	No	0	No
The Company	Company/home office	Tianjin Railway Signal Co., Ltd.	Wholly-owned subsidiary	8,000.00	23 June 2019	23 June 2019	4 March 2020	Guarantee with joint responsibilities	No	No	0	No
The Company	Company/home office	Tianjin Railway Signal Co., Ltd.	Wholly-owned subsidiary	9,000.00	30 November 2019	30 November 2019	10 March 2020	Guarantee with joint responsibilities	No	No	0	No
The Company	Company/home office	Tianjin Railway Signal Co., Ltd.	Wholly-owned subsidiary	30,000.00	30 November 2019	30 November 2019	10 March 2020	Guarantee with joint responsibilities	No	No	0	No

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Guarantors	Relationship between guarantors and the listed company	Secured parties	Relationship between secured parties and the listed company	Amount guaranteed	Date of guarantee (Date of agreement signed)	Starting date of guarantee	Ending date of guarantee	Types of guarantee	Whether the guarantee has been duly performed or not	Whether the guarantee is past due or not	Amount guaranteed past due	Whether counter-guarantee existed or not
The Company	Company/home office	Tianjin Railway Signal Co., Ltd.	Wholly-owned subsidiary	78,000.00	19 November 2019	19 November 2019	25 March 2020	Guarantee with joint responsibilities	No	No	0	No
The Company	Company/home office	Tianjin Railway Signal Co., Ltd.	Wholly-owned subsidiary	10,000.00	17 October 2019	17 October 2019	22 April 2020	Guarantee with joint responsibilities	No	No	0	No
The Company	Company/home office	Tianjin Railway Signal Co., Ltd.	Wholly-owned subsidiary	80,000.00	17 November 2019	17 November 2019	22 April 2020	Guarantee with joint responsibilities	No	No	0	No
The Company	Company/home office	Tianjin Railway Signal Co., Ltd.	Wholly-owned subsidiary	30,000.00	17 November 2019	17 November 2019	22 April 2020	Guarantee with joint responsibilities	No	No	0	No
The Company	Company/home office	Tianjin Railway Signal Co., Ltd.	Wholly-owned subsidiary	30,980.00	31 October 2019	31 October 2019	30 December 2020	Guarantee with joint responsibilities	No	No	0	No
The Company	Company/home office	Tianjin Railway Signal Co., Ltd.	Wholly-owned subsidiary	22,000.00	31 October 2019	31 October 2019	7 May 2020	Guarantee with joint responsibilities	No	No	0	No
The Company	Company/home office	Tianjin Railway Signal Co., Ltd.	Wholly-owned subsidiary	13,000.00	14 November 2019	14 November 2019	30 December 2020	Guarantee with joint responsibilities	No	No	0	No
The Company	Company/home office	Tianjin Railway Signal Co., Ltd.	Wholly-owned subsidiary	40,000.00	14 November 2019	14 November 2019	20 May 2020	Guarantee with joint responsibilities	No	No	0	No
The Company	Company/home office	Tianjin Railway Signal Co., Ltd.	Wholly-owned subsidiary	29,300.00	26 November 2019	26 November 2019	30 December 2020	Guarantee with joint responsibilities	No	No	0	No
The Company	Company/home office	Tianjin Railway Signal Co., Ltd.	Wholly-owned subsidiary	42,000.00	26 November 2019	26 November 2019	31 December 2020	Guarantee with joint responsibilities	No	No	0	No
The Company	Company/home office	Tianjin Railway Signal Co., Ltd.	Wholly-owned subsidiary	2,035.40	26 November 2019	26 November 2019	30 November 2020	Guarantee with joint responsibilities	No	No	0	No
The Company	Company/home office	Tianjin Railway Signal Co., Ltd.	Wholly-owned subsidiary	15,000.00	12 December 2019	12 December 2019	12 June 2020	Guarantee with joint responsibilities	No	No	0	No
The Company	Company/home office	Tianjin Railway Signal Co., Ltd.	Wholly-owned subsidiary	636,080.00	12 December 2019	12 December 2019	12 December 2021	Guarantee with joint responsibilities	No	No	0	No
The Company	Company/home office	Tianjin Railway Signal Co., Ltd.	Wholly-owned subsidiary	64,500.00	12 December 2019	12 December 2019	31 December 2020	Guarantee with joint responsibilities	No	No	0	No
The Company	Company/home office	Tianjin Railway Signal Co., Ltd.	Wholly-owned subsidiary	102,591.50	23 December 2019	23 December 2019	31 December 2020	Guarantee with joint responsibilities	No	No	0	No
The Company	Company/home office	Tianjin Railway Signal Co., Ltd.	Wholly-owned subsidiary	26,690.00	23 December 2019	23 December 2019	31 January 2021	Guarantee with joint responsibilities	No	No	0	No
The Company	Company/home office	Tianjin Railway Signal Co., Ltd.	Wholly-owned subsidiary	169,000.00	23 December 2019	23 December 2019	30 December 2020	Guarantee with joint responsibilities	No	No	0	No
The Company	Company/home office	Tianjin Railway Signal Co., Ltd.	Wholly-owned subsidiary	70,000.00	26 December 2019	26 December 2019	9 July 2020	Guarantee with joint responsibilities	No	No	0	No
The Company	Company/home office	Xian Railway Signal Co., Ltd.	Wholly-owned subsidiary	50,000,000.00	30 November 2019	30 November 2019	29 September 2020	Guarantee with joint responsibilities	No	No	0	No
The Company	Company/home office	Tianjin Railway Signal Co., Ltd.	Wholly-owned subsidiary	50,000,000.00	30 November 2019	30 November 2019	29 September 2020	Guarantee with joint responsibilities	No	No	0	No
The Company	Company/home office	Shenyang Railway Signal Co., Ltd.	Wholly-owned subsidiary	50,000,000.00	30 November 2019	30 November 2019	29 September 2020	Guarantee with joint responsibilities	No	No	0	No
The Company	Company/home office	CRSC (Zhengzhou) Zhongnan Engineering Co., Ltd.	Controlled subsidiary	4,837,594.00	8 November 2019	8 November 2019	8 May 2020	Guarantee with joint responsibilities	No	No	0	No

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China Railway Signal & Communication Shanghai Engineering Bureau Group Co., Ltd.	Wholly-owned subsidiary	Shanghai Xinmain Information Technology Co., Ltd.	Wholly-owned subsidiary	150,000,000.00	12 December 2019	12 December 2019	11 December 2020	Guarantee with joint responsibilities	No	No	0	No
Beijing National Railway Research & Design Institute of Signal & Communication Co., Ltd.	Wholly-owned subsidiary	Beijing Xandai Signal & Communication Engineering Consultant Ltd.	Wholly-owned subsidiary	6,498,027.94	1 November 2019	1 November 2019	29 September 2020	Guarantee with joint responsibilities	No	No	0	No
Beijing National Railway Research & Design Institute of Signal & Communication Co., Ltd.	Wholly-owned subsidiary	Beijing Xandai Signal & Communication Engineering Consultant Ltd.	Wholly-owned subsidiary	1,113,320.80	1 November 2019	1 November 2019	29 September 2020	Guarantee with joint responsibilities	No	No	0	No
Beijing National Railway Research & Design Institute of Signal & Communication Co., Ltd.	Wholly-owned subsidiary	Beijing Xandai Signal & Communication Engineering Consultant Ltd.	Wholly-owned subsidiary	7,733,301.00	1 November 2019	1 November 2019	29 September 2020	Guarantee with joint responsibilities	No	No	0	No
Beijing National Railway Research & Design Institute of Signal & Communication Co., Ltd.	Wholly-owned subsidiary	Beijing Xandai Signal & Communication Engineering Consultant Ltd.	Wholly-owned subsidiary	7,309,896.38	1 November 2019	1 November 2019	29 September 2020	Guarantee with joint responsibilities	No	No	0	No
Beijing National Railway Research & Design Institute of Signal & Communication Co., Ltd.	Wholly-owned subsidiary	Beijing Xandai Signal & Communication Engineering Consultant Ltd.	Wholly-owned subsidiary	2,960,767.00	1 November 2019	1 November 2019	29 September 2020	Guarantee with joint responsibilities	No	No	0	No
Zhengzhou Zhongyuan Railway Holding subsidiary Engineering Co., Ltd.	Wholly-owned subsidiary	Zhengzhou Railway Engineer Co., Ltd.	Holding subsidiary	100,000,000.00	26 October 2018	26 October 2018	31 August 2020	Guarantee with joint responsibilities	No	No	0	No

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Guarantors	Relationship between guarantors and the listed company	Secured parties	Relationship between secured parties and the listed company	Amount guaranteed	Date of guarantee (Date of agreement signed)	Starting date of guarantee	Ending date of guarantee	Types of guarantee	Whether the guarantee has been duly performed or not	Whether the guarantee is past due or not	Amount guaranteed past due	Whether counter-guarantee existed or not
CRSC Communication & Information Group Company Ltd.	Wholly-owned subsidiary	CRSC Communication & Information Group Company Ltd.	Wholly-owned subsidiary	50,000,000.00	28 November 2018	28 November 2018	27 November 2021	Guarantee with joint responsibilities	No	No	0	No
CRSC Guizhou Construction Co., Ltd	Wholly-owned subsidiary	CRSC Yijin Hongshun Project Management Co., Ltd	Holding subsidiary	231,000,000.00	30 May 2018	30 May 2018	29 May 2028	Guarantee with joint responsibilities	No	No	0	No
Total guarantee to its subsidiary incurred during the reporting period												
Total balance of guarantee to its subsidiaries as at the end of the reporting period (B)												
Aggregate guarantee of the Company (including those provided to subsidiaries)												
Aggregate guarantee (A+B)				6,327,652,516.02								
Percentage of aggregate guarantee to net assets of the Company (%) Representing:				15.39%								
Amount of guarantee provided to shareholders, ultimate controller and their related parties (C)				-								
Amount of debts guarantee directly or indirectly provided to guaranteed parties with gearing ratio over 70% (D)				5,349,315,881.16								
Excess amount of aggregate guarantee over 50% of net assets (E)				-								
Aggregate amount of the above three categories (C+D+E)				5,349,315,881.16								
Statement on the contingent joint and several liability in connection with unexpired guarantee												
Statement on guarantee												
Percentage of the total guarantee amount to net assets of the Company = guarantee amount/equity attributable to owners of the parent company. As of 31 December 2019, the balance of guarantee amounted to RMB6,328 million, accounting for 15.39% of the net assets, of which: the balance of guarantee provided to Wholly-owned subsidiaries amounted to RMB5,989 million; the balance of guarantee provided to Holding subsidiaries amounted to RMB339 million. No guarantee has been provided by the Company to Controlling Shareholders, actual controllers and related parties. As at the end of the period, the balance of guarantee provided by the Companies to subsidiaries with gearing ratio over 70% amounted to RMB5,349 million.												

Note: The repeat guarantees in the sheet are independent L/Gs provided by the Company on business demand and on section basis, which is not the same guarantee, despite it has the same indicators presented as required of the list.

CRSC

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*China Railway Signal & Communication Corporation Limited**
中國鐵路通信信號股份有限公司