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中國中鐵股份有限公司 CHINA RAILWAY GROUP LIMITED

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

(Stock Code: 390)

RESULTS ANNOUNCEMENT FOR THE YEAR OF 2021

The board of directors (the "Board" or "Board of Directors") of China Railway Group Limited (the "Company" or "China Railway") is pleased to announce the audited consolidated results of the Company and its subsidiaries (the "Group") for the year ended 31 December 2021.

1 CORPORATE INFORMATION

Basic Information

Stock Name: China Railway (A Share) China Railway (H Share)

Stock Code: 601390 390

Stock Exchange on Shanghai Stock Exchange The Stock Exchange

which Shares are Listed: of Hong Kong Limited

Registered Address: 918, Block 1, No. 128, South 4th Ring Road West,

Fengtai District, Beijing, People's Republic of China

Postal Code: 100070

Website: www.crec.cn E-mail: ir@crec.cn

Contact Details

Name: He Wen (Board secretary) Duan Yinhua (Securities

affairs representative)

Address: Block A, China Railway Square, No. 69 Fuxing Road,

Haidian District, Beijing, People's Republic of China

Postal Code: 100039

Telephone: 86-10-5187 8413 Facsimile: 86-10-5187 8417

E-mail: ir@crec.cn dyh@crecg.com

2 SUMMARY OF ACCOUNTING DATA

2.1 Key Accounting Data Prepared under International Financial Reporting Standard ("IFRS")

2.1.1 Summary of consolidated income statement

						Change
		For the year	ar ended 31 I	December		2021 vs
	2021	2020	2019	2018	2017	2020
		ŀ	RMB million			(%)
Revenue						
Infrastructure Construction	953,038	876,310	762,084	646,914	611,095	8.8
Survey, Design and						
Consulting Services	18,607	17,321	17,031	15,095	13,761	7.4
Engineering Equipment and						
Component Manufacturing	33,176	29,793	24,322	20,787	18,521	11.4
Property Development	51,300	49,763	43,662	43,991	30,951	3.1
Other Businesses	101,942	74,183	70,402	67,730	53,074	37.4
Inter-segment Eliminations	,	,	,	,	,	
and Adjustments	(84,791)	(72,638)	(66,658)	(54,134)	(38,629)	
m	4 000 000	0=1=00	0.70.040	- 40.000	(00 0	10.1
Total	1,073,272	974,732	850,843	740,383	688,773	10.1
C D 04	102.207	00.100	70.064	71 (50	(2.720	14.6
Gross Profit	103,386	90,189	79,864	71,658	62,729	14.6
Profit before Tax	39,636	35,612	33,187	24,945	20,828	11.3
Profit for the Year	30,470	27,250	25,379	17,436	14,204	11.8
TO 69, 6 (1 X7 (4 N 4 N 4 N 4 N 4 N 4 N 4 N 4 N 4 N 4						
Profit for the Year attributable	37 (10	25 100	22 (70	17 100	16.067	0.7
to Owners of the Company	27,618	25,188	23,678	17,198	16,067	9.6
Dagia Famings non Chara (DMD)	1.037	0.963	0.050	0.718	0.660	77
Basic Earnings per Share (RMB)	1.03/	0.903	0.950	0.718	0.669	7.7

2.1.2 Summary of consolidated balance sheet

	As at 31 December						
	2021	2020	2019	2018	2017	2021 vs 2020	
	RMB million						
Assets							
Current Assets	801,058	742,107	709,770	652,040	641,668	7.9	
Non-current Assets	560,522	457,870	346,271	290,473	202,254	22.4	
Total Assets	1,361,580	1,199,977	1,056,041	942,513	843,992	13.5	
Liabilities							
Current Liabilities	787,860	705,145	676,034	622,475	579,303	11.7	
Non-current Liabilities	215,526	181,786	134,679	98,057	95,061	18.6	
Total Liabilities	1,003,386	886,931	810,713	720,532	674,364	13.1	
Total Equity	358,194	313,046	245,328	221,981	169,558	14.4	
Total Equity and Liabilities	1,361,580	1,199,977	1,056,041	942,513	843,992	13.5	

2.2 Differences between Chinese Accounting Standard ("CAS") and IFRS

	Net Assets as at 31 December 2021 RMB million	Profit for the year ended 31 December 2021 RMB million
Amount attributable to the ordinary shareholders of the Company stated in the financial statements prepared in accordance with CAS Adjustments as required by IFRS: - Recognition of loss on shares	275,270	27,618
conversion scheme of a subsidiary	(148)	
Amount attributable to the owners of the Company stated in the financial statements prepared in accordance with IFRS	275,122	27,618

3 CHANGES IN SHARE CAPITAL AND INFORMATION ON SHAREHOLDERS

3.1 Changes in Shares Capital

3.1.1 Changes in shares

During the Reporting Period, there have been no changes in respect of the total number of shares and the share equity structure of the Company.

3.1.2 Explanation on changes in shares

Not applicable

3.1.3 Impacts of changes in share on the financial indicators of earnings per share, net assets per share for the most recent year and the most recent period

Not applicable

3.1.4 Other contents that the Company deems necessary or required by the securities regulatory authority to be disclosed

Not applicable

3.2 Changes in Shares with Selling Restrictions

Not applicable

- 3.3 Issuance and Listing of Securities
 - 3.3.1 Issuance of securities as at the reporting period

Not applicable

3.3.2 Changes in respect of the total number of shares and the share equity structure of the Company and changes in respect of the asset and liability structure of the Company

Not applicable

3.3.3 Existing internal employee shares

Not applicable

3.4 Information of Shareholders and Ultimate Controller

3.4.1 Number of Shareholders

Total number of shareholders of ordinary shares	
as at the end of the reporting period	545,307
Total number of shareholders of ordinary shares at the end	
of the month preceding the date of this announcement	510,464
Total number of shareholders of preference shares with	
reinstated voting rights as at the end of the reporting period	0
Total number of shareholders of preference shares with	
reinstated voting rights at the end of the month preceding	
the date of this announcement	0

3.4.2 Shareholdings of the Top Ten Shareholders and Top Ten Shareholders of Tradable Shares (or Shareholders without Selling Restrictions) as at the End of the Reporting Period

Unit: Shares

Shareholdings of the top ten shareholders

No.	Name of shareholder	Increase/ decrease during the reporting report	Total number of shares held at the end of the period	Shareholding percentage	Number of shares with selling restriction	Number o or frozer Conditions of shares		Nature of shareholder
1	China Railway Engineering Group Company Limited ("CREC") (Note 1)	0	11,598,764,390	47.21	0	Nil	0	State-owned legal person
2	HKSCC Nominees Limited (Note 2)	369,831	4,009,162,630	16.32	0	Nil	0	Other
3	China Securities Finance Corporation Limited	-64,351,353	619,264,325	2.52	0	Nil	0	State-owned legal person
4	China Reform Holdings Corporation Ltd.	0	387,050,131	1.58	0	Nil	0	State-owned legal person
5	China Great Wall Asset Management Co., Ltd	0	372,192,507	1.51	0	Nil	0	State-owned legal person
6	Hong Kong Securities Clearing Company Limited	49,515,012	355,150,928	1.45	0	Nil	0	Other
7	Central Huijin Asset Management Ltd.	-5,019,600	230,435,700	0.94	0	Nil	0	State-owned legal person
8	China Orient Asset Management Co., Ltd.	0	223,271,744	0.91	0	Nil	0	State-owned legal person
9	China Structural Reform Fund Corporation Limited	-49,227,500	172,396,399	0.70	0	Nil	0	State-owned legal person

No.	Name of shareholder	Increase/ decrease during the reporting report	Total number of shares held at the end of the period	Shareholding percentage	Number of shares with selling restriction	Number of or frozent Conditions of shares		Nature of shareholder
10	Boshi Fund – Agricultural Bank of China – Boshi China Securities	0	131,135,600	0.53	0	Nil	0	Other
	Financial Asset Management Plan Yifangda Fund – Agricultural Bank of China – Yifangda China Securities	0	131,135,600	0.53	0	Nil	0	Other
	Financial Asset Management Plan Dacheng Fund – Agricultural Bank of China – Dacheng China Securities	0	131,135,600	0.53	0	Nil	0	Other
	Financial Asset Management Plan Jiashi Fund – Agricultural Bank of China – Jiashi China Securities	0	131,135,600	0.53	0	Nil	0	Other
	Financial Asset Management Plan Guangfa Fund – Agricultural Bank of China – Guangfa China Securities	0	131,135,600	0.53	0	Nil	0	Other
	Financial Asset Management Plan Central European Fund – Agricultural Bank of China – Central European China Securities Financial Asset Management Plan	0	131,135,600	0.53	0	Nil	0	Other
	Huaxia Fund – Agricultural Bank of China – Huaxia China Securities Financial Asset Management Plan	0	131,135,600	0.53	0	Nil	0	Other
	Yinhua Fund – Agricultural Bank of China – Yinhua China Securities	0	131,135,600	0.53	0	Nil	0	Other
	Financial Asset Management Plan Southern Fund – Agricultural Bank of China – Southern China Securities Financial Asset Management Plan	0	131,135,600	0.53	0	Nil	0	Other

Statement on the related relations and concerted actions between the shareholders above

CREC, the controlling shareholder, does not have related relations or perform concerted actions with the above other shareholders. The Company is not aware of any related relationships or concerted action relationships between the above shareholders.

Shareholdings of the top ten shareholders without selling restrictions

		Number of shares held		
		without selling	Type and numb	er of shares
No.	Name of shareholder	restrictions	Type	Number
1	CREC (Note1)	11,434,370,390	RMB-denominated	11,434,370,390
			ordinary shares	
		164,394,000	Overseas listed	164,394,000
			foreign shares	
2	HKSCC Nominees Limited	4,009,162,630	Overseas listed	4,009,162,630
	(Note 2)		foreign shares	<10.0<1.00<7
3	China Securities Finance	619,264,325	RMB-denominated	619,264,325
	Corporation Limited		ordinary shares	207.070.424
4	China Reform Holdings	387,050,131	RMB-denominated	387,050,131
~	Corporation Ltd.	252 102 505	ordinary shares	272 102 507
5	China Great Wall Asset	372,192,507	RMB-denominated	372,192,507
(Management Co., Ltd.	255 150 020	ordinary shares	255 150 020
6	Hong Kong Securities	355,150,928	RMB-denominated	355,150,928
7	Clearing Company Limited	220 425 700	ordinary shares	220 425 700
7	Central Huijin Asset	230,435,700	RMB-denominated	230,435,700
0	Management Ltd. China Orient Asset	222 271 744	ordinary shares RMB-denominated	222 271 744
8		223,271,744		223,271,744
9	Management Co., Ltd. China Structural Reform	172 206 200	ordinary shares RMB-denominated	172,396,399
9	Fund Corporation Limited	172,396,399	ordinary shares	172,390,399
10	Boshi Fund – Agricultural	131,135,600	RMB-denominated	131,135,600
10	Bank of China – Boshi	131,133,000	ordinary shares	131,133,000
	China Securities Financial		ordinary snares	
	Asset Management Plan			
	Yifangda Fund – Agricultural	131,135,600	RMB-denominated	131,135,600
	Bank of China – Yifangda	131,133,000	ordinary shares	131,133,000
	China Securities Financial		ordinary snares	
	Asset Management Plan			
	Dacheng Fund – Agricultural	131,135,600	RMB-denominated	131,135,600
	Bank of China – Dacheng	101,100,000	ordinary shares	101,100,000
	China Securities Financial			
	Asset Management Plan			
	Jiashi Fund – Agricultural	131,135,600	RMB-denominated	131,135,600
	Bank of China – Jiashi China	, ,	ordinary shares	, ,
	Securities Financial Asset		J	
	Management Plan			
	Guangfa Fund – Agricultural	131,135,600	RMB-denominated	131,135,600
	Bank of China – Guangfa		ordinary shares	,
	China Securities Financial		•	
	Asset Management Plan			

No.	Name of shareholder	Number of shares held without selling restrictions	Type and numb Type	per of shares Number		
	Central European Fund – Agricultural Bank of China – Central European China Securities Financial Asset Management Plan	131,135,600	RMB-denominated ordinary shares	131,135,600		
	Huaxia Fund – Agricultural Bank of China – Huaxia China Securities Financial Asset Management Plan	131,135,600	RMB-denominated ordinary shares	131,135,600		
	Yinhua Fund – Agricultural Bank of China – Yinhua China Securities Financial Asset Management Plan	131,135,600	RMB-denominated ordinary shares	131,135,600		
	Southern Fund – Agricultural Bank of China – Southern China Securities Financial Asset Management Plan	131,135,600	RMB-denominated ordinary shares	131,135,600		
	ment on the special account for chase of the top ten shareholders			Nil		
right, absta	ment on entrustment of voting voting right by proxy and ining from voting of the holders above			Nil		
and c	ment on the related relations oncerted actions between nareholders above	related relations the above other aware of any	CREC, the controlling shareholder, does not have related relations or perform concerted actions with the above other shareholders. The Company is not aware of any related relationships or concerted action relationships between the above shareholders.			
prefe	ment on shareholders of rence shares with reinstated g rights and the number of			Nil		

- Note 1: CREC held 11,598,764,390 shares of the Company (including 11,434,370,390 A shares and 164,394,000 H shares).
- Note 2: H shares held by HKSCC Nominees Limited are held on behalf of its various clients, and the number of H shares held by CREC is already deducted.
- Note 3: A shares held by Hong Kong Securities Clearing Company Limited are held on behalf of its various clients.
- Note 4: The data shown in the tale is based on the register of members of the Company as at 31 December 2021.

shares held

3.4.3 Shareholdings of top ten shareholders of shares with selling restrictions and terms of selling restrictions

Not applicable

3.4.4 Strategic Investors or General Legal Persons Becoming the Top Ten Shareholders by Placing New Shares

Not applicable

3.5 Substantial Shareholders and Holders of Interests or Short Positions Required to be Disclosed under Divisions 2 and 3 of Part XV of the Securities and Futures Ordinance

As at 31 December 2021, the Company had been informed by the following persons that they had interests or short positions in the shares or underlying shares of the Company as recorded in the register required to be maintained under Section 336 of the SFO:

Holder of A shares

Name of substantial shareholders	Capacity	Number of A shares held (Shares)		Approximate percentage of issued A shares	Approximate percentage of total issued shares
CREC	Beneficial owner	11,434,370,390	Long position	56.15	46.54

Holder of H shares

Name of substantial shareholders	Capacity	Number of H shares held (Shares)	Nature of interest	Approximate percentage of issued H shares (%)	Approximate percentage of total issued shares (%)
BlackRock, Inc.	Interest of controlled corporations	210,681,172 26,066,000	Long position Short position	5.01 0.62	0.86 0.11
Deutsche Bank Aktiengesellschaft	(Note 1)	229,803,271 123,424,962 10,406,000	Long position Short position Lending Pool	5.46 2.93 0.25	0.94 0.50 0.04
Lehman Brothers Holdings Inc.	Interest of controlled corporations	210,186,560 94,560,550	Long position Short position	5.00 2.25	0.86 0.38

Note:

1 According to the Corporate Substantial Shareholder Notice filed by Deutsche Bank Aktiengesellschaft with the Hong Kong Stock Exchange dated 13 January 2014, the interests held by Deutsche Bank Aktiengesellschaft were held in the following capacities:

Capacity	Number of H shares (Long position)	Number of H shares (Short position)
Beneficial owner	139,171,310	123,424,962
Person having a security interest in shares	17,515,361	_
Interest of controlled corporations	54,042,600	_
Custodian corporation	10,406,000	_
Others	8,668,000	_

2 The interests or short positions include the underlying shares as follows:

	Long Position				Short Position			
Name of substantial shareholders	Listed equity derivative payment in kind	Listed equity derivatives settled in cash	Non-listed equity derivatives payment in kind	Non-listed equity derivatives settled in cash	Listed equity derivatives payment in kind	Listed equity derivatives settled in cash	Non-listed equity derivatives payment in kind	Non-listed equity derivatives settled in cash
BlackRock, Inc.	-	-	_	5,885,000	_	_	_	1,116,000
Deutsche Bank Aktiengesellschaft	_	_	_	17,624,000	_	_	_	10,166,000
Lehman Brothers								
Holdings Inc.	_	_	10,000,000	_	_	_	60,000	_

Apart from the foregoing, as at 31 December 2021, no person or corporation had any interest in the share capital of the Company as recorded in the register required to be kept under section 336 of the SFO as having an interest of or any short position in the issued share capital of the Company that would fall to be disclosed to the Company under Divisions 2 and 3 of Part XV of the SFO.

3.6 Information on Controlling Shareholder and Ultimate Controller

3.6.1 Details of Controlling Shareholder

(1) Legal person

Name of controlling shareholder China Railway Engineering Group

Company Limited

Legal representative Date of establishment Principal business CHEN Yun 7 March 1990

Construction works, related engineering technological research, survey, design, services, manufacturing of specialized equipment and development and operation of real estates.

Details of controlling interests and investments in other domestic and overseas-listed companies during the reporting period
Other information

Nil

Nil

(2) Natural person

Not applicable

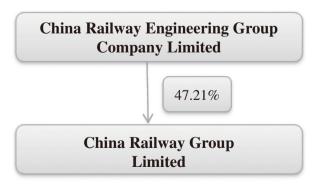
(3) Special explanation that the Company does not have any controlling shareholder

Not applicable

(4) Details of changes of the controlling shareholder during the reporting period

Not applicable

3.6.2 The diagram of the interests and controlling relationships between the Company and the ultimate controller



Note: The registration of the first grant of the Company's 2021 restricted shares incentive scheme was completed on 23 March 2022, and the Company's total issued share capital increased from 24,570,929,283 shares to 24,741,653,683 shares. After the completion of such grant, the controlling shareholder of the company remains China Railway Engineering Group Company Limited, and its shareholding ratio has changed to 46.88%.

3.6.3 Details of Ultimate Controller

(1) Legal person

Ultimate controller of the Company – State-owned Assets Supervision and Administration Commission of the State Council ("SASAC"), 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). Currently, the State-owned Assets Supervision and Administration Commission holds 90% equity interests in CREC and National Social Security Fund holds 10% equity interests in CREC.

(2) Natural person

Not applicable

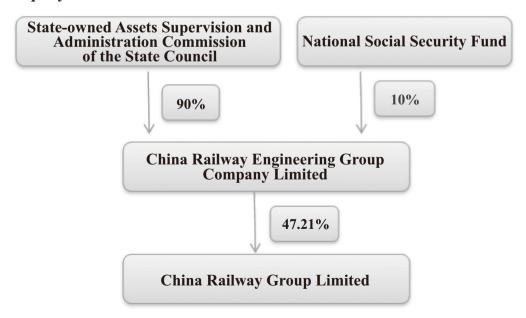
(3) Special explanation that the Company does not have any controlling shareholder

Not applicable

(4) Details of changes of the controlling shareholder during the reporting period

Not applicable

3.6.4 The diagram of the interests and controlling relationships between the Company and the ultimate controller



Note: The registration of the first grant of the Company's 2021 restricted shares incentive scheme was completed on 23 March 2022, and the Company's total issued share capital increased from 24,570,929,283 shares to 24,741,653,683 shares. After the completion of such grant, the controlling shareholder of the company remains China Railway Engineering Group Company Limited, and its shareholding ratio has changed to 46.88%.

3.6.5 Ultimate controller control the Company through trust or other asset management methods

Not applicable

3.7 The Company's Controlling Shareholder and the Party Acting in Concert thereof holding Cumulative Pledged Shares accounting for over 80% of the Company's Shares

Not applicable

3.8 Other Legal Person Shareholders with Shareholding of over 10%

As of the end of the reporting period, except for HKSCC Nominees Limited, the Company has no other legal person shareholders with shareholding over 10%.

3.9 Information on the Restrictions on Reduction of Shareholdings

Not applicable

3.10 Details of Repurchase of Shares during the Reporting Period

Not applicable

4 MANAGEMENT DISCUSSION AND ANALYSIS

4.1 Review and Outlook

The year 2021 was a milestone year in the history of both the Party and the country, and the first year that China Railway Group had embarked on a new journey based on the 14th Five-Year Plan. Over the past year, faced with challenges brought by great changes and a pandemic unseen in a century, we, guided by General Secretary Xi Jinping's Thought on Socialism with Chinese Characteristics for a New Era, took the initiative to implement the decisions and plans of the CPC Central Committee and The State Council as well as the work assignments of the State-owned Assets Supervision and Administration Commission. As a "frontier", we focused on high-quality development, strengthened strategic guidance, adhered to the "123456" work strategy, and vigorously promoted efficiency improvement and value creation, with all economic indicators hitting a record high. Our revenue exceeded RMB1 trillion for the first time, and our ranking among the world's top 500 companies rose to 35th, making a good start to the 14th Five-year Plan, and delivering excellent results for the Party, the country and the capital market.

In 2021, we, cherishing the greatness of our country, demonstrated our responsibility as a "frontier" by serving the national strategy with our practical implementations and achievements. Based on the national strategy of developing China into a transport powerhouse, coordinating regional development, and revitalizing rural areas, we successfully completed key projects such as the Larin Railway, Facilities for the Beijing Winter Olympic Games, Qingdao Jiaodong International Airport, and the Chibi Yangtze River Bridge, as well as a number of high-speed railways linking Beijing with Harbin, Zhangjiajie-Jishou-Huaihua and Mudanjiang-Jiamusi. We made great progress with high standards and quality in the construction of the Sichuan-Tibet Railway, a major project of the century; deeply implemented the Belt and Road Initiative by making steady progress in the construction of major Belt and Road projects such as the Jakarta-Bandung High-speed Railway in Indonesia and the Padma Bridge in Bangladesh, as well as the China-Laos Railway, which was put into service officiated by leaders of China and Laos; implemented ecological and environmental protection measures, and actively participated in the Yangtze and Yellow River basin ecological protection. We also deeply involved in the comprehensive poverty alleviation and rural vitalization efforts and engaged in epidemic prevention and control and earthquake and flood relief in many regions, demonstrating our responsibility as a state-owned enterprise.

This year, we inspired the source of vitality and deepened the enterprise reform as a "frontier" to demonstrate the contemporary spirit of the new era. We developed action plans for management improvement based on world-class standards and fulfilled more than 70% of the targets set out in the three-year SoE reform action plan as scheduled while following the "measurable, assessable, testable, and practical" principles. We established three major systems of "functional management, production and operation management, supervision and security" for the Company headquarters, optimized the operation system and mechanism, promoted the specialized, differentiated and substantive development of investment companies, and introduced a series of major measures to strengthen the building of boards of directors, improve the governance of parent-subsidiary companies and deepen reform of the three systems, in order to build a mature modern enterprise system with Chinese characteristics, further improve the efficiency of enterprise operation and achieve vigorous development of the Company.

This year, we, persisting in self-reliance and self-improvement, demonstrated our pioneering spirit as a "frontier" with fruitful achievements in scientific and technological innovation. Guided by the important instructions of "Three Transformations" made by General Secretary Xi Jinping during his inspection of China Railway Engineering Equipment Group, we, focusing on the "Four Facing" strategic deployment (facing the forefront of science and technology, the main battlefield of the economy, the major needs of the country, and the people's lives and health), formulated the 14th Five-Year Plan for the development of scientific and technological innovation, strove to create a source of original technologies, and made breakthroughs in key technologies for a number of "high-tech, major, difficult and new" projects. World-leading achievements were attained in three special tasks. CRHEEC was listed on the Science and Technology Innovation Board. Five products, including the fullsection tunneling excavator, were selected as national "Manufacturing Champion". We made great progress in promoting the digital transformation and green construction of enterprises and won 7 National Science and Technology Progress and Invention Awards, 9 China Patent Awards and 12 Zhan Tianyou Awards. One of our engineers was elected as academician of the Chinese Academy of Engineering and two were elected National Survey and Design Masters.

This year, we strengthened our enterprise risk control and effectively demonstrated the corporate governance philosophy of a "frontier" with legal and compliant management. We balanced development and security. Remaining mindful of danger in security and chaos in governance, we took the initiative in proactively identifying and minimizing risk factors, comprehensively examined the subsidiaries' risk elements, successfully resolved the risks of the "Bandar Malaysia Project" and constantly improved our risk prevention and control capabilities. We strengthened the building of China Railway under the rule of law, in compliance with regulations and fostered a rule of law culture in which the law is always top of mind – the law must be acted upon, the law must be consulted in decision-making, and the law must be relied on in governance. We established a comprehensive risk management system, embedding risk management in all links of enterprise production and operation, focusing on preventing and defusing potential systemic risks, and built a firewall for safe development, thus ensuring the sound, steady and orderly development of the Company.

This year, we strengthened party leadership and demonstrated our political character as a "frontier" through the guidance and guarantee of high-quality Party building. Under the theme of "studying the history of the Party" and "celebrating the centenary", we carried out the theme activities of "love the Party, love the country and love enterprises with ideals and beliefs" extensively, inheriting the red gene, carrying on the red blood, and arming our mind with the Party's innovative theory and guiding practice. Following the "two adherence" (Upholding the Party's leadership over state-owned enterprises is a major political principle, which must be adhered to. The establishment of a modern enterprise system is the direction of state-owned enterprise reform, which must be adhered to.), we integrated the Party's leadership into all aspects of corporate governance. In the "Year of Innovation and Expansion of Party Building", we promoted the in-depth integration of Party building, production and management. To meet the needs of high-quality development of enterprises, we created a high-quality professional cadre team. We continued to improve our work style, vigorously promoted the great spirit of Party building, built cultural exhibition halls and spiritual education bases for frontiers with high standards, and created a fresh and righteous atmosphere for people to work and start their own businesses with the spirit of "forever frontier".

We aim to achieve success amid strong headwinds shouldering great responsibilities. The year 2022 is an important year for China Railway to implement the 14th Five-Year Plan. Beginning at the new starting point of "trillion scale development", we will, guided by General Secretary Xi Jinping's Thought on Socialism with Chinese Characteristics for a New Era, stay true to our mission, enhance the "four awareness", strengthen the "four confidence", achieve the "two safeguards", advance vigorously with courage and determination, promote the spirit of "frontier", and speed up the construction of a world-class enterprise with "outstanding products, outstanding brands, leading innovation and modern governance", in order to serve the country, contribute to society, and reward the shareholders and employees with high-quality development.

4.2 Business Overview

The Group is one of the largest multi-functional integrated construction groups in the world, which enables us to offer a full range of construction and industrial products and related services to our customers. The Group holds an industrial leading position in fields such as engineering construction, design consulting, and equipment manufacturing. The Group also diversifies its business and expands its value-added services by exploiting into other businesses such as featured real estate, financial and merchandise trading, resource utilization, asset operation, water conservancy and hydropower, ecological and environmental protection and construction technology innovation and application. After years of practice and development, the Group's businesses have established a close upstream-downstream relationship among themselves, and have gradually formed a vertically integrated construction industry chain with outstanding principal business supplemented by diversified relevant business horizontally.

4.2.1 Industry Development Overview

(1) Infrastructure construction

On the domestic front, in 2021, the pandemic prevention and control was generally stable, the national economy continued to recover, and China's economic development maintained its global leadership. From the data released by the National Bureau of Statistics, the national fixed asset investment grew by 4.9% year-on-year for the whole year. Although the scale remained high, it was substantially lower than the GDP growth rate of 8.1% in the same period, especially showing an insufficient effective investment demand under multiple factors such as the deferred special debt issuance, hidden debt risk prevention and resolution, real estate regulation tightening, repeated pandemics, double controls over energy consumption, impact of upstream prices and upward supply, downstream domestic demand contraction, and weakening market expectations. For the whole year, investments in fixed assets of national transportation were RMB3.6 trillion, an increase of about 4% year-on-year, a slight slowdown in growth but still maintaining high. In terms of railways, investments in fixed assets of railways were RMB748.9 billion, down 4.2% year-on-year. New lines of 4,208 kilometers were put into operation, including 2,168 kilometers of high-speed railways. The length of railways in operation nationwide reached over 150,000 kilometers (among which, the length of high-speed railways reached 40,000 kilometers) as of the end of 2021. In terms of urban rail transit, the annual investment in urban rail transit continued to grow and the construction speed steadily increased, continuing to maintain the mode as subways taking the lead, with a variety of lines growing together. Throughout the year, a total length of 1,222.92 kilometers of 39 new lines was put into operation. As of the end of 2021, a total of 9,192.62 kilometers of urban rail lines was in operation in 50 cities in mainland China, including 7,253.73 kilometers of subways, accounting for 78.9%. In terms of water conservancy construction, investments in water conservancy construction nationwide reached RMB757.6 billion, 67 of the 150 major water conservancy projects have been approved and 62 projects have been started. In terms of old urban communities renovation and subsidized housing construction, in 2021, the renovation actually started on 55,600 old urban communities nationwide, raising 942,000 sets of new subsidized rental housing in 40 cities nationwide, starting construction on 880,000 sets of public rental housing, and starting renovation on 1.65 million sets of various shantytowns. In the field of clean energy construction, the new installed capacity of wind power and photovoltaic power generation nationwide throughout the year reached 101 million kilowatts, including 47.57 million kilowatts of wind power and 52.97 million kilowatts of photovoltaic power generation (new distributed photovoltaic installed capacity of 29.20 million kilowatts throughout the year, accounting for about 55% of the new photovoltaic installed capacity).

On the international front, in 2021, the COVID-19 pandemic continued to impact the global industrial and supply chain, which seriously affected the development of overseas contracted engineering projects and labor cooperation business. The cross-border flow of personnel was seriously impeded, and the difficulty of returning to the country causes physical and mental pressure on front-line labor and management personnel, and also increases the difficulty for domestic personnel to be sent out; sharp increases in prices of shipping, logistics and raw materials and the RMB appreciation led to the rising of project performance costs and reduced profit margins; the security environment in some areas deteriorated, and various types of overseas security incidents occurred frequently; changes in tax policies of some countries increased the overseas operation cost of Chinese enterprises, all of which have brought many difficulties and challenges to the industry development and business operation. According to the statistical information of foreign economic cooperation issued by the Ministry of Commerce, in 2021, China's overseas contracted engineering projects achieved a turnover of RMB999.62 billion, a year-on-year decrease of 7.1% (equivalent to US\$154.94 billion, a year-on-year decrease of 0.6%), and newly signed contracts amounted to RMB1,667.68 billion, a year-on-year decrease of 5.4% (equivalent to US\$258.49 billion, a year-on-year increase of 1.2%). Among them, Chinese enterprises signed 6,257 new contracts for overseas contracted engineering projects in 60 countries along the Belt and Road Initiative, with a new contract value of RMB864.76 billion, a year-on-year decrease of 11.4% (equivalent to US\$134.04 billion, a year-on-year decrease of 5.2%), accounting for 51.9% of the amount of China's new contracts for overseas contracted engineering projects in the same period. The turnover achieved RMB578.57 billion, a year-on-year decrease of 7.9% (equivalent to US\$89.68 billion, a year-on-year decrease of 1.6%), accounting for 57.9% of the total amount in the same period. In view of the industry data and development opportunities, the business of countries along the Belt and Road Initiative continues to occupy half of the market, and will remain an important component in promoting the steady development of China's overseas contracted engineering projects in the future.

(2) Survey, Design and Consulting Services Business

Being a technology- and intelligence-intensive production-based service industry, the survey, design and consulting services business not only stays in the forefront of engineering construction projects in the construction, transportation, electric power, water conservancy and other industries, but also runs through the entire life cycle of the engineering construction project, providing whole-process technical and management services for project decision-making and implementation, playing an important supporting role in improving the investment and social benefits of engineering projects, and serving as a key link in engineering construction. At present, China actively promotes the construction of high-speed railways, urban rail transit, water conservancy and hydropower, underground pipelines and sponge cities. The construction of new economic belt will continue to warm up especially with the further mutual promotion and intercommunication among the major strategies of One Belt and One Road Initiative, co-development of Beijing-Tianjin-Hebei, Yangtze River Economic Belt, construction of Guangdong-Hong Kong-Macao Greater Bay Area, integrated development of Yangtze River Delta, Yellow River Basin ecological protection and highquality development. The next few years will still be the key period for infrastructure construction and development in China, providing more market opportunities for enterprises. While as the soul and forerunner of engineering construction, the survey, design and consulting service has a potential for growth both in China and overseas. However, in view of the current development pattern of survey, design and consulting services industry, development of most subsectors is closely related to the national investmentstimulating policy. With China's economic transformation and industrial restructuring, the corresponding adjustment of fixed asset investment will lead to more intense and complex competition in the industry; the intensive introduction of various regional development plans will also make the industry pattern more prominent with the changing characteristics of regional demand. In the future, the development of the survey, design and consulting services industry will maintain a pattern of continuous growth and intensified competition, market demand-driven and endogenous enterprise changedriven, and deepening evolution of the competitive landscape and accelerated business model innovation.

(3) Engineering Equipment and Component Manufacturing Business

In 2021, the 14th Five-Year Plan for National Economic and Social Development of the People's Republic of China and Vision Outline for 2035 was officially released, clearly proposing to accelerate the construction of a new development pattern with domestic large cycle oriented and domestic and international double cycles mutually promoted, insisting on placing the economic development focus on the real economy, deeply implementing the strategy of making a powerful country by manufacturing, promoting the optimization and upgrading of manufacturing industry, comprehensively facilitating the construction of traditional infrastructure and new infrastructure, accelerating the construction of a transportation power country, and creating a modern infrastructure system with maturity, high efficiency, practicality, intelligence, green, safety and reliability. This year, China's traditional infrastructure construction areas such as the railway, highway, urban rail, water conservancy, and underground space development remained relatively high-level operation. New infrastructure construction market showed vigorous development, providing wide applications for highend infrastructure equipment, and broad market opportunities for engineering equipment and component manufacturing enterprises. In 2021, the added value of large-scale industries recorded a year-on-year increase of 9.6%, in which the added value of equipment manufacturing industry increased by 9.8% year on year. With the issuance of Opinions on Accelerating the High Quality Development of Manufacturing Service Industry, Guidance on Accelerating the Cultivation and Development of High-quality Enterprises in Manufacturing Industry, 14th Five-Year Plan for Intelligent Manufacturing Development and other policy documents, it will promote the intergrowth and mutual development of manufacturing industry and manufacturing service industry; guide the high-end intelligent and green development of high-quality enterprises; promote the digitalized transformation, networking coordination and intelligent transformation of manufacturing industry; facilitate intelligent, digitalized, networked and lightweight transformations to constantly empower the equipment manufacturing industry to expand its application fields, so as to continuously promote the high-quality development of equipment manufacturing industry in China. During the "14th Five-Year Plan" period, the equipment manufacturing industry still has a bright future, with equal emphasis on stock renewal and new demand. However, the intensified industry competition and the fixed asset investment orientation adjustment will make changes in the market environment, which, on the one hand, will promote the equipment manufacturing industry to seize opportunities in the environmental protection industry and new energy equipment and, on the other hand, will have an uncertain impact on the future demand for tunnel construction equipment, turnout products for urban rail transit and electrical equipment products in the future.

(4) Real estate development business

In 2021, the real estate industry policy was tight at first but afterwards loose. In the first three quarters, supervision on real estate financing, housing loans, and land transfer helped to limit excessive expansion of the real estate industry, leading to a concentrated release of credit risk for real estate companies; after September, the regulators intensively released the stability maintenance signal, and the real estate industry ushered in the regulatory policy relaxation period, but it was still not enough to curb the risk exposure of real estate companies in the short term, and the risk clearance of some real estate companies was still ongoing. With respect to land market transaction, along with the policy of centralized land supply and continuous standardization of land market transactions, the market gradually returned to rationality in the second half of the year, the turnover of the national land market remained stable, and the transaction amount increased reasonably. According to the National Bureau of Statistics, the land purchased by real estate developers totaled 215.90 million square meters in 2021, representing a year-on-year decrease of 15.5%. The land transaction price was RMB1,775.6 billion, representing a year-on-year increase of 2.8%. With respect to the turnover of commodity housing market, the overall turnover of the year remained stable, the residential, office and commercial housing transaction area was close to that of the previous year, with slight fluctuations. China's investment in real estate development totaled RMB14.7602 trillion in the year, representing a year-on-year increase of 4.4%, of which the investment in residential housing was RMB11.1173 trillion. The sales area of commodity housing was 1,794.33 million square meters, representing a year-on-year increase of 1.9%, of which the sales area of residential housing increased by 1.1%, the sales area of office buildings increased by 1.2% and the sales area of commercial housing decreased by 2.6%. The sales amount of commodity housing throughout the year was RMB18.1930 trillion, representing a year-on-year increase of 4.8%. For the whole year, renovation on 1.65 million sets of various types of shantytowns was started, and 2.05 million sets were basically completed; 940,000 sets of national guaranteed rental housing were started and raised. As to the competitive landscape of real estate enterprises, the data showed that the sales performance of real estate enterprises nationwide witnessed rapid growth in the first half of the year and a gradual decline in the second half of the year, maintaining a modest growth in sales scale throughout the year. Influenced by the policy, the main real estate enterprises slowed down the increase of investment intensity during the year, and the investment growth was concentrated in the central China region and eastern China region.

(5) Other businesses

Mining development business

The commodity prices in 2021 were generally high. Affected by favorable macro-factors such as the large-scale economic stimulus plan implemented by the United States, the acceleration of vaccination against the global COVID-19 and the strong recovery of the global economy, together with the supply-end disturbance caused by occasional strikes in the major mineral products producing countries such as Chile and Peru, the commodity prices rose generally. However, according to the future market trend, while the accumulation of many favorable factors continuously pushed up commodity prices, the fundamentals of supply and demand relations deviated greatly. In particular, due to the increased tightening on relevant regulation and control policies of the state to restrain the excessive price rise of non-ferrous metals and other bulk raw materials, the commodity prices were corrected, resulting in the overall high-level fluctuation operation throughout the year.

Financial business

In 2021, the global pandemic resurged, commodity prices rose sharply, inflation in developed economies climbed, monetary policy turns in major developed economies accelerated, and international financial market shocks increased. China's economy continued to recover steadily, the prudent monetary policy was flexible and precise, reasonably moderate, and the financial market as a whole operated smoothly throughout the year. Money market interest rates were stable, money and credit and social financing scale grew reasonably, credit structure was constantly optimized, and the comprehensive social financing cost was steadily reduced; securities market reform and system construction were improved, and the multi-level capital market system was further improved; market-oriented and rule-oflaw-based disposal of risks were adhered to, financial risks were generally reduced, and the prevention and resolution of hidden debt risks of local governments achieved certain results, the transition period of the new regulations on capital management ended, the scale of capital management products increased steadily, the structure was constantly optimized, and the bottom line of no systemic financial risks was maintained, creating a good economic and financial environment for the overall building of a moderately prosperous society.

Merchandise trading business

With the rapid development of world economic integration and the comprehensive application of information technology, the global cooperation of merchandise trade has been deepened. Influenced by many kinds of products, frequent price fluctuation, high degree of homogenization, relatively low entry threshold, fierce market competition and other factors, the overall profit margin of the merchandise trading industry is low. The trade spread space of traditional merchandise traders gradually narrows, together with the reducing profit space, showing an urgent demand for cost saving through supply chain management. More and more merchandise traders have begun to integrate the industrial chain and extend to the upstream and downstream. While obtaining the upstream and downstream resources, they gradually penetrate each link of the industrial chain, expand the profit space, create value-added opportunities, and gradually began to play the role of the manager of the industrial chain. By integrating the upstream and downstream customers in the trade channel, the merchandise trade enterprises gradually transform to supply chain management, and improve the profit margin by providing multi-variety, full-chain and one-stop supply chain management service for end users.

Infrastructure asset operation

In 2021, the development of Public-Private-Partnership (PPP) mode gradually stabilized, and more and more projects in database of the Ministry of Finance completed the signing, commenced construction and entered into operation period. PPP mode plays an important role in assisting the implementation of major national strategies by guiding the investment of social capital and stimulating the vitality of private investment. As of 31 December 2021, there were 13,810 projects in database in the PPP comprehensive information platform of the Ministry of Finance, with a total investment of RMB20.56 trillion, including 10,204 projects in the management library with an investment of RMB16.39 trillion; 3,606 projects on the reserve list, with an investment of RMB4.17 trillion. From a regional perspective, the PPP projects of the Ministry of Finance had a large scale in East China and Southwest China, especially in Guizhou, Henan, and Shandong. According to different industries, PPP projects of the Ministry of Finance in the fields of transportation and municipal engineering were still the largest in scale, and the scale-leading ones include ecological construction and environmental protection, comprehensive urban development, water conservancy construction, etc. From the perspective of long-term development, the future incremental projects in the field of urbanization with centralized infrastructure and public services will mainly focus on the construction of urban agglomeration, metropolitan circle, regional sub-center, infrastructure encryption or making up for the shortcomings, and the creation of new urbanization, while the stock projects will pay more attention to urban renewal and stock asset revitalization. With reference to the statistics of BRI data, 1,019 PPP projects were concluded throughout the year, with a total investment of RMB2.32 trillion. Seen from the number of deals, PPP projects of municipal engineering had the largest number, followed by the deals in transportation, water conservancy construction, ecological construction and environmental protection, and education industries.

4.2.2 Business Development Overview

Proactively integrated into national strategies and served to build a new **development pattern.** The Group made active efforts around the construction of national comprehensive three-dimensional transportation network and completed a large number of key projects at a high level; comprehensively dovetailed with national regional coordinated development strategies such as city clusters and metropolitan areas, continued to deepen cooperation with local enterprises, won tenders with a total of RMB2,147.4 billion in Beijing-Tianjin-Hebei, Guangdong-Hong Kong-Macao Greater Bay Area, Sichuan-Chongging Economic Circle, Yangtze River Delta Region and Yangtze River Economic Belt, and made positive progress in such landmark projects as Beijing Fengtai Station, Shenzhen-Zhongshan Passage and Beijing-Xiongan Expressway, which drove the regional development. The Group actively fulfilled its social responsibilities, stepped forward to major tests such as fighting against pandemics in Hebei and Shanxi, fighting against floods in Henan and Shanxi, as well as rescue and relief for typhoons along the southeast coast, strengthened targeted assistance and helped rural revitalization, fully demonstrating the Company's responsibility and commitment in giving back to society.

Adhered to the leading position of operation, and continuously enhanced the market competitiveness. The Group's business segment structure was continuously optimized, the regional operation effectiveness continued to be synergistic, and the quality and efficiency of investment was improved. The Group continued to maintain its leading position in the traditional infrastructure market, including the railway market, and the housing construction, municipal and urban rail markets saw steady development. New progress was made in emerging areas such as water conservancy and hydropower, clean energy, port channel, offshore wind power, pumped storage and water transfer projects, including the contracting of 5G projects, wind power and photovoltaic projects, ecological management projects, etc., which amounted to approximately RMB44 billion. New orders in the markets of port channel, and airport engineering increased by 76.9% and 54.6%, respectively, which laid the foundation for the Group to advance the "second curve" of operation.

Focused on the source to strengthen the foundation, with the effectiveness of operational control increasingly visible. In 2021, the Group focused on the theme of project management improvement, cost reduction and efficiency enhancement, paying close attention to project performance management, holding project management improvement meetings, conducting special studies on efficiency improvement, exploring the implementation of big business management, strengthening the emphasis on projects, focusing on projects and project-oriented management, and fundamentally improving the efficiency of basic management at the grassroots level. Focusing on the assessment index of "total profit and net profit, asset-liability ratio, operating profit margin, total labor productivity and R&D investment intensity", the Group strengthened process management and control. The general requirements of high quality development ran through the whole process of production and operation, reform and development, quality improvement and efficiency enhancement through a series of measures such as improving the quality of operation scale, reshaping the performance assessment system, perfecting the system and business process, strengthening the risk compliance management and implementing the early warning of economic operation.

Promoted the reform of the three-year action, and took solid steps in the market-oriented reform. In 2021, the Group took the opportunity of the threeyear action of state-owned enterprise reform, focused on key issues for indepth reform, continuously improved the modern enterprise system with Chinese characteristics, continuously deepened the reform of mixed ownership system, and constantly improved the market-oriented operation mechanism. Throughout the year, 193 annual key tasks were completed, accounting for 87% of all the tasks; the spin-off of CRHEEC to the STAR Market was completed, realizing a useful exploration of mixed ownership reform; the management improvement action of benchmarking with the world class was carried out in depth, three subsidiaries were selected as benchmark enterprises for management improvement by SASAC, and the cash flow self-balancing management of engineering projects was selected as a benchmark project. The Group has comprehensively and deeply implemented the tenure and contract management, reshaped the assessment and allocation system of secondary units and engineering projects, strengthened the guidance of determining the salary by performance contribution, and launched the restricted stock incentive plan for the first time. Job bonus incentive was implemented among 13 technology-based enterprises, and the market-oriented reform begun to show increasing remarkable results.

Vigorously promoted scientific and technological innovation, and significantly enhanced the enterprise development momentum. In 2021, the Group comprehensively deployed the "14th Five-Year Plan" science and technology innovation, carried out the first practical technology innovation competition, strengthened the promotion of practical technology achievements, and achieved world-leading results in the implementation of three special tasks. Innovation achievements won a number of awards, including the China Patent Gold Award for two consecutive years. 5 kinds of products including shield machines, and electrified railway contact networks were awarded the "manufacturing single champion" by the Ministry of Industry and Information Technology. The experimental test of high-temperature superconducting magnetic levitation engineering system with a speed of over 600 km/h was completed, and the "Chisha (赤沙號)" building component assembly robot filled the gap in the field of assembly building construction equipment in China. The leading position in the industry was further stabilized, and the scientific research ability was further improved.

We are committed to "One Belt, One Road" construction and overseas development to achieve a counter trend. In the face of unfavourable factors such as repeated global epidemics and volatile security situation, the growth rate of new contracts signed overseas was the highest among construction central enterprises; the momentum of overseas production was good, and significant progress was made in the construction of key projects along the "Belt and Road", with the opening for operation of the whole line of China-Laos Railway, the basic completion of the control project of Yavan High-speed Railway, and the laying of foundation stone for the Hungarian section of Hungarian-Serbian Railway. The export of industrial products has reached a new high, especially the Group's highspeed turnout manufacturing technology has been exported for the first time with system integration, the contact network equipment has been exported for the first time, and the export of shield structure and tunnelling equipment has been the first in global sales for five consecutive years; the development and sales of overseas mineral resources have remained stable in general, and the output of copper and cobalt metal has reached a record high. The development and sales of overseas mineral resources remained stable in general, and the output of copper and cobalt metal reached a record high.

The amount of new contracts by business segment as of the end of the year is set out as below:

Amount of New Contracts

Unit: 100 million Currency: RMB

			Year- on-year increase/
Business segment	2021	2020	decrease
Infrastructure construction	24,166.8	21,829.2	10.7%
Including Railway	4,335.7	3,553.8	22.0%
Highway	2,952.6	4,097.6	-27.9%
Municipal works and others	16,878.5	14,177.8	19.0%
Survey, design and consulting services	205.5	258.6	-20.5%
Industrial equipment and component manufacturing	612.8	542.8	12.9%
Property development	580.3	685.6	-15.4%
Other businesses	1,727.8	2,740.4	-37.0%
Total	27,293.2	26,056.6	4.7%
Including Domestic	25,776.1	24,694.0	4.4%
Overseas	1,517.1	1,362.6	11.3%

(1) Infrastructure construction

Engineering construction is the core of China Railway, the foundation for consolidating the leading position of China Railway in the infrastructure construction industry and enhancing brand strength, an important pillar for enlarging the market scale and improving the market influence, and a key field for improving the economic benefits and promoting the high-quality development of the Company. The engineering construction business of the Group involves railway, highway, municipal works, housing construction, urban rail transit, water conservancy and hydropower, port channel, airport wharf and other engineering fields, covering more than 90 countries and regions in the world. The Group has special-grade qualification for general contracting of construction of railways, highways, municipal public engineering, building engineering, etc. The basic operation mode is to obtain orders through market competition at home and abroad, complete the tasks of survey, design, procurement, construction and operation of projects by means of general engineering contracting, general construction contracting, BOT or PPP according to the contract, and be responsible for the quality, safety and construction period of the contracted project. Infrastructure investment business is an extension of the core business industry chain of traditional infrastructure construction. The infrastructure investment business of the Group sticks to the principle of centering on the main business, serving the main business, driving the main business and promoting the main business, adheres to the investment philosophy of "multiple sectors benefit from the operation of one sector", constantly innovates the investment and construction mode in railway, highway, urban rail transit, underground pipe gallery and other infrastructure fields, forms a more mature industrial chain, and promotes the transformation and upgrading of the Group into a comprehensive enterprise group of "investor + contractor + operator" while maintaining the advantages of construction contractors in the field of engineering construction.

The Group has always been a leader in China's infrastructure construction industry and one of the largest construction contractors in the world. As of the end of the reporting period, the Group has 18 general contracting projects for railway construction at special grade, accounting for over 50% of the total number of general contracting projects for railway construction at special grade in China; 27 general contracting projects for highway construction at special grade; and 19 general contracting projects for engineering construction at special grade, 10 general contracting projects for municipal public engineering at special grade and 1 general contracting projects for port and waterway construction at special grade. The Group is the largest construction group in the fields of railway infrastructure and urban rail transit infrastructure in China. It has the only National Key Laboratory of High Speed Railway Construction Technology, National Key Laboratory of Bridge Structural Stability and Safety and National Key Laboratory of Shield Tunneling and Drilling Technology in China, representing the most advanced technological level in terms of railway, bridges, tunnels and rail transit construction in China. At the same time, the Company is one of the major infrastructure construction forces in the construction of the Belt and Road Initiative. It is the main contractor of the representative projects along the "One Belt, One Road" including China-Laos Railway that has opened to traffic, the Indonesian Jakarta-Bandung High-speed Railway and the Budapest-Belgrade Railway that were under construction. In the domestic market, the Group's share in the railway's large and medium-sized infrastructure market has remained above 45%, its share in the urban rail transit infrastructure market has remained over 35%, and its share in the expressway infrastructure market has remained over 10%.

During the reporting period, the amount of the Group's new contracts of infrastructure construction business was RMB2.41668 trillion, representing a year-on-year increase of 10.7%. As of the end of the reporting period, the amount of the Group's contract backlog of infrastructure construction business was RMB4.21120 trillion, representing a year-on-year increase of 20.5%. From a business segment perspective: ① In respect of railway construction business, benefiting from the completion in the tendering for domestic large and medium-sized railway projects such as the Sichuan-Tibet Railway, the amount of new contracts in the Group's railway business maintained a high growth and amounted to RMB433.57 billion, representing a year-on-year increase of 22.0%; the amount of contract backlog amounted to RMB724.61 billion, representing a year-onyear increase of 13.8%. The Group's market share in domestic large and medium-sized railway construction reached 46.6% in 2021, maintaining the first place in China. 2 In respect of the highway construction business, the amount of new contracts in the Group's highway business amounted to RMB295.26 billion, representing a year-on-year decrease of 27.9%; the amount of contract backlog amounted to RMB691.51 billion as of the end of the reporting period, representing a year-on-year increase of 0.5%. ③ In respect of municipal works and other businesses, with the promotion of urban clusters, urban circles and new urbanization in China as well as the intensified development of the Group's urban construction market, the amount of new contracts in municipal works and other businesses in the year amounted to RMB1.68785 trillion, representing a year-on-year increase of 19.0%; the amount of contract backlog amounted to RMB295.08 billion as of the end of the reporting period, representing a year-on-year increase of 28.8%.

(2) Survey, Design and Consulting Services Business

Design consulting is the core of China Railway, an important engine for leading the upgrading of technology and industry of China Railway and driving the development of other businesses, an important basis for enhancing the brand influence of China Railway, and an important support for promoting industrial coordination and improving the innovation ability of the whole industrial chain. Our design consulting business covers the whole process of capital construction services such as research, planning, consulting, cost, survey and design, supervision, general engineering contracting, and product industrialization, mainly involving industries such as railways, urban rail transit, highways, municipal works, housing construction, water conservancy and hydropower, water transport survey and design. The Group constantly expands into new industries and new fields such as modern tramcars, medium and low speed magley, intelligent transportation, civil airports, ports and wharfs, power, energy conservation and environmental protection. The basic operation mode is to obtain survey and design orders through market competition at home and abroad, and complete the tasks such as survey and design and relevant services of engineering projects as agreed in the contract. At the same time, the Group constantly innovates the operation mode of design consulting business, makes full use of the advantages of urban transport infrastructure planning, strives to obtain design projects and general contracting projects, and promotes the development of the entire industrial chain. As a backbone enterprise in China's survey, design and consulting industry, the Group has played an important leading role in the field of engineering construction, especially in assisting in the formulation of construction codes and quality acceptance standards of the railway industry. On the list of ENR 2021 Top 150 Global Design Firms and on the list of ENR 2021 Top 225 International Design Firms, the Group ranked 15th and 84th respectively. In 2021, the amount of new contracts of the Group's survey, design and consulting services business was RMB20.55 billion, representing a year-on-year decrease of 20.5%. As of the end of the reporting period, the value of the Group's contract backlog of survey, design and consulting services business was RMB49.80 billion, representing a decrease of 10.9% from the end of 2020.

(3) Engineering Equipment and Component Manufacturing Business

Equipment manufacturing is the core segment of China Railway, an important carrier for practicing the "three transformations" and promoting the high-end brand of China Railway, an important force to boost the transformation and upgrading of the Company, and an important support for making up the shortcomings and reinforcing the advantages as well as improving the core competitiveness. The Group's equipment manufacturing business mainly serves the infrastructure construction at home and abroad, and its products cover turnouts, tunnel construction equipment, bridge construction steel structure, engineering construction machinery, fabricated building components and rail transit electrification equipment, etc. The basic operation mode is mainly to obtain orders through market competition at home and abroad, and provide relevant products and services with guaranteed quality and quantity on schedule according to the contract. In terms of turnout products, the Group has the core competitive advantages of the whole industry chain from design, research and development to manufacturing, and has the annual production capacity of 20,000 turnouts of various types. The products are widely used in railways, subways, tramcars and other fields. In terms of steel structure manufacturing and installation, the manufacturing and installation business of the Group's bridge steel structure mainly focuses on manufacturing and installing various large-scale bridge steel structures, which has obvious advantages in the steel structure market of bridges crossing rivers. The bridge steel structures and steel-pylons manufactured have reached the international advanced standard. In terms of tunnel construction equipment and services, the Group provides relevant products and supporting services covering various series of tunnel boring machines such as the composite shield machine, hard rock TBM and supporting equipment, and tunnel construction machinery, and has established the whole industrial chain layout of design, R&D, manufacturing and supporting services of spare parts and supporting equipment. In terms of construction machinery, the Group is a large-sized scientific and technological enterprise specialized in manufacturing and R&D of special construction machinery for railways, highways, urban rail transits, etc. in China and even in the world. Its products include railway construction equipment such as the rail laying machine, bridge erecting machine, girder carrier and handling machine, and other large-scale engineering machinery such as the lifting machinery. In terms of electrification equipment for railways and urban rail transits, the Group's rail transit electrification equipment mainly includes complete set of catenary equipment for the regular railway, acceleration railway, and high-speed railway, and complete set of power supply equipment of all power supply forms of urban rail transit. Among them, the catenary equipment for railway passenger lines and high-speed railways are at the international advanced level. In terms of **prefabricated buildings,** the Group is a supplier with rich product structures and a complete set of solutions for prefabricated buildings in the domestic prefabricated building component industry, devoting itself to creating a hightech and innovative prefabricated building business platform.

The Group has a leading position in the field of high-end equipment manufacturing related to transportation infrastructure such as railways, highways, urban rail transit and underground engineering in the country and even the world. It has outstanding competitiveness in scientific and technological innovation strength, core technology advantages, production and manufacturing level, brand awareness and other aspects. The Group is the world's largest shield/TBM R&D manufacturer in terms of sales volume, the world's largest steel structure manufacturer of turnouts and bridges, the largest railway construction equipment manufacturer in China, and the world's leading manufacturer of infrastructure construction service equipment. For the domestic market, the Group maintained an approximate market share of 55% in the high-speed turnout market that requires high technical requirements (speed over 250km/h), a market share of more than 50% in the heavy-haul turnout market, a market share of more than 45% in the regular turnout market, a market share of more than 70% in the turnout market of urban rail transit business, a market share of more than 60% in the large steel structure bridge market, a market share of approximate 60% in the catenary product market of high-speed railway, and a market share of approximate 50% in the power supply equipment market of urban rail transit business. CRHIC (stock code: 600528.SH), a controlling subsidiary of the Company, has the most complete products in the field of railway infrastructure equipment in our country and is the only industrial enterprise in A share market that mainly engages in high-end equipment for rail transit and underground excavation. CRHEEC (stock code: 688285) is a supplier engaging in the R&D, design, production and system integration products of domestic electrified railway catenary products and power supply equipment for urban rail transit. China Railway Prefabricated Construction (stock code: 300374.SZ) is the only high-tech innovative prefabricated building business platform under China Railway, and is a leading supplier and integrator of prefabricated building components in China.

As a leading manufacturer of high-end equipment for engineering construction, the Group develops and manufactures tunnel boring machines, special equipment for tunnel mechanization, engineering construction machinery, turnouts, steel bridges, etc. with abundant and stable market demand. In 2021, the amount of new contracts for the engineering equipment and component manufacturing business of the Group was RMB61.28 billion, representing a year-on-year increase of 12.9%, of which the amount of new contracts of domestic business was RMB59.10 billion and that of new contracts of overseas business was RMB2.18 billion. As of the end of the reporting period, the value of the Group's contract backlog of engineering equipment and component manufacturing business was RMB97.61 billion, representing an increase of 36.8% from the end of 2020.

(4) Real estate development business

Featured real estate is the development priority of China Railway, an important carrier for diversified brands of China Railway, an important platform for the transformation from the urban construction market to urban comprehensive development operators, and the transformation to "real estate + infrastructure" and "real estate + industry" relying on its main business advantages, and an important support for optimizing the business layout and expanding market coverage. In 2021, the Group's real estate development business conformed to the national policy guidance, adhered to the new development concept, gave play to the advantages of industrial chain integration to meet the market demand. The Group focused on urban clusters and metropolitan areas, sought for projects and development around the main business of infrastructure construction, steadily expanded to the fields of culture, tourism, health care, TOD, convention and exhibition, accelerated the transformation from traditional commercial real estate development to the comprehensive multi-industry and multi-function development mode, so as to continuously enhance the core competitiveness of China Railway's featured real estate development. In combination with macro-environment changes, the Group continuously strengthened the system construction of risk management and control and enhanced the risk prevention and control ability. The Group improved the capital turnover rate, sped up destocking, reduced financing costs, activated deposited assets, prudently carried out investment under the premise of controllable risks, and controlled and improved the asset quality of real estate sector.

The Group's featured real estate business includes primary land development and secondary real estate development. The operation mode of primary land development refers to that the local government or its authorized department and platform company entrust the Company to legally expropriate the land in a certain area, construct urban infrastructures and social public facilities according to the planning requirements by means of competition, so as to make the land within the area meet the specified supply conditions, and the government or its authorized department obtains the land transfer income by transferring the land with compensation, and pays the Company's investment and income according to the agreement. The secondary development is to obtain the authorization of real estate development through market competition at home and abroad and sell or lease the newly built commercial housing. In 2021, the real estate sales volume of the Group amounted to RMB58.03 billion, achieving the annual plan target.

(5) Other businesses

Mining development business

Resource utilization is a characteristic segment of China Railway, a platform to promote its diversified development and create economic benefits, and a reliance to maintain the characteristic brand of mineral resources of China Railway and the linkage development of resource business and engineering projects. In the process of infrastructure construction at home and abroad, the Group has obtained a number of mineral resources projects through acquisitions and mergers based on "fiscalization of resources" and "exchange of resources for projects". China Railway Resources Group Co., Ltd., the Company's wholly-owned subsidiary, is responsible for the development business of mineral resources. The Group's resource utilization business is mainly based on the management and development of mining entities. Currently, it wholly owns, controls or holds shares to invest in construction of 5 modern mines at home and abroad, including Luming Molybdenum Mine, Heilongjiang; Luishia Copper-Cobalt Mine, Comagnie Minière de Luisha S.A.S, Congo; MKM Copper-Cobalt Mine; SICOMINES Copper-Cobalt Mine; and Wulan Lead and Zinc Mine, Mongolia. The main mineral products produced and sold include concentrate of varieties involving copper, cobalt, molybdenum, lead, zinc and others, copper cathode and cobalt hydroxide. In 2021, the prices of the Group's main mineral products including copper, cobalt, molybdenum, lead and zinc were in an overall historically high oscillating range, with a significant increase over the annual average price in 2020. As of the end of the reporting period, the above mines' retained resources/reserves mainly include copper of approximately 8,195,000 tons, cobalt of approximately 609,000 tons, and molybdenum of approximately 655,000 tons. In particular, the retained reserves of copper, cobalt and molybdenum are in the leading position in the same industry in China, and the mines' production capacity for copper and molybdenum has been at the forefront in the same industry in China.

In 2021, the Group firmly grasped the core task of high-quality development of resource utilization business, and actively resolved the risk of large fluctuations in mineral prices. The overall development and sales of mineral resources remained stable. Among which, the Group produced 242,300 tons of copper (year-on-year increase of 14.43%), 3,222.93 tons of cobalt (year-on-year increase of 25.57%), 14,955.15 tons of molybdenum (year-on-year increase of 87.82%), 10,900 tons of lead (year-on-year decrease of 23.35%), 21,400 tons of zinc (remained the same as last year), 38.7 tons of silver (year-on-year decrease of 10.66%).

								Investment by the Company	Production quantity		
Mineral resources						Total planned	Accumulated	in the	in the	Planned	
No.	Project name	Туре	Grade	Resource/ Reserve	Equity ratio	investment of the project (RMB100	investment of the project (RMB100	reporting period (RMB100	reporting period	completion date	Project progress
				(Ton)	(%)	million)	million)	million)	(Ton)		
1	Luming Molybdenum Mine, Yichun City of Heilongjiang	Molybdenum Copper	0.09%	655,257	83	60.17	60.26	0	14,955.15 1,052.50	Completed	In normal production
2	SICOMINES Copper- Cobalt Mine, La Sino- congolaise Des Mines S.A., Congo	Copper Cobalt	3.20% 0.25%	7,656,558 589,223	41.72	45.86	32.86	5.34	194,801.63 1,316.41	September 2021	Phase 1 in normal production, phase 2 completed construction in the year
3	Luishia Copper-Cobalt Mine, Comagnie Minière de Luisha S.A.S, Congo	Copper Cobalt	2.24% 0.07%	507,348 16,843	72	21.38	21.6	0	26,438.78 701.43	Completed	In normal production
4	MKM Copper-Cobalt Mine, La Minière De Kalumbwe Myunga sprl, Congo	Copper Cobalt	2.08% 0.21%	31,049 3,159	80.20	11.95	12.35	0	20,011.17 1,205.59	Completed	In normal production
5	Wulan Lead and Zinc Mine, Xinxin Company, Mongolia	Lead Zinc Silver	1.13% 2.67% 53.18g/t	197,042 465,752 929	100	15.4	15.4	0	10,940.04 21,443.78 38.7	Completed	In normal production
6	Muhaer Lead and Zinc Mine, Xinxin Company, Mongolia	Lead Zinc Silver	0.63% 2.37% 118.17g/t	41,141 154,709 770	100	I	1	0	 	1	Not yet exploited
7	Gold mine, Guoxin Eerdesi Company, Mongolia	Gold	3g/t	3	100	1	1	0	1	1	Not yet exploited
8	Silver-Lead-Zinc Polymetallic Mine, Chafu, Xianglong Mineral Co., Ltd., Mongolia	Lead	7%	89,693	100	3.3	3.3	0	l	l	Ceased production

Note: Copper in Luming Molybdenum Mine is associated ore with very small amount, so there is no statistics on copper grade or resource amount.

Financial and merchandise trading

Financial and merchandise trading secures the service of China Railway, as an important link serving the development of main business, ensuring the supply chain security, and preventing and resolving risks, and an important support for realizing the combination of industry and finance, expanding the value space, and promoting industrial coordination, as well as an important guarantee for improving capital liquidity and optimizing resource allocation. ① **Financial business.** When carrying out financial business, the Group has always strictly implemented the regulatory policies of the "Financial Stability and Development Commission of the State Council, the People's Bank of China, the CSRC and the CBIRC" and adhered to the overall guidelines of integration of industry and finance. Centering on the target of serving internal financial needs, promoting the development of principal construction business and creating value and adhering to the principle of giving priority to benefits in the allocation of financial resources, the Group's financial business segment has effectively promoted the flow of financial resources to efficient assets, while firmly holding the bottom line of avoiding financial risks. The Group holds the financial licenses for trust, finance company, and public fund, and is approved to engage in financial businesses such as assets management, private equity fund, insurance brokerage, finance lease, and commercial factoring, which are the financial businesses that SASAC allows to be conducted in a prudent and regulated manner. We have built a multilevel, wide-covered and differentiated "finance, quasi-finance" institutional service system represented by China Railway Trust Co., Ltd., China Railway Finance Co., Ltd., and China Railway Capital Co., Ltd.. The three companies actively explore new ways for integrating industry and finance to serve internal financial needs. China Railway Trust Co., Ltd. has enhanced the initiative of serving principal businesses through the service trust, project equity investment, asset securitization and the "three-in-one" mode of industry, finance and investment. It has established a regular risk monitoring, early warning and quick response mechanism for counterparties and projects, and issued the "Guidelines on Normalized Risk Investigation", in order to minimize the potential risks and achieve the process management of "early discovery, early warning and early handling". China Railway Finance Co., Ltd.is responsible for strengthening internal capital concentration, establishing capital pool and controlling financing scale. It has played an important role in reducing financing costs, "deleveraging and controlling liabilities" by utilizing its own financial resources and talent resources and giving full play to the advantages of the platform of financial integration. China Railway Capital Co., Ltd. has developed diversified businesses such as industrial fund, asset securitization, supply chain finance, commercial factoring, financial leasing, insurance brokerage, innovative venture and international investment and financing, and enhanced the efforts for obtaining equity financing for investment projects. 2 Merchandise trading business. The merchandise trading business of the Group represents the trading business carried out by the trading enterprises at all levels of the Group relying on the demand advantage, product advantage and resource channel advantage and centralized purchase and supply based on the main businesses of the Group. It mainly serves the internal trading demand of the Group and provides external services in an appropriate manner. China Railway Material Trade Co., Ltd, a wholly-owned subsidiary of the Company, has established a national-wide operation and service network, and maintained good cooperative relationship with domestic large-scale production enterprises of steel, cement, petrochemical, components for communications engineering, signal engineering, electrical engineering and electrification engineering, building decoration materials and other products. It carries out centralized procurement and supply of major materials at the Company level, and supplies materials to other domestic construction enterprises, significantly improving the Group's resources acquisition ability, supply security, procurement and bargaining power. During the period of rising commodity prices, it provided reliable material supply guarantee for the Group's production and operation and effectively addressed the risk of rising commodity prices by making appropriate reserve and locking price in good time.

Infrastructure asset operation

Asset operation is the development priority of China Railway, an important carrier for optimizing industrial layout and strengthening the brand of the whole industry chain, and a key link for strengthening operational asset management, guaranteeing investment income and enhancing capital circulation capacity. As a leading domestic construction enterprise, the Group has a complete industrial chain, extensive investment business layout, sound investment and operation management and control system, and strong development capability integrating investment, construction and operation. The business scope of PPP (BOT) of the Group mainly covers operation, maintenance and management of infrastructure investment projects and asset operation, covering three modes of independent operation, joint operation and entrusted operation. At present, the Group operates such infrastructure projects as rail transit, expressway, water and environmental protection, municipal roads, industrial parks, underground pipe corridors, etc., with the operation period ranging from 8 to 40 years. As the infrastructure investment projects undertaken by the Group have been successively completed and entered into the operation period, the Group's infrastructure operation revenue and profit generally show a rising trend. As of the end of the reporting period, the Group had 36 projects under operation. Among which, there were 2 rail transit projects with operating mileages of about 45 kilometers; 2 expressway projects with operating mileages of about 74 kilometers; one underground pipeline project with operating mileage of about 32 kilometers; 12 water and environmental protection; 19 municipal and other projects.

4.2.3 Scientific Research Investment and Technological Achievements

As one of the country's first "innovation-oriented enterprises" awarded by the Ministry of Science and Technology, the SASAC and the All-china Federation of Trade Unions, the Group has 3 national laboratories (the National Engineering Laboratory of High Speed Railway Construction Technology, National Key Laboratory of Shield Tunneling and Drilling Technology, and National Key Laboratory of Bridge Structural Stability and Safety), 10 postdoctoral workstations, 1 national local joint research center (national and local joint engineering research center for the research and application of digital rail transit technologies), 44 provincial and ministerial research and development centers (laboratories), 19 nationally recognized technology centers, and 120 technical centers recognized at the ministerial or provincial level. It has also set up 20 professional R&D centers and invested in the national technology innovation center for the Sichuan-Tibet railway.

In 2021, the Group made scientific and technological breakthroughs in major projects, and implemented research projects focusing on Sichuan-Tibet railway construction technology, high-speed railway construction technology, long bridge construction, operation and maintenance and disaster prevention technology, tunnel and underground project construction technology, communications engineering, signal engineering, electrical engineering and electrification engineering technology, construction equipment and industrial product manufacturing technology, building technology, energy conservation and emissions reduction, intelligent manufacturing and information technology and other key areas. Based on the actual needs for the operation and engineering construction and relying on such key and difficult bridge projects as Changtai Yangtze River Bridge, Ma'anshan Yangtze River Bridge, Huangmaohai Sea-crossing Channel Project, River Channels of Zhanggao, Shiziyang, Haitai, Chengdu-Chongqing Middle Line High-speed Railway Bridge, Hangzhou Bay Extra Large Bridge over the Tongzhou-Suzhou-Jiaxing-Ningbo Railway, the Ningbo-Zhoushan Railway Xihoumen Highway-Railway Dual-use Bridge, the Qiongzhou Strait Sea-crossing Project, and the Fourth Sea-crossing Bridge of Aoshen, the Group conducted technical research on bridge survey and design theories and methods, new bridge structures and materials, and bridge intelligent construction technologies and equipment. Based on a number of Sichuan-Tibet railway projects such as the Dadu River Bridge on the Sichuan-Tibet Railway, the Group carried out research on key technologies for railway suspension bridges spanning plateau canyons for a kilometer or above, drilling and blasting construction technology for highaltitude and deep-buried complex geological and environmental tunnels. Based on projects such as Sichuan-Tibet Railway, Chengdu-Chongqing Middle Line Ultra-High-speed Railway, Chengdu-Nanchong-Dazhou-Wanzhou Railway, Tongzhou-Suzhou-Jiaxing-Ningbo Railway, Yichang-Fuling Railway, East of Guangdong Intercity Railway, Shenzhou-Huizhou Intercity Railway and major equipment such as "Caiyun" and "Longyan", TBM mud-water balance shields machine "Chunfeng", and "Xueyu Xianfeng" hard rock roadheader, the Group conducts research on key technologies for intelligent monitoring and maintenance in operating tunnel structures, quality improvement and intelligent construction of tunnel engineering. Based on Zhengzhou-Jinan High-speed Railway, Bazhun Railway of China Energy, Beijing-Shanghai High-speed Railway, Beijing-Zhangjiakou Railway and other projects, the Group carried out research on intelligent construction technology of communications engineering, signal engineering, electrical engineering and electrification engineering. During the period, the Group won 6 National Prizes for Progress in Science and Technology, 1 Technical Invention Award, 15 Zhan Tianyou Civil Engineering Prizes, 835 provincial and ministerial engineering methods, 7,170 authorized patents, including 1,176 invention patents and 110 PCT patents. The Anti-Ultra-High Stress Fatigue and Wear Resistance of High Manganese Steel for Railway Tracks Technology and its Application, which was completed by the affiliated units of the Company, won the second prize of the National Prizes for Progress in Science and Technology in 2021 and the Deepwater Large Section Shield Tunnel Structure/Functional Materials Preparation and Engineering Application Complete Technology completed by the affiliated units of the Company, and other 6 achievements won the second prize of the National Prizes for Progress in Science and Technology in 2020.

4.2.4 Establishment and Implementation of Safety and Quality System

In terms of the establishment of the system, the Group has set up the Production Safety (Quality) Committee, which is responsible for all aspects of the production safety of the Company. The Committee has 2 directors, who are the secretary of the party committee, chairman, and president of the Company, 1 deputy director, who is the vice president in charge of safety and quality, and several members, including other members of the leadership team and senior management, director for safety production (executives), senior experts, and heads of relevant departments of the headquarters of the Company. From the headquarters to the project department of the Company, departments at all levels have safety production directors and safety production supervision departments.

In terms of the improvement of systems, in order to further strengthen the implementation of the main responsibilities, improve the management system and consolidate the management foundation, the Group has issued the notice on Further Implementing the Responsibilities for "Management" and "Supervision" of Safety Production and Establishing a Long-term Mechanism for Double Prevention of Risks and Hidden Dangers (《進一步落實安全生產「管」「監」責任暨 構建風險和隱患雙重預防長效機制》); the Implementation Plan of the Three-Year Action Plan for Special Rectification of Safety Production (《安全生產專項整治 三年行動計劃實施方案》) and the "2468" Main Points on Management of Safety Production of CREC in the New Era (《中國中鐵新時期安全生產「2468」管理要 點》) supplemented by a O&A manual with 100 questions and propaganda posters of the "2468" Main Points on Management; released the CREC Headquarters Safety Production Responsibility System (《中國中鐵總部安全生產責任制》), Notice on Further Clarifying the Responsibilities of the Main Persons in Charge of the Safety Production of the Company (《關於進一步明確企業主要負責人安全 生產責任的通知》), Measures for Responsibility Investigation on CREC's Market Access Due to Quality Safety, Environmental Protection and Occupational Health Incidents (《中國中鐵因質量安全、環境保護與職業健康事件被限制市場準入責 任追究辦法》) and other normative documents; revised the Rigid Requirements for Inertia Accident Prevention and Strengthening Technology and Management Disclosure of CREC (《中國中鐵防範慣性事故強化技術及管理交底剛性要求》)

and Safety Quality, Ecological Environment Accident (Event) Emergency Plan (《安全質量、生態環境事故 (事件) 應急預案》); and issued more than 50 business management documents, telegrams and operation instruction manuals such as annual main work arrangements, documents for special rectification of lifting and hoisting, safety inspection during key time periods, "safety month" and "quality month", and employee safety card control for 50 job posts.

In terms of monitoring the implementation of the system, the Group continued to implement the Notice on Establishing a Safety Production Debriefing Mechanism (《關於建立安全生產述職機制的通知》), further improved the safety production assessment and evaluation system of the Company, and urged the first person and other people in charge of safety production to perform their duties with due diligence. At the same time, the Group has carried out a threeyear activity for the implementation of safety production responsibility, and carried out five major themed activities, including publicity and training activities for the "management" and "supervision" responsibilities for safety production, special inspection activities for the implementation of "management" and "supervision" responsibilities for safety production, special actions to strengthen the foundation of safety production management, and production safety inertial accident prevention and control special action, the action to improve the intrinsic safety assurance capability, so as to further promote the implementation of "management" and "supervision" responsibilities for safety production system, and continuously improve the intrinsic safety assurance capabilities of the Company and its projects.

In terms of the continuous improvement of the system, the Group has continuously strengthened the establishment of safety production system, increased investment in safety production and management and control, and proposed and established a series of management and control measures to strengthen safety production work, including building the "Regional Production Safety Inspection Team (片區安全生產稽查隊)", achieving continuous growth in operating income and overall stable production safety status. After the "7.15" flooding accident in Shijingshan Tunnel, the Group carried out a special action for safety production in four aspects including "reflection, investigation, rectification and improvement" in the whole system, and continued to require all units to formulate and improve the safety production responsibility systems, detailed safety risk responsibilities, continue to promote the implementation of "management" and "supervision" responsibilities for safety production system, and build a dual prevention mechanism for risk-level management and control and hidden danger investigation and governance. At present, each unit has set up an inspection team and a regional inspection team, and established a regular reporting system for supervision. Each secondary unit further strengthened management, improved the mechanism, gave full play to the role of the regional inspection team, promptly eliminated various hidden dangers with regards to on-site safety, quality and environmental protection, and actively carried out emergency drills to improve their emergency response capabilities.

4.2.5 Compliance with Laws and Regulations

As a company dually listed on Shanghai Stock Exchange and the main board of the Hong Kong Stock Exchange, during the reporting period, the Group strictly complied with laws and regulations including the Company Law, the Securities Law, the Code of Corporate Governance for Listed Companies, and the various rules of the Shanghai Stock Exchange and the Hong Kong Stock Exchange, continuously enhanced the corporate governance structure and brought forth new ideas to the operational mechanism of corporate governance, thereby continuously enhancing the rationality and effectiveness of corporate governance. During the reporting period, there was no material breach of laws and regulations by the Group.

4.2.6 Maintenance of Relationship with Stakeholders

The Group always maintains a cooperation relationship of harmony, mutual trust and mutual benefit with its stakeholders, insists on putting itself in the shoes of the stakeholders to consider issues and proactively responds to the important issues of the stakeholders' concern. The Group has in place a smooth, standardized and distinctive communication system with the stakeholders, and strives to achieve mutual, harmonious and win-win development with the stakeholders.

4.2.7 Outlook

As the global impact of the COVID-19 persists, the world economy is lack of power in recovery, the commodity price fluctuates at high level, and the external environment for China's economic development is becoming more complex, challenging and uncertain, facing the triple pressures of shrinking demand, supply shock and weakening expectations. The infrastructure investment, as the main force of stabilizing the economy by "counter-cycle adjustment + cross-cycle adjustment", will play a more dominant role in stabilizing growth; however, the evolution of industry competition pattern will be accelerated. First, from the perspective of planning and development opportunities. The successive release of a series of important planning documents including the 14th Five-Year Plan for the National Economic and Social Development of the People's Republic of China and the Long-Range Objectives through the Year 2035, the 14th Five-year Plan for Public Services, the Planning Outline of National Integrated Three-dimensional Transportation Network, the 14th Five-year Plan for New Infrastructure Construction, and the 14th Five-Year Plan for the Development of Modern Integrated Transportation System, and the thorough implementation of regional major strategies and regional coordinated development strategies including the coordinated development of the Beijing-Tianjin-Hebei region, the development of the Yangtze River Economic Belt, the construction of Guangdong-Hong KongMacao Greater Bay Area, the integrated development of the Yangtze River Delta, and the ecological protection and high-quality development of the Yellow River basin have laid a solid foundation for the steady and sound development of the infrastructure industry in the future. According to the plan, during the "14th Five-Year Plan" period, the length of railways in operation is planned to be increased by 19,000 kilometers (Among them, the length of high-speed railways in operation is planned to be increased by 12,000 kilometers), the length of highway traffic in operation is planned to be increased by 302,000 kilometers (Among them, the length of expressway completed is planned to be increased by 29,000 kilometers), the length of urban rail transit in operation is planned to be increased by 3,400 kilometers, and the civil transportation airport is planned to be increased by at least 29; besides, a number of major water diversion projects and key water source projects are planned to be completed, with an additional water supply capacity of 29 billion cubic meters. By 2035, the total length of the national integrated threedimensional transportation network is estimated to achieve approximately 700,000 kilometers (excluding the length of overseas sections of international land routes, air and sea routes and mail routes), including about 200,000 kilometers of railways, 460,000 kilometers of roads, and 25,000 kilometers of high-grade waterways. There are 27 major coastal ports, 36 major inland ports, about 400 civil transport airports, and about 80 postal and express delivery hubs. In addition, with the development of the national economy and society, China's construction industry has entered a stage of high-quality development, and new fields and new forms of industries including green environmental protection have accelerated their development. Besides, new infrastructure, clean energy development and utilization, environmental protection projects and other markets have also witnessed vigorous development opportunities. Second, from the perspective of changes in policy orientation. Since 2021Q4, when the executive meeting of the State Council deployed special bonds, it emphasized strengthening the cross-cycle adjustment, coordinating the management policies of two-year special bonds, and striving to create more physical work by early 2022. At the Central Economic Working Conference in December, the central government made positive statements on "ensuring the intensity of government expenditure and accelerating the pace of expenditure" and "appropriately investing in infrastructure ahead of schedule". In March 2022, the Report on the Work of the Government made during the two sessions of the state pointed out that proactive fiscal policies shall be more effective, targeted and sustainable; prudent monetary policies shall be flexible and appropriate, with adequate liquidity maintained; and effective investment shall be actively expanded, centering on China's major strategic plans and the "14th Five-Year Plan", appropriately investing in infrastructure ahead of schedule, developing key water conservancy projects, integrated three-dimensional transportation networks, and important energy bases and facilities, speeding up the upgrading of city gas pipelines and other pipelines, perfecting flood control and drainage facilities, and pushing forward continuous construction of integrated underground utility tunnels. It is planned to allocate special bonds of RMB3.65 trillion for local governments to expand the use of the scope appropriately, and start work on a number of major projects, new infrastructure projects, and the renovation projects of old public facilities where conditions permit, which will give an overall boost to infrastructure, and further consolidate the construction industry's role as a pillar of the national economy. In addition, on the basis of the

2020 public REITs pilot program, in 2021, the National Development and Reform Commission set up a national infrastructure REITs pilot project library covering pilot regions and industries in accordance with unified standards and rules. Support will be given to the use of real estate investment trusts (REITs) and public-private partnerships (PPP) to revitalize national stock assets, and use the net recovered funds mainly for new investment. Key support will be given to industries that are difficult to revitalize stocks and are highly demonstrative for the forming a virtuous cycle of investment, such as transportation, municipal administration, environmental protection, water conservancy, storage and logistics, as well as new infrastructure projects, which will further promote the healthy and sound development of these industries. Third, from the perspective of industry **innovation and upgrading.** In the outline of the development plan of the "14th Five-Year Plan" for national economy, technological innovation has been placed in the first place, the dominant position of enterprise innovation has been highlighted, and enterprise technological innovation has ushered in a new round of policy opportunities. At the same time, along with the accelerated development of a new generation of information technology, a new round of technological revolution, represented by cloud computing, big data, Internet of Things, mobile Internet and artificial intelligence, is reshaping the global competitive and economic landscape, and systematically restructuring the industry chain, the innovation chain, the supply chain and the value chain of all industries in an inexorable manner, which will further stimulate the development potential and growth of enterprises. The construction industry will gradually shift from investment-, labor - and other factors-driven development to innovation-driven development. The integration of construction industry with advanced manufacturing technology, information technology and energy saving technology will be further deepened. The acceleration of industrialization, digitalization and intellectualization upgrading of constructions will further promote the intensive and high-quality development of the construction industry. Fourth, from the perspective of the evolution of business structure. During the "14th Five-year Plan" period, the reform of project investment and construction mode and project production organization mode will be accelerated, and investment diversification and integration of investment, construction and operation will become the mainstream. PPP will continue to play an important role in the supply of public goods, and project modes such as engineering general contracting (EPC) and engineering consulting in the whole process will be accelerated. At the same time, along with the continuous deepening of business model reform, the evolution of competition pattern in construction enterprises will be accelerated and industry barriers will be gradually be broken down. Industry competition will increasingly tilt towards talents, resources, brands, capital and other elements. Speeding up of technological and managerial innovation, better implementation of the combination of industry and finance, and all-round improvement of enterprises' capacity for high-quality development will become the key to success.

During the "14th Five-Year Plan period", China Railway will focus on its historical mission and main responsibilities and business, take promoting high-quality development as the theme, promote transformation and upgrading as the main task, follow the "six must-haves" as the strategic guidance, promoted the implementation of the "123456" development strategy, and adhere to the economic line of "two transformations". It is committed to becoming an enterprise with five characteristics in the new era: a national pillar with strong sense of responsibility, a pioneer with leading infrastructure, a leader in the industrial chain focusing on green development, a transnational company with brand influence and a modern enterprise with social respect. China Railway will continue to enhance its capacities of competitiveness, innovation, control, influence and risk resistance, and initially build itself into a world-class comprehensive construction industry group with global core competitiveness.

During the "14th Five-Year Plan" period, China Railway will focus on improving its primacy ratio in the industry, in China, and in the world, and on enhancing the synergy among various businesses in the industry chain, the value chain, the supply chain and the innovation chain. It is committed to strengthening the three core businesses of design consulting, engineering construction and equipment manufacturing to catch up with the world-class level; optimizing the two key businesses of characteristic real estate and asset operation to build a first-class brand in China; specializing the two major supporting businesses of resources utilization and financial and merchandise trading to build a first-class platform in the industry; and expanding relevant emerging businesses to open up the second growth curve, so as to comprehensively enhance its core competitiveness, and lay a solid foundation for its transformation and upgrading.

4.2.8 Operating Plan

In 2022, the Group will make every effort to seize market opportunities and become the main force for steady growth; organize production with high quality and efficiency, and constantly improve project performance ability; deepen the concept of value creation, and improve the profitability and efficiency of enterprises; take real action in the three-years reform plan, and effectively boost the vitality of enterprise development; strengthen the support of scientific and technological innovation, and constantly stimulate the growth momentum of enterprises; resolutely implement the "Double Priorities Strategy", and promote the steady development of overseas undertakings; enhance professional development ability, and accelerate the transformation and upgrading of investment business; strengthen the construction of talent team, and build a highland for the talents in the industry; and continue to strengthen the foundation for management and forestall and defuse major risks.

In 2022, the Group plans to achieve total revenue of approximately RMB1,120 billion, costs of operation (including interest expense) of approximately RMB1,005.8 billion, four expenses of approximately RMB62.4 billion. It is estimated that the new contracts to be entered into will amount to approximately RMB2,930 billion. The Group will promptly adjust its operation plan to suit market conditions and to reflect the actual implementation of the plan.

4.3 Financial Performance Overview

The Group's principal business activities are infrastructure construction, survey, design and consulting services, engineering equipment and component manufacturing, property development and other businesses.

In the year of 2021, the Group achieved revenue of RMB1,073.272 billion, representing a year-on-year increase of 10.1%. Profit for the year increased by 11.8% year-on-year to RMB30.470 billion while profit for the year attributable to owners of the Company increased by 9.6% year-on-year to RMB27.618 billion.

A comparison of the financial results for 2021 and 2020 is set forth below.

4.4 Consolidated Results of Operations

Revenue

In 2021, the Group's revenue increased year-on-year by 10.1% to RMB1,073.272 billion. It was mainly due to the increase in revenue from the Group's infrastructure construction business. Among which, revenue from overseas was RMB54.787 billion, representing a year-on-year increase of 16.4%.

Cost of sales and services and gross profit

The Group's cost of sales and services primarily includes cost of raw materials and consumables, subcontracting cost, equipment usage cost (consisting of maintenance, rental and fuel), employee compensation and benefits and depreciation and amortization expenses. In 2021, the Group's cost of sales and services recorded a year-on-year increase of 9.6% to RMB969.886 billion while gross profit of the Group increased year-on-year by 14.6% to RMB103.386 billion. The overall gross profit margin for 2021 was 9.6%, representing an increase of 0.3 percentage point as compared to 9.3% in 2020. It was mainly due to the increase in gross profit margin of infrastructure construction business.

Other income

The Group's other income primarily consists of dividend income and subsidies from government. In 2021, the Group's other income was RMB2.736 billion, increased by 23.3% from RMB2.219 billion of last year. Such increase of other income was primarily due to the increase in subsidies from government and dividend income.

Other expenses

The Group's other expenses primarily includes expenditures on research and development. In 2021, other expenses increased by 13.4% from RMB21.838 billion of last year to RMB24.756 billion, mainly due to the Group's continuous advancement on scientific research and technological innovation and further increase input in research and development.

Net impairment losses on financial assets and contract assets

The Group's net impairment losses on financial assets and contract assets mainly includes impairment losses on trade and other receivables, other financial assets at amortised cost and contract assets. In 2021, the Group's net impairment losses on financial assets and contract assets increased year-on-year by 114.3% to RMB5.478 billion, mainly attributable to the increase in impairment losses on trade and other receivables and contract assets.

Other gains/losses, net

The Group's other gains and losses mainly include gains and losses on disposal/write-off of property, plant and equipment, lease prepayment, associates and subsidiaries, foreign exchange gains/losses, impairment losses on property, plant and equipment and other assets and changes in the fair value of financial assets/liabilities through profit and loss. The Group's other losses recorded RMB82 million in 2021, primarily due to losses of RMB515 million from the changes in the fair value of financial assets/liabilities through profit and loss.

Losses from derecognition of financial assets at amortised cost

The Group's losses from derecognition of financial assets at amortised cost mainly include the losses arising on derecognition of trade receivables and bills receivables which were transferred in accordance with asset-backed medium-term notes ("ABN") and asset-backed securities ("ABS") issuance, non-recourse factoring agreements and bills receivables discounting arrangements. In 2021, the Group's losses from derecognition of financial assets at amortised cost was RMB4.595 billion, representing an increase of 39.2% from the same period of last year. In 2021, the Group transferred trade receivables of RMB85.945 billion and RMB14.971 billion under the issuance of ABN and ABS, and non-recourse factoring agreements, respectively (2020: RMB55.142 billion and RMB16.854 billion, respectively).

Selling and marketing expenses

The Group's selling and marketing expenses primarily consist of employee compensation and benefits, and advertising costs. In 2021, the Group's selling and marketing expenses amounted to RMB5.948 billion, representing a year-on-year increase of 22.5%. Such increase was mainly due to the strengthened construction of the operating system and increased investment in sales and marketing. The selling and marketing expenses as a percentage of the total revenue for 2021 was 0.6%, representing a year-on-year increase of 0.1 percentage point.

Administrative expenses

The Group's administrative expenses mainly consist of employee compensation and benefits and depreciation and amortization of its assets related to administration. In 2021, the Group's administrative expenses increased year-on-year by 11.1% to RMB27.418 billion. Such increase was mainly due to the normal increase in staff salary resulted from the growth in business scale, increase in business activities and profitability. Administrative expenses as a percentage of revenue for 2021 was 2.6%, representing a year-on-year increase of 0.1 percentage point.

Finance costs, net

In 2021, the Group's net finance costs (finance costs less finance income) was RMB1.511 billion, representing a decrease of 37.9% from last year. It was mainly due to the increase in interest income from the growth in scale of infrastructure construction investment projects using financial asset mode.

Profit before tax

As a result of the foregoing factors, the profit before income tax for 2021 increased by RMB4.024 billion, or 11.3% to RMB39.636 billion from RMB35.612 billion for 2020.

Income tax expense

In 2021, the Group's income tax expense increased year-on-year by 9.6% to RMB9.166 billion. By excluding the impact of land appreciation tax, the effective income tax rate of the Group increased by 0.8 percentage point from 17.2% for 2020 to 18.0% for 2021.

Profit for the year attributable to owners of the Company

In 2021, profit for the year attributable to owners of the Company increased by 9.6% to RMB27.618 billion from RMB25.188 billion for 2020.

4.5 Segment Results

The revenue and results of each segment of the Group's business for 2021 are set forth in the table below.

Business Segment	Revenue RMB million	Growth Rate (%)	Profit Before Income Tax RMB million	Growth Rate (%)	Profit Before Income Tax Margin ¹ (%)	Revenue as a Percentage of Total (%)	Profit Before Income Tax as a Percentage of Total (%)
Infrastructure Construction	953,038	8.8	34,204	-7.3	3.6	82.3	75.5
Survey, Design and Consulting	18,607	7.4	1,615	-27.9	8.7	1.6	3.5
Engineering Equipment and	10,007	7.4	1,013	-21.)	0.7	1.0	5.5
Component Manufacturing	33,176	11.4	2,029	-4.8	6.1	2.9	4.5
Property Development	51,300	3.1	1,622	Loss turned into profit	3.2	4.4	3.6
Other Businesses Inter-segment Elimination	101,942	37.4	5,830	16.2	5.7	8.8	12.9
and Adjustments	(84,791)		(5,664)				
Total	1,073,272	10.1	39,636	11.3	3.5	100.0	100.0

Profit/(loss) before tax margin is the profit before tax divided by the revenue.

Infrastructure construction business

Revenue from the Group's infrastructure construction business is mainly derived from construction of railway, highway and municipal works. Revenue from the infrastructure construction business continues to account for a high percentage of total revenue of the Group. In 2021, the revenue from the infrastructure construction business accounted for 82.3% of the total revenue of the Group (2020: 83.7%). In 2021, the Group coordinated and promoted various tasks of production and operation, accelerated the progress of production and operation, and progressed steadily and orderly. In 2021, the Group's revenue of infrastructure construction business increased by 8.8% year-on-year to RMB953.038 billion. Gross profit margin and profit before income tax margin of the infrastructure construction segment for 2021 was 8.1% and 3.6% respectively (2020: 8.0% and 4.2% respectively). The increase in gross profit margin was mainly due to the increase in proportion of revenue from the highway and municipal works business with higher profitability while the decrease in profit before income tax margin was mainly due to the increase in staff remuneration.

Survey, design and consulting services business

Revenue from the operation of the survey, design and consulting services business primarily derives from providing a full range of survey, design and consulting services, research and development, feasibility studies and compliance certification services on infrastructure construction projects. In 2021, the Group's survey, design and consulting services business developed sustainably and steadily, with revenue recorded RMB18.607 billion, representing a year-on-year increase of 7.4%. Gross profit margin and profit before income tax margin for the segment for 2021 was 27.9% and 8.7% respectively (2020: 31.4% and 12.9% respectively). The decrease in gross profit margin and profit before income tax margin was mainly due to the fact that projects with large revenue contribution in the current period have high design difficulty, large cost input and relatively low profitability.

Engineering equipment and component manufacturing business

Revenue from the operation of the engineering equipment and component manufacturing business primarily derives from the design, research and development, manufacture and sale of turnouts and other railway-related equipment, bridge steel structures and construction machinery. In 2021, the Group actively implemented the important instructions of General Secretary Xi Jinping's "Three Transformations", gave full play to its advantages in design and research and development, and actively explored new application scenarios and application fields. At the same time, the Group carried out indepth sales and marketing for regions and key projects, effectively controlled the quality of orders from the source, and continuously promote high-quality development. In 2021, the Group's revenue of the engineering equipment and component manufacturing business of the Group increased by 11.4% year-on-year to RMB33.176 billion. Gross profit margin and profit before income tax margin was 21.0% and 6.1% respectively for 2020 (2020: 19.4% and 6.7% respectively). The increase in gross profit margin was mainly due to ① the significant increase in profitability of steel structure products resulting from the increase in unit price by continuous improvement in the sales and marketing quality as well as further strengthening in cost control. 2 the significant increase in profitability of tunnel construction equipment by further strengthening in cost control. The decrease in profit before income tax margin was mainly attributable to the increase in labour cost and selling expenses.

Property development business

In 2021, the Group closely followed the guidance of the national real estate policy, closely studied and judged market expectations, and enhanced the value of products. The Group also strengthened the destocking effort, strengthened the full-cycle management and control of real estate projects, and with sales collection and quick fund recovery as the core. In 2021, revenue from property development business recorded RMB51.300 billion, increased by 3.1% year-on-year. Gross profit margin and profit before income tax margin was 17.0% and 3.2% (2020: 11.5% and -8.2% respectively). The increase in gross profit margin and the turnaround in profit before income tax was mainly due to the decrease in impairment losses accrued for property development projects.

Other businesses

In 2021, the Group strived to progressively implementing the "limited and interrelated" diversification strategy, revenue from other businesses increased year-on-year by 37.4% to RMB101.942 billion in 2021. Gross profit margin for 2021 was 17.8%, representing a decrease from 18.3% for 2020. Profit before income tax for 2021 was RMB5.830 billion (2020: RMB5.016 billion). Among which, (1) revenue from infrastructure operation business was RMB2.469 billion, a year-on-year increase of 69.2% while gross profit margin was 12.1%, a decrease of 7.6 percentage points from last year. (2) Revenue from mining was RMB6.312 billion, a year-on-year increase of 53.8% while gross profit margin was 54.6%, an increase of 16.8 percentage points from last year. (3) Revenue from merchandise trading was RMB74.620 billion, a year-on-year increase of 43.0% while gross profit margin was 3.1%, a decrease of 3.2 percentage points from last year and (4) Revenue from financial business was RMB4.183 billion, a year-on-year decrease of 8.0% while gross profit margin was 89.7%, an increase of 13.8 percentage points from last year.

4.6 Cash Flow

In 2021, the net cash inflow from operating activities of the Group amounted to RMB13.069 billion, representing a decrease in net cash inflow of RMB17.925 billion from RMB30.994 billion for 2020, which was mainly due to the growth in scale of investment in infrastructure investment projects under the financial asset model as well as the moderate increase in the land reserve of the property development business.

In 2021, the net cash outflow from investing activities of the Group amounted to RMB77.457 billion, representing an increase in net cash outflow of RMB14.316 billion from RM63.141 billion for 2020, which was mainly due to the increase of investment in infrastructure investment projects.

In 2021, the net cash inflow from financing activities of the Group amounted to RMB67.365 billion, an increase in net cash inflow of RMB27.164 billion from RMB40.201 billion for 2020, which was mainly due to the increase in external financing and contribution from minority interests.

Capital expenditure

The capital expenditure of the Group primarily comprises expenditure on purchases of equipment and upgrading of the Group's production facilities. The Group's total capital expenditure for 2021 was RMB65.542 billion (2020: RMB56.753 billion), which was mainly due to the increase in service concession arrangements from BOT/PPP projects.

The following table sets forth the Group's capital expenditure by business segment in 2021.

	Infrastructure construction RMB million	Survey, design and consulting services RMB million	Engineering equipment and component manufacturing RMB million	Property development RMB million	Other businesses RMB million	Total RMB million
Property, plant and equipment	8,977	378	1,648	354	1,663	13,020
Lease prepayments	91	-	138	77	16	322
Investment properties	137	-	_	8	130	275
Intangible assets	569	28	149	3,368	47,229	51,343
Mining assets	-	-	_	_	2	2
Right-of-use assets	397	97	37	7	42	580
Total	10,171	503	1,972	3,814	49,082	65,542

Working capital

	As at 31 December		
	2021		
	RMB million	RMB million	
Inventories	45,371	40,943	
Trade and bills receivables	157,025	139,831	
Trade and bills payables	405,520	384,565	
Turnover of inventory (days)	16	17	
Turnover of trade and bills receivables (days)	50	53	
Turnover of trade and bills payables (days)	147	150	

At the end of 2021, the balance of the Group's inventories was RMB45.371 billion, representing an increase of 10.8% from the end of 2020. The Group's inventory turnover days was 16 days in 2021, representing a decrease of 1 day from 17 days in 2020.

Trade and bills receivables

At the end of 2021, the Group's trade and bills receivables increased by 12.3% from the end of 2020 to RMB157.025 billion as at the end of 2021 while the turnover days of trade and bills receivables was 50 days in 2021, decreased by 3 days from 53 days in 2020. According to the ageing analysis of the Group's trade and bills receivables, most of the Group's trade and bills receivables were of less than one year and the trade and bills receivables of more than one year accounted for 24.5% (31 December 2020: 24.7%) of the total receivables, which reflected the sound receivables management capability of the Group.

The following table sets forth the ageing analysis of the Group's trade and bills receivables as at 31 December 2021 and 2020, based on invoice date.

	As at 31 December			
	2021			
	RMB million	RMB million		
Less than one year	118,517	105,239		
One year to two years	14,919	16,642		
Two years to three years	10,297	6,238		
Three years to four years	4,562	2,815		
Four years to five years	1,407	1,695		
More than five years	7,323	7,202		
Total	157,025	139,831		

Trade and bills payables

The Group's trade and bills payables primarily consist of amounts owed to the Group's suppliers of raw materials, machinery and equipment. The Group's trade and bills payables increased by 5.4% from end of 2020 to RMB405.520 billion as at the end of 2021. The turnover days of trade and bills payables was 147 days in 2021, a decrease of 3 days from 150 days in 2020. According to the ageing analysis of the Group's trade and bills payables, most of the Group's trade and bills payables were of less than one year and the trade and bills payables of more than one year accounted for 8.6% (31 December 2020: 7.7%) of the total payables.

The following table sets forth the ageing analysis of the Group's trade and bills payables as at 31 December 2021 and 2020, based on invoice date.

	As at 31 December		
	2021		
	RMB million	RMB million	
Less than one year	370,538	354,958	
One year to two years	19,622	19,725	
Two years to three years	9,274	4,933	
More than three years	6,086	4,949	
Total	405,520	384,565	

4.7 Borrowings

The following table sets forth the Group's total borrowings as at 31 December 2021 and 2020. 36.4% of the Group's borrowings were short-term borrowings (31 December 2020: 33.2%). The Group is generally capable of making timely repayments.

	As at 31 December		
	2021	2020	
	RMB million	RMB million	
Bank borrowings			
Secured	81,976	80,127	
Unsecured	152,824	102,340	
	234,800	182,467	
Long-term debentures, unsecured	55,007	49,443	
Other borrowings			
Secured	1,992	262	
Unsecured	20,128	17,883	
Total	311,927	250,055	
Long-term borrowings	198,503	166,997	
Short-term borrowings	113,424	83,058	
Total	311,927	250,055	

Bank borrowings carry interest rates ranging from 0.75% to 9.50% (31 December 2020: 0.75% to 9.55%) per annum. Long-term debentures carry fixed interest rates ranging from 2.14% to 4.50% per annum (31 December 2020: 2.14% to 4.50%). Other borrowings carry interest rates of 2.35% (31 December 2020: 3.85% to 7.00%) per annum. In 2021, the Group's average cost of financing was 4.11%, representing a year-on-year decrease of 0.16 percentage point.

The following table sets forth the maturity of the Group's borrowings as at 31 December 2021 and 2020.

	As at 31 I	As at 31 December		
	2021			
	RMB million	RMB million		
Less than one year	113,424	83,058		
One year to two years	31,351	46,920		
Two years to five years	64,552	52,212		
More than five years	102,600	67,865		
Total	311,927	250,055		

As at 31 December 2021 and 2020, the Group's floating-rate borrowings was RMB156.440 billion and RMB129.376 billion respectively.

The following table sets forth the carrying amounts of the Group's borrowings by currencies as at 31 December 2021 and 2020. The Group's borrowings are primarily denominated in Renminbi and the Group's foreign currency borrowings are primarily denominated in U.S. dollars and Euro dollars.

	As at 31 I	As at 31 December		
	2021	2020		
	RMB million	RMB million		
RMB	299,876	239,539		
USD	11,682	10,501		
Euro	13	2		
Others	356	13		
Total	311,927	250,055		

The following table sets forth the details of the Group's secured borrowings as at 31 December 2021 and 2020.

cured wings	Carrying amount of pledged assets RMB million	Secured borrowings	Carrying amount of pledged assets
wings	amount of pledged assets	borrowings	amount of pledged assets
wings	pledged assets	borrowings	pledged assets
wings	assets	borrowings	assets
0		C	
illion	RMB million	RMB million	DMD '11'
			KIVIB MIIIION
295	1,715	367	1,022
-	_	197	309
5,894	64,728	39,104	50,991
7,699	30,698	11,769	37,371
221	221	310	310
34	375	119	375
9,825	48,320	28,523	48,339
3 968	146 057	80 389	138,717
	- 45,894 7,699 221	35,894 64,728 7,699 30,698 221 221 34 375 29,825 48,320	295 1,715 367 - - 197 35,894 64,728 39,104 7,699 30,698 11,769 221 221 310 34 375 119 29,825 48,320 28,523

As at 31 December 2021, the Group's unused credit line facility from banks was RMB1,201.491 billion (31 December 2020: RMB1,192.430 billion).

As at 31 December 2021, the Group's gearing ratio (total liabilities/total assets) was 73.7%, representing a decrease of 0.2 percentage point as compared with 73.9% as at 31 December 2020.

4.8 Contingent Liabilities

The contingent liabilities related to legal claims in the Group's ordinary course of business are set forth in the table below:

	As at 31 December		
	2021 2		
	RMB million	RMB million	
Pending lawsuits (Note 1)			
 arising in the ordinary course of business 	5,256	3,073	

Note 1: The Group has been involved in a number of lawsuits arising in the ordinary course of business. Provision has been made for the probable losses to the Group on those claims when the management can reasonably estimate the outcome of the lawsuits taking into account of the legal advice. No provision has been made for those pending lawsuits where the management considered that the outcome of the lawsuits cannot be reasonably estimated or management believes the outflow of resources is not probable. The aggregate sum of those unprovided claims is disclosed in the table above.

4.9 Business Risks

The risks faced by the Group include investment and operation risks, international operation risks, cash flow risks, health, safety and environmental protection risks, and major pandemic prevention and control risks in the ordinary course of business.

- (1) Investment and operation risk: It refers to the risk that due to the uncertainty of investment results arising from uncontrollable external factors, insufficient research and feasibility studies prior to project investment, inappropriate project implementation and management, significant changes in external macro environment and policies and other factors, which may lead to an investment return lower than expected or an investment failure of the Group; among which, the overseas investment risk refers to the risk that overseas investment is affected by factors including local society, politics, economy, culture, policies and regulations, as well as relevant domestic policies and the corporate internationalization talent pool, which may lead to investment failure, lower-than-expected investment return, lower personnel security, damage to the reputation of the enterprise, etc.
- (2) International operation risk: It refers to the risk that due to the influence of international political situation, foreign policy changes, administrative intervention from government, economic, social, environmental or technological changes and other factors, which may lead to the failure to normally carry out the Group's overseas construction projects.
- (3) Cash flow risk: It refers to the possibility that the Group may incur economic losses or damage of reputation in the event of failure to meet the requirements of timely payment, investment expenses or timely repayment of the Group's debts in its operations due to improper management of cash flow.
- (4) Health, safety and environmental protection risk: The health, safety and environmental protection risks faced by the Group are mainly concentrated in the construction safety risks of construction projects, which mainly refer to the risk that due to the lack of effective management in management system implementation, measure implementation, technical management, subcontract management, equipment management and accident management of the Group, which may lead to major production safety accidents and safety hazards in the enterprise.
- (5) Major pandemic prevention and control risk: Due to the impact of a major uncontrollable pandemic, some national and local governments have issued policies that regard the major pandemic as safety accidents and adopted strict control and punishment measures. Consequently, the Group cannot proceed with normal construction of projects under construction or even suffers from suspension of work, which brings great risk of contract performance and severe loss of economic benefits to the Group.

To prevent the occurrence of various types of risks, the Company carries out monitoring and early warning of relevant major risks, makes various types of risks correspond to the various business processes through the establishment and operation of the risk management and internal control systems, pursuant to which the Group can decompose and identify the critical control point of business processes, develop specific control measures, establish procedures critical control documents, implement the responsibilities of the various types of risks and critical control point, work closely with the day-to-day management and control, and control risk factors and elements. In addition, the Company strictly supervises the important control aspects of earlier stage of feasibility study, planning, reviewing, auditing, approval and decision-making; enhances process control and post-assessment work, and develops strategies and contingency plans to deal with risks, which guarantees the overall controllability of the Company's various types of risks.

5 SIGNIFICANT EVENTS

5.1 The Plan for Profit Distribution on Ordinary Shares or Capitalisation of Capital Reserves

5.1.1 Formulation, Implementation or Adjustment of the Cash Dividend Policy

(1) Specific policies for profit distribution

According to the Articles of Association of the Company, the specific policies for profit distribution of the Company are as follows:

- (i) Form of profit distribution: The Company distributes profits in cash, share or a combination of cash and share. The Company can make interim profit distributions when conditions permit.
- (ii) Specific conditions, proportion and interval of the Company's cash dividends: Under the premise of ensuring the Company's continuous operation and long-term development, if the Company is profitable in the year and the accumulated undistributed profit is positive and there are no major investment plans or other major cash expenditures, the Company will distribute the profits in cash after appropriation to the statutory reserves and other reserves in full. In any three consecutive years, the Company's accumulated profits distributed in cash shall not be less than 30% of the annual average distributable profits realized in the three years; the annual profits distributed in cash shall generally not be less than 10% of the distributable profits realized in the year. The Company may not distribute cash dividends under the following special circumstances:
 - ① The auditors issue a non-standard unqualified audit report on the Company's financial report for the year.
 - ② The operating net cash flow is negative in the year.

If the abovementioned conditions for cash dividends are met, the Company in principle shall distribute cash dividends once a year, and the Company's Board of Directors can propose the Company to make interim cash dividends based on the Company's profitability and capital demand.

(iii) Specific conditions for the Company to issue stock dividends:

The Company can propose a share dividend distribution plan when the Company is in good operating condition, and the Board of Directors believes that the Company's share price does not match the Company's share capital and that issuing share dividends is beneficial to the overall interests of all shareholders of the Company, under the premise that the abovementioned conditions for cash dividends are met.

(2) Implementation of the cash dividend policy during the reporting period

Profits are distributed in cash under the profit distribution plan of the Company for 2020. Pursuant to the profit distribution plan considered and passed at the 2020 annual general meeting convened on 23 June 2021, a cash dividend of RMB0.18 (tax inclusive) per share based on the total share capital of 24,570,929,283 shares before the implementation of the plan (the Company's total share capital has not changed since 31 December 2020) was declared by the Company, totalling RMB4,422,767,270.94 (tax inclusive) and representing 17.5% of net profit attributable to the listed company's shareholders under the consolidated financial statements for the year of 2020 of the Company. The announcement on the profit distribution of H shares was published on 8 July 2021 on the website of Hong Kong Stock Exchange and the website of the Company. The announcement on the profit distribution of A shares was published on 23 July 2021 on China Securities Journal, Shanghai Securities News, Securities Times, Securities Daily and the website of Shanghai Stock Exchange. As at 5 August 2021, the implementation of the profit distribution plan of the Company for 2020 has been completed.

(3) Profit distribution plan for 2021

Pursuant to the relevant provisions of the Company Law and the Articles of Association, taking into account factors such as shareholder returns and the capital requirements of the Company for its business development, and in accordance with the "Resolution on the Profit Distribution Plan for 2021 of the Company" which was adopted at the fourteenth meeting of the fifth session of the Board, the details of the profit distribution plan are set out below: the retained profits of the Company at the beginning of 2021 were RMB68,438,633,510.55 based on the audited financial report prepared in accordance with the CAS of the Company for 2021. After taking into account the added net profit realized by the Company of RMB18,379,491,824.03 during the year and deducting the cash dividends for 2021 and interest payments on perpetual notes amounting to RMB6,572,031,983.27, and with 10% of the net profit of the Company, i.e. RMB1,837,949,182.40, being appropriated to its surplus reserve, the distributable profit of the Company to shareholders amounted to RMB78,408,144,168.91 for the year. Based on the Company's total share capital of 24,741,653,683 shares as at 30 March 2022, a cash dividend of RMB1.96 per 10 shares (tax inclusive) is proposed to be distributed, and the total amount of such dividend is RMB4,849,364,121.87 (tax inclusive), representing 17.5% of net profit attributable to the Company's shareholders under the consolidated financial statements for the current year of the Company. Upon the distribution, the remaining retained profit of the Company amounting to RMB73,558,780,047.04 will be carried forward to the next year. The profit distribution will be based on the total share capital on the record date for payment of the cash dividend. In the event of change in total share capital of the Company before the record date for payment of the cash dividend, the total distribution amount will be kept unchanged and the rate will be adjusted accordingly. The Company will make a further announcement on the details of the adjustment.

The independent directors of the Company have expressed their opinions on the plan, and the above plan is still subject to the approval of the 2021 annual general meeting of the Company. Minority shareholders will be offered sufficient opportunities to express their views and requests at the 2021 annual general meeting of the Company through the combination of onsite open voting and online voting to ensure that their legal rights are fully safeguarded.

(4) Information on the profit distribution for 2021

In 2021, the Company intends to make a cash dividend at 17.5% of net profit attributable to the listed company's shareholders under the consolidated financial statements for the current year of the Company, which is lower than the proportion in the guidelines, mainly based on the following considerations:

(1) Situation and characteristics of the industry of the Company

The industry in which the Company operates is the construction industry, which is a fully competitive industry. The market competition is becoming increasingly fierce, and the gross profit margin of the industry is generally low. Emerging fields such as clean energy and green infrastructure will become a new direction for the development of the industry. According to the 14th Five-Year Plan, a series of major national strategies will form new growth points in the field of infrastructure construction and bring new development momentum to the construction industry. At the Economic Working Conference at the beginning of the year, the government clearly stated that it will carry out infrastructure investment moderately ahead of schedule, which will benefit the field of infrastructure construction in an all-round way. The Company is still in a period of promising opportunities.

(2) The listed company's development stage and its own business model

The Company actively implements the national strategy, actively builds a new development pattern, deeply implements the "Belt and Road" initiative, seizes opportunities in overseas markets, and accelerates the establishment of a world-class enterprise with "excellent products, outstanding brands, leading innovation, and modern governance". In 2021, the amount of new contracts, revenue and net profit of the Company hit a new record high. The Company jumps to No. 35 among the "Fortune Global 500" enterprises, and its market competitiveness and brand influence continued to improve. The Company is at a stage of strategic opportunities and strategic upgrade. It will accelerate the transformation from debt-driven development to accumulation-driven development, and accelerate the transformation from contractors to "investors + builders + operators", which requires a lot of capital investment.

(3) Profitability level and demands on the funds of the Company

For the year of 2021, the Company's net profit attributable to shareholders of the Company increased by 9.65% year on year, and the basic earnings per share after deducting non-recurring profit and loss increased by 17.65% year on year, the best level in history. However, as the Company strengthens structural adjustment, transformation and upgrading, actively cultivates and expands new businesses, and actively starts the "second curve" in growth, it requires a lot of financial support. The Company will rationally arrange fund requirements according to business development needs, improve the efficiency of fund use to ensure the Company's sustainable and healthy development, so as to create greater returns for shareholders.

(4) Reasons for the listed company's low level of cash dividends

At present, the downward pressure on the world economy continues to increase, and the international situation is changing rapidly. Objectively speaking, it is necessary for the Company to preserve retained earnings to enhance its ability to resist risks. At the same time, in order to meet the daily needs in the production and operations, project investment and strategic development of the Company, it is necessary for the Company to retain sufficient funds to ensure its production and operation capabilities and promote its stable operation and high-quality development. As the Company accelerates the transformation from high-speed development to high-quality development, its profitability will steadily increase, which will help provide investors with more returns in the future.

(5) The exact purpose of the listed company's retained undistributed profits and estimated earnings

The Company's retained undistributed profits will be used to support the Company to seize development opportunities, continue to deepen the Company's strategic transformation, enhance structural adjustment and transformation and upgrading, and seek new growth points. On the basis of consolidating the advantages of traditional businesses, the Company will incubate and cultivate new advantageous businesses according to the main businesses and market demand, increase capital investment, cultivate and expand new businesses, promote the optimization and upgrading of business structure, focus on improving value creation capabilities, and reward shareholders with excellent business performance.

- (6) All the independent directors of the Company express the following independent opinions on the reasonability of the above 2021 profit distribution plan:
 - ① The 2021 profit distribution plan proposed by the Company complies with the Company Law of the People's Republic of China, the Regulatory Guidelines for Listed Companies No. 3 Cash Dividend Distribution of Listed Companies and other laws, regulations and normative documents, and it is also in line with the Shareholders' Return Plan for the Next Three Years (2021-2023) of the Company (《公司未來三年(2021-2023年度)股東回報規劃》) formulated by the Company and the requirements on profit distribution policies in the Articles of Association.
 - 2 In the 2021 profit distribution plan, the Company fully considers the external macroeconomic situation, its future development, financial status, cash flow status, profitability, shareholders' return on investment and other factors, which is in line with the actual situation of the Company.
 - 3 The cash dividend ratio of the Company in 2021 is slightly higher than that in 2020. The net profit of the Company keeps increasing every year. The distribution base of the Company continues to increase, and the dividend per share increases year by year.

Therefore, we believe that the 2021 profit distribution plan of the Company is reasonable. We agree on the plan, and agree to submit it to the Company's general meeting of shareholders for deliberation.

5.1.2 Special explanation of the cash dividend policy

Was it in compliance with the provisions of the Articles of	Yes
Association and the resolutions of the general meeting?	
Were the dividend distribution criteria and proportion	Yes
well-defined and clear?	
Were the related decision-making process and mechanism in place?	Yes
Did independent directors fulfill their duties and play their role?	Yes
Were the minority shareholders given opportunities to sufficiently	Yes
voice their opinion and make requests and were the legal	
interests of the minority shareholders fully protected?	

5.1.3 If profits for the reporting period and the distributable profit of the parent Company to ordinary shareholders are positive and no profit distribution plan in cash for the ordinary shares is proposed, the Company should disclose the reasons as well as the use and intended use of the retained profits in details

Not applicable

- 5.2 Share Incentive Scheme, Employee Stock Ownership Plan and Other Incentive Measures and the Impacts Thereof
 - 5.2.1 Incentives which were disclosed in announcement without subsequent progress or changes

Matter overview

At the eleventh meeting of the fifth session of the Board of Directors and the seventh meeting of the fifth session of the Supervisory Committee of China Railway Group Limited on 22 November 2021, the Proposal on the 2021 Restricted Share Incentive Scheme (Draft) and its Summary of China Railway Group Limited, the Proposal on the Management Measures of the 2021 Restricted Share Incentive Scheme of China Railway Corporation Limited, the Proposal on the Management Measures for the Implementation and Assessment of the 2021 Restricted Share Incentive Scheme of China Railway Group Limited, the Proposal on Requesting the Shareholders' Meeting to Authorize the Board of Directors to Handle Matters Relating to the Company's Restricted Share Incentive Scheme and other proposals were considered and approved.

Query index

For details, please refer to the Announcement on Resolutions of the Eleventh Meeting of the Fifth Session of the Board of Directors of China Railway, the Announcement on Resolutions of the Seventh Meeting of the Fifth Session of the Supervisory Committee of China Railway, the 2021 Restricted Share Incentive Scheme (Draft) of China Railway, the Announcement on the Summary of the 2021 Restricted Share Incentive Scheme (Draft) of China Railway, the Independent Opinion of Independent Directors of China Railway on the Company's 2021 Restricted Share Incentive Scheme (Draft) and the Summary, the Verification Opinion of the Supervisory Committee of China Railway on the Company's 2021 Restricted Share Incentive Scheme (Draft) and Related Matters, the Management Measures for the Implementation and Assessment of the 2021 Restricted Share Incentive Scheme of China Railway, the Management Measures for the 2021 Restricted Share Incentive Scheme of China Railway, the List of Incentive Recipients of the 2021 Restricted Share Incentive Scheme of China Railway, and the Legal Opinion of Jia Yuan Law Offices on the 2021 Restricted Share Incentive Scheme of China Railway, which were disclosed on 23 November 2021.

Query index

The number of restricted shares to be granted to no more than 732 incentive recipients by way of directed issue of A shares shall not exceed 200.0000 million shares, accounting for 0.98% of the total A share capital of the Company of 20,363,539,283.00 shares at the time of the announcement of the draft scheme. Among them, 180,000,000 shares were granted for the first time, representing 90.00% of the total number of shares granted under the schemes and 0.88% of the total A share capital of the Company at the time of announcement of the draft schemes; 20,000,000 shares were reserved, representing 10.00% of the total number of shares granted under the schemes and 0.10% of the total A share capital of the Company at the time of announcement of the draft schemes.

According to the Approval on the Implementation of Restricted Share Incentive Scheme of China Railway Group Limited (SASAC No. 597 [2021]) issued by the State-owned Assets Supervision and Administration Commission of the State Council (SASAC), the SASAC approved in principle the implementation of the Restricted Share Incentive Scheme. The Restricted Share Incentive Scheme and related matters of the Company shall be submitted to the general meeting of the Company for consideration and approval before implementation.

For details, please refer to the Announcement of China Railway on the Restricted Share Incentive Scheme Approved by the State-owned Assets Supervision and Administration Commission of the State Council disclosed on 14 December 2021.

According to the requirements of the regulatory documents of the CSRC such as the Measures for the Administration of Share Incentives of Listed Companies and the Measures for the Administration of Information Disclosure of Listed Companies as well as the relevant provisions of the Company's Management System for Registration of Insider Information, the Company has adopted sufficient and necessary confidentiality measures for and registered the insiders of the 2021 Restricted Share Incentive Scheme. The Company also conducted a selfexamination on the trading of shares by the insiders of the incentive plan during the six months (from 23 May 2021 to 22 November 2021) before the announcement of the draft incentive plan was made. After verification, during the six months before the announcement of the draft incentive plan, the Company did not find any insider of the incentive plan using the insider information related to the incentive plan for share trading or leaking the insider information related to the incentive plan.

Query index

For details, please refer to the Announcement of China Railway Group Limited on the Results of Inquiry on Stock Trading by Insiders of the 2021 Restricted Share Incentive Scheme disclosed on 24 December 2021.

The 2021 second extraordinary general meeting and 2021 first A share class shareholders' meeting considered and approved the Proposal on the 2021 Restricted Share Incentive Scheme (Draft) and its Summary of China Railway Group Limited, the Proposal on the Management Measures for the Implementation and Assessment of the 2021 Restricted Share Incentive Scheme of China Railway Group Limited, the Proposal on the Management Measures of the 2021 Restricted Share Incentive Scheme of China Railway Corporation Limited, the Proposal on Requesting the Shareholders' Meeting to Authorize the Board of Directors to Handle Matters Relating to the Company's Restricted Share Incentive Scheme, and the Proposal for the Grant of Restricted Shares to Connected Persons of the Company under the Rules Governing the Listing of Securities on The Stock Exchange of Hong Kong Limited under the 2021 Restricted Share Incentive Scheme of China Railway Group Limited.

The 2021 first H share class shareholders' meeting of the Company considered and approved the Proposal on the 2021 Restricted Share Incentive Scheme (Draft) and its Summary of China Railway Group Limited, the Proposal on the Management Measures for the Implementation and Assessment of the 2021 Restricted Share Incentive Scheme of China Railway Group Limited, the Proposal on the Management Measures of the 2021 Restricted Share Incentive Scheme of China Railway Corporation Limited, and the Proposal on Requesting the Shareholders' Meeting to Authorize the Board of Directors to Handle Matters Relating to the Company's Restricted Share Incentive Scheme.

Query index

For details, please refer to the 2021 Second Extraordinary General Meeting of China Railway Group Limited and the Announcement on the Resolution of the 2021 First A Share Class Shareholders' Meeting disclosed on 31 December 2021.

For details, please refer to the Announcement on the Resolution of the 2021 First H Share Class Shareholders' Meeting disclosed on 13 January 2022.

The thirteenth meeting of the fifth session of the Board of Directors and the tenth meeting of the fifth session of the Supervisory Committee of the Company considered and approved the Proposal on the First Grant of Restricted Shares to the Incentive Recipients of the Company's 2021 Restricted Share Incentive Scheme, and independent directors expressed their independent opinion on the proposal.

The conditions for the grant of restricted shares under the 2021 Restricted Share Incentive Scheme (Draft) and its Summary of China Railway Group Limited were fulfilled. According to the authorization of the 2021 second extraordinary general meeting, the 2021 first A share class shareholders' meeting and the 2021 first H share class shareholders' meeting of China Railway Group Limited, the thirteenth meeting of the fifth session of the Board of Directors held by the Company on 17 January 2022 considered and approved the Proposal on the First Grant of Restricted Shares to the Incentive Recipients of the Company's 2021 Restricted Share Incentive Scheme. determining the first grant date of restricted shares as 17 January 2022. Number of initial grant: 180.0000 million shares. Initial grant price: RMB3.55/share. The Supervisory Committee of the Company verified the matters such as the incentive recipients, grant date and first grant arrangement determined for the first time in the incentive scheme. Jia Yuan Law Offices issued a legal opinion on the grant.

Query index

For details, please refer to the Announcement on Resolutions of the Thirteenth Meeting of the Fifth Session of the Board of Directors of China Railway Group Limited, the Announcement on Resolutions of the Tenth Meeting of the Fifth Session of the Supervisory Committee of China Railway Group Limited, and the Independent Opinion of Independent Directors of China Railway Group Limited on the First Grant of Restricted Shares to the Incentive Recipients of the Company's 2021 Restricted Share Incentive Scheme disclosed on 18 January 2022.

For details, please refer to the Announcement of China Railway Group Limited on the First Grant of Restricted Shares to the Incentive Recipients of the Company's 2021 Restricted Share Incentive Scheme, the Verification Opinion of the Supervisory Committee of China Railway Group Limited on the List of Incentive Recipients on the Grant Date of the Company's 2021 Restricted Share Incentive Scheme, and the Legal Opinion of Jia Yuan Law Offices on the Grant of the 2021 Restricted Share Incentive Scheme of China Railway, which were disclosed on 18 January 2022.

According to the provisions of the Measures for the Administration of Share Incentives of Listed Companies and as required by Shanghai Stock Exchange and the CSDC Shanghai Branch, the Company completed the registration of the first grant of the Company's 2021 Restricted Share Incentive Scheme at the CSDC Shanghai Branch on 23 February 2022.

Query index

For details, please refer to the Announcement on Results of the First Grant of the 2021 Restricted Share Incentive Scheme of China Railway.

5.2.2 Incentives which were undisclosed in announcement or might have had subsequent progress

2021 First Share Incentive Scheme

Incentive method: restricted share

Source of subject shares: A-share ordinary shares issued by the Company to incentive recipients in a targeted manner

Measurement method, parameter selection criteria and results of fair value of equity instruments

Measurement method The A-share market price on the grant date (17 January

2022) is used as the fair value of restricted shares, and the difference between the A-share market price on the grant date and the grant price is used as the share-

based payment cost per restricted share.

Parameter name Grant price, and market price of A shares on the grant

date

Measurement result RMB414.8603 million

Note: The above result does not represent the final accounting cost. The accounting cost is related to the grant date, grant price and number of grants, in addition to the number of effective and lapsed interests. The above impact on the Company's operating results shall be subject to the annual audit report issued by the accounting firm.

Other explanations

The conditions for the grant of restricted shares under the 2021 Restricted Share Incentive Scheme (Draft) of China Railway Group Limited have been fulfilled. According to the authorization of the 2021 second extraordinary general meeting, the 2021 first A share class shareholders' meeting and the 2021 first H share class shareholders' meeting of China Railway Group Limited, the thirteenth meeting of the fifth session of the Board of Directors and the tenth meeting of the fifth session of the Supervisory Committee of the Company held on 17 January 2022 considered and approved the Proposal on the First Grant of Restricted Shares to the Incentive Recipients of the Company's 2021 Restricted Share Incentive Scheme, determining the first grant date of restricted shares as 17 January 2022, and on that date 180.00 million restricted shares were granted to 732 incentive recipients at the price of RMB3.55 per share. The independent directors of the Company expressed their independent opinions of agreement. The Supervisory Committee verified the list of incentive recipients on the grant date and issued the verification opinion. The details of the first grant are as follows:

- 1. The first grant date is 17 January 2022.
- 2. The number of the first grant is 170.7244 million shares.
- 3. The number of incentive recipients of the first grant is 697.
- 4. The first grant price is RMB3.55 per share.
- 5. Stock source: The Company has issued A-share ordinary shares to the incentive recipients in a targeted manner.
- 6. Explanation of the difference between the actual number of grant and the proposed number of grant: In payment of funds after the grant date, 35 incentive recipients of the first grant of restricted shares voluntarily gave up the subscription for all the restricted shares to be granted by the Company for personal reasons, totaling 9.2756 million shares. Therefore, the actual number of incentive recipients was changed from 732 to 697, the actual number of restricted shares granted was changed to 170.7244 million shares, and the reserved 20 million restricted shares remained unchanged.

According to the provisions of the Measures for the Administration of Share Incentives of Listed Companies and as required by Shanghai Stock Exchange and the CSDC Shanghai Branch, China Railway Group Limited completed the registration of the first grant of the Company's 2021 Restricted Share Incentive Scheme at the CSDC Shanghai Branch on 23 February 2022. After the completion of this restricted share grant, the total share capital of the Company increased from 24,570.929283 million shares to 24,741.653683 million shares. Prior to the grant, the controlling shareholder of the Company was China Railway Engineering Group Co., Ltd., with a shareholding of 47.21%; after the grant, the controlling shareholder of the Company was still China Railway Engineering Group Co., Ltd., with a shareholding of 46.88%. The restricted share grant will not change the control of the controlling shareholder of the Company.

(For details, please refer to the Announcement on Results of the First Grant of the 2021 Restricted Share Incentive Scheme of China Railway Group Limited with the Announcement No.: Pro 2022-010)

5.2.3 Share incentives granted to directors and senior management during the reporting period

Not applicable

5.2.4 Appraisal mechanism for senior management during the reporting period, and the establishment and implementation of the incentive mechanism

The remuneration of the Company's senior management is rooted in the economic benefits of the Company. The Remuneration Committee of the Board of Directors is responsible for organizing and implementing the remuneration and appraisal of the senior management. The annual performance appraisal index for the senior management is divided into three parts: overall performance index, individual KPI and individual competency index, with the weights being 50%, 40% and 10%, respectively. The annual remuneration of the senior management is composed of basic annual salary and performance annual salary, which is based on the results of their individual performance appraisal to make a reasonable gap. The appraisal mechanism of the senior management unifies incentives and restraints while taking into account efficiency and fairness. Insisting that the remuneration is closely linked with the appraisal results and risks match responsibilities, the appraisal mechanism arouses the enthusiasm of the senior management and boosts the high-quality development of the Company.

5.3 Performance Status of Undertakings

5.3.1 Undertakings made by undertaking parties, including the ultimate controller, shareholders, related parties, acquirers of the Company and the Company given or subsisting in the reporting period

Undertaking background	Type of undertaking	Undertaking party	Content of the undertaking	Timing and duration of undertaking	Whether there is a deadline for performance	•	If not duly complied, describe the specific reasons	If not duly complied, describe future plans
IPO-related undertakings	Non-competition	CREC	Upon the establishment of China Railway in accordance with the law, CREC and its subsidiaries (other than China Railway) will not in any form, directly or indirectly, engage in or participate in or assist in the engagement or participation in any business that competes, or is likely to compete with the core businesses of China Railway and its subsidiaries. If CREC or its subsidiaries (other than China Railway) become(s) aware of any new business opportunity which directly or indirectly competes, or is likely to compete, with the core businesses of China Railway, it shall notify China Railway in writing of such business opportunity immediately upon becoming aware of it, and undertakes that priority and a preemptive right of first refusal in respect of the business opportunity shall be available to China Railway or its subsidiaries. If CREC or any of its subsidiaries intends to transfer, sell, lease or license or otherwise assign to any third parties or permit them any new business opportunity, assets or interests that it may acquire in future and which may compete or is likely to compete, directly or indirectly, with the core businesses of China Railway, CREC warrants that such business opportunity, assets or interests will first be offered to China Railway or its subsidiaries.	ı	No	Yes		
Undertakings related to refinancing	Other	CREC	If China Railway is subject to administrative penalties or currently under formal investigation due to any undisclosed violation of laws and regulations in respect of the delay in developing acquired land, land speculation, hoarding of properties and driving up of property prices by price-rigging, which cause losses to China Railway and its investors, CREC shall bear the liability for compensation according to the requirements of the relevant laws and administrative regulations and as required by the securities regulatory authorities.	Ü	No	Yes		

- Note 1: For details of the relevant undertakings made by the Company and CREC during the material asset restructuring of China Railway Erju Co., Ltd. (renamed as CRHIC in March 2017, stock code: 600528), a subsidiary of the Company, please refer to the Report on the Material Asset Swap and Share Issuance for Asset Acquisition, Fundraising and Related Party Transaction of China Railway Erju Co., Ltd. (Revision) disclosed on the website of the Shanghai Stock Exchange (http://www.sse.com.cn) on 21 September 2016. The Company and CREC are currently duly complying with all the undertakings.
- Note 2: The Company issued the Letter of CREC on Changing Undertakings on Certain Contingencies to CRHIC on 25 November 2020, pursuant to which, the performance term of the original undertaking in relation to apply for ownership certificates for defective real estate was changed to long-term undertaking. The Letter was considered and approved by the 2020 first extraordinary general meeting of CRHIC on 25 December 2020. For details, please refer to the Announcement of CRHIC on Changing the Performance Term of Undertakings on Certain Contingencies by the Controlling Shareholder of the Company disclosed on the website of the Shanghai Stock Exchange (http://www.sse.com.cn) on 8 December 2020. The Company is currently duly complying with the relevant undertaking.
- Note 3: For details of the relevant undertakings made by the Company and CREC during the share issuance for asset acquisition, please refer to the Report on the Share Issuance for Asset Acquisition of China Railway Group Limited (Revision) disclosed on the website of the Shanghai Stock Exchange (http://www.sse.com.cn) on 31 May 2019. The Company and CREC are currently duly complying with all the undertakings.
- Note 4: In the course of acquiring the control over China Railway Prefabricated Construction, the Company and CREC issued the Letter of Undertaking to Avoid Horizontal Competition with Beijing Hengtong Innovation Luxwood Technology Co., Ltd., Letter of Undertaking to Regulate Related Party Transactions with Beijing Hengtong Innovation Luxwood Technology Co., Ltd., and Letter of Undertaking to Safeguard the Independence of Beijing Hengtong Innovation Luxwood Technology Co., Ltd. respectively. The above undertakings are continuously effective during the period in which the Company has control over Beijing Hengtong Innovation Luxwood Technology Co., Ltd. The Company and CREC are currently duly complying with the undertakings.
- Note 5: In the course of spinning off CRHEEC to go listing on the STAR Market, the Company and CREC issued the Letter of Undertaking to Avoid Horizontal Competition, Letter of Undertaking to Reduce and Regulate Related Party Transactions, Letter of Undertaking to Make up for Diluted Immediate Returns, and other letters of undertakings. For details, please refer to the Plan for China Railway Group Limited on the Spin-off of Its Subsidiary China Railway High-speed Electrification Equipment Corporation Limited to Go Listing on the STAR Market (Revision) disclosed on the website of the Shanghai Stock Exchange on 30 September 2020. The Company and CREC are currently duly complying with all the undertakings.

5.3.2 If the Company has made a profit forecast to its assets or projects, and the profit estimate period is within the reporting period, the Company's explanation on whether its assets or projects would meet its profit forecast and the reasons thereof

Not applicable

5.3.3 Fulfillment of undertakings and its impact on goodwill impairment test

Not applicable

5.4 Non-operating Appropriation of Funds by the Controlling Shareholder and Other Related Parties during the Reporting Period

Not applicable

5.5 Illegal Guarantee

Not applicable

5.6 Explanation of the Company on the "Modified Audit Report" from Auditors

Not applicable

- 5.7 Analysis and Explanation of the Company on the Reasons for and Impacts of the Changes in Accounting Policies or Accounting Estimates
 - 5.7.1 Analysis and explanation of the company on the reasons for and impacts of the changes in accounting policies or accounting estimates or correction of material accounting errors

Note on changes in accounting policies: The Ministry of Finance issued in 2021 the Interpretation No. 14 of Accounting Standards for Business Enterprises (Cai Kuai [2021] No. 1) ("Interpretation No. 14"), Implementation Q&As on Accounting Treatment of Social Capital Parties to PPP Project Contracts ("Implementation Q&As"), Interpretation No. 15 of Accounting Standards for Business Enterprises (Cai Kuai [2021] No. 35), Notice on Adjustment of the Scope of Application of the Regulations on Accounting for Rent Reduction Related to the COVID-19 (Cai Kuai [2021] No. 9), Notice on the Strict Implementation of Accounting Standards for Business Enterprises and Implementation of the 2021 Annual Report of Enterprises (Cai Kuai [2021] No. 32) ("Notice on the 2021 Annual Report"), and Implementation Q&As on Accounting Standards for Business Enterprises ("Interpretations, Notices and Implementation Questions and Answers"). The Company has adopted the Interpretations, Notices and Implementation Q&As to prepare the 2021 financial statement, and the impact on the Company's financial statement is presented below:

1. Interpretation No. 14 and Implementation Q&As

In accordance with the relevant provisions of Interpretation No. 14 and Implementation Q&As, the Company adjusted the amount of relevant items in the financial statements at the beginning of 2021 for the cumulative impact of relevant PPP project contracts that commenced before 31 December 2020 but have not yet been completed, and the comparative financial statements for 2020 have not been restated. The impact on the relevant items of the Company's financial statements is presented below.

Content of and reasons for the change in accounting policies	Name of the affected statement items	(RMB' 000) 1 January 2021
Contract assets formed during the construction phase of PPP	Other non-current assets	27,549,003
contracts that have entered into	Long-term receivables	-27,549,003
operation are presented in the	Contract assets	1,707,060
balance sheet under "contract assets" or "other non-current assets", depending on whether they are expected to be realized within one year from the	Non-current assets due within one year – Long-term receivables due within one year	-1,707,060
balance sheet date. Those that	Accounts receivable	700,803
have entered into operation and meet the condition of qualifying for a definite amount of cash are presented in the balance sheet under "accounts receivable".	Non-current assets due within one year – Long-term receivables due within one year	-700,803

(2) The impact of the implementation of Interpretation No. 14 and Implementation Q&As on the relevant items in the Company's 2021 financial statement is presented below:

Affected balance sheet items	Amount of impact (RMB' 000) 31 December 2021
Other non-current assets	31,774,499
Long-term receivables	-31,774,499
Contract assets	1,956,802
Non-current assets due within one year	
 Long-term receivables due within one year 	-1,956,802
Accounts receivable	964,394
Non-current assets due within one year	
 Long-term receivables due within one year 	-964,394
Affected income statement items	Amount of impact (RMB' 000) 2021
Revenue from main business	-908,069
Cost of main business	908,069
Impairment loss on assets	22,489
Impairment loss on credit	-22,489

- (3) Accounting for changes in the basis for determining cash flows from financial assets or financial liabilities contracts due to the reform of benchmark interest rate: The adoption of the regulation did not have a material impact on the Company's financial statements.
- 2. Interpretation No. 15 of Accounting Standards for Business Enterprises

Interpretation No. 15 of Accounting Standards for Business Enterprises had no impact on the Company's 2021 financial statement.

3. Accounting for Rent Reduction Related to the COVID-19

As a lessee, the Company has adopted the simplified method for the rent reduction directly arising from the COVID-19 that occurred from 1 January 2020 to 30 June 2022, and the amount of the related rent reduction charged to the current year's profit has no material impact on the Company's 2021 financial statement.

4. Presentation of contract assets to be realised with one year

The Company has prepared its 2021 financial statement in accordance with the Notice on Work of 2021 Annual Report and the financial statements for the comparative period have been adjusted accordingly. The impact on the relevant items of the Company's financial statements is presented below.

Content of and reasons for the	Name of	Amount of impact (RMB' 000)					
change in accounting policies	the affected statement items	31 December 2020	1 January 2020				
The Company reclassifies contract assets that are expected to be realized within one year from the balance sheet date from non-current assets due within one year to contract assets.	Contract assets Non-current assets due within one year – Contract assets due within one year	18,861,929 -18,861,929	14,226,195 -14,226,195				

5. Presentation of transportation costs

The Company has prepared its 2021 financial statement in accordance with Implementation Q&As on Accounting Standards for Business Enterprises and the financial statements for the comparative period have been adjusted accordingly. The impact on the relevant items of the Company's financial statements is presented below.

Content of and reasons for the change in accounting policies	Name of the affected statement items	Amount of impact (RMB' 000) 2020
For transportation costs incurred prior to the transfer of control of goods to customers and for the performance of sales contracts, the Group reclassifies all of them from selling expenses to operating costs.	Operating cost Selling expense	163,036 -163,036

5.7.2 Analysis and explanation of the company on the reasons for and impacts of the correction of material accounting errors

Not applicable

5.7.3 Communications with former auditors

5.7.4 Others

Not applicable

5.8 Appointment and Removal of Auditors

Unit: '0,000 Currency: RMB

Remuneration

Current engagement

Name of domestic accounting firm

Remuneration of domestic accounting firm

Term of domestic accounting firm

Name of international accounting firm

Remuneration of international

accounting firm

Term of international accounting firm

Term of international accounting firm

5 years

5 years

Accounting firm for internal control audit	PricewaterhouseCoopers Zhong Tian LLP	180
Financial advisor	/	/
Sponsor	/	/

Name

Explanation on the appointment and removal of auditors

On 30 March 2021, two resolutions, namely the Resolution on the Appointment of Auditors for 2021 and Resolution on the Appointment of Internal Control Auditors for 2021 were considered and adopted at the second meeting of the fifth session of the Board of Directors. For details of the appointment of auditors, please refer to the Announcement of China Railway Group Limited on Renewal of Appointment of Auditors disclosed on the website of the Shanghai Stock Exchange on 31 March 2021. These resolutions were then considered and passed at the 2020 annual general meeting of the Company on 23 June 2021. The Company has engaged PricewaterhouseCoopers Zhong Tian LLP and PricewaterhouseCoopers as the auditors of the Company for 2021 and engaged PricewaterhouseCoopers Zhong Tian LLP as the internal control auditors for 2021. For details, please refer to the Announcement of China Railway Group Limited on Resolutions of Annual General Meeting of 2020 disclosed by the Company on the website of the Shanghai Stock Exchange on 24 June 2021.

5.9 Risk of Suspension of Listing

5.9.1 Reason for Suspension of Listing

Not applicable

5.9.2 Response Measures to be Adopted by the Company

Not applicable

5.9.3 Delisting and the Reasons Thereof

Not applicable

5.10 Matters Relating to Insolvency or Restructuring

Not applicable

5.11 Material Litigation and Arbitration

The Company had no material litigation or arbitration during the year.

5.12 Penalty and Rectification Order against the Company and its Directors, Supervisors, Senior Management, Controlling Shareholders, Ultimate Controller and Acquirer

Not applicable

5.13 Integrity of the Company and its Controlling Shareholders and Ultimate Controllers during the Reporting Period

During the reporting period, the Company and its controlling shareholder and ultimate controller operated legally by strictly following the provisions of the laws and regulations and normative documents, such as the Company Law and the Securities Law, and duly fulfilled all the undertakings without committing any default. The Company was on the Credit List of Top 500 Listed Companies in China in 2021 as accredited by the China Cooperative Trade Enterprises Association and China Enterprise Reform and Development Society.

5.14 Significant Related Party Transactions

5.14.1 Related party transactions in ordinary course of business

(1) Matters which were disclosed in announcement without subsequent progress or changes

Not applicable

(2) Matters which were disclosed in announcement with subsequent progress or changes

Unit: RMB'000 Currency: RMB

Related parties	Related relationship	Type of related party transaction	Particulars of the related party transaction	Pricing method of related party transaction	Price of related party transaction	Amount of related party transaction	Percentage of transaction value to the same type of transactions (%)
China Railway State Assets Management Co., Ltd.	Wholly-owned subsidiary of parent company	Receipt of labor services	Lease of office premises, etc.	Contract price	16,848	16,848	Less than 1%
China Railway State Assets Management Co., Ltd.	Wholly-owned subsidiary of parent company	Receipt of labor services	Receipt of comprehensive services	Contract price	17,727	17,727	Less than 1%
Total					34,575	34,575	

Description of related party transactions

The above two transactions resulted from the implementation during the reporting period of the Premises Leasing Agreement and Comprehensive Services Agreement renewed by the Company and CREC on 27 December 2018. Each of the two agreements has a term of three years. The total transaction amount involved was within the decision-making authority of the Board of Directors and was considered and approved at the 18th meeting of the fourth session of the Board of Directors, which complied with the relevant requirements of The Rules Governing the Listing of Stock on Shanghai Stock Exchange. Meanwhile, the Premises Leasing Agreement and Comprehensive Services Agreement were exempted from the requirements of reporting, annual review, announcement and independent shareholders' approval as the annual caps of such transactions were within the de minimis exemption under the Hong Kong Listing Rules. In addition, the interest expense on lease liabilities recognized by the company's subsidiaries arisen from the housing lease with China Railway State Assets Management Co., Ltd. was RMB 958,000.

(3) Matters undisclosed in announcement

5.14.2 Related party transactions in relation to acquisition and disposal of assets

(1) Matters which were disclosed in announcement without subsequent progress or changes

Not applicable

(2) Matters which were disclosed in announcement with subsequent progress or changes

Not applicable

(3) Matters undisclosed in announcement

Not applicable

(4) If agreement upon performance is involved, the performance achievements during the reporting period shall be disclosed

Not applicable

5.14.3 Significant related party transactions in relation to joint external investment

(1) Matters which were disclosed in announcement without subsequent progress or changes

Not applicable

(2) Matters which were disclosed in announcement with subsequent progress or changes

Not applicable

(3) Matters undisclosed in announcement

5.14.4 Amounts due from/to related parties

(1) Matters which were disclosed in announcement without subsequent progress or changes

Not applicable

(2) Matters which were disclosed in announcement with subsequent progress or changes

Not applicable

(3) Matters undisclosed in announcement

Not applicable

5.14.5 Financial business between the Company and the finance company with which there is a related relationship, and between the Company's controlling finance company and related parties

China Railway Finance Co., Ltd. provides financial services to the Company's controlling shareholder, CREC and its subsidiaries, which enables the Company to use part of its financing funds to improve the efficiency of capital utilization and increase the benefits through the net interest and service fees earned by the finance company. The Proposal on the Financial Services Framework Agreement between China Railway Finance Co., Ltd. and China Railway Engineering Group Co., Ltd. was considered and adopted at the 18th meeting of the fourth session of the Board convened by the Company on 7 December 2018, in which it was agreed that China Railway Finance Co., Ltd., a subsidiary of the Company, would renew the Financial Services Framework Agreement (the agreement would expire on 31 December 2021) with CREC, the controlling shareholder of the Company, and provide deposits, loans and other financial services to CREC and its subsidiaries pursuant to the agreement. For details, please refer to the relevant announcement of the Company dated 28 December 2018 disclosed on the website of the Shanghai Stock Exchange. During the reporting period, the daily loan balance (including interest accrued) obtained by CREC from China Railway Finance Co., Ltd. did not exceed the maximum amount stipulated in the Financial Services Framework Agreement; and the maximum daily balance of deposits (including interest accrued) of the deposit service provided by China Railway Finance Co., Ltd. to CREC and its subsidiaries did not exceed the maximum amount stipulated in the Financial Services Framework Agreement.

1. Deposit business

Unit: RMB' 000 Currency: RMB

Related parties	Related relationship	Maximum daily deposit limit	Deposit rate range	Opening balance	Amount of the Total amount deposited during the period	current period Total amount withdrew during the period	Ending balance
CREC China Railway State Assets	Parent company Wholly-owned		1.265%	1,132,021	3,794,341	4,799,215	127,147
Management Co., Ltd.	subsidiary of parent company	20,000,000	1.265%	175,004	779,006	362,874	591,196
CREC Party School	Wholly-owned subsidiary of						
	parent company		1.265%	256	68,660	38,944	29,972
Total			ı	1,307,281	4,462,067	5,201,033	748,315

2. Loan business

Unit: RMB' 000 Currency: RMB

					Amount of the			
Related parties	Related relationship	Loan amount	Loan interest rate range	Opening balance	Total loan amount during the period	Total repayment amount during the period	Ending balance	
CREC	Parent company	3,500,000	3.6%-3.7%	1,870,000	980,000	1,870,000	980,000	
Total				1,870,000	980,000	1,870,000	980,000	

3. Credit business or other financial business

Unit: RMB' 000 Currency: RMB

Related parties	Related relationship	Total amount	Actual amount		
CREC	Parent company	Comprehensive credit line	3,500,000	980,000	
Total			3,500,000	980,000	

4. Others

Unit: RMB' 000 Currency: RMB

Item	Related parties	Amount of the current period	Amount of the corresponding period last year
Interest income	CREC	54,652	35,529
Interest expense	CREC	12,705	8,031
Interest expense	China Railway State Assets		
	Management Co., Ltd.	3,935	1,893
Interest expense	CREC Party School	66	3

Note: The interest income represents the interest receivable by China Railway Finance Co., Ltd., a subsidiary of the Company, from CREC for the loans to CREC. The interest expenses represent the interest payable by China Railway Finance Co., Ltd. to CREC, China Railway State Assets Management Co., Ltd. and CREC Party School for deposit-taking.

5.14.6 Others

Related party guarantees

Unit: RMB' 000 Currency: RMB

Guarantor	Guarantee		Commencement date of guarantee		•
CREC	China Railway	, ,	October 2010	April 2026	No
CREC	China Railway		October 2010	April 2021	Yes

Note: These are unconditional and irrevocable joint and several liability guarantees provided by CREC for the entire amount of the 15-year 2010 Corporate Bonds (Tranche 2) and 10-year 2010 Corporate Bonds (Tranche 2) issued in October 2010. According to the guarantee period specified in the Company's Prospectus on Public Offering of Corporate Bonds, the guarantee period for the guarantor shall be from the first day of bond offering to six months after the bond maturity date. As at 30 June 2021, 10-year 2010 Corporate Bonds were due and fully settled, and the guarantee responsibility of CREC as the guarantor was released at maturity, yet the guarantee responsibility of CREC as the guarantor of 15-year 2010 Corporate Bonds (Tranche 2) was not expired. As at 31 December 2021, the remaining payable amount of abovementioned bonds was RMB3,524,444,000 (31 December 2020: RMB3,522,859,000).

5.15 Material Contracts and Their Performance

5.15.1 Trusteeship, Contracting and Leasing

(1) Trusteeship

Not applicable

(2) Contracting

Not applicable

(3) Leasing

5.15.2 Guarantees

Unit: RMB0'000 Currency: RMB

Guarantee provided by the Company (excluding those provided to subsidiaries)

	Relationship			Commencement date of						0				Guarantee	
Guarantor	between guarantor and listed company	Guarantee	Guarantee amount	guarantee (agreement execution date)	Commencement date of guarantee	Expiry date of guarantee	Type of guarantee	Principal debt	Guaranty (if any)	Guarantee fully fulfilled	Overdue	Overdue amount	Counter- guarantee available	provided to related parties	Related relationship
China Railway	The Company	Linha Railway Co., Ltd.	41,789.00	2008/6/30	2008/6/30	2027/6/20	Suretyship of joint and several liability	Performance of contracts	No	No	No	1	No	No	1
China Railway	The Company	Shaanxi Yulin Shen- jia-mi Expressway Co., Ltd.	,	2015/7/31	2015/7/31	2037/8/1	Suretyship of joint and several liability	Performance of contracts	No	No	No	1	No	No	1
China Railway No.4 Engineering Group Co., Ltd.	Wholly-owned subsidiary	Xuzhou Yingbin Expressway Construction Co., Ltd.	119,000.00	2018/10/22	2018/10/30	2028/10/29	Suretyship of joint and several liability	Performance of contracts	Pledge of stock rights	No	No	I	No	No	I
China Railway No.5 Engineering Group Co., Ltd.	Wholly-owned subsidiary	Qinghai Minmetals China Railway Highway Construction Management Co., Ltd. (青海 五礦中鐵公路建 設管理有限公司)	14,850.00	2020/1/14	2020/1/14	2045/12/30	Suretyship of joint and several liability	Performance of contracts	Pledge of stock rights	No	No	-	No	No	1
China Railway No.5 Engineering Group Co., Ltd.	Wholly-owned subsidiary	Jiangxi Chengke Yunchuang Real Estate Co., Ltd. (江西省城科雲創 置業有限公司)	3,000.00	2021/9/22	2021/9/22	2029/9/21	Suretyship of joint and several liability	Performance of contracts	No	No	No	-	No	No	I
China Railway No.10 Engineering Group Co., Ltd.	Wholly-owned subsidiary	Chongqing CREC Renzhi Pension Industry Co., Ltd. (重慶中鐵任之養 老產業有限公司)	50,000.00	2017/1/12	2017/1/12	2024/11/30	Suretyship of joint and several liability	Performance of contracts	No	No	No	-	No	No	1

Guarantee provided by the Company (excluding those provided to subsidiaries)

Commencement

Relationship between												Guarantee provided			
	guarantor and		Guarantee	guarantee (agreement	date of	Expiry date	Type of	Principal	Guaranty	fully		Overdue	Counter- guarantee	to related	Related
Guarantor	listed company	Guarantee	amount		guarantee	of guarantee	guarantee	debt	(if any)	fulfilled	Overdue	amount	available	parties	relationship
China Railway Major Bridge Engineering Group Co., Ltd.	Wholly-owned subsidiary	Wuhan Yangsigang Bridge Co., Ltd.	179,454.37	2015/12/24	2015/12/24	2023/6/27	Suretyship of joint and several liability	Performance of contracts	No	No	No	1	No	No	I
China Railway Major Bridge Engineering Group Co., Ltd.	Wholly-owned subsidiary	Shantou Niutianyang Expressway Investment Development Co., Ltd.	4,800.03	2019/11/11	2019/11/11	2039/8/23	Suretyship of joint and several liability	Performance of contracts	Pledge of stock rights	No	No	1	No	No	I
China Railway Tunnel Group Co., Ltd.	Wholly-owned subsidiary	China Shanghai (Group) Corporation for Foreign Economic & Technological Cooperation	,	2012/12/29	2012/12/29	2022/6/30	Suretyship of joint and several liability	Performance of contracts	No	No	No	1	No	No	I
China Railway Shanghai Engineering Group Co. Ltd.	Wholly-owned subsidiary	Fangchenggang China Railway Diluyuan Investment Development Co., Ltd.	500.00	2019/5/8	2019/5/8	2030/12/31	Suretyship of joint and several liability	Performance of contracts	Pledge of stock rights	No	No	I	No	No	l
China Railway International Group Co., Ltd.	Wholly-owned subsidiary	MontagProp Proprietary Limited	6,006.00	2015/7/3	2015/7/3	2023/11/3	Suretyship of joint and several liability	Performance of contracts	No	No	No	1	No	No	I
China Southern Investment Group Co., Ltd.	Wholly-owned subsidiary	Shantou Niutianyang Expressway Investment Development Co., Ltd.	264,932.17	2019/8/30	2019/8/30	2039/8/23	Suretyship of joint and several liability	Performance of contracts	Pledge of stock rights	No	No	l	No	No	1

Total guarantee incurred during the reporting period (excluding		21,019.81
those provided to subsidiaries)		
Total balance of guarantee as at the end of the reporting period (A)		817,948.32
(excluding those provided to subsidiaries)		
Guarantee provided by the Company to its subsidiaries		
Total guarantee to subsidiaries incurred during the reporting period		4,982,058.31
Total balance of guarantee to subsidiaries as at the end of the reporting period (B)		15,107,208.50
Aggregate guarantee of the Company (including those provided		
to subsidiaries)		
Aggregate guarantee (A+B)		15,925,156.82
Percentage of aggregate guarantee to net assets of the Company (%)		44.44
Representing:		
Amount of guarantee provided to shareholders, ultimate controller and their related parties (C)		0.00
Amount of debts guarantee directly or indirectly provided to guaranteed parties with gearing ratios over 70% (D)		13,552,846.49
Excess amount of aggregate guarantee over 50% of net assets (E)		0.00
Aggregate amount of the above three categories (C+D+E)		13,552,846.49
Statement on the contingent joint and several liability in connection with unexpired guarantee		Not applicable
Statement on guarantee	 2. 	As at 31 December 2021, the aggregate guarantee of China Railway Group Limited (consolidated) included the commitment to make up the difference of RMB93,897.6456 million provided to its subsidiaries; as at 31 December 2021, the aggregate guarantee of
		China Railway Group Limited (consolidated) in relation to real

estate mortgage was RMB51,312.7324 million.

5.15.3 Management of Cash Assets Entrusted to Third Parties

(1) Entrusted wealth management

(i) Overview of entrusted wealth management

Unit: '0,000 Currency: RMB

Туре	Source of funds	Amount incurred	Unexpired balance	Overdue outstanding amount
Trust financial product	Self-owned funds	66,234.66	65,234.66	1,000.00

(ii) Breakdown of entrusted wealth management

Unit: '0,000 Currency: RMB

Trustee	Type of entrusted wealth management	Amount of entrusted wealth management	Commencement date		Source of funds	Investment target	Determination of returns	Annualized yield rate (%)	Expected gains (if any)	Actual gains or losses	Actual recovery	Whether followed the statutory procedures	Future entrusted wealth management plan available	Amount of impairment provision (if any)
CCB Trust Co., Ltd.	Trust financial product	1,000.00	2015/12/18	2022/6/18	Self-owned funds	BT project of roadwork in Zhaoqing	By agreement	10.00	100.00	-	-	Yes	No	-
CCB Trust Co., Ltd.	Trust financial product	9,200.00	2018/6/12	2037/9/15	Self-owned funds	Phase three of PPP project of roadwork in Zhaoqing	By agreement	6.10	561.20	-	-	Yes	No	-
CCB Trust Co., Ltd.	Trust financial product	4,390.00	2020/6/21	2025/6/21	Self-owned funds	PPP project of Hancheng National Highway 327	By agreement	6.80	161.09	161.09	161.09	Yes	No	-
China Railway Trust Co., Ltd.	Trust financial product	20,000.00	2016/8/3	2022/8/3	Self-owned funds	Shandong Tai'an- Dong'e Expressway project	By agreement	4.75	13,007.64	1,543.97	1,758.06	Yes	No	-502.78
CITIC Trust Co., Ltd.	Trust financial product	100.00	2014/11/1	2022/5/31	Self-owned funds	BT project of Jiangxi Nanchang Jiulong Lake Tunnel	By agreement	2.00	-	-	-	Yes	No	-
CCB Trust Co., Ltd.	Trust financial product	8,750.00	2016/4/1	2028/4/1	Self-owned funds	PPP project of infrastructure in the Huzhou Economic & Technological Development Zone in Zhejiang Province	By agreement	-	-	-	-	Yes	No	-

Trustee	Type of entrusted wealth management	Amount of entrusted wealth management	Commencement date		Source of funds	Investment target	Determination of returns	Annualized yield rate (%)	Expected gains (if any)	Actual gains or losses	Actual recovery	Whether followed the statutory procedures	Future entrusted wealth management plan available	Amount of impairment provision (if any)
CITIC Trust Co., Ltd.	Trust financial product	13,763.11	2019/5/20	2022/5/20	Self-owned funds	Shanhai Chunfeng Project in Kunming	By agreement	9.50	-	4,492.96	4,492.96	Yes	No	-
CCB Trust Co., Ltd.	Trust financial product	330.00	2016/12/28	2031/12/27	Self-owned funds	PPP project of Liuzhou Guantang Bridge	By agreement	5.50	3,520.00	54.68	54.68	Yes	No	-
Bairui Trust Co., Ltd.	Trust financial product	100.00	2016/9/18	2026/09/17	Self-owned funds	Study on trust theory	By agreement	-	-	1.50	1.50	Yes	No	-
	Trust financial product	300.00	2011/4/6	2016/4/7	Self-owned funds	Capital contribution to a joint venture	By agreement	-	-	-	-	Yes	No	-
	Trust financial product	700.00	2011/4/6	2016/4/7	Self-owned funds	Capital contribution to a joint venture	By agreement	-	-	-	-	Yes	No	-
CITIC Trust Co., Ltd.	Trust financial product	6,881.55	2019/5/24	2022/5/24	Self-owned funds	Investment in Kunming China Railway Nuode Real Estate Development Co., Ltd. (昆明中鐵諾德房地產開發有限責任公司) to support the development and construction of Lot KCXS2017-24-A11, 12, 13 and 14 of the Kunming Caohai Dong'an project	By agreement	9.50	7,733.41	-	-	Yes	No	-
CCB Trust Co., Ltd.	Trust financial product	720.00	2020/9/18	2026/10/18	Self-owned funds	Investment cooperation projects such as the road project of the Yanhua Road (East Ezhou Avenue-Wudu Avenue) in Ezhou City, Hubei Province, and the infrastructure project in the industrial park area on the west side of Huama Lake					-	Yes	No	-

(iii) Impairment provision of entrusted wealth

(2) Entrusted loans

(i) Overview of entrusted loans

Unit: '0,000 Currency: RMB

Туре	Source of funds	Amount incurred	Unexpired balance	Overdue outstanding amount
Entrusted loan	Self-owned funds	405,300.00	405,300.00	0.00

(ii) Breakdown of entrusted loans

Unit: '0,000 Currency: RMB

Trustee	Type of entrusted loan	Entrusted loan amount	Commencement date		Source of funds	Investment target	Determination of returns	Annualized yield rate	Expected gains (if any)	Actual gains or losses	Actual recovery	Whether followed the statutory procedures	Future entrusted loan plan available	Amount of impairment provision (if any)
Industrial and Commercial Bank of China	Entrusted loan	86,800.00	2021/1/1	2041/12/30	Self-owned funds	Inner Mongolia Jitong Railway (Group) Co., Ltd. (內蒙古集通鐵路 (集團) 有限責任 公司)	By agreement	4.02	3,489.36	-	-	Yes	No	-
China Railway Finance Co., Ltd.	Entrusted loan	7,500.00	2020/3/10	2023/3/9	Self-owned funds	Payment of principal and interest by Cenxi-Cangwu Expressway	By agreement	4.75	1,068.75	340.75	340.75	Yes	No	-55.07
China Railway Finance Co., Ltd.	Entrusted loan	16,500.00	2020/3/11	2023/3/10	Self-owned funds	Payment of principal and interest by Yulin-Shenmu highway	By agreement	4.75	2,351.25	749.66	749.66	Yes	No	-121.16
China Railway Finance Co., Ltd.	Entrusted loan	21,700.00	2020/3/11	2023/3/10	Self-owned funds	Payment of principal and interest by Pingzheng	By agreement	4.75	3,092.25	985.91	985.91	Yes	No	-159.35
China Railway Finance Co., Ltd.	Entrusted loan	67,000.00	2020/3/10	2023/3/9	Self-owned funds	Payment of principal and interest by Miansui Expressway	By agreement	4.75	9,547.50	3,044.06	3,044.06	Yes	No	-492.00

Trustee	Type of entrusted loan	Entrusted loan amount	Commencement date		Source of funds	Investment target	Determination of returns	Annualized yield rate (%)	Expected gains (if any)	Actual gains or losses	Actual recovery	Whether followed the statutory procedures	Future entrusted loan plan available	Amount of impairment provision (if any)
China Railway Finance Co., Ltd.	Entrusted loan	7,500.00	2020/3/10	2023/3/9	Self-owned funds	Payment of principal and interest by the Qianzhou- Xing'an Expressway	By agreement	4.75	1,068.75	340.75	340.75	Yes	No	-55.07
China Railway Finance Co., Ltd.	Entrusted loan	19,350.00	2020/3/11	2023/3/10	Self-owned funds	Proceeds from the acquisition of the Yulin- Shenmu Highway by Guangxi Expressway	By agreement	4.75	2,757.38	879.14	879.14	Yes	No	-142.09
China Railway Finance Co., Ltd.	Entrusted loan	151,750.00	2020/3/10	2023/3/9	Self-owned funds	Gap of capital dividends from Guangxi Expressway	By agreement	5.23	23,786.81	7,584.02	7,584.02	Yes	No	-1,116.85
China Railway Finance Co., Ltd.	Entrusted loan	27,200.00	2021/3/8	2024/3/7	Self-owned funds	Payment of principal and interest by the Zhong Xian- Dianjiang Expressway	By agreement	4.79	3,904.56	1,019.80	1,019.80	Yes	No	19.16

(iii) Impairment provision of entrusted loans

Not applicable

(3) Others

5.15.4 Other Material Contracts

(1) Material contracts signed during the reporting period

(i) Infrastructure construction business

No.	Signatory	Name of contract	Date of contract	Contract sum (RMB'0,000)	Construction period
Railway					
1	China Railway No. 4 Engineering, China Railway Tunnel, China Railway Major Bridge Engineering, China Railway No.10 Engineering, China Railway No.3 Engineering, China Railway No.2 Engineering, China Railway No.8 Engineering, China Railway No.1 Engineering	Sections CZXZZQ-6, CZXZZQ-9, CZXZZQ-10, CZXZZQ-12, CZXZZQ-13 and CZSCZQ-11 – the before-station project of the middle of the Ya'an-Linzhi section of the new Sichuan- Tibet Railway	2021.11-12	2 5,766,824	131 months
2	China Railway No. 5 Engineering, China Railway Major Bridge Engineering, China Railway No.2 Engineering, China Railway No.9 Engineering, China Railway Shanghai Engineering, China Railway No.3 Engineering, China Railway No.8 Engineering	Unit cost contracting of sections YKYGZQ-2, YKYGZQ-3, YKYGZQ-7, YKCYZQ-6 and YKCYZQ-7 of the new Chongqing-Kunming High-Speed Railway	2021.09	2,248,182	72 months
3	China Railway No. 2 Engineering, China Railway Shanghai Engineering, China Railway Major Bridge Engineering, China Railway No. 9 Engineering, China Railway No. 3 Engineering	SBJL-TJ-2, SBJL-TJ-5, SBJL-TJ-7, SBLN-TJ-3 and SBLN-TJ-5 of the Shenyang-Changbaishan High-speed Railway	2021.07	1,437,208	1,553 calendar days

No.	Signatory	Name of contract	Date of contract	Contract sum (RMB'0,000)	Construction period
Highway 1	China Railway Major Bridge Engineering, China Railway No.1 Engineering	Sections TJ3 and TJ4 of EPC of design, procurement and construction of the new project of West Ring Road (Houtian to Lehua section) of Nanchang Belt Highway	2021.12	412,189	36 months
2	China Railway Communications, China Railway Consulting, China Railway No.7 Engineering, China Railway No.9 Engineering, China Railway Shanghai Engineering	Project of West Ring Road (Houtian to Lehua section) of Nanchang Belt Highway and its connecting line (Jingkai to Yongxiu section)	2021.11	322,215	730 calendar days
3	China Railway No.1 Engineering, China Railway No. 4 Engineering	Sections TJ6 and TJ11 of civil engineering bidding of the reconstruction and extension project (K0 + 000 - K71 + 288.003 section) of Shanwei Lufeng to Shenzhen Longgang segment of the Shenyang- Haikou Expressway	2021.03	265,802	30 months
Municipal	works				
1	China Railway Construction, China Railway Huatie	EPC of urban renewal unit of Guangyayuan Village, Bantian Street, Longgang District, Shenzhen	2021.06	1,300,000	1,825 calendar days
2	China Railway Southern, China Railway No. 1 Engineering, China Railway No. 2 Engineering, China Railway No. 3 Engineering, China Railway No. 4 Engineering	EPC of Phase III of Shenzhen Metro Line 8	2021.09	807,794	1,793 calendar days
3	China Railway, China Railway Development, China Railway No. 1 Engineering, China Railway No. 2 Engineering, China Railway No. 3 Engineering, China Railway No. 4 Engineering, China Railway No. 5 Engineering, China Railway No. 10 Engineering, China Railway Tunnel, China Railway Shanghai Engineering	Section 2 under civil construction of Qingdao Metro Line 5, without subsection	2021.12	677,221	75 months

(ii) Survey, Design and Consulting Services Business

No.	Signatory	Name of contract	Date of contract	Contract sum (RMB' 0,000)	Construction period
1	China Railway Eryuan, China Railway Liuyuan, China Railway Major Bridge Design Institute	Engineering survey and design of the Yunnan-Guizhou section of the new Chongqing-Kunming High-Speed Railway	2021.12	112,237	Accept upon completion of the project
2	China Railway Eryuan, China Railway Consulting	Sections NO1-1 and NO1-2 under survey and design of the Liuzhou-Wuzhou segment of the new Liuzhou-Guangzhou Railway	2021.02	33,515	Accept upon completion of the project
3	China Railway Consulting	Feasibility study of east Chaozhou-Shantou section of the East of Guangdong Intercity Railway, and survey and design of the Shantou- Chaoshan Airport section, the east Chaozhou-Chaoshan Airport section, the Chaoshan Airport-south Jieyang section	2021.02	28,307	Accept upon completion of the project

(iii) Engineering Equipment and Component Manufacturing Business

No.	Signatory	Name of contract	Date of contract	Contract sum (RMB '0,000)	Contract period
Steel st	ructures				
1	China Railway Baoji Bridge, China Railway Shanhaiguan Bridge	Sections CT-A5 and A6 of the manufacturing project of steel truss beam and steel tower of the principal part of the Changtai Yangtze River Bridge (cross-river section)	2021.02	385,446	2021.01- 2023,12
2	China Railway Shanhaiguan Bridge, China Railway Baoji Bridge	Sections LT-B4 and B9 of the steel structure manufacturing project of Longtan River Crossing Bridge	2021.04	95,154	2021.04- 2023.6.30
3	China Railway Baoji Bridge	Section G3 of the steel structure manufacturing project of Huangmao Sea Cross-sea Channel	2021.12	88,728	2021.12- 2023,12

			Date of		Contract
No.	Signatory	Name of contract	contract	Contract sum (RMB '0,000)	period
Turnout	į.				
1	China Railway Shanhaiguan Bridge	Newly-Built Intercity Railway along the South Yangtze River in Jiangsu Province	2021.05	24,900	As required by Party A
2	China Railway Shanhaiguan Bridge	Shanghai Metro renovation project and spare parts	2021.06	19,517	As required by Party A
3	China Railway Baoji Bridge	Procurement and supply contract of materials supplied by Party A, under the management of State Railway Group, of Jiande-Quzhou section of the New Hangzhou-Quzhou Railway	2021.08	12,672	From December 2021 to the project completion
Enginee	ring machinery				
1	China Railway Engineering Equipment	TBM project contract of the Shergyla Mountain Tunnel of the Sichuan-Tibet Railway	2021.02	39,016	As required by Party A
2	China Railway Engineering Equipment	Purchase contract of shield tunneling machines	2021.02	27,257	4 months
3	China Railway Engineering Equipment	Lease contract of shield tunneling machines and supporting equipment for section 2 of the principal part of the Lianghu Tunnel (Donghu) and auxiliary projects undertaken by China Construction Third Engineering Bureau Group Co., Ltd.	2021.06	15,792	22 months

(iv) Real estate development business

No.	Project name	Project location	Project type	Planned area (0'000 square meters)
1	New industry city of the Northeast Asia International Expo Center in Changchun	Jilin	Industry-city integration (exhibition + commercial + residential)	324.24
2	Huanggang plot of the Binhai New District, Tianjin	Tianjin	Residential	62.77
3	AB plot of Phase I project of Shilihetan, Huaxi District, Guiyang	Guizhou	Residential + commercial	58.24

(2) Material infrastructure investment projects (BOT and PPP projects) signed during the reporting period

No.	Name of contract	Signatory	Contract sum (RMB100 million)	Shareholding of the project company	Construction period (Number of years)	Concession period (Number of years)	Signing date
1	PPP project contract of the Beijing-Xiongan Expressway (Beijing section)	China Railway Group Limited and other parties (project companies)	122.12	China Railway and Beijing Capital Highway Development Group Co., Ltd. hold 51% and 49% of the equity interest respectively	2	27	2021-01
2	PPP project contract of the infrastructure of North and South mountains areas under the strategy of rural vitalization of Tianshui city	China Railway City Development and Investment Group Co., Ltd. and other parties (project companies)	109.16	China Railway and Tianshui Urban Rail Transit Investment, Construction and Operation Co., Ltd. (天水市城市軌道交 通投資建設經營有限 責任公司) hold 65% and 35% of the equity interest respectively	3	30	2021-01
3	Supplementary contract to the PPP project contract (franchise agreement) of the Ruoqiang-Minfeng Highway, the Luntai- Minfeng Highway and State-owned agriculture, forestry and pasture road project (package A) in the Bayingolin Mongol Autonomous Prefecture	China Railway City Development and Investment Group Co., Ltd. and other parties (project companies)	138.28	China Railway and Bazhou Transportation Investment Co., Ltd. (巴州交通投資有限公司) hold 70% and 30% of the equity interest respectively		33	2021-03
4	PPP project contract (franchise agreement) of the operating highways of G577 Jingyi Line and G577 Tezhao Line in the Xinjiang Yili Kazak Autonomous Prefecture	China Railway City Development and Investment Group Co., Ltd. and other parties (project companies)	111.28	China Railway holds 84.18% of the equity interest, and government representatives and Xinjiang local state- owned enterprises hold 15.82% of the equity interest	5	35	2021-03

(3) Investment projects (BOT and PPP projects) that were operating during the reporting period

					Time of entering the	
No.	Name of contract	Signatory	Contract sum (RMB100 million)	Signing date	operation period	Operation period
1	Yinchuan tap water equity transfer project (merged with the west line water supply project)	China Railway No.1 Engineering and other parties	73.8	2010-08	2011-05	30
2	PPP project of Phase I of Hohhot Metro Line 1	China Railway Group Limited and other parties	146.79	2016-09	2019-12	25
3	PPP project of the Xundian-Zhanyi Expressway (Kunming section)	China Railway Group Limited and other parties	61.1	2018-08	2020-01	30
4	PPP project of the Dongchuan-Gele section of the S25 Kunming- Qiaojia Expressway	China Railway Group Limited and other parties	56.9	2017-04	2020-01	30
5	Section 2 of the PPP project of Shijiazhuang Hutuo River ecological restoration (Zhonghua Street to east Gaocheng city)	China Railway Group Limited and other parties	23.9	2019-02	2020-06	13
6	Phase I (section B) of Taiyuan Metro Line 2	China Railway Electrification Engineering Group Co., Ltd. and other parties	60.9	2019-09	2020-12	25

(4) Strategic framework agreements signed during the reporting period

No.	Signing date	Agreement name	Agreed investment amount (if any)	Main content of agreements
1	2021.6	Strategic cooperation framework agreement between the People's Government of Yichang Municipality and China Railway Group Limited	It is planned that the amount of cooperation projects between the two parties during the 14th Five-Year Plan period will not be less than RMB50 billion.	Accelerate the promotion of existing cooperation projects; strengthen cooperation in planning and design; strengthen cooperation in infrastructure and related industries.
2	2021.9	Strategic cooperation framework agreement between the People's Government of Yunnan Province and China Railway Group Limited	During the 14th Five-Year Plan period, Party B will plan to invest no less than RMB300 billion in Yunnan Province	Build the economic industry chain of headquarters; invest in the development of health care projects; boost the implementation of the "Belt and Road" initiative; deeply participate in the strategy of "Xingshui Rundian (興水潤漢)"; deepen cooperation with state-owned enterprises; strengthen infrastructure construction; carry out green intelligent manufacturing, and cooperation in prefabricated construction industry.

No.	Signing date	Agreed investment amount (if any)		Main content of agreements		
3	2021.9	Strategic cooperation agreement between the People's Government of Hubei Province and China Railway Group Limited	During the 14th Five-Year Plan period, CREC's investment in Hubei will exceed RMB100 billion.	Set up CREC's regional headquarters in Hubei Province; increase efforts to plan industrial layout and project investment in Hubei; give full play to design advantages to contribute to Hubei Province's comprehensive transportation construction; actively contribute to the rail transit and municipal infrastructure construction of Hubei Province; actively participate in the ecological environmental protection projects, urban development projects and other projects in Hubei Province; actively participate in the reform and development of local state-		

owned enterprises.

No.	Signing date	Agreement name	Agreed investment amount (if any)	Main content of agreements
4	2021.9	Strategic cooperation framework agreement between the People's Government of Xinjiang Uygur Autonomous Region and China Railway Group Limited	Strive to invest RMB200 billion in Xinjiang during the 14th Five-Year Plan period	Promote local economic and social development; strengthen cooperation between central enterprises and local governments; strengthen cooperation in planning, design and scientific research field; strengthen cooperation in finance field; strengthen cooperation in railway transportation construction; strengthen cooperation in highway and municipal infrastructure construction; strengthen cooperation in the fields of ecological environment protection

and water resources

development; strengthen cooperation in rural

revitalization and new

urbanization; strengthen cooperation in cultural tourism projects; strengthen cooperation in emerging

industries.

No.	Signing date	Agreement name	Agreed investment amount (if any)	Main content of agreements
5	2021.9	Comprehensive deepening strategic cooperation agreement between the People's Government of Guizhou Province and China Railway Group Limited during the 14th Five-Year Plan period	The two parties will strive to achieve an amount of over RMB450 billion of cooperation projects in Guizhou during the 14th Five-Year Plan period, including over RMB200 billion in investment projects.	Strengthen infrastructure investment and construction; a s s i s t i n the new urbanization; create highend cultural tourism and health care projects; deeply participate in the Five-Year Action for Strengthening the Development of Provincial Capital; deepen cooperation with stateowned enterprises; establish a government-enterprise cooperation mechanism; build a collective economic industrial chain.
6	2021.9	Strategic cooperation agreement between the People's Government of Shanxi Province and China Railway Group Limited	Strive to invest no less than RMB150 billion in cooperation projects in Shanxi Province during the 14th Five-Year Plan period	According to their respective plans, both parties will cooperate in the fields of highways, railways, urban rail transit, airports, ecological governance, urban complexes, smart cities.

No.	Signing date	Agreement name	Agreed investment amount (if any)	Main content of agreements
7	2021.10	Strategic cooperation agreement between the People's Government of Henan Province and China Railway Group Limited	During the 14th Five-Year Plan period, the amount of cooperation projects in key areas and major infrastructure construction in Henan Province shall not be less than RMB350 billion.	The parties will jointly promote the investment and construction of infrastructure, public services and other projects. The parties will carry out comprehensive cooperation in the fields of new infrastructure, rail transit and comprehensive land development along the route of rail transit, expressways, airports, ports, water conservancy, environmental protection, industrial parks, culture, tourism and health care, industrial manufacturing, smart cities, and resilient cities.

No.	Signing date	Agreement name	Agreed investment amount (if any)	Main content of agreements
8	2021.12	Strategic cooperation framework agreement between the People's Government of Chengdu Municipality and China Railway Group Limited during the 14th Five-Year Plan period	It is planned to invest RMB400 billion in Chengdu during the 14th Five-Year Plan period.	Promote local economic and social development; strengthen cooperation between central enterprises and local enterprises; strengthen cooperation in planning, design and scientific research fields; strengthen cooperation in high-end equipment R&D and manufacturing; strengthen cooperation in finance field; strengthen cooperation in centralized procurement and supply of materials; strengthen cooperation in rail transit construction; strengthen cooperation in highway and municipal infrastructure construction; strengthen cooperation in TOD comprehensive development

field; strengthen cooperation in urban area development; strengthen cooperation in ecological environmental protection and water resources development; strengthen cooperation in cultural tourism and health care projects; strengthen cooperation in emerging industries; strengthen cooperation in the field of rural revitalization and

development.

5.15.5 Particulars of Material Properties

(1) Property held for development

Name of building or project	Address	Current land use	Area (square meters)	Floor area (square meters)	State of completion	Expected completion date	Interests of the Company and its subsidiaries
Sichuan Heilongtan International Eco Tourism Resort Project	Renshou County, Meishan, Sichuan	Comprehensive	2,266	1,418	Under construction	2027	100%
Guiyang China Railway Yueshan Lake	Guanshan Lake District, Guiyang, Guizhou	Commercial, residential	236	266	Under construction	2024	80%
Qingdao West Coast Project	West Coast Central Vitality Zone, Qingdao	Comprehensive	86.39	148.3	Under construction	2029	100%
Taiyuan China Railway Nuode Mall	Chaoyang Street, Yingze District, Taiyuan	Commercial, residential	27.66	125	Under construction	2024	100%
Guiyang Qingzhen Project	Xiangchou Residential Quarters, Vocational Education Area, Qingzhen, Guiyang City, Guizhou	,	45.47	104.8	Under construction	2027	90%

(2) Property held for investment

				Interests of the Company and its
Name	Location	Use	Tenure	subsidiaries
Beijing Nuode Center Phase III Building S1, S2, 16 and 19	No. 1 South Yuren Road, Fengtai District, Beijing	Commercial	2054-11	100%
Tianjin Nuode Center No. 1 Building, No. 2 Building and equipped facilities	No. 50 Lvwei Road, Hebei District, Tianjin	Commercial	2054-1	100%
Beijing China Railway Mansion	No. 3 Yard, South Automobile Museum Road, Fengtai District, Beijing	Commercial	2065-11	100%
Chengdu Nuode No. 1	Intersection of Guangxi Road and Huanhu Road, Shuangliu District, Chengdu, Sichuan	Commercial	2065-1	100%
Guangzhou Nuode Center	No. 477 East Hanxi Avenue, Nancun Town, Panyu District, Guangzhou City, Guangdong	Commercial	2053-5	100%
Shanghai Nuode International Plaza	3/5 Block, 219 Lane, Xinzhuang Town, Minhang District, Shanghai	Commercial	2064-3	100%
China Railway Real Estate Qingdao Center	No. 8 Hong Kong Middle Road, South City District, Qingdao, Shandong	Commercial	2046-7	100%
Reeda Plaza	No. 46 South Shengli Road, Heping District, Shenyang, Liaoning	Commercial	2051-4	100%
China Railway South Headquarters Building	No. 3333 Houhai Center Road, Nanshan District, Shenzhen, Guangdong	Commercial	2046-12	100%
Lot AT090904, Starting Area, Financial City, Tianhe District	Site AT090904, Starting Area, Financial City, Huangpu Avenue, Tianhe District, Guangzhou City, Guangdong	Commercial	2068-12	100%

5.16 Description of Other Significant Matters That Have a Significant Impact on the Value Judgments and Investment Decisions Made by Investors

Not applicable

5.17 Environmental Information

(1) Description of environmental protection efforts of the highly polluting companies and their subsidiaries as announced by the environmental protection authorities

Not applicable

- (2) Description of environmental protection efforts of companies other than highly polluting companies
 - (i) Administrative penalties due to environmental issues

In 2021, due to the failure to strictly implement measures to control the dust, sewage discharge and construction environment noise generated in certain construction projects during construction, the Company's subsidiaries were subject to administrative penalties by local environmental protection regulatory authorities. The penalty totaled approximately RMB16.5234 million and involved 69 construction project departments. At present, all the penalties have been rectified and accepted by local regulatory authorities. The Company will further strengthen the Company's ecological and environmental protection. By identifying and evaluating the environmental factors of projects under construction and workplaces, the Company will strengthen the control over the risk sources and emissions of ecological and environmental pollution during production, to effectively protect and improve the living and ecological environment.

(ii) Disclosure of other environmental information with reference to highly polluting companies

Not applicable

(iii) Reasons for not disclosing other environmental information

(3) Information on ecological protection, pollution prevention and fulfilment of environmental responsibilities

The Company has strictly implemented the Environmental Protection Law of the People's Republic of China and the Energy Conservation Law of the People's Republic of China, thoroughly implemented Xi Jinping's thoughts on ecological civilization under the guidance of Xi Jinping Thought on Socialism with Chinese Characteristics for a New Era, strove to achieve the goal of "3060" in CO₂ emission, insisted on the concept of lucid waters and lush mountains are invaluable assets, and taken the fresh development stage into full consideration by following an innovative development philosophy and following new development patterns. The Company has solidly advanced the construction of ecological civilization, strove to overcome the challenges brought by peak carbon dioxide emissions and carbon neutral by focusing on the strategic positioning of "China Railway in Five Types", "123456" development strategy and strategic goals of "Four Strong Capabilities and Five Excellent Aspects" and "World Class", and brought green development concept into all aspects and stages of its development. The Company, taking energy-saving technology innovation as support, and energysaving management and energy resources utilization as focus, has improved risk prevention and pollution emergency response capability, steadfastly followed the high-quality, green and low-carbon development path by putting ecology first, and improved its green construction level.

Energy/ resource type	Indicators	Data in 2021	Year-on-Year Increase/ Decrease
Direct energy	Gasoline (ten-thousand tonnes)	46.07	5.9%
consumption	Gasoline (ton/RMB ten-thousand)	0.0045	-2.2%
	Diesel (ten-thousand tonnes)	155.8	4.4
	Diesel (ton/RMB ten-thousand)	0.015	-6.3%
	Natural gas (ten-thousand standard)	6,770.5	6.6%
	Natural gas (m³/RMB ten-thousand)	0.67	-1.4%
Indirect energy	Electricity (ten-thousand kwh)	1,045,300	6.5%
consumption	Electricity (ten-thousand kwh/RMB ten-thousand)	0.0103	-2%
Comprehensive energy	Comprehensive energy consumption (ten-thousand tonnes of standard coal)	448.5213	5%
consumption	Comprehensive energy consumption (tons of standard coal/RMB ten-thousand income)	0.0441	-4.3%
	Comprehensive energy consumption (ten-thousand kwh)	3,649,481	5%
	Comprehensive energy consumption (kwh/RMB ten-thousand income)	359	-3%
Water	Total new water consumption (ten-thousand tonnes)	46,094.546	2.9%

Note: Based on business characteristic of the Company, it is not applicable to calculate energy consumption density using unit of production (UOP) or per facility. Therefore, the Company adopts comprehensive energy consumption (comparable price) per RMB ten-thousand operating income to calculate and disclose energy consumption density.

(4) Measures taken to reduce carbon emissions during the reporting period and their effects

Climate change is a major global challenge for mankind today. China has put forward the targets of peak carbon dioxide emissions and carbon neutral to respond to the climate change. The Company has developed China Railway "14th Five-Year Plan" for energy conservation and environmental protection as per the "14th Five-Year Plan" of the State and the general requirements of the SASAC, and determined its overall goal as making significant progress in the construction of green China Railway system which satisfies the requirements of ecological civilization construction, continuously increasing energy efficiency, and significantly improving energy consumption structure by 2025. By 2025. the emissions of CO₂ per ten-thousand yuan output value and the comprehensive energy consumption per ten-thousand yuan operating income shall be decreased simultaneously. The comprehensive energy consumption per ten-thousand yuan operating income shall be decreased by 15% compared to that of 2020 and by 3.2% on an average annual basis, while the emissions of CO₂ per ten-thousand yuan output value shall be decreased by 18% compared to that of 2020 and by 3.89% on an average annual basis.

In 2021, to implement the national guidelines and policies regarding energy conservation and emission reduction, the Company thoroughly implemented the concept of green development, promoted green planning and design, introduced a full life cycle green design mode, controlled energy consumption at the source, and instilled the concept of green, low-carbon, and ecological design into the entire process of engineering planning and design. First, the Company strengthens green design, achieves green construction, and gives priority to planning. In the survey, design and consulting services business undertaken by the Company, the Company implements a full life-cycle green design model to ensure the lowest energy consumption level of construction projects from the source. Second, the Company intensifies efforts in clean **energy development.** The Company has actively participated in clean energy development projects, and has signed strategic cooperation agreements with the Tibet Autonomous Region Government, the Three Gorges Group, and Huadian Corporation to jointly develop clean energy. Meanwhile, in the Company's main construction projects, the Company has actively developed and promoted the use of ground source heat pump (GSHP), photovoltaic power generation, combined cooling heat and power, and other clean energy technologies. China Railway Major Bridge Engineering Group Co., Ltd., a wholly-owned subsidiary of the Company, and the Three Gorges Group jointly constructed the first phase of the Fuqing Xinghua Bay Offshore Wind Farm Project, being the first highpower offshore wind turbine project in China. The 400 MW offshore wind farm construction in Shengdong Rudong County, Jiangsu Province undertaken by China Railway Major Bridge Engineering Group Co., Ltd. was ongoing. Third, the Company explores a new energy saving model for green real estate and green buildings. The Company taps into the full potential of conserving energy of buildings and explores a new model for green real estate development. The Company works to achieve green development of real estate by taking measures like the design of green buildings and the promotion of prefabricated buildings. Through cooperation with related enterprises, the complementary advantages of clean energy technology and resource use platforms are achieved to ensure that the regions and projects developed by China Railway reach the world's advanced level in the fields of clean energy development and utilization, energy-saving and environmental protection, intelligent urban buildings, central heating and cooling, etc. Currently, all projects of Beijing Branch of China Railway Real Estate adopt green prefabricated construction. **Fourth, the Company advocates green office.** In 2021, the Company continued the application and promotion of the paperless conference system. The paperless system supports the parallel access of hardware devices such as computer terminals, mobile phones, and tablets. It supports the holding of paperless meetings with technical methods such as display on the same screen, handwritten signing and approval, and data distribution and sharing. With the paper system, the Company achieves the goal of full-process digitization that enables preparation before meetings, control during meetings, and filing and statistical analysis after meetings.

As of the end of the reporting period, the comprehensive energy consumption (comparable price) per ten-thousand yuan operating income in 2021 of the Company was 0.0441 ton of standard coal/ten-thousand yuan, 4.3% lower than the same period last year; and the emissions of CO₂ per ten-thousand yuan was 0.1563 ton/ten-thousand yuan, 13.6% lower than the same period last year, successfully completing the established work goals in annual energy conservation and environmental protection.

		Year-on- year increase/
Indicators	Data in 2021	decrease
Total amount of CO ₂ emission		
(ten-thousand tonnes)	1,588.2154	5.4%
CO ₂ emission density (ton/RMB ten-thousand)	0.1563	-13.6%
NOx emission (ton)	2.94	-41.31%
Smoke (powder) emission (ton)	23.18	5.5%
VOC emission (ton)	1.254	-37.3%
SO_2 (ton)	0	0
Total amount of hazardous waste (ton)	1,305	-1.5%
Discharge of hazardous waste per		
RMB ten-thousand (kg/RMB ten-thousand)	0.013	-6.5%
Total amount of non-hazardous waste		
(ten-thousand tonnes)	497.13	4.0%
Discharge of non-hazardous waste per RMB		
ten-thousand (kg/RMB ten-thousand)	0.05	-2%

Note: 1. The Company is a construction enterprise, and its CO_2 emissions are indirect greenhouse gas emissions.

- 2. Emissions of NOx, SO₂, smoke (powder) and VOC are calculated based on the emissions permits.
- 3. Due to rounding, the numbers of individual items may differ slightly from the total.

For details about the Company's fulfilment of ecological protection, pollution prevention and control, and environmental responsibilities, please refer to the 2021 Social Responsibility Report and the Environmental, Social and Governance Report of China Railway Group Limited published by the Company on the website of Shanghai Stock Exchange at the same time as this announcement.

5.18 Social responsibility commitments

As a leader in the construction industry, the Company never forgets its mission of becoming a practitioner, promoter and pioneer of corporate social responsibility. The Company started to construct a scientific, standardized, systematic and effective management system of corporate social responsibilities in 2008, planning social responsibilities in ten aspects, namely governance in accordance with the law, quality services, efficiency creation, employee development, safety supervision, scientific and technological progress, environmental protection, public welfare undertakings, win-win cooperation, and overseas responsibility, and rolling out a series of social responsibility management activities covering its headquarters and subsidiaries in order to achieve the goals of comprehensive coverage, down-to-earth implementation, steady perfection and industrial leading, and make continuous and irreplaceable contributions to the society.

For details about the Company's fulfilment of social responsibilities, please refer to the 2021 Social Responsibility Report and the Environmental, Social and Governance Report of China Railway Group Limited published by the Company on the website of Shanghai Stock Exchange at the same time as this announcement.

5.19 Work of consolidating and expanding poverty alleviation results and rural revitalization

(1) Targeted assistance plan

In 2021, China Railway thoroughly learned and implemented the General Secretary Xi Jinping's important instructions and comments on consolidating and expanding poverty alleviation results and linking poverty alleviation with rural revitalization, and gave full play to its own advantages as an enterprise as per relevant arrangements and requirements of the Central Committee, the State Council and the SASAC to advance the process of consolidating and expanding poverty alleviation results and linking poverty alleviation with rural revitalization, and strive to make its own contributions to the implementation of rural revitalization strategy. First, the Company sets up a leading group for targeted assistance. China Railway established a leading group for targeted assistance with major leaders of the Company being leaders, the full-time deputy secretary to the CPC Committee, general accountant, secretary to the Discipline Inspection Committee being deputy leaders, and heads of 13 departments including the HR Department being members. On 12 April and 31 August, the leading group for targeted assistance held two special conferences successively. CHEN Yun, Secretary to the CPC Committee and Chairman of the Board of the Company, and CHEN Wenjian, President and Deputy Secretary to the CPC

Committee of the Company, arranged and deployed target assistance work in person, learned and conveyed the newest spirit of the Central Committee on targeted assistance, and discussed and arranged matters including cadre selection, assistance plan, implementation of key assistance projects, ensuring to carry out targeted assistance in a targeted, scientific and efficient way. The group also considered and adopted the China Railway's Poverty Alleviation Summary and Commendation Implementation Plan (《中國中鐵脱貧攻堅總結表彰實施方案》), and appraised and selected 10 advanced individuals and 5 advanced units in poverty alleviation. Second, the Company publishes targeted assistance plan. After discussion, the leading group for targeted assistance of China Railway considered and adopted the 2021 Targeted Assistance Plan of China Railway (《中 國中鐵2021年定點幫扶工作計劃》), clarified the tasks of the annual assistance plan, and put consolidating and expanding poverty alleviation results and preventing massive returning to poverty as priority. Third, major leaders of the Company carries out on-the-spot investigation. On 25 and 26 October, CHEN Wenjian, President and Deputy Secretary to the CPC Committee of the Company, took a team to carry out investigation and supervision in Baode County, Shanxi Province to learn about the work on consolidating poverty alleviation results and implementing rural revitalization. The investigation group held a signing ceremony for key aid projects in Baode County, visited and extended its regards to registered impoverished households, held a symposium with the County Party Committee and the County Government on consolidating poverty alleviation results and rural revitalization, and conveyed the new spirits and new requirements of the Central Committee, the State Council and the SASAC. The investigation group also made in-depth exchanges with local government officials on how to consolidate poverty alleviation results and effectively link poverty alleviation with rural revitalization, and put forward targeted opinions and suggestions. From 10 to 12 November, WANG Shiqi, Deputy Secretary to the CPC Committee, Chairman of the Labour Union and Executive Director of the Company, took a team to carry out investigation and supervision in Rucheng County and Guidong County in Hunan Province to learn about the work on consolidating poverty alleviation results and implementing rural revitalization, and put forward practical solutions towards issues such as difficulty in employment and relatively single industrial development.

(2) Summary and results of annual targeted assistance

In 2021, China Railway had the courage to take the burden and increased investment with high sense of political responsibility and mission, accurately understood the major decisions and arrangement of the Central Committee, the State Council and the SASAC on advancing rural revitalization, coordinated the links among work tasks as well as policies and measures, and implemented a series of supporting measures that fit local situation and show its own characteristics in targeted assistance to achieve fruity results. First, the Company eliminates the root of poverty via assistance by education to create hardcore support for rural alleviation. China Railway insisted on taking "blood-making" assistance by education as an important focus for long-term stability, and integrating a development path blocking the inter-generational passing of poverty. In 2021, the Company invested RMB20 million of assistance funds in Guidong County for the construction of stage II project of the Hope School in Zhaigian Town to further improve teaching conditions; invested RMB20 million of assistance funds in Rucheng County for the construction of the Sports and Art Stadium of Rucheng Vocational High School to improve the situation of less venue and inefficient area for sports activities; and invested RMB20 million of assistance funds in Baode County for the construction of study dormitory of Baode No.11 Primary School to solve school accommodation issue in remote towns and villages. While continuing to invest in Rucheng Vocational High School to improve teaching conditions, The Company also gave full play to its own advantages and invited internal skilled talent representatives to the school. BAI Zhiyong, Representative of the 19th National Congress of the CPC, national model worker, and model of central enterprise, and ZHANG Hui, National Youth Position Expert and Master of Skills, were invited to serve as the visiting senior lecturer and teacher of the school respectively to carry out in-depth exchange and improve faculty level. Now, Rucheng Vocational High School has become one of the best vocational schools in Hunan Province. Second, the Company increases incomes via assistance by employment to create special brands for rural alleviation. China Railway donated RMB22.5 million in Guidong County to build three standard plants in Datang Area, Guidong Industrial Park. Now, the three plants have been put into use, and attracted 6 enterprises, solving the employment issue of over 300 relocated masses. For projects in Rucheng County, the entities under China Railway hired Rucheng people to build Rucheng, and employed over 100 local labors. The Company continued to carry out the training project of "Everyone Has A Skill", and directly invested RMB350,000 in 2021 to carry out 10 training courses in chef of Hunan cuisine specialty and practical technologies for technical commissioner, having 605 participants in total get trained. The Company carried out "1+X" skill training pilots to fully improve the professional skills of grass-root cadres, agricultural technical personnel and those who take the lead in becoming prosperous. The training project of "Everyone Has A Skill" in Rucheng County was elected as national "Lifelong Education & Learning Brand Program". In Baode County, the Company invested a total of RMB3.20 million (RMB200,800 in 2021) for the employment training of "Baode Good Driver" by way of reward and reimbursement of tuition. Third, the Company activates sources of incomes via assistance by industry to create multiple engines for rural revitalization. In Guidong County, following the good development momentum of homestay, the Company, joining hands with the Tourism and Homestay Association of the County, carried out homestay training classes to help make the homestay

industry bigger, stronger and better. The Company invested materials worth RMB200,000 to co-build roads among mountains and forest with Guangming Village, Oujiang Town to boost the development of the bamboo industry therein and increase the incomes of local people. The Company also helped build tea brand for Guidong County to promote the intangible cultural heritage of Guidong handmade tea, and invested RMB350,000 in Qingquan Town, a tea planting and manufacturing center, to build a "Tea History House of Intangible Cultural Heritage" covering 240 square meters. In Baode County, the Company introduced its subsidiary China Railway No.1 Taiping Property Company, and cooperated with the government of Baode County to build the labor service brand of "Baode Good Property", providing a good solution for households lifted out of poverty, creating a new way for increasing incomes and solving the employment issue of relocated people. Fourth, the Company promotes prosperity via assistance by consumption to create a long-term mechanism for rural revitalization. The Company actively mobilizes subordinate units and the vast number of cadres and employees to intensify purchase and consumption efforts, and sets up a special section on its internal e-commerce platform to display and sell the agricultural products from targeted assistance counties for a long time. At the Mid-Autumn Festival and the New Year's Day, the Company issued a special notice for all employees on strengthening consumption assistance efforts, and encouraged labor unions at all levels to exert their advantages to significantly promote the sales of agricultural products from targeted assistance counties. Meanwhile, cadres assuming a temporary post actively took measures such as live video streaming or subscription mode to boost sales of local agricultural products. The Company organized agricultural enterprises in Rucheng County to promote products in subsidiaries of China Railway for several times, and helped them sell products via shopping platforms such as the central enterprise assistance website, China Railway Huiyuan App, China Railway Luban Website and Ruwei Zhenxiang mini program, truly building confidence in the public and increasing their income. In 2021, the Company purchased RMB9.1141 million of agricultural products from targeted assistance counties, and RMB5.7434 million of agricultural products from other impoverished counties, totaling RMB14.8575 million. Fifth, the Company sets up a new atmosphere via assistance by culture to create a beautiful picture of rural revitalization. The Company carried out the improvement action of "6 Messes" in Baode County to improve rural living environment, and concentrated on improving key areas such as in-village roads, courtyard and fields based on the actual situation of local villages, truly solving the matters of random construction, stacking and littering, beautifying the overall appearance of villages, and significantly improving the living environment. The Company took efforts to enrich the spiritual and cultural life of villagers, and invited the art squad of Baode County Cultural Center to perform in Tuanwo Village under the theme of "Our Chinese Dreams", to inherit and carry forward the excellent traditional Chinese culture, advocate rural culture and civilization and support rural revitalization. In Rucheng County, the Company carried out actions to beautify the living environment in Rucheng County by setting up bamboo fences, adding green belts, and implementing concentrated captive breeding for poultry in designated areas. China Railway Guangzhou Engineering Group Co., Ltd., the subsidiary of the Company, organized personnel and equipment to help demolish 6 dangerous and old houses, and 3 traditional bathrooms, cleaned construction wastes of over 500 square meters, and paved and widened roads for over 800m, laying a solid foundation for a clean, tidy, and orderly beautiful countryside.

During the whole year, the Company dispatched 6 cadres assuming a temporary post; directly invested RMB64.90 million of assistance funds; attracted RMB3.272 million of assistance funds; trained grass-root cadres of 184 person times, leaders in rural revitalization of 42 person times, and professional technical personnel of 719 person times; purchased RMB9.1141 million of agricultural products, and helped sell RMB604,000 of agricultural products, surpassing the targets as set forth in the annual work plan.

(3) Subsequent target poverty alleviation plan

In 2022, China Railway will thoroughly learn and implement General Secretary Xi Jinping's important instructions and comments on consolidating and expanding poverty alleviation results and linking poverty alleviation with rural revitalization, ensure the overall stability of assistance policies and strength during the transition period without disconnection or interruption as per the arrangement and requirements of the Central Committee, the State Council and the SASAC, actively innovate measures for assistance, and continue to promote the consolidating and expanding poverty alleviation results and linking poverty alleviation with rural revitalization. First, the Company will convene a meeting of the leading group for targeted assistance as early as possible to discuss and arrange annual assistance work. The Company is planning to hold the meeting of the leading group for targeted assistance in the first quarter of 2022, fully summarize previous assistance results and typical experiences, create assistance brand, discuss and develop a key plan of annual assistance work as per the new spirits of the Central Committee on assistance, and arrange annual assistance tasks. Second, the Company will strengthen the audit and inspection of key projects and ensure the dedicated use of assistance funds. In 2022, the Company will continue to employee a third party audit institute to carry out independent audit on key assistance infrastructure construction projects aided by the Company in 2021, and ensure that the assistance project can withstand the test of the masses, history and practice, handing in a satisfactory answer to the Party Central Committee and the local people. Meanwhile, the Company will join hands with the Discipline Inspection Committee of the CPC Committee, Production Supervision Center and other departments thereof to carry out special inspection on projects under construction, summary relevant issues into a checklist through the inspection of policy implementation, work style, assistance funds and results and other aspects, and timely feedback such issued to the County Party Committee, the County Government, the construction units and the cadres assuming a temporary post face to face. **Third**, the Company will fully and thoroughly implement the requirements

of the Central Committee, and do a solid job in advancing key assistance work. As per the new requirements of the Central Committee on target assistance, the Company will deeply discuss and study the new ideas and new ways for central enterprises to carry out targeted assistance under the new situation of building a moderately prosperous society in an all-round way. Apart from key work of assistance by education, consumption and employment, the Company will broaden mind and innovate measures to fully consolidate and expand poverty alleviation results and create a beautiful picture of rural revitalization. Fourth, the Company will continue to carry out the targeted assistance in Karuo District, Chamdo Prefecture, Tibet Autonomous Region. In 2022, the Company will provide pairingassistance for the Karuo District, Chamdo Prefecture, Tibet Autonomous Region. Besides, the Company will connect with the Aluminum Corporation of China on its own initiative to carry out in-depth on-the-spot investigation, put forward assistance plans as per local actual situation, invest assistance funds no less than that in current 3 targeted assistance counties, and dispatch excellent cadres from training class for young and middle-aged cadres to assume a temporary post; will continue to do a good job in the construction of well-off demonstration villages and ensure the timely completion of the New Village Project of the Aluminum Corporation of China by satisfying the quality and quantity requirements; continue to carry out the construction of beautiful village demonstration points for rural revitalization and implement centralized water supply project to support the economic and social development in the Karuo District with actual deeds and boost rural revitalization in the local.

China Railway will earnestly practice its original mission with a strong sense of political responsibility and a lofty sense of political mission, continue to strengthen responsibility and undertakes, and do well from start to end with successful measures, making greater contributions to the full implementation of rural revitalization strategy.

6 FINANCIAL REPORT

Consolidated Income Statement

	Note	Year ended 3 2021 RMB million	1 December 2020 RMB million	
Revenue Cost of sales and services	3	1,073,272 (969,886)	974,732 (884,543)	
Gross profit Other income Other expenses Net impairment losses on financial assets and contract assets Other (losses)/gains, net Losses from derecognition of financial assets at amortised cost Selling and marketing expenses Administrative expenses	4 4 5 6 7	103,386 2,736 (24,756) (5,478) (82) (4,595) (5,948) (27,418)	90,189 2,219 (21,838) (2,556) 662 (3,302) (4,857) (24,668)	
Operating profit		37,845	35,849	
Finance income Finance costs Share of post-tax (losses)/profits of joint ventures Share of post-tax profits of associates		6,105 (7,616) (507) 3,809	4,324 (6,756) 164 2,031	
Profit before income tax		39,636	35,612	
Income tax expense	8	(9,166)	(8,362)	
Profit for the year		30,470	27,250	
Profit attributable to: - Owners of the Company - Non-controlling interests		27,618 2,852 30,470	25,188 2,062 27,250	
Earnings per share for profit attributable to owners of the Company (expressed in RMB per share)				
BasicDiluted	9 9	1.037 1.037	0.963 0.963	

Consolidated Statement of Comprehensive Income

		Year ended 31 December		
	Note	2021	2020	
		RMB million	RMB million	
Profit for the year		30,470	27,250	
Other comprehensive (expenses)/income,				
net of income tax				
Items that will not be reclassified to profit or loss:				
Remeasurement of retirement and				
other supplemental benefit obligations		(78)	1	
Income tax relating to remeasurement of retirement and				
other supplemental benefit obligations		13	2	
Changes in the fair value of equity investments at				
fair value through other comprehensive income		57	(260)	
Income tax relating to changes in the fair value of				
equity investments at fair value through		(40)		
other comprehensive income		(19)	63	
		(27)	(194)	
Items that may be reclassified subsequently to				
profit or loss:				
Exchange differences on translating foreign operations		(64)	(500)	
Share of other comprehensive income of associates		(106)	(189)	
		(170)	(689)	
Other comprehensive expenses for the year, net of tax		(197)	(883)	
Total comprehensive income for the year		30,273	26,367	
Total comprehensive medice for the year			20,307	
Total comprehensive income for the				
year attributable to:				
 Owners of the Company 		27,458	24,377	
 Non-controlling interests 		2,815	1,990	
		30,273	26,367	
			= 5,2 57	

Consolidated Balance Sheet

		As at 31 I	December
	Note	2021	2020
		RMB million	RMB million
ASSETS			
Non-current assets			
Property, plant and equipment		77,368	74,384
Right-of-use assets		1,659	1,892
Lease prepayments		14,561	14,826
Deposits for investments		441	453
Investment properties		12,065	12,046
Intangible assets		110,496	62,599
Mining assets		3,479	3,582
Contract assets		161,377	138,759
Investments in joint ventures		49,831	40,216
Investments in associates		46,181	38,133
Goodwill		1,568	1,412
Financial assets at fair value through			
other comprehensive income		12,164	9,668
Other financial assets at amortised cost		22,960	18,773
Financial assets at fair value through profit or loss		12,294	10,564
Deferred tax assets		10,372	9,333
Other prepayments		332	429
Trade and other receivables	11	23,374	20,801
		560,522	457,870
		300,322	437,870
Current assets			
Lease prepayments		269	319
Properties held for sale		48,745	34,143
Properties under development for sale		109,330	117,576
Inventories		45,371	40,943
Financial assets at fair value through other comprehensive income		526	522
Trade and other receivables	11	249,169	209,861
Contract assets	11	149,142	145,611
Current income tax recoverable		3,736	3,451
Other financial assets at amortised cost		8,553	9,694
Financial assets at fair value through profit or loss		7,304	5,218
Restricted cash		30,797	29,305
Cash and cash equivalents		148,116	145,464
		801,058	742,107
Total assets		1,361,580	1 100 077
i utai assets		1,301,300	1,199,977

	Note	As at 31 D 2021 RMB million	December 2020 RMB million
EQUITY Equity attributable to owners of the Company Share capital Share premium and reserves Perpetual notes		24,571 204,927 45,624	24,571 183,888 46,738
		275,122	255,197
Non-controlling interests		83,072	57,849
Total equity		358,194	313,046
LIABILITIES Non-current liabilities Trade and other payables Borrowings Lease liabilities Retirement and other supplemental benefit obligations Provisions Deferred government grants and income Deferred tax liabilities	12	10,263 198,503 972 2,293 761 1,087 1,647	7,983 166,997 1,237 2,482 562 1,071 1,454
Current liabilities Trade and other payables Contract liabilities Current income tax liabilities Borrowings Lease liabilities Retirement and other supplemental benefit obligations Financial liabilities at fair value through profit or loss Provision	12	522,411 144,095 7,100 113,424 360 300 122 48 787,860	488,304 124,660 7,969 83,058 526 323 65 240 705,145
Total liabilities		1,003,386	886,931
Total equity and liabilities		1,361,580	1,199,977

Notes:

1. GENERAL INFORMATION

China Railway Group Limited (the "Company") was established in the People's Republic of China (the "PRC") on 12 September 2007 as a joint stock company with limited liability, as part of the group reorganisation ("Reorganisation") of China Railway Engineering Group Company Limited ("CREC") in preparation for the listing of the Company's A shares on Shanghai Stock Exchange and H shares on the Main Board of The Stock Exchange of Hong Kong Limited (the "HKSE").

The address of the Company's registered office is 918, Block 1, No.128 South 4th Ring Road West, Fengtai District, Beijing, the PRC. The Company's ultimate holding company is CREC, established in the PRC.

The Company and its subsidiaries (together, the "Group") are principally engaged in infrastructure construction, survey, design and consulting services, engineering equipment and component manufacturing, property development, mining and merchandise trading, financial trust management, comprehensive financial services and insurance agent.

These consolidated financial statements are presented in Renminbi ("RMB"), unless otherwise stated.

These consolidated financial statements have been approved for issue by the Board of Directors on 30 March 2022.

2. BASIS OF PREPARATION

The principal accounting policies have been consistently applied to all the years presented, unless otherwise stated.

The consolidated financial statements of the Group have been prepared in accordance with International Financial Reporting Standards ("IFRS") issued by the International Accounting Standards Board ("IASB") and interpretations issued by the IFRS Interpretations Committee ("IFRS IC") applicable to companies reporting under IFRS.

The consolidated financial statements have been prepared on a historical cost basis, except for certain financial assets and liabilities (including derivative instruments) measured at fair value.

The preparation of financial statements in conformity with IFRS requires the use of certain critical accounting estimates. It also requires management to exercise its judgement in the process of applying the Group's accounting policies.

(a) Amended standards adopted by the Group

The following amended standards have been adopted by the Group for the first time for the financial year beginning on 1 January 2021.

Effective for accounting periods beginning on or after

Effective for accounting periods

Amendments to IFRS 16 "Covid-19-Related Rent Concessions" beyond 30 June 2021

Amendments to IFRS 9, IAS 39, IFRS 7, IFRS 4 and

IFRS 16 "Interest Rate Benchmark Reform" Phase 2

1 January 2021

The adoption of above did not have any material impact on the Group's results for the year ended 31 December 2021 and the Group's financial position as at 31 December 2021. The Group did not have to change its accounting policies or make retrospective adjustments as a result of adopting these amended standards.

(b) New and amended standards not yet adopted by the Group

Certain new and amended standards are effective for annual periods beginning after 1 January 2021, and have not been applied in preparing the consolidated financial statements.

beginning on or after IFRS 17 "Insurance Contracts" 1 January 2023 Amendments to IAS 1 "Classification of Liabilities as Current or Non-current" 1 January 2023 Amendments to IAS 1 and IFRS Practice Statement 2 "Disclosure of Accounting Policies" 1 January 2023 Amendments to IAS 8 "Definition of Accounting Estimates" 1 January 2023 Amendments to IAS 12 "Deferred Tax related to Assets and Liabilities arising from a Single Transaction" 1 January 2023 Amendments to IAS 16 "Proceeds before intended use" 1 January 2022 Amendments to IAS 37 "Onerous contracts – costs of fulfilling a contract" 1 January 2022 Amendments to IFRS 3 "Update reference to the Conceptual framework" 1 January 2022 Annual Improvements to IFRS Standards 2018-2020 affecting IFRS 1, IFRS 9, IFRS 16 and IAS 41 1 January 2022 Amendments to IFRS 10 and IAS 28 "Sale or contribution of assets between an investor and its associate or joint venture" to be determined

The adoption of above new and amended standards will have no material impact on the Group's results and financial position.

3. SEGMENT INFORMATION

The Directors are the chief operating decision maker. Management has determined the operating segments based on the reports reviewed by the Directors that are used to allocate resources to the segments and assess their performance. The reports reviewed by the Directors are prepared in accordance with the relevant PRC accounting standards, which resulted in the difference in the basis of measurement of segment results, segment assets and segment liabilities, the details of which are shown as reconciling items.

The Directors consider the business from the service and product perspective. Management assesses the performance of the following five operating segments:

- (a) Construction of railways, highways, bridges, tunnels, metropolitan railways (including subways and light railways), buildings, irrigation works, hydroelectricity projects, ports, docks, airports and other municipal works ("Infrastructure construction");
- (b) Survey, design, consulting, research and development, feasibility study and compliance certification services with respect to infrastructure construction projects ("Survey, design and consulting services");
- (c) Design, research and development, manufacture and sale of turnouts, bridge steel structures, and other railway related equipment, engineering machinery and materials ("Engineering equipment and component manufacturing");
- (d) Development, sale and management of residential and commercial properties ("Property development");
 and
- (e) Mining, financial business, operation of service concession arrangements, merchandise trading and other ancillary business ("Other businesses").

Revenue between segments is carried out at actual transaction prices.

The segment information regarding the Group's reportable and operating segments is presented below.

The following is an analysis of the Group's revenue and results by reportable segments:

For the year ended 31	December	2021
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	Infrastructure construction RMB million	Survey, design and consulting services RMB million	Engineering equipment and component manufacturing RMB million	Property development RMB million	Other businesses <i>RMB million</i>	Elimination <i>RMB million</i>	Total <i>RMB million</i>
External revenue Inter-segment revenue Other revenue	923,435 25,855 3,356	17,604 820 183	23,831 8,864 481	50,249 488 563	51,744 48,175 1,826	(84,202)	1,066,863 - 6,409
Inter-segment other revenue	392				1,820	(589)	
Segment revenue	953,038	18,607	33,176	51,300	101,942	(84,791)	1,073,272
Segment results Profit before income tax	34,204	1,615	2,029	1,622	5,830	(7,714)	37,586
Segment results included: Share of (losses)/profit of joint ventures Share of profit of associates Interest income Interest expenses Losses from derecognition of	(239) 912 1,043 (2,514)	1 17 70 (37)	104 46 94 (90)	(13) 33 198 (1,249)	(360) 2,801 4,264 (4,624)	- (627) 1,124	(507) 3,809 5,042 (7,390)
financial assets at amortised cost	(4,298)	(4)	(117)		(176)		(4,595)

For the year ended 31 December 2020

			-				
		Survey,	Engineering				
		design and	equipment and	_			
	Infrastructure	consulting	component	Property	Other		
	construction	services	manufacturing	development	businesses	Elimination	Total
	RMB million	RMB million	RMB million	RMB million	RMB million	RMB million	RMB million
External revenue	844,110	16,187	23,074	49,304	36,286	_	968,961
Inter-segment revenue	29,553	1,026	6,368	_	35,153	(72,100)	_
Other revenue	2,328	108	351	459	2,525	_	5,771
Inter-segment other revenue	319				219	(538)	
Segment revenue	876,310	17,321	29,793	49,763	74,183	(72,638)	974,732
Segment results							
Profit before income tax	36,876	2,241	2,132	(4,096)	5,016	(8,785)	33,384
Segment results included:							
Share of profit/(losses) of							
joint ventures	430	5	106	140	(517)	_	164
Share of profit of associates	654	5	48	132	1,192	_	2,031
Interest income	935	70	56	333	2,272	(870)	2,796
Interest expenses	(2,400)	(189)	(69)	(1,612)	(2,852)	654	(6,468)
Losses from derecognition of	(=,)	(107)	(0)	(1,012)	(2,002)	00.	(0,.00)
financial assets at amortised cost	(3,172)	(8)	(64)	_	(58)	_	(3,302)

A reconciliation of the amounts presented for reportable segments to the consolidated financial statements is as follows:

		2021 RMB million	2020 RMB million
(i)	Segment interest income, before inter-segment elimination Inter-segment elimination	5,669 (627)	3,666 (870)
		5,042	2,796
	Reconciling items: Reclassification of interest income obtained from other financial assets at amortised cost	1,063	1,528
	Total consolidated finance income, as reported	6,105	4,324
(ii)	Segment interest expenses, before inter-segment elimination Inter-segment elimination	8,514 (1,124)	7,122 (654)
	Reconciling item: Imputed interest expenses on retention payables	7,390 226	6,468 288
	Total consolidated finance costs, as reported	7,616	6,756
(iii)	Segment results, before inter-segment elimination Inter-segment elimination	45,300 (7,714)	42,169 (8,785)
		37,586	33,384
	Reconciling item: Land appreciation tax (Note (a))	2,050	2,228
	Total consolidated profit before income tax, as reported	39,636	35,612

⁽a) Land appreciation tax is included as charge to segment results under segment reporting and is classified as income tax expense in the consolidated income statement.

The following is an analysis of the Group's assets and liabilities by reportable segments:

	As at 31 December 2021						
	Infrastructure construction RMB million	consulting	Engineering equipment and component manufacturing <i>RMB million</i>	Property development RMB million	Other businesses RMB million	Elimination RMB million	Total <i>RMB million</i>
Segment assets	751,756	27,476	62,116	281,252	559,696	(333,527)	1,348,769
Investments in joint ventures Investments in associates	38,653 36,874	171 888	438 680	403 379	10,166 7,360		49,831 46,181
Unallocated assets							12,811
Total assets							1,361,580
Segment liabilities Unallocated liabilities	626,780	12,324	35,318	254,905	392,472	(324,002)	997,797 5,589
Total liabilities							1,003,386
			As	at 31 December 20	020		
	Infrastructure construction RMB million	Survey, design and consulting services RMB million	Engineering equipment and component manufacturing RMB million	Property development RMB million	Other businesses RMB million	Elimination RMB million	Total
Segment assets	711,979	24,550	55,851	252,295	444,050	(300,532)	1,188,193
Investments in joint ventures Investments in associates	29,768 31,899	81 816	385 607	417 322	9,565 4,489	-	40,216 38,133
Unallocated assets							11,784
Total assets							1,199,977
Segment liabilities Unallocated liabilities	574,136	13,197	30,579	228,249	334,894	(300,247)	880,808 6,123
Total liabilities							886,931

For the purposes of monitoring segment performances and allocating resources between segments:

- (a) all assets are allocated to operating segments other than deferred tax assets and current income tax recoverable excluding prepaid land appreciation tax which is allocated to operating segments; and
- (b) all liabilities are allocated to operating segments other than deferred tax liabilities and current income tax liabilities excluding land appreciation tax payable which is allocated to operating segments.

A reconciliation of the amounts presented for reportable segments to the consolidated financial statements is as follows:

	2021 RMB million	2020 RMB million
Segment assets, before inter-segment elimination Inter-segment elimination	1,682,296 (333,527)	1,488,725 (300,532)
	1,348,769	1,188,193
Reconciling items: Deferred tax assets Non-tradable shares reform of subsidiaries (Note (a)) Current income tax recoverable Prepaid land appreciation tax included in current income tax recoverable	10,372 (148) 3,736 (1,149) 12,811	9,333 (148) 3,451 (852)
Total consolidated assets, as reported	1,361,580	1,199,977
Segment liabilities, before inter-segment elimination Inter-segment elimination	1,321,799 (324,002)	1,181,055 (300,247)
Reconciling items: Deferred tax liabilities Current income tax liabilities Land appreciation tax payable included in	997,797 1,647 7,100	1,454 7,969
current income tax liabilities	5,589	6,123
Total consolidated liabilities, as reported	1,003,386	886,931

⁽a) Losses on non-tradable shares reform of subsidiaries are recorded in segment assets in segment reporting and were adjusted to other gains and losses in consolidated income statement in prior years.

Other segment information:

			Year ended 31	December 2021		
	Infrastructure construction RMB million	consulting	Engineering equipment and component manufacturing RMB million	Property development RMB million	Other businesses RMB million	Consolidated <i>RMB million</i>
Capital expenditure:						
Property, plant and equipment	8,977	378	1,648	354	1,663	13,020
Lease prepayments	91	-	138	77	16	322
Investment properties	137	-	_	8	130	275
Intangible assets	569	28	149	3,368	47,229	51,343
Mining assets	-	-	-	-	2	2
Right-of-use assets	397	97	37	7	42	580
Total	10,171	503	1,972	3,814	49,082	65,542
Depreciation and amortisation:						
Property, plant and equipment	5,055	288	718	353	1,929	8,343
Lease prepayments	248	16	47	76	72	459
Investment properties	10	5	11	334	35	395
Intangible assets	92	29	43	2	631	797
Mining assets	44	_	_	_	60	104
Right-of-use assets	446	32	55	48	114	695
Other prepayments	84	4	14	1	30	133
Total	5,979	374	888	814	2,871	10,926
Gains on disposal and/or write-off of property,						
plant and equipment	(269)	(6)	(24)	_	(29)	(328)
Gains on disposal of lease prepayments	(41)	_	(57)	_	_	(98)
Increase in foreseeable losses on contracts	(329)	-	_	_	_	(329)
Impairment loss on trade and other receivables Impairment loss on other financial assets at	3,940	113	21	375	(755)	3,694
amortised cost	(97)	_	_	75	582	560
Impairment loss on contract assets	1,224	_	_	-	302	1,224
Impairment loss on contract assets Impairment loss on property, plant and equipment	1,224	_	3	128	_	132
Impairment loss on investment properties	48	_	-	-	_	48
Impairment 1000 on investment properties	-10					-10

Other segment information:

			Year ended 31 I	December 2020		
	Infrastructure	Survey, design and consulting	Engineering equipment and component	Property	Other	
	construction RMB million	services RMB million	manufacturing RMB million	development RMB million	businesses <i>RMB million</i>	Consolidated RMB million
Capital expenditure:						
Property, plant and equipment	10,818	760	861	746	2,194	15,379
Lease prepayments	1,372	214	17	379	16	1,998
Investment properties	516	61	_	6	205	788
Intangible assets	359	50	48	109	36,995	37,561
Mining assets	_	-	_	_	116	116
Right-of-use assets	710	18	36	4	143	911
Total	13,775	1,103	962	1,244	39,669	56,753
Depreciation and amortisation:						
Property, plant and equipment	5,549	293	598	312	1,348	8,100
Lease prepayments	214	13	44	65	78	414
Investment properties	16	6	6	322	47	397
Intangible assets	88	27	37	1	309	462
Mining assets	_	-	-	-	262	262
Right-of-use assets	722	34	56	20	149	981
Other prepayments	65	1	27	1	66	160
Total	6,654	374	768	721	2,259	10,776
(Gains)/losses on disposal and/or write-off of						
property, plant and equipment	(195)	2	(40)	(7)	12	(228)
Gains on disposal of lease prepayments	(180)	(181)	_	_	_	(361)
Increase in foreseeable losses on contracts	228	_	-	_	_	228
Impairment loss on trade and other receivables Impairment loss on other financial assets at	783	(97)	11	2,389	(823)	2,263
amortised cost	66	(38)	_	(112)	117	33
Impairment loss on contract assets	260	_	_		_	260
Impairment loss on property, plant and equipment	1	-	_	_	40	41
Impairment loss on investment properties	3				-	3

(i) Disaggregation of revenue from contracts with customers

			Year ended 31 l	December 2021		
Type of services and products	Infrastructure construction RMB million	Survey, design and consulting services RMB million	Engineering equipment and component manufacturing <i>RMB million</i>	Property development RMB million	Other businesses <i>RMB million</i>	Total <i>RMB million</i>
Infrastructure construction contracts Manufacturing and sales of engineering equipment and	923,435	-	-	-	-	923,435
component	-	17.04	23,831	-	- 5 204	23,831
Rendering of services Sales of properties	_	17,604	_	50,249	5,384	22,988 50,249
Sales of goods and others	3,356	183	481	563	48,186	52,769
Total	926,791	17,787	24,312	50,812	53,570	1,073,272
Timing of revenue recognition: - At a point of time - Over time	3,356	183	15,873	49,329	52,256	120,997
Rental income	923,435	17,604	7,900	1,483	1,314	950,422 1,853
Total revenue from contracts with customers	926,791	17,787	24,312	50,812	53,570	1,073,272
			Year ended 31 I	December 2020		
Type of services and products	Infrastructure construction RMB million	Survey, design and consulting services RMB million	Engineering equipment and component manufacturing RMB million	Property development RMB million	Other businesses RMB million	Total
Infrastructure construction contracts Manufacturing and sales of engineering equipment and	844,110	-	-	-	-	844,110
component	-	-	23,074	-	-	23,074
Rendering of services	_	16,187	_	40.204	4,845	21,032
Sales of properties Sales of goods and others	2,328	108	351	49,304 459	33,966	49,304 37,212
Total	846,438	16,295	23,425	49,763	38,811	974,732
Timing of revenue recognition: - At a point of time - Over time Rental income	2,328 844,110	108 16,187	16,378 7,047	46,775 2,988	36,951 - 1,860	102,540 870,332 1,860
Total revenue from contracts with customers	846,438	16,295	23,425	49,763	38,811	974,732

(ii) Revenue from external customers in the Mainland China and other regions is as follows:

	For the year ende	d 31 December
	2021	2020
	RMB million	RMB million
Mainland China	1,018,485	927,647
Other regions (including Hong Kong and Macau)	54,787	47,085
	1,073,272	974,732

(iii) Non-current assets other than trade and other receivables, financial instruments, investments in joint ventures, investments in associates, deposits for investments and deferred tax assets located in the Mainland China and other regions are as follows:

	2021 RMB million	2020 RMB million
Mainland China Other regions (including Hong Kong and Macau)	368,413 14,492	297,450 12,479
	382,905	309,929

Other regions primarily include countries and regions in Africa, South America, South East Asia and Oceania.

4. OTHER INCOME AND EXPENSES

	2021 RMB million	2020 RMB million
Other income from:		
Government subsidies (a)	1,389	1,147
Dividends from financial assets at FVPL	603	398
Compensation and claims	224	139
Dividends from financial assets at FVOCI	85	58
Relocation compensation	13	43
Others	422	434
	2,736	2,219
Other expenses on:		
Research and development expenditures	24,756	21,838

Notes:

(a) Government subsidies relating to income include various government subsidies received by the group entities from the relevant government bodies in connection with enterprise expansion, technology advancement, environmental protection measures enhancement, product development, etc. All subsidies were recognised at the time when the Group fulfilled the relevant criteria and the related expenses were incurred.

Government subsidies relating to assets include government subsidies obtained by the group entities in relation to the acquisition of property, plant and equipment, which were included in the consolidated balance sheet as deferred government grants and credited to profit or loss on a straight-line basis over the expected useful lives of the relevant assets.

5. NET IMPAIRMENT LOSSES ON FINANCIAL ASSETS AND CONTRACT ASSETS

	2021 RMB million	2020 RMB million
Trade and other receivables (excluding advance to suppliers) Contract assets	3,694 1,224	2,116 407
Other financial assets at amortised cost	560	33
	5,478	2,556

6. OTHER (LOSSES)/GAINS, NET

7.

	2021 RMB million	2020 RMB million
Gains/(Losses)on disposal and/or write-off of:		
 Interest in subsidiaries 	72	(133)
 Interest in associates 	14	(27)
 Lease prepayments 	98	361
 Property, plant and equipment 	328	228
Gains on disposal of financial assets/liabilities at FVPL	47	58
(Losses)/Gains arising on change in fair value of		
financial assets/liabilities at FVPL	(515)	218
Gains on debt restructurings	135	180
Impairment loss recognised on:		
- Property, plant and equipment	(132)	(41)
 Advance to suppliers 	(4)	(39)
 Investment properties 	(48)	(3)
Foreign exchange losses, net	(80)	(45)
Others	3	(95)
	(82)	662
LOSSES FROM DERECOGNITION OF FINANCIAL ASSETS A	AT AMORTISED COST	2020
	RMB million	RMB million
		Turib illillion
ABN & ABS	3,910	2,619
Factoring expense	634	683
	51	
Bill receivables discounted expense		

8. INCOME TAX EXPENSE

	2021 RMB million	2020 RMB million
Current income tax		
- Enterprise income tax ("EIT")	7,931	7,838
- Land appreciation tax ("LAT")	2,050	2,228
 Over provision in prior years 	51	(87)
Deferred income tax	(866)	(1,617)
Income tax expense	9,166	8,362

The majority of the entities in the Group are located in Mainland China. Pursuant to the relevant laws and regulations, the statutory EIT rate of 25% (2020: 25%) is applied to the Group except for certain subsidiaries which were mainly either exempted from EIT or entitled to the preferential tax rate of 20% and 15% (2020: 20% and 15%) for the year ended 31 December 2021.

Certain of the Group's overseas entities are located in The Republic of Uganda, Republic of Singapore, The Lao People's Democratic Republic, Malaysia, Democratic Republic of the Congo, Republic of Indonesia, People's Republic of Bangladesh, United Republic of Tanzania and Federal Democratic Republic of Ethiopia. Pursuant to the relevant laws and regulations of these jurisdictions, the EIT rates of 30%, 17%, 24%, 24%, 30%, 20%, 25%, 30% and 30% (2020: 30%, 17%, 24%, 24%, 30%, 20%, 25%, 30% and 30%) are applied to these entities respectively.

The provision of LAT is estimated according to the requirements set forth in the relevant PRC tax laws and regulations. LAT has been provided at ranges of progressive rates of the appreciation value, with certain allowable exemptions and deductions.

The tax charge for the year can be reconciled to profit before income tax per the consolidated income statement as follows:

	2021 RMB million	2020 RMB million
Profit before income tax	39,636	35,612
Tax at PRC EIT rate of 25% (2020: 25%)	9,909	8,903
Tax effect of:		
Non-deductible expenses	354	93
Non-taxable income	(259)	(123)
Share of profit of joint ventures	127	(41)
Share of profit of associates	(496)	(508)
Tax losses not recognised as deferred tax assets	864	891
Utilisation of tax losses previously not recognised as deferred tax assets	(40)	(99)
Other deductible temporary differences not recognised as		
deferred tax assets	1,175	1,350
Utilisation of other deductible temporary differences		
previously not recognised as deferred tax assets	(236)	(126)
Preferential tax rates on income of group entities and		
other income tax credits	(3,392)	(3,149)
Deferred tax credit resulting from changes in applicable tax rates	(28)	(166)
LAT	2,050	2,228
Tax effect of LAT	(513)	(557)
Over provision in prior years	51	(87)
Deductible dividends on perpetual notes	(493)	(356)
Others	93	109
Income tax expense for the year	9,166	8,362

The PRC EIT rate is used as it is the domestic tax rate in the jurisdiction where the operation of the Group is substantially based.

The tax charge relating to components of other comprehensive income is as follows:

	Before tax RMB million	2021 Tax charge RMB million	After tax <i>RMB million</i>	Before tax RMB million	2020 Tax charge RMB million	After tax RMB million
Actuarial (losses)/gains on retirement and other supplemental benefit obligations Changes in fair value of	(78)	13	(65)	1	2	3
financial assets at FVOCI	57	(19)	38	(260)	63	(197)
Share of other comprehensive income of associates Exchange differences	(106) (64)		(106) (64)	(189) (500)		(189) (500)
Other comprehensive expenses	(191)	(6)	(197)	(948)	65	(883)
Current income tax Deferred income tax		(6)			65	
		(0)			03	

9. EARNINGS PER SHARE

(a) Basic

Basic earnings per share ("EPS") is calculated by dividing the profit attributable to owners of the Company by the weighted average number of ordinary shares in issue during the year.

For those financial instruments classified as equity, if the distributions are cumulative, the undeclared amount of the cumulative distributions were deducted in arriving at earnings for the purposes of the EPS calculation. On the other hand, if the distributions are non-cumulative, only the amount of dividends declared in respect of the year should be deducted in arriving at the profit attributable to ordinary shareholders.

	2021	2020
Profit attributable to owners of the Company (RMB million) Less: dividends attributable to the	27,618	25,188
perpetual notes (RMB million) (Note (i))	2,149	1,520
Profit used to determine basic earnings per share (RMB million)	25,469	23,668
Weighted average number of ordinary shares in issue (RMB millions)	24,571	24,571
Basic earnings per share (RMB per share)	1.037	0.963

(i) The perpetual notes issued by the Company were classified as equity instruments with deferrable cumulative interest distribution and payment. The perpetual notes interests which was generated and attributable to the year ended 31 December 2021, were deducted from earnings when calculate the earnings per share for the year ended 31 December 2021.

(b) Diluted

Diluted earnings per share is the same as basic earnings per share as there were no potential dilutive ordinary shares outstanding during both years.

10. DIVIDENDS

	2021	2020
	RMB million	RMB million
Proposed final dividend of RMB0.196 per ordinary share		
(2020: RMB0.180)	4,849	4,423

The dividends paid in 2021 and 2020 were RMB4,849 million (RMB0.196 per ordinary share) and RMB4,423 million (RMB0.180 per ordinary share) respectively. A dividend in respect of the year ended 31 December 2021 of RMB0.196 per ordinary share, amounting to a total dividend of RMB4,849 million, is to be approved at the 2021 annual general meeting of the Company. These financial statements do not reflect this dividend payable.

11. TRADE AND OTHER RECEIVABLES

	2021 RMB million	2020 RMB million
Trade and bills receivables	157,025	139,831
Less: Loss allowance	(13,935)	(10,314)
Trade and bills receivables – net	143,090	129,517
Other receivables (net of impairment)	81,688	70,854
Advance to suppliers (net of impairment)	47,765	30,291
	272,543	230,662
Less: Amount due after one year included in non-current assets	(23,374)	(20,801)
Amount due within one year included in current assets	249,169	209,861
(a) Ageing analysis of trade and bills receivables, based on invoice dat	e, is as follows:	
	2021	2020
	RMB million	RMB million
Less than 1 year	118,517	105,239
1 year to 2 years	14,919	16,642
2 years to 3 years	10,297	6,238
3 years to 4 years	4,562	2,815
4 years to 5 years	1,407	1,695
More than 5 years	7,323	7,202
Total	157,025	139,831

Majority of the Group's revenues are generated through infrastructure construction, survey, design and consulting, engineering equipment and component manufacturing contracts. The settlements are made in accordance with the terms specified in the contracts governing the relevant transactions.

- (b) Trade and bills receivables of RMB221 million (31 December 2020: RMB13,807 million) were pledged to secure borrowings amounting to RMB221 million (31 December 2020: RMB6,535 million).
- (c) As at 31 December 2021, trade receivables of RMB85,945 million (31 December 2020: RMB55,142 million) had been transferred in accordance with relevant ABN and ABS issuance, and trade receivables of RMB14,971 million (31 December 2020: RMB16,854 million) had been transferred to financial institutions in accordance with relevant non-recourse factoring agreements. Relevant trade receivables were derecognised as the Directors are of the opinion that the substantial risks and rewards associated with the trade receivables have been transferred and therefore qualified for derecognition.

- (d) As at 31 December 2021, bills receivables bank acceptance and commercial acceptance notes of 310 million (31 December 2020: RMB640 million) were endorsed to suppliers, and 46 million (31 December 2020: RMB520 million) were discounted with banks. In the opinion of the Directors, as the counter party bears higher credit risk, such transactions did not qualify for derecognition. In addition, as at 31 December 2021, bills receivables bank acceptance notes of RMB670 million (31 December 2020: RMB2,142 million) were endorsed to suppliers, and 119 million (31 December 2020: RMB170 million) were discounted with banks. Relevant bills receivables were derecognised as the Directors are of the opinion that the substantial risks and rewards associated with those bank acceptance notes have been transferred and therefore qualified for derecognition.
- (e) As at 31 December 2021, trade receivables net of credit loss allowance, which were collectively assessed for impairment, are as follows:

Central-governmental enterprises

	As at	
	31 December	31 December
	2021	2020
	RMB million	RMB million
Less than 1 year	8,165	7,438
1 year to 2 years	970	975
2 years to 3 years	438	389
3 years to 4 years	195	215
4 years to 5 years	134	150
More than 5 years	123	104
Total	10,025	9,271

Locally-administrated state-owned enterprises

	As at	
	31 December	31 December
	2021	2020
	RMB million	RMB million
Less than 1 year	53,164	45,912
1 year to 2 years	8,511	6,557
2 years to 3 years	2,975	2,297
3 years to 4 years	1,195	1,266
4 years to 5 years	444	653
More than 5 years	662	509
Total	66,951	57,194

China State Railway Group Co.,Ltd.

	As at	
	31 December	31 December
	2021	2020
	RMB million	RMB million
Less than 1 year	9,522	12,418
1 year to 2 years	780	1,412
2 years to 3 years	703	653
3 years to 4 years	167	225
4 years to 5 years	89	146
More than 5 years	155	108
Total	11,416	14,962
Overseas enterprises		
	As at	
	31 December	31 December
	2021	2020
	RMB million	RMB million
Less than 1 year	1,723	1,864
1 year to 2 years	56	641
2 years to 3 years	12	466
3 years to 4 years	230 25	34 8
4 years to 5 years More than 5 years	25	7
Note than 5 years		
Total	2,046	3,020
Other entities		
	As at	
	31 December	31 December
	2021 RMB million	2020 RMB million
	KWID IIIIIIOII	KMD IIIIIIIIII
Less than 1 year	17,339	16,175
1 year to 2 years	1,908	2,686
2 years to 3 years	1,345	1,375
3 years to 4 years	835 207	372 200
4 years to 5 years More than 5 years	288	181
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Total	21,922	20,989

As at 31 December 2021, the amount of individually impaired trade receivables was RMB15,884 million (31 December 2020: RMB6,509 million) with the provision for loss allowance of RMB6,123 million (31 December 2020: RMB3,368 million).

As at 31 December 2021, bills receivables – bank acceptance notes of 1,108 million (31 December 2020: RMB501 million) were not impaired. Commercial acceptance notes, which were collectively assessed for impairment, were RMB1,480 million (31 December 2020: RMB5,048 million) with the provision for loss allowance of 4 million (31 December 2020: RMB12 million). The amount of individually impaired commercial acceptance notes was RMB2,832 million (31 December 2020: nil) with the provision for credit loss allowance of RMB467 million (31 December 2020: nil).

As at 31 December 2021, the amount of collectively impaired long-term trade receivables was RMB16,041 million (31 December 2020: RMB14,027 million) with the provision for loss allowance of RMB44 million (31 December 2020: RMB51 million). The amount of individually impaired long-term trade receivables was RMB3,291 million (31 December 2020: RMB4,850 million) with the provision for loss allowance of RMB3,268 million (31 December 2020: RMB3,423 million).

(f) Movements on loss allowance of trade and other receivables are as follows:

	2021 RMB million	2020 RMB million
At 31 December in prior year	24,272	23,664
Increase in loss allowance recognised in		
profit or loss during the year	5,930	4,752
Amount reversed	(2,231)	(2,597)
Receivables written off during the year as non-collectible	(1,226)	(1,577)
Others	(20)	30
At 31 December	26,725	24,272

The increase and reversal in loss allowance of trade and other receivables have been included in net impairment losses on financial assets and other (losses)/gains in the consolidated income statement. Amounts charged to the allowance account are generally written off when there is no expectation of recovering additional cash.

(g) The carrying amount of trade and other receivables are denominated in the following currencies:

	2021	2020
	RMB million	RMB million
DMD	264 220	220.107
RMB	264,239	220,196
USD	4,531	3,963
West African CFA Franc	318	291
Ethiopian Birr	108	174
EUR	98	217
HKD	82	3,075
Other currencies	3,167	2,746
	272,543	230,662

As at 31 December 2021, other currencies mainly comprised of Bangladesh Taka, Malaysian Ringgit and South African Rand.

(h) The maximum exposure to credit risk at the reporting date is the carrying amounts of each class of receivables mentioned above.

12. TRADE AND OTHER PAYABLES

	2021 RMB million	2020 RMB million
Trade and bills payables (a)	405,520	384,565
Dividend payables	702	453
Accrued payroll and welfare	4,100	3,777
Other taxes	4,622	3,859
Deposit received in advance	1,048	950
Deposits (b)	3,243	3,396
Advance from customers	446	393
Other payables	112,993	98,894
	532,674	496,287
Analysed for reporting purposes:		
Non-current	10,263	7,983
Current	522,411	488,304
	532,674	496,287

The credit period on purchases of goods ranges from 180 days to 360 days. Included in trade and bills payables are retention payables of RMB10,518 million (31 December 2020: RMB10,791 million). Retention payables are interest-free and payable at the end of the retention period of the respective infrastructure construction and products manufacturing and installation contracts.

The balances of other payables mainly include payments made by the third parties on behalf of the Group, guarantee money payables and others.

(a) The ageing analysis of trade and bills payables (including amounts due to related parties of trading nature), based on invoice date, is as follows:

	2021	2020
	RMB million	RMB million
Less than 1 year	370,538	354,958
1 year to 2 years	19,622	19,725
2 years to 3 years	9,274	4,933
More than 3 years	6,086	4,949
	405,520	384,565

- (b) China Railway Finance Co., Ltd. ("CREC Finance"), a subsidiary of the Company, accepted deposits from related parties and third parties. These deposits were due within one year with average annual interest rate of 1.265%.
- (c) The carrying amount of trade and other payables are denominated in the following currencies:

	2021 RMB million	2020 RMB million
RMB USD Other currencies	519,904 7,518 5,252	482,438 7,389 6,460
	532,674	496,287

At 31 December 2021, other currencies mainly consist of West African Franc, Ethiopian Birr, and HKD.

13. RECLASSIFICATION

Certain comparative information has been reclassified to conform with the presentation of the financial information for the current year.

7 AUDIT AND RISK MANAGEMENT COMMITTEE

The Audit and Risk Management Committee reviewed with management the accounting principles and practices adopted by the Group and discussed auditing, internal control and financial reporting matters including the review of the audited financial statements for the year ended 31 December 2021.

8 DIVIDENDS

The Board of Directors recommended the payment of a final dividend in the amount of RMB0.196 per share (including tax), totalling approximately RMB4.849 billion for the financial year ended 31 December 2021 (2020: RMB0.180 per share (including tax) totalling approximately RMB4.423 billion). In the event of change in total share capital of the Company before the record date for payment of the cash dividend, the total distribution amount will be kept unchanged and the rate will be adjusted accordingly. The Company will make a further announcement on the details of the adjustment. The distribution plan will be implemented upon approval at the 2021 annual general meeting of the Company and the dividend is expected to be paid in around August 2022 to the shareholders of the Company.

9 REPURCHASE, SALE OR REDEMPTION OF SECURITIES

Neither the Company nor any of its subsidiaries sold any securities of the Company, nor did they repurchase or redeem any of the securities of the Company during the year ended 31 December 2021.

10 COMPLIANCE WITH THE CODE ON CORPORATE GOVERNANCE PRACTICES

As a company listed on the Main Board of the Hong Kong Stock Exchange, the Company is committed to comply with the requirements under the Corporate Governance Code set out in Appendix 14 to the Rules Governing the Listing of Securities on The Stock Exchange of Hong Kong Limited. The Company has complied with all provisions of the Corporate Governance Code during the reporting period.

11 PUBLICATION OF ANNUAL RESULTS ANNOUNCEMENT AND ANNUAL REPORT

This results announcement will be released on the website of The Stock Exchange of Hong Kong Limited (www.hkexnews.hk) and the website of the Company (www.crec.cn). The 2021 Annual Report prepared in accordance with the IFRS will be released on the website of The Stock Exchange of Hong Kong Limited (www.hkexnews.hk) and the website of the Company (www.crec.cn). The 2021 Annual Report and its abstract prepared in accordance with CAS will be released on the website of Shanghai Stock Exchange (www.sse.com.cn) and the website of the Company (www.crec.cn).

By Order of the Board
China Railway Group Limited
Chen Yun
Chairman

30 March 2022

As at the date of this announcement, the executive directors of the Company are CHEN Yun (Chairman), Mr. CHEN Wenjian and Mr. WANG Shiqi; the non-executive director of the Company is Mr. WEN Limin; the independent non-executive directors are Mr. CHUNG Shui Ming Timpson, Mr. ZHANG Cheng and Mr. XIU Long.