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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)

2022 INTERIM RESULTS ANNOUNCEMENT

The Board of Directors of China Railway Group Limited (the “**Company**” or “**China Railway**”) is pleased to announce the unaudited interim results of the Company and its subsidiaries (the “**Group**”) for the six months ended 30 June 2022. The Board of Directors and the Audit and Risk Management Committee of the Board of Directors of the Company have reviewed and confirmed the unaudited interim results.

1 CORPORATE INFORMATION

1.1 Basic Information

Stock Name:	China Railway (A Share)	China Railway (H Share)
Stock Code:	601390	390
Stock Exchange on which Shares are Listed:	Shanghai Stock Exchange	The Stock Exchange 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	

1.2 Contact Details

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2 FINANCIAL HIGHLIGHTS

The financial data contained in this interim results announcement have been prepared in accordance with International Accounting Standard 34 “Interim Financial Reporting”. Unless otherwise specified, the financial data of the Company and its subsidiaries are consolidated and presented in RMB.

2.1 Key Accounting Data Prepared in accordance with International Accounting Standard (“IAS”) 34 “Interim Financial Reporting”

2.1.1 Summary of interim condensed consolidated statement of profit or loss

	For the six months ended 30 June					Change 2022 vs 2021
	2022	2021	2010	2019	2018	
	RMB million					(%)
Revenue						
Infrastructure Construction	495,908	459,516	385,934	324,150	276,636	7.9
Survey, Design and Consulting Services	9,232	7,701	7,967	7,978	7,553	19.9
Engineering Equipment and Component Manufacturing	16,767	16,466	13,351	11,147	9,615	1.8
Property Development	23,709	14,122	13,001	13,898	12,411	67.9
Other Businesses	50,314	45,039	29,418	30,741	29,237	11.7
Inter-segment Eliminations and Adjustments	(35,343)	(44,617)	(33,368)	(26,027)	(19,350)	
Total	<u>560,587</u>	<u>498,227</u>	<u>416,303</u>	<u>361,887</u>	<u>316,102</u>	12.5
Gross Profit	46,550	41,767	36,381	34,818	31,132	11.5
Profit before Income Tax	21,897	18,412	16,098	14,634	12,713	18.9
Profit for the Period	<u>16,825</u>	<u>14,350</u>	<u>12,398</u>	<u>11,263</u>	<u>9,412</u>	17.2
Profit for the Period						
Attributable to Owners of the Company	15,126	13,095	11,697	10,514	9,552	15.5
Basic Earnings per Share (RMB)	<u>0.551</u>	<u>0.454</u>	<u>0.425</u>	<u>0.399</u>	<u>0.394</u>	21.4

2.1.2 Summary of interim condensed consolidated balance sheet

				Change	
	30 June	As at	30 June	30 June	30 June
	2022	31 December	2021	2022 vs	2022 vs
		2021	2021	2021	2021
		RMB million		(%)	(%)
Assets					
Current Assets	904,951	801,058	802,506	13.0	12.8
Non-current Assets	627,615	560,522	494,582	12.0	26.9
Total Assets	1,532,566	1,361,580	1,297,088	12.6	18.2
Liabilities					
Current Liabilities	854,334	787,860	778,337	8.4	9.8
Non-current Liabilities	281,203	215,526	185,552	30.5	51.5
Total Liabilities	1,135,537	1,003,386	963,889	13.2	17.8
Total Equity	397,029	358,194	333,199	10.8	19.2
Total Equity and Liabilities	1,532,566	1,361,580	1,297,088	12.6	18.2

2.2 Differences between Financial Data Prepared in accordance with IAS 34 and Chinese Accounting Standard (“CAS”)

	Net assets as at	Profit for
	30 June 2022	the period
	RMB million	for the six
		months ended
		30 June 2022
		RMB million
Amounts attributable to owners of the Company		
stated in the financial statements prepared in		
accordance with CAS	284,191	15,126
Adjustments as required by IAS 34:		
– Recognition of loss on shares conversion		
scheme of a subsidiary	(148)	–
Amounts attributable to owners of the Company		
stated in the interim financial information		
prepared in accordance with the IAS 34	284,043	15,126

3 CHANGES IN SHARE CAPITAL AND INFORMATION ON SHAREHOLDERS

3.1 Changes in Shares

3.1.1 Changes in shares

	Before the change			Increase/decrease in the change (+/-)					After the change			Unit: Shares
	Number	Ratio (%)	Newly issued shares	Capitalisation of capital reserve			Other	Sub-total	Number	Ratio (%)		
				Bonus shares								
I. Shares with selling restrictions	0	0	170,724,400	0	0	0	0	170,724,400	170,724,400	0.69		
1. Shares held by the State	0	0	0	0	0	0	0	0	0	0		
2. Shares held by state-owned legal persons	0	0	0	0	0	0	0	0	0	0		
3. Shares held by other domestic investors including:	0	0	170,724,400	0	0	0	0	170,724,400	170,724,400	0.69		
shares held by domestic non-state-owned legal persons	0	0	0	0	0	0	0	0	0	0		
shares held by domestic individuals	0	0	170,724,400	0	0	0	0	170,724,400	170,724,400	0.69		
4. Shares held by foreign investors including:	0	0	0	0	0	0	0	0	0	0		
shares held by foreign legal persons	0	0	0	0	0	0	0	0	0	0		
shares held by foreign individuals	0	0	0	0	0	0	0	0	0	0		
II. Tradable shares without selling restrictions	24,570,929,283	100	0	0	0	0	0	0	24,570,929,283	99.31		
1. RMB-denominated ordinary shares	20,363,539,283	82.88	0	0	0	0	0	0	20,363,539,283	82.30		
2. PRC-listed foreign shares	0		0	0	0	0	0	0	0			
3. Overseas listed foreign shares	4,207,390,000	17.12	0	0	0	0	0	0	4,207,390,000	17.01		
4. Other	0	0	0	0	0	0	0	0	0	0		
III. Total number of shares	24,570,929,283	100	170,724,400	0	0	0	0	170,724,400	24,741,653,683	100		

3.1.2 Explanation to the changes in shares

On 23 February 2022, the Company completed the first granting under the 2021 restricted share incentive scheme. The registered number of the initially granted restricted shares is 170,724,400 and the total share capital increases from 24,570,929,283 to 24,741,653,683. (Announcement of China Railway Group Limited on the Results of the First Grant of the 2021 Restricted Share Incentive Scheme (Lin 2022-010)).

3.1.3 Impact of changes in shares after the reporting period and prior to the date of the interim report on earnings per share, net asset value per share or other financial indicators (if any)

Not applicable

3.1.4 Other information considered necessary by the Company or required by securities regulators that should be disclosed

Not applicable

3.1.5 Changes in shares with selling restrictions

Unit: Share

Name of Shareholder	Number of shares with selling restrictions at the beginning of the period	Number of shares released from selling restrictions during the reporting period	Number of shares with selling restrictions increased during the reporting period	Number of shares with selling restrictions at the end of the period	Reason of selling restrictions	Duration of restrictions releasing period
697 share incentive scheme participants	0	0	170,724,400	170,724,400	Restricted share incentive scheme	24 months, 36 months and 48 months
Total	0	0	170,724,400	170,724,400	/	/

Note: On 23 February 2022, the Company completed the first granting under the 2021 restricted share incentive scheme. The registered number of the initially granted restricted shares is 170,724,400 and the total share capital increased from 24,570,929,283 to 24,741,653,683. The restricted shares granted by the 2021 restricted share incentive scheme are released in three batches. The lock-up period of each batch is 24 months, 36 months and 48 months from the date of completing the corresponding granted share registration respectively. (Announcement of China Railway Group Limited on the Results of the First Grant of the 2021 Restricted Share Incentive Scheme (Lin 2022-010)).

Restrictions releasing period	Restrictions releasing time	Restriction release proportion
First restriction releasing period	From the first trading day after 24 months from the date of the completion of the registration of the corresponding restricted shares to the last trading day within 36 months from the date of the completion of the registration of corresponding restricted shares	1/3
Second restriction releasing period	From the first trading day after 36 months from the date of the completion of the registration of the corresponding restricted shares to the last trading day within 48 months from the date of the completion of the registration of corresponding restricted shares	1/3
Third restriction releasing period	From the first trading day after 48 months from the date of the completion of the registration of the corresponding restricted shares to the last trading day within 60 months from the date of the completion of the registration of corresponding restricted shares	1/3

3.2 Information on Shareholders

3.2.1 Number of shareholders

Total number of holders of ordinary shares as at the end of the reporting period	511,606
Total number of holders of preference shares with reinstated voting rights as at the end of the reporting period	0

(i) Shareholdings of the top ten shareholders

Unit: Shares

Shareholdings of the top ten shareholders								
No.	Name of Shareholder	Increase/ decrease during the reporting period	Total number of shares held at the end of the reporting period	Shareholding percentage (%)	Number of shares with selling restrictions	Number of pledged or frozen shares		Nature of shareholder
						Conditions of shares	Number	
1	China Railway Engineering Group Company Limited ("CREC") (Note 1)	11,600,000	11,610,364,390	46.93	0	N/A	0	State-owned legal person
2	HKSCC Nominees Limited (Note 2)	582,332	4,009,744,962	16.21	0	N/A	0	Other
3	Hong Kong Securities Clearing Company Limited (Note 3)	298,057,179	653,208,107	2.64	0	N/A	0	Other
4	China Securities Finance Corporation Limited	0	619,264,325	2.50	0	N/A	0	State-owned legal person
5	China Reform Holdings Corporation Ltd.	0	387,050,131	1.56	0	N/A	0	State-owned legal person
6	Central Huijin Asset Management Ltd.	0	230,435,700	0.93	0	N/A	0	State-owned legal person
7	China Great Wall Asset Management Co., Ltd.	-195,388,472	176,804,035	0.71	0	N/A	0	State-owned legal person
8	Bank of Communications Co., Ltd.– GF CSF Infrastructure Engineering Traded Open-ended Index Securities Investment Fund	74,870,600	174,183,300	0.70	0	N/A	0	Other
9	China Orient Asset Management Co., Ltd.	-51,551,620	171,720,124	0.69	0	N/A	0	State-owned legal person
10	Bosera Fund-Agricultural Bank of China-Bosera CSF Financial Asset Management Plan	0	131,135,600	0.53	0	N/A	0	Other
10	E Fund-Agricultural Bank of China-E Fund CSF Financial Asset Management Plan	0	131,135,600	0.53	0	N/A	0	Other
10	Dacheng Fund-Agricultural Bank of China-Dacheng CSF Financial Asset Management Plan	0	131,135,600	0.53	0	N/A	0	Other

Shareholdings of the top ten shareholders								
No.	Name of Shareholder	Increase/ decrease during the reporting period	Total number of shares held at the end of the reporting period	Shareholding percentage (%)	Number of shares with selling restrictions	Number of pledged or frozen shares		Nature of shareholder
						Conditions of shares	Number	
10	Harvest Fund-Agricultural Bank of China-Harvest CSF Financial Asset Management Plan	0	131,135,600	0.53	0	N/A	0	Other
10	GF Fund-Agricultural Bank of China-GF CSF Financial Asset Management Plan	0	131,135,600	0.53	0	N/A	0	Other
10	Zhong Ou AMC-Agricultural Bank of China-Zhong Ou CSF Financial Asset Management Plan	0	131,135,600	0.53	0	N/A	0	Other
10	Huaxia Fund-Agricultural Bank of China-Huaxia CSF Financial Asset Management Plan	0	131,135,600	0.53	0	N/A	0	Other
10	Yinhua Fund-Agricultural Bank of China-Yinhua CSF Financial Asset Management Plan	0	131,135,600	0.53	0	N/A	0	Other
10	Southern Fund – Agricultural Bank of China – Southern CSF Financial Asset Management Plan	0	131,135,600	0.53	0	N/A	0	Other
Statement on the related relations and acting-in-concert relationship among the shareholders above				CREC, the largest shareholder, does not have related relations or acting-in-concert relationship with the other above shareholders. The Company is not aware of any related relationships or acting-in-concert relationship among the other above shareholders.				

Note 1: CREC held 11,610,364,390 shares of the Company, including 11,445,970,390 A shares and 164,394,000 H shares of the Company. CREC planned to increase its shareholding of A shares of the Company via the call auction trading system on the Shanghai Stock Exchange within 6 months starting from 31 March 2022. The cumulative increased amount would be not lower than RMB150,000,000 and not more than RMB300,000,000 (Announcement of China Railway Group Limited Regarding the Proposal on Increase in Shareholding by the Controlling Shareholder (Lin 2022-019)).

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 has already been deducted.

Note 3: A shares held by Hong Kong Securities Clearing Company Limited are held on behalf of its various clients.

Note 4: The numbers shown in the table are based on the register of members of the Company as at 30 June 2022.

(ii) Shareholdings of the top ten shareholders without selling restrictions

Shareholdings of the top ten shareholders without selling restrictions				
No.	Name of Shareholder	Number of shares held without selling restrictions	Type and number of shares	
			Type	Quantity
1	CREC (Note 1)	11,445,970,390	RMB-denominated ordinary shares	11,445,970,390
		164,394,000	Overseas listed foreign shares	164,394,000
2	HKSCC Nominees Limited (Note 2)	4,009,744,962	Overseas listed foreign shares	4,009,744,962
3	Hong Kong Securities Clearing Company Limited (Note 3)	653,208,107	RMB-denominated ordinary shares	653,208,107
4	China Securities Finance Corporation Limited	619,264,325	RMB-denominated ordinary shares	619,264,325
5	China Reform Holdings Corporation Ltd.	387,050,131	RMB-denominated ordinary shares	387,050,131
6	Central Huijin Asset Management Ltd.	230,435,700	RMB-denominated ordinary shares	230,435,700
7	China Great Wall Asset Management Co., Ltd.	176,804,035	RMB-denominated ordinary shares	176,804,035
8	Bank of Communications Co., Ltd.– GF CSF Infrastructure Engineering Traded Open-ended Index Securities Investment Fund	174,183,300	RMB-denominated ordinary shares	174,183,300
9	China Orient Asset Management Co., Ltd.	171,720,124	RMB-denominated ordinary shares	171,720,124
10	Bosera Fund-Agricultural Bank of China-Bosera CSF Financial Asset Management Plan	131,135,600	RMB-denominated ordinary shares	131,135,600
10	E Fund-Agricultural Bank of China-E Fund CSF Financial Asset Management Plan	131,135,600	RMB-denominated ordinary shares	131,135,600
10	Dacheng Fund-Agricultural Bank of China-Dacheng CSF Financial Asset Management Plan	131,135,600	RMB-denominated ordinary shares	131,135,600

Shareholdings of the top ten shareholders without selling restrictions

No.	Name of Shareholder	Number of shares held without selling restrictions	Type and number of shares	
			Type	Quantity
10	Harvest Fund-Agricultural Bank of China-Harvest CSF Financial Asset Management Plan	131,135,600	RMB-denominated ordinary shares	131,135,600
10	GF Fund-Agricultural Bank of China-GF CSF Financial Asset Management Plan	131,135,600	RMB-denominated ordinary shares	131,135,600
10	Zhong Ou AMC-Agricultural Bank of China-Zhong Ou CSF Financial Asset Management Plan	131,135,600	RMB-denominated ordinary shares	131,135,600
10	Huaxia Fund-Agricultural Bank of China-Huaxia CSF Financial Asset Management Plan	131,135,600	RMB-denominated ordinary shares	131,135,600
10	Yinhua Fund-Agricultural Bank of China-Yinhua CSF Financial Asset Management Plan	131,135,600	RMB-denominated ordinary shares	131,135,600
10	Southern Fund-Agricultural Bank of China-Southern CSF Financial Asset Management Plan	131,135,600	RMB-denominated ordinary shares	131,135,600
Statement on the related relations and acting-in-concert relationship among the shareholders above		CREC, the largest shareholder, does not have related relations or acting-in-concert relationship with the other above shareholders. The Company is not aware of any related relationships or acting-in- concert relationship among the other above shareholders.		

Note 1: CREC held 11,610,364,390 shares of the Company, including 11,445,970,390 A shares and 164,394,000 H shares of the Company.

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 has already been deducted.

Note 3: A shares held by Hong Kong Securities Clearing Company Limited are held on behalf of its various clients.

Note 4: The numbers shown in the table are based on the register of members of the Company as at 30 June 2022.

3.2.2 Strategic investors or general legal persons becoming the top ten shareholders by placing of new shares

Not applicable

3.3 Information on Directors, Supervisors and Senior Management

3.3.1 Changes in shareholdings of the incumbent directors, supervisors and senior management and those departed during the reporting period

Unit: Shares

Name	Position	Shareholdings at the beginning of the reporting period	Shareholdings at the end of the reporting period	Increase/ decrease in shareholdings during the reporting period	Reasons for increase/ decrease
YU Tengqun	Senior management	50,069	50,069	0	/
KONG Dun	Senior management	0	400,000	400,000	Restricted share incentive scheme
MA Jiangqian	Senior management	0	400,000	400,000	Restricted share incentive scheme
LI Xinsheng	Senior management	0	400,000	400,000	Restricted share incentive scheme
HE Wen	Senior management	0	400,000	400,000	Restricted share incentive scheme
Zhao Bin	Senior management	0	223,200	223,200	Restricted share incentive scheme
Geng Shubiao	Senior management	0	223,200	223,200	Restricted share incentive scheme
Total		50,069	2,096,469	2,046,400	

3.3.2 Share incentives granted to the directors, supervisors and senior management during the reporting period

(i) Share option incentive

Not applicable

(ii) Restricted share incentive

Unit: Shares

Name	Position	Number of restricted stocks held at the beginning of the reporting period	New restricted stocks granted during the reporting period	Vested shares	Unvested shares	Number of restricted stocks held at the end of the reporting period
KONG Dun	Senior management	0	400,000	0	400,000	400,000
MA Jiangqian	Senior management	0	400,000	0	400,000	400,000
LI Xincheng	Senior management	0	400,000	0	400,000	400,000
HE Wen	Senior management	0	400,000	0	400,000	400,000
Zhao Bin	Senior management	0	223,200	0	223,200	223,200
Geng Shubiao	Senior management	0	223,200	0	223,200	223,200
Total		0	2,046,400	0	2,046,400	2,046,400

3.4 Changes in the Controlling Shareholder and the Ultimate Controller

Not applicable

3.5 Purchase, Sale or Redemption of the Company's Listed Securities

During the six months ended 30 June 2022, neither the Company nor any of its subsidiaries purchased, sold or redeemed any of the Company's listed securities.

3.6 Interests and Short Positions of Directors, Supervisors and Chief Executive in Shares, Underlying Shares and Debentures

As at 30 June 2022, none of the directors, supervisors and chief executive of the Company had any interests and short position in the shares, underlying shares and debentures of the Company or any of its associated corporations (within the meaning of Part XV of the Securities and Futures Ordinance (Chapter 571 of the Laws of Hong Kong) (the “SFO”) which will have to be notified to the Company and The Stock Exchange of Hong Kong Limited (the “**Hong Kong Stock Exchange**”) pursuant to Divisions 7 and 8 of Part XV of the SFO (including interests and short positions which they are taken or deemed to have under such provisions of the SFO), or which will be required, pursuant to Section 352 of the SFO, to be entered in the register referred to therein or which will be required to be notified to the Company and the Hong Kong Stock Exchange pursuant to the Model Code for Securities Transactions by Directors of Listed Issuers.

3.7 Interests and Short Positions of Substantial Shareholders and Other Persons in Shares and Underlying Shares

As at 30 June 2022, the Company has been notified of the following 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 shareholder	Capacity	Number of A shares held (shares)	Nature of interest	Approximate percentage of issued A shares (%)	Approximate percentage of total issued shares (%)
CREC	Beneficial owner	11,445,970,390	Long position	55.7	46.26

Holders of H Shares

Name of substantial shareholder	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 corporation	259,009,309	Long position	6.16	1.05
		16,243,000	Short position	0.39	0.07
Deutsche Bank Aktiengesellschaft	(Note 1)	229,803,271	Long position	5.46	0.93
		123,424,962	Short position	2.93	0.50
		10,406,000	Lending pool	0.25	0.04
Lehman Brothers Holdings Inc.	Interest of controlled corporation	210,186,560	Long position	5.00	0.85
		94,560,550	Short position	2.25	0.38

Notes:

- 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 corporation	54,042,600	—
Custodian corporation	10,406,000	—
Others	8,668,000	—

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

Name of substantial shareholder	Long position				Short position			
	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	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.	—	—	—	2,040,000	—	—	—	228,000
Deutsche Bank Aktiengesellschaft	—	—	—	17,624,000	—	—	—	10,166,000
Lehman Brothers Holdings Inc.	—	—	10,000,000	—	—	—	60,000	—

Apart from the foregoing, as at 30 June 2022, 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 by the Company under Divisions 2 and 3 of Part XV of the SFO.

3.8 Dealings of securities by Directors and Supervisors

The Company has adopted the Model Code for Securities Transactions by Directors of Listed Issuers as set out in Appendix 10 (the “**Model Code**”) to the Rules Governing the Listing of Securities on The Stock Exchange of Hong Kong Limited (the “**Hong Kong Listing Rules**”), as amended, as the code of conduct regarding securities transactions by directors and supervisors. The Company has made enquiries to all directors and supervisors, each director and supervisor confirmed that he or she has complied with the required standard set out in the Model Code throughout the period from 1 January 2022 to 30 June 2022.

4 MANAGEMENT DISCUSSION AND ANALYSIS

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 infrastructure construction, survey, design and consulting services, and engineering equipment and component manufacturing. The Group also diversifies its business and expands its value-added services by exploiting into other businesses such as property development, merchandise trading, investment and operation of infrastructure, mining development and finance. After years of practice and development, the Group’s businesses have established a close upstream-downstream relationship among themselves, with the infrastructure construction business supporting the engineering equipment and component manufacturing, survey, design and consulting service, merchandise trading, infrastructure investment, property development and mining development businesses supporting the survey, design and consulting services and infrastructure construction business; survey, design and consulting services supporting the infrastructure construction business; engineering equipment and component manufacturing business providing construction equipment (such as bridge girder erection machine and shield) and the necessary components (such as turnout, bridge steel structure and rail transit electrification equipment) for infrastructure construction; merchandise trading business supplying materials (such as steel and cement) for infrastructure construction; and finance business offering financing services for the main businesses. All these have gradually formed a vertically integrated construction industry chain with outstanding principal business supplemented by diversified relevant business horizontally. The Group ranked 34th (up 1 place from the previous year) in the latest Fortune Global 500 list, and 5th in the Fortune China 500 list; ranked 2nd among the top 250 global contractors by Engineering News-Record (“**ENR**”); was awarded Grade A in the business performance assessment and evaluation of State-owned Assets Supervision and Administration Commission (SASAC) for 9 consecutive years, Grade A in the business performance assessment of 2019-2021, as well as the title of excellent performance enterprise and enterprise with outstanding contribution to scientific and technological innovation during 2019-2021; and obtained Grade A evaluation for information disclosure from Shanghai Stock Exchange for 9 consecutive years. The three top international rating agencies (Moody’s, Fitch and Standard & Poor’s) rated China Railway as A3/A-/BBB+, and maintained the outlook of “stable”.

4.1 Industry Development Overview

Infrastructure construction business

Domestically, since 2022, faced with increasing new downward pressures, the CPC Central Committee and The State Council have made scientific decisions, implemented timely and decisive policies, refrained from adopting indiscriminate policies, proactively implemented the policies and measures of the Central Economic Work Conference and the Government Work Report, and rolled out a package of policies and measures to stabilize the economy in accordance with the overall thinking and policy orientation. Moreover, issuance of instruments including special bonds has given full play to the leverage of government investment. As of the end of June, new special bonds issued nationwide amounted to RMB3.41 trillion in total, supporting more than 23.8 thousand projects. More than RMB240 billion of proceeds from special bonds were used as capital of major projects. According to the data released by the National Bureau of Statistics, in the first half of the year, the fixed assets investments nationwide (excluding rural households) amounted to RMB27,143 billion, representing a year-on-year increase of 6.1%. The national fixed asset investment in transportation increased by 6.7% year-on-year to approximately RMB1,675.8 billion, maintaining a high level. In particular, the fixed asset investment in railways decreased by 4.6% year-on-year to RMB285.3 billion, the fixed asset investment in highways increased by 9.7% year-on-year to RMB1,270.4 billion, and the fixed asset investment in waterways increased by 4.7% year-on-year to RMB73.9 billion. With regard to the urban rail transit, in the first half of the year, urban rail lines were put into service in Nanping, increasing the number of cities operating urban rail lines to 51, and the length of urban rail transit lines in service to 9,573.65km. The new operating mileage amounted to 366.87 km. On the whole, infrastructure was still an important support for the economic and social development, China's infrastructure was still insufficient to meet the need of national development and security. At present and for some time to come, moderately advanced, scientifically planned, multi-wheel driven and stratified infrastructure development is of great significance to ensuring national security, smoothening domestic circulation, promoting both domestic and international circulation, expanding domestic demand and promoting high-quality development. There is still large room in the markets for new and existing infrastructure constructions.

Internationally, since 2022, the repeated outbreaks of COVID-19, the conflict between Russia and Ukraine, and the USD tightening have restrained the market performance in terms of economic recovery, mass inflation and market liquidity, and the global economic structure, industrial structure and energy structure have experienced intensified adjustments. According to the forecast of IMF, the global economy growth rate will be 3.2% this year, 0.4 percentage points lower than its April forecast. In addition, with the increasing economic downward risks, recession fears and cross-border investment pressures, Chinese enterprises will face many challenges in their “going global”. In recent years, China has continued to actively promote high-quality Belt and Road cooperation, and investment cooperation between China and countries along the Belt and Road remain active. In addition, under the RCEP framework, the investment among the member countries is also expected to drive the outbound direct investment of Chinese enterprises to Southeast Asia and countries along the Belt and Road. According to statistics from the Ministry of Commerce, the value of China’s new contracts for overseas contracted projects in the first half of this year was RMB671.56 billion, representing a year-on-year decrease of 6.1%, and the turnover was RMB458 billion, representing a year-on-year increase of 4.2%, with the value of new contracts and turnover from countries along the Belt and Road accounting for 50.4% and 54.4% of the total respectively. Judging from the trend of international infrastructure cooperation, green development is the inevitable demand of the time. China will work with other countries to implement the new concept of green development, create more green, low-carbon and sustainable infrastructure projects, and promote the steady, sound and sustainable development of international infrastructure investment cooperation, making a positive contribution to realizing regional infrastructure connectivity, promoting economic development and transform, deepening multilateral and bilateral economic and trade relations, and promoting the economic recovery and growth of the host country and the world.

Survey, design and consulting services business

Being a technology- and intelligence-intensive production-based service industry, the survey, design and consulting services business is in the front of the engineering construction projects of various industries, including construction, transportation, electricity and water conservancy, serves the whole lifecycle of the construction projects and offers technical and management services throughout the decision-making and implementation process of the projects. It plays an important supporting role in improving the investment benefits and social benefits of construction projects, and is a key link in project construction. At present, the state actively promotes the construction of high-speed railways, urban rail transit, water conservancy and hydropower, underground utility tunnels and sponge cities. In particular, with the mutual progress, promotion, integration and connectivity of the major regional strategies, such as the Belt and Road Initiative, the coordinated development of the Beijing-Tianjin-Hebei region, the construction of Yangtze River Economic Belt, and the Guangdong-Hong Kong-Macao Greater Bay Area, the integrated development of the Yangtze River Delta, and the ecological protection and high-quality development of the Yellow River basin, the construction of new economic belts will continue to pick up. The next few years will be a critical period for our infrastructure construction and development, providing more market opportunities for enterprises. As the soul and forerunner of engineering construction, the survey, design and consulting service market will still have room for growth at home, and room for improvement overseas. The “14th Five-year Plan” period is the first five-year period for China to start a new journey of comprehensively building a modern socialist nation and march toward the second centenary goal. The survey, design and consulting services are faced with a complex situation in which opportunities and challenges coexist and hopes and difficulties coexist, which is mainly reflected in that the leading role of survey, design and consultation industry in engineering construction has not been fully played, the horizontal competition, cross-industry competition, the industry chain competition, and international competition are increasingly fierce, and the market has stricter requirements on the innovation ability, technical strength, quality level, business scope and service price of enterprises.

In 2022, the State Council issued the 14th Five-Year Plan for the Development of a Modern and Integrated Transport System, proposing to construct a high-quality comprehensive transportation network according to the main skeleton layout of “6 axes, 7 corridors and 8 channels” of the national comprehensive transportation network, increase the length of railway service mileage by 19,000 kilometers, achieve more advanced technology and equipment, accelerate the application of the self-developed advanced technology and equipment, and significantly increase the standardization rate of transport equipment. As pointed out at the executive meeting of State Council, industry and the service sector play a key supporting role in economic development and stable employment. We should strengthen and complement the manufacturing industry chain and rebuild the industrial base, speed up the construction of new types of infrastructure, upgrade energy conservation and carbon reduction technologies in key areas, and increase effective investment. The Ministry of Housing and Urban-Rural Development issued the “14th Five-Year Plan” for the Development of the Construction Industry, pointing out that the level of industrialization, digitalization and intelligence of the construction industry should be greatly improved, and the transformation of the construction industry from big to strong should be accelerated. The National Development and Reform Commission issued the National Highway Network Plan, proposing to complete a modern, high-quality national highway network with extensive coverage, complete functions, intensive and high efficiency, green intelligence, safety and reliability by 2035. The Ministry of Finance issued the Opinions on Financial Support for Carbon Peaking and Carbon Neutrality, proposing to support the development of renewable energy such as photovoltaic, wind power and biomass, replace fossil energy by new energy with stable output, and encourage regions where conditions permit to take the lead in developing new types of energy storage and pumped storage according to local conditions. In the first half of this year, investment in traditional infrastructure, such as railways, highways, urban rails and water conservancy, continued to recover in China, promoting the increase of overall demand of the equipment manufacturing industry, and boosting the development of emerging fields, such as new energy storage, pumped storage, and green energy substitution. In the first half of this year, the added value of large-scale industries recorded a year-on-year increase of 3.4%. In particular, the added value of special equipment manufacturing industry increased by 6.0% in June. During the 14th Five-Year Plan period, the equipment manufacturing industry will have a good development prospect, but it will also face challenges such as intensifying industry competition and declining average yield, high level of homogeneous competition, complex and diversified customer demands, etc. On one hand, the abundant demand has been created in the market: market space for updating and upgrading existing projects has been created by the traditional infrastructure market, while new and expanded application areas have been created by the new infrastructure market. On the other hand, the market demands for innovation. The equipment manufacturing industry faces increasing pressure in fulfilling scenario-specific needs and exploring business model innovation.

Since 2022, based on the long-term mechanism that “houses are for living in and not for speculation” and that “real estate should not be used as a means and a tool to stimulate the economy in the short term”, the CPC Central Committee and The State Council have further strengthened the continuity and stability of our regulatory policies, enhanced the guidance of expectations, stabilized the land prices, housing prices, and expectations, and actively promoted the virtuous cycle and healthy development of the real estate industry by implementing specific policies according to local conditions. In the first half of this year, more than 150 cities across the country released policies to relax the regulation on the property market, which covered various aspects, in order to bail out the enterprises, strengthen prevention and defuse the risk of corporate debt repayment. On the whole, the third- and fourth-tier cities were much more relaxed than the first- and second-tier cities in terms of degree and coverage scope. The second-tier cities mainly adopted marginal relaxation policies targeted at specific groups and with specific conditions, and made dynamic adjustment according to the regulatory effects. They remained cautious in the adjustment of the core purchase restriction policy, focusing on the introduction of talent and the release of more home purchase qualifications. However, the policy effects have not shown at the market end, mainly because the underlying demand of the market is low, and the negative effect of the market has not dissipated, leading to little effect of marginal adjustment. According to the data released by the National Bureau of Statistics, in the first half of the year, the property development investments nationwide amounted to RMB6,831.4 billion, representing a year-on-year decline of 5.4%. The investments in residential housing amounted to RMB5,180.4 billion, representing a year-on-year decline of 4.5%. The housing construction area of real estate development enterprises amounted to 8,488.12 million square meters, representing a year-on-year decrease of 2.8%. The construction area of residential housing amounted to 5,994.29 million square meters, representing a year-on-year decrease of 2.9%. The housing construction starts amounted to 664.23 million square meters, representing a year-on-year decrease of 34.4%. The construction starts for residence reached 488 million square meters, representing a year-on-year decrease of 35.4%. The housing completion area amounted to 286.36 million square meters, representing a year-on-year decrease of 21.5%. The completion area of residential housing amounted to 208.58 million square meters, representing a year-on-year decrease of 20.6%. The commercial housing sales area amounted to 689.23 million square meters, representing a year-on-year decrease of 22.2%. The sales area of residential housing decreased by 26.6% year-on-year. The commercial housing sales amount amounted to RMB6,607.2 billion, representing a year-on-year decrease of 28.9%. The sales amount of residential housing decreased by 31.8% year-on-year. In the second half of the year, the policy of “promoting the steady and sound development of the real estate market by taking measures according to local conditions, ensuring the rigid demand for housing, and reasonably supporting the demand for improvement” will be further implemented, which, together with the lowering of medium- and long-term loan interest rate for the property market and the reduction of housing burden of residents will be conducive to the stability of the real estate market. Meanwhile, due to the gradual enhancement of the industry and population aggregation effect in the economic circle, the economic development modes of different economic circles and cities of different levels will continue to differentiate, and the differentiation of the real estate market will become normal.

Other businesses

Mining business

Since 2022, the stability of the global supply chain and industrial chain has been affected by many factors, such as the increase in international energy prices caused by the Russia-Ukraine conflict and continued international inflation, the sharp interest rate hikes by the Federal Reserve and the European Central Bank, and repeated outbreaks of COVID-19 in some countries and regions. The volatility of commodity prices has been further aggravated. In particular, since the second quarter, the copper-oil ratio, which reflects the changes in prosperity of the manufacturing sector, and the copper-gold ratio, which is a cyclical indicator of changes in prosperity of the service sector, have both dropped. The “copper oil ratio” has fallen into a historic low level, and the possibility that major metal prices may experience shock correction cannot be excluded. In addition, with several new overseas copper projects coming into production and the further release of new production capacity, the copper market will move from shortage to rebalancing, but the impact of protests, strikes and droughts on mines in major mining countries in South America remains a concern. Looking forward to the second half of the year, with the large-scale interest hikes of developed economies (represented by the FED) and their approach to the recession cycle, the demand for copper and other commodities is likely to fall sharply. In contrast, China’s economy may enter a recovery cycle in the second half of the year. With clear target and demand for stable growth, and enhanced supports from fiscal and monetary policies, the industrial production will bottom out. Due to the particularity of the dislocation of the economic cycle between China and the United States, it is expected that the price of bulk metal commodities represented by copper and iron may show a trend of gradually moving down for some time to come, but the downward cycle may not be as smooth as the past several rounds.

Financial business

Since 2022, the monetary policy shift of major developed economies has accelerated, the international financial market has experienced greater volatility, the epidemic has spread in many places in China, the macroeconomic downward pressure has been increased, and market entities have faced greater difficulties. Facing the complicated economic and financial situation at home and abroad, China has continued to balance epidemic prevention and control with economic and social development, effectively implemented macro policies, and stabilized the economic and social development to the maximum extent. China has adopted a prudent monetary policy that is flexible and appropriate, maintained continuity, stability, and sustainability, and properly managed the market expectations, with an aim to serve the real economy, and effectively prevent and control financial risks. The State Council issued a Package of Policies and Measures for Stabilizing the Economy, including 33 measures in six areas, covering five monetary and financial policies. While refraining from adopting indiscriminate policies and issuing excessive money, China enhanced the financing support for major projects through policy-based and development-oriented financial instruments to give a better play of the guiding role, and improve the transmission mechanism of monetary policy. China better matched the size and structure of bank deposits and loans to achieve the combined effect of expanding effective investment, creating jobs and boosting consumption. The legal system and basic institutions of the capital market have been enhanced, the investor protection system and mechanism have been improved, the “zero tolerance” law enforcement has been further highlighted, and the market ecosystem has been continuously purified. On the whole, the RMB exchange rate is basically stable at an appropriate and balanced level, and the real lending interest rate has stabilized and declined, with medium- and long-term funds of RMB530 billion released through cuts to required reserve ratios, and the net MLF release of RMB200 billion. China has increased the credit line of policy banks by RMB800 billion, promoted the establishment of policy-based development financial instruments of RMB300 billion, and supported the release of medium- and long-term infrastructure loans. The scope of pilot REITs has been steadily expanded, regular issuance has been accelerated, and multi-level market interaction continues to contribute to economic restructuring, which have laid the foundation for achieving steady and high-quality economic performance and consolidating the upward trend.

Merchandise trading business

With the rapid development of world economic integration and the comprehensive application of information technology, global cooperation in merchandise trading has been further promoted. Due to high variety of products, frequent price changes, high degree of homogeneity, relatively low entry threshold, fierce market competition and other factors, the overall profit margin of the merchandise trading industry is low. The trade price gap of traditional merchandise traders is gradually narrowing, which leads to the increasing demand for cost saving through supply chain management. More and more merchandise traders have begun to integrate the industrial chain, extending upstream and downstream. While obtaining upstream and downstream resources, they gradually penetrate into all links of the industrial chain and play the role of industrial chain manager, in order to expand profit space and create value-added opportunities. Through the integration of upstream and downstream customers in the trade channel, the commodity trade enterprises gradually transform to supply chain management, and improve profit margins by providing end-users with diversified, whole chain, and one-stop supply chain management services.

Infrastructure investment and operation

Since 2022, there have been increasing risks and challenges in the international and domestic economic environments. The complexity, severity and uncertainty of China's economic development environment have increased, and China faces new challenges to stabilize growth, employment and prices. Infrastructure investment, as an important starting point for stabilizing investment, has played an important role in stimulating the vitality of private investment and facilitating the implementation of major national strategies. According to the 2022 Semi-Annual Report of the National PPP Comprehensive Information Platform Management Database Project released by the PPP Center of the Ministry of Finance, as of 30 June 2022, there were 10,354 projects in database in the PPP comprehensive information platform, with a total investment of RMB16.5 trillion. The size of the projects in the database increases steadily, representing a huge market. In the first half of this year, 279 new projects were included in the database, with the investment of RMB458.6 billion, representing a year-on-year decrease of RMB114 billion; a total of 7,934 projects were signed, with an investment of RMB13.1 trillion, representing a year-on-year increase of RMB1 trillion; a total of 5,280 construction projects were started, with an investment of RMB8.7 trillion, representing a year-on-year increase of RMB1.7 trillion. In terms of statistical fields and criteria, the majority of the new PPP projects were in the fields of transportation and municipal engineering, and the investment in the "new infrastructure and new urbanization initiatives and major projects" fields accounted for more than 70%. In the first half of this year, 210 new projects of "new infrastructure and new urbanization initiatives and major projects" were included in the database, with an investment of RMB353.4 billion, accounting for 77% of the new projects included in the database. As of the end of June, there were a total of 8,764 projects of "new infrastructure and new urbanization initiatives and major projects" in the database, with an investment of RMB14.2 trillion; among them, a total of 6,804 projects were signed, with an investment of RMB11.4 trillion; a total of 4,586 projects were commenced construction, with an investment of RMB7.6 trillion. 123 new pollution prevention and control and green low-carbon projects were included in the database, with an investment of RMB126.3 billion. As of the end of June, there were a total of 5,943 projects in the database, with an investment of RMB5.7 trillion, accounting for 57.4% and 34.9% respectively of the total in the management database. These projects were highly consistent with the Company's main business, and laid a good market foundation for the Company to open up the "second curve" business. In addition, among the 2,763 administrative regions with PPP projects in the database, 2,729 administrative regions have annual financial affordability indexes below the 10% red line, accounting for 98.8% of the total. The PPP fiscal expenditure responsibility is generally within a safe range, and the foundation of the Company's infrastructure investment business is stable, so there is still room for further development.

4.2 Business Development Overview

In the first half of 2022, facing the increasingly complex and severe international environment, frequent outbreaks of COVID-19 in China and shocks from unexpected factors, the Group fully implemented the decision and deployment of the CPC Central Committee on “ensuring epidemic prevention and control, economic stability and safe development”, and earnestly implemented the SASAC’s requirements on further ensuring stable growth of central enterprises. Based on the general principle of “ensuring stability and seeking progress while maintaining stability”, we anchored our work objectives of “four increases, two controls and four improvements”, and focused on the two main lines of improving quality and efficiency and preventing and defusing major risks. We actively built the big business management system, promoted the improvement of project management benefits, maintained the stable running of production and operation, and achieved good results in stabilizing growth.

First, making solid progress in enterprise reform and development The Group has always maintained strategic focus and implemented new development concepts in a complete, accurate and comprehensive manner. In accordance with the “14th Five-Year Plan” and the “123456” working strategy, we integrated the concept of high-quality development into the whole process of basic management, reform and innovation, process reengineering, performance assessment, risk prevention and control. We deeply carried out the three-year campaign to reform state-owned enterprises, constantly improved the modern enterprise system with Chinese characteristics, pressed ahead with the reform of the “three systems”, systematically optimized the performance evaluation index system, deepened the reform of regional headquarters and investment companies, optimized the industrial deployment based on the market-oriented principle, vigorously carried out cutting-edge and original technology breakthroughs, accelerated practical and catch-up technology research, and enhanced competitive strength and profitability through reform and innovation. The Company won 1 first prize and 9 second prizes of national enterprise management modernization innovation achievements in 2021. China Railway was awarded “Model Enterprise of Corporate Governance for State-owned Enterprises”. China Railway No. 4 Engineering, China Railway Major Bridge Engineering and China Railway Shanghai were elected as “Benchmark Enterprise for Management Improvement”. The cash flow self-balance project of China Railway was elected as “Benchmark Project for Management Improvement”. China Railway Engineering Equipment and China Railway Major Bridge Engineering were awarded as “Benchmark” and “Excellent” in the Special Evaluation of “Science and Technology Reform Demonstration Action”. China Railway No. 9 Engineering and China Railway No. 2 Engineering were awarded as “Excellent” and “Good” in the special evaluation of “Double Hundred Enterprises” and China Railway Engineering Equipment was included in the “key propaganda scope of outstanding enterprises in SOE reform” by the SASAC.

Second, making steady improvement in operation and development quality

Centering on serving the major national strategy, the Group has constantly optimized and adjusted the operating management system and mechanism, rationally allocated operating resources, and continuously promoted the optimization of business structure. While consolidating traditional areas of strength such as railways, highways and urban rail transit, we have, based on the national macro policies, further expanded to new areas such as water conservancy and hydropower, and urban renewal, in order to enhance the overall competitiveness, increase the business scale, and steadily improve the business quality. In the first half of this year, the value of new contracts of the Group was RMB1,211.94 billion, representing a year-on-year increase of 17.2%. In the traditional infrastructure market, we obtained new contracts of RMB99.28 billion in the railway market, maintaining our leading position; obtained new contracts of RMB145.85 billion in the highway market, representing a year-on-year increase of 28.4%, maintaining our dominant market position; and obtained new contracts of RMB789.66 billion in municipal works and other businesses, representing a year-on-year increase of 16.7%, ensuring stable and orderly development. In the “second curve” market, the Group has taken multiple measures to actively promote development, and achieved remarkable improvement in water conservancy and hydropower, airport engineering and other business operations. We obtained new contracts of over RMB200 billion. In particular, we obtained new contracts of RMB74.22 billion in water conservancy and hydropower business, representing a year-on-year increase of 819.7%. With regard to the undertaking tasks, we have won bids for a number of clean energy, new infrastructure and major projects, such as the wind farm project of Guizhou Jidian New Energy, 800WM PV project of Zhengzhou Yingtai Energy, Huaibei – Suzhou – Bengbu intercity Railway, Qingdao Metro Line 9 Phase I, River-crossing channel of Pearl Bay Area in Nansha, Guangzhou and comprehensive improvement of central urban environment in Wulong District, Nanyang.

Third, ensuring robust growth of operation benefits and quality The Group has carried out in-depth management improvement based on the world class standards, adhering to the principle of “ensuring down to earth works for each project”, and firmly promoted the construction of the big business management system. Taking big business management as an important step to improve our ability to create and deliver results, we have introduced a series of measures to strengthen the management of all aspects of operation and development, project performance, cost control, and right confirmation and settlement, strengthen cash flow management, increase the weight of assessment and revealed that effective project management increased work effectiveness. In the first half of this year, with the outstanding contribution of output value of major projects undertaken by the Group, such as Shenzhen Metro Line 14 and Menglv Expressway, a number of key and difficult projects, such as Sichuan-Tibet Railway, Darui Railway, Yunnan Dianzhong Water Diversion, Beijing-Xiong’an Expressway, Shenzhen-Zhongshan Passage, and Yawan-Bandung high-speed Railway, have been smoothly promoted, effectively releasing the production capacity. The Group achieved revenue of RMB560.587 billion, representing a year-on-year increase of 12.5%; profit for the period of RMB16.825 billion, representing a year-on-year increase of 17.2%; profit for the period attributable to the owners of the Company of RMB15.126 billion, representing a year-on-year increase of 15.5%, increase of liquidity ratio from 1.02 at the beginning of the period to 1.06, and gearing ratio of 74.1%, within the annual budget target range.

Fourth, enhancing mutual complementation of corporate responsibility and brand

The Group has always fulfilled its commitment to benefit the society and return to shareholders, demonstrating its responsibility as a major central enterprise. Since 2022, we actively engaged in the prevention and control of the epidemic on a regular basis, organizing support for the prevention and control of the epidemic in Jilin, Shanghai and other places, and participating in the construction of local isolation medical facilities and anti-epidemic housing, with a total input of more than 13,000 people. We actively implemented the national construction plans for major projects, and completed a large number of livelihood projects, such as the Zheng-Yu High-speed Railway, Darui Railway, Heluo Railway, Xiaoxiangling Tunnel, and the fourth phase of Nansha Port Area. We actively implemented the national requirements of “ensuring stability and expansion of employment”, steadily expanded the recruitment scale of college and technical secondary school graduates, and provided a lot of opportunities for labor workers to obtain employment and income. We actively participated in the relief of flood disaster caused by heavy rainfall in Fujian, Jiangxi, Sichuan, Guangdong and other places, striving to protect the safety of people’s lives and property. We actively participated in the preservation, restoration and protection of Donghuamen Site in Chengdu, Zhouyuan Site, Qianfo Rock Grottoes in Tongjiang County and many other national cultural relics and world cultural heritage, contributing our wisdom and strength to retain the cultural roots and defend the soul of the nation. We earnestly learned the spirit of the important instructions of General Secretary Xi Jinping on consolidating and expanding the effective connection between the achievements of poverty alleviation and rural revitalization, strictly implemented the requirements of “eliminating poverty without evading responsibilities, policies, assistance or supervision”, ensuring that every one has access to food and clothing, secure housing, compulsory education and basic medical care. Focusing on the five revitalization measures, ensuring the continuity of the measures, funds and forces of assistance, we actively engaged in the construction of photovoltaic power station in Shenshan Village of Baode County, dormitory building of No. 11 Primary School of Baode County, and the construction of white wool tea production base of Rucheng County, and strove to build the service brands of “Good Driver” and “Good Property Manager” of Baode. We carried out the training project of “Everyone has skills” in Rucheng County, bought agricultural products of RMB3.564 million and helped sell agricultural products of RMB213,000. We strengthened the assistance and dispatched two outstanding temporary cadres to Karuo District in Changdo City, Tibet, which was newly added as a target for poverty alleviation. The Group ranked 107th in the “Top 500 Global Brands by Value in 2022” published by Brand Finance, 15 places higher than 2021 ranking. The social image and brand value of the Group were further consolidated and improved.

During the first half of 2022, the value of new contracts of the Group was RMB1,211.94 billion, representing a year-on-year increase of 17.2%. In particular, the value of new contracts of domestic business was RMB1,132.11 billion, representing a year-on-year increase of 14.1%; the value of new contracts of overseas business was RMB79.83 billion, representing a year-on-year increase of 90.7%. As at the end of the reporting period, the value of contract backlog of the Company was RMB5,116.66 billion, with an increase of 12.57% as compared with the end of 2021. The details are as follows:

Value of New Contracts

Unit: 100 million Currency: RMB

Business type	The first half of 2022	The first half of 2021	Year-on- year increase/ decrease
Infrastructure construction	10,347.9	9,101.1	13.7%
Including: Railways	992.8	1,197.2	-17.1%
Highways	1,458.5	1,135.7	28.4%
Municipal works and others	7,896.6	6,768.2	16.7%
Survey, design and consulting services	209.6	95.7	119.0%
Engineering equipment and component manufacturing	347.9	281.8	23.5%
Property development	216.4	312.7	-30.8%
Other businesses	997.6	545.4	82.9%
Total	12,119.4	10,336.7	17.2%
Including: Onshore	11,321.1	9,918.1	14.1%
Offshore	798.3	418.6	90.7%

Infrastructure construction business

Engineering construction is the core segment 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 a variety of projects, such as railway engineering, highway engineering, municipal public engineering, and construction engineering. 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. The infrastructure investment business is the extension of the industrial chain of the traditional core business of infrastructure construction. Based on the principle of centering on main business, serving main business, driving main business and promoting main business, the infrastructure investment business of the Group keeps innovating the investment and construction modes in railway, highway, urban rail transit, underground utility tunnels, water and environmental protection and other areas of infrastructure, creating a more comprehensive industrial chain, and helping the Group maintain its advantages in construction contracting in the field of infrastructure construction.

The Group has always been a leader in infrastructure construction in China and is one of the largest construction contractors in the world. As of the end of the reporting period, the Company had 18 special grade general contracts for railway engineering construction, accounting for more than 50% of the total number of special grade general contracts for railway engineering construction in China; as well as 32 special grade general contracts for highway engineering construction, 19 special grade general contracts for building construction and 10 special grade general contracts for municipal public works construction. The Group is the largest construction group in the railway infrastructure field and urban rail transit infrastructure field in China. It has three national key laboratories: National Engineering Research Centre 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, representing the most advanced technology level in railway, bridge, underground space development and utilization and rail transit construction in China. In addition, 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 in the Belt and Road Initiative including China-Laos Railway, the Indonesian Jakarta-Bandung High-speed Railway, Budapest-Belgrade Railway and Padma Bridge in Bangladesh.

During the first half of 2022, the value of the Group's new contracts of infrastructure construction business was RMB1,034.79 billion, representing a year-on-year increase of 13.7%; the value of the contract backlog was RMB4,684.25 billion as at the end of the reporting period, representing an increase of 11.23% from the end of 2021. From a business segment perspective: ① In respect of railway construction business, due to the reduction of railway fixed assets investment in the first half of this year, the value of new contracts of railway construction business amounted to RMB99.28 billion, representing a year-on-year decrease of 17.1%; the value of the contract backlog as at the end of the reporting period was RMB696.26 billion, representing a decrease of 3.91% from the end of 2021. The Group's market share in domestic large and medium-sized railway construction reached 51.2% in the first half of 2022, maintaining the first place in China. ② In respect of highway construction business, the value of new contracts of highway construction business amounted to RMB145.85 billion, representing a year-on-year growth of 28.4%; the value of the contract backlog as at the end of the reporting period was RMB743.45 billion, representing an increase of 7.51% from the end of 2021. ③ In respect of municipal works and other businesses, benefiting from the promotion of the construction of city clusters, metropolitan circle, and new towns and the acceleration of urban renewal, the Group has further strengthened the market development of urban construction. The value of new contracts signed for municipal works and other businesses reached RMB789.66 billion, representing a year-on-year increase of 16.7%. The contract backlogs as at the end of the reporting period amounted to RMB3,244.54 billion, representing an increase of 16.08% from the end of 2021.

Survey, design and consulting services business

Design consulting is the core segment 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 basic 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 maglev, 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 survey, design and other relevant services of the engineering projects according to 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 and design and consulting service industry, the Company 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. The Group has won 154 National Excellent Engineering Survey and Design Awards, 101 National Excellent Engineering Consulting Achievement Awards, and 35 International Engineering Consulting (FIDIC) and Engineering Design Awards. In ENR's 2021 ranking of the world's 150 largest design companies and 225 largest international design companies, China railway ranked 15th and 84th respectively.

In the first half of 2022, the value of new contracts of the Group regarding the survey, design and consulting service business amounted to RMB20.96 billion, representing a year-on-year increase of 119.0%. As a backbone enterprise in China's survey and design and consulting service industry, the Company has played an important leading role in the field of engineering construction. As at the end of the reporting period, the Group's contract backlog of survey, design and consulting services business was RMB60.6 billion, representing an increase of 21.69% from the end of 2021.

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 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 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 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 high-tech 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 specialized construction equipment manufacturer in China, and a global leading infrastructure construction service equipment manufacturer. For the domestic market, the Group maintained a market share of more than 50% in the high-speed turnout market that requires high techniques (speed over 250km/h), and in the acceleration turnout, regular turnout, and heavy-haul turnout market; a market share of more than 60% 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 more than 60% in the catenary parts market of high-speed railway; and a market share of approximately 50% in the power supply products market of urban rail transit sector. In addition, the Group successfully developed the 600km/h high-speed maglev traction transformer, and 600km/h high-speed maglev turnout system, providing a strong technical support for the completion of 600km/h high-speed maglev traffic system in China. CRHIC (stock code: 600528.SH), a majority-owned subsidiary of the Company, has the most complete spectrum of products in the field of railway infrastructure equipment in China and is the only industrial enterprise in A share market that mainly engages in rail transit and underground excavation of high-end equipment. CRHEEC (stock code: 688285.SH) is an important supplier engaging in R&D, production and system integration of domestic electrified catenary components and power supply equipment for urban rail transit. CRPCC (stock code: 300374.SZ), a supplier with rich product structure portfolios and integrated service capability of prefabricated building in domestic housing prefabricated building parts and components industry, can provide a full set of prefabricated building solutions.

In the first half of 2022, the value of new contracts of the engineering equipment and component manufacturing business of the Group was RMB34.79 billion, representing a year-on-year increase of 23.5%. As at the end of the reporting period, the value of contract backlog of the engineering equipment and component manufacturing business of the Group was RMB122.07 billion, representing an increase of 25.06% from the end of 2021.

Property development business

The Group is one of the central enterprises that the SASAC has identified as a key player in the real estate development field. 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 the first half of the year, the Group’s real estate development business conformed to the national policy guidance, adhered to the new development concept, and 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 construction of risk management and control system 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 the first half of 2022, due to the repeated outbreaks of COVID-19 in China and the downturn of real estate market, the Group’s property business achieved a sales amount of RMB21.64 billion, representing a year-on-year decrease of 30.8%, and its sales area was 1.497 million square meters, representing a year-on-year decrease of 27.5%. The area that we have commenced construction was 1.65 million square meters, representing a year-on-year decrease of 25.9%; the area that we have completed construction was 1.58 million square meters, representing a year-on-year decrease of 20.8%; and the newly acquired land reserve was 0.561 million square meters, representing a year-on-year decrease of 66.7%. As of the end of the reporting period, the Group’s land reserve to be developed covered 18.745 million square meters.

Other businesses

Mining business

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 mining business is mainly based on the management and development of self-owned mineral resources. Currently, it wholly owns, controls or holds shares to invest in construction of 5 modern mines at home and abroad, including Luming Molybdenum Mine in Yichun, Heilongjiang, Luishia Copper-Cobalt Mine, MKM Copper-Cobalt Mine and SICOMINES Copper-Cobalt Mine in Congo, and Wulan Lead and Zinc Mine in Mongolia, all of which are in good conditions. The main mineral products produced and sold by the Company include concentrates of copper, cobalt, molybdenum, lead and zinc, and copper cathode and cobalt hydroxide. As of the end of the reporting period, the retained resources/reserves of the aforesaid mines mainly include copper of approximately 8.05 million tons, cobalt of approximately 0.60 million tons, and molybdenum of approximately 0.65 million tons. In particular, it maintains the leading position in the same industry in China in terms of the retained reserves of copper, cobalt and molybdenum, and its mines’ production capacity for copper and molybdenum has been at the forefront in the same industry in China.

In the first half of 2022, the cumulative output of resources from the mines controlled and invested by the Group were as follows: the copper metal production was 0.161 million tons, with an increase of 46.9% from the same period last year; cobalt metal production was 2,652.09 tons, representing a year-on-year increase of 89.7%; molybdenum metal production was 7,801.62 tons, representing a year-on-year increase of 0.07%; lead metal production was 4,488.79 tons, representing a year-on-year decrease of 29.68%; zinc metal production was 10,852.23 tons, representing a year-on-year increase of 1.08%; silver metal production was 23.15 tons, representing a year-on-year increase of 9.35%. The basic information of specific mine projects is shown in the table below.

Unit: 100 million Currency: RMB

No.	Project name	Type	Mineral resources			Planned total		Equity ratio	Investment in the		Planned completion date	Project progress
			Grade	Resource/Reserve	Unit	investment (RMB/100 million)	accumulated investment (RMB/100 million)		reporting period (RMB/100 million)	Product output in the reporting period		
					Quantity	%						
1	Luming Molybdenum Mine, Yichun City of Heilongjiang	Molybdenum	0.086%		Ton	646,430	83	60.17	60.26	0	7,801.62	Completed In normal production
		Copper	/		Ton	/					546.55	
2	SICOMINES Copper-Cobalt Mine, La Sino-congolaise Des Mines S.A., Congo	Copper	3.205%		Ton	7,528,646	41.72	45.86	32.86	0	134,861.69	Completed In normal production
		Cobalt	0.248%		Ton	583,538					1,644.97	
3	Luishia Copper-Cobalt Mine, Comagnie Minière de Luisha S.A.S, Congo	Copper	2.244%		Ton	485,391	72	21.38	21.6	0	15,701.91	Completed In normal production
		Cobalt	0.071%			15,451					534.66	
4	MKM Copper-Cobalt Mine, La Minière De Kalumbwe Myunga sprl, Congo	Copper	2.078%		Ton	31,049	80.2	11.95	12.35	0	9,916.18	Completed In normal production
		Cobalt	0.211%			3,159					472.46	
5	Wulan Lead and Zinc Mine, Xinxin Company, Mongolia	Lead	1.127%		Ton	191,279	100	15.4	15.4	0	4,488.79	Completed In normal production
		Zinc	2.666%		Ton	452,676					10,852.23	
		Silver	52.564-g/t		Ton	892					23.15	
6	Muhaer Lead and Zinc Mine, Xinxin Company, Mongolia	Lead	0.63%		Ton	41,141	100	/	/	0	/	/ Not yet exploited
		Zinc	2.37%		Ton	154,709					/	
		Silver	118.17g/t		Ton	770					/	
7	Wurite Ovoo and Zhanggai Tolgoi Gold Mine, Xinxin Company, Mongolia	Gold	3g/t		Ton	3	100	/	/	0	/	/ Not yet exploited
8	Silver-Lead-Zinc polymetallic Mine, Chafu, Xianglong Mineral Co., Ltd., Mongolia	Lead	7%		Ton	89,693	100	3.3	3.3	0	/	/ Ceased production
		Zinc	5.09%		Ton	65,190					/	
		Silver	200.39g/t		Ton	257					/	

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, our 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 such 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 multi-level, wide-covered and differentiated “finance, quasi-finance” institutional service system represented by China Railway Trust Co., Ltd. (“**CRTC**”), China Railway Finance Co., Ltd. (“**CRFC**”), and China Railway Capital Co., Ltd. (“**CRCC**”). These companies actively explore new ways for integrating industry and finance to serve internal financial needs. CRTC 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”. CRFC 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. CRCC 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.

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 Company. 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 Group 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 fluctuation period of commodity prices, it provided reliable material supply guarantee for the Group's production and operation and helped the Group effectively address the price fluctuation risks by making appropriate reserve and locking price in good time.

Infrastructure operation business

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. On the whole, with the dual effect of the national policy of maintaining stable growth and the development concept of "centering on the main business, and promoting the integration of industrial chain resources development" of the Group's investment business, in the first half of the year, the investment business continued to expand into new fields while consolidating its presence in the traditional market, and optimized the investment industry structure, contributing to the upgrade and transformation of the Group.

4.3 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 State-owned Assets Supervision and Administration Commission of the State Council and the All-china Federation of Trade Unions, the Group has 3 national laboratories (National Engineering Research Centre 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 Research and Application of Digital Rail Transit Technology), 44 provincial research and development centers (laboratories), 19 nationally recognized technology centers and 120 provincially recognized technology centers. It has also set up 20 professional R&D centers and invested in the national technology innovation center for Sichuan-Tibet railway.

In the first half of 2022, 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 construction 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 the Ningbo-Zhoushan Railway Xihoumen Highway-Railway Dual-use Bridge, the Qiongzhou Strait Sea-crossing Project, and the Fourth Sea-crossing Bridge of Aoshen and Ruba Cross-sea Bridge in Malaysia, 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 high-altitude and deep-buried complex geological and environmental tunnels. Based on projects such as Sichuan-Tibet Railway, Chengdu-Chongqing Middle Line Ultra-High-speed Railway, Shenzhou-Huizhou Intercity Railway and major equipment such as "Caiyun" and "Longyan" TBMs, "Chunfeng" mud-water balance shields machine, "Yongning" and "Xueyu Xianfeng" hard rock roadheaders, the Group conducted research on key technologies for intelligent monitoring and maintenance in operating tunnel structures, quality improvement and intelligent construction of tunnel engineering. Based on Yinlan high-speed railway, Xilai high-speed railway, Chaoma intercity express line, Phoenix maglev sightseeing express line and other projects, the Group carried out research on intelligent construction technology of communications engineering, signal engineering, electrical engineering and electrification engineering.

4.4 Consolidated Results of Operations

For the six months ended 30 June 2022, the Group's revenue increased by 12.5% from the corresponding period of 2021 to RMB560.587 billion. The Group realized profit for the period of RMB16.825 billion, representing an increase of 17.2% from the same period of last year. For the six months ended 30 June 2022, profit for the period attributable to owners of the Company was 15.126 billion, representing an increase of 15.5% from the same period of last year while the basic earnings per share of the Company were RMB0.551, representing an increase of 21.4% from the same period of last year.

A comparison of the financial results for the six months ended 30 June 2022 and the corresponding period of 2021 is set forth below.

Revenue

In the first half of 2022, the Group's revenue increased year-on-year by 12.5% to RMB560.587 billion, mainly due to the increase in revenue from infrastructure construction business and property development business. Among which, the revenue generated from overseas region was RMB27.729 billion, representing a year-on-year increase of 10.4%.

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 cost), employee compensation and benefits and depreciation and amortization expenses. For the six months ended 30 June 2022, the Group's cost of sales and services increased year-on-year by 12.6% to RMB514.037 billion. In the first half of 2022, gross profit of the Group increased year-on-year by 11.5% to RMB46.550 billion. The gross profit margin for the first half of 2022 was 8.3%, basically remained the same as 8.4% for the same period of last year.

Other income

The Group's other income primarily consists of dividend income and subsidies from government. For the six months ended 30 June 2022, the Group's other income was RMB1.173 billion, representing a decrease of 23.4% from the same period of last year. It was mainly due to the decrease in dividend income.

Other expenses

The Group's other expenses primarily includes expenditures on research and development. For the six months ended 30 June 2022, other expenses increased by 22.3% to RMB8.980 billion from the same period of last year. Such increase was mainly due to the Group's continuous advancement on scientific research and technological innovation and further increased 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. For the six months ended 30 June 2022, the Group's net impairment losses on financial assets and contract assets was RMB1.413 billion, representing a year-on-year increase of 2.2%. It was mainly due to the increase in impairment losses on trade and other receivables.

Other gains, net

The Group's net other gains 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 net other gains for the first half of 2022 was RMB735 million (first half of 2021: RMB6 million), which mainly includes deemed disposal gains of interest in associates of RMB504 million and foreign exchange gains of RMB454 million.

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 notes ("ABN") and asset-backed securities ("ABS") issuance, non-recourse factoring agreements and bills receivables discounting arrangements. In the first half of 2022, the Group's losses from derecognition of financial assets at amortised cost was RMB1.592 billion, representing a year-on-year increase of 7.1%. For the six months ended 30 June 2022, the Group transferred trade receivables of RMB23.643 billion and RMB3.937 billion under the issuance of ABN and ABS and non-recourse factoring agreements, respectively (first half of 2021: RMB21.678 billion and RMB6.925 billion, respectively).

Selling and marketing expenses

The Group's selling and marketing expenses primarily consist of employee compensation and benefits, and advertising costs. For the six months ended 30 June 2022, the Group's selling and marketing expenses was RMB2.706 billion, representing an increase of 14.1% from the same period of last year. It was mainly due to the increase in selling and commission expense of property development business and the increase of investment in marketing resulting from the Group's strengthened effort in business development. Selling and marketing expenses as a percentage of total revenue was 0.5% for the first half of 2022, basically remained the same as that for the same period of last year.

Administrative expenses

The Group's administrative expenses mainly consist of employee compensation and benefits and depreciation and amortization of its assets related to administration. For the six months ended 30 June 2022, the Group's administrative expenses was RMB12.512 billion, basically remained the same as that for the same period of last year. Administrative expenses as a percentage of total revenue for the first half of 2022 was 2.2%, representing a decrease from 2.5% for the first half of 2021.

Finance costs, net

For the six months ended 30 June 2022, the Group's net finance costs (finance costs less finance income) was RMB845 million, representing an increase of 12.4% from the same period of last year. It was mainly due to the increase in interest expense brought by the increase in balance of interest-bearing liabilities as compared to the same period of last year.

Profit before income tax

As a result of the foregoing factors, the Group's profit before income tax for the six months ended 30 June 2022 increased by 18.9% to RMB21.897 billion from RMB18.412 billion for the corresponding period of 2021.

Income tax expense

For the six months ended 30 June 2022, the Group's income tax expense was RMB5.072 billion, representing an increase of 24.9% from the same period of last year. By excluding the effect of land appreciation tax, the effective income tax rate of the Group was 19.2% for the first half of 2022, increasing 0.9 percentage point from 18.3% for the same period of last year.

Profit for the period attributable to owners of the Company

The profit for the period attributable to owners of the Company for the six months ended 30 June 2022 increased by 15.5% to RMB15.126 billion from RMB13.095 billion for the same period of 2021. The profit margin of the profit for the period attributable to owners of the Company for the first half of 2022 was 2.7%, increasing 0.1 percentage point from 2.6% for the same period of 2021.

4.5 Segment Results

The revenue and results of each segment of the Group's business for the six months ended 30 June 2022 are set forth in the table below.

Business segment	Revenue <i>RMB million</i>	Growth rate <i>(%)</i>	Profit/(loss) before income tax <i>RMB million</i>	Growth rate <i>(%)</i>	Profit/(loss) before income tax margin ¹ <i>(%)</i>	Revenue as a percentage of total <i>(%)</i>	Profit/(loss) before income tax as a percentage of total <i>(%)</i>
Infrastructure Construction	495,908	7.9	19,517	16.3	3.9	83.3	83.9
Survey, Design and Consulting Services	9,232	19.9	937	34.0	10.1	1.5	4.0
Engineering Equipment and Component Manufacturing	16,767	1.8	1,110	(3.6)	6.6	2.8	4.8
Property Development	23,709	67.9	(2,296)	346.7	(9.7)	4.0	(9.9)
Other Businesses	50,314	11.7	4,014	71.5	8.0	8.4	17.2
Inter-segment Eliminations and Adjustments	(35,343)		(1,385)				
Total	560,587	12.5	21,897	18.9	3.9	100.0	100.0

¹ Profit/(loss) before income tax margin is the profit/(loss) before income tax divided by revenue.

Infrastructure construction

Revenue from the Group's infrastructure construction business is mainly derived from railway, highway and municipal works construction. Revenue from the operation of the infrastructure construction business continues to account for a high percentage of total revenue of the Group. In the first half of 2022, the revenue from the infrastructure construction business accounted for 83.3% of the total revenue of the Group (first half of 2021: 84.7%). In the first half of 2022, the Group coordinated and promoted various tasks of production and operation, accelerated the progress of production and operation, and proceeded steadily and orderly. Revenue of the infrastructure construction business for the six months ended 30 June 2022 was RMB495.908 billion, an increase of 7.9% as compared to the same period of last year. Gross profit margin and profit before income tax margin of the infrastructure construction segment for the first half of 2021 was 7.3% and 3.9% respectively (first half of 2021: 7.0% and 3.7% respectively). Such increase was mainly due to the increase in proportion of revenue from highway and municipal works business with higher profitability.

Survey, design and consulting services

Revenue from 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 the first half of 2022, the Group's survey, design and consulting services business developed continuously and steadily and its revenue recorded RMB9.232 billion, increased by 19.9% as compared to the same period of last year. For the first half of 2022, gross profit margin and profit before income tax margin for the segment was 27.4% and 10.1% respectively (first half of 2021: 26.5% and 9.1% respectively). Such decrease was mainly due to the decrease in scale of projects with lower profitability.

Engineering equipment and component manufacturing

Revenue from 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 engineering machinery. For the first half of 2022, the Group seized the dividends of the "stable growth" policy and the development opportunities of the equipment manufacturing industry, and continued to strengthen efforts in market development. Revenue of the engineering equipment and component manufacturing business of the Group increased by 1.8% year-on-year to RMB16.767 billion for the six months ended 30 June 2022. Gross profit margin and profit before income tax margin for the first half of 2022 was 19.3% and 6.6% respectively, basically remained the same as 19.5% and 7.0% for the first half of 2021, respectively.

Property development

In the first half of 2022, the Group paid close attention to changes in policies and market conditions, accelerated the delivery of houses and destocking. For the six months ended 30 June 2022, revenue of property development business increased by 67.9% year-on-year to RMB23.709 billion. Gross profit margin and profit before income tax margin for the first half of 2022 was 4.7% and -9.7% respectively (first half of 2021: 16.0% and -3.6% respectively). Such decrease was mainly due to ① selling price of certain projects were adjusted as a result of market downturn. ② profitability of the current period was affected by the changes in revenue mix in the reporting period.

Other businesses

In the first half of 2022, the Group has progressively implemented the “limited and interrelated” diversification strategy. Revenue of other businesses increased year-on-year by 11.7% to RMB50.314 billion for first half of 2022. In the first half of 2022, gross profit margin and profit before income tax margin were 16.6% and 8.0% respectively (first half of 2021: 19.5% and 5.2% respectively). Details are as follows: 1) revenue from infrastructure operation business increased year-on-year by 89.2% to RMB1.741 billion with gross profit margin increased year-on-year by 8.9 percentage points to 18.2%; 2) revenue from mining business increased year-on-year by 56.0% to RMB4.298 billion with gross profit margin increased year-on-year by 1.9 percentage points to 55.3%; 3) revenue from merchandise trading business increased year-on-year by 7.7% to RMB35.459 billion with gross profit margin decreased year-on-year by 4.0 percentage points to 2.4%; 4) revenue from financial business decreased year-on-year by 10.1% to RMB2.044 billion.

4.6 Cash Flow

For the six months ended 30 June 2022, the net cash outflow from operating activities of the Group amounted to RMB37.716 billion, a decrease of net cash outflow from operating activities of RMB58.879 billion for the first half of 2021. It was mainly because the Group actively utilized the “steady growth” measures introduced by the State to speed up the recovery of funds, and at the same time strengthened cash flow control and strived to improve the funding position. For the six months ended 30 June 2022, the net cash outflow from investing activities of the Group amounted to RMB31.601 billion, an increase of net cash outflow from investing activities of RMB26.095 billion for the first half of 2021. It was mainly due to the increase of investment in infrastructure investment projects. For the six months ended 30 June 2022, the net cash inflow from financing activities of the Group amounted to RMB76.022 billion, an increase in the net cash inflow from financing activities of RMB64.419 billion for first half of 2021. It was primarily due to the increase in external financing.

Capital expenditure

The capital expenditure of the Group primarily comprises expenditure on purchases of equipment, upgrading of the Group’s production facilities and investments in PPP projects under the intangible asset mode. The Group’s capital expenditure for the first half of 2022 was RMB54.802 billion (among which, RMB18.590 billion is for purchase of intangible assets, RMB2.940 billion is for purchase of fixed assets, and RMB32.359 billion is for construction in progress), representing an increase of 181.09% as compared to RMB19.496 billion for the same period of last year. Such increase was mainly due to the increase of construction in progress of RMB28.53 billion arising from the acquisition of the equity interest in Yunnan Dianzhong Water Diversion Engineering Co., Ltd. during the reporting period.

Working capital

	As at	
	30 June 2022	31 December 2021
	<i>RMB million</i>	<i>RMB million</i>
Inventories	65,969	45,371
Trade and bills receivables	192,156	157,025
Trade and bills payables	441,890	405,520
Turnover of inventory (<i>days</i>)	19	16
Turnover of trade and bills receivables (<i>days</i>)	56	50
Turnover of trade and bills payables (<i>days</i>)	148	147

As at 30 June 2022, the Group's inventories was RMB65.969 billion, increased by 45.4% as compared to the end of 2021. Such increase was mainly due to the increase in reserve of construction materials for ensuring the production progress of the project and coping with the rising price of raw materials. The inventory turnover days for the first half of 2022 increased to 19 days from 16 days for the year of 2021.

Trade and bills receivables

As at 30 June 2022, trade and bills receivables was RMB192.156 billion, an increase of 22.4% from RMB157.025 billion as at the end of 2021. Such increase was mainly due to ① the normal increase in balance of trade and bills receivable resulting from the increase in operating scale; ② slow down in repayment from certain project owners. The turnover days of trade and bills receivables increased from 50 days for 2021 to 56 days for the first half of 2022. According to the ageing analysis of the 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 21.5% (31 December 2021: 24.5%) of the total amount, reflecting 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 30 June 2022 and 31 December 2021, based on invoice date.

	As at	
	30 June 2022	31 December 2021
	<i>RMB million</i>	<i>RMB million</i>
Less than 1 year	150,927	118,517
1 year to 2 years	16,586	14,919
2 years to 3 years	9,417	10,297
3 years to 4 years	5,753	4,562
4 years to 5 years	2,155	1,407
More than 5 years	7,318	7,323
Total	192,156	157,025

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. As at 30 June 2022, the Group's trade and bills payables was RMB441.890 billion, an increase of 9.0% from the end of 2021. The main reason is the expansion of business scale led to a normal increase in trade payables. The turnover days of trade and bills payables for the first half of 2022 was 148 days, basically remained the same as 147 days for 2021. According to the ageing analysis of the 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 9.4% (31 December 2021: 8.6%) of the total amount.

The following table sets forth the ageing analysis of the Group's trade and bills payables as at 30 June 2022 and 31 December 2021, based on invoice date.

	As at	
	30 June 2022	31 December 2021
	<i>RMB million</i>	<i>RMB million</i>
Less than 1 year	400,411	370,538
1 year to 2 years	22,799	19,622
2 years to 3 years	9,133	9,274
More than 3 years	9,547	6,086
Total	<u>441,890</u>	<u>405,520</u>

4.7 Borrowings

The following table sets forth the Group's total borrowings as at 30 June 2022 and 31 December 2021.

	As at	
	30 June 2022	31 December 2021
	<i>RMB million</i>	<i>RMB million</i>
Bank borrowings		
Secured	96,572	81,976
Unsecured	214,195	152,824
	310,767	234,800
Long-term debentures, unsecured	50,512	55,007
Other borrowings		
Secured	3,320	1,992
Unsecured	22,297	20,128
Total	<u>386,896</u>	<u>311,927</u>
Long-term borrowings	252,915	198,503
Short-term borrowings	133,981	113,424
Total	<u>386,896</u>	<u>311,927</u>

As at 30 June 2022, the Group's long-term borrowings was RMB252.915 billion, representing an increase of 27.4% from the end of 2021. It was mainly due to the increase in loans for infrastructure investment projects as construction progressed. As at 30 June 2022, the Group's short-term borrowings was RMB133.981 billion, representing an increase of 18.1% from the end of 2021, mainly due to the fulfillment of liquidity needs. The Group is generally capable of making timely repayments.

Bank borrowings carry interest rates ranging from 0.75% to 6.90% per annum (31 December 2021: 0.75% to 9.50%). Long-term debentures carry fixed interest rates ranging from 2.28% to 4.80% per annum (31 December 2021: 2.14% to 4.50%). Other borrowings carry interest rates ranging from 3.00% to 6.90% per annum (31 December 2021: 2.35%). For the first half of 2022, the average cost of financing was 3.85%, representing a year-on-year decrease of 0.29 percentage point.

The following table sets forth the maturity of the Group's borrowings as at 30 June 2022 and 31 December 2021.

	As at	
	30 June 2022	31 December 2021
	<i>RMB million</i>	<i>RMB million</i>
Less than 1 year	133,981	113,424
1 year to 2 years	38,363	31,351
2 years to 5 years	77,465	64,552
More than 5 years	137,087	102,600
	<hr/>	<hr/>
Total	<u>386,896</u>	<u>311,927</u>

As at 30 June 2022 and 31 December 2021, the Group's bank borrowings comprised floating-rate bank borrowings amounting to RMB201.954 billion and RMB156.440 billion, respectively. The Group's borrowings are primarily denominated in Renminbi and foreign currency borrowings are primarily denominated in U.S. dollars.

The following table sets forth the details of the Group's secured borrowings as at 30 June 2022 and 31 December 2021.

	As at 30 June 2022		As at 31 December 2021	
	Secured borrowings	Carrying value of pledged assets	Secured borrowings	Carrying value of pledged assets
	<i>RMB million</i>	<i>RMB million</i>	<i>RMB million</i>	<i>RMB million</i>
Property, plant and equipment	1,837	4,695	295	1,715
Intangible assets	54,171	82,614	45,894	64,728
Properties under development for sale	6,885	17,436	7,699	30,698
Trade and bills receivables	19	19	221	221
Trade receivables from fellow subsidiaries of the Group	24	375	34	375
Contract assets	34,515	60,444	29,825	48,320
Total	97,451	165,583	83,968	146,057

Besides, the Group has secured borrowings, with amount of RMB2,441 million, were secured by the future collection right of the subsidiaries of the Group.

As at 30 June 2022, the Group's unused credit line facilities from banks amounted to approximately RMB1,304.973 billion (31 December 2021: RMB1,201.491 billion).

As at 30 June 2022, the Group's gearing ratio (total liabilities/total assets) was 74.1%, an increase of 0.4 percentage point from 73.7% as at 31 December 2021.

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	
	30 June 2022	31 December 2021
	<i>RMB million</i>	<i>RMB million</i>
Pending lawsuits <i>(Note 1)</i>		
– arising in the ordinary course of business	5,388	5,256

Note 1: The Group has been named 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 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 feasibility analysis and argument 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, and the scale risk brought about by the increase in the Group's investment projects; 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 engineering 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 Overview of General Meeting

Session of meeting	Date of meeting	References of designated websites for the publication of resolutions	Date of publication of the resolutions
2021 First H Share Class Meeting	12 January 2022	China Securities Journal, Shanghai Securities News, Securities Daily, Securities Times and the website of the Shanghai Stock Exchange	13 January 2022
		The website of the Hong Kong Stock Exchange	12 January 2022
2021 Annual General Meeting	22 June 2022	China Securities Journal, Shanghai Securities News, Securities Daily, Securities Times and the website of the Shanghai Stock Exchange	23 June 2022
		The website of the Hong Kong Stock Exchange	22 June 2022

Description of the general meeting:

1. On January 12, 2022, the company held the 2021 First H Share Class Meeting with onsite voting. During the meeting, “Proposal on the 2021 Restricted Share Incentive Scheme of China Railway Group Limited (Draft) and its Summary” and other proposals were reviewed and approved and resolutions were formed. The announcement of the resolutions was published in China Securities Journal, Shanghai Securities News, Securities Daily and Securities Times and on the website of the Shanghai Stock Exchange on 13 January 2022 and on the website of Hong Kong Stock Exchange on 12 January 2022.
2. The 2021 annual general meeting of the Company was held on 22 June 2022 with a combination of onsite meeting and online voting. During the meeting, “Proposal on the Report of the Board of Directors of the Company for the Year Ended 31 December 2021”, “Proposal on Amendments to the Articles of Association of the Company” and other proposals were reviewed and approved and resolutions were formed. The announcement of the resolutions was published in China Securities Journal, Shanghai Securities News, Securities Daily and Securities Times and on the website of the Shanghai Stock Exchange on 23 June 2022 and on the website of Hong Kong Stock Exchange on 22 June 2022.

5.2 The Plan for Profit Distribution or Capitalisation of Capital Reserves

5.2.1 The interim plan for profit distribution and capitalisation of capital reserves

Whether distributed or capitalised	No
Number of bonus shares for every 10 shares (share)	0
Dividend amount per 10 shares (RMB) (tax inclusive)	0
Number of shares capitalised for every 10 shares (share)	0
Information on the plan for profit distribution or capitalisation of capital reserves	Not applicable

5.2.2 Formulation and implementation of the cash dividend policy

Profits are distributed in cash under the profit distribution plan of the Company for 2021. Pursuant to the profit distribution plan considered and passed at the 2021 annual general meeting convened on 22 June 2022, a cash dividend of RMB1.96 (tax inclusive) per 10 shares based on the total share capital of 24,741,653,683 shares of the Company as at 30 March 2022 was declared by the Company, totaling RMB4,849,364,121.87 (tax inclusive) and representing approximately 17.5% of net profit attributable to the listed company’s shareholders under the consolidated financial statements for the year of 2021 of the Company. The announcement on the profit distribution of H shares was published on 7 July 2022 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 22 July 2022 in China Securities Journal, Shanghai Securities News, Securities Times, Securities Daily and on the website of Shanghai Stock Exchange (www.sse.com.cn). As at 9 August 2022, the implementation of the profit distribution plan of the Company for 2021 has been completed.

5.3 Share Incentive Scheme, Employee Stock Ownership Plan and Other Incentive Measures and the Impacts Thereof

5.3.1 Share incentives which were disclosed in announcement without subsequent progress or changes

Matter overview

At the 2021 first H share class meeting, the Proposal on the 2021 Restricted Share Incentive Scheme (Draft) and its Summary of China Railway Group Limited, the Proposal on the Appraisal Management Measures for Implementation 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 Group 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 were considered and approved.

Query index

For details, please refer to the Announcement on Resolutions of 2021 First H Share Class Meeting of China Railway Group Limited disclosed on 13 January 2022.

Matter overview

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) of China Railway Group Limited were fulfilled. According to the authorization of the 2021 second extraordinary general meeting, the 2021 first A share class meeting and the 2021 first H share class 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 issued by Jia Yuan Law Offices on Matters related to the Grant of Restricted Shares of 2021 Restricted Share Incentive Scheme of China Railway Group Limited which were disclosed on 18 January 2022.

Matter overview

Query index

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 China Securities Depository and Clearing Corporation Limited (“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.

For details, please refer to the Announcement on Results of the First Grant of the 2021 Restricted Share Incentive Scheme of China Railway, which was disclosed on 25 February 2022.

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

Not applicable

5.4 Performance Status of Undertakings

5.4.1 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 or continuing during 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	Whether duly performed	If not duly performed, describe the specific reasons	If not duly performed, 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.	None	No	Yes	/	/
Undertakings related to refinancing	Others	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.	Long-term	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 China Railway Hi-Tech Industry Co., Ltd. (“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) published 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.*
2. *The Company issued the Letter on Modifying the Undertakings on Certain Contingencies to CRHIC on 25 November 2020, pursuant to which, the performance term of the undertaking in relation to apply for ownership certificates for defective real estate was changed to long term, which was considered and approved by the first extraordinary general meeting for 2020 of CRHIC on 25 December 2020. For details of the relevant undertakings, please refer to the Announcement of CRHIC on Modifying the Performance Term of Undertakings on Certain Contingencies by the Controlling Shareholder of CRHIC published at the website of Shanghai Stock Exchange (<http://www.sse.com.cn>) on 8 December 2020. The Company is currently duly complying with all the undertakings.*
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) published 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.*
4. *When acquiring the control of CRPCC, the Company and CREC respectively issued the Undertakings on Avoiding Horizontal Competition with Beijing Hengtong Innovation Luxwood Technology Co Ltd., the Undertakings on Regulating the Related Party Transactions with Beijing Hengtong Innovation Luxwood Technology Co Ltd., and the Undertakings on Ensuring the Independence of Beijing Hengtong Innovation Luxwood Technology Co Ltd. The Company and CREC are currently duly complying with all the undertakings.*
5. *When spinning off and listing CRHEEC on the STAR Market, the Company and CREC respectively issued the Undertakings on Avoiding Horizontal Competition, the Undertakings on Reducing and Regulating the Related Party Transactions, and the Undertakings on Covering the Diluted Immediate Return. For details of the relevant undertakings, please refer to the Plan for China Railway Group Limited on the Spin-off of Its Subsidiary China Railway Highspeed Electrification Equipment Corporation Limited to Go Listing on the STAR Market published on the website of the Shanghai Stock Exchange on 30 April 2020. The Company and CREC are currently duly complying with all the undertakings.*

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

Not applicable

5.6 Illegal Guarantee

Not applicable

5.7 Auditors

5.7.1 Appointment and removal of auditors

Resolutions including the Resolution on the Appointment of Auditors for 2022 and Resolution on the Appointment of Internal Control Auditors for 2022 were considered and passed at the fourteenth meeting of the fifth session of the Board of Directors held on 29 and 30 March 2022. For details of the appointment of auditors, please see the Announcement of China Railway Group Limited on Re-appointment of Auditors published on the website of the Shanghai Stock Exchange on 31 March 2022. These resolutions were then considered and passed at the 2021 annual general meeting of the Company on 22 June 2022. The Company has engaged PricewaterhouseCoopers Zhong Tian LLP and PricewaterhouseCoopers Zhong Tian LLP as the auditors of the Company for 2022 and engaged PricewaterhouseCoopers Zhong Tian LLP as the internal control auditor for 2022. For details, please refer to the Announcement of China Railway Group Limited on Resolutions of Annual General Meeting of 2021 disclosed by the Company on the website of the Shanghai Stock Exchange on 23 June 2022.

5.7.2 Explanation of the company on the “Modified Audit Report” from auditors

Not applicable

5.8 Changes in and handling of the matters related to the qualified auditing opinions in the annual report for the previous year

Not applicable

5.9 Matters Relating to Insolvency or Restructuring

Not applicable

5.10 Material Litigation and Arbitration

The Company had no material litigation or arbitration during the reporting period.

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

Not applicable

5.12 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 requirements 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.

5.13 Significant Related Party Transactions

5.13.1 Related party transactions in ordinary course of business

- (i) Matters which were disclosed in an announcement without subsequent progress or changes

Not applicable

- (ii) Matters which were disclosed in an announcement with subsequent progress or changes

Unit: Thousand Currency: RMB

Related Party	Related relationship	Type of related party transaction	Particulars of 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 subsidiaries of the parent company	Leasing service	Lease of office premises, etc.	Contract price	3,278	3,278	Less than 1%
China Railway State Assets Management Co., Ltd.	Wholly-owned subsidiaries of the parent company	Receipt of labor services	Receipt of comprehensive services	Contract price	9,671	9,671	Less than 1%
Total					<u>12,949</u>	<u>12,949</u>	

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 30 December 2021. The terms of both agreements are three years. The total transaction amount involved was within the decision-making authority of the Board and was considered and approved at the 12th meeting of the fifth session of the Board, 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.

- (iii) Matters undisclosed in announcement

Not applicable

5.13.2 Related party transactions in relation to acquisition and disposal of assets or equity interests

- (i) Matters which were disclosed in an announcement without subsequent progress or changes

Not applicable

- (ii) Matters which were disclosed in an announcement with subsequent progress or changes

Not applicable

- (iii) Matters undisclosed in announcement

Not applicable

- (iv) Discloseable performance for the reporting period of related party transactions with agreed-upon performance targets

Not applicable

5.13.3 Significant related party transactions in relation to joint external investment

- (i) Matters which were disclosed in an announcement without subsequent progress or changes

Not applicable

- (ii) Matters which were disclosed in an announcement with subsequent progress or changes

Not applicable

- (iii) Matters undisclosed in announcement

Not applicable

5.13.4 Amounts due from/to related parties

- (i) Matters which were disclosed in an announcement without subsequent progress or changes

Not applicable

- (ii) Matters which were disclosed in an announcement with subsequent progress or changes

Not applicable

- (iii) Matters undisclosed in announcement

Not applicable

5.13.5 Financial business between the Company and the finance company with 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 China Railway Finance Co., Ltd.. The Proposal on the Related Party Financial Services Framework Agreement between China Railway Finance Co., Ltd. and China Railway Engineering Group Co., Ltd. was considered and adopted at the 12th meeting of the fifth session of the Board convened by the Company on 22 December 2021, 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 2024) 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 31 December 2021 disclosed on the website of the Shanghai Stock Exchange. During the reporting period, the daily deposit balance (including interest accrued) of CREC and its subsidiaries with China Railway Finance Co., Ltd. did not exceed the maximum amount stipulated in the Financial Services Framework Agreement; the maximum daily loan balance (including interest accrued) obtained by CREC and its subsidiaries from China Railway Finance Co., Ltd. did not exceed the maximum amount stipulated in the Financial Services Framework Agreement; and the service fee collected by China Railway Finance Co., Ltd. from CREC and its subsidiaries for other financial services did not exceed the maximum amount stipulated in the Financial Services Framework Agreement.

(i) Deposit business

Unit: Thousand Currency: RMB

Related Party	Related relationship	Maximum daily deposit limit	Range of deposit interest rate	Opening balance	Amount for the current period		Closing balance
					Total deposits for the current period	Total withdrawals for the current period	
CREC	Parent company		1.265%	127,147	1,690,462	1,360,264	457,345
China Railway State Assets Management Co., Ltd.	Wholly-owned subsidiaries of the parent company	20,000,000	1.265%	591,196	439,047	980,293	49,950
Party school of China Railway Engineering Group Co., Ltd.	Wholly-owned subsidiaries of the parent company		1.265%	29,972	15,132	27,543	17,561
Total				<u>748,315</u>	<u>2,144,641</u>	<u>2,368,100</u>	<u>524,856</u>

(ii) Loan business

Unit: Thousand Currency: RMB

Related Party	Related relationship	Line of credit	Range of loan interest rate	Opening balance	Amount for the current period		Closing balance
					Total loans for the current period	Total repayments for the current period	
CREC	Parent company	5,000,000	3.3%-3.45%	980,000	1,100,000	750,000	1,330,000
Total				<u>980,000</u>	<u>1,100,000</u>	<u>750,000</u>	<u>1,330,000</u>

(iii) Credit granting business or other financial business

Unit: Thousand Currency: RMB

Related Party	Related relationship	Business type	Total	Amount incurred
CREC	Parent company	Comprehensive credit granting	5,000,000	1,330,000
Total			5,000,000	1,330,000

(iv) Others

Unit: Thousand Currency: RMB

Item	Related Party	Amount for the current period	Amount of the corresponding period last year
Interest income	CREC	22,785	34,515
Interest expenses	CREC	3,581	6,384
Interest expenses	China Railway State Assets Management Co., Ltd.	822	1,097
Interest expenses	Party school of China Railway Engineering Group Co., Ltd.	98	2

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 and China Railway State Assets Management Co., Ltd. and party school of CREC for deposit-taking.

5.13.6 Other significant related party transactions

Unit: Thousand Currency: RMB

Guarantor	Secured party	Guarantee amount	Guarantee start date	Guarantee expiration date	Whether the guarantee has been fulfilled
CREC	China Railway	3,500,000	October 2010	April 2026	No

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) issued by the Company in October 2010. In accordance with the agreement on the guarantee period in the Company's "Prospectus for Public Offering of Corporate Bonds", the guarantor shall assume the guarantee liability during the period from the first day of issuance of the bonds to six months after the maturity date of the bonds. As of 30 June 2022, the guarantee liability undertaken by CREC as the guarantor of the 15-year 2010 Corporate Bonds (Tranche 2) has not expired. As at 30 June 2022, the remaining payable amount of the above-mentioned bonds was RMB3,603,363 thousand (31 December 2021: RMB3,524,444 thousand). For details, please refer to the financial statements.

5.14 Material Contracts and Their Performance

5.14.1 Trusteeship, contracting and leasing

Not applicable

5.14.2 Material guarantees performed and not performed during the reporting period

Unit: 0'000 Currency: RMB

Guarantees provided by the Company (excluding the guarantees to subsidiaries)													
Guarantor	Relationship between guarantor and the listed company	Secured party	Commencement			Type of guarantee	Main debt condition (if any)	Guarantee		Counter guarantee available	Guarantee provided to related parties		
			Guarantee amount	date of the guarantee agreement)	Commencement date of guarantee			fully performed	overdue				
China Railway	The Company	Linha Railway Co., Ltd.	41,789.00	30 June 2008	30 June 2008	20 June 2027	Joint and several liability	Normal performance	No	No	Yes	No	/
China Railway No.4 Engineering subsidiary Group Co., Ltd.	Wholly-owned subsidiary	Xuzhou Yingbin Expressway Construction Co., Ltd.	119,000.00	22 October 2018	30 October 2018	29 October 2028	Joint and several liability	Normal performance	No	No	None	No	/
China Railway No.5 Engineering subsidiary Group Co., Ltd.	Wholly-owned subsidiary	Qinghai Minmetals China Railway Highway Construction Management Co., Ltd.	14,850.00	14 January 2020	14 January 2020	30 December 2045	Joint and several liability	Normal performance	No	No	None	No	/
China Railway No.5 Engineering subsidiary Group Co., Ltd.	Wholly-owned subsidiary	Jiangxi Chengke Yunchuang Real Estate Co., Ltd.	3,900.00	22 September 2021	22 September 2021	21 September 2029	Joint and several liability	Normal performance	No	No	None	No	/

Guarantees provided by the Company (excluding the guarantees to subsidiaries)

Guarantor	Relationship between guarantor and the listed company	Secured party	Commencement		Guarantee amount	Guarantee (date of the agreement)	Commencement date of guarantee	Expiry date of guarantee	Type of guarantee	Main debt condition (if any)	Guarantee fully performed	Guarantee overdue	Overdue amount	Counter guarantee available	Guarantee provided to related parties	Related relationship
China Railway No.10 Engineering Group Co., Ltd.	Wholly-owned subsidiary	Chongqing CREC Renzhi Pension Industry Co., Ltd.	50,000.00	12 January 2017	12 January 2017	30 November 2024	Joint and several liability guarantee	Normal performance	None	No	No	-	None	No	No	/
China Railway Major Bridge Engineering Group Co., Ltd.	Wholly-owned subsidiary	Wuhan Yangsigang Bridge Co., Ltd.	156,604.33	24 December 2015	24 December 2015	27 June 2023	Joint and several liability guarantee	Normal performance	None	No	No	/	None	No	No	/
China Railway Major Bridge Engineering Group Co., Ltd.	Wholly-owned subsidiary	Shantou Nutianyang Expressway Investment Development Co., Ltd.	6,325.93	14 November 2019	14 November 2019	23 August 2039	Joint and several liability guarantee	Normal performance	Equity pledge	No	No	/	None	No	No	/
China Railway Tunnel Group Co., Ltd.	Wholly-owned subsidiary	China Shanghai (Group) Corporation for Foreign Economic & Technological Cooperation	5,691.75	29 December 2012	29 December 2012	30 June 2023	Joint and several liability guarantee	Normal performance	None	No	No	/	None	No	No	/
China Railway Shanghai Engineering Group Co. Ltd.	Wholly-owned subsidiary	Fangchenggang China Railway Diluyuan Investment Development Co., Ltd.	500.00	8 May 2019	8 May 2019	31 December 2030	Joint and several liability guarantee	Normal performance	Equity pledge	No	No	/	None	No	No	/

Guarantees provided by the Company (excluding the guarantees to subsidiaries)

Guarantor	Relationship between guarantor and the listed company	Secured party	Commencement date of guarantee		Expiry date of guarantee	Type of guarantee	Main debt condition (if any)	Collateral	Guarantee fully performed	Guarantee overdue amount	Counter guarantee available	Guarantee provided to related parties	Related relationship
			Guarantee amount	(date of the agreement)	date of guarantee	guarantee							
China Railway International Group Co., Ltd.	Wholly-owned subsidiary	MontagProp Proprietary Limited	6,195.00	3 July 2015	3 July 2015	Joint and several liability guarantee	Normal performance	None	No	/	None	No	/
China Southern Investment Group Co., Ltd	Wholly-owned subsidiary	Shantou Nutrianyang Expressway Investment Development Co., Ltd.	301,934.26	30 August 2019	30 August 2019	Joint and several liability guarantee	Normal performance	Equity pledge	No	/	None	No	/

Total amount of guarantees incurred during the reporting period (excluding the guarantees provided to subsidiaries)

Total balance of guarantees as at the end of the reporting period (A) (excluding the guarantees provided to subsidiaries)

Guarantees provided by the Company to its subsidiaries

Total amount of guarantees provided to subsidiaries during the reporting period

Total balance of guarantees provided to subsidiaries at the end of the reporting period (B)

Total amount of guarantees provided by the Company (including the guarantees for subsidiaries)

Total amount of guarantees (A+B)

Percentage of total guarantees over the net assets of the Group (%)

Of which:

Amount of guarantees provided to shareholders, de facto controller and their related parties (C)

Amount of debt guarantees directly or indirectly provided to the parties with the gearing ratio exceeding 70% (D)

Total amount of guarantees exceeding 50% of net assets (E)

Total amount of the above three types of guarantees (C+D+E)

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

Explanations on guarantees

1. The total amount of guarantee included the shortfall payments given to the senior tranches in respect of the issuance of ABN&ABS of RMB99,794,6370 million.

2. As at 30 June 2022, the balance of guarantee of China Railway Group Limited (consolidated) in relation to real estate mortgage was RMB48,666.6994 million.

5.14.3 Other material contracts

(i) Infrastructure construction business

No.	Signatory	Name of Contract	Date of signature	Contract sum (RMB'0,000)	Construction period
Railway business					
1	China Railway Shanghai, China Railway No. 1 Engineering, China Railway No. 4 Engineering	Construction for bid 2, bid 3 and bid 4 of Huaibei - Suzhou - Bengbu Intercity Railway station in Huaibei - Suzhou - Bengbu Intercity Railway Project	March 2022	746,938	1,461 days
2	China Railway Construction, China Railway No. 8 Engineering	Bids CQDZZF-2 and CQDZZF-3 of New Chongqing East Railway station building and supporting comprehensive transportation hub project for Chongqing – Guizhou Railway	May 2022	636,634	1,096 calendar days
3	China Railway Beijing, China Railway No. 10 Engineering	Unit cost contracting for construction of bids BYZQ-06 and BYZQ-09 of new station and building construction for Linhe to the provincial boundary section of Baotou - Yinchuan high-speed railway	March 2022	530,663	1,401 calendar days

No.	Signatory	Name of Contract	Date of signature	Contract sum (RMB'0,000)	Construction period
Highways business					
1	China Railway No. 4 Engineering, China Railway Tunnel	Franchising project tenders for social investors for Laoying - Banqiao section rerouting project of Yunnan Dabao Expressway, Changning to Lianzi Bridge Expressway, and Midu to Changning Expressway (Baoshan section)	June 2022	735,000	Implemented by 3 sections, 3-5 years for each section
2	China Railway No. 7 Engineering	General contracting for construction of Da Wulan - Leng Kou (Qintang Boundary) Highway	June 2022	281,090	24 months
3	China Railway No. 1 Engineering	General contracting for design and construction of Qiantun bend to old Cheyenne Line construction project for Tonghua to Wuhan Highway of National Road G230	May 2022	213,877	21 months
Municipal works and others					
1	China Railway No. 7 Engineering	Xinyang Times Square - Beihu Spring Project	March 2022	720,000	By three phases, 720 days for each phase
2	China Railway No. 1 Engineering	Warehouses No. 1 and 2 of Qingdao cold chain, Qihe International Cold Chain Logistics Park construction project	March 2022	527,700	913 days
3	China Railway Beijing	Contracting of development, design, installation and construction of 800WM household PV projects of Zhengzhou Yingtai Energy Development	May 2022	315,200	7 months

(ii) Survey, design and consulting services business

No.	Signatory	Name of Contract	Date of signature	Contract sum (RMB'0,000)	Construction period
1	China Railway Eryuan Engineering	General contracting for survey and design of Urban (suburban) railway Chengdu to Deyang line project	March 2022	48,590	Till the project is completed and accepted
2	China Railway Eryuan Engineering	General contracting for survey and design of Urban (suburban) railway Chengdu to Meishan line project	March 2022	36,739	Till the project is completed and accepted
3	China Railway Consulting	Survey and design of Zhengzhou hub Longhaiwai routing and Xiaolizhuang station project	May 2022	25,139	Till the project is completed and accepted

(iii) Engineering equipment and component manufacturing business

No.	Signatory	Name of Contract	Date of signature	Contract sum (RMB'0,000)
Tunnel Construction Equipment				
1	CRHIC	TBM Purchase and Sales Contract for Pumped Storage Power Station	February 2022	7,389
2	CRHIC	Purchase and sales of shield equipment	April 2022	10,260
Turnout Products				
1	CRHIC	Railway turnout distribution contract	May 2022	4,893
2	CRHIC	Railway high-speed turnout purchase and supply	June 2022	21,916
Manufacturing and installation of steel structures				
1	CRHIC	Manufacturing and installation of steel anchor beam, steel truss beam and auxiliary structure for section HHDQ-3 for the construction of Jinan Yellow River Highway Bridge Extension Project (approach bridge and main bridge section) of G104 JingLan Line	May 2022	50,022
2	CRHIC	Yellow River super high speed bridge steel structure project	June 2022	119,213

(iv) Property development business

(1) Acquisition of land

No.	Project name	Location	Project type	Planned area (sq.m.)
1	Plot D, Shilihetan Phase II, Huaxi District, Guiyang	Guiyang	Residential	294,700
2	Plot 8, Unit Portfolio 105, Lingang New Area, Shanghai	Shanghai	Residential	199,498
3	Plots No. DG1503020 and DG1503021, Nansha District, Guangzhou	Guangzhou	Residential	181,669

(2) Properties held for development

Unit: 10,000 sqm

Name of building or project	Specific address	Current land use	Site area	Floor area	State of completion	Expected completion date	Interests of the Company and its subsidiaries
Sichuan Heilongtan International Ecotourism 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	Commercial, residential	45.47	104.8	Under construction	2027	90%

(3) Properties held for investment

Name	Location	Use	Holding Tenure	Interests of the Company and its subsidiaries
Beijing Nuode Center Phase III Building S1, S2, 16 and 19	No. 1 South Yuren Road, Fengtai District, Beijing	Commercial	November 2054	100%
Tianjin Nuode Center No. 1 Building, No. 2 Building and equipped facilities	No. 50 Lvwei Road, Hebei District, Tianjin	Commercial	January 2054	100%
Chengdu Nuode No. 1	Intersection of Guangxi Road and Huanhu Road, Shuangliu District, Chengdu City, Sichuan Province	Commercial	January 2065	100%
Guangzhou Nuode Center	No. 477 East Hanxi Avenue, Nancun Town, Panyu District, Guangzhou City, Guangdong	Commercial	May 2053	100%
Shanghai Nuode International Plaza	3/5 Block, 219 Lane, Xinzhuang Town, Minhang District, Shanghai	Commercial	March 2064	100%
China Railway Real Estate Qingdao Center	No. 8 Hong Kong Middle Road, South City District, Qingdao, Shandong	Commercial	July 2046	100%
Plot No.AT090904, starting area of International Financial City, Tianhe District	Plot No.AT090904, starting area of International Financial City, Huangpu Avenue, Tianhe District, Guangzhou City, Guangdong	Commercial	December 2068	100%
Reeda Plaza	No. 46 South Shengli Street, Heping District, Shenyang, Liaoning	Commercial	April 2051	100%
China Railway South Headquarters Building	No. 3333 Houhai Center Road, Nanshan District, Shenzhen, Guangdong	Commercial	December 2046	100%
Victoria Nuode Center	Street 45B, Kinondoni District, Dar es Salaam, Tanzania	Commercial	June 2114	100%

(v) 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	Signing date	Construction period	Concession period
1	Investment Agreement for PPP Project of Longsheng-Dongzhong Port Highway (Yizhou to Shanglin Section)	Transportation Department of Guangxi Zhuang Autonomous Region, China Railway Group Limited and other member enterprises of China Railway	166.56	100% held by China Railway and its member enterprises	January 2022	Construction period: 3 years	30 years
2	Investment Agreement for PPP Project of CenXi (Guangdong-Guangxi Boundary) to Daxin Highway (Nanning to Daxin section)	Transportation Department of Guangxi Zhuang Autonomous Region, China Railway Communications Investment Group Co., Ltd. and other member enterprises of China Railway	144.56	100% held by member enterprises of China Railway	April 2022	Construction period: 3 years	30 years
3	Franchise Agreement for Chongqing - Chishui - Xuyong Highway (Chongqing section)	China Railway Group Limited and other member enterprises of China Railway, Chongqing Transportation Bureau, Sichuan Road & Bridge (Group) Corporation Ltd., China 19th Metallurgical Corporation, Chongqing Zhonghuan Construction Co., Ltd., Chongqing Tongli Expressway Maintenance Engineering Co., Ltd., Chongqing Shouxun Technology Co., Ltd.	108.90	43.1% held by member enterprises of China Railway, 45.92% by Chongqing Expressway, 10.98% by other investors	June 2022	Construction period: 4 years	29.5 years

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

No.	Name of Contract	Signatory	Contract sum (RMB 100 million)	Signing date	Time of entering the 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	August 2010	May 2011	30 years
2	PPP project of Phase I of Hohhot Metro Line 1	China Railway and other parties	146.79	September 2016	December 2019	25 years
3	Government and social capital cooperation project of the Xundian-Zhanyi Expressway (Kunming section)	China Railway and other parties	61.1	August 2018	January 2020	30 years
4	PPP project of the Dongchuan-Gele section of the S25 Kunming-Qiaojia Expressway	China Railway and other parties	56.9	April 2017	January 2020	30 years
5	Section 2 of the PPP project of Shijiazhuang Hutuo River ecological restoration (Zhonghua Street to east Gaocheng city)	China Railway and other parties	23.9	February 2019	June 2020	13 years
6	Phase I (section B) of Taiyuan Metro Line 2	China Railway Electrification Engineering Group Co., Ltd. and other parties	60.9	September 2019	December 2020	25 years
7	PPP project of phase I of Xi'an Subway Lintong Line (Line 9)	China Railway and other parties	138.9	September 2017	January 2021	26 years
8	PPP project of Weng'an to Kaiyang section of Jiangkou to Duge Highway, Guizhou	China Railway and other parties	78.1	June 2018	January 2021	30 years
9	PPP project of phase I of Chengdu Metro Line 9	China Railway and other parties	193.9	June 2018	January 2021	22 years
10	PPP project of Zunyi to Yuqing Highway, Guizhou	China Railway and other parties	147.2	September 2017	July 2021	30 years

(vii) Strategic framework agreements signed during the reporting period

No.	Signing date	Agreement name	Main contents of the Agreement
1	March 2022	Strategic Cooperation Agreement between the People's Government of Shandong Province and China Railway Group Limited	<ol style="list-style-type: none"> 1.To establish strategic partnership 2.To cooperate in such key areas as high-speed railways, municipal railways, urban rail transit, ordinary speed railways, highways, airports, ecological governance, water conservancy and hydropower, water supplies and transport, urban construction, new infrastructure and new energy 3.To support China Railway to establish direct subsidiaries in Shandong
2	March 2022	Strategic Cooperation Agreement between Guanghua School of Management of Peking University and China Railway Group Limited	<ol style="list-style-type: none"> 1.To support the development of China Railway 2.To support Guanghua School of Management of Peking University to promote the policy transformation and economic practice of theoretical achievements 3.To carry out scientific cooperation and achievement transformation 4.To carry out talent training and integration of production and education
3	May 2022	Strategic Cooperation Agreement between the People's Government of Tangshan City and China Railway Group Limited	<ol style="list-style-type: none"> 1.To establish long-term strategic partnership 2.To cooperate in such areas as expressway, municipal engineering, rail transit, intercity railway, local railway, water conservancy, environmental protection, urban renewal, comprehensive development of key areas, and new infrastructure
4	April 2022	Strategic Cooperation Agreement between CITIC Group and China Railway Group Limited	<ol style="list-style-type: none"> 1.Cooperation in comprehensive financial field 2.Cooperation in infrastructure field 3.Cooperation in equipment and material manufacturing field 4.Cooperation in ecological and environmental protection field 5.Cooperation in knowledge services, red education, information communication and document management outsourcing fields
5	June 2022	Strategic Cooperation Agreement between China United Network Communications Corporation Limited and China Railway Group Limited	<ol style="list-style-type: none"> 1.IT service and digital transformation field 2.Infrastructure business cooperation field 3.New infrastructure construction field

No.	Signing date	Agreement name	Main contents of the Agreement
6	April 2022	Strategic Cooperation Agreement between China Academy of Building Research and China Railway Group Limited	1.To jointly serve the key development strategies of the state 2.To jointly lead the industry technology development 3.To jointly enhance the in-depth culture exchange 4.Key cooperation projects implemented in priority (1) Internationalization of standards (2) Greening (3) BIM field (4) Intelligent manufacturing and construction (5) Achievement transformation and promotion (6) Urban renewal
7	March 2022	Strategic Cooperation Agreement between China National Pharmaceutical Group Corporation and China Railway Group Limited	1.Health and retirement cooperation 2.Investment, construction and operation management of medical institutions cooperation 3.Pharmaceutical manufacturing and industrial park development cooperation 4.International business development cooperation 5.Duty free business development cooperation 6.Other innovative businesses cooperation 7.Staff welfare cooperation
8	April 2022	Strategic Cooperation Agreement between People's Insurance Company (Group) of China Limited and China Railway Group Limited	1.Resources sharing 2.Construction business cooperation 3.Insurance and annuity business cooperation 4.Investment and financing cooperation
9	June 2022	Strategic Cooperation Agreement between State Power Investment Corporation Limited and China Railway Group Limited	1.To cooperate in market development, green energy and scientific research and innovation fields 2.To promote the cooperation in equipment manufacturing, highway and multi-scene, water conservancy and environmental protection and joint market development fields

5.15 Environmental and Social Responsibilities

5.15.1 Description of environmental protection efforts of the highly polluting companies and their principal subsidiaries as announced by the environmental protection authorities

Not applicable

5.15.2 Description of environmental protection efforts of companies other than highly polluting companies

(i) Administrative penalties due to environmental issues

In the first half of the year, 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 RMB1.1617 million and involved 26 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 the ecological environment around the projects.

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

Not applicable

(iii) Reasons for not disclosing other environmental information

Not applicable

5.15.3 Description of follow-up progress or changes in the disclosure of environmental information during the reporting period

Not applicable

5.15.4 Information on ecological protection, pollution prevention and fulfillment of environmental responsibilities

The Company strictly abode by the Environmental Protection Law of the People's Republic of China, the Law on Energy Conservation of the People's Republic of China, the Regulations on the Administration of Construction Project Environmental Protection and other laws and regulations. The Company thoroughly implemented thoughts on ecological civilization, established the concept of green development, and implemented the policies of the Party Central Committee and the State Council on the construction of ecological civilization and environmental protection. Guided by "Ecological Priority and Green Development", the Company continued to improve the environmental management system and clarified the environmental protection management mode. With regards to environmental management, the Company upheld the principle of "Territorial Management", "Prevention First, Combined with Prevention and Control" and "Who Pollutes, Who Controls". As for the management mode, the Company implemented unified leadership while subsidiaries and branches at each level are responsible, to ensure the orderly and controllable environmental protection. In terms of assessment, the Company earnestly implements the assessment and reward and punishment system for energy resource conservation and ecological environmental protection, strengthens assessment targets, and takes accountability seriously for ecological and environmental protection issues. Based on systematic environmental management, the Company obtained ISO14001 environmental management system certification issued by China Certification Center Co., Ltd.

Continuing to strengthen the identification and evaluation of the environmental factors of projects under construction and workplaces during the reporting period, the Company has formulated and implemented the plan for project environment management, and established a system for monitoring ecological and environmental protection. The Company also strengthened the control over the risk sources and emissions of ecological and environmental pollution during operation, and made consistent efforts to strengthen the supervision and inspection. To meet the requirements of "scientific planning, technical support, ecological protection, safety and reliability", the Company took the opportunity of national key projects including the Sichuan-Tibet Railway, to ensure ecological and environmental protection as planned and designed in these projects with a high starting point, high standard and high quality.

The main types of energy consumed by the Company include electricity, gasoline, diesel, natural gas, etc. during the construction and office processes. The Company has made solid progress in energy conservation and efficiency improvement. In accordance with the requirements of the Measures for Supervision and Management on Energy Conservation and Emission Reduction, the “14th Five-Year Plan” for Energy Conservation and Emission Reduction and the Quantitative Indicators of Energy Conservation and Ecological Environmental Protection in 2022, the Company has determined that the quantitative assessment index of energy conservation in 2022 is that the comprehensive energy consumption per RMB10,000 of operating revenue (comparable price) shall decrease by 3.2% on the basis of 2021, and the carbon dioxide per RMB10,000 of operating revenue (comparable price) shall decrease by 3.89% on the basis of 2021. In accordance with the latest requirements of SASAC on energy conservation and ecological and environmental protection for central enterprises, the Company has also made comprehensive arrangements and implemented relevant work from the aspects of adjusting the management and organizational structure, upgrading the monitoring system, issuing indicators of rewards and punishments for assessment, and carrying out technological research and development.

Key Performance Indicators for Energy and Resource Consumption

Type of energy/resource	Indicator	First half of 2022	First half of 2021	Increase/ Decrease as compared to the same period (%)
Direct energy consumption	Gasoline (10,000 tons)	23.435	22.936	2.18
	Diesel (10,000 tons)	79.098	78.052	1.34
	Natural gas (10,000 cubic meters)	1,550	1,487	4.24
Indirect energy consumption	Electricity (10,000 kWh)	515,550	483,430	6.64
Integrated energy consumption	Integrated energy consumption (10,000 tons of standard coal)	215.16	211.4	1.78
	Integrated energy consumption (ton of standard coal/ RMB10,000)	0.0402	0.043	-6.51
	Integrated energy consumption (10,000 kWh)	515,550	483,430	6.64
	Integrated energy consumption (kWh/income of RMB10,000)	96.27	100.5	-4.21
Water	Total new water consumption (10,000 tons)	13,111.12	12,427.6	5.50

Note: In the first half of 2022, the Company's operating revenue increased, and energy consumption increased accordingly, but the growth rate is lower than that of operating revenue.

5.15.5 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. Since the fourth quarter of 2020, the Central Economic Working Conference, the 5th plenary session of 19th CPC Central Committee and other important meetings have emphasized the carbon neutral task. To implement the national policies on energy conservation and emission reduction, the Company has thoroughly implemented the concept of green development, promoted green planning and design and introduced a full life-cycle green design model. The efforts aim to control energy consumption from the source and integrate the concept of green, low-carbon and ecological design into the entire process of project planning and design. The Company attaches great importance to energy conservation and ecological and environmental protection system construction. **First, the Company has improved the energy conservation and ecological and environmental protection system.** In the first quarter, the Company carried out special improvement work of safety, quality and environmental protection, and put forward new requirements for the improvement of the management system of energy conservation and environmental protection. We plan to revise and improve the current management methods for energy conservation and environmental protection, and promote the overall improvement of the management system and management work of energy conservation and environmental protection. **Second, the Company will ensure the effective operation of the statistical monitoring system for energy conservation and ecological and environmental protection.** The Company attaches great importance to energy conservation and ecological and environmental protection system construction. We have developed the energy conservation and ecological environment protection system of China Railway based on the new energy conservation and emission reduction system standards for central enterprises issued by the SACAC. At present, online filling has become the norm. The Company will pay close attention to the subsequent requirements of the SACAC for energy conservation and environmental protection of central enterprises during the 14th Five-Year Plan period, consolidate and improve the statistical monitoring system, and ensure effective statistics of energy conservation and environmental protection data. **Third, the Company has clarified the targets of energy conservation and ecological environment protection during the 14th Five-Year Plan period.** In the first quarter, the Company calculated energy conservation and environmental protection indicators according to the requirements of the SASAC, developed the recommended values of energy conservation and emission reduction indicators and reported to SASAC, clarified and released the targets of energy conservation and ecological environment protection during the 14th Five-Year Plan period according to the recommended values of the indicators. The Company will carry out strict assessment, reward and punishment, earnestly implement the energy conservation and environmental protection work for the 14th Five-Year plan, so as to ensure the achievement of the set targets. In the first half of 2022, nearly 80 paperless meetings were held at the headquarters of the Company, with a total attendance of about 2500 people, 1,500 meeting documents filed, and about 830,000 sheets of paper saved.

Key Performance Indicators for Emissions and Waste

Indicator	First half of 2022	First half of 2021	Increase/ Decrease as compared to the same period (%)
Total carbon dioxide emissions (10,000 tons)	763.7	732.3	4.29
CO ₂ emission intensity (tons/RMB10,000)	0.1426	0.0675	111.26
NOx emissions (tons)	0.2	0.2	0
Smoke (powder) dust emissions (tons)	3	3	0
SO ₂ (tons)	0	0	0
Total hazardous wastes (tons)	255	260	-1.92
Discharge of hazardous waste per RMB10,000 (kg/ RMB10,000)	0.0045	0.005	-10
Total non-hazardous waste (10,000 tons)	235	240	-2.08
Discharge of non-hazardous waste per RMB10,000 (kg/RMB10,000)	44	49.09	-10.37

Note: The Company attaches great importance to the data statistics of “peak carbon dioxide emission and carbon neutrality” In the first half of 2022, the Company investigated the problems of carbon emission data, comprehensively upgraded the statistical monitoring system, and timely corrected the existing data problems according to the requirements of the SASAC. The emissions of nitrogen oxides, sulfur dioxide, smoke (powder) dust and volatile organic compounds are calculated according to the pollutant discharge permit. The emissions were basically flat with the same period of last year. The Company’s operating revenue increased, and energy consumption and total CO₂ emissions increased accordingly, but the growth rate is lower than that of operating revenue. CRHIC, subsidiary of the Company, has completed the renovation of boilers and other industrial equipment in an orderly manner and purchased new equipment to collect the smoke dust in the manufacturing process and reduce the risk of air pollution.

5.15.6 Details of consolidating the results of poverty alleviation and rural revitalization

Since 2022, guided by the meeting spirits of the CPC Central Committee, the State Council and the SASAC, China Railway has strictly implemented the decision deployments of consolidating poverty alleviation results and effectively linking poverty alleviation with rural revitalization and promoting the 14th Five-Year Plan for Development. Actively adapting to new situations, new tasks, and new changes, focusing on rural revitalization and development, and adhering to the principle of “ensuring effective implementation of all works”, we made every effort to achieve more achievements in rural revitalization, in order to contribute the force of China Railway to the high-quality development of the target regions for support and assistance.

- (I) **Enhancing policy learning and making overall planning and deployment**
Guided by the spirits of the important instructions of General Secretary Xi Jinping, we organized the leadership team members, affiliated departments and units and the temporary cadres for targeted support and assistance to learn the latest policy documents, such as the Guidelines on the Key Work of Comprehensively Promoting Rural Revitalization in 2022, Implementation Plan for Rural Construction Action, Notice on Providing Targeted Support and Assistance in 2022, and earnestly unified our thinking and actions into the decisions and deployments of the CPC Central Committee. We took initiative to follow the new tasks and requirements of the CPC Central Committee, thoroughly researched the needs of the regions we helped, and accurately understood the responsibilities and key tasks of our work. We developed the Report on Targeted Assistance Work in 2021 and Assistance Work Arrangement in 2022 and the Plan for the Use of Funds for Targeted Assistance and Key Assistance Projects in 2022, in order to ensure that targeted assistance work for the year has rules to follow and is practical and efficient.

- (II) **Enhancing the management of temporary cadres and giving full play to their roles as bridges** In accordance with the spirit of the meeting of the CPC Central Committee on the adjustment and collaboration of the relationship between the central enterprises and the partners for targeted assistance to Tibet, in combination with the requirements of the Organization Department of the CPC Central Committee for the selection of cadres to assist Tibet, the Company selected two outstanding temporary cadres to Karuo District of Qamdo City, Tibet, which was newly added as a designated assistance target of the Company. They would serve as deputy district governor and deputy director of the local branch of NDRC respectively. They went to Karuo District in advance to get familiar with the work, and actively connected with the local government and Chinalco Group to prepare for the handover. Finally, on 29 June, a tripartite memorandum was signed for the partnership adjustment and handover of the targeted assistance to Tibet. The Company regularly inspected and examined the duty performance of the 6 designated temporary cadres selected to help the counties in 2021, grasping the progress of their work and difficulties in time, and supervising them to go to the grass-roots level and find out the situation. We constantly improved the multi-party communication mechanism, and continuously enhanced efforts to ensure that the role of talents in revitalizing rural areas is fully realized. In addition, facing the severe outbreak of COVID-19, the temporary cadres fought at the frontline of epidemic prevention and control with a high sense of responsibility and mission according to the local epidemic prevention and control rules. They resolutely blocked the spread of the epidemic in their “responsible fields”, and made every effort to protect the happiness and well-being of the local people, fulfilling the mission of China Railway People.

- (III) **Focusing on key tasks, earnestly promoting the rural revitalization work**
- We strictly implemented the requirements of “eliminating poverty without evading responsibilities, policies, assistance or supervision”, giving priority to preventing the reoccurrence of poverty, and ensuring that everyone has access to food and clothing, secure housing, compulsory education and basic medical care. Focusing on the five revitalization measures, and ensuring the continuity of the measures, funds and forces of assistance, We carried out special actions to support industries with special features, improve the living environment in rural areas, and create employment opportunities, in order to achieve more tangible results in promoting rural revitalization across the board. **First, we enhanced our efforts to support the development of industries in poverty-stricken areas.** In Baode County, Shanxi Province, we invested RMB20 million to construct a 5MW photovoltaic power plant in Shenshan Village, in order to make full use of the local advantages of abundant solar resources to create sustainable profits. **Second, we continued to carry out poverty alleviation through education.** The construction progress of the dormitory building project of Baode County No. 11 Primary School assisted by the Company is under full control, and will be completed and put into use as soon as possible. We plan to invest RMB8.15 million in Karuo District, Qamdo City, for the reconstruction and expansion of the first phase of the primary school in Naitong Village, Yueba Township, in order to improve the local teaching conditions. **Third, we deepened and expanded the efforts in poverty alleviation through consumption.** In accordance with the principle of no reduction in poverty alleviation through consumption, we organized the trade unions of all affiliated units to prepare special funds and made every effort to realize poverty alleviation through consumption according to laws and regulations and the principle of thrift and practicality. We continued to expand the agricultural product sales channels of the target counties for assistance. In the first half of 2022, we bought agricultural products of RMB3.564 million and helped sell agricultural products of RMB213,000. **Fourth, we continued to ensure the employment.** On the basis of successfully building the “good driver” service brand of Baode, we worked with the local government to establish companies and build the “good property manager” service brand of Baode. We provided special labor training for the property industry in the county, opening up a new way for the local people to improve skills and transfer jobs to get rich. We continued to carry out the training project of “Everyone has skills” in Rucheng County, Hunan, planning to train more than 300 persons in the year. **Fifth, we worked hard to build beautiful villages and improve the living environment.** We selected 8 villages in Rucheng County as pilot villages for the implementation of the special project of rural construction and improvement of living environment, including renovation of dilapidated houses, hardening of village (lane) roads, construction of sewage canals, renovation of dry toilets, and construction of people’s activity squares, striving to create a number of rural revitalization model villages. **Sixth, our assistance cases were highly recognized.** The short video “Nest of Happiness” based on Baode County won the “nomination award” in the national rural revitalization case election activity of “Listening to the comments of villagers on well-off”, and was reported in the media such as xuexi.cn and Xinhua Finance. The classic practice of “Baode Good Driver” has been incorporated into the classic cases of the China Foundation for Poverty Alleviation and designated as a typical case for promotion and publicity.

5.16 Compliance with Corporate Governance Code

During the six months ended 30 June 2022, the Company had complied with all code provisions set out in Part II, Appendix 14 to the Hong Kong Listing Rules.

5.17 Review of Interim Financial Report

The 2022 interim financial statements for the six months ended 30 June 2022 of the Company prepared in accordance with CAS and the 2022 interim financial information prepared in accordance with IAS 34 (collectively referred as “**2022 Interim Financial Report**”) have not been audited. The 2022 Interim Financial Report has been reviewed by the Board of Directors and the Audit and Risk Management Committee under the Board of Directors of the Company.

5.18 Event after the Reporting Period

On 6 July 2022, China Railway Xunjie Co., Limited, a subsidiary of the Company, has issued the corporate bond in a principal amount of USD0.5 billion with the maturity date of 6 July 2027. The interest rate is 4% per annum, payable semi-annually.

On 2 August 2022, the Company has issued the first tranche of the medium-term notes in 2022 in a principal amount of RMB3 billion, with a maturity date of 3 August 2025. The interest rate is 2.58% per annum, payable annually.

6 FINANCIAL REPORT

INTERIM CONDENSED CONSOLIDATED STATEMENT OF PROFIT OR LOSS

		Unaudited	
		Six month ended 30 June	
	Note	2022	2021
		RMB million	RMB million
Revenue	4	560,587	498,227
Cost of sales and services		(514,037)	(456,460)
Gross profit		46,550	41,767
Other income	5	1,173	1,532
Other expenses	5	(8,980)	(7,344)
Net impairment losses on financial assets			
and contract assets	6	(1,413)	(1,382)
Other gains, net	7	735	6
Losses from derecognition of financial assets			
at amortised cost	8	(1,592)	(1,487)
Selling and marketing expenses		(2,706)	(2,371)
Administrative expenses		(12,512)	(12,516)
Operating profit		21,255	18,205
Finance income		3,276	2,236
Finance costs		(4,121)	(2,988)
Share of post-tax losses of joint ventures		(564)	(216)
Share of post-tax profits of associates		2,051	1,175
Profit before income tax		21,897	18,412
Income tax expense	9	(5,072)	(4,062)
Profit for the period		16,825	14,350
Profit attributable to:			
– Owners of the Company		15,126	13,095
– Non-controlling interests		1,699	1,255
		16,825	14,350
Earnings per share for profit attributable			
 to owners of the Company			
 (expressed in RMB per share)			
– Basic	10	0.551	0.454
– Diluted	10	0.551	0.454

INTERIM CONDENSED CONSOLIDATED STATEMENT OF COMPREHENSIVE INCOME

<i>Note</i>	Unaudited	
	Six month ended 30 June	
	2022	2021
	RMB million	RMB million
Profit for the period	16,825	14,350
Other comprehensive (expenses)/income, net of income tax		
<i>Items that will not be reclassified to profit or loss:</i>		
Changes in the fair value of equity investments at fair value through other comprehensive income	(27)	(8)
Income tax relating to changes in the fair value of equity investments at fair value through other comprehensive income	4	—
	<u>(23)</u>	<u>(8)</u>
<i>Items that may be reclassified subsequently to profit or loss:</i>		
Exchange differences on translating foreign operations	35	17
Share of other comprehensive income of associates	<u>368</u>	<u>(34)</u>
	<u>403</u>	<u>(17)</u>
Other comprehensive income/(expenses) for the period, net of tax	<u>380</u>	<u>(25)</u>
Total comprehensive income for the period	<u>17,205</u>	<u>14,325</u>
Total comprehensive income for the period attributable to:		
– Owners of the Company	15,471	13,096
– Non-controlling interests	<u>1,734</u>	<u>1,229</u>
	<u>17,205</u>	<u>14,325</u>

INTERIM CONDENSED CONSOLIDATED BALANCE SHEET

		Unaudited 30 June 2022 RMB million	Audited 31 December 2021 RMB million
	Note		
ASSETS			
Non-current assets			
Property, plant and equipment		108,200	77,368
Right-of-use assets		1,747	1,659
Lease prepayments		14,396	14,561
Deposits for investments		649	441
Investment properties		11,816	12,065
Intangible assets		128,623	110,496
Mining assets		3,380	3,479
Contract assets		178,114	161,377
Investments in joint ventures		50,543	49,831
Investments in associates		47,035	46,181
Goodwill		1,771	1,568
Financial assets at fair value through other comprehensive income		13,310	12,164
Other financial assets at amortised cost		19,988	22,960
Financial assets at fair value through profit or loss		15,656	12,294
Deferred tax assets		11,345	10,372
Other prepayments		387	332
Trade and other receivables	12	20,655	23,374
		627,615	560,522
Current assets			
Lease prepayments		241	269
Properties held for sale		50,293	48,745
Properties under development for sale		113,162	109,330
Inventories		65,969	45,371
Financial assets at fair value through other comprehensive income		629	526
Trade and other receivables	12	294,995	249,169
Contract assets		175,034	149,142
Current income tax recoverable		3,919	3,736
Other financial assets at amortised cost		11,263	8,553
Financial assets at fair value through profit or loss		6,873	7,304
Restricted cash		27,090	30,797
Cash and cash equivalents		155,483	148,116
		904,951	801,058
Total assets		1,532,566	1,361,580

		Unaudited 30 June 2022 RMB million	Audited 31 December 2021 RMB million
	Note		
EQUITY			
Equity attributable to owners of the Company			
Share capital		24,742	24,571
Shares held for restricted share incentive scheme		(573)	—
Share premium and reserves		214,506	204,927
Perpetual notes		45,368	45,624
		<u>284,043</u>	<u>275,122</u>
Non-controlling interests		112,986	83,072
Total equity		397,029	358,194
LIABILITIES			
Non-current liabilities			
Trade and other payables	13	20,684	10,263
Borrowings		252,915	198,503
Lease liabilities		1,058	972
Retirement and other supplemental benefit obligations		2,204	2,293
Provisions		767	761
Deferred government grants and income		1,147	1,087
Deferred tax liabilities		2,428	1,647
		<u>281,203</u>	<u>215,526</u>
Current liabilities			
Trade and other payables	13	578,592	522,411
Contract liabilities		134,127	144,095
Current income tax liabilities		6,928	7,100
Borrowings		133,981	113,424
Lease liabilities		303	360
Retirement and other supplemental benefit obligations		261	300
Financial liabilities at fair value through profit or loss		104	122
Provision		38	48
		<u>854,334</u>	<u>787,860</u>
Total liabilities		1,135,537	1,003,386
Total equity and liabilities		1,532,566	1,361,580

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.

The condensed consolidated interim financial information was approved for issue on 30 August 2022.

This condensed consolidated interim financial information is presented in Renminbi (“**RMB**”), unless otherwise stated.

2. BASIS OF PREPARATION

This condensed consolidated interim financial information for the six months ended 30 June 2022 has been prepared in accordance with International Accounting Standard (“**IAS**”) 34, “Interim Financial Reporting”. The condensed consolidated interim financial information should be read in conjunction with the annual consolidated financial statements for the year ended 31 December 2021, which have been prepared in accordance with International Financial Reporting Standards (“**IFRS**”).

3. ACCOUNTING POLICIES

Except as described below, the accounting policies applied are consistent with those of the annual consolidated financial statements for the year ended 31 December 2021, as described in the annual consolidated financial statements.

(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 2022.

	Effective for accounting periods beginning on or after
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

In addition, the Group has early applied the Amendment to IFRS 16 “Covid-19-Related Rent Concessions” from 1 January 2021.

The adoption of above did not have any material impact on the Group’s results for the six months ended 30 June 2022 and the Group’s financial position as at 30 June 2022. 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 applied by the Group**

The following new standards and amendments to standards are effective for annual periods beginning after 1 January 2021, and have not been applied in preparing the condensed consolidated interim financial information.

	Effective for accounting periods 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 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.

4. SEGMENT INFORMATION

The board of directors of the Company (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:

Six months ended 30 June 2022 (Unaudited)							
	Infrastructure construction <i>RMB million</i>	Survey, design and consulting services <i>RMB million</i>	Engineering equipment and component manufacturing <i>RMB million</i>	Property development <i>RMB million</i>	Other businesses <i>RMB million</i>	Elimination <i>RMB million</i>	Total <i>RMB million</i>
External revenue	483,701	8,705	12,756	23,447	28,180	–	556,789
Inter-segment revenue	10,169	440	3,686	–	20,852	(35,147)	–
Other revenue	1,875	87	325	262	1,249	–	3,798
Inter-segment other revenue	163	–	–	–	33	(196)	–
Segment revenue	<u>495,908</u>	<u>9,232</u>	<u>16,767</u>	<u>23,709</u>	<u>50,314</u>	<u>(35,343)</u>	<u>560,587</u>
Segment results							
Profit before tax	<u>19,517</u>	<u>937</u>	<u>1,110</u>	<u>(2,296)</u>	<u>4,014</u>	<u>(2,259)</u>	<u>21,023</u>
Segment results included:							
Share of losses of joint ventures	(326)	(8)	(18)	(41)	(171)	–	(564)
Share of profits/(losses) of associates	365	(3)	16	(23)	1,696	–	2,051
Interest income	719	39	49	65	2,445	(361)	2,956
Interest expenses	<u>(1,153)</u>	<u>(17)</u>	<u>(44)</u>	<u>(687)</u>	<u>(2,641)</u>	<u>560</u>	<u>(3,982)</u>
Six months ended 30 June 2021 (Unaudited)							
	Infrastructure construction <i>RMB million</i>	Survey, design and consulting services <i>RMB million</i>	Engineering equipment and component manufacturing <i>RMB million</i>	Property development <i>RMB million</i>	Other businesses <i>RMB million</i>	Elimination <i>RMB million</i>	Total <i>RMB million</i>
External revenue	442,994	7,390	11,921	13,866	19,034	–	495,205
Inter-segment revenue	15,072	249	4,284	–	24,786	(44,391)	–
Other revenue	1,319	62	261	256	1,124	–	3,022
Inter-segment other revenue	131	–	–	–	95	(226)	–
Segment revenue	<u>459,516</u>	<u>7,701</u>	<u>16,466</u>	<u>14,122</u>	<u>45,039</u>	<u>(44,617)</u>	<u>498,227</u>
Segment results							
Profit before tax	<u>16,775</u>	<u>699</u>	<u>1,152</u>	<u>(514)</u>	<u>2,340</u>	<u>(2,727)</u>	<u>17,725</u>
Segment results included:							
Share of (losses)/profits of joint ventures	(66)	–	31	(27)	(154)	–	(216)
Share of profits/(losses) of associates	293	1	12	(11)	880	–	1,175
Interest income	487	62	35	167	1,163	(506)	1,408
Interest expenses	<u>(545)</u>	<u>(98)</u>	<u>(33)</u>	<u>(869)</u>	<u>(1,940)</u>	<u>642</u>	<u>(2,843)</u>

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

		Six months ended 30 June	
		2022	2021
		RMB million	<i>RMB million</i>
		(Unaudited)	(Unaudited)
(i)	Segment interest income, before inter-segment elimination	3,317	1,914
	Inter-segment elimination	(361)	(506)
		2,956	1,408
	Reconciling item:		
	Reclassification of finance income obtained from other financial assets at amortised cost	320	828
	Total consolidated finance income, as reported	3,276	2,236
(ii)	Segment interest expenses, before inter-segment elimination	4,542	3,485
	Inter-segment elimination	(560)	(642)
		3,982	2,843
	Reconciling item:		
	Imputed interest expenses on retention payables	139	145
	Total consolidated finance costs, as reported	4,121	2,988
(iii)	Segment results, before inter-segment elimination	23,282	20,452
	Inter-segment elimination	(2,259)	(2,727)
		21,023	17,725
	Reconciling item:		
	Land appreciation tax (a) (Note 9)	874	687
	Total consolidated profit before tax, as reported	21,897	18,412
(a)	Land appreciation tax is included in operating expenses under segment reporting and is classified as income tax expense in the condensed consolidated statement of profit or loss.		

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

Segment assets

	As at	
	30 June 2022	31 December 2021
	<i>RMB million</i> (Unaudited)	<i>RMB million</i> (Audited)
Infrastructure construction	898,262	751,756
Survey, design and consulting services	30,186	27,476
Engineering equipment and component manufacturing	65,064	62,116
Property development	286,113	281,252
Other businesses	582,391	559,696
Inter-segment elimination	(343,417)	(333,527)
Total segment assets	<u>1,518,599</u>	<u>1,348,769</u>

Segment liabilities

	As at	
	30 June 2022	31 December 2021
	<i>RMB million</i> (Unaudited)	<i>RMB million</i> (Audited)
Infrastructure construction	779,797	626,780
Survey, design and consulting services	14,922	12,324
Engineering equipment and component manufacturing	37,630	35,318
Property development	255,943	254,905
Other businesses	381,707	392,472
Inter-segment elimination	(340,606)	(324,002)
Total segment liabilities	<u>1,129,393</u>	<u>997,797</u>

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 condensed consolidated interim financial information is as follows:

	As at	
	30 June 2022	31 December 2021
	<i>RMB million</i>	<i>RMB million</i>
	(Unaudited)	(Audited)
Segment assets, before inter-segment elimination	1,862,016	1,682,296
Inter-segment elimination	(343,417)	(333,527)
	1,518,599	1,348,769
Reconciling items:		
Deferred tax assets	11,345	10,372
Non-tradable shares reform of subsidiaries (<i>Note (a)</i>)	(148)	(148)
Current income tax recoverable	3,919	3,736
Prepaid land appreciation tax included in current income tax recoverable	(1,149)	(1,149)
	13,967	12,811
Total consolidated assets, as reported	1,532,566	1,361,580
Segment liabilities, before inter-segment elimination	1,469,999	1,321,799
Inter-segment elimination	(340,606)	(324,002)
	1,129,393	997,797
Reconciling items:		
Deferred tax liabilities	2,428	1,647
Current income tax liabilities	6,928	7,100
Land appreciation tax payable included in current income tax liabilities	(3,212)	(3,158)
	6,144	5,589
Total consolidated liabilities, as reported	1,135,537	1,003,386

- (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 profit or loss in prior years.

(i) Disaggregation of revenue from contracts with customers

Type of services and products	Six months ended 30 June 2022 (Unaudited)					
	Infrastructure construction	Survey, design and consulting services	Engineering equipment and component manufacturing	Property development	Other businesses	Total
	<i>RMB million</i>	<i>RMB million</i>	<i>RMB million</i>	<i>RMB million</i>	<i>RMB million</i>	<i>RMB million</i>
Infrastructure construction contracts	483,701	–	–	–	–	483,701
Manufacturing and sales of engineering equipment and component	–	–	12,756	–	–	12,756
Rendering of services	–	8,705	–	–	2,993	11,698
Sales of properties	–	–	–	23,447	–	23,447
Sales of goods and others	1,875	87	325	262	26,436	28,985
Total	485,576	8,792	13,081	23,709	29,429	560,587
Timing of revenue recognition:						
– At a point of time	1,875	87	8,506	23,098	28,456	62,022
– Over time	483,701	8,705	4,453	611	–	497,470
Rental income	–	–	122	–	973	1,095
Total revenue from contracts with customers	485,576	8,792	13,081	23,709	29,429	560,587

Type of services and products	Six months ended 30 June 2021 (Unaudited)					
	Infrastructure construction	Survey, design and consulting services	Engineering equipment and component manufacturing	Property development	Other businesses	Total
	<i>RMB million</i>	<i>RMB million</i>	<i>RMB million</i>	<i>RMB million</i>	<i>RMB million</i>	<i>RMB million</i>
Infrastructure construction contracts	442,994	–	–	–	–	442,994
Manufacturing and sales of engineering equipment and component	–	–	11,921	–	–	11,921
Rendering of services	–	7,390	–	–	2,538	9,928
Sales of properties	–	–	–	13,866	–	13,866
Sales of goods and others	1,319	62	261	256	17,620	19,518
Total	444,313	7,452	12,182	14,122	20,158	498,227
Timing of revenue recognition:						
– At a point of time	1,319	62	8,882	12,294	19,258	41,815
– Over time	442,994	7,390	3,300	1,828	–	455,512
Rental income	–	–	–	–	900	900
Total revenue from contracts with customers	444,313	7,452	12,182	14,122	20,158	498,227

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

	Six months ended 30 June	
	2022	2021
	RMB million	RMB million
	(Unaudited)	(Unaudited)
Mainland China	532,858	473,100
Other regions (including Hong Kong and Macau)	27,729	25,127
	<u>560,587</u>	<u>498,227</u>

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

	As at	
	30 June	31 December
	2022	2021
	RMB million	RMB million
	(Unaudited)	(Audited)
Mainland China	431,275	368,413
Other regions (including Hong Kong and Macau)	17,159	14,492
	<u>448,434</u>	<u>382,905</u>

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

5. OTHER INCOME AND EXPENSES

	Six months ended 30 June	
	2022	2021
	RMB million	RMB million
	(Unaudited)	(Unaudited)
Other income from:		
Government subsidies (a)	670	664
Dividends from financial assets at FVPL	245	420
Compensation and claim	181	241
Income from the sale of waste and materials	17	56
Dividends from financial assets at FVOCI	4	64
Others	56	87
	<u>1,173</u>	<u>1,532</u>
Other expenses on:		
Research and development expenditures	8,980	7,344

- (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 condensed 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.

6. NET IMPAIRMENT LOSSES ON FINANCIAL ASSETS AND CONTRACT ASSETS

	Six months ended 30 June	
	2022	2021
	<i>RMB million</i>	<i>RMB million</i>
	(Unaudited)	(Unaudited)
Trade and other receivables (excluding advance to suppliers)	659	607
Contract assets	458	452
Other financial assets at amortised cost	296	323
	<u>1,413</u>	<u>1,382</u>

7. OTHER GAINS, NET

	Six months ended 30 June	
	2022	2021
	<i>RMB million</i>	<i>RMB million</i>
	(Unaudited)	(Unaudited)
Gains on disposal and/or write-off of:		
– Interests in subsidiaries	–	70
– Interests in associates	36	–
– Lease prepayments	13	25
– Property, plant and equipment	10	98
Deemed disposal gains of interest in associates	504	–
Losses arising on change in fair value of financial assets/liabilities at FVPL	(306)	(210)
Gains on disposal of financial assets at FVPL	–	68
Foreign exchange gains/(losses), net	454	(104)
Gains on debt restructurings	50	59
Impairment losses recognised on:		
– Property, plant and equipment	(17)	–
– Advance to suppliers	(9)	–
	<u>735</u>	<u>6</u>

8. LOSSES FROM DERECOGNITION OF FINANCIAL ASSETS AT AMORTISED COST

	Six months ended 30 June	
	2022	2021
	<i>RMB million</i>	<i>RMB million</i>
	(Unaudited)	(Unaudited)
ABN and ABS	1,301	1,337
Factoring expenses	192	150
Bills receivables discounted expenses	99	–
	<u>1,592</u>	<u>1,487</u>

9. INCOME TAX EXPENSE

	Six months ended 30 June	
	2022	2021
	RMB million	RMB million
	(Unaudited)	(Unaudited)
Current income tax		
– Enterprise income tax (“EIT”)	4,667	4,123
– Land appreciation tax (“LAT”)	874	687
– Under/(over) provision in prior years	100	(56)
Deferred income tax	(569)	(692)
	<u>5,072</u>	<u>4,062</u>

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% (six months ended 30 June 2021: 25%) is applied to the Group except for certain subsidiaries which were either exempted from EIT or entitled to the preferential tax rate of 20% or 15% (six months ended 30 June 2021: 20%, 15%) during the current interim period.

Certain of the Group’s overseas entities are located in 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 17%, 24%, 24%, 30%, 20%, 35%, 30% and 30% (six months ended 30 June 2021: 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.

10. DIVIDENDS

The final dividend of RMB0.196 per share in respect of the year ended 31 December 2021, amounting to RMB4,849 million in aggregate, was approved by the Company’s shareholders in the Annual General Meeting on 22 June 2022, and subsequently paid off in August 2022.

The final dividend of RMB0.180 per share in respect of the year ended 31 December 2020, amounting to RMB4,423 million in aggregate, was approved by the Company’s shareholders in the Annual General Meeting on 23 June 2021, and subsequently paid off in August 2021.

The Directors do not recommend the payment of an interim dividend for the current interim period (six months ended 30 June 2021: nil).

11. EARNINGS PER SHARE

(a) Basic

Basic earnings per share for the six months ended 30 June 2022 is calculated by dividing the profit attributable to owners of the Company, after deducting the profit attributable to holders of perpetual notes and the impact of restricted share incentive scheme of RMB13,549 million (six months ended 30 June 2021: RMB11,165 million) by 24,570,929,283 shares (six months ended 30 June 2021: 24,570,929,283 shares) in issue during the period.

(b) Diluted

Diluted earnings per share was calculated by dividing the adjusted profit attributable to ordinary equity holders of the Company based on the diluted potential ordinary shares by the weighted average number of shares in issue during the period. Diluted earnings per share is the same as basic earnings per share as there were no potential dilutive ordinary shares outstanding during both periods.

12. TRADE AND OTHER RECEIVABLES

	As at	
	30 June 2022 <i>RMB million</i> (Unaudited)	31 December 2021 <i>RMB million</i> (Audited)
Trade and bills receivables	192,156	157,025
Less: credit loss allowance	(14,267)	(13,935)
Trade and bills receivables – net	177,889	143,090
Other receivables (net of impairment)	87,388	81,688
Advance to suppliers (net of impairment)	50,373	47,765
	315,650	272,543
Less: Amount due after one year included in non-current assets	(20,655)	(23,374)
Amount due within one year included in current assets	294,995	249,169

(a) Ageing analysis of trade and bills receivables, based on invoice date, is as follows:

	As at	
	30 June 2022 <i>RMB million</i> (Unaudited)	31 December 2021 <i>RMB million</i> (Audited)
Less than 1 year	150,927	118,517
1 year to 2 years	16,586	14,919
2 years to 3 years	9,417	10,297
3 years to 4 years	5,753	4,562
4 years to 5 years	2,155	1,407
More than 5 years	7,318	7,323
Total	192,156	157,025

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 19 million (31 December 2021: RMB221 million) were pledged to secure borrowings amounting to 19 million (31 December 2021: RMB221 million).
- (c) For the six months ended 30 June 2022, trade receivables of RMB23,643 million (six months ended 30 June 2021: RMB21,678 million) had been transferred in accordance with relevant ABN and ABS issuance, and trade receivables of RMB3,937 million (six months ended 30 June 2021: RMB6,925 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 30 June 2022, bills receivables – bank acceptance and commercial acceptance notes of RMB349 million (31 December 2021: RMB310 million) were endorsed to suppliers and RMB66 million (31 December 2021: RMB46 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 30 June 2022, bills receivables – bank acceptance notes of RMB416 million (31 December 2021: RMB670 million) were endorsed to suppliers, and 58 million (31 December 2021: RMB119 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 30 June 2022, trade receivables net of credit loss allowance, which were collectively assessed for impairment, are as follows:

Central-governmental enterprises

	As at	
	30 June	31 December
	2022	2021
	<i>RMB million</i>	<i>RMB million</i>
	(Unaudited)	(Audited)
Less than 1 year	11,669	8,165
1 year to 2 years	1,442	970
2 years to 3 years	430	438
3 years to 4 years	216	195
4 years to 5 years	97	134
More than 5 years	152	123
Total	14,006	10,025

Locally-administrated state-owned enterprises

	As at	
	30 June	31 December
	2022	2021
	<i>RMB million</i>	<i>RMB million</i>
	(Unaudited)	(Audited)
Less than 1 year	74,544	53,164
1 year to 2 years	9,614	8,511
2 years to 3 years	2,861	2,975
3 years to 4 years	1,805	1,195
4 years to 5 years	674	444
More than 5 years	628	662
Total	90,126	66,951

China State Railway Group Co., Ltd.

	As at	
	30 June	31 December
	2022	2021
	<i>RMB million</i>	<i>RMB million</i>
	(Unaudited)	(Audited)
Less than 1 year	10,829	9,522
1 year to 2 years	774	780
2 years to 3 years	356	703
3 years to 4 years	352	167
4 years to 5 years	80	89
More than 5 years	141	155
	<hr/>	<hr/>
Total	12,532	11,416
	<hr/> <hr/>	<hr/> <hr/>

Overseas enterprises

	As at	
	30 June	31 December
	2022	2021
	<i>RMB million</i>	<i>RMB million</i>
	(Unaudited)	(Audited)
Less than 1 year	1,768	1,723
1 year to 2 years	119	56
2 years to 3 years	22	12
3 years to 4 years	4	230
4 years to 5 years	175	25
More than 5 years	—	—
	<hr/>	<hr/>
Total	2,088	2,046
	<hr/> <hr/>	<hr/> <hr/>

Other entities

	As at	
	30 June	31 December
	2022	2021
	<i>RMB million</i>	<i>RMB million</i>
	(Unaudited)	(Audited)
Less than 1 year	25,024	17,339
1 year to 2 years	2,645	1,908
2 years to 3 years	1,752	1,345
3 years to 4 years	720	835
4 years to 5 years	350	207
More than 5 years	243	288
	<hr/>	<hr/>
Total	30,734	21,922
	<hr/> <hr/>	<hr/> <hr/>

As at 30 June 2022, the amount of individually impaired trade receivables was RMB15,831 million (31 December 2021: RMB15,884 million) with the provision for credit loss allowance of RMB6,239 million (31 December 2021: RMB6,123 million).

As at 30 June 2022, bills receivables – bank acceptance notes of RMB1,489 million (31 December 2021: RMB1,108 million) were not impaired. Commercial acceptance notes, which were collectively assessed for impairment, were RMB1,727 million (31 December 2021: RMB1,480 million) with the provision for credit loss allowance of RMB4 million (31 December 2021: RMB4 million). The amount of individually impaired commercial acceptance notes was RMB514 million (31 December 2021: RMB2,832 million) with the provision for credit loss allowance of RMB133 million (31 December 2021: RMB467 million).

As at 30 June 2022, the amount of collectively impaired long-term trade receivables was RMB15,236 million (31 December 2021: RMB16,041 million) with the provision for credit loss allowance of RMB44 million (31 December 2021: RMB44 million). The amount of individually impaired long-term trade receivables was RMB3,291 million (31 December 2021: RMB3,291 million) with the provision for credit loss allowance of RMB3,264 million (31 December 2021: RMB3,268 million).

13. TRADE AND OTHER PAYABLES

	As at	
	30 June 2022	31 December 2021
	<i>RMB million</i> (Unaudited)	<i>RMB million</i> (Audited)
Trade and bills payables (a)	441,890	405,520
Dividend payables	7,201	702
Other taxes	3,880	4,100
Accrued payroll and welfare	3,838	4,622
Deposits (b)	1,132	1,048
Deposits received in advance	1,533	3,243
Advance from customers	775	446
Other payables	139,027	112,993
	599,276	532,674
Analysed for reporting purposes as:		
Non-current	20,684	10,263
Current	578,592	522,411
	599,276	532,674

The credit period on purchases of goods ranges from 180 days to 360 days. Included in trade and bills payables are retention payables of RMB11,342 million (31 December 2021: RMB10,518 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:

	As at	
	30 June 2022	31 December 2021
	<i>RMB million</i> (Unaudited)	<i>RMB million</i> (Audited)
Less than 1 year	400,411	370,538
1 year to 2 years	22,799	19,622
2 years to 3 years	9,133	9,274
More than 3 years	9,547	6,086
	441,890	405,520

- (b) China Railway Finance Co., Ltd., 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%.

ISSUE OF RESULTS ANNOUNCEMENT AND INTERIM REPORT

This interim results announcement will be released on the website of the Hong Kong Stock Exchange (www.hkexnews.hk) and the website of the Company (www.crec.cn). The 2022 Interim Report prepared in accordance with IAS 34 will be released on the website of the Hong Kong Stock Exchange (www.hkexnews.hk) and the website of the Company (www.crec.cn). The 2022 Interim Report and its Summary prepared in accordance with CAS will be released on the website of the 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 August 2022

As at the date of this announcement, the executive directors of the Company are Mr. 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 of the Company are Mr. CHUNG Shui Ming Timpson, Mr. ZHANG Cheng and Mr. XIU Long.