IMPORTANT NOTICE

NOT FOR DISTRIBUTION INTO THE UNITED STATES

IMPORTANT: You must read the following before continuing. The following applies to the preliminary offering circular following this page (the "**Offering Circular**"), and you are therefore advised to read this carefully before reading, accessing or making any other use of the Offering Circular. In accessing the Offering Circular, you agree to be bound by the following terms and conditions, including any modifications to them any time you receive any information from us as a result of such access.

NOTHING IN THIS ELECTRONIC TRANSMISSION CONSTITUTES AN OFFER OF SECURITIES FOR SALE IN THE UNITED STATES OR ANY OTHER JURISDICTION WHERE IT IS UNLAWFUL TO DO SO. THE SECURITIES HAVE NOT BEEN, AND WILL NOT BE, REGISTERED UNDER THE UNITED STATES SECURITIES ACT OF 1933, AS AMENDED (THE "SECURITIES ACT"), OR THE SECURITIES LAWS OF ANY STATE OF THE UNITED STATES OR OTHER JURISDICTION AND THE SECURITIES MAY NOT BE OFFERED OR SOLD WITHIN THE UNITED STATES, EXCEPT PURSUANT TO AN EXEMPTION FROM, OR IN A TRANSACTION NOT SUBJECT TO, THE REGISTRATION REQUIREMENTS OF THE SECURITIES ACT AND APPLICABLE STATE OR LOCAL SECURITIES LAWS. THIS OFFERING IS MADE SOLELY IN OFFSHORE TRANSACTIONS PURSUANT TO REGULATION S UNDER THE SECURITIES ACT.

THE OFFERING CIRCULAR MAY NOT BE FORWARDED OR DISTRIBUTED TO ANY OTHER PERSON, ELECTRONICALLY OR OTHERWISE, AND MAY NOT BE REPRODUCED IN ANY MANNER WHATSOEVER, AND IN PARTICULAR, MAY NOT BE FORWARDED TO ANY U.S. ADDRESS. ANY FORWARDING, DISTRIBUTION OR REPRODUCTION OF THIS DOCUMENT IN WHOLE OR IN PART IS UNAUTHORISED. FAILURE TO COMPLY WITH THIS DIRECTIVE MAY RESULT IN A VIOLATION OF THE SECURITIES ACT OR THE APPLICABLE LAWS OF OTHER JURISDICTIONS.

Confirmation of your representation: In order to be eligible to view the Offering Circular or make an investment decision with respect to the securities, investors must not be located in the United States. The Offering Circular is being sent at your request and by accepting the e-mail and accessing the Offering Circular, you shall be deemed to have represented to BOCI Asia Limited and Standard Chartered Bank (collectively, the "**Joint Global Coordinators**") and CLSA Limited, The Hongkong and Shanghai Banking Corporation Limited, China International Capital Corporation Hong Kong Securities Limited, ICBC International Securities Limited and CMB International Capital Limited (together with the Joint Global Coordinators, the "**Joint Lead Managers**") and the Issuer and the Guarantor (each as defined in the Offering Circular) that you and any customers you represent are not, and the electronic mail address that you gave the Joint Lead Managers to which this e-mail has been delivered is not, located in the United States and that you consent to delivery of such Offering Circular and any amendments or supplements thereto by electronic transmission.

The attached document is in preliminary form and is being furnished in connection with an offering in offshore transactions outside the United States in compliance with Regulation S under the Securities Act solely for the purpose of enabling a prospective investor to consider the purchase of the securities described herein. You are reminded that the information in the attached Offering Circular is incomplete.

You are reminded that the Offering Circular has been delivered to you on the basis that you are a person into whose possession the Offering Circular may be lawfully delivered in accordance with the laws of jurisdiction in which you are located and you may not, nor are you authorised to, deliver the Offering Circular, electronically or otherwise, to any other person. If you have gained access to this transmission contrary to the foregoing restrictions, you are not allowed to purchase any of the securities described in the attached.

Nothing in this electronic transmission constitutes an offer or an invitation by or on behalf of the Issuer, the Guarantor, the Joint Lead Managers, the Trustee or the Agents (each as defined in the Offering Circular) to subscribe for or purchase any of the securities described therein, and access has been limited so that it shall not constitute in the United States or elsewhere a general solicitation or general advertising (as those terms are used in Regulation D under the Securities Act) or directed selling efforts (within the meaning of Regulation S under the Securities Act). If a jurisdiction requires that the offering be made by a licensed broker or dealer and the Joint Lead Managers or any affiliate of them is a licensed broker or dealer in that jurisdiction, the offering shall be deemed to be made by the Joint Lead Managers or such affiliate on behalf of the Issuer in such jurisdiction.

The Offering Circular has been sent to you in an electronic form. You are reminded that documents transmitted via this medium may be altered or changed during the process of electronic transmission and consequently neither the Issuer, the Guarantor, the Joint Lead Managers, the Trustee, the Agents, nor any person who controls any of them, nor their respective directors, officers, employees, representatives nor agents or affiliates of any such person accepts any liability or responsibility whatsoever in respect of any difference between the Offering Circular distributed to you in electronic format and the hard copy version available to you on request from the Joint Lead Managers.

You are responsible for protecting against viruses and other destructive items. Your use of this e-mail is at your own risk and it is your responsibility to take precautions to ensure that it is free from viruses and other items of a destructive nature.

PRIIPs Regulation/Prohibition of sales to EEA retail investors: The securities are not intended to be offered, sold or otherwise made available to and should not be offered, sold or otherwise made available to any retail investor in the European Economic Area ("**EEA**"). For these purposes, a retail investor means a person who is one (or more) of: (i) a retail client as defined in point (11) of Article 4(1) of Directive 2014/65/EU (as amended, "**MiFID II**"); or (ii) a customer within the meaning of Directive (EU) 2016/97 (the "**Insurance Distribution Directive**"), where that customer would not qualify as a professional client as defined in point (10) of Article 4(1) of MiFID II. Consequently no key information document required by Regulation (EU) No 1286/2014 (as amended, the "**PRIIPs Regulation**") for offering or selling the securities or otherwise making them available to retail investors in the EEA has been prepared and therefore offering or selling the securities or otherwise making them available to any retail investor in the EEA may be unlawful under the PRIIPs Regulation.

PRIIPs Regulation/Prohibition of sales to UK retail investors: The securities are not intended to be offered, sold or otherwise made available to and should not be offered, sold or otherwise made available to any retail investor in the United Kingdom ("**UK**"). For these purposes, a retail investor means a person who is one (or more) of: (i) a retail client, as defined in point (8) of Article 2 of Regulation (EU) No 2017/565 as it forms part of domestic law by virtue of the European Union (Withdrawal) Act 2018 ("**EUWA**"); or (ii) a customer within the meaning of the provisions of the FSMA and any rules or regulations made under the FSMA to implement Directive (EU) 2016/97, where that customer would not qualify as a professional client, as defined in point (8) of Article 2(1) of Regulation (EU) No 600/2014 as it forms part of domestic law by virtue of the EUWA. Consequently no key information document required by Regulation (EU) No 1286/2014 as it forms part of domestic law by virtue of the EUWA (the "**UK PRIIPs Regulation**") for offering or selling the securities or otherwise making them available to retail investors in the UK has been prepared and therefore offering or selling the securities or otherwise making them available to any retail investor in the UK may be unlawful under the UK PRIIPs Regulation.

Notification under Section 309B(1)(c) of the Securities and Futures Act 2001 of Singapore (the "SFA"): The Issuer has determined, and hereby notifies all relevant persons (as defined in Section 309A(1) of the SFA), that the Notes are prescribed capital markets products (as defined in the Securities and Futures (Capital Markets Products) Regulations 2018 of Singapore) and Excluded Investment Products (as defined in MAS Notice SFA 04-N12: Notice on the Sale of Investment Products and MAS Notice FAA-N16: Notice on Recommendations on Investment Products).

Actions that you may not take: If you receive this document by e-mail, you should not reply by e-mail to this document, and you may not purchase any securities by doing so. Any reply e-mail communications, including those you generate by using the "**Reply**" function on your e-mail software, will be ignored or rejected.

The information in this preliminary offering circular is not complete and may be changed. This preliminary offering circular is not an offer to sell securities and it is not a solicitation of an offer to buy securities in any jurisdiction where the offer or sale is not permitted.

PRELIMINARY OFFERING CIRCULAR DATED 27 JUNE 2022 SUBJECT TO COMPLETION **CONFIDENTIAL**

CHINA RAILWAY XUNJIE CO., LIMITED
中铁迅捷有限公司

(incorporated in the British Virgin Islands with limited liability)

U.S.$[●] [●] per cent. Guaranteed Bonds due [●]
Issue Price: [●] per cent.
unconditionally and irrevocably guaranteed by

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

(incorporated in the People's Republic of China with limited liability)

The [●] per cent. guaranteed bonds due [●] (the "**Bonds**") will be issued in the aggregate principal amount of U.S.$[●] by China Railway XunJie Co., Limited 中铁迅捷有限公司 (the "**Issuer**") and are in registered form in the denominations of U.S.$200,000 and integral multiples of U.S.$1,000 in excess thereof. The Bonds will be unconditionally and irrevocably guaranteed (the "**Guarantee of the Bonds**") by China Railway Group Limited (中國中鐵股份有限公司) (the "**Company**" or the "**Guarantor**"). The Guarantor, a joint stock limited company incorporated in the People's Republic of China with limited liability on 12 September 2007, was listed on the main boards of the Shanghai Stock Exchange (Stock Code: 601390) and The Stock Exchange of Hong Kong Limited (the "**Hong Kong Stock Exchange**") (Stock Code: 00390) on 3 December 2007 and 7 December 2007, respectively.

The Bonds will bear interest from [●] 2022 (the "**Issue Date**") at the rate of [●] per cent. per annum. Interest on the Bonds will be payable semi-annually in arrear on [●] and [●] in each year, commencing with the first Interest Payment Date (as defined in the "*Terms and Conditions of the Bonds*") falling on [●] 20[●]. The Bonds will mature on [●] at their principal amount.

The Bonds will constitute direct, general, unconditional, unsubordinated and (subject to Condition 3(a) (*Negative Pledge*) of the "*Terms and Conditions of the Bonds*") unsecured obligations of the Issuer which will at all times rank *pari passu* without any preference or priority among themselves and at least *pari passu* with all other present and future unsecured and unsubordinated obligations of the Issuer, save for such obligations as may be preferred by provisions of law that are both mandatory and of general application. The Guarantee of the Bonds will constitute a direct, general, unconditional, unsubordinated and (subject to Condition 3(a) (*Negative Pledge*) of the "*Terms and Conditions of the Bonds*") unsecured obligation of the Guarantor which will at all times rank at least *pari passu* with all other present and future unsecured and unsubordinated obligations of the Guarantor, save for such obligations as may be preferred by provisions of law that are both mandatory and of general application.

Payments on the Bonds will be made without withholding or deduction for taxes of the PRC (as defined herein) or the British Virgin Islands to the extent described under "*Terms and Conditions of the Bonds – Taxation*".

Unless previously redeemed, or purchased and cancelled as provided herein, the Issuer will redeem each Bond at its principal amount on [●] (the "**Maturity Date**"). At any time, on giving not less than 30 nor more than 60 days' notice to the Bondholders (as defined in the "*Terms and Conditions of the Bonds*") (which notice shall be irrevocable), the Issuer may redeem the Bonds in whole, but not in part only, at their principal amount, together with interest accrued up to, but excluding, the date fixed for redemption, if, immediately before giving such notice, the Issuer satisfies the Trustee that the Issuer or the Guarantor has or will become obliged to pay Additional Tax Amounts (as defined in the "*Terms and Conditions of the Bonds*") as a result of any change in, or amendment to, the laws or regulations of the British Virgin Islands or the PRC (as the case may be) or any political subdivision or any authority thereof or therein having power to tax, or any change in the application or official interpretation of such laws or regulations (including any decision by a court of competent jurisdiction), which change or amendment becomes effective on or after [●] 2022 and such obligation cannot be avoided by the Issuer or the Guarantor taking reasonable measures available to it.

At any time following the occurrence of a Change of Control or a Non-Registration Event (each as defined in the "*Terms and Conditions of the Bonds*"), the Bondholder will have the right, at such Bondholder's option, to require the Issuer to redeem all but not some only of that Bondholder's Bonds on the Put Settlement Date (as defined in the "*Terms and Conditions of the Bonds*") at 101 per cent. of their principal amount (in the case of a redemption for a Change of Control) or at 100 per cent. of their principal amount (in the case of a redemption for a Non-Registration Event), in each case together with accrued interest up to, but excluding, such Put Settlement Date. See "*Terms and Conditions of the Bonds – Redemption and Purchase*".

The Guarantor will be required to file or cause to be filed with the State Administration of Foreign Exchange of the PRC or its local counterparts ("**SAFE**") the Deed of Guarantee (as defined in the "*Terms and Conditions of the Bonds*") in accordance with, and within the time period prescribed by, the Provisions on the Foreign Exchange Administration of Cross-Border Guarantees (跨境擔保外匯管理規定) promulgated by SAFE. The Guarantor intends to complete the registration for the execution of the Deed of Guarantee with SAFE as soon as practicable and in any event before the Registration Deadline (being 90 PRC Business Days (as defined in the "*Terms and Conditions of the Bonds*") after the Issue Date).

Pursuant to the Circular on Promoting the Reform of the Administrative System on the Issuance by Enterprises of Foreign Debt Filings and Registrations (國家發展改革委關於推進企業發行外債備案登記制管理改革的通知(發改外資[2015]2044號)) (the "**NDRC Circular**") issued by the National Development and Reform Commission of the PRC ("**NDRC**") on 14 September 2015 which came into effect on the same day, the Guarantor has registered the issuance of the Bonds with the NDRC and obtained a certificate from the NDRC on 13 May 2022 evidencing such registration and intends to provide the requisite information on the issuance of the Bonds to the NDRC within 10 PRC Business Days after the Issue Date.

Application will be made to the Hong Kong Stock Exchange for the listing of the Bonds by way of debt issues to professional investors (as defined in Chapter 37 of the Rules Governing the Listing of Securities on the Hong Kong Stock Exchange ("**Professional Investors**")) only. This document is for distribution to Professional Investors only. **Notice to Hong Kong investors:** The Issuer and the Guarantor confirm that the Bonds are intended for purchase by Professional Investors only and will be listed on the Hong Kong Stock Exchange on that basis. Accordingly, the Issuer and the Guarantor confirm that the Bonds are not appropriate as an investment for retail investors in Hong Kong. Investors should carefully consider the risks involved.

The Hong Kong Stock Exchange has not reviewed the contents of this document, other than to ensure that the prescribed form disclaimer and responsibility statements, and a statement limiting distribution of this document to Professional Investors only have been reproduced in this document. Listing of the Bonds on the Hong Kong Stock Exchange is not to be taken as an indication of the commercial merits or credit quality of the Bonds, the Issuer or the Guarantor or the Group or quality of disclosure in this document. Hong Kong Exchanges and Clearing Limited and the Hong Kong Stock Exchange take no responsibility for the contents of this Offering Circular, make no representation as to its accuracy or completeness and expressly disclaim any liability whatsoever for any loss howsoever arising from or in reliance upon the whole or any part of the contents of this Offering Circular.

Investing in the Bonds involves risks. See *"Risk Factors" beginning on page 16 for a description of certain factors to be considered in connection with an investment in the Bonds*.

The Bonds and the Guarantee of the Bonds have not been and will not be registered under the United States Securities Act of 1933, as amended (the "Securities Act") and may not be offered or sold within the United States except pursuant to an exemption from, or in a transaction not subject to, the registration requirements of the Securities Act. For a description of these and certain further restrictions on offers and sales of the Bonds and the distribution of this Offering Circular, see "*Subscription and Sale*".

The Bonds will be represented by beneficial interests in the global note certificate (the "**Global Note Certificate**") in registered form which will be registered in the name of a nominee of, and shall be deposited on or about the Issue Date with a common depositary for, Euroclear Bank SA/NV ("**Euroclear**") and Clearstream Banking S.A. ("**Clearstream**", together with Euroclear, the "**Clearing Systems**"). Beneficial interests in the Global Note Certificate will be shown on, and transfers thereof will be effected only through, records maintained by Euroclear and Clearstream. Except as described herein, individual note certificates for Bonds ("**Individual Note Certificates**") will not be issued in exchange for beneficial interests in the Global Note Certificate.

The Bonds are expected to be rated "A-" by Fitch Ratings ("**Fitch**"). In addition, the Company has a long-term issuer default rating and unsecured rating of "A-" by Fitch; an issuer rating of "A3" by Moody's, and a long-term corporate credit rating of "BBB+" by S&P Global Ratings ("**S&P**"), all with a stable outlook. These ratings are only correct as at the date of this Offering Circular. A rating is not a recommendation to buy, sell or hold securities and may be subject to suspension, reduction or withdrawal at any time by the assigning rating agency.

Joint Global Coordinators, Joint Lead Managers and Joint Bookrunners

BOC International **Standard Chartered Bank**

Joint Lead Managers and Joint Bookrunners

CLSA **HSBC** **China International Capital Corporation**

ICBC International **CMB International**

Offering Circular dated [●] 2022

IMPORTANT NOTICE

Each of the Issuer and the Guarantor accepts full responsibility for the accuracy of the information contained in this Offering Circular and confirms, having made all reasonable inquiries that to the best of its knowledge and belief (i) this Offering Circular contains all information with respect to the Issuer, the Guarantor and its subsidiaries taken as a whole (collectively, the "**Group**"), the Bonds and the Guarantee of the Bonds which is material in the context of the issue, offering, sale, marketing or distribution of the Bonds (including all information which, according to the particular nature of the Issuer, the Guarantor and the Group and of the Bonds or the Guarantee of the Bonds is necessary to enable investors to make an informed assessment of the assets and liabilities, financial position, profits and losses and prospects of the Issuer, the Guarantor, the Group and of the rights attaching to the Bonds and the Guarantee of the Bonds), (ii) the statements contained in this Offering Circular are in every material respect true and accurate and not misleading, (iii) the statements of opinion, intention, belief or expectation expressed in this Offering Circular are honestly and reasonably made or held, have been reached after considering all relevant circumstances and are based on reasonable assumptions, (iv) there are no other material facts relating to the Issuer, the Guarantor, the Group, the Bonds and the Guarantee of the Bonds, the omission of which would, in the context of the issue, offering, sale, marketing or distribution of the Bonds and the giving of the Guarantee of the Bonds, make any statement in this Offering Circular, in light of the circumstances under which they were made, misleading, (v) all reasonable enquiries have been made by the Issuer and the Guarantor to ascertain such facts and to verify the accuracy of all such information and statements, and (vi) all statistical, industry and market related data included in this Offering Circular are derived from sources which the Issuer and the Guarantor reasonably believe are accurate and reliable.

This Offering Circular has been prepared by the Issuer and the Guarantor solely for use in connection with the proposed offering of the Bonds described in this Offering Circular. The distribution of this Offering Circular and the offering of the Bonds in certain jurisdictions may be restricted by law. Persons into whose possession this Offering Circular comes are required by the Issuer, the Guarantor, BOCI Asia Limited and Standard Chartered Bank (collectively, the "**Joint Global Coordinators**") and CLSA Limited, The Hongkong and Shanghai Banking Corporation Limited, China International Capital Corporation Hong Kong Securities Limited, ICBC International Securities Limited and CMB International Capital Limited (together with the Joint Global Coordinators, the "**Joint Lead Managers**"), the Trustee and the Agents (as defined in the "*Terms and Conditions of the Bonds*") to inform themselves about and to observe any such restrictions. No action is being taken to permit a public offering of the Bonds or the possession or distribution of this Offering Circular or any offering or publicity material relating to the Bonds in any jurisdiction where action would be required for such purposes. There are restrictions on the offer and sale of the Bonds and the circulation of documents relating thereto, in certain jurisdictions including, but not limited to, the United States, the United Kingdom, Hong Kong, the People's Republic of China, Singapore, Japan, Korea, Taiwan, Macau and the British Virgin Islands, and to persons connected therewith. For a description of certain further restrictions on offers, sales and resales of the Bonds and the distribution of this Offering Circular, see "*Subscription and Sale*". By purchasing the Bonds, investors represent and agree to all of those provisions contained in that section of this Offering Circular.

No person has been or is authorised in connection with the issue, offer or sale of the Bonds to give any information or to make any representation concerning the Issuer, the Guarantor, the Group, the Bonds or the Guarantee of the Bonds, other than as contained herein and, if given or made, any such other information or representation should not be relied upon as having been authorised by the Issuer, the Guarantor, the Group, the Joint Lead Managers, the Trustee or the Agents or any of their respective affiliates. Neither the delivery of this Offering Circular nor any offering, sale or delivery made in connection with the issue of the Bonds shall, under any circumstances, constitute a representation that there has been no change or development reasonably likely to involve a change in the affairs of the Issuer, the Guarantor or the Group since the date hereof or create any implication that the information contained herein is correct as of any date subsequent to the date hereof. This Offering Circular does not constitute an offer of, or an invitation by or on behalf of the Issuer, the Guarantor, the Joint Lead Managers, the Trustee or the Agents or any of their respective affiliates to subscribe for or purchase any of the Bonds and may not be used for the purpose of an offer to, or a solicitation by, anyone in any jurisdiction or in any circumstances in which such offer or solicitation is not authorised or is unlawful.

This Offering Circular is being furnished by the Issuer and the Guarantor in connection with the offering of the Bonds exempt from registration under the Securities Act solely for the purpose of enabling a prospective investor to consider purchasing the Bonds. Investors must not use this Offering Circular for any other purpose, make copies of any part of this Offering Circular or give a copy of it to any other person, or disclose any information in this Offering Circular to any other person. The information contained in this Offering Circular has been provided by the Issuer and the Guarantor and other sources identified in this Offering Circular. Any reproduction or distribution of this Offering Circular, in whole or in part, and any disclosure of its contents or use of any information herein for any purpose other than considering an investment in the Bonds offered by this Offering Circular is prohibited. Each offeree of the Bonds, by accepting delivery of this Offering Circular, agrees to the foregoing.

No representation or warranty, express or implied, is made or given by the Joint Lead Managers, the Trustee or the Agents or any of their respective affiliates, directors or advisers as to the accuracy, completeness or sufficiency of the information contained in this Offering Circular, and nothing contained in this Offering Circular is, or shall be relied upon as, a promise, representation or warranty by the Joint Lead Managers, the Trustee or the Agents or any of their respective affiliates, directors or advisers. The Joint Lead Managers, the Trustee and the Agents and their respective affiliates, directors or advisers have not independently verified any of the information contained in this Offering Circular and can give no assurance that this information is accurate, truthful or complete. This Offering Circular is not intended to provide the basis of any credit or other evaluation, nor should it be considered as a recommendation by the Issuer, the Guarantor, the Joint Lead Managers, the Trustee or the Agents that any recipient of this Offering Circular should purchase the Bonds. Each potential purchaser of the Bonds should determine for itself the relevance of the information contained in this Offering Circular and its purchase of the Bonds should be based upon such investigations with its own tax, legal and business advisers as it deems necessary.

This Offering Circular includes particulars given in compliance with the Rules Governing the Listing of Securities on the Hong Kong Stock Exchange for the purpose of giving information with regard to the Issuer, the Guarantor and the Group. Each of the Issuer and the Guarantor accepts full responsibility for the accuracy of the information contained in this Offering Circular and confirms, having made all reasonable enquiries, that to the best of its knowledge and belief there are no other facts the omission of which would make any statement herein misleading. Hong Kong Exchanges and Clearing Limited and the Hong Kong Stock Exchange take no responsibility for the contents of this Offering Circular, make no representation as to its accuracy or completeness and expressly disclaim any liability whatsoever for any loss howsoever arising from or in reliance upon the whole or any part of the contents of this Offering Circular. Investors are advised to read and understand the contents of this Offering Circular before investing. If in doubt, investors should consult his or her adviser.

The Issuer and the Guarantor are making the offering in reliance upon exemptions from the registration requirements of the Securities Act. These exemptions apply to offers and sales of securities that do not involve a public offering.

IN CONNECTION WITH THE ISSUE OF THE BONDS, ANY OF THE JOINT LEAD MANAGERS ACTING IN ITS CAPACITY AS THE STABILISING MANAGER (OR PERSONS ACTING ON BEHALF OF SUCH JOINT LEAD MANAGERS) (THE "STABILISING MANAGERS") MAY OVER-ALLOT THE BONDS OR EFFECT TRANSACTIONS WITH A VIEW TO SUPPORTING THE PRICE OF THE BONDS AT A LEVEL HIGHER THAN THAT WHICH MIGHT OTHERWISE PREVAIL FOR A LIMITED PERIOD AFTER THE ISSUE DATE. HOWEVER, THERE IS NO OBLIGATION ON SUCH STABILISING MANAGERS TO DO THIS. SUCH STABILISING, IF COMMENCED, MAY BE DISCONTINUED AT ANY TIME, AND MUST BE BROUGHT TO AN END AFTER A LIMITED PERIOD. SUCH STABILISING SHALL BE IN COMPLIANCE WITH ALL APPLICABLE LAWS, REGULATIONS AND RULES.

Listing of the Bonds on the Hong Kong Stock Exchange is not to be taken as an indication of the merits of the Issuer, the Guarantor, the Group, the Bonds or the Guarantee of the Bonds. In making an investment decision, investors must rely on their own examination of the Issuer, the Guarantor and the Group and the terms of the offering of the Bonds, including the merits and risks involved. See "*Risk Factors*" for a discussion of certain factors to be considered in connection with an investment in the Bonds. The Issuer, the Guarantor, the Group, the Joint Lead Managers, the Trustee and the Agents and their respective affiliates, directors and advisers are not making any representation to any purchaser of Bonds regarding the legality of any investment in the Bonds by such purchaser under any legal investment or similar laws or regulations. The contents of this Offering Circular should not be construed as providing legal, business, accounting or investment advice. Each person receiving this Offering Circular acknowledges that such person has not relied on the Joint Lead Managers, the Trustee, the Agents or any of their respective affiliates, directors or advisers in connection with its investigation of the accuracy of such information or its investment decision.

To the fullest extent permitted by law, none of the Joint Lead Managers, the Trustee, the Agents or any of their respective affiliates, directors or advisers accepts any responsibility for the contents of this Offering Circular or any statement made or purported to be made by any such person or on its behalf in connection with the Issuer, the Guarantor, the Group, the issue and offering of the Bonds or the giving of the Guarantee of the Bonds. Each of the Joint Lead Managers, the Trustee, the Agents and their respective affiliates, directors or advisers accordingly disclaims all and any liability whether arising in tort or contract or otherwise which it might otherwise have in respect of this Offering Circular or any such statement. None of the Joint Lead Managers, the Trustee, the Agents or any of their respective affiliates, directors or advisers undertakes to review the financial condition or affairs of the Issuer, the Guarantor or the Group for so long as the Bonds remain outstanding nor to advise any investor or potential investor of the Bonds of any information coming to the attention of any of the Joint Lead Managers, the Trustee, the Agents or their respective affiliates, directors or advisers.

Market data and certain industry forecasts and statistics in this Offering Circular have been obtained from both public and private sources, including market research, publicly available information and industry publications. Although the Issuer and the Guarantor believe this information to be reliable, it has not been independently verified by the Issuer, the Guarantor, the Joint Lead Managers, the Trustee or the Agents or their respective directors, advisers and affiliates, and none of the Issuer, the Guarantor, the Joint Lead Managers, the Trustee or the Agents or their respective directors and affiliates, advisers or employees makes any representation as to the accuracy or completeness of that information. In addition, third party information providers may have obtained information from market participants and such information may not have been independently verified. This Offering Circular summarises certain documents and other information, and investors should refer to them for a more complete understanding of what is discussed in those documents.

The contents of this Offering Circular have not been reviewed by any regulatory authority in any jurisdiction. Investors are advised to exercise caution in relation to the offer. If investors are in any doubt about any of the contents of this Offering Circular, investors should obtain independent professional advice.

PRESENTATION OF FINANCIAL INFORMATION

This Offering Circular contains the consolidated financial information of the Group as at and for the years ended 31 December 2020 and 2021, which has been derived from the Group's audited consolidated financial statements as at and for the year ended 31 December 2021. This Offering Circular also contains the consolidated financial information of the Group as at and for the year ended 31 December 2019, which has been derived from the Group's audited consolidated financial statements as at and for the year ended 31 December 2020. The audited consolidated financial statements of the Group as at and for the years ended 31 December 2020 and 2021 have been prepared and presented in accordance with the International Financial Reporting Standards ("**IFRS**") and have been audited by PricewaterhouseCoopers in accordance with International Standards on Auditing ("**ISA**") and are included elsewhere in this Offering Circular. This Offering Circular also contains unaudited consolidated financial information of the Group for the three months ended 31 March 2022, which has been derived from the unaudited results of the Group for the first quarter ended 31 March 2022 prepared by the Group in accordance with the Accounting Standards for Business Enterprises of the PRC, but has not been audited nor reviewed by PricewaterhouseCoopers. See "*Risk Factors – Risks Relating to the Group's Business and the Industries in which the Group Operates – The Company published and may continue to publish periodical financial information in the PRC pursuant to applicable PRC regulatory rules. Investors should be cautious and not place any reliance on the financial information other than that disclosed in this Offering Circular*".

CERTAIN DEFINITIONS AND CONVENTIONS

Unless the context otherwise requires, references in this Offering Circular to "**Renminbi**" and "**RMB**" are to the lawful currency of the PRC, "**U.S. dollars**", "**U.S.$**" and "**USD**" are to the lawful currency of the United States of America, "**Philippine peso**" and "**PHP**" are to the lawful currency of the Philippines, the "**PRC**" and "**China**" are to the People's Republic of China which for the purpose of this Offering Circular excludes the Hong Kong Special Administrative Region of the PRC, the Macau Special Administrative Region of the PRC and Taiwan, and "**Hong Kong**" are to the Hong Kong Special Administrative Region of the PRC.

In this Offering Circular, where information has been presented in thousands, millions, ten millions or billions of units, amounts may have been rounded up or down. Certain percentages included in this Offering Circular have also been rounded. Accordingly, totals of columns or rows of numbers in tables may not be equal to the apparent total of the individual items and actual numbers may differ from those contained herein due to rounding. References to information in billions of units are to the equivalent of a thousand million units.

Solely for convenience, this Offering Circular contains translations of certain Renminbi amounts into U.S. dollar amounts. Unless indicated otherwise, the translation of Renminbi amounts into U.S. dollar amounts has been made at the rate of RMB6.3726 to U.S.$1.00, (the noon buying rate in New York City on 30 December 2021 as set forth in the H.10 statistical release of the Federal Reserve Bank of New York). These translations should not be construed as representations that the Renminbi amounts could actually be converted into any U.S. dollar amounts at the rates indicated or at all. For further information relating to exchange rates, see "*Exchange Rate*".

The English names of the PRC nationals, entities, departments, facilities, laws, regulations, certificates, titles and the like are translations of their Chinese names and are included for identification purposes only.

FORWARD-LOOKING STATEMENTS

This Offering Circular includes "forward-looking statements". All statements other than statements of historical fact contained in this Offering Circular, including, without limitation, those regarding the Guarantor's and the Group's future financial position and results of operations, strategy, plans, objectives, goals and targets, future developments in the markets where the Guarantor or the Group participates or is seeking to participate, and any statements preceded by, followed by or that include the words "believe", "expect", "aim", "intend", "will", "may", "anticipate", "seek", "should", "estimate" or similar expressions or the negative thereof, are forward-looking statements. These forward-looking statements involve known and unknown risks, uncertainties and other factors, some of which are beyond the Guarantor's or the Group's control, which may cause its actual results, performance or achievements, or industry results to be materially different from any future results, performance or achievements expressed or implied by the forward-looking statements. These forward-looking statements are based on numerous assumptions regarding the Guarantor's and the Group's present and future business strategies and the environment in which the Guarantor or the Group will operate in the future. Important factors that could cause the Guarantor's or the Group's actual results, performance or achievements to differ materially from those in the forward-looking statements include, among others, the following:

- industry risks;
- general economic, political, social conditions and developments in China;
- the Group's business and operating strategies;
- the Group's capital expenditure plans;
- various business opportunities that the Group may pursue;
- the Group's operations and business prospects;

- the Group's financial condition and results of operations;
- fluctuation in price and availability of raw materials;
- availability and charges of bank loans and other forms of financing;
- changes in competitive conditions and its ability to compete under these conditions;
- changes in currency exchange rates; and
- other factors, including those discussed in "*Risk Factors*".

Additional factors that could cause actual results, performance or achievements to differ materially include, but are not limited to, those discussed under "*Risk Factors*" and elsewhere in this Offering Circular. The Issuer and the Guarantor caution investors not to place undue reliance on these forward-looking statements which reflect their managements' view only as of the date of this Offering Circular. Neither the Issuer nor the Guarantor undertakes any obligation to update or revise any forward-looking statements, whether as a result of new information, future events or otherwise. In light of these risks, uncertainties and assumptions, the forward-looking events discussed in this Offering Circular might not occur.

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SUMMARY

This summary below is only intended to provide a limited overview of information described in more detail elsewhere in this Offering Circular. As it is a summary, it does not contain all the information that may be important to prospective investors in deciding whether to invest in the Bonds. Prospective investors should read the entire Offering Circular, including the section entitled "Risk Factors" and the financial statements and related notes thereto, before making an investment decision. Terms defined elsewhere in this Offering Circular shall have the same meanings when used in this summary.

OVERVIEW

The Guarantor was established as a joint-stock company with limited liability under the PRC law on 12 September 2007 with a registered capital of RMB12.8 billion upon establishment. The A shares and H shares of the Guarantor were listed on the Shanghai Stock Exchange and the main board of the Hong Kong Stock Exchange on 3 December 2007 and 7 December 2007, respectively. The Guarantor's H shares and A shares have been included as a constituent of the MSCI China Index since 2014 and 2017, respectively. As at the date of this Offering Circular, China Railway Engineering Group Corporation, which is 90 per cent. owned by the State-owned Assets Supervision and Administration Commission of the State Council ("**SASAC**") and 10 per cent. owned by the National Social Security Fund ("**NSSF**"), held 46.93 per cent. of the shares of the Guarantor. The Guarantor has obtained Grade A in the SASAC Business Performance Appraisal for eight consecutive years since 2014. The Guarantor has obtained Grade A evaluation result of information disclosure in the Shanghai Stock Exchange for eight consecutive years since 2014. In 2015, the Guarantor was selected as one of the SSE 50 composite index companies, and in the same year it completed a RMB12 billion A-share non-public offering, the largest private placement market in 2015 in the PRC. The deal ranked the 2nd among New Fortune's Top Refinancing Projects.

The Group is one of the world's largest multi-functional integrated construction engineering contractors. Since 2006, the Group has been on the Fortune Global 500 list for 16 consecutive years. In 2021, the Group ranked 35th on the Fortune Global 500 list of companies, 2nd amongst Engineering News-Record ("**ENR's**") Top 250 Global Contractors and 5th amongst Fortune Top 500 Chinese Companies. The Group's principal business activities include infrastructure construction, survey, design and consulting services, engineering equipment and component manufacturing, property development and other businesses. Being a leader in the railway construction industry in the PRC since the 1950s, the Group currently is the largest railway construction group in the PRC in terms of total revenue of engineering contracts. The Group is responsible for building two-thirds of railway network, three-fifths of metros, 90 per cent. of electrified railway and has participated in the construction of many large and complex railway lines in the PRC. The Group is also a leader in the design and construction of bridges, tunnels and electrified railways, and the research, development and manufacturing of turnouts, steel bridge structures and tunnelling shields in the PRC. The Group has set up three national laboratories, namely the National Key Laboratory of High Speed Railway Construction Technology, the National Key Laboratory of Shield Tunnelling and Drilling Technology, and the National Key Laboratory of Bridge Structural Stability and Safety, representing the most advanced technology level in terms of railway, bridges, tunnels and rail transit construction in China.

The Group operates in every province across the PRC and has established a growing international presence, having undertaken construction projects covering more than 90 countries and regions globally. According to industry data compiled by the Group, the Group remained a leader of the infrastructure construction industry in 2021 and was the owner of the only national key laboratory of high-speed railway construction technique in the PRC as well as the biggest construction group in the railway infrastructure and urban railway infrastructure sectors in the PRC. The Group is the largest construction group in the fields of railway infrastructure and urban rail transit infrastructure in China. In 2021, the Group's share in the railway's large and medium-sized infrastructure market in China reached 46.6 per cent., its share in the urban rail transit infrastructure market in China has remained over 35 per cent., and its share in the expressway infrastructure market in China has remained over 10 per cent. As at 31 December 2021, the Group has a 43.4 per cent. market share in the PRC in terms of the total length of completed rails.

COMPETITIVE STRENGTHS

The Group believes that it has the following competitive strengths:

- The Group is well-positioned to capture growth opportunities in the rapidly growing PRC construction industry;
- The Group is one of the largest construction groups in the PRC and holds a leading position in China's infrastructure industry;
- The Group is a state-owned enterprise ("**SOE**") with strong support from its parent company – China Railway Engineering Group Company Limited, which has long operating history and is directly managed by SASAC and is of strategic importance to the PRC government;
- The Group is one of the pioneers in the execution of the "Belt and Road" Initiative of the PRC government;
- The Group's strong research and development capabilities, leading technologies and professional talent pool enable it to win and carry out large-scale and complex landmark projects;
- The Group has strong contract backlog which provides cash flow visibility;
- The Group has robust and prudent financial management, centralised fund management and diversified financing channels; and
- The Group has an experienced management team and a corporate culture of striving for excellence.

See *"Description of the Group – Competitive Strengths"*.

STRATEGIES

In 2021, the Group comprehensively deployed the "14th Five-Year Plan" science and technology innovation, carried out the first practical technology innovation competition, strengthened the promotion of practical technology achievements, and achieved world-leading results in the implementation of three special tasks. During the implementation period of the "14th Five-Year Plan", the Group will focus on improving its primacy position in the industry, in China and in the world, and on enhancing the synergy among various businesses in the industry chain, the value chain, supply chain and innovation chain. It is committed to becoming an enterprise with five characteristics in the new era: a national pillar with strong sense of responsibility, a pioneer with leading infrastructure, a leader in the industrial chain focusing on green development, a transnational company with brand influence and a modern enterprise with social respect. The Group's key strategies to achieve the above objectives are as follows:

- Continue to capture new overseas development and growth opportunities;
- Strengthen the Group's leading position in the PRC's infrastructure construction market and increase market share of the Group;
- Leverage the Group's advanced technical capabilities and equipment to pursue new opportunities arising from construction industry innovation and upgrading;
- Leverage the Group's expertise in the infrastructure construction business industry and the PRC government's national strategies to enhance competitiveness in emerging areas; and
- Further improve the Group's cost structure and operational efficiency.

See *"Description of the Group – Strategies"*.

RECENT DEVELOPMENTS

UNAUDITED FINANCIAL PERFORMANCE OF THE GROUP FOR THE THREE MONTHS ENDED 31 MARCH 2022

For the three months ended 31 March 2022, the Group achieved a moderate increase of total operating revenue compared with the three months ended 31 March 2021, primarily due to an increase in revenue contribution from its core business segments including the infrastructure construction and the survey, design and consulting services. Also, the Group recorded a moderate increase of total operating costs as compared with the corresponding period in 2021 primarily due to the continued expansion of its business. The Group recorded an increase in profit before tax for the three months ended 31 March 2022 as compared with the corresponding period in 2021, primarily due to the cost control measures implemented by the Group during such period.

As at 31 March 2022, the Group recorded a decrease in cash and cash equivalents as compared to corresponding amount as at 31 December 2021, primarily due to (i) the seasonal payments made by the Group for its project, labor and material costs shortly prior to the Chinese New Year holiday and (ii) the collection of payment from some project owners was delayed due to their shortage of fund.

As at 31 March 2022, the Group recorded an increase of short-term borrowings as compared with corresponding amount as at 31 December 2021, mainly due to replenishment of working capital.

As at 31 March 2022, the Group's contract backlog amounted to RMB4,896,260 million, representing an increase of 7.7 per cent. as compared with that as at the end of last year.

The first quarter financial information as at and for the three months ended 31 March 2022 has not been audited or reviewed by the Company's independent auditors, or any other independent accountants and may be subject to adjustments if audited or reviewed. Consequently, none of the Joint Lead Managers, the Trustee or the Agents (or any of their respective affiliates, directors, officers, employees, representatives, advisers, agents and each person who controls any of them) makes any representation or warranty, express or implied, regarding the accuracy of such financial statements or their sufficiency for an assessment of, and potential investors must exercise caution when using such data to evaluate the Group's financial conditions and results of operations. The first quarter financial information as at and for the three months ended 31 March 2022 should not be taken as an indication of the expected financial condition, results of operations and results of the Group for the full financial year ending 31 December 2022. Please refer to "*Risk Factors – Risks Relating to the Group's Business and the Industries in which the Group Operates – The Company published and may continue to publish periodical financial information in the PRC pursuant to applicable PRC regulatory rules. Investors should be cautious and not place any reliance on the financial information other than that disclosed in this Offering Circular*" for more information.

WINNING OF BIDS FOR MATERIAL PROJECTS OF THE GROUP FOR THE THREE MONTHS ENDED 31 MARCH 2022

On 26 January 2022, a consortium formed by the Company and its subsidiaries, China Railway No. 3 Engineering Group Co., Ltd. and Railway Engineering Consulting Group Co., Ltd. (the "**Consortium**"), signed the general contract for the engineering and construction of Package 1 of the Philippine National Railway ("**PNR**") South-Long Haul Project with the Department of Transportation of the Republic of the Philippines, pursuant to which, the Consortium will be responsible for the engineering and construction of the railway. The contractual amount is approximately PHP141,793 million, which is equivalent to approximately RMB17,554 million. This is the phase one project of the PNR South-Long Haul Project and mainly involves the greenfield construction of a 380km single-track non-electrified standard-gauge railway line with electrification conditions and includes 23 stations. Phase 1 is expected to be finished in the third quarter of 2025 and the entire railway line is expected to be completed in 2027. The design speed is 120-160km/h for passenger trains and 80-100km/h for freight trains.

In addition, in February and March 2022, the Group has also successfully won the bidding for 13 railway and municipal projects with an aggregate sum of approximately RMB91,852.0 million and 23 railway and municipal projects with an aggregate sum of approximately RMB38,193.4 million, respectively, in the PRC.

THE OFFERING

The following summary contains some basic information about the Bonds and is qualified in its entirety by the remainder of this Offering Circular. Some of the terms described below are subject to important limitations and exceptions. Words and expressions defined in "Terms and Conditions of the Bonds" shall have the same meanings in this summary. For a complete description of the terms of the Bonds, see "Terms and Conditions of the Bonds" in this Offering Circular.

Issuer	China Railway XunJie Co., Limited 中铁迅捷有限公司.
Guarantor	China Railway Group Limited (中國中鐵股份有限公司).
Bonds.	U.S.$[●] [●] per cent. Guaranteed Bonds due 20[●].
Guarantee of the Bonds	The Guarantor will unconditionally and irrevocably guarantee the due and punctual payment of all sums from time to time payable by the Issuer in respect of the Bonds.
Issue Price	[●] per cent.
Form and Denomination	The Bonds will be issued in registered form in the denomination of U.S.$200,000 each and integral multiples of U.S.$1,000 in excess thereof.
Interest.	The Bonds will bear interest from and including [●] 2022 at the rate of [●] per cent. per annum, payable semi-annually in arrear on [●] and [●] in each year, commencing [●] 20[●].
Issue Date	[●] 2022.
Maturity Date	[●].
Status.	The Bonds, when issued, will constitute direct, general, unconditional, unsubordinated and (subject to Condition 3(a) (*Negative Pledge*) of the Terms and Conditions of the Bonds) unsecured obligations of the Issuer will at all times rank *pari passu* and without any preference or priority among themselves and at least *pari passu* with all other present and future unsecured and unsubordinated obligations of the Issuer, save for such obligations as may be preferred by provisions of law that are both mandatory and of general application. The Guarantee of the Bonds will constitute a direct, general, unconditional, unsubordinated and (subject to Condition 3(a) (*Negative Pledge*) of the Terms and Conditions of the Bonds) unsecured obligation of the Guarantor which will at all times rank at least *pari passu* with all other present and future unsecured and unsubordinated obligations of the Guarantor, save for such obligations as may be preferred by provisions of law that are both mandatory and of general application.

Negative Pledge	The Bonds will contain a negative pledge provision as further described in Condition 3(a) (*Negative Pledge*) of the Terms and Conditions of the Bonds.
Taxation	All payments of principal, premium (if any) and interest in respect of the Bonds by or on behalf of the Issuer or the Guarantor shall be made free and clear of, and without withholding or deduction for or on account of, any present or future taxes, duties, assessments or governmental charges of whatever nature imposed, levied, collected, withheld or assessed by or on behalf of the British Virgin Islands or the PRC or any political subdivision thereof or any authority therein or thereof having power to tax, unless the withholding or deduction of such taxes, duties, assessments or governmental charges is required by law. Where such withholding or deduction is made by the Issuer or the Guarantor by or within the PRC up to the rate applicable on [●] 2022 (the "**Applicable Rate**"), the Issuer or, as the case may be, the Guarantor will pay such additional amounts as will result in receipt by the Bondholders after such withholding or deduction of such amounts as would have been received by them had no such withholding or deduction been required. In the event the Issuer or the Guarantor is required to make a deduction or withholding (i) by or within the PRC in excess of the Applicable Rate; or (ii) by or within the British Virgin Islands, the Issuer or the Guarantor, as the case may be, shall pay such additional amounts (the "**Additional Tax Amounts**") as will result in receipt by the Bondholders after such withholding or deduction of such amounts as would have been received by them had no such withholding or deduction been required, except that no Additional Tax Amounts shall be payable in respect of any Bond in the circumstances set out in Condition 7 (*Taxation*) of the Terms and Conditions of the Bonds.
Final Redemption	Unless previously redeemed or purchased and cancelled, the Bonds will be redeemed on [●] at their principal amount, subject as provided in Condition 6 (*Payments*) of the Terms and Conditions of the Bonds.
Tax Redemption	The Bonds may be redeemed at the option of the Issuer in whole, but not in part only, at any time, on giving not less than 30 nor more than 60 days' notice to the Bondholders (which notice shall be irrevocable) and in writing to the Trustee and Principal Paying Agent at their principal amount, together with interest accrued up to, but excluding, the date fixed for redemption, if, immediately before giving such notice, the Issuer satisfies the Trustee that (A) the Issuer or the Guarantor has or will become obliged to pay Additional Tax Amounts as provided or referred to in Condition 7 (*Taxation*) of the Terms and Conditions of the Bonds as a result of any change in, or amendment to, the laws or regulations of the British Virgin Islands or the PRC (in the case of the Issuer) or the PRC (in the case of the Guarantor) or any political subdivision or any authority thereof or therein having power to tax, or any change in the application or official interpretation of such laws or regulations (including but not limited to any decision by a court of competent jurisdiction), which change or amendment becomes effective on or after [●] 2022; and (B) such obligation cannot be avoided by the Issuer or the Guarantor, as the case may be, taking reasonable measures available to it, provided, however, that no such notice of redemption shall be given earlier than 90 days prior to the earliest date on which the Issuer or the Guarantor would be obliged to pay such Additional Tax Amounts if a payment in respect of the Bonds were then due or (as the case may be) a demand under the Guarantee of the Bonds were then made.

Redemption for Change of Control or a Non-Registration Event	At any time following the occurrence of a Change of Control (as defined in the Terms and Conditions of the Bonds) or a Non-Registration Event (as defined in the Terms and Conditions of the Bonds), the Holder of any Bond will have the right, at such Holder's option, to require the Issuer to redeem all but not some only of that Holder's Bonds on the Put Settlement Date (as defined in the Terms and Conditions of the Bonds) at 101 per cent. of their principal amount (in the case of a redemption for a Change of Control) or at 100 per cent. of their principal amount (in the case of a redemption for a Non-Registration Event), in each case together with accrued interest up to, but excluding, such Put Settlement Date, as further described in Condition 5(c) of the Terms and Conditions of the Bonds.
Events of Default	Upon the occurrence of certain events as described in Condition 8 (*Events of Default*) of the Terms and Conditions of the Bonds, the Trustee at its discretion may and, if so requested in writing by Holders of at least one quarter of the aggregate principal amount of the outstanding Bonds or if so directed by an Extraordinary Resolution (as defined in the Trust Deed), shall (subject to the Trustee having been indemnified and/or pre-funded and/or provided with security to its satisfaction) give written notice to the Issuer declaring the Bonds to be immediately due and payable, whereupon they shall become immediately due and payable at their principal amount together with accrued interest without further action or formality.
Cross-Default	The Bonds will contain a cross-default provision as further described in Condition 8(c) (*Cross-default of Issuer, Guarantor or Subsidiary*) of the Terms and Conditions of the Bonds.
Clearing Systems	The Bonds will be represented by beneficial interests in the Global Note Certificate, which will be registered in the name of a nominee of, and deposited on the Issue Date with a common depositary for, Euroclear and Clearstream. Beneficial interests in the Global Note Certificate will be shown on and transfers thereof will be effected only through records maintained by Euroclear and Clearstream. Except as described herein, individual note certificates for Bonds will not be issued in exchange for beneficial interests in the Global Note Certificate.
Clearance and Settlement.	The Bonds have been accepted for clearance by Euroclear and Clearstream under the following codes: ISIN: XS2486840544 Common Code: 248684054.
Governing Law	English law.
Jurisdiction	Each of the Issuer and the Guarantor will in the Deed of Guarantee and the Trust Deed agree for the benefit of the Trustee and the Bondholders that the Hong Kong courts shall have exclusive jurisdiction to settle any dispute arising out of or in connection with the Bonds (including any non-contractual obligation arising out of or in connection with the Bonds).

Trustee	China Construction Bank (Asia) Corporation Limited (中國建設銀行(亞洲)股份有限公司).
Listing	Application will be made to the Hong Kong Stock Exchange for the listing of, and permission to deal in, the Bonds on the Hong Kong Stock Exchange by way of debt issues to Professional Investors only, and it is expected that dealing in, and listing of, the Bonds on the Hong Kong Stock Exchange will commence on [●] 2022.
Rating	The Bonds are expected to be rated "A-" by Fitch. A rating is not a recommendation to buy, sell or hold securities and may be subject to revision, suspension or withdrawal at any time by the assigning rating organization.
Use of Proceeds	See the section entitled "*Use of Proceeds*".

SELECTED CONSOLIDATED FINANCIAL INFORMATION OF THE GUARANTOR

The following tables set forth the summary consolidated financial information for the Guarantor as at and for the years ended 31 December 2019, 2020 and 2021.

*The audited consolidated financial information of the Guarantor as at and for the year ended 31 December 2019 included in this Offering Circular have been extracted from the Guarantor's audited consolidated financial statements as at and for the year ended 31 December 2020 (the "**2020 Annual Report**"). The audited consolidated financial information of the Guarantor as at and for the years ended 31 December 2020 and 2021 included in this Offering Circular have been extracted from the Guarantor's audited consolidated financial statements as at and for the year ended 31 December 2021 (the "**2021 Annual Report**"). The audited consolidated financial information of the Guarantor as at and for the years ended 31 December 2019, 2020 and 2021 have been prepared and presented in accordance with IFRS and have been audited by PricewaterhouseCoopers in accordance with ISA. The information set out below should be read in conjunction with and reference to the 2020 Annual Report and the 2021 Annual Report (including the notes thereto).*

The consolidated financial information of the Guarantor for the years ended 31 December 2019, 2020 and 2021 should not be taken as an indication of the expected financial condition or results of operations of the Guarantor or the Group for the financial year ending 31 December 2022.

Consolidated Income Statement and Statement of Comprehensive Income of the Guarantor

	Year ended 31 December		
	2019	**2020**	**2021**
		RMB million	
Revenue	850,843	974,732	1,073,272
Cost of sales and services	(770,979)	(884,543)	(969,886)
Gross profit	79,864	90,189	103,386
Other income	1,996	2,219	2,736
Other expenses	(16,511)	(21,838)	(24,756)
Other gains/(losses), net	5,705	662	(82)
Net impairment losses on financial assets and contract assets:	(4,507)	(2,556)	(5,478)
Losses from derecognition of financial assets at amortised cost:	(3,367)	(3,302)	(4,595)
Selling and marketing expenses	(4,605)	(4,857)	(5,948)
Administrative expenses	(24,474)	(24,668)	(27,418)
Finance income	2,200	4,324	6,105
Finance costs	(5,574)	(6,756)	(7,616)
Share of post-tax profits/(losses) of joint ventures	360	164	(507)
Share of post-tax profits of associates	2,100	2,031	3,809
Profit before income tax	33,187	35,612	39,636
Income tax expense	(7,808)	(8,362)	(9,166)
Profit for the year	25,379	27,250	30,470
Other comprehensive income/(expense), net of income tax			
Items that will not be reclassified to profit or loss:			
Remeasurement of retirement and other supplemental benefit obligations	(16)	1	(78)
Income tax relating to remeasurement of retirement and other supplemental benefit obligations	–	2	13
Changes in the fair value of equity investments at fair value through other comprehensive income	(94)	(260)	57
Income tax relating to changes in the fair value of equity investments at fair value through other comprehensive income	17	63	(19)
	(93)	(194)	(27)

	Year ended 31 December		
	2019	2020	2021
		RMB million	
Items that may be reclassified subsequently to profit or loss:			
Exchange differences on translating foreign operations	114	(500)	(64)
Share of other comprehensive income of associates	42	(189)	(106)
Fair value gains on cash flow hedging instrument, net of deferred tax	1	–	–
	157	(689)	(170)
Other comprehensive income/(expenses) for the year, net of tax	64	(883)	(197)
Total comprehensive income for the year	25,443	26,367	30,273
Profit for the year attributable to:			
Owners of the Guarantor	23,678	25,188	27,618
Non-controlling interests	1,701	2,062	2,852
	25,379	27,250	30,470
Total comprehensive income for the year attributable to:			
Owners of the Guarantor	23,736	24,377	27,458
Non-controlling interests	1,707	1,990	2,815
	25,443	26,367	30,273
Earnings per share for profit attributable to owners of the Company			
– Basic	RMB0.950	RMB0.963	RMB1.037
– Diluted	RMB0.950	RMB0.963	RMB1.037

Consolidated Balance Sheet of the Guarantor

	As at 31 December		
	2019	2020	2021
		RMB million	
ASSETS			
Non-current assets			
Property, plant and equipment	68,406	74,384	77,368
Right-of-use assets	2,229	1,892	1,659
Lease prepayments	13,198	14,826	14,561
Deposits for investments	1,098	453	441
Investment properties	11,167	12,046	12,065
Intangible assets	25,559	62,599	110,496
Mining assets	3,732	3,582	3,479
Contract assets	87,885	138,759	161,377
Investments in joint ventures	29,314	40,216	49,831
Investments in associates	30,565	38,133	46,181
Goodwill	1,040	1,412	1,568
Financial assets at fair value through other comprehensive income	10,472	9,668	12,164
Other financial assets at amortised cost	13,929	18,773	22,960
Financial assets at fair value through profit or loss	8,637	10,564	12,294
Deferred tax assets	8,012	9,333	10,372
Other prepayments	345	429	332
Trade and other receivables	30,683	20,801	23,374
	346,271	457,870	560,522
Current assets			
Lease prepayments	356	319	269
Properties held for sale	25,018	34,143	48,745
Properties under development for sale	133,776	117,576	109,330
Inventories	40,945	40,943	45,371
Financial assets at fair value through other comprehensive income	393	522	526
Trade and other receivables	203,256	209,861	249,169
Contract assets	130,155	145,611	149,142
Current income tax recoverable	2,641	3,451	3,736
Other financial assets at amortised cost	9,630	9,694	8,553
Financial assets at fair value through profit or loss	5,441	5,218	7,304
Restricted cash	19,973	29,305	30,797
Cash and cash equivalents	138,186	145,464	148,116
	709,770	742,107	801,058
Total assets	1,056,041	1,199,977	1,361,580

	As at 31 December		
	2019	2020	2021
		RMB million	
EQUITY			
Share capital	24,571	24,571	24,571
Share premium and reserves	165,204	183,888	204,927
Perpetual notes	31,535	46,738	45,624
Equity attributable to owners of the Guarantor	221,310	255,197	275,122
Non-controlling interests	24,018	57,849	83,072
Total equity	245,328	313,046	358,194
LIABILITIES			
Non-current liabilities			
Trade and other payables	7,681	7,983	10,263
Borrowings	118,934	166,997	198,503
Lease liabilities	1,450	1,237	972
Retirement and other supplemental benefit obligations	2,770	2,482	2,293
Provisions	1,053	562	761
Deferred government grants and income	1,007	1,071	1,087
Deferred tax liabilities	1,784	1,454	1,647
	134,679	181,786	215,526
Current liabilities			
Trade and other payables	446,037	488,304	522,411
Contract liabilities	110,370	124,660	144,095
Current income tax liabilities	5,824	7,969	7,100
Borrowings	112,311	83,058	113,424
Lease liabilities	1,037	526	360
Retirement and other supplemental benefit obligations	359	323	300
Financial liabilities at fair value through profit or loss	85	65	122
Provisions	11	240	48
	676,034	705,145	787,860
Total liabilities	810,713	886,931	1,003,386
Total equity and liabilities	1,056,041	1,199,977	1,361,580
Net current liabilities	33,736	36,962	13,198
Total assets less current liabilities	380,007	494,832	573,720

Other Financial Data

	As at and for the Year Ended 31 December	
	2020	**2021**
	RMB million	
Gross interest expenses[1]	10,771	11,665
Total cash balance[2]	174,769	178,913
Total debt[3]	376,478	457,354
Net debt[4]	201,709	278,441
Total borrowings	250,055	311,927
Total capital[5]	689,524	815,548
Total debt/Total equity	120.3%	127.7%
Net debt/Total capital	29.3%	34.1%
Total liabilities/Total assets	73.9%	73.7%

Notes:

(1) Gross interest expenses = Total interest expenses + interest capitalised

(2) Total cash balance = Cash and cash equivalents + restricted cash

(3) Total debt = Total borrowings + lease liabilities + contract liabilities

(4) Net debt = Total debt – total cash balance

(5) Total capital = Total debt + total equity

RISK FACTORS

Investors should carefully consider all of the information in this Offering Circular, including the risks and uncertainties described below, before making an investment in the Bonds. The business, financial condition or results of operations of the Group may be materially and adversely affected by any of these risks. The Issuer and the Guarantor believe that the risks described below represent the principal risks inherent when considering an investment in the Bonds. However, the risks described below are not the only ones relevant to the Issuer, the Guarantor, the Group or the Bonds. Additional risks and uncertainties not presently known to the Issuer and the Guarantor, or which the Issuer and the Guarantor currently deem immaterial, may also have an adverse effect on the Group's financial condition or results of operations or an investment in the Bonds. If any of the possible events described below occur, the Group's financial condition or results of operations could be materially and adversely affected. In such case, the Issuer or the Guarantor may not be able to satisfy their respective obligations under the Bonds, and investors could lose all or part of their investment. This Offering Circular also contains forward-looking statements that involve risks and uncertainties. The Group's actual results could differ materially from those anticipated in these forward-looking statements as a result of certain factors.

Risks Relating to the Group's Business and the Industries in which the Group Operates

The Group's business is largely dependent on the level of the PRC government's spending on transportation and other infrastructure.

The Group's business growth largely depends on continued spending by the relevant PRC government agencies to build railways, urban railways and other public transportation infrastructure, including roads, bridges and tunnels as well as certain other municipal works. Any significant reduction in the PRC government's public budgets relating to infrastructure, particularly the transportation infrastructure sector, could have a material and adverse effect on the Group's business. Various factors affect the nature, scale, location and timing of the PRC government's public investment plans in the transportation infrastructure sector of the PRC. These factors include the PRC government's policy and priorities regarding different regional economies across the PRC, and the PRC government's fiscal and monetary policies which could affect the availability of credit and funding for projects. The PRC government's annual investment in railway and other infrastructure projects has fluctuated in recent years and may have an adverse effect on the Group's business, financial condition, results of operations and prospects.

The Group's business is affected by the level of growth in the national and regional economies in the PRC, and the general level of activity and growth in the industries in which the Group operates.

The infrastructure construction business and the survey, design and consulting services business of the Group are affected by the general level of activity and growth in the construction industry in the PRC. Factors which may influence the performance and growth of the construction industry include general national economic conditions, mortgage and interest rate levels, inflation, unemployment, demographic trends, gross domestic product growth and consumer confidence. The Group's financial condition and results of operations could be materially and adversely affected by a downturn in the construction industry in the PRC or in any of the regional markets where the Group operates.

Success of the Group's property development business is largely affected by the environment of the PRC property sector. The PRC property market is, and is expected to continue to be, cyclical in nature and affected by government policies. In 2021, the PRC government generally tightened the real estate industry policy in early 2021 which was later relaxed in late 2021 and early 2022. In the first three quarters of 2021, policies to supervise on real estate financing, housing loans, and land transfer were implemented to slow down the overheating of the real estate industry, which led to increased credit risks across the real estate sector. After September 2021, regulators released stability maintenance signal and the real estate industry entered a regulatory policy relaxation period, but risk exposure to the real estate industry remains. It is difficult to predict the future demand for properties development in the PRC in future, which remains subject to various social, political, economic, legal and other factors. Any further weakening in the PRC property sector could adversely affect the financial condition and results of operations of the property development business and the Group as a whole.

The insufficient effective investment demand under multiple factors such as the deferred special debt issuance, hidden debt risk prevention and resolution, real estate regulation tightening, repeated pandemics, tightened control over energy consumption, impact of upstream prices and upward supply, downstream domestic demand contraction, and weakening market expectations, may have an adverse effect on the Group's business, financial condition, results of operations and prospects.

The Group generates a significant part of its revenue from a few customers. As a result, the Group is exposed to significant credit risks and has limited ability to obtain favourable prices for its services and products relating to infrastructure construction business projects.

The China State Railway Group Co., Ltd. (formerly known as China Railway Corporation), which was founded on 14 March 2013 by the State Council, is the largest customer of the Group. For the year ended 31 December 2021, sales to the China State Railway Group Co., Ltd. accounted for approximately 18.7 per cent. of the total revenue of the Group. For the same period, sales to the five largest customers of the Group (including the China State Railway Group Co., Ltd.) in aggregate accounted for approximately 20.5 per cent. of the total revenue of the Group. The Group is also exposed to concentrated credit risk in respect of trade receivable as the Group's largest trade receivable and the five largest trade receivables represented 9 per cent. and 18 per cent. of the total trade receivables respectively, for the year ended 31 December 2021. For the year ended 31 December 2020, the Group's largest trade receivable and five largest trade receivables accounted for 10 per cent. and 19 per cent. of the total trade receivables, respectively.

Any deterioration of the credit quality of China Railway Corporation will have a material impact on the Group, including decreased investment in infrastructure projects and railway project bids, decreased funding for new railway projects or a delay in, or suspension of, existing projects, delay in payments due to the Group, an increase in trade receivable days and a decrease in the cash position of the Group. This may also put pressure on the Group to further diversify its operations into the other businesses the Group operates.

The Group's ability to obtain favourable prices for its services and products relating to railway construction and other infrastructure projects is limited. The Group's contracts in relation to these projects are subject to significant government pricing oversight and control. Reference prices relating to transportation infrastructure projects are often published by the relevant PRC government agencies, including the Ministry of Transport of the PRC, as a measure to determine the maximum amount that may be charged on a project. Any downward adjustment in these reference prices or failure to increase them sufficiently to offset rising raw material, labour or other costs, particularly as technical specifications increase and more advanced equipment is required, could reduce the Group's margins and have a material and adverse effect on the Group's financial condition and results of operations. The Group's limited pricing power is also attributable to market practice and the fact that the Group deals with a very limited number of customers for some of its businesses. Also, public construction projects are typically awarded through a public tender process in which aggressive prices are offered among bidders in order to attempt to win the tender.

In addition, as a result of its position as the Group's largest customer, China Railway Corporation has a very strong bargaining position with regard to contract value and other aspects of the projects the Group undertakes for it. If China Railway Corporation decides to exercise its power to adjust the contract value of construction projects, the Group's financial condition and results of operations could be affected.

The Group engages in public interest projects which may have a material and adverse effect on the Group's financial condition and results of operations.

As a state-owned enterprise, the Group engages and participates in projects which are motivated by public interests and social welfare development. Although the Group has in place internal policies regarding cost-control and project management efficiency, such projects may not be commercially viable and the Group may not be able to recover its investment or achieve financial returns in a commercially desirable time frame, or at all. The Group has received financial allocation or capital injections, cash or other assets, and may receive other financial support from government for such government-sponsored projects. However, such financial support may not always be available due to the government's liquidity, budgeting priority and other considerations. In addition, such financial support may not be sufficient to cover the Group's investment. There can be no assurance that the Group's business, financial condition and results of operations will not be adversely affected as a result.

The Group's offshore operations are subject to economic and political uncertainties in overseas markets.

The Group has operations in overseas countries and regions, including newly emerging markets. The Group's business is therefore subject to changing international economic and political conditions, including Middle East and Africa where political and economic conditions are often subject to instability. The Group is also one of the pioneers in the execution of the PRC government's "Belt and Road" initiative which aims to enhance the interconnection of the infrastructure of the countries situated on the original Silk Road through Central Asia, West Asia, the Middle East and Europe. In addition, the US-China trade war, recent warfare between Russia and Ukraine, impositions of sanctions against Russia by various countries and Russia's counter-sanction measures have all brought new challenges and uncertainties to the global economy.

As a result of its overseas operations, the Group is exposed to various risks associated with conducting business in foreign countries and regions that include:

- political risks including risks of loss due to civil unrest, acts of terrorism, acts of war, regional and global political or military tensions, and strained or altered foreign or community relations related to the PRC or other relevant countries;

- economic, financial and market instability, and credit risks, such as those relating to the potential deterioration of the credit markets and other economic conditions in the United States and other countries;

- changes in foreign government regulations or policies;

- dependence on foreign governments or entities controlled by such foreign governments for electricity, water, transportation and other utility or infrastructural needs;

- trade restrictions or embargoes;

- sanctions imposed by certain countries against transactions with other countries in which the Group conducts businesses, which may limit the Group's ability to obtain funding for certain overseas projects;

- expropriation and nationalisation of the Group's assets in foreign jurisdictions; and

- lack of well-developed or independent legal systems in foreign jurisdictions in which the Group has overseas operations, which may create difficulties in the enforcement of contractual rights.

Some of the Group's services are performed in jurisdictions that are subject to political, social or economic risks, or war or civil unrest. In those jurisdictions where the Group has employees or operations, the Group may incur substantial costs to implement safety and security measures to protect its personnel and assets. Such measures may not always be adequate.

Operations in overseas markets also expose the Group to a number of risks, including: expropriation and nationalisation of its assets in foreign countries; civil unrest, acts of terrorism, war, or other armed conflict; natural disasters; inflation; currency fluctuations, devaluations and conversion restrictions; confiscatory taxation or other adverse tax policies; governmental activities that limit or disrupt markets, restrict payments or limit the movement of funds; government activities that may result in the deprivation of contract rights; lack of a well-developed legal system that makes it difficult to enforce the Group's contractual rights; and, government policies that may result in the inability to obtain or retain licences required for operations.

In some of the high-risk locations where the Group has employees or operations, the Group may incur significant costs in safeguarding and securing its personnel and assets, and its measures aimed at protecting its personnel and assets overseas may not always be sufficient and effective. In addition, to the extent that the Group's overseas operations require it to work closely with foreign governments in developing local infrastructure, the Group may be implicated by actions taken by such foreign governments (for example, where the local population is forcibly relocated to free up land for development purposes) which may result in adverse publicity for the Group. To the extent that the Group's international business is affected by unexpected and adverse foreign economic and political conditions, the Group may experience project disruptions, losses of assets and personnel, and other indirect losses that could adversely affect the Group's business and results of operations.

The Group may be subject to sanctions if it conducts transactions in violation of the relevant sanctions regulations, which would adversely affect investment in the Bonds.

The Group is involved in engineering and construction projects, including being contractors to perform a variety of civil engineering and construction projects and work, such as the construction, upgrade, repair and maintenance of urban metro systems, inter-city railways, highways, ferry piers, sewage treatment plants and public and residential buildings, in countries which are currently the subject of sanctions imposed by certain countries and international organisations (such as the Republic of Guinea, Democratic Republic of Congo, Iran, Iraq and Venezuela). The sanction laws of different jurisdictions have been evolving and changing and there can be no assurance that the Guarantor and its subsidiary or affiliates will not be subject to any sanctions due to their dealings, investments and operations in countries or with persons outside of China. Should the Group be regarded as being in breach of the sanction measures imposed by applicable sanction authorities, and consequently, the Group's ability to obtain funding for certain overseas projects may be limited. Further, if it was determined that any of the Group's transactions violated applicable sanctions regulations, the Group could be subject to penalties and its reputation and ability to conduct future business in the United States or other relevant jurisdictions or with U.S. persons or other relevant persons could be adversely affected, which could adversely affect an investment in the Bonds.

Our business and financial results may be adversely affected by geopolitical factors arising in connection with the recent warfare between Russia and Ukraine. The United States and other nations have suggested the possibility of imposing secondary sanctions on China, Chinese banks and Chinese businesses that do business with Russia or its allies, including Belarus. We may be affected by sanctions if third parties with which we do business, such as customers, suppliers, intermediaries, services providers or banks, are subject to such sanctions or if broader scope of sanctions are imposed. Our business and operations may also be adversely impacted by any actions taken by the Chinese authorities in response to the Russia-Ukraine war or any actual or threatened sanctions. As at the date of the Offering Circular, the Group has no ongoing construction projects in Ukraine and Belarus. The Group's projects conducted in Russia has reached closing stage and revenue generated from such projects were negligible.

The Group is exposed to credit risks of its customers. It receives payments in relation to construction projects in stages and had incurred significant receivables, and any delay in payments from its customers may affect the Group's working capital and cash flow.

Most of the Group's construction projects involve a long completion time and, therefore, contracts with respect to the infrastructure construction business generally require the Group's customers to make payments in stages upon the Group achieving certain project milestones. For the years ended 31 December

2020 and 2021, the Group's trade and bills receivables were RMB139,831 million and RMB157,025 million, respectively. In addition, in the event that customers do not pay to the Group prepayment of the contract value, the Group bears the risk of pre-paying costs and expenditures relating to projects. From time to time, the Group is required to pay in advance significant costs and expenditures in respect of projects undertaken by it, before the milestone payments are due under the relevant contracts. Such time gaps in payments and receipts, together with other factors, could create pressure on the cash flow of the Group. For instance, the Group had been experiencing negative operating cashflows from time to time. The Group also typically provides a one-year defects liability period for most of its projects, during which usually an amount of up to 5 per cent. and, in some circumstances, up to 10 per cent. of the contract price would be retained by the relevant customers as retention moneys for any required defects rectification during the period. The retention moneys are paid to the Group upon the expiration of the defects liability period, subject to its rectification of any defects.

In addition, defaults in making payments to the Group on projects for which it has already incurred significant costs and expenditures can materially and adversely affect the Group's results of operations and reduce its financial resources that would otherwise be available to fund other projects. In general, the Group makes provisions for bad debts, including those relating to payments from customers on ongoing or completed projects, based primarily on period of delay of payment and other factors affecting the perceived likelihood of receivables collection. There is no assurance that the Group's customers will make payment in full on a timely basis or that the Group will be able to efficiently manage the level of bad debt arising from receipt of payments in stages.

The Group is also engaged in certain build-and-transfer ("**BT**") projects. BT projects expose the Group to the creditworthiness of the eventual owner of the asset when title to the asset passes to the owner before payment of all sums due.

Defaults and delays by the Group's customers may be difficult to detect, anticipate or prevent. In particular, if any of the Group's customers were to go into liquidation or bankruptcy, the Group may not be able to receive full or any payment of uncollected sums due to the Group or enforce any judgment debts against such customers. Non-payment or delay in payments by the Group's customers may materially and adversely affect the Group's level of profitability.

The Group's business is capital intensive. The Group and certain of its subsidiaries have substantial financial liabilities and may incur substantial additional financial liabilities in the future.

Any failure to obtain sufficient funding may adversely affect the Group's growth prospects and expansion plans.

A significant portion of the Group's business, including its infrastructure construction business, manufacturing, property development and mining activities, is capital intensive. The Group requires significant capital resources to fund its construction and manufacturing activities, to fund investment in projects such as BT, build-operate-transfer ("**BOT**") and public-private partnership ("**PPP**"), to build, maintain and operate its production and operation facilities and to purchase necessary production equipment. The Group also requires significant capital in relation to the property development business and its mining activities where it usually invests in land, undertakes the construction of property sites and conducts exploration and development of mining sites before the relevant mining projects can start generating any revenue. In addition, as discussed above, pursuant to some of the Group's construction contracts, the Group is required to pay costs and expenditures relating to projects prior to receiving sufficient payment from its customers to cover such costs and expenditures. A significant amount of capital resources is also required for further growth of its operating scale, and the expansion into new business areas and geographic markets may call for increased capital expenditures, further increasing its funding requirements.

To the extent that the Group's funding requirements exceed its financial resources, the Group will be required to seek additional debt or equity financing or to defer planned expenditures.

The Group has historically financed its working capital requirements and capital expenditures through a combination of internal cash flow from its operations and external financing, including bank and other borrowings. As the Group continues to expand rapidly, any delays in receiving its payment of receivables may lead to a negative operating cash flow which may have an adverse effect on the Group's operating results and financial position.

The Group's ability to obtain external financing in the future and the cost of such financing are subject to a variety of uncertainties, including:

- the condition of financial markets, in particular the credit market;
- potential changes in monetary policies with respect to bank interest rates and lending policy;
- the Group's ability to obtain the PRC government approvals required to access domestic or international financing; and
- the performance of each business segment in which the Group operates.

As at 31 December 2021, the Group had total borrowings of RMB311,927 million, representing a borrowings-to-assets ratio of 22.9 per cent. (calculated by dividing the Group's consolidated borrowings by total consolidated assets). As at 31 December 2020, the Group's borrowings-to-assets ratio was 20.8 per cent. Such financial liabilities may have severe consequences, including increasing the Group's vulnerability to adverse general economic and industry conditions and impeding the Group's credit.

Given the high level of the Group's financial leverage, any adverse change in the Group's cash flows from operating activities may weaken its financial condition and adversely affect its ability to repay on a timely basis and obtain external financing or credit on time or on terms acceptable to the Group. As at 31 December 2021, 36.4 per cent. (31 December 2020: 33.2 per cent.) of the Group's total borrowings were short-term borrowings with maturities of one year and below. If the Group is unable to obtain financing on a timely basis or at a reasonable cost, the Group may not be able to undertake new projects or expand into new business areas and geographic markets, and its business, results of operations and financial condition could be adversely affected.

Additionally, a portion of the borrowings of the Group's subsidiaries are guaranteed by the Guarantor (including this issue of the Bonds). If a relevant subsidiary defaults on any such borrowings, the relevant lender may exercise its right under the guarantee to demand payment from the Guarantor. This may result in a funding shortage at the holding company level and adversely affect the financial support that the Guarantor may offer to other subsidiaries. The Group has also provided guarantees for the indebtedness of some entities outside the Group. As at 31 December 2021, external guarantee given to banks in respect of banking facilities to joint ventures, associates and government-related entities amounted to RMB8,179 million. If a guaranteed entity defaults on such indebtedness, the Group would be required to perform its obligations under the relevant guarantee, which could adversely affect its financial condition.

If the Group is unable to estimate accurately or control its costs or the scope of work the Group is required to perform, the Group's profitability could be adversely affected.

Substantially all of the Group's contracts relating to its infrastructure construction business, survey, design and consulting services business, and engineering equipment and component manufacturing business require the Group to complete a project for a pre-agreed fixed price or price per unit. The Group is typically responsible for all of its own costs, and its ability to make a profit on any project or product is largely dependent on the Group's ability to control these costs effectively. Cost overruns may result in a lower profit or even a loss on a project. The amount of total costs the Group incurs on a project is influenced by a variety of factors, including climatic conditions, variations in labour and equipment productivity and costs over the term of a contract, changes in project scope or conditions and fluctuations in the price of raw materials and components, many of which are beyond the Group's control. Increases in costs on any particular project, especially to the extent that such increases were unforeseen and not factored into the original price, may lead to lower than expected profits, or even losses, which could materially and adversely affect the Group's business, financial condition and results of operations.

The inherent hazardous nature of the Group's business exposes the Group to potential liabilities, which could harm its reputation and cause it to incur substantial costs.

Due to the nature of the Group's business, it engages or may engage in certain inherently hazardous activities, including operations at height, tunnel construction, use of heavy machinery, mining and working with flammable and explosive materials. Despite the Group's arrangements for appropriate insurance coverage for the aforementioned activities and compliance with the requisite safety requirements and standards, the Group is subject to risks surrounding these activities, such as geological catastrophes, toxic gas, equipment failure, industrial and railway accidents, fire and explosion. These hazards can cause personal injury and loss of life, damage to or destruction of property and equipment, and environmental damage and pollution, any of which could result in the suspension of the Group's operations and the imposition of civil or criminal penalties. Please refer to the sections headed "*Description of the Group – Health and Safety*" and "*Description of the Group – Environmental Protection and Social Responsibility*" in this Offering Circular for more information. The Group may also be subject to claims, resulting from the subsequent use of facilities and products it has constructed, from customers or other third parties.

If the Group fails to protect itself or third parties adequately against these potential liabilities, the Group could be forced to incur certain costs which could have a material and adverse effect on its financial condition and results of operations. Furthermore, any harm caused by its operations could damage its reputation and relationship with regulators and other customers, which may materially hinder the Group's chance to win tenders for new projects.

The Group is required to comply with various environmental and health and safety laws and regulations which are extensive and compliance with which may be onerous or expensive.

The Group is required to comply with various and extensive environmental as well as health and safety laws and regulations promulgated by the PRC government and the governments of other overseas jurisdictions in which it operates. The Group is not aware of any material violation of the requirements of existing environmental protection laws and regulations. However, there can be no assurance that the Group will not encounter problems in obtaining the required licences and approvals for the operation and development of its business or in fulfilling the conditions of such licences and approvals from time to time. If the Group fails to comply with the relevant laws and regulations and obtain the required licenses, it could be exposed to penalties, fines, suspension or revocation of its licences or permits to conduct business, administrative proceedings and litigation. Given the magnitude and complexity of these laws and regulations, compliance with them or the establishment of effective monitoring systems may be onerous or require a significant amount of financial and other resources. As these laws and regulations continue to evolve, there can be no assurance that the PRC government or the governments of other overseas jurisdictions in which the Group has operations will not impose additional or more onerous laws or regulations, compliance with which may cause the Group to incur significantly increased costs, which the Group may not be able to pass on to its customers.

The Group may cease to enjoy government subsidies and grants, the loss of which, or a reduction in which, could have a material and adverse effect on the Group's business, financial condition, results of operations and prospects.

For the years ended 31 December 2020 and 2021, the government subsidies and grants received by the Group amounted to RMB1,147 million and RMB1,389 million, respectively. There can be no assurance that the Group will continue to receive the same government subsidies and grants or enjoy the same preferential treatment, since the relevant government policies may change over time. Any loss or reduction in government subsidies and grants or other form of government support could have a material and adverse effect on the Group's business, financial condition, results of operations and prospects.

The Group's corporate structure, which consists of a large number of companies in multiple business lines, exposes it to challenges to integrate and manage its business.

The Group consists of portfolio companies operating in multiple industries and has grown rapidly in its business scale and geographical coverage in recent years. Due to the diverse characteristics of the Group's portfolio companies, it faces challenges not found in companies with a single business line. In particular, the Group is exposed to business, market and regulatory risks relating to different industries. It needs to devote substantial resources to monitor changes in different operating environments so that it can react with appropriate strategies that fit the needs of the portfolio companies affected. As the Group continues to grow through acquisitions of businesses in an increasing number of different industries across various jurisdictions, its operations will become more widespread and complex and project management may become more difficult, which could in turn result in management risks. Successful operation of the Group's business requires an effective management and internal control system that emphasises proper authorisations, reliability and accountability of financial reporting, imposes financial and internal control disciplines on portfolio companies, and creates value-focused incentives for management.

In particular, it will become increasingly difficult for the Group to direct and monitor the day-to-day operations of its businesses and to prevent and detect fraud and protect the Group's assets, both physical and intangible. Moreover, the Company may not be able to control fully the actions of its non-wholly-owned subsidiaries and affiliates.

The Group requires permits or licences to undertake its business operations and any loss, termination or non-renewal of these permits or licences could have a significant and adverse impact on its business.

The Group requires permits and licences issued by the relevant government agencies to conduct its business and it must comply with the restrictions and conditions imposed by various levels of government to maintain its permits and licences. If the Group fails to comply with any of the regulations required for the maintenance of its permits and licences, its permits and licences could be temporarily suspended or even revoked, or the renewal of its licences, upon expiry of their original terms, may be delayed, which would directly impact on the Group's business operation. As of the date of this Offering Circular, some members of the Group have not obtained real property certificates for certain land plots and properties they own.

The Group faces significant and increasing competition in the markets in which it operates, and failure to compete effectively could adversely affect its business.

The Group experiences significant competition in the markets in which it operates, in particular in the road, bridge and tunnel construction, the survey, design and consulting services and the property development businesses. The Group's competition comes from various sources, including both large and local state-owned enterprises and private companies in the PRC, as well as leading international companies. The Group competes with other domestic construction companies for railway construction projects and expects to face increasing competition from both local and international players in the future. The intensive competition in the industries in which the Group operates also contributed to the compressed margins achieved by the Group. The overall gross profit margin for ended 31 December 2021 was 9.6 per cent., representing an increase of 0.3 per cent. as compared to 9.3 per cent. for the year ended 31 December 2020. Increased competition may result in loss of market share and may adversely impact the Group's results of operations and financial position.

The Group's backlog may not be indicative of its future results of operations.

In this Offering Circular, the Group has provided contract backlog figures that represent its estimate of the total contract value of work that remained to be completed pursuant to the terms of outstanding contracts as at a certain date. For instance, as at 31 December 2021, the aggregate contract backlog for infrastructure construction business of the Group was RMB4,211.2 billion. However, this figure is based on the assumption that the relevant contracts will be performed in full in accordance with their terms. Many of the Group's contracts do not provide for a fixed amount of work to be performed and are subject to modification or termination by the customer. The termination or modification of any one or more sizeable contracts may have a substantial and immediate effect on the Group's backlog. Furthermore, not all of the Group's revenue is recorded in backlog for a variety of reasons, including the fact that some projects begin and end within a short-term period. Projects may also remain in the Group's backlog for an extended period of time. There is no guarantee that the amount estimated in the Group's backlog will be realised in a timely fashion, or at all, or that, even if it is realised, will result in profits. As a result, investors are warned against unduly relying on the Group's backlog information presented in this Offering Circular as an indicator of the Group's future earnings or results of operations.

The Group is subject to rising costs for labour, materials and energy supplies, which may not be able to be passed on to construction contractors, sub-contractors or to purchasers.

Construction and development costs account for the majority of the Group's cost of sales and are one of the significant factors affecting the Group's financial condition and results of operations. Wages for construction workers and the prices of construction materials and building equipment have substantially increased in recent years. Under the terms of some of the Group's construction contracts, contractors or sub-contractors may adjust the contract prices to cover increases in wages and costs of construction materials. The Group may not be able to complete its projects as it originally budgeted when it submitted its tender to undertake the project. Even if the Group's construction contracts are fixed-price contracts with price-adjustment terms, the price-adjustment terms may not be sufficient to cover cost overruns from inflation or raw material price hikes and the Group may not be able to achieve matching fixed-price contracts with its sub-contractors. Rising costs may materially and adversely affect the results of operations of the Group.

The Group is also exposed to the price volatility of labour and construction materials to the extent that the Group periodically enters into new or renews existing construction contracts at different terms during the life of a project, which may span several years, or if the Group chooses to hire the construction workers directly or purchase construction materials directly from suppliers. Furthermore, the Group is unable to pass increased costs on to sub-contractors and pre-sale purchasers when the construction costs increase subsequent to the date of the pre-sale contract. If the Group is unable to pass on any increase in the cost of labour, construction materials or building equipment to either the construction contractors, sub-contractors or to the purchasers of the Group's properties, the Group's business, prospects, financial condition and results of operations may be materially and adversely affected.

The Group employs labour sub-contractors to provide additional manpower for its projects, which may expose the Group to reputation and litigation risks.

In the infrastructure construction business, the Group often engages labour sub-contractors to provide additional manpower on large projects. Outsourcing part of its labour force supplements the Group's production capacity, reduces the need to employ a large workforce and increases flexibility in carrying out contracts. The Group maintains relationships with a number of qualified labour sub-contractors located across the PRC. However, qualified labour sub-contractors may not always be readily available when the Group's needs for additional labour arise. The Group may incur additional costs in sourcing the services, equipment or supplies in shortage. If the Group is unable to hire qualified labour sub-contractors or additional part-time labourers, the Group's ability to take on additional projects or complete its current projects on time could be impaired. Also, if the cost for sub-contractors rises, the Group's profitability may be affected, particularly to the extent that such increase causes its labour costs to exceed what the Group has estimated in fixed-price or fixed-unit-price type contracts with its customers. In addition, the Group may not be able to monitor the performance of sub-contracted labour as directly and efficiently as its own employees. There can be no assurance that the services rendered by these independent contractors or sub-contractors will be satisfactory or will meet the project timelines. The failure of a labour sub-contractor's performance of its contractual obligations may require the Group to find a new sub-contractor or take actions to remedy the situation, which may result in delay and increased costs, affecting the profitability of the relevant project. Where a labour contractor fails to meet the Group's standards, the overall quality of the project may be affected. This could harm the Group's reputation and potentially expose the Group to litigation and claims for damages.

The Group's failure to protect adequately its intellectual property rights or any infringement claims brought by third parties against the Group may have an adverse effect on the Group's business, financial condition and results of operations.

The Group relies on patents, trademarks and copyrights to protect its intellectual property. In 2021, the Group was granted 7,170 authorized patents, of which 1,176 were for inventions. The Group has also developed numerous advanced systems, trade secrets, know-how, processes, technologies and other intellectual property that have enhanced its operational efficiency and enabled the Group to maintain its competitiveness. In addition, the legal regime governing intellectual property in the PRC is still evolving and the level of protection of intellectual property rights in the PRC may differ from that in other jurisdictions. In the event that the steps the Group has taken and the protection provided by law do not adequately safeguard its intellectual property rights, the Group could suffer losses due to the provision or the sale of competing services or products by others which exploit its intellectual property rights.

In addition, there can be no assurance that any of the Group's intellectual property rights will not be challenged, misappropriated or circumvented by third parties, or that the Group's competitors will not independently develop alternative technologies that are equivalent or superior to the Group's proprietary technologies. The Group may also be subject to claims for infringement of patents, trademarks or other intellectual property rights of others. Defending or otherwise dealing with any infringement claim, whether with or without merit, could be time-consuming, result in costly litigation or damages, undermine the value of the Group's brands and trademarks, reduce sales and/or require the Group to enter into royalty or licensing agreements that may not be on commercially acceptable terms.

The development and utilisation of new technology may not always produce positive results.

The Group is often engaged to undertake large and complicated projects that require it to design and develop new technologies and construction methods because of its strong research, design and development capabilities. There can be no guarantee that the Group would always successfully develop these new technologies and construction methods after substantial resources have been invested by the Group. The use of new technologies and construction methods could also result in experimental failures, increased costs or unstable conditions, affecting the profitability of some of the Group's projects, which could materially and adversely affect the business and results of operations of the Group.

The Group is exposed to risks in connection with contracting with public bodies.

As the PRC and other overseas government agencies (including entities administered and financed by such agencies) at national, provincial and local levels are the largest group of investors in the transportation infrastructure industry, they also form the Group's core customer base. The Group is therefore exposed to risks in connection with contracting with public bodies. Due to the fact that most of the transportation infrastructure projects are funded by government agencies, these projects are sometimes subject to changes or postponement arising from factors such as changes in government budget, changes in policy considerations or changes of government in certain overseas jurisdictions. In addition, disputes with public bodies may last for considerably longer periods of time than for those that occur with private sector counterparties, and payments from public bodies may be delayed as a result. All these risks may have an adverse effect on the Group's results of operations and financial position.

The Group's business may be adversely affected if it is unable to secure and retain qualified personnel for its operations.

The Group's operations depend upon its ability to attract and retain experienced and qualified personnel, including executive officers and key technical personnel, who have the necessary and required experience, knowledge and expertise. Competition for qualified personnel is intense in the PRC. The Group may lose such personnel to those competitors who are able to offer more competitive packages. The Group may have to increase significantly its related staff costs to remain competitive. The Group's future operating results will be dependent on its management's ability to maintain effective control over a large and diversified enterprise. To the extent that the Group is unable to recruit personnel with the necessary skills locally, the attention of its management could be diverted. If the Group cannot recruit and retain the qualified personnel necessary to execute its contracts or to perform necessary corporate activities, its business operation may be adversely affected.

The Group may face unexpected difficulties in expanding into new industries and markets.

To improve the Group's profitability, the Group plans to grow its operations in industries and markets with potential for deriving favourable returns, including mining and other municipal works, both in the PRC and abroad. Expansion in these industries and markets carries with it many associated risks, including risks related to insufficient operating experience in such industries and markets and insufficiently experienced management and employees to staff such expansion. Expansion may also place excessive pressure on the Group's financial, personnel and management resources that are otherwise available for the Group's current businesses. In addition, there are many established incumbent players in these markets who already enjoy significant market share and a favourable market position, and it may be difficult or expensive for the Group to win market share from them. Some of the overseas markets that the Group is targeting may have high barriers of entry to foreign players. There can be no assurance that the Group's expansion plans will be successful.

The Group has grown rapidly in its business scale and geographical coverage in recent years. As the Group continues to grow through acquisitions of businesses in an increasing number of different industries across various jurisdictions, its operations will become more widespread and complex and project management may become more difficult, which could in turn result in management risks. For instance, such rapid expansion also creates challenges and increases the difficulty of implementing the Group's management and internal control system. In particular, it will become increasingly difficult for the Group to direct and monitor the day-to-day operations of its businesses and to prevent and detect fraud and protect the Group's assets, both physical and intangible. Moreover, the Company may not be able to fully control the actions of its non wholly-owned subsidiaries and affiliates.

The Group's business, financial condition and results of operations may be affected by adverse weather conditions and natural disasters.

Adverse weather conditions, such as extreme cold weather, snow, typhoons, flooding and heavy or sustained rainfall and natural disasters such as earthquakes, landslides or mudslides, may prevent the Group from conducting its construction activities or otherwise affect its productivity, preventing the Group from completing its construction projects on schedule, delaying its receipt of payment and possibly causing the Group to incur increased operating expenses. Climatic conditions that are unusually severe or intense and occur at abnormal times or last longer than usual could therefore have a material adverse effect on the Group's business, financial condition and results of operations. Typically the Group's construction contracts allow the Group to claim for compensation of losses suffered as a result of adverse weather conditions or natural disasters. However, the Group does not normally receive full compensation and will bear some portion of the losses.

The Group faces litigation risks in the course of its business.

In the ordinary course of the Group's business, claims involving project owners, customers, labour sub-contractors, joint venture partners and other parties may be brought against the Group or by the Group in connection with its contracts from time to time. Claims may be brought against the Group for alleged defective or incomplete work, liabilities for defective products, related personal injuries and death, damage to or destruction of property, breaches of warranty and late completion of the project. The claims can involve actual damages and liquidated damages. If the Group was found to be liable on any of the claims against it, the Group would have to incur a charge against earnings to the extent that a reserve had not been established for the matter in its accounts, or to the extent that the claims were not sufficiently covered by its insurance. Claims brought by the Group against project owners may include claims for additional costs incurred in excess of current contract provisions arising out of project delays and changes in the initial scope of work. Claims between the Group and its labour sub-contractors and vendors may include claims similar to those described above.

Both claims brought against the Group and by the Group, if not resolved through negotiation, are often subject to lengthy and expensive litigation or arbitration proceedings such that the amounts ultimately realised from project claims by the Group could differ from the balances included in the Group's financial statements. Such claims could therefore have a material adverse impact on the Group's financial condition, results of operations and cash flow. See "Description of the Group – Legal Proceedings".

The Group may not have adequate insurance to cover all potential liabilities or losses.

The Group believes that it maintains insurance that is consistent with market practice in the relevant PRC industries and in amounts that the Group believes to be adequate. However, the Group faces various risks in connection with its businesses and may lack adequate insurance coverage for such risks or may have no relevant insurance coverage. There can be no assurance that the insurance maintained by the Group will provide adequate coverage in all circumstances. Although the Group has had a track record of safe operation, there can be no assurance that hazards, accidents or mishaps will not occur in the future. The occurrence of any such incident for which the Group is uninsured or inadequately insured may have a material adverse effect on its business, financial condition and results of operations.

The Group may not be able to detect and prevent fraud or other misconduct committed by its employees, representatives, agents, customers or other third parties.

The Group may be exposed to fraud or other misconduct committed by its employees, representatives, agents, customers or other third parties that could subject it to litigation, financial losses and sanctions imposed by governmental authorities, as well as affect its reputation. Such misconduct could include:

- hiding unauthorised or unsuccessful activities, resulting in unknown and unmanaged risks or losses;
- intentionally concealing material facts, or failing to perform necessary due diligence procedures designed to identify potential risks, which are material to the Group in deciding whether to make investments or dispose of assets;
- improperly using or disclosing confidential information;
- engaging in improper activities such as offering bribes to counterparties in return for any type of benefits or gains;
- abusing positions of authority and accepting bribes from third parties in exchange for preferential treatment or contracts from the Group;
- misappropriation of funds;
- conducting transactions that exceed authorised limits;
- engaging in misrepresentation or fraudulent, deceptive or otherwise improper activities;
- engaging in unauthorised or excessive transactions to the detriment of the Group's customers; or
- otherwise not complying with the applicable laws or the Group's internal policies and procedures.

The Group's internal control procedures are designed to monitor its operations and ensure overall compliance. However, such internal control procedures may be unable to identify all incidents of non-compliance or suspicious transactions in a timely manner, if at all. Furthermore, it is not always possible to detect and prevent fraud and other misconduct, and the precautions the Group takes to prevent and detect such activities may not be effective.

There is no assurance that fraud or other misconduct will not occur in the future. If such fraud or other misconduct does occur, it may cause negative publicity as a result.

The Group could be subject to the policies of the PRC government to reform state-owned enterprises.

In 2015, the PRC government announced guidelines for deepening the reform of state-owned enterprises ("Reform Guidelines")《關於深化國有企業改革的指導意見》. The guidelines are expected to improve the modernization and competitiveness of the state-owned enterprises and enable them to be more resistant to risks. As part of such reforms, the PRC government may, among other measures, orchestrate mergers or acquisitions for state-owned enterprises, push state-owned enterprises for public share sales or use stock exchanges or property exchanges or other means to dispose of low-performing assets of state-owned enterprises.

In order to adhere to the Reform Guidelines and to proactively implement the new strategies deployed in "Made in China 2025" (中國製造2025) to facilitate the structural optimisation and upgrading of its engineering equipment and component manufacturing business segment, in December 2015, the Company and China Railway Erju Co., Ltd. ("China Railway Erju", now known as China Railway Hi-tech Industry Corporation Limited) entered into an asset swap agreement, pursuant to which the Company agreed to sell to China Railway Erju 100 per cent. equity interests held by the Company in China Railway Shanhaiguan Bridge Group Co., Ltd., China Railway Baoji Bridge Group Co., Ltd., China Railway Science & Industry Group Co., Ltd. and China Railway Engineering Equipment Group Co., Ltd. China Railway Erju agreed to swap with the Company all of its assets and liabilities (by first injecting them into its wholly-owned subsidiary China Railway Erju Engineering Co., Ltd., and then transferring the 100 per cent. equity interests in China Railway Erju Engineering Co., Ltd.) for equal value, and the difference in the price of assets was paid by China Railway Erju by issuance of 368,698,800 new A shares of par value of RMB1.00 each to the Company by means of a non-public offering. China Railway Erju also resolved to issue no more than 513,698,630 new A shares to no more than ten qualified designated investors at the issue price of no less than RMB11.68 per share by way of a non-public offering to raise proceeds of no more than RMB6,000,000,000 in aggregate. The Company entered into a supplemental agreement with China Railway Erju in April 2016 to confirm the transaction price of the disposed assets and the acquired assets as determined through arm's lengths negotiations between the parties with reference to the appraisal results contained in the relevant assets appraisal reports issued by a qualified independent valuer. The transaction contemplated under the asset swap agreement has been closed on 5 January 2017 and China Railway Erju has completed the registration of the issuance of 383,802,693 consideration shares to the Company on 12 January 2017. The Company entered into the above asset swap with a view to building up its listed company platform in its engineering equipment and component manufacturing business segment. However, there is no assurance that any implementation of the Reform Guidelines or other policy of the PRC government concerning state-owned enterprises would not be materially adverse to the Group in the future.

The Group faces risks associated with foreign exchange fluctuations.

Most of the Group's operations are located in the PRC, and most of the Group's income and costs are denominated in Renminbi, which is the Group's functional currency. However, the Group conducts part of the infrastructure construction business and survey, design and consulting services business overseas and exports some of the Group's products from the engineering equipment and components manufacturing business. Furthermore, as at 31 December 2021, the Group had outstanding total foreign currency denominated borrowings equivalent to RMB12,051 million. The Group is therefore subject to risks associated with foreign currency fluctuations and changes in the value of foreign currencies could affect the Group's results of operations. Changes in the value of foreign currencies could increase the Group's Renminbi costs for, or reduce the Group's Renminbi turnover from, its foreign operations, or affect the prices of its exported products and the prices of its imported equipment and materials, any of which could affect the Group's results of operations. For the years ended 31 December 2020 and 2021, the Group recorded net foreign currency exchange losses of RMB45 million and RMB80 million, respectively.

The value of the Renminbi is subject to changes in the PRC's governmental policies and to international economic and political developments. Since 21 July 2005, the Renminbi is no longer pegged solely to the U.S. dollar. Instead, a managed floating exchange system has been introduced by the PRC government which allows the Renminbi to fluctuate within a regulated band based on market supply and demand and by reference to a basket of currencies. The PBOC announced on 15 March 2014 that the Renminbi was allowed to fluctuate daily against the U.S. dollar by up to 1 per cent. above or below the central parity rate published by the PBOC and, subsequently, such trading band was doubled by the PBOC from 1 per cent. to 2 per cent. on 17 March 2014.

The Renminbi appreciated against the U.S. dollar in 2020 and further strengthened against the U.S. dollar in 2021. With an increased floating range of the Renminbi's value against foreign currencies and a more market-oriented mechanism for determining the mid-point exchange rates, the Renminbi may further appreciate or depreciate significantly in value against the U.S. dollar or other foreign currencies in the long-term. Any significant appreciation of the Renminbi against the U.S. dollar or other foreign currencies may result in a decrease in the value of the Group's foreign currency denominated assets. Conversely, any significant depreciation of the Renminbi may adversely affect the value of its businesses. In addition, there are limited instruments available for the Group to reduce the Group's foreign currency risk exposure. All of these factors could materially and adversely affect the Group's business, financial condition and results of operations.

The Group's infrastructure investment and operation projects may expose the Group to additional risks.

The Group is involved in, and plans to continue exploring opportunities in, projects involving ownership and operation of the infrastructure in both domestic and international markets. The nature of infrastructure investment and operation projects requires the Group to fund the project upfront and make payments to suppliers and sub-contractors. In undertaking infrastructure investment and operation projects, the Group may be exposed to payment delays or default of payment. The risks in connection with undertaking infrastructure investment and operation projects include the risk of an inaccurate forecast concerning cash inflows to be derived from the completed projects and the risks arising during the operational phase of such projects. Investment by the private sector in these projects is dependent on government policies and laws and regulations relating to public-private participation and the sharing of risks and returns from such projects. Undertaking infrastructure investment and operation projects also requires significant outlay of the Group's working capital over extended periods. Moreover, the introduction of infrastructure investment and operation projects in the PRC's infrastructure construction business industry was relatively recent, and the Group has limited management experience in carrying out and managing the risks involved in such projects. Due to the uncertainty of investment results arising from uncontrollable external factors, insufficient research and feasibility studies prior to project investment, inappropriate project implementation and management, significant changes in external macro environment and policies and other factors, which may lead to an investment return lower than expected or an investment failure of the Group; among which, the overseas investment risk refers to the risk that overseas investment is affected by factors including local society, politics, economy, culture, policies and regulations, as well as relevant domestic policies and the corporate internationalization talent pool, which may lead to investment failure, lower-than-expected investment return, lower personnel security, damage to the reputation of the enterprise, etc. There is no assurance that the Group will be able to carry out infrastructure investment and operation projects successfully and profitably. Any inability to execute or handle such projects may adversely affect the Group's business and results of operations.

The Group may not be able to obtain a sufficient number of land sites or retain land sites suitable for property developments.

With respect to the property development business, the Group derives revenue from the sale of properties that it has developed. This revenue stream is dependent on the Group's ability to complete and sell its property developments. To maintain or grow the property development business in the future, the Group will be required to replenish its land reserve with suitable land sites for developments.

The PRC government controls substantially all of the country's land supplies and regulates the means by which real estate developers, including the Group, obtain land sites for property developments. As a result, the PRC government's land supply policies affect the Group's ability to acquire land use rights for sites it identifies and affects the costs of any acquisition. The viability or growth of the property development business may not be sustainable if the Group is unable to obtain additional land sites for development at prices that allow it to achieve reasonable returns.

Under PRC law, if a developer fails to develop land in accordance with the terms of a land grant contract (including those relating to the payment of fees, the designated use of the land and the time for commencement and completion of the development), the relevant government authorities may issue a warning to, or impose a penalty on, the developer or confiscate the land. There is no assurance that circumstances leading to confiscation of land or delays in the completion of a property development will not arise in the future. If the Group's land is confiscated, it will be unable to continue its property development on the confiscated land or recover the costs incurred in the initial acquisition of the confiscated land or recover development costs and other costs incurred up to the date of confiscation.

In addition, in the event that the government exercises its authority to confiscate any land use rights that have been legally granted to the Group, the Group may not be compensated for the full market value of the land.

Failure to complete property development projects on time or to applicable standards could adversely affect the Group business.

Property development is a long and complicated process, generally requiring large amounts of capital and involving numerous parties, including designers, construction material suppliers, contractors, developers and individual consumers. In addition, to develop and complete a property development project, a property developer must obtain certain permits, licences, certificates and other approvals from the relevant administrative authorities at various stages of the property development project. The progress and costs of a property development project can be adversely affected by many factors, including delays in obtaining necessary licences, permits, certificates or approvals from government agencies or authorities, shortages of materials, equipment, contractors and skilled labour, labour disputes, construction accidents, natural catastrophes, adverse weather conditions, and changes in government policies.

Failure to complete construction of a property development project on time, to specifications and within budget as a result of any or all of the above factors may affect the Group's financial condition and results of operations and may also cause reputational damage. There is no assurance that the Group will not experience any significant delays in completion or delivery of any of its property development projects or that the Group will not be subject to any liabilities for any such delays. Moreover, if the design or construction of a property development fails to meet the applicable requirements, the Group's sales and brand reputation could be adversely affected. To the extent that such failure is found to interfere with the normal use of the property, the purchaser would be entitled to terminate the commercial property sale and purchase contract. The occurrence of any of the above-mentioned incidents could bring the Group into legal disputes, which in turn could have an adverse effect on the Group's business and results of operations.

The PRC government may impose a penalty on the Group or cancel the land use rights for any project which was not developed in compliance with the terms of the land use rights grant contract.

Under PRC law, if a developer fails to develop land in accordance with the terms of the relevant land use right granting contract (including those relating to the payment of fees, designated use of land, amount of gross floor area ("**GFA**") developed, time for commencement and completion or suspension of the development, and amount of capital invested), the relevant government authorities may issue a warning to, or impose a penalty on, the developer or, in the worst case scenario, cancel the relevant land use rights and resume possession of the land. Specifically, under current PRC laws, if the Group fails to commence development for more than one year but less than two years from the commencement date stipulated in the land grant contract, the relevant PRC land bureau may issue a warning to the Group and impose an idle land fee on the land of 20 per cent. of the land grant premium. The relevant PRC land administrative bureau may confiscate the Group's land use rights without compensation if it fails to commence development within two years from the construction commencement date set forth in the land grant contract, unless the delay in the development is caused by government actions or force majeure or by the early preparations necessary for starting the development. Moreover, if a property developer commences development of the land in accordance with the time frame stipulated in the land grant contract, but the developed GFA on the land is less than one-third of the total proposed GFA of the project or the total invested capital is less than one-fourth of the total investment of the project, and the development of the land is suspended for more than one year without government approval, the land may be treated as idle land and subject to risk of forfeiture.

If the Group fails to obtain any land use right for any project or its land use rights do not comply with applicable PRC laws, it may be subject to fines and other penalties, including the cancellation of land use rights. There is no assurance that any cancellation of land use rights or imposition of a penalty will not arise in the future. If any land use right of the Group is cancelled, it will not be able to continue its property development on the affected land, recover the costs incurred for the initial acquisition of the land or recover the development costs and other costs incurred up to the date of cancellation. Any requirement that the Group shall pay idle land fees or other related penalties may adversely affect the Group's business, results of operations or financial condition.

The Group's business and financial results may be adversely affected by volatility in commodity prices.

The Group's exposure to commodity price risk relates principally to the market price fluctuation in iron, cement, sand, gold, copper and cobalt which can affect the Group's business, financial condition and results of operations. Commodity prices in the PRC are highly influenced by fluctuations of international commodity prices. Commodity prices may be influenced by numerous factors. These factors include global demand, forward-selling activities and other macro-economic factors such as expectations regarding inflation, interest rates, currency exchange rates as well as general global economic conditions.

There is no assurance that the commodity prices will not fluctuate significantly in the future. Volatility in commodity prices may have an adverse effect on the Group's business, financial condition and results of operations.

The interests of China Railway Engineering Group Corporation, the Guarantor's controlling shareholder, may differ from those of the Issuer and the Guarantor and the Noteholders, and China Railway Engineering Group Corporation has the ability to cause the Issuer and the Guarantor to make decisions that may not be in the best interests of the Noteholders.

China Railway Engineering Group Corporation is the Guarantor's largest and controlling shareholder. As at the date of this Offering Circular, China Railway Engineering Group Corporation held 46.93 per cent. of the Guarantor's total issued share capital. As a result, subject to the Guarantor's Articles of Association and applicable laws and regulations, China Railway Engineering Group Corporation may exercise a significant influence over the Guarantor's management and corporate decisions. In addition, some of the directors, supervisors and members of the Guarantor's senior management also serve as directors at China Railway Engineering Group Corporation. The interests of China Railway Engineering Group Corporation, the Guarantor's controlling shareholder, may differ from those of the Issuer and the Guarantor and the Noteholders, and China Railway Engineering Group Corporation has the ability to cause the Issuer and the Guarantor to make decisions that may not be in the best interests of the Bondholders.

The mining production of the Group is subject to various government regulations on the mining industry.

The mining production of the Group is subject to various government policies and regulations relating to exploration, development, production, taxation, labour standards, vocational health and safety, waste treatment, environmental monitoring, protection and control, operation management and other issues. Any changes to these policies and regulations may increase the operating costs of the Group and may adversely affect the Group's business, financial condition and results of operations. All mineral resources of the PRC are state-owned pursuant to the Mineral Resources Law of the PRC. Therefore, there is no assurance that the Group will be able to exploit the entire mineral resources of any of its mines during the initial licence period.

In addition, the mining and exploration of mineral resources require substantial capital investments. There can be no assurance that additional external financing, either on a short-term or on a long-term basis, will be made available or, if available, that such financing will be obtained on terms favourable to the Group.

The Group's business was and may be interrupted by the COVID-19 pandemic.

In response to the COVID-19 pandemic, some national and local governments, including the PRC government, have enacted a number of measures, including implementing mandatory quarantine, requiring residents to remain at home and to avoid gathering in public. The COVID-19 pandemic has also resulted in the temporary closure of many corporate offices, retail stores and manufacturing facilities across the country. Manufacturing facilities were required to be closed down for an extended period of time. Consequently, the Group was not able to proceed with normal construction of projects under construction or even suffered from suspension of work, which brought risk of contract performance and severe loss of economic benefits to the Group during the year 2021. Since 2022, the COVID-19 pandemic and the emergence of variants like Omicron, have spread to different regions and triggered further imposition of restrictive measures by the PRC governments, bringing additional uncertainty to recovery and development of PRC economy. There can be no assurance that the Group's business, financial condition and results of operations will not be adversely affected as a result of the COVID-19 pandemic and related operational restrictions.

The Company published and may continue to publish periodical financial information in the PRC pursuant to applicable PRC regulatory rules. Investors should be cautious and not place any reliance on the financial information other than that disclosed in this Offering Circular.

The Company is a listed company on the Shanghai Stock Exchange and may from time to time issue debt securities in the domestic capital markets in the PRC. According to applicable PRC securities regulations, the Company from time to time published its quarterly financial information onshore to satisfy its continuing disclosure obligations. The quarterly financial information published by the Group in the PRC, for example, the consolidated financial information as at and for the three months ended 31 March 2022 of the Company published on the Shanghai Stock Exchange, have not been audited or reviewed by any independent auditors. As such, such quarterly financial information published in the PRC is not incorporated in this Offering Circular and should not be referred to or relied upon by potential purchasers to provide the same quality of information associated with any audited or reviewed information. In addition, such quarterly financial is prepared by the Company in accordance with the Accounting Standards for Business Enterprises of the PRC which is not directly comparable with the audited financial information for the three years ended 31 December 2021 prepared in accordance with IFRS disclosed in this Offering Circular elsewhere. The Company is not responsible to holders of the Bonds for the unaudited and unreviewed financial information from time to time published in the PRC and therefore investors should not place any reliance on any such financial information. Such periodical information should not be taken as an indication of the Group's performance for the year ended 31 December 2022.

Risks Relating to the PRC

The slowdown of the PRC's economy caused in part by the recent challenging global economic conditions may adversely affect the Group.

A substantial part of the Group's revenue is derived in the PRC. The Group relies, to a significant degree, on domestic demand for railway, property and its other projects to achieve revenue growth. Such domestic demand is materially affected by industrial development, growth of private consumption and overall economic growth in the PRC. In April 2022, Moody's assessed the sovereign credit rating of PRC at A1 and its outlook to "stable". According to Moody's, the decisive action to contain the epidemic has made PRC's economic recovery relatively resilient in 2020-2021. However, domestic demand is likely to be adversely impacted in the coming year as the government continues to implement strict policies to prevent and control the epidemic, and as consumer confidence weakens due to the dynamics of the property market.

The future performance of the PRC's economy is not only affected by the economic and monetary policies of the PRC government, but it is also exposed to material changes in global economic and political environments as well as the performance of certain major developed economies in the world, such as the United States and the European Union. For example, in 2022, the military conflict between Russia and Ukraine has led to sanctions imposed against Russia by various countries and counter-sanctions by Russia, further impacting the global economic recovery from the COVID-19 pandemic. There is substantial uncertainty relating to the Russia-Ukraine conflict or its impact on the economic conditions of other parts of the world, such as the PRC's macro-economy, including, but not limited to, slowdown of economic growth due to increased cost of oil and natural gas imports and energy-driven inflation, further decreases in global stock exchange indices, increased foreign exchange volatility and a possible economic recession involving more countries and areas. Therefore, there exists continued uncertainty for the overall prospects for the global and the PRC economies this year and beyond.

According to the National Statistics Bureau of the PRC, the annual growth rate of the PRC's GDP in 2021 increased to 8.1 per cent. on a year-on-year basis compared to 2.2 per cent. in 2020. However, the growth rate of the PRC's GDP for the first quarter of 2022 slowed down to 4.8 per cent., compared to the growth rate of 18.3 per cent. for the first quarter in 2021.

Any slowdown of the PRC economy may create a credit tightening environment, increase the Group's interest expense, or reduce domestic demand for the Group's railway, property and other projects, resulting in an adverse negative effect on its business, results of operations and financial condition.

The PRC government replaced business tax with VAT and such change of tax regime may subject the Group to more taxes, which could adversely affect the Group's business, future results of operations and prospects.

In November 2011, the Ministry of Finance of the PRC (the "MOF") and the State Taxation Administration of the PRC (the "STA") promulgated the Pilot Plan for Imposition of Value-Added Tax to Replace Business Tax《營業稅改徵增值稅試點方案》. Pursuant to this pilot plan and relevant subsequent notices, from 1 January 2012, VAT has replaced business tax in the transport and post industry, telecom industry and some of the modern service industries in the PRC. Under the pilot plan, a VAT rate of 6 per cent. applies to certain modern service industries.

On 23 March 2016, the MOF and the STA promulgated the Notice of the Ministry of Finance and the State Taxation Administration on Overall Implementation of the Pilot Program of Replacing Business Tax with Value-added Tax《財政部、國家稅務總局關於全面推開營業稅改徵增值稅試點的通知》(CAISHUI [2016] No. 36), hereinafter referred to as "Circular 36". Pursuant to Circular 36, starting from 1 May 2016, the VAT pilot programme will cover construction industry, real estate industry, finance industry and life service industry on a nationwide basis. Although the reform of VAT replacing business tax is mainly intended to reduce double taxation under the business tax system, the Group may be subject to more taxes under the VAT regime in connection with the Group's operations and activities in the PRC, which could adversely affect the Group's business, future results of operations and prospects.

In addition, the Group's effective income tax rate depends on the availability of tax incentives, which may vary depending on the location or nature of the Group's operations in the PRC. Pursuant to the EIT Law (as defined below) of the PRC, the maximum enterprise income tax rate in the PRC became 25 per cent. since 1 January 2008. However, certain members of the Group have enjoyed preferential tax treatment. They were either exempted from PRC enterprise income tax or entitled to the preferential tax rate of 20 per cent. and 15 per cent. for the years ended 31 December 2021. All of the Group's other operations were subject to the 25 per cent. enterprise income tax rate during the same periods. However, there is no assurance that the preferential tax rates the Group's subsidiaries have enjoyed will be available after the expiration of the current preferential tax period under the applicable PRC tax laws and policies, or that they will not be modified or revoked in the future. If the tax incentives are modified or revoked, the Group's results of operations may be adversely affected.

Interpretation and enforcement of the laws in the PRC may involve uncertainties.

Since 1979, the PRC government has begun to promulgate a comprehensive system of laws and has introduced many new laws and regulations to provide general guidance on economic and business practices in the PRC and to regulate foreign investment. Progress has been made in the promulgation of laws and regulations dealing with economic matters, such as corporate organisation and governance, foreign investment, commerce, taxation and trade. The promulgation of changes to existing laws and the abrogation of local regulations by national laws could have a negative impact on the business and prospects of the Group. In addition, as these laws, regulations and legal requirements are relatively recent, their interpretation and enforcement may involve significant uncertainties. The interpretation of PRC laws may be subject to domestic political and policy changes.

For example, on 14 September 2015, the NDRC promulgated the NDRC Circular, pursuant to which if a PRC enterprise or an offshore branch or enterprise controlled by a PRC enterprise wishes to issue bonds outside of the PRC with a tenor of more than one year, such PRC enterprise must, in advance of issuing such bonds, file certain prescribed documents with the NDRC and obtain the Enterprise Foreign Debt Filing Certificate《企業發行外債備案登記證明》from the NDRC in respect of such issue. According to the NDRC Circular, the NDRC will decide whether to accept a submission within five working days upon receipt of the submission and is expected to issue a decision on the submission within seven working days after it accepts the submission. The enterprise must also report certain details of the bonds to the NDRC within 10 business days upon the completion of the bond issue.

The NDRC Circular is silent on the legal consequences of non-compliance with the pre-issue registration and post-issue reporting requirement. In the worst case scenario, it might become unlawful for the Issuer to perform or comply with any of its obligations under the Bonds. In addition, the administration of the NDRC Circular may be subject to a certain degree of executive and policy discretion by the NDRC. There is also risk that the registration approval with the NDRC may be revoked or amended in the future or that future changes in PRC laws and regulations may have a negative impact on the performance or validity and enforceability of the Bonds in the PRC. Potential investors of the Bonds are advised to exercise due caution when making their investment decisions.

It may be difficult to effect service of process or to enforce any judgments obtained from non-PRC courts against the Group or its directors and senior management who reside in the PRC.

Substantially all of the Group's assets are located within the PRC. In addition, all of the Group's directors and senior management reside within the PRC, and their assets may also be located within the PRC. As a result, it may not be possible to effect service of process outside the PRC upon most of the Group's directors and senior management, including for matters arising under applicable securities law. A judgment of a court of another jurisdiction may be reciprocally recognised or enforced if the jurisdiction has a treaty with the PRC or if judgments of the PRC courts have been recognised before in that jurisdiction, subject to the satisfaction of other requirements. However, the PRC does not have treaties providing for the reciprocal recognition and enforcement of judgments of courts with many countries, including Japan, the United States, the United Kingdom and the British Virgin Islands. Therefore, it may be difficult for investors to enforce any judgments obtained from non-PRC courts against the Group, the Company, any of their respective directors or senior management in the PRC.

Adverse changes in political, social and economic policies of the PRC government could have a material and adverse effect on the overall economic growth of the PRC, which could in turn affect the Group's business and prospects.

The PRC economy differs from the economies of most developed countries in many respects, including government involvement, level of development, economic growth rate, control of foreign exchange, and allocation of resources. The PRC economy has been transitioning from a planned economy to a more market-oriented economy. In recent years, the PRC government has implemented measures emphasising market forces for economic reform, the reduction of state ownership of productive assets and the establishment of sound corporate governance in business enterprises. However, a large portion of productive assets in the PRC is still owned by the PRC government. The PRC government continues to play a significant role in regulating industrial development, the allocation of resources, production, pricing and management, and there can be no assurance that the PRC government will continue to pursue the economic reforms or that any such reforms will not have an adverse effect on the Group's business.

The Group's operations and financial results could also be materially and adversely affected by changes in political, economic and social conditions or the relevant policies of the PRC government, such as changes in laws and regulations (or the interpretation thereof). For example, the PRC government may decide to change its current policies with respect to railway development and projects, property development and mining, and as such, this could have an adverse impact on the Group's business and results of operations. The Group's operating results and financial condition may also be materially and adversely affected by other changes in taxation and changes in state policies affecting the industries in which the Group operates. In addition, the growth of the Group's projects and business operations depends heavily on economic growth. If the PRC's economic growth slows down or if the PRC economy experiences a recession, the Group's business prospects may be materially and adversely affected. The Group's operations and financial results, as well as its ability to satisfy its obligations under the Bonds, could also be materially and adversely affected by changes in measures which might be introduced to control inflation, changes in the rate or method of taxation, the imposition of additional restrictions on currency conversion and the imposition of additional import restrictions.

The Group's labour costs may increase for reasons such as the implementation of the PRC Labour Contract Law or inflation in the PRC.

The PRC Labour Contract Law《中華人民共和國勞動合同法》became effective on 1 January 2008 in the PRC and was amended on 28 December 2012. It imposes more stringent requirements on employers in relation to entry into fixed-term employment contracts and dismissal of employees. Pursuant to the PRC Labour Contract Law, the employer is required to make compensation payment to a fixed-term contract employee when the term of their employment contract expires, unless the employee does not agree to renew the contract even though the conditions offered by the employer for renewal are the same as or better than those stipulated in the current employment contract. In general, the amount of compensation payment is equal to the monthly wage of the employee multiplied by the number of full years that the employee has worked for the employer. A minimum wage requirement has also been incorporated into the PRC Labour Contract Law. In addition, unless otherwise prohibited by the PRC Labour Contract Law or objected to by the employees themselves, the employer is also required to enter into open-ended employment contracts with employees who have previously entered into fixed-term employment contracts for two consecutive terms or have been working for the employer for more than 10 years.

In addition, under the Regulations on Paid Annual Leave for Employees《職工帶薪年休假條例》, which became effective on 1 January 2008, employees who have worked continuously for more than one year are entitled to paid annual leave ranging from 5 to 15 days, depending on the length of the employees' work time. Employees who consent to waive such vacation at the request of employers shall be compensated with an amount equal to three times their normal daily salaries for each vacation day being waived. Under the National Leisure and Tourism Outline 2013-2020《國民旅遊悠閒綱要2013-2020》which became effective on 2 February 2013, workers shall receive paid annual leave by 2020. As a result of the PRC Labour Contract Law, the Regulations on Paid Annual Leave for Employees and the National Leisure and Tourism Outline 2013-2020, the Group's labour costs (inclusive of those incurred by contractors) may increase. Further, under the PRC Labour Contract Law, when an employer terminates its PRC employees' employment, the employer may be required to compensate them with such amount which is determined based on their length of service with the employer, and the employer may not be able to terminate efficiently open-ended employment contracts under the PRC Labour Contract Law without cause. In the event that the Group decides to change or decrease its workforce significantly, the PRC Labour Contract Law could adversely affect its ability to effect these changes in a cost-effective manner or in the manner that the Group desires, which could result in an adverse impact on the Group's businesses, financial condition and results of operations.

To further strengthen the protection on labour remuneration, rest and vacations, social insurance and other basic rights and interests of labourers, the Opinion of the Central Committee of the Communist Party of China and the State Council on Building Harmonious Labour Relationships《中共中央、國務院關於構建和諧勞動關係的意見》was issued on 21 March 2015, which acts as a guideline on PRC labour legislation.

Further, if there is a shortage of labour or for any reason the labour cost in the PRC rises significantly, the costs of production of the Group's products are likely to increase. This may in turn affect the selling prices of the products and services, which may then affect the demand for such products and services and thereby adversely affect the Group's sales and financial condition. In addition, inflation in the PRC has increased in recent years. Inflation in the PRC increases the costs of labour and the costs of raw materials the Group must purchase for production. Rising labour costs may increase the Group's operating costs and partially erode the cost advantage of the Group's PRC-based operations and therefore negatively impact the Group's profitability.

Risks Relating to the Issuer and the Company

The Issuer is a special purpose vehicle and has limited assets, which affects its ability to make payments under the Bonds.

The Issuer was a special purpose vehicle established specifically for the purpose of raising finance and on-lending the net proceeds from the issue of any notes or bonds to the Company or its subsidiaries. Since its incorporation, the Issuer has no substantive assets or any business operations, save for the issuance of (i) U.S.$500,000,000 3.25 per cent. guaranteed notes due 2026 on 28 July 2016; (ii) US$500,000,000 2.875 per cent. guaranteed notes due 2022 on 25 July 2017; and (iii) the on-lending of the proceeds thereof to other members of the Group. As the Issuer does not and will not have any business activities other than the issue of notes or bonds, its ability to make payments under the Bonds will depend on receipt of timely remittance of funds from the Company and/or other members of the Group.

The Company's obligations under the Guarantee of the Bonds are structurally subordinated to all existing and future liabilities and obligations of each of the Company's Subsidiaries, associates and jointly controlled entities.

The Company is a holding company and, accordingly, the Company's obligations under the Guarantee of the Bonds are structurally subordinated to all existing and future liabilities and obligations of each of the Company's subsidiaries, associates and jointly controlled entities. The Company's obligations under the Guarantee of the Bonds will not be guaranteed by any of its subsidiaries. Claims of creditors of such companies will have priority as to the assets of such companies over the Company and its creditors, including holders of the Bonds seeking to enforce the Bonds and the Guarantee of the Bonds. Moreover, the Company's interests in its subsidiaries, associates and jointly controlled entities could be reduced in the future. Neither the Bonds nor the Guarantee of the Bonds contain any restriction on the ability of the Company or its subsidiaries, associates or jointly controlled entities to incur additional indebtedness.

The Company may not exercise complete control over dividend or other policies of some of its businesses.

The Company is a holding company and, accordingly, its ability to perform its payment obligations pursuant to the Guarantee of the Bonds depends upon the receipt of dividends, distributions, interests or advances from the Group's entities, including its associates and jointly controlled entities. Although the Company historically has had significant control over the dividend policies of most of the Group's entities, some portfolio companies may conclude that it is in the best interest of their shareholders to retain earnings, if any, for use in the operation and expansion of their businesses. The shareholders or the board of directors of a portfolio company (as the case may be) have the power to determine whether to pay dividends based on conditions then existing, including the Company's earnings, financial condition and capital requirements, as well as economic and other conditions the shareholders or the board may deem relevant. In particular, the Company does not maintain complete control over its jointly controlled entities or associates in which it holds a minority interest. There is no assurance that the Company will be able to receive sufficient cash flows from other members of the Group to satisfy its obligations under the Guarantee of the Bonds.

Risks Relating to the Bonds

The Bonds may not be a suitable investment for all investors.

The Bonds are complex financial instruments and may be purchased as a way to reduce risk or enhance yield with an understood, measured, appropriate addition of risk to their overall portfolios. A potential investor should not invest in the Bonds unless it has the expertise (either alone or with the help of a financial adviser) to evaluate how the Bonds will perform under changing conditions, the resulting effects on the value of such Bonds and the impact this investment will have on the potential investor's overall investment portfolio.

Each potential investor in the Bonds must determine the suitability of that investment in light of its own circumstances. In particular, each potential investor should:

(i) have sufficient knowledge and experience to make a meaningful evaluation of the Bonds, the merits and risks of investing in the Bonds and the information contained or incorporated by reference in this Offering Circular or any applicable supplement;

(ii) have access to, and knowledge of, appropriate analytical tools to evaluate, in the context of its particular financial situation, an investment in the Bonds and the impact such investment will have on its overall investment portfolio;

(iii) have sufficient financial resources and liquidity to bear all of the risks of an investment in the Bonds;

(iv) understand thoroughly the terms of the Bonds and be familiar with the behaviour of any relevant indices and financial markets; and

(v) be able to evaluate (either alone or with the help of a financial adviser) possible scenarios for economic, interest rate and other factors that may affect its investment and its ability to bear the applicable risks.

The PRC government has no obligations under the Bonds.

The PRC government has no obligations under the Bonds. The PRC government is not an obligor and shall under no circumstances have any obligation arising out of or in connection with the Bonds in lieu of the Issuer or (as the case may be) the Company. This position has been reinforced by the Circular of the Ministry of Finance on Issues relevant to the Regulation on the Investment and Financing Activities Conducted by Financial Institutions for Local Governments and State-owned Enterprises (財政部關於規範金融企業對地方政府和國有企業投融資行為有關問題的通知,財金[2018]23號) promulgated on 28 March 2018 and which took effect on the same day, and the Circular of the National Development and Reform Commission and the Ministry of Finance on Improvement of Market Regulatory Regime and Strict Prevention of Foreign Debt Risks and Local Government Indebtedness Risks (國家發展改革委財政部關於完善市場約束機制嚴格防範外債風險和地方債務風險的通知) promulgated on 11 May 2018 and which took effect on the same day, and the Guiding Opinion on Strengthening the Asset and Liability Constraints of State-Owned Enterprises (中共中央辦公廳、國務院辦公廳關於加強國有企業資產負債約束的指導意見) promulgated on 13 September 2018 and which took effect on the same day, and Notice of the General Office of the National Development and Reform Commission on Relevant Requirements for Record-filing and Registration of Issuance of Foreign Debts by Local State-owned Enterprises (國家發展改革委辦公廳關於對地方國有企業發行外債申請備案登記有關要求的通知) promulgated on 6 June 2019.

The PRC government as the ultimate controlling shareholder of the Company only has limited liability in the form of its equity contribution in the Company. As such, the PRC government does not have any payment obligations under the Bonds. The Bonds are solely to be repaid by the Issuer as an independent legal person.

An active trading market for the Bonds may not develop.

The Bonds are a new issue of securities for which there is currently no trading market. Application will be made to the Hong Kong Stock Exchange for the Bonds to be admitted for trading on the Hong Kong Stock Exchange. No assurance can be given that an active trading market for the Bonds will develop or as to the liquidity or sustainability of any such market, the ability of holders to sell their Bonds or the price at which holders will be able to sell their Bonds. None of the Joint Lead Managers is obliged to make a market in the Bonds and any such market making, if commenced, may be discontinued at any time at the sole discretion of the Joint Lead Managers.

The liquidity and price of the Bonds following the offering may be volatile.

The price and trading volume of the Bonds may be highly volatile. Factors such as variations in the Group's turnover, earnings and cash flows, proposals for new investments, strategic alliances and/or acquisitions, changes in interest rates, fluctuations in price for comparable companies, government regulations and changes thereof applicable to the industry that the Group operates and general economic conditions nationally or internationally could cause the price of the Bonds to change. Any such developments may result in large and sudden changes in the trading volume and price of the Bonds. There is no assurance that these developments will not occur in the future.

Developments in other markets may adversely affect the market price of the Bonds.

The market price of the Bonds may be adversely affected by declines in the international financial markets and world economic conditions. The market for the Bonds is, to varying degrees, influenced by economic and market conditions in other markets, especially those in Asia. Although economic conditions are different in each country, investors' reactions to developments in one country can affect the securities markets and the securities of issues in other countries, including the PRC. Since the global financial crisis in 2008 and 2009, the international financial markets have experienced significant volatility. If similar developments occur in the international financial markets in the future, the market price of the Bonds could be adversely affected.

Exchange rate risk and exchange controls may result in a Bondholder receiving less interest or principal than expected.

The Issuer will pay principal and interest on the Bonds in US dollars. This presents certain risks relating to currency conversion if a Bondholder's financial activities are denominated principally in a currency or currency unit (the "**Investor's Currency**") other than US dollars. These include the risk that exchange rates may significantly change (including changes due to devaluation of the U.S. dollar or revaluation of the Investor's Currency) and the risk that authorities with jurisdiction over the Investor's Currency may impose or modify exchange controls. An appreciation in the value of the Investor's Currency relative to the U.S. dollar would decrease (i) the Investor's Currency equivalent yield on the Bonds; (ii) the Investor's Currency equivalent value of the principal payable on the Bonds; and (iii) the Investor's Currency equivalent market value of the Bonds.

Government and monetary authorities may impose (as some have done in the past) exchange controls that could adversely affect an applicable exchange rate. As a result, a Bondholder may receive less interest or principal than expected, or no interest or principal.

The Issuer may be unable to redeem the Bonds.

On certain dates, including the occurrence of an early redemption event as defined in the Terms and Conditions of the Bonds and at maturity of the Bonds, the Issuer may, and at maturity, will be required to redeem all of the Bonds. If such an event were to occur, the Issuer may not have sufficient cash in hand and may not be able to arrange financing to redeem the Bonds in time, or on acceptable terms, or at all. The ability to redeem the Bonds in such event may also be limited by the terms of other debt instruments. Failure to redeem the Bonds by the Issuer, in such circumstances, would constitute an event of default under the Bonds, which may also constitute a default under the terms of other indebtedness of the Guarantor and its subsidiaries.

The Issuer may issue additional Bonds in the future.

The Issuer may, from time to time, and without prior consultation of the Bondholders, create and issue further Bonds or otherwise raise additional capital through such means and in such manner as it may consider necessary. There can be no assurance that such future issuance or capital raising activity will not adversely affect the market price of the Bonds.

The Guarantee of the Bonds will be structurally subordinated to subsidiary debt.

A substantial part of the Guarantor's operations are conducted through its subsidiaries, associated companies and jointly controlled entities. Accordingly, the Guarantor is and will be dependent on the operations of its subsidiaries, associated companies and jointly controlled entities to service its indebtedness, including interest and principal on the Bonds. The Bonds will be structurally subordinated to the claims of all holders of debt securities and other creditors, including trade creditors, of the Guarantor's subsidiaries (other than the Issuer), and to all secured creditors of the Guarantor. In the event of an insolvency, bankruptcy, liquidation, reorganisation, dissolution or winding up of the business of any subsidiary of the Guarantor, creditors of such subsidiary generally will have the right to be paid in full before any distribution is made to the Guarantor.

The Issuer may be treated as a PRC resident enterprise for PRC tax purpose, which may subject the Issuer to PRC income taxes on its worldwide income and interest payable by the Issuer to foreign investors and gains on the transfer of the Bonds may be subject to income tax under PRC tax laws.

The Issuer was incorporated under the laws of the British Virgin Islands. Pursuant to the Enterprise Income Tax Law of the PRC (the "**EIT Law**") and its implementation regulations, enterprises that are established under the laws of foreign countries and regions but whose "de facto management bodies" are within the PRC are treated as PRC tax resident enterprises for the purposes of the EIT Law. If the relevant PRC tax authorities decide, in accordance with applicable tax rules and regulations, that the "de facto management body" of the Issuer is within the PRC, the Issuer may be held to be a PRC tax resident enterprise for the purposes of the EIT Law and income or gains paid with respect to the Bonds may considered to be derived from sources within the PRC.

Under the EIT Law and its implementation rules, any income or gains realised by non-resident enterprises may be subject to PRC enterprise income tax if such income or gains are regarded as derived from sources within the PRC. Under the EIT Law, a "**non-resident enterprise**" means an enterprise established under the laws of a jurisdiction other than the PRC and whose actual administrative organisation is not in the PRC, which has established offices or premises in the PRC, or which has not established any offices or premises in the PRC but has obtained income derived from sources within the PRC. In the event the Issuer is deemed to be a PRC tax resident enterprise by the PRC tax authorities in the future, the Issuer would be subject to PRC enterprise income tax at the rate of 25 per cent. on their global income, and interest paid on the Bonds may be considered to be PRC source, in which case the Issuer would be required to withhold income tax at the applicable rate of 10 per cent. from payments of interest in respect of the Bonds to any non-resident enterprise holders. Any capital gain realised by a non-resident enterprise from the transfer of the Bonds may be regarded as being derived from sources within the PRC and accordingly may be subject to a PRC tax of up to 10 per cent. if the Issuer is treated as a PRC tax resident.

Pursuant to the Individual Income Tax Law of the PRC and its implementation regulations, if the Issuer is considered to be a PRC tax resident enterprise, the Issuer may be obliged to withhold such individual income tax on payments of interests to non-resident individual holders of the Bonds at the applicable rate of 20 per cent. Any capital gain realised by a non-resident individual holder from transfer of the Bonds may also be regarded as being derived from sources within the PRC and be subject to PRC tax of up to 20 per cent. if the Issuer is treated as a PRC tax resident enterprise.

In the case where the PRC and the jurisdiction of the relevant non-resident holders have entered into a tax treaty, the relevant Bondholders may be exempted from certain taxes described above, or subject to reduced tax rates instead. For example, according to the Arrangement between the Mainland of China and the Hong Kong Special Administrative Region for the Avoidance of Double Taxation and the Prevention of Fiscal Evasion with Respect to Taxes on Income which was promulgated on 21 August 2006, Bondholders who are Hong Kong residents, including both enterprise holders and individual holders, will be exempted from PRC income tax on capital gains derived from a sale or exchange of the Bonds.

On 23 March 2016, the MOF and the STA issued Circular 36, which introduced a new VAT from 1 May 2016. VAT is applicable where the entities or individuals provide services within the PRC. The possibility of VAT being applied to any transfer of Bonds between entities or individuals located outside of the PRC is relatively small and therefore the VAT is not likely to apply to gains realised upon such transfers, but there is uncertainty as to the applicability of VAT if either the seller or buyer of Bonds is located inside the PRC. Circular 36 and laws and regulations pertaining to VAT are relatively new, and the interpretation and enforcement of such laws and regulations involve uncertainties.

As confirmed by the Issuer and the Guarantor, as at the date of this Offering Circular, neither the Issuer nor the Guarantor has been notified or informed by the PRC tax authorities that the Issuer is considered as a PRC tax resident enterprise for the purpose of the EIT Law. In the event that the Issuer is required to make such a deduction or withholding (whether by way of income tax, VAT or otherwise) from interest payable on the Bonds, the Issuer has agreed to pay such additional amounts as will result in receipt by the Bondholders of such amounts after such withholding or deduction as would have been received by them had no such withholding or deduction been required. However, if a Bondholder, being a non-resident enterprise or non-resident individual, is required to pay any PRC income tax or VAT on capital gains on the transfer of the Bonds, the value of the relevant Bondholder's investment in the Bonds may be materially and adversely affected.

The Issuer may be able to redeem the Bonds in whole at a redemption price equal to 100 per cent. of the principal amount plus accrued and unpaid interest in the event the Issuer is required to pay additional amounts because it is treated as a PRC "resident enterprise".

In the event that the Issuer is treated as a PRC "resident enterprise" under the EIT Law, it may be required to withhold PRC income tax on interest payable to certain of its non-resident investors. In such case, the Issuer will, subject to certain exceptions, be required to pay such additional amounts as will result in receipt by a holder of a Bond of such amounts as have been received by the holder had no such withholding been required. As set out in Condition 5(b) (*Redemption for Taxation Reasons*) of the Terms and Conditions of the Bonds, in the event that as a result of a change in PRC tax law such that such PRC deduction or withholding is in excess of the applicable rate, and the Issuer is required to pay additional amounts as a result of certain changes in, or interpretations of, tax law, including any change or interpretation that results in the Issuer being required to withhold tax on interest payments as a result of its being treated as a PRC "resident enterprise", the Issuer may redeem the Bonds in whole at a redemption price equal to 100 per cent. of the principal amount plus accrued and unpaid interest.

The Bonds are subject to optional redemption by the Issuer and may have a lower market value than bonds that cannot be redeemed.

In the event that the Issuer would be obliged to increase the amounts payable in respect of any Bonds or the Guarantee of the Bonds due to any withholding or deduction for or on account of, any present or future taxes, duties, assessments or governmental charges of whatever nature imposed, levied, collected, withheld or assessed by or on behalf of the British Virgin Islands or the PRC or any political subdivision thereof or any authority therein or thereof having power to tax, the Issuer may redeem all outstanding Bonds in accordance with the Terms and Conditions of the Bonds. An investor generally would not be able to reinvest the redemption proceeds at an effective interest rate as high as the interest rate on the Bonds being redeemed and may only be able to do so at a significantly lower rate. Potential investors should consider reinvestment risk in light of other investments available at that time.

There is uncertainty relating to the enforceability of the Guarantee of the Bonds.

On 12 May 2014, the SAFE promulgated the Notice concerning the Provisions on the Foreign Exchange Administration of Cross-Border Guarantees and the related implementation guidelines (collectively the "**SAFE Regulations**"), which stipulates that any guarantee provided by PRC-incorporated entities in favour of offshore creditors in connection with debt financing granted to offshore debtors is required to be registered with the SAFE. Under the SAFE Regulations, the Guarantor is required to register the Guarantee of the Bonds with the SAFE as a procedural matter within 15 business days after the date of execution of the Deed of Guarantee. In the event that the Guarantor is required to perform its payment obligations under the Guarantee of the Bonds, the Guarantor must submit the registration documents issued by the SAFE to banks, which upon reviewing such registration documents will process its remittance request directly.

Pursuant to the SAFE Regulations, the registration or record-filing of a cross-border guarantee contract by the SAFE, and other administrative matters and requirements specified therein, will not constitute prerequisites for the cross-border guarantee contract to enter into effect. However, failure to complete the registration as required may result in a fine up to RMB300,000 under the Foreign Exchange of Cross Border Guarantee Measures. In addition, where the Guarantor fails to complete the registration with the SAFE, the Guarantor must, before performing the obligations under the Guarantee of the Bonds, complete a remedial registration. Only by submitting the registration documents or remedial registration documents will the Guarantor be able to remit funds outside PRC in order to perform its payment obligations under the Guarantee of the Bonds. In addition, if the guarantee liability is a repayment obligation for an issuer under the offshore bond issuance, the equity interests of such issuer must be directly or indirectly held by an onshore entity and the proceeds of the bond issuance must be used for an offshore project in which the onshore entity has an equity interest and the issuer and such offshore project must have been duly approved by, registered and filed with the relevant authorities in charge of outbound investment.

The SAFE Regulations are recent regulations and may be subject to a degree of executive and policy discretion and interpretation by the SAFE.

The insolvency laws of the British Virgin Islands and the PRC and other local insolvency laws may differ from those of another jurisdiction with which the holders of the Bonds are familiar.

As the Issuer was incorporated under the laws of the British Virgin Islands and the Guarantor was incorporated under the laws of the PRC, any insolvency proceeding relating to the Issuer and the Guarantor, even if brought in other jurisdictions, would likely involve British Virgin Islands and PRC insolvency laws, the procedural and substantive provisions of which may differ from comparable provisions of the local insolvency laws of jurisdictions with which the holders of the Bonds are familiar.

If the Issuer and the Guarantor are unable to comply with the restrictions and covenants in their respective debt agreements, there could be a default under the terms of these agreements, which could cause repayment of their respective debt to be accelerated.

If the Issuer and the Guarantor are unable to comply with the restrictions and covenants in their respective current or future debt obligations and other agreements, there could be a default under the terms of these agreements. In the event of a default under these agreements, the holders of the debt could terminate their commitments to lend to the Issuer and the Guarantor, accelerate repayment of the debt and declare all outstanding amounts due and payable or terminate the agreements, as the case may be. Furthermore, some of the Issuer's or the Guarantor's debt agreements, contain cross-acceleration or cross-default provisions. As a result, the Issuer's or the Guarantor's default under one debt agreement may cause the acceleration of repayment of not only such debt but also other debt, including the Bonds, or result in a default under the Issuer's or the Guarantor's other debt agreements. If any of these events occur, the Issuer and the Guarantor cannot assure holders that their respective assets and cash flows would be sufficient to repay in full all of their respective indebtedness, or that the Issuer and the Guarantor would be able to find alternative financing. Even if they could obtain alternative financing, they cannot assure holders that it would be on terms that are favourable or acceptable to them.

The Trustee may request that the Bondholders provide an indemnity and/or security and/or prefunding to its satisfaction.

In certain circumstances (including the giving of notice to the Issuer pursuant to Condition 8 of the Terms and Conditions of the Bonds), the Trustee may (at its sole discretion) request the Bondholders to provide an indemnity and/or security, and/or prefunding to its satisfaction before it takes actions on behalf of Bondholders. The Trustee shall not be obliged to take any such actions if not indemnified and/or secured, and/or prefunded to its satisfaction. Negotiating and agreeing to any indemnity and/or security, and/or prefunding can be a lengthy process and may impact on when such actions can be taken. The Trustee may not be able to take actions notwithstanding the provision of an indemnity or security or prefunding to it, in breach of the terms of the Trust Deed constituting the Bonds and in circumstances where there is uncertainty or dispute as to the applicable laws or regulations and, to the extent permitted by the agreements and the applicable law, it will be for the Bondholders to take such actions directly.

Modifications and waivers may be made in respect of the Terms and Conditions of the Bonds and the Trust Deed by the Trustee or less than all of the holders of the Bonds, and decisions may be made on behalf of all holders of the Bonds that may be adverse to the interests of the individual holders of the Bonds.

The Terms and Conditions of the Bonds contain provisions for calling meetings of the holders of the Bonds to consider matters affecting their interests generally. These provisions permit defined majorities to bind all Bondholders including those Bondholders who did not attend and vote at the relevant meeting and those Bondholders who voted in a manner contrary to the majority. There is a risk that the decision of the majority of holders of the Bonds may be adverse to the interests of the individual holders of the Bonds.

The Terms and Conditions of the Bonds also provide that the Trustee may, without the consent of the holders of the Bonds, agree to any modification of the Bonds, the Trust Deed or the Deed of Guarantee (in each case, other than in respect of a reserved matter) or the Agency Agreement which, in the opinion of the Trustee will not be materially prejudicial to the interests of the holders of the Bonds and to any modification of the Bonds, the Trust Deed, the Deed of Guarantee or the Agency Agreement which is of a formal, minor or technical nature or is to correct a manifest error.

In addition, the Trustee may, without the consent of the holders of the Bonds, authorise or waive (i) any proposed breach or breach of the Bonds, the Trust Deed, the Deed of Guarantee (in each case, other than a proposed breach, or breach relating to the subject of a reserved matter) or the Agency Agreement and (ii) any act or omission which would otherwise constitute an Event of Default or Potential Event of Default (each as defined in the Trust Deed) if, in the opinion of the Trustee, the interests of the holders of the Bonds will not be materially prejudiced thereby.

The Bonds will be represented by a Global Note Certificate and holders of a beneficial interest in a Global Note Certificate must rely on the procedures of the Clearing System.

The Bonds will be represented by beneficial interests in a Global Note Certificate. Such Global Note Certificate will be deposited with a common depositary for Euroclear and Clearstream (the "**Clearing Systems**"). Except in the circumstances described in the Global Note Certificate, investors will not be entitled to receive individual Note certificates. The Clearing System will maintain records of the beneficial interests in the Global Note Certificate.

While the Bonds are represented by the Global Note Certificate, investors will be able to trade their beneficial interests only through the Clearing Systems. While the Bonds are represented by the Global Note Certificate, the Issuer, or failing which, the Guarantor will discharge its payment obligations under the Bonds by making payments to the relevant Clearing System for distribution to their account holders.

A holder of a beneficial interest in a Global Note Certificate must rely on the procedures of the Clearing System to receive payments under the Bonds. Neither the Issuer nor the Guarantor has any responsibility or liability for the records relating to, or payments made in respect of, beneficial interests in the Global Note Certificate.

Holders of beneficial interests in the Global Note Certificate will not have a direct right to vote in respect of the Bonds. Instead, such holders will be permitted to act only to the extent that they are enabled by the Clearing System to appoint appropriate proxies.

The Guarantor's subsidiaries, jointly controlled entities and associated companies are subject to restrictions on the payment of dividends and the repayment of intercompany loans or advances to the Guarantor, its jointly controlled entities and associated companies.

As a holding company, the Guarantor depends on the receipt of dividends and the interest and principal payments on intercompany loans or advances from its subsidiaries, jointly controlled entities and associated companies to satisfy its obligations, including its obligations under the Bonds and the Guarantee of the Bonds. The ability of the Guarantor's subsidiaries, jointly controlled entities and associated companies to pay dividends and make payments on intercompany loans or advances to their shareholders is subject to, among other things, distributable earnings, cash flow conditions, restrictions contained in the articles of association of these companies, applicable laws and restrictions contained in the debt instruments of such companies. The Guarantor cannot assure that its subsidiaries, jointly controlled entities and associated companies will have distributable earnings or will be permitted to distribute their distributable earnings to it as it anticipates, or at all. In addition, dividends payable to it by these companies are limited by the percentage of its equity ownership in these companies. Further, if any of these companies raises capital by issuing equity securities to third parties, dividends declared and paid with respect to such shares would not be available to the Guarantor to make payments on the Bonds. These factors could reduce the payments that the Guarantor receives from its subsidiaries, jointly controlled entities and associated companies, which would restrict its ability to meet its payment obligations under the Bonds and the Guarantee of the Bonds.

PRC laws and regulations permit payment of dividends only out of accumulated profits as determined in accordance with PRC accounting standards and regulations. The PRC subsidiaries, jointly controlled entities and associated companies of the Guarantor or its non-PRC subsidiaries, jointly controlled entities and associated companies are also required to set aside a portion of their post-tax profits according to PRC accounting standards and regulations to fund certain reserves that are not distributable as cash dividends.

In addition, starting from 1 January 2008, dividends paid by such PRC subsidiaries, jointly controlled entities and associated companies to their non-PRC parent companies will be subject to a 10 per cent. withholding income tax, unless there is a tax treaty between the PRC and the jurisdiction in which the overseas parent company is incorporated which specifically exempts or reduces such withholding income tax. Pursuant to a double tax avoidance arrangement between Hong Kong and the PRC together with related implementation rules, if a non-PRC parent company is a Hong Kong resident and directly holds a 25 per cent. or more interest in a PRC enterprise for at least 12 consecutive months immediately prior to receiving the dividends, and subject to certain other requirements, this withholding income tax rate may be lowered to 5 per cent. According to the Administrative Measures on Non-resident Taxpayers Enjoying Treaty Benefits issued by the STA on 14 October 2019, effective from 1 January 2020, where a non-resident taxpayer self-assesses and concludes that it satisfies the criteria for relevant tax treaty benefits, it may enjoy such tax treaty benefits at the time of tax declaration or at the time of withholding through the withholding agent, with gathering and retaining the relevant requisite materials for future inspection by the PRC tax authorities, and accept follow-up administration by the PRC tax authorities. Moreover, according to a tax circular issued by the STA in February 2009, if the main purpose of an offshore arrangement is to obtain a preferential tax treatment, the PRC tax authorities have the discretion to adjust a preferential tax rate of an offshore entity to the relevant tax rate that it otherwise would have been eligible for. The Guarantor cannot provide assurance that its subsidiaries, jointly controlled entities and associated companies in Hong Kong will enjoy such 5 per cent. withholding income tax rate on dividends received from their respective PRC subsidiaries, jointly controlled entities and associated companies. As a result of such factors, the Guarantor could face difficulties in making payments required by the Bonds or satisfying obligations under the Guarantee of the Bonds.

Additional procedures may be required to be taken to hear English law governed matters in the Hong Kong courts. There is also no assurance that the PRC courts will recognise and enforce judgments of the Hong Kong courts in respect of English law matters.

The Terms and Conditions of the Bonds and the transaction documents are governed by English law, whereas parties to these documents have submitted to the exclusive jurisdiction of the Hong Kong courts. In order to hear English law governed matters, Hong Kong courts may require certain additional procedures to be taken.

Under the "Arrangement on Reciprocal Recognition and Enforcement of Judgments in Civil and Commercial Matters by the Courts of the Mainland and of the Hong Kong Special Administrative Region Pursuant to Choice of Court Agreements between Parties Concerned", a party with a final court judgment rendered by a Hong Kong court requiring payment of money in a civil and commercial case according to a choice of court agreement in writing may apply for recognition and enforcement of the judgment in China. However, recognition and enforcement of a Hong Kong court judgment could be refused under certain circumstances including without limitation (for example, if the PRC courts consider that the enforcement of such judgment is contrary to the social and public interest of the PRC). In addition, on 18 January 2019, the Supreme People's Court and the Hong Kong government signed the Arrangement on Reciprocal Recognition and Enforcement of Judgments in Civil and Commercial Matters by the Courts of the Mainland and of the Hong Kong Special Administrative Region (關於內地與香港特別行政區法院相互認可和執行民商事案件判決的安排) (the "**New Arrangement**"), which will become effective when both parties announce a commencement date after the Supreme People's Court promulgates a judicial interpretation and relevant procedures are completed in Hong Kong. The New Arrangement extends the scope of judicial assistance, but the effective date has not been announced as at the date of this Offering Circular. However, there is still no certainty that a PRC court will enforce a judgment by a Hong Kong court or that parties will not have to relitigate the merits of the case before a PRC court. As compared to other similar debt securities issuances in the international capital markets where the relevant holders of the debt securities would not typically be required to submit to an exclusive jurisdiction, the Bondholders will be deemed to have submitted to the exclusive jurisdiction of the Hong Kong courts, and thus the Bondholders' ability to initiate a claim outside of Hong Kong will be limited.

Ratings of the Bonds or the Company may be lowered, suspended or withdrawn, and changes in such credit ratings may adversely affect the value of the Bonds.

The Bonds are expected to be assigned a rating of "A-" by Fitch. In addition, the Company has a long-term issuer default rating and unsecured rating of "A-" by Fitch; an issuer rating of "A3" by Moody's, and a long-term corporate credit rating of "BBB+" by S&P, all with a stable outlook. These ratings are only correct as at the date of this Offering Circular. One or more independent credit rating agencies may assign credit ratings to an issue of the Bonds. The ratings may not reflect the potential impact of all risks related to structure, market, additional factors discussed above and other factors that may affect the value of the Bonds or the credit strength of the Company. A credit rating is not a recommendation to buy, sell or hold securities and may be revised or withdrawn by the rating agency at any time. There can be no assurance that the ratings assigned to any Bonds or the Company will remain in effect for any given period or that the ratings will not be lowered, suspended or withdrawn by the rating agencies in the future if, in their judgement, the circumstances so warrant. The Issuer and the Guarantor have no obligation to inform holders of the Bonds of any such suspension, revision, downgrade or withdrawal. A suspension, downgrade or withdrawal of the ratings of the Company or any Bonds at any time may adversely affect the market price of the Bonds.

The Bonds and the Guarantee are unsecured obligations.

The Bonds and the Guarantee are unsecured obligations of the Issuer and the Guarantor, respectively. The repayment of the Bonds and payment under the Guarantee may be adversely affected if:

- the Issuer or the Guarantor enters into bankruptcy, liquidation, reorganisation or other winding-up proceedings;
- there is a default in payment under the Issuer's or the Guarantor's future secured indebtedness or other unsecured indebtedness; or
- there is an acceleration of any of the Issuer's or the Guarantor's indebtedness.

If any of these events were to occur, the Issuer's or the Guarantor's assets may not be sufficient to pay amounts due on the Bonds.

A change in English law which governs the Bonds may adversely affect holders of the Bonds.

The Terms and Conditions of the Bonds will be governed by English law. No assurance can be given as to the impact of any possible judicial decision or change to English law or administrative practice after the date of issue of the Bonds and any such change could materially adversely impact the value of any Bonds affected by it.

Developments in the international financial markets may adversely affect the market price of the Bonds.

The market price of the Bonds may be adversely affected by declines in the international financial markets and world economic conditions. The market for securities of entities with PRC operations is, to varying degrees, influenced by economic and market conditions in other markets, especially those in Asia. Although economic conditions are different in each country, investors' reactions to developments in one country can affect the securities markets and the securities of issuers in other countries, including the PRC. Since the global financial crisis of 2008 and 2009, the international financial markets have experienced significant volatility. If similar developments occur in the international financial markets in the future, the market price of the Bonds could be adversely affected.

TERMS AND CONDITIONS OF THE BONDS

The following, subject to amendment and save for the paragraphs in italics, are the Terms and Conditions of the Bonds (as defined below), substantially as they will appear on the reverse of each of the individual bond certificates evidencing the Bonds.

The U.S.$[●] [●] per cent. guaranteed bonds due 20[●] (the "**Bonds**", which expression includes any further bonds issued pursuant to Condition 15 (*Further Issues*) and consolidated and forming a single series therewith) of China Railway XunJie Co., Limited 中铁迅捷有限公司 (the "**Issuer**") are constituted by, are subject to, and have the benefit of, a trust deed dated on or about [●] 2022 (as amended, supplemented, restated and/or replaced from time to time, the "**Trust Deed**") made between the Issuer, China Railway Group Limited (中國中鐵股份有限公司) (the "**Guarantor**") and China Construction Bank (Asia) Corporation Limited as trustee (the "**Trustee**", which expression shall, where the context so permits, include all persons for the time being trustee or trustees appointed under the Trust Deed or any successor) and are the subject of (a) a deed of guarantee dated on or about [●] 2022 (as amended, supplemented, restated and/or replaced from time to time, the "**Deed of Guarantee**") made by the Guarantor in favour of the Trustee and (b) an agency agreement dated on or about [●] 2022 (as amended, supplemented, restated and/or replaced from time to time, the "**Agency Agreement**") made between the Issuer, the Guarantor, China Construction Bank (Asia) Corporation Limited as registrar (the "**Registrar**", which expression includes any successor registrar appointed from time to time pursuant to the Agency Agreement in connection with the Bonds), China Construction Bank (Asia) Corporation Limited as principal paying agent (the "**Principal Paying Agent**", which expression includes any successor principal paying agent appointed from time to time pursuant to the Agency Agreement in connection with the Bonds), the transfer agent named therein (the "**Transfer Agent**", which expression includes any successor or additional transfer agent appointed from time to time pursuant to the Agency Agreement in connection with the Bonds), the other paying agent named therein (together with the Principal Paying Agent, the "**Paying Agents**", which expression includes any successor or additional paying agents appointed from time to time pursuant to the Agency Agreement in connection with the Bonds) and the Trustee. References herein to the "**Agents**" are to the Registrar, the Principal Paying Agent, the Transfer Agent and the Paying Agents and any reference to an "**Agent**" is to any one of them. Certain provisions of these Conditions are summaries of the Trust Deed, the Deed of Guarantee and the Agency Agreement and are subject to their detailed provisions. The Bondholders (as defined below) are bound by, and are deemed to have notice of, all the provisions of the Trust Deed, the Deed of Guarantee and the Agency Agreement applicable to them. Copies of the Trust Deed, the Deed of Guarantee and the Agency Agreement are available for inspection upon prior written request and satisfactory proof of holding by Bondholders during normal business hours at the registered office for the time being of the Trustee, being at the date hereof 20/F, CCB Tower, 3 Connaught Road Central, Central, Hong Kong and at the Specified Offices (as defined in the Agency Agreement) of each of the Agents, the initial Specified Offices of which are set out below.

All capitalised terms that are not defined in the Conditions have the same meaning given to them in the Trust Deed.

1. Form, Denomination, Status and Guarantee

(a) *Form and denomination*: The Bonds are in registered form in the denominations of U.S.$200,000 and integral multiples of U.S.$1,000 in excess thereof (each, an "**Authorised Denomination**").

(b) *Status of the Bonds*: The Bonds constitute direct, general, unconditional, unsubordinated and (subject to Condition 3(a) (*Negative Pledge*)) unsecured obligations of the Issuer which will at all times rank *pari passu* without any preference or priority among themselves and at least *pari passu* with all other present and future unsecured and unsubordinated obligations of the Issuer, save for such obligations as may be preferred by provisions of law that are both mandatory and of general application.

(c) *Guarantee of the Bonds*: The Guarantor has in the Deed of Guarantee unconditionally and irrevocably guaranteed the due and punctual payment of all sums from time to time payable by the Issuer in respect of the Bonds. This guarantee (the "**Guarantee of the Bonds**") constitutes a direct, general, unconditional, unsubordinated and (subject to Condition 3(a) (*Negative Pledge*)) unsecured obligation of the Guarantor which will at all times rank at least *pari passu* with all other present and future unsecured and unsubordinated obligations of the Guarantor, save for such obligations as may be preferred by provisions of law that are both mandatory and of general application.

*Upon issue, the Bonds will be initially evidenced by a global bond certificate (the "**Global Bond Certificate**") substantially in the form scheduled to the Agency Agreement. The Global Bond Certificate will be registered in the name of a nominee for, and deposited with, a common depositary for Euroclear Bank SA/NV ("**Euroclear**") and Clearstream Banking S.A. ("**Clearstream**") and will be exchangeable for individual Bond Certificates (as defined below) only in the circumstances set out therein.*

2. Register, Title and Transfers

(a) *Register*: The Registrar will maintain a register (the "**Register**") in respect of the Bonds in accordance with the provisions of the Agency Agreement. In these Conditions, the "**Holder**" of a Bond means the person in whose name such Bond is for the time being registered in the Register (or, in the case of a joint holding, the first-named thereof) and "**Bondholder**" shall be construed accordingly. A certificate (each, a "**Bond Certificate**") will be issued to each Bondholder in respect of its registered holding. Each Bond Certificate will be numbered serially with an identifying number which will be recorded in the Register.

(b) *Title*: The Holder of each Bond shall (except as otherwise required by law) be treated as the absolute owner of such Bond for all purposes (whether or not it is overdue and regardless of any notice of ownership, trust or any other interest therein, any writing on the Bond Certificate relating thereto (other than the endorsed form of transfer) or any notice of any previous loss or theft of such Bond Certificate) and no person shall be liable for so treating such Holder. No person shall have any right to enforce any term or condition of the Bonds, the Trust Deed or the Deed of Guarantee under the Contracts (Rights of Third Parties) Act 1999, but this shall not affect any right or remedy which exists or is available apart from such Act.

(c) *Transfers*: Subject to paragraphs (f) (*Closed periods*) and (g) (*Regulations concerning transfers and registration*) below, a Bond may be transferred in whole or in part in the Authorised Denomination upon surrender of the relevant Bond Certificate, with the endorsed form of transfer duly completed, at the Specified Office of the Registrar or any Transfer Agent, together with such evidence as the Registrar or (as the case may be) such Transfer Agent may reasonably require to prove the title of the transferor and the authority of the individuals who have executed the form of transfer; *provided, however, that* a Bond may not be transferred unless the principal amount of the Bonds transferred and (where not all of the Bonds held by a Holder are being transferred) the principal amount of the balance of the Bonds not transferred are Authorised Denominations. Where not all the Bonds represented by the surrendered Bond Certificate are the subject of the transfer, a new Bond Certificate in respect of the balance of the Bonds will be issued to the transferor. No transfer of title to a Bond will be valid unless and until entered on the Register.

Transfers of interests in the Bonds evidenced by the Global Bond Certificate will be effected in accordance with the rules of the relevant clearing systems.

(d) *Registration and delivery of Bond Certificates*: Within seven business days of the surrender of a Bond Certificate and delivery of the duly completed and signed form of transfer in accordance with paragraph (c) (*Transfers*) above, the Registrar will register the transfer in question and deliver a new Bond Certificate of a like principal amount to the Bonds transferred to each relevant Holder at its Specified Office or (as the case may be) the Specified Office of any Transfer Agent or (at the request and risk of any such relevant Holder) by uninsured post to the address specified for the purpose by such relevant Holder, unless such Holder requests otherwise and pays in advance to the relevant Transfer Agent or the Registrar (as the case may be) the costs of such other method of delivery and/or such insurance as it may specify. In this paragraph, "**business day**" means a day, other than a Saturday, Sunday or public holiday, on which commercial banks are open for general business (including dealings in foreign currencies) in the city where the Registrar or (as the case may be) the relevant Transfer Agent has its Specified Office.

(e) *No charge*: The transfer of a Bond will be effected without charge by or on behalf of the Issuer, the Registrar or any Transfer Agent but upon (i) such indemnity and/or security and/or pre-funding as the Registrar or (as the case may be) such Transfer Agent may require in respect of any tax or other duty of whatsoever nature which may be levied or imposed in connection with such transfer; (ii) the Registrar or the relevant Transfer Agent being satisfied in its absolute discretion with the documents of title or identity of the person making the application; and (iii) the relevant Agent being satisfied that the Regulations (as defined in Condition 2(g) (*Regulations concerning transfers and registration*)) concerning transfer of Bonds have been complied with.

(f) *Closed periods*: Bondholders may not require transfers to be registered:

(i) during the period of 15 days ending on (and including) the due date for any payment of principal, premium or interest in respect of the Bonds;

(ii) after a Put Option Notice (as defined in Condition 5(c) (*Redemption for a Relevant Event*)) has been delivered in respect of the relevant Bond(s) in accordance with Condition 5(c) (*Redemption for a Relevant Event*);

(iii) after any such Bond(s) has/have been called for redemption; and

(iv) during the period of seven days ending on (and including) any Record Date (as defined in Condition 6(f) (*Record Date*)).

(g) *Regulations concerning transfers and registration*: All transfers of the Bonds and entries on the Register are subject to the detailed regulations concerning the transfer of the Bonds (the "**Regulations**"), the initial form of which is scheduled to the Agency Agreement. The Regulations may be changed by the Issuer with the prior written approval of the Trustee and the Registrar, and by the Registrar with the prior written approval of the Trustee. A copy of the current Regulations will be mailed (free of charge to the Holder and at the Issuer's (failing which the Guarantor's) expense) by the Registrar to any Bondholder who requests in writing a copy of such Regulations at the specified office of the Registrar at all reasonable times during usual business hours following prior written request and proof of holding and identity satisfactory to the Registrar.

3. Covenants

(a) *Negative Pledge*: So long as any Bond remains outstanding (as defined in the Trust Deed), neither the Issuer nor the Guarantor shall, and the Issuer and the Guarantor shall procure that none of its Material Subsidiaries (other than the Listed Subsidiaries and the Subsidiaries of a Listed Subsidiary) will, create or permit to subsist any Security Interest upon the whole or any part of its present or future undertaking, assets or revenues (including uncalled capital) to secure any Relevant Indebtedness or Guarantee of Relevant Indebtedness without (i) at the same time or prior thereto securing the Bonds equally and rateably therewith to the satisfaction of the Trustee or (ii) providing such other security for the Bonds as the Trustee may in its absolute discretion consider to be not materially less beneficial to the interests of the Bondholders or as may be approved by an Extraordinary Resolution (as defined in the Trust Deed) of Bondholders.

(b) *Limitation on Activities*: So long as any Bond remains outstanding, the Issuer shall not, and the Guarantor shall procure that the Issuer will not, conduct any business or any activities other than (i) the issues of notes or bonds, (ii) the utilisation of the proceeds of any issue of notes or bonds for itself or the on-lending of such proceeds to a member of the Group, and (iii) any other activities incidental to (i) and (ii).

(c) *Registration with SAFE*:

(i) The Guarantor undertakes to file or cause to be filed with SAFE, the Deed of Guarantee within 15 PRC Business Days after execution of the Deed of Guarantee in accordance with the Provisions on the Foreign Exchange Administration of Cross-Border Guarantees (跨境擔保外匯管理規定) promulgated by SAFE on 12 May 2014 which came into effect on 1 June 2014 (the "**Cross-Border Security Registration**"). The Guarantor shall use its best endeavours to complete the Cross-Border Security Registration and obtain a registration certificate from SAFE (or any other document evidencing the completion of registration issued by SAFE) on or before the SAFE Registration Deadline and comply with all applicable PRC laws and regulations in relation to the Guarantee of the Bonds.

(ii) The Guarantor shall within five PRC Business Days after receipt of the registration certificate from SAFE (or any other document evidencing the completion of registration issued by SAFE), provide the Trustee with a certificate in substantially the form set out in the Trust Deed signed by any one director or duly authorised officer of the Guarantor confirming the completion of the Cross-Border Security Registration, together with a certified true copy of the relevant SAFE registration certificate (or any other document evidencing the completion of registration issued by SAFE) relating to the Cross-Border Security Registration and give notice to the Bondholders in accordance with Condition 16 (*Notices*) of the same.

(iii) The Trustee may rely conclusively on the registration documents and shall have no obligation to monitor or ensure the registration of the Guarantee of the Bonds with SAFE on or before the SAFE Registration Deadline and shall not be liable to Holders or any other person for not doing so.

(d) *Notification to NDRC*:

(i) The Guarantor undertakes to file or cause to be filed with the NDRC the requisite information and documents within 10 PRC Business Days after the Issue Date (as defined in Condition 4 (*Interest*)) in accordance with the Circular on Promoting the Reform of the Administrative System on the Issuance by Enterprises of Foreign Debt Filings and Registrations (國家發展改革委關於推進企業發行外債備案登記制管理改革的通知(發改外資[2015]2044號)) issued by the NDRC and which came into effect on 14 September 2015, and any implementation rules as issued by the NDRC from time to time (the "**NDRC Post-issue Filing**").

(ii) The Guarantor shall complete the NDRC Post-issue Filing and provide such document(s) filed with the NDRC within the prescribed timeframe and, shall comply with all applicable PRC laws and regulations in connection with the Bonds. The Guarantor shall within five PRC Business Days after submission of such NDRC Post-issue Filing provide the Trustee with a certificate signed by any one director or duly authorised officer of the Guarantor confirming the submission of the NDRC Post-issue Filing (together with the document(s) filed with the NDRC) and give notice to the Bondholders in accordance with Condition 16 (*Notices*) of the same.

(iii) The Trustee shall have no obligation or duty to monitor or ensure the completion of the NDRC Post-issue Filing on or before the deadline referred to above or to verify the accuracy, validity and/or genuineness of any certificate, confirmation, or other documents in relation to or in connection with the NDRC Post-issue Filing or to give notice to the Bondholders confirming the completion of the NDRC Post-issue Filing, and shall not be liable to Bondholders or any other person for not doing so.

(e) *Financial Statements*: So long as any Bond remains outstanding, the Guarantor shall send to the Trustee:

(i) as soon as practicable after their date of publication and in any event not more than three months after the end of each financial year, two copies of the audited annual financial statements of the Group (audited by an internationally recognised firm of independent accountants) prepared and presented in accordance with International Financial Reporting Standards, and if such statements shall be in the Chinese language, together with an English translation of the same translated by (A) an internationally recognised firm of independent accountants or (B) a professional translation service provider and checked by an internationally recognised firm of independent accountants, together with a certificate signed by a director or a duly authorised officer of the Guarantor certifying that such translation is complete and accurate; and

(ii) as soon as practicable after their date of publication and in any event not more than two months after the end of each semi-annual financial period, two copies of the semi-annual financial statements of the Group (reviewed by an internationally recognised firm of independent accountants) prepared and presented in accordance with International Financial Reporting Standards, and if such statements shall be in the Chinese language, together with an English translation of the same translated by (A) an internationally recognised firm of independent accountants or (B) a professional translation service provider and checked by an internationally recognised firm of independent accountants, together with a certificate signed by a director or a duly authorised officer of the Guarantor certifying that such translation is complete and accurate.

(f) *Change of Financial Year*: So long as any Bond remains outstanding, the Issuer and the Guarantor shall inform the Trustee in writing if there is any change in the financial year-end of the Issuer or, as the case may be, the Guarantor.

(g) *Information in relation to Event of Default or Potential Event of Default*: So long as any Bond remains outstanding, the Issuer and the Guarantor shall make available to the Trustee at the same time the Guarantor provides the audited annual financial statements of the Group pursuant to Condition 3(e) (*Financial Statements*) or within 14 days of a written request by the Trustee, a certificate in English of each of the Issuer and the Guarantor signed by any one of their respective directors or duly authorised officers, which shall be substantially in the form provided in the Trust Deed and on which the Trustee may rely conclusively as to such compliance, stating that as of a specified date not earlier than five days prior to the date of such certificate or as of the end of the latest financial year of the Issuer or the Guarantor, as the case may be, (i) no Event of Default or Potential Event of Default (as defined in the Trust Deed) had occurred since the certification date of the last such certificate or (if none) the Issue Date (as defined in Condition 4 (*Interest*)) or, if such an event had occurred, giving details of it and the action which the Issuer or the Guarantor proposes to take with respect thereto and (ii) the Issuer or the Guarantor, as the case may be, has complied with all of the covenants that the Issuer or the Guarantor, as the case may be, is bound by under the Conditions and the Trust Deed.

In these Conditions:

"**Group**" means the Guarantor and its Subsidiaries, taken as a whole;

"**Guarantee**" means, in relation to any indebtedness of any Person, any obligation of another Person to pay such indebtedness including (without limitation):

(a) any obligation to purchase such indebtedness;

(b) any obligation to lend money, to purchase or subscribe shares or other securities or to purchase assets or services in order to provide funds for the payment of such indebtedness;

(c) any indemnity against the consequences of a default in the payment of such indebtedness; and

(d) any other agreement to be responsible for such indebtedness;

"**Hong Kong**" means the Hong Kong Special Administrative Region of the People's Republic of China;

"**Listed Subsidiary**" means, at any time, any Subsidiary of the Guarantor, the ordinary voting shares of which are at such time listed on a recognised stock exchange, and "**Listed Subsidiaries**" shall be construed accordingly;

"**Macau**" means the Macau Special Administrative Region of the People's Republic of China;

"**Material Subsidiary**" means a Subsidiary of the Guarantor whose total amount of gross assets, profits or revenue (excluding intra-group items) represents five per cent. or more of the gross assets, profits or revenue of the Group calculated on a consolidated basis, as determined by reference to the latest audited consolidated financial statements of that Subsidiary (consolidated in the case of a Subsidiary which itself has Subsidiaries) and the latest audited consolidated financial statements of the Group, or determined by reference to the most recent compliance certificate delivered by the Guarantor certifying its Material Subsidiaries. If a Subsidiary of the Guarantor has been acquired since the date at which the latest audited consolidated financial statements of the Group were prepared, such financial statements shall be adjusted in order to take into account the acquisition of that Subsidiary;

"**NDRC**" means the National Development and Reform Commission of the PRC or its local counterparts;

"**Person**" means any individual, company, corporation, firm, partnership, joint venture, association, organisation, state or agency of a state or other entity, whether or not having separate legal personality;

"**PRC**" means the People's Republic of China, which, solely for the purposes of these Conditions, excludes Hong Kong, Macau and Taiwan;

"**PRC Business Day**" means a day (other than a Saturday, Sunday or a public holiday) on which banks in Beijing, the PRC, are not authorised or obliged by law or executive order to be closed;

"**Relevant Indebtedness**" means any indebtedness which is in the form of or represented by any bond, note, debenture, debenture stock, loan stock, certificate or other instrument which is, or is capable of being, listed, quoted or traded on any stock exchange or in any securities market (including, without limitation, any over-the-counter market), but excludes any such indebtedness that is issued in the PRC;

"**SAFE**" means the State Administration of Foreign Exchange of the PRC or its local counterparts;

"**SAFE Registration Deadline**" means the day falling 90 PRC Business Days after the Issue Date;

"**Security Interest**" means any mortgage, charge, pledge, lien or other security interest including, without limitation, anything analogous to any of the foregoing under the laws of any jurisdiction; and

"**Subsidiary**" means, in relation to any Person (the "**first Person**") at any particular time, any other Person (the "**second Person**"):

(a) whose affairs and policies the first Person controls or who has the power to control more than 50 per cent. of the issued share capital or the power to appoint or remove a majority of members of the governing body of the second Person or otherwise; or

(b) whose financial statements are, in accordance with applicable law and generally accepted accounting principles, consolidated with those of the first Person.

4. Interest

The Bonds bear interest from (and including) [●] 2022 (the "**Issue Date**") at the rate of [●] per cent. per annum, (the "**Rate of Interest**") payable semi-annually in arrear on [●] and [●] in each year (each, an "**Interest Payment Date**"), subject as provided in Condition 6 (*Payments*).

Each Bond will cease to bear interest from the due date for redemption unless, upon due presentation, payment of principal or premium is improperly withheld or refused, in which case it will continue to bear interest at such rate (both before and after judgment) until whichever is the earlier of (a) the day on which all sums due in respect of such Bond up to that day are received by or on behalf of the relevant Bondholder and (b) the day which is seven days after the Principal Paying Agent or the Trustee has notified the Bondholders that it has received all sums due in respect of the Bonds up to such seventh day (except to the extent that there is any subsequent default in payment).

The amount of interest payable on each Interest Payment Date shall be U.S.$[●] in respect of each Bond of U.S.$1,000 denomination. If interest is required to be paid in respect of a Bond on any other date, it shall be calculated by applying the Rate of Interest to the Calculation Amount, multiplying the product by the relevant Day Count Fraction, rounding the resulting figure to the nearest cent (half a cent being rounded upwards) and multiplying such rounded figure by a fraction equal to the Authorised Denomination of such Bond divided by the Calculation Amount, where "**Calculation Amount**" means U.S.$1,000 and "**Day Count Fraction**" means, in respect of any period, the number of days in the relevant period divided by 360 (the number of days to be calculated on the basis of a year of 360 days with 12 30-day months).

5. Redemption and Purchase

(a) *Scheduled redemption*: Unless previously redeemed, or purchased and cancelled, the Bonds will be redeemed at their principal amount on [●], subject as provided in Condition 6 (*Payments*).

(b) *Redemption for tax reasons*: The Bonds may be redeemed at the option of the Issuer in whole, but not in part only, at any time, on giving not less than 30 nor more than 60 days' notice to the Bondholders (which notice shall be irrevocable) and in writing to the Trustee and the Principal Paying Agent, at their principal amount, together with interest accrued up to, but excluding, the date fixed for redemption, if, immediately before giving such notice, the Issuer satisfies the Trustee that:

(i) (A) the Issuer has or will become obliged to pay Additional Tax Amounts as provided or referred to in Condition 7 (*Taxation*) as a result of any change in, or amendment to, the laws or regulations of the British Virgin Islands or the PRC or any political subdivision or any authority thereof or therein having power to tax, or any change in the application or official interpretation of such laws or regulations (including but not limited to any decision by a court of competent jurisdiction), which change or amendment becomes effective on or after [●] 2022; and (B) such obligation cannot be avoided by the Issuer taking reasonable measures available to it; or

(ii) (A) the Guarantor has or (if a demand was made under the Guarantee of the Bonds) would become obliged to pay Additional Tax Amounts as provided or referred to in Condition 7 (*Taxation*) or the Guarantee of the Bonds, as the case may be, as a result of any change in, or amendment to, the laws or regulations of the PRC or any political subdivision or any authority thereof or therein having power to tax, or any change in the application or official interpretation of such laws or regulations (including but not limited to any decision by a court of competent jurisdiction), which change or amendment becomes effective on or after [●] 2022 and (B) such obligation cannot be avoided by the Guarantor taking reasonable measures available to it;

provided, however, that no such notice of redemption shall be given earlier than 90 days prior to the earliest date on which the Issuer or the Guarantor would be obliged to pay such Additional Tax Amounts if a payment in respect of the Bonds were then due or (as the case may be) a demand under the Guarantee of the Bonds were then made.

Prior to the publication by the Issuer of any notice of redemption pursuant to this Condition 5(b) (*Redemption for tax reasons*), the Issuer shall deliver or procure that there is delivered to the Trustee:

(1) a certificate in English signed by any one director or duly authorised officer of the Issuer stating that the circumstances referred to in (i)(A) and (i)(B) above prevail and setting out the details of such circumstances or (as the case may be) a certificate in English signed by any one director or duly authorised officer of the Guarantor stating that the circumstances referred to in (ii)(A) and (ii)(B) above prevail and setting out details of such circumstances; and

(2) an opinion addressed to and in form and substance satisfactory to the Trustee of independent tax or legal advisers of recognised standing to the effect that the Issuer or (as the case may be) the Guarantor has or will become obliged to pay such Additional Tax Amounts as a result of such change or amendment.

The Trustee and the Agents shall be entitled to (but shall not be obligated to) accept and conclusively rely upon such certificate and opinion as sufficient evidence of the satisfaction of the circumstances set out in (i)(A) and (i)(B) or (as the case may be) (ii)(A) and (ii)(B) above, in which event they shall be conclusive and binding on the Trustee, the Agents and the Bondholders.

Upon the expiry of any such notice period as is referred to in this Condition 5(b) (*Redemption for tax reasons*), the Issuer shall be bound to redeem the Bonds in accordance with this Condition 5(b) (*Redemption for tax reasons*).

Neither the Trustee nor any of the Agents shall be responsible for calculating or verifying the calculations of any amount payable under any notice of redemption under this Condition 5(b) (*Redemption for tax reasons*) or Condition 5(c) (*Redemption for a Relevant Event*) below and shall not be liable to the Bondholders, the Issuer, the Guarantor or any other person for not doing so.

(c) *Redemption for a Relevant Event*: At any time following the occurrence of a Relevant Event, the Holder of any Bond will have the right, at such Holder's option, to require the Issuer to redeem all but not some only of that Holder's Bonds on the Put Settlement Date at 101 per cent. of their principal amount (in the case of a redemption for a Change of Control) or at 100 per cent. of their principal amount (in the case of a redemption for a Non-Registration Event), in each case together with accrued interest up to, but excluding, such Put Settlement Date. To exercise such rights, the Holder of the relevant Bond must deposit at the Specified Office of any Paying Agent a duly completed and signed notice of redemption, in the form for the time being current, obtainable from the Specified Office of any Paying Agent (a "**Put Option Notice**"), together with the Bond Certificates evidencing the Bonds to be redeemed by not later than 30 days following a Relevant Event, or, in the case of a Change of Control only, if later, 30 days following the date upon which notice thereof is given to Bondholders by the Issuer in accordance with Condition 16 (*Notices*). The "**Put Settlement Date**" shall be the 14th day (or, if such day is not a business day (as defined in Condition 6(d) (*Payments on business days*)), the next business day immediate following such day) after the expiry of such period as referred to above.

A Put Option Notice, once delivered, shall be irrevocable and the Issuer shall redeem the Bonds subject to the Put Option Notices delivered as aforesaid.

The Issuer shall give notice to Bondholders in accordance with Condition 16 (*Notices*) and to the Trustee and the Principal Paying Agent in writing by not later than 14 days following the first day on which it becomes aware of the occurrence of a Change of Control or a Non-Registration Event, which notice shall specify the procedure for exercise by Holders of their rights to require redemption of the Bonds pursuant to this Condition 5(c) (*Redemption for a Relevant Event*).

In this Condition 5(c) (*Redemption for a Relevant Event*):

a "**Change of Control**" occurs when:

(i) the government of the PRC or Persons under the control of the government of the PRC (each, a "**PRC Government Person**") cease to, directly or indirectly or in combination, Control the Guarantor; or

(ii) the Guarantor consolidates with or merges into or sells or transfers all or substantially all of the Guarantor's assets to any other Person, unless (A) the consolidation, merger, sale or transfer will not result in the other Person or Persons acquiring Control over the Guarantor or the successor entity, or (B) such Person(s) is/are Controlled by a PRC Government Person.

"**Control**" and "**Controlled**" means (where applicable), with respect to a Person, any one or more of the following:

(i) the acquisition or control of at least 40.0 per cent. of the voting rights of the issued share capital of such Person;

(ii) the right to appoint and/or remove the majority of the members of the Person's board of directors or other governing body; or

(iii) the ability or power to direct the management policies of such Person, in each case, whether obtained directly or indirectly and whether obtained by ownership of share capital, the possession of voting rights, contract or otherwise;

a "**Non-Registration Event**" occurs when the Registration Condition has not been satisfied on or prior to the SAFE Registration Deadline;

"**Registration Condition**" means (i) the completion of the Cross-Border Security Registration before the SAFE Registration Deadline and (ii) the receipt of the certificate and supporting documents by the Trustee and the publication of the notice to Bondholders within five PRC Business Days after the completion of the Cross-Border Security Registration as set out in Condition 3(c)(ii); and

a "**Relevant Event**" means a Change of Control or a Non-Registration Event.

(d) *No other redemption*: The Issuer shall not be entitled to redeem the Bonds otherwise than as provided in paragraphs (a) (*Scheduled redemption*) to (c) (*Redemption for a Relevant Event*) above.

(e) *Purchase*: The Issuer, the Guarantor or any of their respective Subsidiaries may at any time purchase Bonds in the open market or otherwise and at any price.

(f) *Cancellation*: All Bonds so redeemed or purchased by the Issuer, the Guarantor or any of their respective Subsidiaries shall be cancelled and may not be reissued or resold.

6. Payments

(a) *Principal and premium*: Payments of principal and premium (if any) shall be made (subject to surrender of the relevant Bond Certificates at the Specified Office of any Paying Agent or of the Registrar if no further payment falls to be made in respect of the Bonds represented by such Bond Certificates) in the manner provided in Condition 6(b) (*Interest*).

(b) *Interest*: Payments of interest shall be paid to the person shown as the holder on the Register at the close of business on the Record Date (as defined below). Payments of interest on each Bond shall be made in U.S. dollars by wire transfer to a U.S. dollar registered account of the Bondholder and (i) (in the case of interest payable on redemption) upon surrender, or (ii) (in the case of part payment only) upon endorsement of the relevant Bond Certificates at the Specified Office of any Paying Agent. For the purposes of this Condition 6(b) (*Interest*), a Bondholder's "**registered account**" means the U.S. dollar denominated account maintained by or on behalf of it with a bank, details of which appear on the Register at the close of business on the Record Date.

(c) *Payments subject to fiscal laws*: All payments in respect of the Bonds are subject in all cases to any applicable fiscal or other laws and regulations in the place of payment, but without prejudice to the provisions of Condition 7 (*Taxation*). No commissions or expenses shall be charged to the Bondholders in respect of such payments.

(d) *Payments on business days*: Where payment is to be made by wire transfer to a U.S. dollar account, payment instructions (for value the due date, or, if the due date is not a business day, for value the next succeeding business day) will be initiated (i) (in the case of payments of principal, premium and interest payable on redemption) on the later of the due date for payment and the day on which the relevant Bond Certificate is surrendered (or, in the case of part payment only, endorsed) at the Specified Office of a Paying Agent and (ii) (in the case of payments of interest payable other than on redemption) on the due date for payment. A Holder shall not be entitled to any interest or other payment in respect of any delay in payment resulting from the due date for a payment not being a business day. In this paragraph, "**business day**" means any day on which banks are open for general business (including dealings in foreign currencies) in New York City, London, the PRC and Hong Kong and, in the case of surrender (or, in the case of part payment only, endorsement) of a Bond Certificate, in the place in which the Bond Certificate is surrendered (or, as the case may be, endorsed).

(e) *Partial payments*: If a Paying Agent makes a partial payment in respect of any Bond, the Issuer shall procure that the amount and date of such payment are noted on the Register and, in the case of partial payment upon presentation of a Bond Certificate, that a statement indicating the amount and the date of such payment is endorsed on the relevant Bond Certificate.

(f) *Record date*: Each payment in respect of a Bond will be made to the person shown as the Holder in the Register at the close of business in the place of the Registrar's Specified Office on the fifteenth day before the due date for such payment (the "**Record Date**").

*Whilst the Bonds are evidenced by the Global Bond Certificate and so long as the Global Bond Certificate is held on behalf of Euroclear, Clearstream or any other clearing system, each payment in respect of the Global Bond Certificate will be made to the person shown as the Holder in the Register at the close of business (of the relevant clearing system) on the Clearing System Business Day before the due date for such payment, where "**Clearing System Business Day**" means a weekday (Monday to Friday, inclusive) except 25 December and 1 January.*

7. Taxation

All payments of principal, premium (if any) and interest in respect of the Bonds by or on behalf of the Issuer or the Guarantor shall be made free and clear of, and without withholding or deduction for or on account of, any present or future taxes, duties, assessments or governmental charges of whatever nature imposed, levied, collected, withheld or assessed by or on behalf of the British Virgin Islands or the PRC or any political subdivision thereof or any authority therein or thereof having power to tax, unless the withholding or deduction of such taxes, duties, assessments or governmental charges is required by law.

Where such withholding or deduction is made by the Issuer or the Guarantor by or within the PRC up to the rate applicable on [●] 2022 (the "**Applicable Rate**"), the Issuer or, as the case may be, the Guarantor will pay such additional amounts as will result in receipt by the Bondholders after such withholding or deduction of such amounts as would have been received by them had no such withholding or deduction been required.

In the event the Issuer or the Guarantor is required to make a deduction or withholding (i) by or within the PRC in excess of the Applicable Rate; or (ii) by or within the British Virgin Islands, the Issuer or the Guarantor, as the case may be, shall pay such additional amounts (the "**Additional Tax Amounts**") as will result in receipt by the Bondholders after such withholding or deduction of such amounts as would have been received by them had no such withholding or deduction been required, except that no such Additional Tax Amounts shall be payable in respect of any Bond:

(a) *Other connection*: to a Holder (or to a third party on behalf of a Holder) who is subject to such taxes, duties, assessments or governmental charges in respect of such Bond or, as the case may be, payments made by the Guarantor by reason of its having some present or formal connection with the jurisdiction by which such taxes, duties, assessments or charges have been imposed, levied, collected, withheld or assessed other than the mere holding of the Bond or by the receipt of amounts in respect of such Bond; or

(b) *Presentation more than 30 days after the Relevant Date*: where (in the case of a payment of principal, premium or interest on redemption) the relevant Bond Certificate is surrendered for payment more than 30 days after the Relevant Date except to the extent that the relevant Holder would have been entitled to such Additional Tax Amounts if it had surrendered the relevant Bond Certificate on the last day of such period of 30 days.

In these Conditions, "**Relevant Date**" means whichever is the later of (A) the date on which the payment in question first becomes due and (B) if the full amount payable has not been received by the Principal Paying Agent or the Trustee on or prior to such due date, the date on which (the full amount having been so received) notice to that effect has been given to the Bondholders.

Any reference in these Conditions to principal, premium or interest shall be deemed to include any additional amounts in respect of principal, premium or interest (as the case may be) which may be payable under this Condition 7 (*Taxation*) or any undertaking given in addition to or in substitution of this Condition 7 (*Taxation*) pursuant to the Trust Deed.

If the Issuer or the Guarantor becomes subject at any time to any taxing jurisdiction other than the British Virgin Islands or the PRC respectively, references in these Conditions to the British Virgin Islands or the PRC shall be construed as references to the British Virgin Islands or (as the case may be) the PRC and/or such other jurisdiction.

Neither the Trustee nor the Agents shall be responsible for paying any tax, duty, charge, withholding or other payment referred to in this Condition 7 (*Taxation*) or for determining whether such amounts are payable or the amount thereof, and shall not be responsible or liable for any failure by the Issuer, the Guarantor, the Bondholders or any other person to pay such tax, duty, charge, withholding or other payment in any jurisdiction or to provide any notice or information to the Trustee or any Agent that would permit, enable or facilitate the payment of any principal, premium (if any), interest or other amount under or in respect of the Bonds without deduction or withholding for or on account of any tax, duty, charge, withholding or other payment imposed by or in any jurisdiction.

8. Events of Default

If any of the following events (each, an "**Event of Default**") occurs, then the Trustee at its discretion may and, if so requested in writing by Holders of at least one quarter of the aggregate principal amount of the outstanding Bonds or if so directed by an Extraordinary Resolution, shall (subject to the Trustee having been indemnified and/or pre-funded and/or provided with security to its satisfaction) give written notice to the Issuer declaring the Bonds to be immediately due and payable, whereupon they shall become immediately due and payable at their principal amount together with accrued interest without further action or formality:

(a) *Non-payment*: the Issuer or the Guarantor fails to pay any amount of principal or premium in respect of the Bonds or the Guarantee of the Bonds, as the case may be, on the due date for payment thereof or fails to pay any amount of interest in respect of the Bonds on the due date for payment thereof and, in the case of interest, such default continues for a period of seven days; or

(b) *Breach of other obligations*: the Issuer or the Guarantor defaults in the performance or observance of any of its other obligations under or in respect of the Bonds or the Trust Deed or (in the case of the Guarantor only) the Deed of Guarantee (other than those the breach of which would give rise to a redemption pursuant to Condition 5(c) (*Redemption for a Relevant Event*) and those referred to in Condition 8(a) (*Non-payment*)) and such default (i) is incapable of remedy or (ii) being a default which is capable of remedy, remains unremedied for 30 days (or such longer period as the Trustee may permit) after the Trustee has given written notice thereof to the Issuer or, as the case may be, the Guarantor; or

(c) *Cross-default of Issuer, Guarantor or Subsidiary*:

   (i) any indebtedness in respect of moneys borrowed or raised by the Issuer, the Guarantor or any of their respective Subsidiaries is not paid when due or (as the case may be) within any originally applicable grace period;

   (ii) any such indebtedness in respect of moneys borrowed or raised becomes (or becomes capable of being declared) due and payable prior to its stated maturity otherwise than at the option of the Issuer, the Guarantor or (as the case may be) the relevant Subsidiary or (*provided that* no event of default, howsoever described, has occurred) any person entitled to such indebtedness; or

   (iii) the Issuer, the Guarantor or any of their respective Subsidiaries fails to pay when due any amount payable by it under any Guarantee of any such indebtedness, *provided that* the amount of indebtedness referred to in sub-paragraph (i) and/or (ii) above and/or the amount payable under any Guarantee referred to in sub-paragraph (iii) above individually or in the aggregate exceeds U.S.$70,000,000 (or its equivalent in any other currency or currencies); or

(d) *Unsatisfied judgment*: one or more final, non-appealable judgment(s) or order(s) is rendered against the Issuer, the Guarantor or any of the Guarantor's Material Subsidiaries in respect of all or a substantial part of their undertakings, assets or revenue, and continue(s) unsatisfied and unstayed for a period of 45 days after the date(s) thereof or, if later, the date therein specified for payment; or

(e) *Security enforced*: a secured party takes possession, or a receiver, manager or other similar officer is appointed, of the whole or a substantial part of the undertaking, assets and revenues of the Issuer, the Guarantor or any of the Guarantor's Material Subsidiaries; or

(f) *Insolvency, etc.*: (i) the Issuer, the Guarantor or any of the Guarantor's Material Subsidiaries becomes insolvent or is unable to pay its debts as they fall due, (ii) an administrator or liquidator of the Issuer, the Guarantor or any of the Guarantor's Material Subsidiaries or the whole or a substantial part of the undertaking, assets and revenues of the Issuer, the Guarantor or any of the Guarantor's Material Subsidiaries is appointed (or application for any such appointment is made and such application is not discharged or stayed within 45 days), (iii) the Issuer, the Guarantor or any of the Guarantor's Material Subsidiaries takes any action for a readjustment or deferment of any of its obligations or makes a general assignment or an arrangement or composition with or for the benefit of its creditors or declares a moratorium in respect of any of its indebtedness or any Guarantee of any indebtedness given by it and such action is not discharged or stayed within 45 days or (iv) the Issuer, the Guarantor or any of the Guarantor's Material Subsidiaries ceases or threatens to cease to carry on all or a substantial part of its business (otherwise than, in the case of a Material Subsidiary of the Guarantor, for the purposes of or pursuant to an amalgamation, reorganisation or restructuring whilst solvent or as a result of a disposal on arm's length terms); or

(g) *Winding up, etc.*: an order is made or an effective resolution is passed for the winding up, liquidation or dissolution of the Issuer, the Guarantor or any of the Guarantor's Material Subsidiaries save, in the case of a Material Subsidiary of the Guarantor only, for (i) any voluntary solvent winding up, liquidation or dissolution; or (ii) any reorganisation whereby the business, undertaking and assets of such Material Subsidiary are transferred to or otherwise vested in the Guarantor and/or another Subsidiary of the Guarantor; or

(h) *Analogous event*: any event occurs which under the laws of the British Virgin Islands or the PRC has an analogous effect to any of the events referred to in paragraphs (d) (*Unsatisfied judgment*) to (g) (*Winding up, etc.*) above (both inclusive); or

(i) *Failure to take action, etc.*: any action, condition or thing at any time required to be taken, fulfilled or done in order (i) to enable the Issuer and the Guarantor lawfully to enter into, exercise their respective rights and perform and comply with their respective obligations under and in respect of the Bonds, the Trust Deed and (in the case of the Guarantor only) the Deed of Guarantee, (ii) to ensure that those obligations are legal, valid, binding and enforceable and (iii) to make the Bond Certificates, the Trust Deed and the Deed of Guarantee admissible in evidence in the courts of Hong Kong is not taken, fulfilled or done; or

(j) *Unlawfulness*: it is or will become unlawful for the Issuer or the Guarantor to perform or comply with any of its obligations under or in respect of the Bonds, the Trust Deed or (in the case of the Guarantor only) the Deed of Guarantee; or

(k) *Guarantee not in force*: the Guarantee of the Bonds is not (or is claimed by the Guarantor not to be) in full force and effect; or

(l) *Nationalisation*: (i) all or a substantial part of the undertaking, assets and revenues of the Issuer, the Guarantor or any of the Guarantor's Material Subsidiaries is condemned, seized or otherwise appropriated by any person acting under the authority of any national, regional or local government or (ii) the Issuer, the Guarantor or any of the Guarantor's Material Subsidiaries is prevented by any such person from exercising normal control over all or a substantial part of its undertaking, assets and revenues; or

(m) *Controlling shareholder*: the Issuer ceases to be a wholly-owned Subsidiary of the Guarantor.

9. Prescription

Claims for principal, premium (if any) and interest on redemption shall become void unless the relevant Bond Certificates are surrendered for payment within ten years of the appropriate Relevant Date.

10. Replacement of Bond Certificates

If any Bond Certificate is lost, stolen, mutilated, defaced or destroyed, it may be replaced at the Specified Offices of the Registrar and the Transfer Agent, subject to all applicable laws and stock exchange requirements, upon payment by the claimant of the expenses incurred in connection with such replacement and on such terms as to evidence, security, indemnity and otherwise as the Issuer, the Registrar and the Transfer Agent may reasonably require. Mutilated or defaced Bond Certificates must be surrendered before replacements will be issued.

11. Trustee and Agents

Under the Trust Deed, it contains provisions for the indemnification of the Trustee and for its relief from responsibility in certain circumstances and to be paid or reimbursed for its costs and expenses in priority to the claims of the Bondholders. In addition, the Trustee, the Agents and their respective directors and officers are entitled to enter into business transactions in the ordinary course of business with the Issuer, the Guarantor and any entity relating (directly or indirectly) to the Issuer or the Guarantor without accounting for any profit.

In the exercise of its rights, powers and discretions under these Conditions, the Trust Deed, the Agency Agreement and the Deed of Guarantee, the Trustee will have regard to the interests of the Bondholders as a class and shall not have regard to the interests and will not be responsible for any consequence for individual Holders of Bonds as a result of such Holders being connected in any way with a particular territory or taxing jurisdiction and the Trustee shall not be entitled to require on behalf of any Bondholder, nor shall any Bondholder be entitled to claim, from the Issuer, the Guarantor or the Trustee any indemnification or payment in respect of any tax consequence of any such exercise upon individual Bondholders.

In acting under the Agency Agreement and in connection with the Bonds, the Agents act solely as agents of the Issuer, the Guarantor and (to the extent provided therein) the Trustee and do not assume any obligations towards or relationship of agency or trust for or with any of the Bondholders.

The initial Agents and their initial Specified Offices are listed below. The Issuer and the Guarantor reserve the right (with the prior approval of the Trustee) at any time to vary or terminate the appointment of any Agent and to appoint a successor registrar and principal paying agent, and additional or successor paying agents and transfer agents; *provided, however, that* the Issuer and the Guarantor shall at all times maintain a principal paying agent, a registrar and a transfer agent.

Notice of any termination or appointment or change in any of the Agents or in their Specified Offices shall be given to the Bondholders by the Issuer as soon as practicable in accordance with Condition 16 (*Notices*).

12. Meetings of Bondholders; Modification and Waiver

(a) *Meetings of Bondholders*: The Trust Deed contains provisions for convening meetings of Bondholders to consider matters relating to the Bonds, including the modification of any provision of these Conditions, the Trust Deed, the Agency Agreement or the Deed of Guarantee. Any such modification may be made if sanctioned by an Extraordinary Resolution. Such a meeting may be convened by the Issuer and the Guarantor (acting together) or by the Trustee and shall be convened by the Trustee upon the request in writing of Bondholders holding not less than one-tenth of the aggregate principal amount of the outstanding Bonds and subject to the Trustee being indemnified and/or secured and/or prefunded to its satisfaction against all costs and expenses. The quorum at any meeting convened to vote on an Extraordinary Resolution will be two or more persons holding or representing more than half of the aggregate principal amount of the outstanding Bonds or, at any adjourned meeting, two or more persons being or representing Bondholders whatever the principal amount of the Bonds held or represented; *provided, however, that* certain proposals (including any proposal to change any date fixed for payment of principal, any premium or interest in respect of the Bonds, to reduce the amount of principal, any premium or interest payable on any date in respect of the Bonds, to alter the method of calculating the amount of any payment in respect of the Bonds or the date for any such payment, to change the currency of payments under the Bonds, to amend the terms of the Guarantee of the Bonds, to change the quorum requirements relating to meetings or the majority required to pass an Extraordinary Resolution or to modify this definition of "Reserved Matter" (each, a "**Reserved Matter**")) may only be sanctioned by an Extraordinary Resolution passed at a meeting of Bondholders at which two or more persons holding or representing not less than two-thirds or, at any adjourned meeting, one quarter of the aggregate principal amount of the outstanding Bonds form a quorum. Any Extraordinary Resolution duly passed at any such meeting shall be binding on all the Bondholders, whether present or not.

In addition, a resolution in writing signed by or on behalf of Bondholders holding not less than 90 per cent. of the aggregate principal amount of the Bonds outstanding and who for the time being are entitled to receive notice of a meeting of Bondholders under the Trust Deed will take effect as if it were an Extraordinary Resolution. Such a resolution in writing may be contained in one document or several documents in the same form, each signed by or on behalf of one or more Bondholders.

(b) *Modification and waiver*: The Trustee may (but shall not be obliged to), without the consent of the Bondholders, agree to any modification of the Bonds, the Trust Deed or the Deed of Guarantee (in each case, other than in respect of a Reserved Matter) or the Agency Agreement which will not be materially prejudicial to the interests of Bondholders and to any modification of the Bonds, the Trust Deed, the Deed of Guarantee or the Agency Agreement which is of a formal, minor or technical nature or is to correct a manifest error, or to comply with any mandatory provisions of law.

In addition, the Trustee may (but shall not be obliged to), without the consent of the Bondholders, authorise or waive (i) any proposed breach or breach of the Bonds or of any of the provisions of the Trust Deed or the Deed of Guarantee (in each case, other than a proposed breach or breach relating to the subject of a Reserved Matter) or the Agency Agreement and (ii) any act or omission which would otherwise constitute an Event of Default or Potential Event of Default if the interests of the Bondholders will not be materially prejudiced thereby.

Any such authorisation, waiver or modification shall be binding on the Bondholders and unless the Trustee agrees otherwise, any such authorisation, waiver or modification shall be notified by the Issuer to the Bondholders as soon as reasonably practicable thereafter. The Trustee may request and conclusively rely upon an officer's certificate and/or an opinion of counsel concerning the compliance with the above conditions in respect of any modification, waiver or and amendments.

(c) *Directions from Bondholders*: Notwithstanding anything to the contrary in these Conditions, the Trust Deed or the Agency Agreement, whenever the Trustee is required or entitled by the terms of these Conditions, the Trust Deed or the Agency Agreement to exercise any discretion or power, take any action, make any decision or give any direction or certification, the Trustee is entitled, prior to exercising any such discretion or power, taking any such action, making any such decision, or giving any such direction or certification, to seek directions from the Bondholders by way of an Extraordinary Resolution and shall have been indemnified and/or secured and/or pre-funded to its satisfaction against all action, proceedings, claims and demands to which it may be or become liable and all costs, charges, damages, expenses (including legal expenses) and liabilities which may be incurred by it in connection therewith, and the Trustee is not responsible for any loss or liability incurred by any person as a result of any delay in it exercising such discretion or power, taking or refraining from such action, making such decision, or giving such direction or certification where the Trustee is seeking such directions or in the event that the directions sought are not forthcoming.

(d) *Certificates and Reports*: The Trustee and the Agents may rely conclusively without liability to Bondholders, the Issuer and the Guarantor or any other person on any report, advice, opinion, confirmation or certificate from any lawyers, valuers, accountants (including auditors and surveyors), financial advisers, financial institution or any other expert, whether or not addressed to them and whether their liability in relation thereto is limited (by its terms or by any engagement letter relating thereto entered into by the Trustee or any other person or in any other manner) by reference to a monetary cap, methodology or otherwise. The Trustee and the Agents may accept and shall be entitled to rely conclusively on any such report, confirmation, opinion or certificate or advice and, in such event, such report, confirmation, opinion or certificate or advice shall be binding on the Issuer, the Guarantor and the Bondholders. Neither the Trustee nor the Agents shall be responsible or liable to the Issuer, the Bondholders, the Guarantor or any other person for any loss occasioned by relying or acting on or refraining from relying or acting on such report, confirmation, opinion or certificate or advice.

(e) *Trustee not Responsible*: The Trust Deed provides that the Trustee shall not be responsible for, or for investigating any matter which is the subject of, any recital, statement, representation, warranty or covenant of any person contained in the Trust Deed, the Agency Agreement, the Deed of Guarantee, the Bonds, or any other agreement or document relating to the transactions herein or therein contemplated or for the execution, legality, effectiveness, adequacy, genuineness, validity, enforceability or admissibility in evidence thereof. In addition, subject to Sections 750 and 751 of the Companies Act 2006 (if applicable) and notwithstanding anything to the contrary in the Trust Deed, the Deed of Guarantee, the Agency Agreement, the Conditions or the Bonds, the Trustee shall not be liable to any person for any matter or thing done or omitted in any way in connection with or in relation to the Trust Deed, the Deed of Guarantee, the Agency Agreement, the Conditions or the Bonds save in relation to its own gross negligence, wilful default or fraud having regard to the provisions of the Trust Deed, the Deed of Guarantee, the Agency Agreement, the Conditions or the Bonds conferring on it any trusts, powers, authorities or discretions.

(f) *Responsibility for Statements:* The Trust Deed provides that the Bondholders shall be solely responsible for making and continuing to make its own independent appraisal and investigation into the financial condition, creditworthiness, condition, affairs, status and nature of the Issuer and the Guarantor, and the Trustee shall not at any time have any responsibility for the same and each Bondholder shall not rely on the Trustee in respect thereof.

13. Enforcement

The Trustee may at any time after the Bonds become due and payable, at its discretion and without notice, institute such proceedings and/or take such actions and/or steps against the Issuer or the Guarantor as it thinks fit to enforce its rights under the Trust Deed, the Deed of Guarantee, the Agency Agreement and the Bonds, but it shall not be bound to do so unless:

(a) it has been so requested in writing by the Holders of at least one quarter of the aggregate principal amount of the outstanding Bonds or has been so directed by an Extraordinary Resolution; and

(b) it has been indemnified and/or pre-funded and/or provided with security to its satisfaction.

No Bondholder may proceed directly against the Issuer or the Guarantor unless the Trustee, having become bound to do so, fails to do so within a reasonable time and such failure is continuing.

14. Indemnification

The Trust Deed contains provisions for the indemnification of the Trustee and for its relief from responsibility including without limitation provisions relieving it from taking proceedings to enforce its rights under the Trust Deed, the Agency Agreement and/or these Conditions and in respect of the Bonds and to enforce payment or taking other actions, steps and/or proceedings unless first indemnified and/or secured and/or pre-funded to its satisfaction and to be paid or reimbursed for its fees, costs, expenses and indemnity payments and any liabilities incurred by it in priority to the claims of Bondholders.

15. Further Issues

The Issuer may from time to time, without the consent of the Bondholders and in accordance with the Trust Deed, create and issue further bonds having the same terms and conditions as the Bonds in all respects (or in all respects except for the issue date, issue price, the first payment of interest and the timing to perform and complete the Cross-Border Security Registration and complete the NDRC Post-issue Filing) so as to form a single series with the Bonds. The Issuer may from time to time, with the consent of the Trustee, create and issue other series of bonds having the benefit of the Trust Deed and the Deed of Guarantee.

16. Notices

Notices to the Bondholders will be sent to them at the cost of the Issuer at their respective addresses on the Register. Any such notice shall be deemed to have been given on the fourth day (being a day other than a Saturday, a Sunday or a public holiday) after the date of mailing. The Issuer shall also ensure that notices are duly published in a manner that complies with the rules and regulations of any stock exchange or other relevant authority on which the Bonds are for the time being listed. Any such notice shall be deemed to have been given on the date of such publication or, if published more than once, on the first date on which publication is made.

So long as the Global Bond Certificate is held on behalf of Euroclear and Clearstream any notice to the holders of the Bonds shall be validly given by the delivery of the relevant notice to Euroclear and Clearstream, for communication by the relevant clearing system to entitled accountholders in substitution for notification as required by the Conditions and shall be deemed to have been given on the date of delivery to such clearing system.

17. Contracts (Rights of Third Parties) Act 1999

Save as contemplated in Condition 13 (*Enforcement*), no person shall have any right to enforce any term or condition of the Bonds under the Contracts (Rights of Third Parties) Act 1999 except and to the extent (if any) that the Bonds expressly provide for such Act to apply to any of their terms.

18. Governing Law and Jurisdiction

(a) *Governing law*: The Bonds, the Trust Deed, the Agency Agreement and the Deed of Guarantee and any non-contractual obligations arising out of or in connection with the Bonds, the Trust Deed, the Agency Agreement and the Deed of Guarantee are governed by English law.

(b) *Jurisdiction*: Each of the Issuer and the Guarantor has in the Deed of Guarantee, the Trust Deed and the Agency Agreement (i) agreed for the benefit of the Trustee and the Bondholders that the Hong Kong courts shall have exclusive jurisdiction to settle any dispute (a "**Dispute**") arising out of or in connection with the Bonds (including any non-contractual obligation arising out of or in connection with the Bonds); (ii) agreed that those courts are the most appropriate and convenient courts to settle any Dispute and, accordingly, that it will not argue that any other courts are more appropriate or convenient; (iii) irrevocably designated CR (Hong Kong) Treasury Management Co., Limited at Room 2107, Harbour Centre, 25 Harbour Road, Wan Chai, Hong Kong to accept service of any process on its behalf in Hong Kong based on any of the Bonds. Such service shall be deemed valid service upon the Issuer or the Guarantor, as the case may be, whether or not it is forwarded to and received by the Issuer or the Guarantor. If for any reason such agent ceases to have an office in Hong Kong for service of process, the Issuer or the Guarantor, as the case may be, irrevocably agrees to forthwith appoint a new agent for service of process in Hong Kong and deliver to the Trustee a copy of the new agent's written acceptance of that appointment within 30 days of such cessation. Nothing shall affect the right of the Trustee or any of the Bondholders to serve process in any other manner permitted by law; and (iv) consented to the enforcement of any judgment.

(c) *Waiver of Immunity:* If the Issuer or the Guarantor or any of their respective property or assets is or are entitled in any jurisdiction to any immunity from service of process or of other documents relating to any Dispute, or to any immunity from jurisdiction, suit, judgment, execution, attachment (whether before judgment, in aid of execution or otherwise) or other legal process, this is irrevocably waived to the fullest extent permitted by the law of that jurisdiction. Each of the Issuer and the Guarantor also irrevocably agrees not to claim any such immunity for itself or its property or assets.

SUMMARY OF PROVISIONS RELATING TO THE BONDS IN GLOBAL FORM

The Global Note Certificate contains provisions which apply to the Bonds while they are in global form, some of which modify the effect of the Terms and Conditions of the Bonds set out in this Offering Circular. The following is a summary of certain of those provisions.

The Bonds will be represented by a Global Note Certificate which will be registered in the name of a nominee of, and deposited with, a common depositary on behalf of Euroclear and Clearstream.

Under the Global Note Certificate, the Issuer, for value received, will promise to pay the amount payable upon redemption under the Terms and Conditions represented by the Global Note Certificate to the Bondholders in such circumstances as the same may become payable in accordance with the Terms and Conditions of the Bonds.

The Global Note Certificate will become exchangeable in whole, but not in part, for Individual Note Certificates if Euroclear or Clearstream is closed for business for a continuous period of 14 days (other than by reason of legal holidays) or announces an intention permanently to cease business.

Whenever this Global Note Certificate is to be exchanged for Individual Note Certificates, such Individual Note Certificates shall be issued in an aggregate principal amount equal to the principal amount of the Global Note Certificate within five business days of the delivery, by or on behalf of the Holder, Euroclear and/or Clearstream to the Registrar of such information as is required to complete and deliver such Individual Note Certificates (including, without limitation, the names and addresses of the persons in whose names the Individual Note Certificates are to be registered and the principal amount of each such person's holding) against the surrender of the Global Note Certificate at the Specified Office (as defined in the Terms and Conditions of the Bonds) of the Registrar. Such exchange shall be effected in accordance with the provisions of the Agency Agreement and the regulations concerning the transfer and registration of Bonds scheduled thereto and, in particular, shall be effected without charge to any Holder or the Trustee, but against such indemnity as the Registrar may require in respect of any tax or other duty of whatsoever nature which may be levied or imposed in connection with such exchange. In this paragraph, "**business day**" means a day on which commercial banks are open for business (including dealings in foreign currencies) in the city in which the Registrar has its Specified Office.

In addition, the Global Note Certificate will contain provisions that modify the Terms and Conditions of the Bonds as they apply to the Bonds evidenced by the Global Note Certificate. The following is a summary of certain of those provisions:

Payment Record Date: Each payment made in respect of the Global Note Certificate will be made to the person shown as the Holder in the Register at the close of business (in the relevant clearing system) on the Clearing System Business Day before the due date for such payment where "**Clearing System Business Day**" means a weekday (Monday to Friday, inclusive) except 25 December and 1 January.

Exercise of put option: In order to exercise the option contained in Condition 5(c) (*Redemption for a Relevant Event*) (the "**Put Option**"), the Holder must, within the period specified in the Terms and Conditions of the Bonds for the deposit of the relevant Note Certificate and put notice, give written notice of such exercise to the Principal Paying Agent specifying the principal amount of Bonds in respect of which the Put Option is being exercised. Any such notice shall be irrevocable and may not be withdrawn.

Notices: Notwithstanding Condition 15 (*Notices*), so long as the Global Note Certificate is held on behalf of Euroclear, Clearstream or any other clearing system (an "**Alternative Clearing System**"), notices to Holders of Bonds represented by the Global Note Certificate may be given by delivery of the relevant notice to Euroclear, Clearstream or (as the case may be) such Alternative Clearing System.

USE OF PROCEEDS

The net proceeds from this offering, after the deduction of fees, commissions and expenses payable in connection with this offering, will be approximately U.S.$[●] million. The net proceeds from the offering of the Bonds to be used for refinancing the Group's offshore existing indebtedness and general corporate purposes.

EXCHANGE RATES

The People's Bank of China (the "**PBOC**") sets and publishes daily a base exchange rate with reference primarily to the supply and demand of Renminbi with reference to a basket of currencies in the market during the prior day. The PBOC also takes into account other factors such as general conditions existing in the international foreign exchange markets. Since 1994, the conversion of Renminbi into foreign currencies, including Hong Kong dollars and U.S. dollars, has been based on rates set by the PBOC, which are set daily based on the previous day's interbank foreign exchange market rates and current exchange rates in the world financial markets. From 1994 to July 2005, the official exchange rate for the conversion of Renminbi to U.S. dollars was generally stable. Although PRC Governmental policies were introduced in 1996 to reduce restrictions on the convertibility of Renminbi into foreign currency for current account items, conversion of Renminbi into foreign exchange for capital items, such as foreign direct investment, loans or securities, requires the approval of the SAFE and other relevant authorities. On 21 July 2005, the PRC Government introduced a managed floating exchange rate system to allow the value of the Renminbi to fluctuate within a regulated band based on market supply and demand and by reference to a basket of currencies. The PRC Government has since made and in the future may make further adjustments to the exchange rate system. The PBOC authorised the China Foreign Exchange Trading Center, effective since 4 January 2006, to announce the central parity exchange rate of certain foreign currencies against the Renminbi at 9:15 am each business day. This rate is set as the central parity for the trading against the Renminbi in the inter-bank foreign exchange spot market and the over the counter exchange rate for that business day. On 18 May 2007, the PBOC enlarged, effective on 21 May 2007, the floating band for the trading prices in the inter-bank foreign exchange spot market of Renminbi against the U.S. dollars from 0.3 per cent. to 0.5 per cent. around the central parity rate. This allows the Renminbi to fluctuate against the U.S. dollar by up to 0.5 per cent. above or below the central parity rate published by the PBOC. On 20 June 2010, the PBOC announced that it intended to further reform the Renminbi exchange rate regime by allowing greater flexibility in the Renminbi exchange rate and on 16 April 2012, the band was expanded to 1.0 per cent. Effective since 11 August 2015, market makers are required to quote their central parity rates for Renminbi against the U.S. dollar to the China Foreign Exchange Trade System daily before the market opens by reference to the closing rate of the PRC inter-bank foreign exchange market on the previous trading day in conjunction with the demand and supply conditions in the foreign exchange markets and exchange rate movements of major currencies. The PBOC has further authorised the China Foreign Exchange Trade System to announce its central parity rate for Renminbi against the U.S. dollar through a weighted averaging of the quotes from the market makers after removing the highest quote and the lowest quote. The PBOC announces the closing price of a foreign currency traded against the Renminbi in the inter-bank foreign exchange market after the closing of the market on each working day, and makes it the central parity for trading against the Renminbi on the following working day. The International Monetary Fund announced on 30 September 2016 that, effective on 1 October 2016, the Renminbi was added to its Special Drawing Rights currency basket. On 5 August 2019, the PBOC set the Renminbi's daily reference rate above 7 per U.S. dollar for the first time in over a decade amidst an uncertain trade and global economic climate. There remains significant international pressure on the PRC government to adopt an even more flexible currency policy, which could result in further and more significant depreciation of the Renminbi against the U.S. dollar. The PRC government may from time to time make future adjustments to the exchange rate system in the future.

The following table sets forth the exchange rate of the Renminbi against the US dollar. The exchange rate refers to the Noon Buying Rate as set forth in the weekly H.10 statistical release of the US Federal Reserve Board.

Period	Noon Buying Rate			
	Period End	**Average**	**High**	**Low**
	(Renminbi per U.S.$1.00)			
2017	6.5063	6.7350	6.9575	6.4773
2018	6.8755	6.6292	6.9737	6.2649
2019	6.9618	6.9014	7.1786	6.6822
2020	6.5250	6.9042	7.1681	6.5208
2021	6.3726	6.4382	6.5716	6.3435
2022				
January	6.3610	6.3556	6.3822	6.3206
February	6.3084	6.3436	6.3660	6.3084
March	6.3393	6.3446	6.3720	6.3116
April	6.6080	6.4310	6.6243	6.3590
May	6.6715	6.6990	6.7880	6.6079
June (until 17 June 2022)	6.7160	6.6948	6.7530	6.6534

Note: Annual and monthly averages have been calculated by using the average of daily rates during the relevant period.

CAPITALISATION OF THE GUARANTOR

The following table sets forth the Guarantor's capitalisation and indebtedness as at 31 December 2021 on an actual basis and as adjusted to give effect to the issue of the Bonds before deduction of the underwriting discounts and commissions and other estimated expenses payable by the Group in connection with this offering. The table should be read in conjunction with the Guarantor's consolidated financial statements as at and for the year ended 31 December 2021 and the accompanying notes included in this Offering Circular.

Capitalisation of the Guarantor

	As at 31 December 2021			
	Actual		As Adjusted	
	RMB million	*U.S.$ million*[(1)]	*RMB million*	*U.S.$ million*[(1)]
		(Unaudited)	*(Unaudited)*	*(Unaudited)*
Total borrowings[(2)] – current portion				
Borrowings	113,424	17,798.7	113,424	17,798.7
Total borrowings[(2)] – non-current portion				
Borrowings	198,503	31,149.5	198,503	31,149.5
Bonds to be issued[(3)]	–	–	[●]	[●]
Subtotal	198,503	31,149.5	[●]	[●]
Total borrowings	311,927	48,948.2	[●]	[●]
Equity				
Equity attributable to owners of the Guarantor				
Share capital[(5)]	24,571	3,855.7	24,571	3,855.7
Share premium and reserves	204,927	32,157.5	204,927	32,157.5
Perpetual Notes	45,624	7,159.4	45,624	7,159.4
Non-controlling interests	83,072	13,035.8	83,072	13,035.8
Total equity	358,194	56,208.5	358,194	56,208.5
Total capitalisation[(4)]	670,121	105,156.6	[●]	[●]

Notes:

(1) Based on the exchange rate of RMB6.3726 to U.S.$1.00 (the noon buying rate in New York City on 30 December 2021 as set forth in the H.10 statistical release of the Federal Reserve Bank of New York).

(2) Borrowings include short-term borrowings, non-current liabilities due within one year, long-term borrowings and bonds payable.

(3) The amount represents the aggregate principal amount of the Bonds to be issued, before deducting any underwriting commissions and other transaction costs and expenses payable in connection with the offering of the Bonds.

(4) Total capitalisation represents total borrowings and total equity.

(5) As at 31 December 2021, the issued share capital of the Guarantor was RMB24,571 million comprised of 20,364 million A shares and 4,207 million H shares ordinary shares of RMB1.0 par value each. Upon the completion of the registration for the first grant of restricted shares under the 2021 restricted share incentive scheme of the Guarantor on 23 February 2022, the issued share capital of the Guarantor has increased to RMB24,742 million comprised of 20,535 million A shares and 4,207 million H shares ordinary shares of RMB1.0 per value each. Such issuance pursuant to the Guarantor's 2021 restricted share incentive scheme is not reflected in the table above.

There has been no material adverse change in the capitalization and indebtedness of the Group since 31 December 2021.

DESCRIPTION OF THE ISSUER

FORMATION

The Issuer, incorporated in the British Virgin Islands on 11 July 2016, is a wholly-owned subsidiary of CR (Hong Kong) Treasury Management Co., Limited ("**CR Hong Kong**"). The Issuer is a wholly-owned subsidiary of CR Hong Kong, which, in turn, is an indirect wholly-owned subsidiary of the Guarantor.

The Issuer issued (i) U.S.$500,000,000 3.25 per cent. notes due 2026 guaranteed by the Guarantor on 28 July 2016 (the "**2016 Notes**"); and (ii) U.S.$500,000,000 2.875 per cent. notes due 2022 guaranteed by the Guarantor on 25 July 2017 (the "**2017 Notes**"). The Issuer has not engaged, since the date of its incorporation, in any other material activities other than those relating to the issue of the 2016 Notes and 2017 Notes, the proposed issue of the Bonds and the on-lending of the proceeds thereof to the Guarantor and/or any other subsidiary of the Guarantor.

The Issuer is not required by the laws of the British Virgin Islands to carry out the annual audits, appoint auditors or publish financial statements. Since the date of its incorporation, no financial statements of the Issuer have been published.

The Issuer is however required to keep such records and underlying documentation that:

(a) are sufficient to show and explain the Issuer's transactions; and

(b) will at any time, enable the financial position of the Issuer to be determined with reasonable accuracy.

As at the date of this Offering Circular, the Issuer has no subsidiaries and the directors of the Issuer are Yu Laixin and Wen Shaobing. The Issuer has no employees as at the date of this Offering Circular.

The Issuer is authorized to issue a maximum of 10,000 shares of a single class each with a par value of HK$1.00, all of which have been issued to, and are held and are fully paid by CR Hong Kong.

DESCRIPTION OF THE GROUP

OVERVIEW

The Guarantor was established as a joint-stock company with limited liability under the PRC law on 12 September 2007 with a registered capital of RMB12.8 billion upon establishment. The A shares and H shares of the Guarantor were listed on the Shanghai Stock Exchange and the main board of the Hong Kong Stock Exchange on 3 December 2007 and 7 December 2007, respectively. The Guarantor 's H shares and A shares have been included as a constituent of the MSCI China Index since 2014 and 2017, respectively. As at the date of this Offering Circular, China Railway Engineering Group Corporation, which is 90 per cent. owned by the State-owned Assets Supervision and Administration Commission of the State Council ("**SASAC**") and 10 per cent. owned by the National Social Security Fund ("**NSSF**"), held 46.93 per cent. of the shares of the Guarantor. The Guarantor has obtained Grade A in the SASAC Business Performance Appraisal for eight consecutive years since 2014. The Guarantor has obtained Grade A evaluation result of information disclosure in the Shanghai Stock Exchange for eight consecutive years since 2014. In 2015, the Guarantor was selected as one of the SSE 50 composite index companies, and in the same year it completed a RMB12 billion A-share non-public offering, the largest private placement market in 2015 in the PRC. The deal ranked the 2nd among New Fortune's Top Refinancing Projects.

The Group is one of the world's largest multi-functional integrated construction engineering contractors. Since 2006, the Group has been on the Fortune Global 500 list for 16 consecutive years. In 2021, the Group ranked 35th on the Fortune Global 500 list of companies, 2nd amongst Engineering News-Record ("**ENR's**") Top 250 Global Contractors and 5th amongst Fortune Top 500 Chinese Companies. The Group's principal business activities include infrastructure construction, survey, design and consulting services, engineering equipment and component manufacturing, property development and other businesses. Being a leader in the railway construction industry in the PRC since the 1950s, the Group currently is the largest railway construction group in the PRC in terms of total revenue of engineering contracts. The Group is responsible for building two-thirds of railway network, three-fifths of metros, 90 per cent. of electrified railway and has participated in the construction of many large and complex railway lines in the PRC. The Group is also a leader in the design and construction of bridges, tunnels and electrified railways, and the research, development and manufacturing of turnouts, steel bridge structures and tunnelling shields in the PRC. The Group has set up three national laboratories, namely the National Key Laboratory of High Speed Railway Construction Technology, the National Key Laboratory of Shield Tunnelling and Drilling Technology, and the National Key Laboratory of Bridge Structural Stability and Safety, representing the most advanced technology level in terms of railway, bridges, tunnels and rail transit construction in China.

The Group operates in every province across the PRC and has established a growing international presence, having undertaken construction projects covering more than 90 countries and regions globally. According to industry data compiled by the Group, the Group remained a leader of the infrastructure construction industry in 2021 and was the owner of the only national key laboratory of high-speed railway construction technique in the PRC as well as the biggest construction group in the railway infrastructure and urban railway infrastructure sectors in the PRC. The Group is the largest construction group in the fields of railway infrastructure and urban rail transit infrastructure in China. In 2021, the Group's share in the railway's large and medium-sized infrastructure market in China reached 46.6 per cent., its share in the urban rail transit infrastructure market in China has remained over 35 per cent., and its share in the expressway infrastructure market in China has remained over 10 per cent. As at 31 December 2021, the Group has a 43.4 per cent. market share in the PRC in terms of the total length of completed rails.

Infrastructure Construction Business

The Group is one of the world's largest multi-functional integrated construction engineering contractors. The Group's track record in successfully completing numerous large-scale construction projects, and developing and applying innovative technologies and engineering methods in such projects, has enabled it to become a leading company in the infrastructure construction business industry in the PRC. Its principal focus is on railway construction. The Group is the largest construction group in the fields of railway infrastructure and urban rail transit infrastructure in China. In 2021, the Group's share in the railway's large and medium-sized infrastructure market in China reached 46.6 per cent., its share in the urban rail transit infrastructure market in China has remained over 35 per cent., and its share in the expressway infrastructure market in China has remained over 10 per cent. The Group also focuses on the construction of large-scale, complex bridges and tunnels and is one of the industry leaders in the construction of bridges, expressways, highways and urban railways in the PRC. The revenue from the Group's infrastructure construction business is mainly derived from construction of railway, highway and municipal works. The Group has established a growing portfolio of international infrastructure construction business projects. For the year ended 31 December 2021, the infrastructure construction business accounted for the largest percentage of total revenue of the Group, being approximately RMB953,038 million, or 82.3 per cent., of the Group's total segmental revenue (before adjustment for inter-segment elimination and adjustments), and RMB34,204 million, or 75.5 per cent., of its total segmental profit before tax (before adjustment for inter-segment elimination and adjustments).

Survey, Design and Consulting Services Business

The Group is one of the leading players in the infrastructure survey, design and consulting services industry in the PRC. The Group's design consulting business covers the whole process of capital construction services such as research, planning, consulting, cost, survey and design, supervision, general engineering contracting, and product industrialization. It primarily involves the sectors of railways, urban rail transport, highways, municipal works, housing construction, water conservancy and hydropower, water transport survey and design, with a gradual extension to new industries, such as modern tramcars, medium and low speed maglev, intelligent transportation, civil airports, ports and wharfs, power, energy conservation and environmental protection. In particular, the Group is a leader in the railway survey, design and consulting services market and plays an important role in assisting to formulate railway industry standards on design, construction and implementation specifications and quality inspection. The Group also holds a leading position in the bridge, tunnel and electrified railway survey and design markets, and the airborne and remote sensing survey and design market in the PRC. For the year ended 31 December 2021, its survey, design and consulting services business accounted for approximately RMB18,607 million, or 1.6 per cent., of its total segmental revenue (before adjustment for inter-segment elimination and adjustments), and RMB1,615 million, or 3.6 per cent., of its total segmental profit before tax (before adjustment for inter-segment elimination and adjustments).

Engineering Equipment and Component Manufacturing Business

As at 31 December 2021, in terms of total sales volume, the Group is the world's largest turnout and steel bridge structure manufacturer, the PRC's largest and the world's largest shield and tunnel boring machine developer and manufacturer, and the largest railway construction equipment manufacturer in the PRC, with the only national key laboratory of shield tunnelling and drilling technology in the PRC. In 2021, the Group's commanded approximately 55 per cent. of the high-speed turnout market that requires high technical requirements (speed over 250km/h), more than 50 per cent. of the heavy-haul turnout market, more than 45 per cent. of the the regular turnout market, more than 70 per cent. of the turnout market of urban rail transit business, more than 60 per cent. of the large steel structure bridge market, approximate 60 per cent. of the catenary product market of high-speed railway market and about 50 per cent. of the power supply equipment market of urban rail transit business. In 2021, the Group had manufactured the largest number of tunnelling machine in the PRC. The Group's product lines include turnouts, tunnel construction equipment, bridge construction steel structure, engineering construction machinery, fabricated building components and rail transit electrification equipment, covering almost all the equipment required for infrastructure construction. In particular, 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 Group dominates the turnout market in the PRC and is the manufacturer permitted to produce high manganese steel welded frogs, and one of two entities with permits to manufacture high-speed turnouts. The Group is also one of the leading manufacturers of railway-related large steel bridge structures in the PRC. The Group is one of the few manufacturers licensed to manufacture tracked machines, such as rail trolleys and electrified railway work vehicles. The Group is committed to building its research, development and design capabilities and providing pre-sales and after-sales services, including the installation of its manufactured products. For the year ended 31 December 2021, the Group's engineering equipment and component manufacturing business accounted for approximately RMB33,176 million, or 2.9 per cent., of its total segmental revenue (before adjustment for inter-segment elimination and adjustments), and RMB2,029 million, or 4.5 per cent., of its total segmental profit before tax (before adjustment for inter-segment elimination and adjustments).

Property Development Business

The Group's property development business is engaged in the development, sale and management of a wide range of residential properties targeting middle and upper-middle income purchasers and commercial properties in the PRC. These include urban complexes, high-end offices, tourism properties, industrial parks and urban land first-level developments. The Group's property development business has expanded to over 50 cities throughout the PRC, including Beijing, Shenzhen, Guangzhou, Shanghai, Tianjin and Hangzhou, with a total number of 214 developed projects, approximately 18.5 million square meters of land to be developed and approximately 27.1 million square meters of floor area to be developed as at 31 December 2021. The Group intends to continue its focus on its property development activities in cities in the Pearl River Delta, the Yangtze River Delta and Beijing-Tianjin-Hebei regions, and other provincial capitals and cities in the PRC. For the year ended 31 December 2021, the property development business accounted for approximately RMB51,300 million, or 4.4 per cent., of the Group's total segmental revenue (before adjustment for inter-segment elimination and adjustments), and RMB1,622 million, or 3.6 per cent., of the Group's total segmental profit before tax (before adjustment for inter-segment elimination and adjustments). In 2021, the Group's total sales revenue for property development business was RMB50.81 billion (after adjustment for inter-segment elimination and adjustments).

Other Businesses

The Group is also engaged in the development and operation of a number of other businesses including mining, financial business, operation of service concession arrangements, merchandise trading and other ancillary business. For the year ended 31 December 2021, the Group's other businesses accounted for approximately RMB101,942 million, or 8.8 per cent., of its total segmental revenue (before adjustment for inter-segment elimination and adjustments), and RMB5,830 million, or 12.9 per cent., of the Group's total segmental profit before tax (before adjustment for inter-segment elimination and adjustments).

The following is Group's business segment revenue for the years ended 31 December 2020 and 2021, respectively.

	Year ended 31 December			
	2020		2021	
		%[1]		%[1]
	(RMB million)		(RMB million)	
Segment Revenue				
Infrastructure Construction Business	876,310	83.7	953,038	82.3
Survey, Design and Consulting Services Business	17,321	1.7	18,607	1.6
Engineering Equipment and Component Manufacturing Business	29,793	2.8	33,176	2.9
Property Development Business	49,763	4.8	51,300	4.4
Other Businesses	74,183	7.1	101,942	8.8
Inter-segment Elimination and Adjustments	(72,638)	–	(84,791)	–
Total Segmental Revenue	974,732	100.0	1,073,272	100.0

(1) *Note:* Percentages are of total segmental revenue (before adjustment for inter-segment elimination and adjustments).

The following is the Group's business segment profit before tax for the years ended 31 December 2020 and 2021, respectively.

	Year ended 31 December			
	2020		2021	
		%[1]		%[1]
	(RMB million)		(RMB million)	
Segment profits before tax				
Infrastructure Construction Business	36,876	87.4	34,204	75.5
Survey, Design and Consulting Services Business	2,241	5.3	1,615	3.6
Engineering Equipment and Component Manufacturing Business	2,132	5.1	2,029	4.5
Property Development Business	(4,096)	(9.7)	1,622	3.6
Other Businesses	5,016	11.9	5,830	12.9
Inter-segment Elimination and Adjustments	(6,557)	–	(5,664)	–
Total segmental profits before tax	35,612	100.0	39,636	100.0

(1) *Note:* Percentages are of total segmental profit before tax (before adjustment for inter-segment elimination and adjustments).

The Group has a total assets of RMB1,199,977 million and RMB1,361,580 million as at 31 December 2020 and 2021, respectively. Its total revenue was RMB974,732 million and RMB1,073,272 million for the years ended 31 December 2020 and 2021, respectively, representing an increase of 10.1 per cent. Benefiting from the expansion in investment in the infrastructure construction market in the PRC and the pursuance of the "Belt and Road" initiative, the value of new contracts of the Group increased from RMB2,605.7 billion in 2020 to RMB2,729.3 billion for the year ended 31 December 2021, representing a year-on-year increase of 4.7 per cent. compared to that for the year ended 31 December 2020.

COMPETITIVE STRENGTHS

The Group is well-positioned to capture growth opportunities in the rapidly growing PRC construction industry.

As the leading integrated construction group in the PRC, the Group is well-positioned to capture the opportunities presented by the PRC government's plans to invest in infrastructure construction, the implementation of the "Belt and Road" initiative, the growth of the PRC economy and urbanisation and modernisation of suburban areas in the PRC, particularly those arising from the growing railway, highway and urban railway construction markets, and the property development business. The development of the PRC's railway and related industries has been strongly supported by the central PRC government.

During the 13th Five-year Plan, the scale of railway investment in the PRC reached RMB4.0 trillion. According to the planning direction set out in the 14th Five-year Plan, the scale of railway investment in the PRC is expected to be comparable to the 13th Five-year Plan and continues to be stable. According to the plan, during the 14th Five-Year Plan period, the length of railways in operation is planned to be increased by 19,000 kilometers (Among them, the length of high-speed railways in operation is planned to be increased by 12,000 kilometers). The "Four Vertical and Four Horizontal" (i.e. Four Vertical are Beijing-Shanghai, Beijing-Guangzhou, Beijing-Harbin and Hangzhou-Fuzhou-Shenzhen high-speed railways; Four Horizontal are Qingdao-Taiyuan, Xuzhou-Lanzhou, Shanghai-Wuhan-Chengdu and Shanghai-Kunming high-speed railways) high-speed rail network was fully completed, and the"Eight Vertical and Eight Horizontal" (i.e. Eight Vertical are the coastal passage, Beijing-Shanghai, Beijing-Hong Kong, Beijing-Harbin, Hohhot-Nantong, Beijing-Kunming, Baotou-Haikou, and Lanzhou-Guangzhou high-speed railways; Eight Horizontal are Land bridge passage, Yangtze Riverside passage, Suifenhe-Manzhouli, Beijing-Lanzhou, Qingdao-Yinchuan, Shanghai-Kunmin, Xiamen-Chongqing and Guangzhou-Kunming high-speed railways) high-speed rail network is being improved. In 2021, the fixed asset investment in national transportation amounted to approximately RMB3.6 trillion. In particular, the fixed asset investment in railways amounted to RMB748.9 billion. The length of railways in operation nationwide reached over 150,000 kilometers (among which, the length of high-speed railways reached 40,000 kilometers) as of the end of 2021. In terms of urban rail transit, the annual investment in urban rail transit continued to grow and the construction speed steadily increased, continuing to maintain the mode as subways taking the lead, with a variety of lines growing together.

The PRC's Ministry of Transport has formulated a series of targets and measures for the development of the PRC rail construction sector under the 14th Five-Year Plan, and has also promulgated the National Highway Network Plan for 2013-2030 (the "**National Highway Network Plan**"). According to the National Highway Network Plan, the planned total mileage of national highway network will reach approximately 401,000 kilometres by 2030, comprised of national highways and national expressways. The national highway network will comprise 12 radial lines from Beijing, together with 47 north – south lines, 60 east – west lines and 81 connecting lines, with a total length of approximately 265,000 kilometres. The national expressway network will comprise seven radial freeways from Beijing, 11 expressways running north to south, 18 throughways running east to west, as well as urban ring lines, parallel lines and connecting lines, with a total target length of approximately 118,000 kilometres and a possible extension of a further 18,000 kilometres. Among others, improvement of the highway transport network is a priority. Meanwhile, more effort will be put into the construction of national and provincial highways in order to speed up the construction of roads which have dead-ends and are overly narrow width. It is expected that there will still be more potential for growth of highway construction in the PRC. The development of the PRC urban railway market is at a relatively early stage and it is experiencing continual growth primarily due to urbanisation and modernisation of suburban areas in the PRC.

The PRC government is also expected to complete the following during the 14th Five-Year period: the length of highway traffic in operation is planned to be increased by 302,000 kilometers (Among them, the length of expressway completed is planned to be increased by 29,000 kilometers), the length of urban rail transit in operation is planned to be increased by 3,400 kilometers, and the civil transportation airport is planned to be increased by at least 29; besides, a number of major water diversion projects and key water source projects are planned to be completed, with an additional water supply capacity of 29 billion cubic meters.

The robust economic growth and rapid urbanisation and development in the PRC have also helped stimulate the growth of investments in both municipal works and the property sector, including the growth of the property development business to upgrade old towns or develop new towns and districts or previously undeveloped land. The New Urbanisation Plan (2021-2035) issued by the PRC government stated that the new urbanisation strategy with people at its core will be promoted in depth and the quality of the new urbanisation construction be improved. In March 2022, the government work report made during the two sessions of the state provided that effective investment shall be actively expanded, centering on China's major strategic plans and the "14th Five-Year Plan", appropriately investing in infrastructure ahead of schedule, developing key water conservancy projects, integrated three-dimensional transportation networks, and important energy bases and facilities, speeding up the upgrading of city gas pipelines and other pipelines, perfecting flood control and drainage facilities, and pushing forward continuous construction of integrated underground utility tunnels. It is planned to allocate special bonds of RMB3.65 trillion for local governments to expand the use of the scope appropriately, and start work on a number of major projects, new infrastructure projects, and the renovation projects of old public facilities where conditions permit, which will give an overall boost to infrastructure, and further consolidate the construction industry's role as a pillar of the national economy.

The Group believes that these government plans and policies above indicate a positive prospect for the PRC's infrastructure market, which provides a favourable environment and ample business opportunities for the Group's development.

The Group is one of the largest construction groups in the PRC and holds a leading position in China's infrastructure industry.

The Group is one of the largest integrated construction groups in the PRC in terms of aggregate engineering contract income, with its principal business activities covering a number of sectors ranging from infrastructure construction, survey, design and consulting services, engineering equipment and component manufacturing, property development and other businesses. The Group has a long and proven operating history and a widely recognised brand-name in the PRC and globally. The Group was ranked:

- 35th in Fortune Magazine's "Global 500" list of companies in 2021;
- 2nd in ENR's Top 250 Global Contractors in 2021;
- 5th among Fortune Top 500 Chinese Companies in 2021;
- 15th among the ENR's Top 150 Global Design Firms in 2021 and
- 84th among the ENR's Top 225 International Design Firms in 2021.

The Group has extensive business coverage and a wide spectrum of relevant qualifications in the PRC construction industry. The Group has obtained a full range of top-tier construction qualifications covering areas such as construction of railway, highway, building and municipal works construction as well as qualifications for overseas contracting projects and various survey and design and consulting qualifications. The Group has established leading positions in several construction and construction-related businesses in the PRC.

Railway construction: The Group is the largest railway construction group in the PRC, having constructed, rebuilt and/or extended a total of 100,000 kilometres of operating railway tracks in the PRC in 2021. The Group completed track laying of 6,335 kilometres of main railway line (new tracks and double tracks) and 4,640 kilometres of the line of the electrified railway network in total in 2021. It has independently undertaken or participated in almost all of the large-scale and complex railway construction projects in the PRC. The Group is particularly experienced in the construction of electrified railways, and owns the PRC's only high-speed railway construction technology national engineering laboratory.

Highway construction: The Group is a leading highway construction group in the PRC, specialising in the construction of expressways. As at 31 December 2021, the Group has participated in the construction of highways with an aggregate length exceeding 43,000 kilometres.

Municipal works: The Group is one of the leading players in the urban railway market in the PRC, having participated in the survey, design and construction of urban railway projects in over 50 per cent. of the urban railway market. For example, the Group is currently engaged to carry out the section two, three and four of the civil engineering and ancillary construction project of the Huaibei-Suzhou-Bengbu inter-city railway. The Group has also participated in the construction of urban railways in many major cities in the PRC that have urban railways and has carried out municipal works in approximately 30 cities, including Beijing, Shenzhen, Guangzhou, Chengdu and Kunming.

Bridge and tunnel construction: The Group is one of the leading enterprises in the bridge and tunnel construction market in the PRC. As of the date of this offering circular, the Group has built more than 10,000 bridges including Wuhan Yangtze River Bridge, Nanjing Yangtze River Bridge, the East Sea Bridge, Hangzhou Bay Cross-sea Bridge and Donghai Bridge in the PRC. The Group constructed ultra-long tunnels including Qinling Tunnel, Taihangshan Tunnel, Taihang Tunnel, Xiamen Xiang'an Undersea Tunnel, Wuhan Yangtze River Tunnel etc. The Group has independently constructed or participated in the construction of almost all railway bridges and all dual-purpose railway and road bridges crossing the Yangtze River or the Yellow River.

Survey, design and consulting services: The Group is a leader in the infrastructure survey and design market in the PRC. In 2021, the Group ranked 15th among the Top 150 Global Design Firms, 84th among the Top 225 International Design Firms and 2nd in the Global 250 Contractors by ENR magazine. In 2020, its subsidiary, China Railway Eryuan Engineering Group Co., Ltd. ("**China Eryuan**") was ranked one of the Top 60 Engineering Design Houses in China by Construction Times, ranked 5th among the ENR's Top 60 Chinese Design Firms. China Eryuan was ranked 1st among the Top National Engineering Survey and Design Enterprises in terms of survey and design business revenue by the Ministry of Housing and Urban-Rural Development for 8 consecutive years from 2005 to 2012. Also, China Eryuan has participated in more than 50 per cent. of pre-operation work of inter-governmental cooperation railway design projects. With the PRC government's integrated implementation of the strategies of "Four Developing Regions" (including the Western, Northeast, Central and Eastern PRC) and "Three Supporting Belts" (including the "Belt and Road", the Yangtze River Economic Zone and Beijing-Tianjin-Hebei Region), the Group expects that this will continue to bring new growth points and development opportunities for the infrastructure market and the Group therefore aims to continue to expand the range of its survey, design and consulting services to include the whole life cycle of the engineering consulting industry chain for construction projects.

Engineering equipment and component manufacturing: The Group is the largest manufacturer of several railway-related engineering equipment and components in the PRC, including turnouts, tunnel construction equipment, bridge steel structure, construction machinery and railway electrification materials. As at 31 December 2021, in terms of manufacturing volume, the Group is the world's largest turnout and steel bridge structure manufacturer, the PRC's largest tunnelling machines manufacturer, and the PRC's largest railway construction equipment manufacturer, with a national key laboratory of shield tunnelling and drilling technology in China. The key products developed and manufactured by the Group enjoy a dominant position in the domestic market. The Group also has a complete set of major marine construction equipment, including a ship-mounted crane ("**Tian Yi**") with the largest lifting capacity in Asia of up to 3,000 tonnes. The Group's status as one of the largest construction groups in the PRC and its successful track record has allowed it to build a premium brand globally. The Group considers itself an industry leader and believes that its established market reputation will continue to provide the Group with both significant advantages in competing for construction services contracts and the opportunity to leverage its reputable brand equity to expand into other related services and industries.

The Group is a state-owned enterprise ("SOE") with strong support from its parent company – China Railway Engineering Group Company Limited, which has long operating history and is directly managed by SASAC and is of strategic importance to the PRC government.

The Company is the core part of China Railway Engineering Group Company Limited ("**CREGC**"), which was placed under the administration of the central PRC government in 2000 and has been under the direct management of SASAC since May 2003. CREGC's predecessor was the Project Bureau and Design Bureau of Ministry of Railways of China, which was established in March 1950 and was later restructured into Basic Construction Bureau of Ministry of Railways in 1958. On 1 July 1989, the State Council dissolved the Basic Construction Bureau of Ministry of Railways and established CREGC. CREGC was managed by SASAC under the State Council since May 2003 and is a key enterprise of the central PRC government. In September 2007, CREGC was restructured and established the Company. CREGC injected all its main operating assets to establish the Company and CREGC's non-listed assets only include its non-core business assets. The Company is therefore an integral part of CREGC. The Group benefits from strong support from the PRC government in terms of research and development, government subsidies, tax concessions and other special support, including the application of concession policies issued by SASAC and the Ministry of Finance to CREGC. The Group also receives timely contractual payments from the PRC government.

The Group is one of the pioneers in the execution of the "Belt and Road" Initiative of the PRC government.

The PRC government's promotion of its "Belt and Road" Initiative aims to enhance the interconnection of the infrastructure of countries situated on the original Silk Road through Central Asia, West Asia, the Middle East and Europe. The Group has undertaken a majority of the PRC government's overseas railway designing projects, and participated in most of the inter-government pre-launch railway design projects. From a national strategic level and perspective, the Group has initiated planning and made significant progress in construction of various major railway networks, including but not limited to the opening for operation of the whole line of China-Laos Railway, the basic completion of the control project of Yavan High-speed Railway, and the laying of foundation stone for the Hungarian section of Hungarian-Serbian Railway, the Jakarta-Bandung High-speed Railway in Indonesia and the Padma Bridge in Bangladesh. In addition, the Group has been an active participant in the planning and promotion of various railways, highways, ports, which provides the Group with unprecedented market opportunities to explore overseas businesses.

The Group's strong research and development capabilities, leading technologies and professional talent pool enable it to win and carry out large-scale and complex landmark projects.

Strong Research and development capabilities: The Group possesses one of the most advanced research and development capabilities in the PRC infrastructure construction business industry. The Company was the central construction SOE selected as the key enterprise under the joint innovation system construction testing enterprise programme under the 14th Five-year Plan. The Company is also the first central construction SOE to receive the Enterprise Innovation Improvement Award in the construction category. The Group has set up three national laboratories, namely the National Key Laboratory of High Speed Railway Construction Technology, the National Key Laboratory of Shield Tunnelling and Drilling Technology, and the National Key Laboratory of Bridge Structural Stability and Safety. The National Key Laboratory of High-Speed Railway Construction Technology and the National Key Laboratory of Shield Tunnelling and Drilling Technology have reached the PRC's highest level of production standards, and the National Key Laboratory of High-Speed Railway Construction Technology is one of four laboratories sponsored by the NDRC. The Group also has ten post-doctoral workstations, one national and local joint engineering research center for the research and application of digital rail transit technologies, 44 provincial-level research and development centers (laboratories), 19 nationally-recognized technology centers, and 120 technical centers recognized at the ministerial or provincial level. It has also set up 20 professional R&D centers and invested in the national technology innovation center for the Sichuan-Tibet railway.

Leading technologies: The Group has world-class construction expertise that represents some of the most advanced methods and know-how in the PRC's construction industry. The Group's professional capabilities in designing, constructing and manufacturing are of the highest levels, and include expertise in designing and constructing plateau railways, high-speed railways, electric railways, urban rail transit, land design and survey, energy conservation, large bridges and tunnels, high-speed railway turnouts and designing and the manufacture of steel structures. As at 31 December 2021, the Group has 24,973 valid patents in China, 5,157 of which are for inventions.

Professional talent pool: The Group's rich reserves of talent provide powerful cohesion, efficient project execution capability, and innovative technologies, which enable the Group to execute complex, significant and large projects. As at 31 December 2021, the Group had 294,013 employees. The Group has a capable team of professional talents comprised of two Academics from the Chinese Academy of Engineering, nine state-level survey and design masters, 11 candidates under the nation's "A Million Outstanding Construction Talents Programme", 264 experts entitled to special state allowance, and more than 200 employees possessing a variety of professional qualifications, comprised of 40,054 senior personnel (3,211 of whom are professors or senior engineers), 69,771 mid-level personnel, and 76,603 assistant personnel. The Group also employs first-class certified project managers and certified architects. The Group believes that its rich talent reserve and high-quality technical experts have been and will continue to be a core element of its success.

The Group has strong contract backlog which provides cash flow visibility.

As at 31 December 2021, the Group's aggregate contract backlog for infrastructure construction business amounted to RMB4,211.2 billion, representing a year-on-year increase of 20.5 per cent. Backlog orders, accounting for a high percentage of projected future revenue, reinforce the stability of prospective revenue and cash flow. In addition, specific clauses concerning cost adjustments are included in the Group's standard construction contracts, thereby adding further assurance to future income stability. The amount of the company's backlog contracts as at 31 December 2021, was RMB4,211.2 billion from the infrastructure construction business, RMB49.8 billion from survey, design and consulting services and RMB97.6 billion from engineering equipment and component manufacturing. The Group's value of new contracts in 2021 amounted to RMB2,729.3 billion, representing a year-on-year increase of 4.7 per cent., with the value of new contracts in the infrastructure construction business, survey, design and consulting services business and engineering industrial equipment and component manufacturing business amounting to RMB2,416.7 billion, RMB20.6 billion and RMB61.3 billion, respectively. Steady growth in new contracts and current contract backlog guarantees visibility on future income and cash flow. The total cash balance of the Group[3] was RMB174,769 million and RMB178,913 million, respectively, as at 31 December 2020 and 2021.

[3] Total cash balance = cash and cash equivalents + restricted cash.

The Group has robust and prudent financial management, centralised fund management and diversified financing channels.

The Group has a set of complete, robust and prudent financial management policies and targets, including the following:

Prudent financial policies: The Group will further structure the businesses so as to optimise asset allocation and operation, prioritise the primary business while securing a balanced development of related businesses, and effectively control the leverage ratio and other financial materials.

Steady Dividend payout: The Group's profit distribution is formulated by the senior management based on the Group's actual earnings, cash flows and future planning, and is then submitted to the board of director for approval. The Group's dividends will be paid in cash if the current year's profit and the accumulative undistributed profit are both positive and there are no major investment plans or other major cash expenditures. For any three consecutive years, the accumulative distributed profit paid in cash shall not be less than 30 per cent. of the average annual distributable profits during the same period. Annual cash dividend should generally be no less than 10 per cent. of the distributable profits realized in the year. Cash dividends may be halted if the net operating cash flow is negative for the current year or if the auditors issue a non-standard unqualified audit report on the Company's financial report for the year. For the year ended 31 December 2020 and 2021, the Group's dividend payment amounted to approximately RMB4.4 billion and RMB4.8 billion, respectively. Between 2019 and 2021, the average payment ratio was approximately 18.5%.

Flexible currency funds control: The Group adopts a strict internal policy for cash flow management, which includes making comprehensive budgets and arranging for operating capital demands. It has in place a system which scientifically analyses the risk of the Group's gearing ratio and takes actual funding needs into account when determining the amount of reserves. The Group enhances centralised management of global funds via China Railway Finance Co., Ltd. a subsidiary of the Company responsible for strengthening internal capital concentration, establishing capital pool and controlling financing scale, and the finance department of the Group as the secondary clearing house.

Control of monetary funds: The Group enhances cash flow management with careful budgeting processes to meet the production and operating capital demand in a reasonable manner in order to secure solid cash flows. The Group's financial business segment promotes the flow of financial resources to efficient assets, while firmly holding the bottom line of avoiding financial risks. Total debt[4] of the Group increased from RMB376.5 billion in 2020 to RMB457.4 billion in 2021; and net debt[5] of the Group increased from RMB201.7 billion in 2020 to RMB278.4 billion in 2021. The Group actively coordinates with the project owner to increase the utilisation efficiency of the fund. It also strengthens the centralised management for both the Guarantor and its subsidiaries and increases capital concentration.

Control of accounts receivables: The Group emphasises that strict pre-bidding review and verification must be conducted for a sufficient understanding and assessment of a project owner's credibility and funding sources to avoid loss-making bids and bids requiring prepayments. The Group has improved both the management of accounts receivables and the process for accounts receivables collection. The Group establishes the management record for accounts receivables, sets clear settlement targets, oversees and supervises the settlement process, and awards bonuses in light of the annual assessment results. It also uses innovative financial products to manage accounts receivables and accelerate fund turnover, applies creditor's rights settlement methods such as accounts receivables (including quality assurance deposit) factoring, and speeds up capital turnover.

Strict settlement liabilities control: For liabilities generated from material procurement, equipment purchase and outsourcing, the Group abides by the principle of good faith on the basis of fair use of commercial credit and makes timely payments as agreed with material suppliers, outsourcing units and collaborating parties.

Highly effective interest-bearing liabilities control: The Group works to keep track of domestic and international capital markets and policy trends and explore both equity and debt financing channels. It fully utilises the advantages of its strong credit ratings to reduce short-term high interest rate financing. As at 31 December 2021, the gross interest expenses[6] of the Group was RMB11,665 million.

4 Total debt = total borrowings + lease liabilities + contract liabilities.

5 Net debt = total debt-total cash balance.

6 Gross interest expenses = total interest expenses + interest capitalised.

Diversified financing channels and strong financing ability: The Group has diversified financing channels such as both short-term and long-term loans and private placements. It also has long-term relationships with both large domestic and foreign banks, The Group also raises funds through both onshore and offshore public bond offering with an aggregate value of principal amount of RMB2.5 billion and RMB4 billion in 2019 and 2020, respectively. As at 31 December 2021, the total borrowing costs, including interest expenses on bank borrowings, long-term debentures and other borrowings of the Group was RMB11,665 million.

The Group has an experienced management team and a corporate culture of striving for excellence.

The Group's senior management team has extensive management skills and operating experience, and members of the senior management team have an average of over 25 years of experience, as well as extensive knowledge of the PRC construction industry. In particular, the Group's senior management team has extensive experience and expertise in operating large-scale and complex construction projects, which has enabled itself to become a leading integrated construction group in the PRC. The Group believes that its management team's extensive expertise and business experience have been and will continue to be a solid foundation for its success.

The Group has built an excellence-oriented culture of which encourages creativity and critical thinking. Throughout the long history of corporate structural evolution, the Group has developed its corporate objectives, vision, and values. Its management principles and spirit of entrepreneurship illustrate its corporate mission of "China Build and Iron Shouldering", and its corporate spirit of "Brave to Overcome Difficulties and Pursuit for Excellence". The Group believes its corporate culture, as embodied in its corporate mission and spirit, has encouraged its employees to work as a team, execute projects efficiently and use new, innovative technologies and engineering methods to complete complex and landmark projects. The Group believes that its corporate culture is one of the key factors that has helped the Group to differentiate itself from its competitors in the past, and will continue to serve as the foundation of its future development.

STRATEGIES

In 2021, the Group comprehensively deployed the "14th Five-Year Plan" science and technology innovation, carried out the first practical technology innovation competition, strengthened the promotion of practical technology achievements, and achieved world-leading results in the implementation of three special tasks. During the implementation period of the "14th Five-Year Plan", the Group will focus on improving its primacy position in the industry, in China and in the world, and on enhancing the synergy among various businesses in the industry chain, the value chain, supply chain and innovation chain. It is committed to becoming an enterprise with five characteristics in the new era: a national pillar with strong sense of responsibility, a pioneer with leading infrastructure, a leader in the industrial chain focusing on green development, a transnational company with brand influence and a modern enterprise with social respect. The Group's key strategies to achieve the above objectives are as follows:

Continue to capture new overseas development and growth opportunities.

The PRC government has announced policies encouraging international contracting; for example, the "Belt and Road" initiative, which the Group expects will further facilitate its overseas expansion. Over the past 30 years, through participation in numerous railway, expressway, bridge, tunnel and municipal work projects in more than 90 countries and regions globally, the Group has built a strong reputation internationally. As at 31 March 2022, the Group was involved in a total of 701 overseas projects. Amongst the projects under development, 322 projects have contract values greater than U.S.$100 million, while 179 have contract values greater than U.S.$300 million. In 2021, despite unfavourable factors such as repeated global epidemics and volatile political and economic situation, the Group secured the highest growth rate of new contracts signed overseas among construction central enterprises. The export of industrial products has reached a new high, especially the Group's high-speed turnout manufacturing technology has been exported for the first time with system integration, the contact network equipment has been exported for the first time, and the export of shield structure and tunnelling equipment has been the first in global sales for five consecutive years; the development and sales of overseas mineral resources have remained stable in general, and the output of copper and cobalt metal has reached a record high. The development and sales of overseas mineral resources remained stable in general, and the output of copper and cobalt metal also reached a record high. The Group believes its focus on high-profile, complex infrastructure construction business projects domestically and its high-quality manufactured products will help the Group to maintain and strengthen its position in overseas markets.

Strengthen the Group's leading position in the PRC's infrastructure construction market and increase market share of the Group.

The infrastructure construction business segment is the traditional core business of the Group and the foundation of the Group's existence and development. The Group aims to continue to solidify the pillar status of the infrastructure construction business segment, maintain its traditional advantages and market share in areas such as railways, highways and urban rail transportation, strengthen its competitiveness in areas including harbour ports, airports, water and electricity, firmly establish the leading position of the Group in the PRC's construction industry, and take the lead in the development of the industry.

To entrench the Group's market share in its shield and tunnelling machinery manufacturing and sales segment, the Group will take advantage of future railway opportunities, especially high-speed railway growth, to ensure its market share in terms of contracted value of shields and tunnel machinery manufacturing stays above 40 per cent., and to promote the successful implementation of the "go abroad" strategy of the PRC's high-speed railways and expand its market share in international railway construction. To enlarge the Group's market share in its highway business segment, the Group will firmly secure market development in projects involving Grade 2 and above high-grade highways, rural roads, and large-scale development of highways in the western region in the PRC. To support the Group's market share in its urban railway business segment, the Group will leverage the Company's integrated advantages, and strengthen strategic partnerships with local governments and financial institutions, and will develop markets in second- and third-tier cities while constructing railway systems in key cities and aim to secure its market-leading position in urban railway markets in the PRC. In addition, the Group will increase its competitiveness in related sectors, including housing construction, irrigation work, hydro-electricity, and port, pier, airport and other municipal construction works.

The Group will also dedicate resources to the Group's other two core businesses of survey, design and consulting services business and engineering equipment and component manufacturing business, with the aim of reinforcing their market-leading position and to capture market opportunities.

Leverage the Group's advanced technical capabilities and equipment to pursue new opportunities arising from construction industry innovation and upgrading.

In the outline of the development of the "14th Five-Year Plan" for national economy, technological innovation has been placed in the first place, the dominant position of enterprise innovation has been highlighted, and enterprise technological innovation has ushered in a new round of policy opportunities. At the same time, along with the accelerated development of a new generation of information technology, a new round of technological revolution, represented by cloud computing, big data, Internet of Things, mobile Internet and artificial intelligence, is reshaping the global competitive and economic landscape, and systematically restructuring the industry chain, the innovation chain, the supply chain and the value chain of all industries in an inexorable manner, which will further stimulate the development potential and growth of enterprises. The construction industry will gradually shift from investment-, labor- and other factors-driven development to innovation-driven development. The integration of construction industry with advanced manufacturing technology, information technology and energy saving technology will be further deepened. The acceleration of industrialization, digitalization and intellectualization upgrading of constructions will further promote the intensive and high-quality development of the construction industry.

The Group enjoys high levels of technical expertise, and owns advanced equipment which allows the Group to capture new opportunities arising from these digital and intellectual transformation in the industry. In 2021, the Group won six National Prizes for Progress in Science and Technology, one Technical Invention Award, 15 Zhan Tianyou Civil Engineering Prizes and 835 provincial and ministerial engineering methods. The Group was granted 7,170 authorized patents, 1,176 of which were for inventions in 2021.

To facilitate this strategy, the Group will continue to concentrate on its research and development activities. It will also deploy significant financial and other resources to develop advanced technologies and maintain high levels of technical expertise. The Group has a stable and efficient mechanism to provide timely protection for the Group's newly-developed technologies and other intellectual property rights and will continue to work on strengthening and improving the utilisation of technology in its business segments in order to enhance the value of such technology in its products and services.

Leverage the Group's expertise in the infrastructure construction business industry and the PRC government's national strategies to enhance competitiveness in emerging areas.

The Group intends to leverage the expertise and reputation and leading position in its infrastructure construction business to expand its business scope into emerging areas such as water conservancy and hydropower, clean energy, port channel offshore wind power, pumped storage and water transfer projects, including the contracting of 5G projects, wind power and photovoltaic projects, ecological management projects, improving the Group's profitability and diversifying the Group's business profile. In 2021, progress has been made in the above new emerging areas and new orders in markets of port channel and airport engineering increased by 76.9 per cent. and 54.6 per cent., respectively. The Group will continue to grow in a brand-oriented, differentiated manner to provide strong brand support to lay a solid foundation for the Group to advance the "second wave" of operation.

Further improve the Group's cost structure and operational efficiency.

The Group plans to further increase its profitability through cost reduction and efficiency initiatives, including the following:

Improving management structure and operational efficiency – the Group will continue to improve its management structure and project management, so as to reduce management costs and enhance profitability. Specific plans for enhancing its management efficiency include the restructuring of its internal processes and streamlining its management hierarchy and management structure. In addition, the Group considers comprehensive and refined project management the key to enhancing its overall operational efficiency. Mechanisms will also be put in place to gradually implement the coordination of tender and bid management amongst various operational units. The Group will also improve its operational efficiency by continuing to allocate more resources to the Group's research and development activities on manufacturing and gradually implementing a centralised management for fixed assets such as key technical equipment.

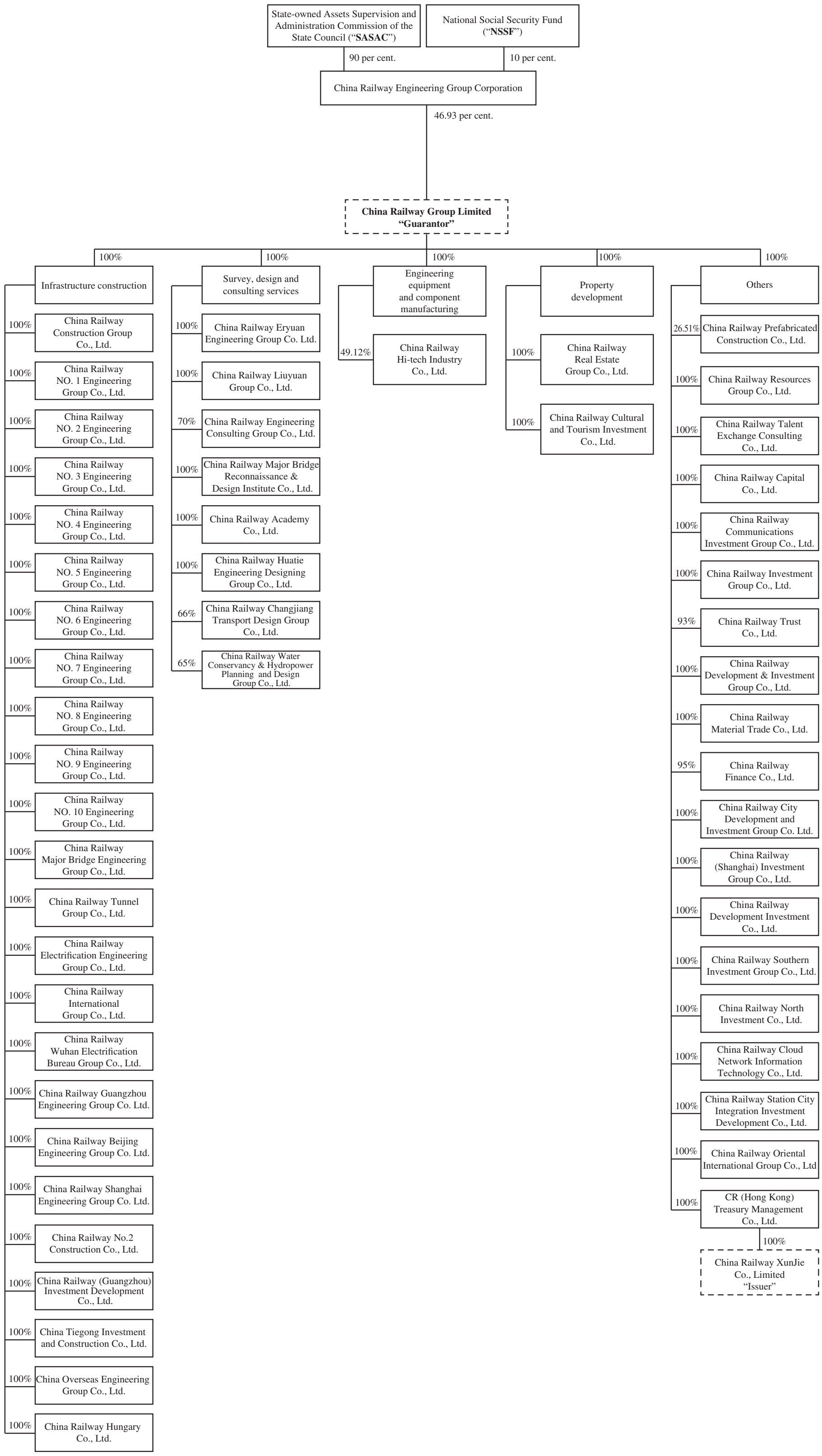
Improving its financial resource allocation and capital structure to reduce financing costs – Every year, thousands of projects produce earnings and cash flow for the Group. Relevant interested parties at all levels within its subsidiaries are required to consolidate resources on multi-project management and achieve a balance between resources such as management personnel, equipment, capital and technology. The Group will strengthen the centralised management of financial resources (in particular cash flow), reduce financing costs and optimise its capital structure by establishing an effective internal resource allocation mechanism. The Group aims to continue to strengthen its financial controls and implement a centralised investment, financing and allocation policy to intensify its efforts in budget control and performance assessment, and to monitor its capital expenditure on non-production items.

Enhancing its information technology infrastructure to strengthen centralised management and control – the Group will prioritise the upgrading of its computer systems, in particular, enhancing its standardised financial information system. The Group also plans to establish a single internal database containing all information on research and development, clients and marketing in order to improve management control, enhance operations and improve information flows.

Implementing various measures to reduce exposure to price volatility of raw materials – the Group intends to reduce exposure to the price volatility and rising costs of raw materials by centralising raw material sourcing and procurement and entering into long-term supply contracts for key raw materials.

CORPORATE STRUCTURE

The following chart summarizes the corporate structure of the Group as at the date of this Offering Circular:



BUSINESSES

Infrastructure Construction Business

Overview

The Group is one of the largest integrated construction groups in the PRC and Asia in terms of total revenue of contract income. The Group's infrastructure construction business involves various sectors, including railways, highways, municipal works, buildings, urban rail transport, irrigation works and hydroelectricity, ports, waterways, airports and docks, globally. The infrastructure construction business segment is the largest contributor to the Group's results, representing approximately 83.7 per cent. and 82.3 per cent. of the Group's total segment revenue (before adjustment for inter-segment elimination and adjustments) for the years ended 31 December 2020 and 2021, respectively. In particular, in 2021 the revenue (before adjustment for inter-segment elimination and adjustments) of infrastructure construction business of the Group was RMB953,038 million, representing a year-on-year growth of 8.8 per cent. and the value of new contracts amounted to RMB2,416.7 billion, representing a year-on-year increase of 10.7 per cent. As at 31 December 2021, the Group's contract backlog of the infrastructure construction business was RMB4,211.2 billion, representing a year-on-year increase of 20.5 per cent.

Railway Construction

The Group is the largest PRC railway construction contractor in terms of total contracting revenue and has participated in almost all large-scale and complex railway construction projects in the PRC since its incorporation. In particular, it dominates the heavy-haul railway, high-speed railway and railway speed upgrade construction markets in the PRC. As at 31 December 2021, the Group had 18 premium-grade general contracting qualifications for railway construction, accounting for over 50 per cent. of the total number of premium-grade general contracting qualifications for railway construction, maintaining first place in China. Since the 1950s, the Group has participated in the construction of many major railway lines in the PRC, including the construction, rebuilding and extension of railway lines in the PRC. The Group has constructed and maintained over 100,000 kilometres of railways, accounting for two-thirds of the total mileage of railway and 90 per cent. of electrified railways in the PRC, in terms of the total length of completed railway over the years. Since the 1950s and up to 31 December 2021, it has participated in the construction of many large and complex major railway lines in the PRC. A number of the Group's key railway projects were completed and commissioned, such as Zhengzhou-Xuzhou High Speed Railway and Shanghai-Kunming High Speed Railway, contributing to the development of railway transport in the PRC. A number of the Group's key railway projects were also completed and commissioned overseas, such as Angren-Pap Railway Tunnel in Uzbekistan and Addis Ababa-Djibouti Railway in Ethiopia, which significantly enhanced the transport accessibility of the relevant areas. The Group holds a leading position in the heavy-haul railway, high-speed railway and railway speed upgrade construction markets in the PRC. To date, the Group has successfully participated in the construction of more than 100 railway lines, including the Qinghai –Tibet Railway (a highland railway with the longest distance and the highest elevation in the world), the Datong – Qinhuangdao Railway (the longest heavy-haul railway in the PRC), the Chengdu – Kunming Railway (one of the most geologically challenging railway construction projects), and the Beijing – Kowloon Railway (the longest south to north trunk railway line in the PRC, linking Beijing to Hong Kong) which was awarded the National Prize for High Quality Constructions Gold Award & Luban Prize, the Beijing – Shanghai high speed railway, the electrified project for an additional second line from Xining to Golmud of the Qinghai – Tibet Railway, the Guangzhou – Shenzhen section of the Guangzhou – Shenzhen – Hong Kong high speed railway passenger line and the Taiyuan – Zhongwei–Yinchuan Railway.

In addition, the Group is one of the leaders in the railway bridge and tunnel construction sector in the PRC and has been involved in the construction of numerous complex railway bridges and tunnels that utilise innovative and world-class technologies. The Group specialises and holds a dominant market share in building highly complex ultra-long railway bridges in the PRC. The Group has independently constructed or participated in the construction of all railway bridges and railway and road dual-purpose bridges crossing the Yangtze River or the Yellow River, including the four major landmark bridges in the PRC –

Wuhan Yangtze River Bridge, Nanjing Yangtze River Bridge, Jiujiang Yangtze River Bridge and Wuhu Yangtze River Bridge. The Group has also independently constructed or participated in the construction of tunnels (excluding subways), including Zhongnanshan Tunnel (one of the world's longest double-arc highway tunnel), Wushaoling Tunnel (one of the longest tunnels in the PRC), Dayaoshan Tunnel (one of the longest double-track electrified tunnels in the PRC), Wuhan Cross-river Tunnel (the first tunnel that was built underwater across the Yangtze River), Xiamen – Xiang'an Undersea Tunnel (the first undersea tunnel in the PRC that was designed and constructed independently by the Chinese) and Zhongnan Mountain Tunnel (one of the longest twin highway mountain tunnels). The Group also constructs signalling and communication systems for railway use, and has constructed several major railway stations in the PRC, including Tianjin Yujiapu Railway Station (the world's largest underground high-speed rail station), the Beijing Railway Station, Shenzhen Railway Station (Phase I), Nanjing Railway Station and Lhasa Railway Station. The Group's projects also include the Jiaozhou Bay Bridge, the Donghai Bridge (one of the longest cross-sea bridges in the world), the Shantou Bay Bridge (the PRC's first modern suspension bridge) and the Jiaozhou Bay Cross-harbour Tunnel.

In 2021, the value of new contracts of railway construction of the Group amounted to RMB433.6 billion, representing a year-on-year growth of 22.0 per cent., and thereby maintained its 1st position in the PRC market with a market share of 46.6 per cent. As at 31 December 2021, the Group's contract backlog of railway construction was RMB724.6 billion, representing a year-on-year increase of 13.8 per cent. A number of the Group's key railway projects were completed and commissioned, such as Zhengzhou-Xuzhou High Speed Railway and Shanghai-Kunming High Speed Railway, contributing to the development of railway transport in the PRC.

Highway Construction

In addition, the Group is one of the leading players in the PRC highway construction sector. In particular, it specialises in building expressways and major highways. It has engaged in highway construction in the PRC since the 1980s. As at 31 December 2021, the Group had 27 premium-grade general contracting qualifications for highway construction in China. As at 31 December 2021, the value of new contracts of highway construction of the Group amounted to RMB295.3 billion in 2021, representing a year-on-year decrease of 27.9 per cent. As at 31 December 2021, the Group's contract backlog of highway construction amounted to RMB691.5 billion. Tianxingzhou Bridge built by the Group won the National Advanced Science and Technology First Prize. The Group has participated in certain key projects in the past, including the construction of Beijing – Shanghai Expressway.

The Group is also one of the major players in the PRC in the road bridge and tunnel construction sector and has participated in a number of very complex road bridge and tunnel construction projects.

Municipal Works and Other Construction

As at 31 December 2021, the Group had 19 premium-grade general contracting qualifications for engineering construction, 10 premium-grade general contracting qualifications for municipal public engineering and 1 premium-grade general contracting qualifications for port and waterway construction in China. The Group has also participated in the construction of municipal works, buildings, urban rail transport, irrigation works and hydroelectricity, ports, waterways, airports and docks. The Group has participated in the construction of the Shanghai Formula One International Circuit and the Huizhou Dayawan Pier and reconstruction of Kenya's Jomo Kenyatta International Airport. The Group is one of the leading players in the PRC urban rail market. Although development of the PRC urban rail market is at a relatively early stage, it is experiencing continual growth primarily due to urbanisation and modernisation of suburban areas in the PRC. The Group has also participated in all the construction of urban railways in the PRC. The Group completed the Harbin – Dalian passenger railway and the Beijing –Shijiazhuang passenger railway. The Group has also a large number of contracted and BT projects such as the Zhengzhou Subway Line 2, Kunming Rail Transit and Wuhan Yingwuzhou Yangtze River Bridge.

The Group has also actively implemented the obligations of centrally controlled SOEs and played a key role in post-natural disaster rebuilding after natural disasters, including the redevelopment projects following the Sichuan earthquake, and the reconstruction work in Yushu, Qinghai. The Group has signed strategic cooperation agreements with district governments such as Xinjiang province, Qinghai province, Qingdao city, Hangzhou city, Xi'an city, Chengdu city and Kunming city, and participated in significant local infrastructure and construction projects.

In 2021, the value of new contracts for municipal works and other construction projects amounted to RMB1,687.9 billion, representing a year-on-year increase of 19.0 per cent. and the value of new contracts for urban rail construction amounted to RMB195.3 billion, with market share of approximately 43.4%, compared with value of new contracts of RMB150.9 billion and market share of 27.7% in 2020. As at 31 December 2021, the Group's contract backlog of municipal works and other construction reached RMB2,795.1 billion, representing a year-on-year increase of 28.8 per cent., among which the contract backlog for urban rail construction amounted to RMB374.5 billion, representing a year-on-year decrease of 16 per cent.

Overseas Operations

The Group is well established in the international construction market, especially in Africa, Southeast Asia, the Middle East and South America. Its infrastructure construction business commenced overseas operations in the 1970s with the construction of the approximately 1,861 kilometre-long Tanzania – Zambia Railway Project. During the early days of its overseas operations, the Group's activities were mainly related to foreign-aid construction projects sponsored by the PRC government. In 1987, the Group was granted the qualification for undertaking foreign contracting projects by the Ministry of Commerce. The Group has undertaken the construction of, and provided construction-related services for, overseas projects including railway, expressway, highway, bridge, tunnel, building construction, dredging, airport and municipal work projects in more than 80 countries and regions globally since the 1970s. In 2021, the overseas operations revenue of the Group (including Hong Kong and Macau SAR) reached RMB54,787 million, representing a year-on-year growth of 16.4 per cent.

The Group usually undertakes its overseas projects independently. However, the Group may sub-contract parts of its projects, where permitted, and when the scale of a project is particularly large or where local regulations require. The Group will occasionally form a project team with other companies to manage overseas projects.

As at 31 March 2022, the Group had 701 overseas construction contracting projects in over 80 countries and regions with total contract sum reaching over USD45 billion (among which finished contracts sum amounted to USD26.5 billion and contract backlog amounted to USD19.4 billion). The Group plans to follow the PRC's "Go Global" strategy for the high-speed railway industry, play its part in executing the "Belt and Road" initiative, and further expand its market share of international railway construction. The Group is one of the major infrastructure construction forces in the construction of the "Belt and Road Initiative" through acting as the main contractor of various representative projects including the China-Laos Railway that has opened to traffic, the Indonesian Jakarta-Bandung High- speed Railway and the Budapest-Belgrade Railway that were under construction. In view of the industry data and development opportunities, the business of countries along the "Belt and Road" Initiative continues to occupy half of the market, and will remain an important component in promoting the steady development of China's overseas contracted engineering projects in the future. Expansion in these overseas markets may require the Group to overcome various barriers, which may include difficulties in language and communication, differences in culture, market practices and regulatory regimes. The political and environmental conditions of the overseas markets vary and the Group may face difficulties in dealing with such conditions as a foreign participant.

The Group has actively participated in projects overseas, including the Qamchiq Tunnel in Uzbekistan, Mongolia, being the longest tunnel in Central Asia with a total length of 19.2 kilometres; the palm island project in the United Arab Emirates, the Hong Kong MTR 602 project, the Bangladesh Padma Bridge project (main bridge section), the China – Laos Railway, Indonesian Djakarta-Bandung Railway, Moscow-Kazan High-speed Railway, and the Ethiopia-Addis Ababa Light Railway, which is the first-ever urban railway transportation project in East Africa and commenced its operations in September 2015.

Technology

The Group's leading technological capabilities provide it with a substantial competitive advantage over its counterparts in the infrastructure construction business in the PRC. The Group owns leading technologies relating to express railways and passenger railway lines, electrified railways, structurally complex ultra-large bridges, geologically complex ultra-long tunnels, ballastless tracks, urban rail transportation and civil engineering construction, etc. In addition, the Group is the largest railway construction group in the PRC and has participated in the construction of many of the large and complex railway lines in the PRC and has enjoyed a market-leading position in respect of the design and manufacturing technologies in large-span turnouts, shield-structured tunnelling equipment and other special construction equipment.

In 2021, the Group had a total of 123 technological research topics under its technological development plan. Based on key projects including Sichuan-Tibet Railway, Mosco-Kazan High Speed Railway, West inner Mongolia-Central China Coal Transportation Railway, Zhengzhou-Xuzhou Railway, Lhasa-Nyingchi Railway, Beijing-Zhangjiakou Railway, Yarlung Zangbo River Bridge, Wuhan Yangsigang Yangtze River Bridge, Pingtan Strait Highway & Railway Bridge, Wuhan Qingshan Yangtze River Bridge, Qiongzhou Strait Cross-sea Project, Gaoli Gongshan Tunnel, Beijing Metro, Shenzhen Metro and Xiamen Metro, these topics focused on studying the key techniques for the construction of the box girder structure of a large-span cable-stayed railway bridge, manufacturing of large-span composite steel box and steel truss girder, construction of 1,000-meter-span wide steel box and composite steel box girder cable-stayed bridge and the design of long and large cross-sea railway tunnel under a complicated environment, etc.

By the end of 2021, the Group has 7,170 authorized patents, including 1,176 invention patents and 110 PCT patents. The Anti-Ultra-High Stress Fatigue and Wear Resistance of High Manganese Steel for Railway Tracks Technology and its Application, which was completed by the affiliated units of the Company, won the second prize of the National Prizes for Progress in Science and Technology in 2021 and the Deepwater Large Section Shield Tunnel Structure/Functional Materials Preparation and Engineering Application Complete Technology completed by the affiliated units of the Company, and other 6 achievements won the second prize of the National Prizes for Progress in Science and Technology in 2020.

Survey, Design and Consulting Services Business

Overview

The construction of new economic belt will continue to warm up especially with the further mutual promotion and intercommunication among the major strategies of One Belt and One Road Initiative, co-development of Beijing-Tianjin-Hebei, Yangtze River Economic Belt, construction of Guangdong-Hong Kong-Macao Greater Bay Area, integrated development of Yangtze River Delta, Yellow River Basin ecological protection and high-quality development. The Group is one of the leading players in the infrastructure survey, design and consulting service industry in the PRC. It offers a full range of survey, design, consulting, research and development and compliance certification services to customers in the PRC and overseas in relation to the construction of railways, urban rail transport, highways, municipal works and construction. As at 31 December 2021:

- the Group had a market share of approximately 25 per cent. in the PRC railway survey and design market;
- the Group had a market share of approximately 20 per cent. in the PRC urban rail survey and design market;
- the Group had assisted China Railway Corporation (currently known as The China State Railway Group Co., Ltd.) in formulating railway industry standards on construction specifications and quality requirements; and
- the Group held a leading position in the aerial survey and remote sensing survey and design market in the PRC.

In 2021, the revenue (before adjustment for inter-segment elimination and adjustments) of survey, design and consulting services business of the Group was RMB18,607 million, representing a year-on-year increase of 7.4 per cent. In 2021, the value of new contracts of survey, design and consulting services business amounted to RMB20.6 billion, representing a year-on-year decrease of 20.5 per cent. As at 31 December 2021, the Group's contract backlog of the survey, design and consulting services business was RMB49.8 billion, representing a year-on-year increase of 10.9 per cent.

Operations

The main operating activities of the Group's survey, design and consulting services business include a full range of survey, design and consulting services, research and development, feasibility studies and compliance certification services on infrastructure construction projects, including integrated "one-stop" solutions as well as specialised services in the areas of railway electrification, bridge, tunnel and machinery design.

The Group also provided survey and design services in the construction of certain key projects, including Sichuan-Tibet railway, Baoji – Chengju Railway (the PRC's first electric railway), Chengdu – Kunming Railway (awarded the special national scientific advancement award and the special united nations award), Nanning – Kunming Railway (awarded the first class national scientific advancement award), Beijing – Tianjin Intercity railway transport (awarded the gold award for national excellent construction design), Beijing – Kowloon Railway (awarded the High Quality Constructions Gold Award & Luban Prize) and Hangzhou Bay Cross-sea Bridge (the PRC's and the world's longest cross-sea bridge).

The Group was also involved in the following key projects:

Projects	**Highlights**
Nujiang River Grand Bridge	• The bridge on Sichuan-Tibet Railway, is located in Basu County, Changdu City, Tibet Autonomous Region and crosses the Nujiang River near Jiba Village, Tongka Tow • The first kilometer-span super bridge built on the Qinghai-Tibet Plateau • The first kilometer-span suspension railway bridge with the highest altitude in the world • The highest suspension bridge is comprised of steel-concrete structured towers, the main tower of which is a 185m large diameter steel tube concrete lattice combination • The main cable of the bridge adopts the structure of prefabricated parallel high-strength steel wire strand – each main cable consists of 168 cable strands with one strand reserved for installing air ducts • The bridge uses a new structure with the long pilot tunnel anchor on the side of Lhasa, and the concrete gravity anchor on the side of Chengdu
Qinghai – Tibet Railway	• The longest highland railway with total mileage amounting to 1,142 kilometres • The highest altitude highland railway – 960 kilometres of the line locates in area which is 4,000 kilometres above sea level

Projects	Highlights
	• A 1,800-metre height difference between the lowest and highest points of the railway line • The longest railway crossing permafrost (550 kilometres of the railway crosses through permafrost) • The fastest highland railway with a maximum speed of 160 kilometres per hour (100 kilometres per hour in the permafrost area)
Tongling Yangtze River Highway-railway Bridge	• The bridge is located in Tongling City, Anhui Province, which is known as China's ancient copper capital and contemporary copper base • The first kilometer-class highway-railway cable-stayed suspension bridge in China • The first to adopt the suspension and cable-stayed collaboration system, and applied the 9m intelligent creeping formwork in the construction of the main tower for the first time • The bridge adopts a suspension and cable-stayed collaboration system with a steel truss structure spanning over the Yangtze River • The total length of the main bridge is 1,505m and the main span is 988m • The bridge is equipped with expressway, regular railway and intercity railway • Upon completion, the bridge will become the largest span highway-railway layered bridge with cable-stayed and suspension collaboration system in the world
Mount Guola Tunnel	• The tunnel is a railway tunnel built by tunnel boring machine (TMB), with the highest altitude (rail surface elevation of 4,469m) and the largest height difference (inlet and outlet elevation of 811m) in China • The tunnel holds a leading position in the development of TBM construction technology for high-altitude and long railway tunnels in China

Technical Personnel and Institutes

The Group's survey, design and consulting services business operates in a service-based, human resource, intensive industry and its ability to recruit and retain high-quality technical personnel with the relevant professional qualifications is critical to its success. In 2021, around 25% of the total employees of the Group were technical personnel.

Apart from personnel, the Group has grade A design and consulting enterprises specialising in survey and design for different industries and sub-industries. Of these, their respective main business scopes are as follows:

- providing integrated/professional survey, design, consulting, compliance certification, main contractor and/or project management services for railways, urban railways, expressways and other highways, bridges, tunnels, municipal works, wiring systems, communication and signalling systems.

- conducting specialised research and development for railway and/or other infrastructure-related engineering techniques and technologies, construction structure issues, environmental protection issues, engineering machinery and software, special geological issues, prevention of geological disasters and natural phenomena, such as permafrost, the results of which made an important contribution to the construction of the Qinghai – Tibet Railway.

- providing survey, design and consulting services for bridge construction projects with specialisation in ultra-long bridges, and providing design services for many major landmark bridges in the PRC (such as the Wuhan Yangtze River Bridge, the Nanjing Yangtze River Bridge, the Wuhu Yangtze River Bridge and the Jiujiang Yangtze River Bridge).

- providing survey, design and consulting services for tunnel engineering and urban railway projects.

- providing survey, design and consulting services for electrified railway projects and urban railway-related electrical supply and system integration.

- providing project supervision services for railway, urban railway, expressway, highway, bridge and municipal works projects.

- providing integrated or professional survey, design and consulting services for building construction projects and project supervision services.

- providing survey, design and consulting services, as well as research and development, for railway-related, broadcasting-related and municipal utility-related communications, signalling and/or electrical systems.

Engineering Equipment and Component Manufacturing Business

Overview

The Group's engineering equipment and component manufacturing business, operated by China Railway Hi-tech Industry Co., Limited, which was listed on Shanghai Stock Exchange in 2017, mainly serves the infrastructure construction business in the PRC and abroad, with products covering turnouts, tunnel construction equipment, bridge construction steel structure, engineering construction machinery, fabricated building components and rail transit electrification materials. As at 31 December 2021, the Group was the world's largest turnout and bridge steel structure manufacturer, the PRC's largest and the world's second largest shield developer and manufacturer, and the PRC's largest railway construction equipment manufacturer, with the national key laboratory of shield tunnelling and drilling technology in the PRC. In addition, the Group is one of the leading manufacturers of bridge steel structures and the sole manufacturer of railway-related large bridge steel structures in the PRC. As at 31 December 2021, in the PRC, the Group maintained an approximate market share of 55 per cent. in the high-speed turnout market that requires high technical requirements (speed over 250km/h), a market share of more than 50 per cent. in the heavy-haul turnout market, a market share of more than 45 per cent. in the regular turnout market, a market share of more than 70 per cent. in the turnout market of urban rail transit business, a market share of more than 60 per cent. in the large steel structure bridge market, a market share of approximate 60 per cent. in the catenary product market of high-speed railway, and a market share of approximate 50 per cent. in the power supply equipment market of urban rail transit business. The Group has a leading position in the manufacturing of high-end equipment in the sector of transport infrastructure, including railways, highways, urban rail transport and underground construction. Its other tracked machines and engineering machinery include rail trolleys, maintenance machinery, electrified railway work vehicles and ship-mounted cranes, among others. The Group is one of the few manufacturers in the PRC that have been licensed to manufacture tracked machines. The Group also designed and manufactured the first rail trolley, rail detecting car, rail grinding wagon and electrified railway work vehicle in the PRC. In 2021, the Group was one of the largest manufacturer of infrastructure construction equipment and components in the PRC in terms of the value of new contracts.

In 2021, the Group's revenue (before adjustment for inter-segment elimination and adjustments) from engineering equipment and component manufacturing business was RMB33,176 million, representing a year-on-year increase of 11.4 per cent. The value of new contracts amounted to RMB61.3 billion, representing a year-on-year increase of 12.9 per cent. As at 31 December 2021, the Group's contract backlog of the engineering equipment and component manufacturing business was RMB97.6 billion, representing a year-on-year increase of 36.8 per cent.

Key Products and Services

The Group designs, manufactures, sells and provides the following services:

Turnouts

Turnouts are the junctions in trackwork where railway lines diverge or converge. The uses of turnouts are wide and varied. The Group's turnout products include railway and urban light railway turnouts, frogs and certain railway accessories. The Group's railway turnouts are among the most advanced in the world in terms of switch crossing speed and stability,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 Group dominates the domestic railway turnout market. The Group's permits to manufacture high-speed turnouts do not have a fixed term or any conditions. The Group's turnout products have been exported to countries in Asia, Africa and North America and is the world's largest turnout manufacturer.

Tunnelling 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 tunnel boring machines 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. The Group has been the world's largest tunnelling shield developer and manufacturer in terms of global sales for five consecutive years since 2017. The Group has done substantial independent research and achieved technological breakthrough. Its tunnel boring machines (TBMs) are widely used in metro projects and municipal works in domestic cities including Beijing, Chengdu, Shenzhen, Tianjin, Shenyang and Guangzhou, and has exported to overseas such as Malaysia, Singapore, India, Lebanon and Israel. The Group also exports its own branded TBM to Europe.

Steel Structures Manufacturing and Installation

The Group's steel structures are widely used in various fields and can be classified into four categories based on their use:

- bridge steel structure products used in girder bridges, steel arch bridges, cable-stayed bridges, suspension bridges, steel truss bridges and steel-concrete combined girders.

- steel structures used in buildings such as theatres, conference centres and railway station waiting halls and steel structures used in boiler chassis steel structures, light steel structures and workshop steel structures, structural components and steel workshop structural components for power plants.

- steel structures used in various machinery including carry girders, cranes and bridge erecting machines.

- other steel structural components, including portable steel plate houses, portable bridges, folding containers and containers of universal specification.

The Group has extensive experience in manufacturing bridge steel structures, with one of its subsidiaries having operated in this field for over 100 years. The Group was the first company in the PRC to design and manufacture railway bridge steel structures and has had a significant influence in market development in the PRC. The Group was commissioned by the national authorities to lead and participate in the formulation of manufacturing specifications and technical standards for railway bridges that have become general standards and specifications for such bridges in the PRC.

Construction machinery

The Group's construction machinery products include bridge erecting machinery and lifting machinery such as railway yard container gantry cranes, ship-mounted cranes, equipment for laying bridges over water and other engineering machinery. The Group has been licensed to manufacture railway yard container gantry cranes which are primarily used for the loading and unloading, moving and stacking of containers in a railway container transfer yard. The Group believes the potential for the railway yard container gantry cranes market is significant. The equipment it manufactures for laying bridges over water is used for the construction of long-span bridges. The Group uses a wide range of advanced manufacturing equipment to produce its products. Much of its high-technology equipment and machinery, such as its machining centre with numerically controlled drillers for steel beams, large arc welding centres, pre-treatment line for steel plates, numerically controlled milling machines for turnouts and frogs, welding machines for high manganese steel frogs, vacuum casting production line, low-pressure casting equipment and other large-scale advanced equipment, is imported from a number of foreign countries including Japan, Germany, Sweden and Switzerland.

Electrification equipment for railways and urban rail transits

The Group supplies a complete set of catenary equipment for the regular railway, acceleration railway, and high-speed railway, as well as a 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. China Railway High-Speed Electrification Equipment Corporation Limited (stock code: 688285.SH) is a supplier engaging in the research and development, design, production and system integration products of domestic electrified railway catenary products and power supply equipment for urban rail transit.

Prefabricated buildings

The Group supplies a wide range of product structures and provides a complete set of solutions for prefabricated buildings in the domestic prefabricated building component industry. China Railway Prefabricated Construction (stock code: 300374.SZ) is the Group's high-tech innovative prefabricated building business platform and is a leading supplier and integrator of prefabricated building components in China.

Property Development Business

The Group's property development business primarily consists of the primary land development and secondary real estate development. Featured real estate is the development priority of the Company, 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 respect of the mode of operation of primary land development, the Group is authorised by the local government through competition to perform land requisition, demolition and removal, urban infrastructure construction and public facility construction on a plot of land in a certain area based on the planning requirements in order to equip the land with the required facilities, and the Group will then recover its investment and gains through the income from land supply. As for property development, the mode of operation is to acquire the property development rights through market competition at home and abroad and the newly completed commodity housing would then be sold or leased. As at 31 December 2021, the Group had a total of 214 property development projects in over 50 cities in the PRC that are located primarily in large and mid-sized cities such as Beijing, Shenzhen, Guangzhou, Shanghai, Tianjin and Hangzhou.

The Group's property development business also includes the development, sale and management of both residential and commercial properties, including the following types of projects: Firstly, for residential properties, the Group offers a wide range of residential properties/housing units, including apartments and villas that primarily target middle and upper-middle income purchasers. Secondly, for commercial properties, the Group engages in the development, sale, leasing and management of a variety of commercial properties, including primarily retail shops, commercial developments, office buildings and hotels.

The Group operates its property development business mainly through China Railway Real Estate Group Co., Ltd., its wholly-owned subsidiary, and a number of its major direct subsidiaries and their respective subsidiaries or associates, many of which also engage in the Group's infrastructure construction business and/or the survey, design and consulting services business. As at 31 December 2021, the Group had a total of 214 property development projects in over 50 cities in the PRC, with the investment scale of RMB66.697 billion and accumulated investment of RMB534.2 billion. The project area under development of the Group was 52.1 million square metres with an GFA of 96.9 million square meters, of which sales area was 44.1 million square meters. As at 31 December 2021, the land reserve area and GFA available for development were 18.5 million square metres and 27.1 million square metres, respectively.

The Group's strategy is to leverage on its leading position in the infrastructure construction business industry, its extensive experience in construction project operations and its established long-term relationships with government authorities, to improve its competitiveness in the property development sector in the PRC. Opportunities arising from such privileges have taken the form of its property development projects to upgrade old towns or develop new towns and districts or previously undeveloped land. In addition, the Group has also cooperated with some of these governmental authorities to provide property development services in the location where the Group has been contracted to do municipal construction works. By participating in the planning stage, the Group is also better-positioned to be engaged in the development of the land, including providing infrastructure construction business services for the area, and then go on to develop large-scale, multi-phase property projects.

In 2021, revenue (before adjustment for inter-segment elimination and adjustments) from the Group's property development business was RMB51,300 million, representing an increase of 3.1 per cent. year-on-year, and the sales amount and sales area were RMB50.8 billion (after adjustment for inter-segment elimination and adjustments) and 4.0 million square meters, respectively, whereas projects including Beijing China Railway Nuode Yifu, Guiyang China Railway Yueshan Lake, Taiyuan China Railway Nuode Mall, Qingdao West Coast Project achieved satisfactory sales results.

Other Businesses

Overview

Leveraging the established platforms of its existing businesses, the Group also engages in the development and operation of a number of other businesses including mining, financial business, operation of service concession arrangements, merchandise trading and other ancillary business. The above services are generally complementary to the Group's core business segments, which the Group has progressively implemented as part of its "limited and interrelated" diversification strategy.

Mining Development Business

Resource utilization is a characteristic segment of the Group. In the process of infrastructure construction in PRC and abroad, the Group has obtained a number of mineral resources projects through acquisitions and mergers based on "fiscalization of resources" and "exchange of resources for projects". China Railway Resources Group Co., Ltd., the Company's wholly-owned subsidiary, is responsible for the development business of mineral resources. The Group's resource utilization business is mainly based on the management and development of mining entities. As at 31 December 2021, the Group wholly owned, controlled or held shares to invest in construction of 5 modern mines in PRC and abroad, including Luming Molybdenum Mine, Heilongjiang; Luishia Copper-Cobalt Mine, Comagnie Minière de Luisha S.A.S, Congo; MKM Copper-Cobalt Mine; SICOMINES Copper-Cobalt Mine; and Wulan Lead and Zinc Mine, Mongolia. The main mineral products produced and sold include concentrate of varieties involving copper, cobalt, molybdenum, lead, zinc and others, copper cathode and cobalt hydroxide. In 2021, the Group firmly grasped the core task of high-quality development of resource utilization business, and actively resolved the risk of large fluctuations in mineral prices. The overall development and sales of mineral resources remained stable.

Financial and merchandise trading

Financial and merchandise trading business is an important link serving the development of the Group's main business, ensuring the supply chain security, and preventing and resolving risks. It involves financial business and merchandise trading business, both are important guarantees for improving capital liquidity and optimizing resource allocation of the Group. On one hand, for financial business, the Group has strictly implemented the regulatory policies of the "Financial Stability and Development Commission of the State Council, the People's Bank of China, the CSRC and the CBIRC" and adhered to the overall guidelines of integration of industry and finance. Centering on the target of serving internal financial needs, promoting the development of principal construction business and creating value and adhering to the principle of giving priority to benefits in the allocation of financial resources, the Group's financial business segment has effectively promoted the flow of financial resources to efficient assets, while firmly holding the bottom line of avoiding financial risks. The Group holds the financial licenses for trust, finance company, and public fund, and is approved to engage in financial businesses such as assets management, private equity fund, insurance brokerage, finance lease, and commercial factoring, which are the financial businesses that SASAC allows to be conducted in a prudent and regulated manner. On the other hand, the merchandise trading business of the Group represents the trading business carried out by the trading enterprises at all levels of the Group relying on the demand advantage, product advantage and resource channel advantage and centralized purchase and supply based on the main businesses of the Group. It mainly serves the internal trading demand of the Group and provides external services in an appropriate manner.

Infrastructure asset operation

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 public-private partnerships (PPP) and build-operate-transfer (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. As at 31 December 2021, the Group had 36 PPP (BOT) projects under operation. 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 an increasing trend. Among which, there were two rail transit projects with operating mileages of about 45 kilometers; two expressway projects with operating mileages of about 74 kilometers; one underground pipeline project with operating mileage of about 32 kilometers; 12 water and environmental protection; 19 municipal and other projects.

AWARDS AND RECOGNITION

The Group is a leader in the infrastructure construction market in the PRC. By the end of 2021, the Group had won numerous national awards, including 127 National Prizes for Progress in Science and Technology, 217 Luban Prize, 167 Zhan Tianyou Civil Engineering Prizes, 154 Outstanding Engineering Survey and Design State Awards, 479 National Prizes for High Quality Constructions, 166 National Prizes for Engineering Methods and 4,609 Municipal Grade Normalized Construction Methods. In 2021, the Group won six National Prizes for Progress in Science and Technology, one Technical Invention Award, 15 Zhan Tianyou Civil Engineering Prizes and 835 provincial and ministerial engineering methods.

In addition, the Group is a leader in the infrastructure survey and design market in the PRC. By the end of 2021, the Group had received 154 national survey and design awards and 101 national consulting achievement awards, 34 engineering consulting and design awards from the International Federation of Consulting Engineers.

TECHNOLOGY, RESEARCH AND DEVELOPMENT

The Group places significant importance on its research and development activities. The Group believes such activities improve its project quality, construction speed, competitiveness in the market and, ultimately, its profitability, and allow it to carry out projects that the Group's competitors would find difficult to complete. In the two years ended 31 December 2020 and 2021, its research and development expenditure was RMB21,838 million and RMB24,756 million, respectively. The Group expects to invest in research and development at similar levels over the next few years.

The Group is committed to developing its research and development capabilities and the Group employs a research and development team consisting of employees dedicated to product design and technology development. In addition, the Group has established a professional engineering equipment and component manufacturing research institute and individual research and development departments in each of the subsidiaries involved in its engineering equipment and component manufacturing business. As at 31 December 2021, the Group had three national laboratories, ten post-doctoral workstations, one national and local joint engineering research center for the research and application of digital rail transit technologies, 44 provincial-level research and development centers (laboratories), 19 nationally-recognized technology centers, and 120 technical centers recognized at the ministerial or provincial level. It has also set up 20 professional R&D centers and invested in the national technology innovation center for the Sichuan-Tibet railway.

In 2021, the Group made scientific and technological breakthroughs in major projects, and implemented research projects focusing on Sichuan-Tibet railway construction technology, high-speed railway construction technology, long bridge construction, operation and maintenance and disaster prevention technology, tunnel and underground project construction technology, communications engineering, signal engineering, electrical engineering and electrification engineering technology, construction equipment and industrial product manufacturing technology, building technology, energy conservation and emissions reduction, intelligent manufacturing and information technology and other key areas. For instance, 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. Also, the Group conducts research on key technologies for intelligent monitoring and maintenance in operating tunnel structures, quality improvement and intelligent construction of tunnel engineering.

The Group's research and development team has, both independently and in cooperation with scientific research institutes and universities nationwide, developed a number of advanced products and technologies. For example, the Group has established long-term relationships with the Southwest Jiaotong University, Beijing Jiaotong University and Central South University for research and development in the areas of high-speed railway (both passenger and freight) construction technology, ultra-long bridge and ultra-long tunnel construction technology, manufacture of high-speed turnouts and railway electrification technology.

The Group has strong knowledge and technical know-how in key technologies relating to construction of high-speed railways (accommodating traffic of up to 200 kilometres per hour) construction, survey and design of high-speed passenger and freight lines (accommodating traffic of up to 200 kilometres per hour) and construction, survey and design of high-speed electrified railways (accommodating traffic of up to 350 kilometres per hour) as well as anti-interference design and construction technology.

The Group has independently researched and developed a variety of large-scale equipment and products such as carrying and installing equipment for pre-stressed concrete beams, 600t/900t bridge erecting machinery and beam carriers for passenger railway lines, CPG500 seamless long-distance railway track laying machinery, and KTY4000 top head drive drill and hydraulic hammer. In particular, it has researched and developed a large number of technologies used in the design and manufacture of its high-speed and high-speed turnouts, including machine works turning technology and wing rail die-forging technology. The Group has commenced its own research and development for the production of turnouts to be used for high-speed railways. Its subsidiary, China Railway Shanhaiguan Bridge Group Co., Ltd., was designated by NDRC as a nationally-certified corporate technology centre in 2006. In addition, it was sponsored under the National Project 863, a high-tech research and development programme, to set up a research and development and production base for shield-structured tunnelling equipment in Xinxiang City, Henan Province.

The Group has also licensed certain specific production technologies, including high-speed turnout production technology, high manganese steel frog welding technology and vacuum casting production technology, from international industry leaders, such as Vossloh Cogifer and VAE GmbH, which are independent third parties. The Group intends to carry out its own research to develop these licensed technologies in the near future.

CUSTOMERS

As the Group provides a wide range of services through its different business segments, its clients and customers generally come from diverse backgrounds. The Group's customers mainly include companies invested in and administered by PRC government agencies at the national, provincial and local levels, PRC state-owned and foreign-owned enterprises, overseas governments and their agencies and authorities, domestic and foreign infrastructure construction business companies and contractors.

The China State Railway Group Co., Ltd. (formerly known as China Railway Corporation), which was founded on 14 March 2013 by the State Council, is the Group's largest customer. The Company considers that the transactions with government-related entities are within normal business operations and are carried out on market terms. The Group has also developed service and product pricing policies and these policies do not depend on whether or not the customers are government related entities.

For the year ended 31 December 2021, sales to China State Railway Group Co., Ltd. accounted for approximately 18.7 per cent. of the total revenue of the Group. For the same period, sales to the five largest customers of the Group (including China State Railway Group Co., Ltd.) in aggregate accounted for approximately 20.5 per cent. of the total revenue of the Group. None of the directors, their associates or any shareholder of the Company (which to the knowledge of the directors owns more than 5 per cent. of the Company's share capital) had any interest in these five largest customers in 2021.

RAW MATERIALS AND SUPPLIERS

The Group requires substantial amounts of raw materials in its infrastructure construction business and engineering equipment and component manufacturing business. The raw materials the Group uses mainly consist of steel, cement, sand, concrete and timber. The Group typically enters into raw material supply contracts on a project-by-project basis. The Group's raw material supply contracts typically have a fixed price arrangement, with varying durations depending on the life cycle and nature of the projects that it undertakes. Some of the Group's contracts, including most of its railway construction projects, contain price adjustment clauses. Such clauses allow the Group to reclaim a portion of any additional costs incurred due to an increase in raw material costs. However, to the extent that such clauses do not cover additional raw material costs or the Group's contracts do not include price adjustment clauses, the Group bears the risk of raw material price fluctuations. The Group has experienced significant fluctuations in the price of certain key raw materials in recent years, in particular iron and steel products, which has had an impact on its margins. Hence, suppliers for these products who are generally in a better bargaining position than purchasers are unwilling to enter into any fixed price supply contracts. However, the Group's supply chain has not been materially interrupted. The Group procures iron and steel products by entering into long-term supply contracts under which prices will be reviewed and varied periodically according to the prevailing market price. The Group does not enter into long-term contracts for locally sourced raw materials such as cement and sand which would have to be purchased at the location of the project site to avoid high transportation costs. See "*Risk Factors – Risks relating to the Group's business and the industries in which it operates – The Group generates a significant part of its revenue from a few customers. As a result, the Group is exposed to significant credit risks and has limited ability to obtain favourable prices for its services and products relating to infrastructure construction business projects*". The Group selects its suppliers based on the quality of the supplies and competitiveness of the prices. The Group has maintained long-term relationships with most of its major suppliers.

The Group sources most of its raw materials through its individual operating subsidiaries. However, the Group is in the process of centralising some of the procurement functions from individual subsidiaries to head company level and it believes that such initiatives would increase its bargaining power in negotiations with suppliers and help reduce costs. Most of its raw materials are sourced domestically in the PRC.

INTELLECTUAL PROPERTY

The Group places great importance on the protection of its intellectual property rights. Through research and development and its ordinary course of business the Group has obtained various intellectual property rights which are valuable to its business. The Group protects and will continue to protect these intellectual property rights through copyrights, patents, trademarks and contractual rights. As at 31 December 2021, the Group owned 24,973 valid patents in China, of which 5,157 are for inventions.

QUALITY CONTROL

The Group operates an independent quality control division in each of the operating subsidiaries in its infrastructure construction business, survey, design and consulting services business, engineering equipment and component manufacturing business and property development business. These quality control divisions are responsible for monitoring the quality of the Group's finished products and project management in both the PRC and overseas.

With regard to its infrastructure construction business and survey, design and consulting services business, throughout different project phases and in particular prior to the delivery of completed projects or products to customers, the Group conducts a series of stringent quality control tests against the relevant national or industry standards. With respect to its infrastructure construction business, its customers typically also hire independent third party compliance certification institutes to certify the quality of the Group's work at different stages of a project in connection with progress payments on such project.

The Group conducts sampling tests and quality inspection on all raw materials used for its construction projects. Within its engineering equipment and component manufacturing business, all raw materials, semi-finished products and final products are subject to sampling and quality inspection at each stage of processing. The Group has also implemented certain quality control standards established by the International Organisation for Standardisation. The Group has received various ISO 9001 and ISO 9002 series accreditations for its quality control systems across different segments of its business.

HEALTH AND SAFETY

The Group regards occupational health and safety as one of its most important social responsibilities. Its business operations involve significant risk or hazards which could result in damage to, or destruction of, properties, death and personal injury, business interruption and possible legal liabilities. See "*Risk Factors – Risks relating to its business and the industries in which it operates – The inherent hazardous nature of the Group's business exposes the Group to potential liabilities, which could harm its reputation and cause it to incur substantial costs*".

The Group's business operations have been and may in the future be subject to accidents resulting in employee fatalities and injuries caused by falls from height, toxic gas, tunnel collapses, typhoons and mudslides. The Group's infrastructure construction business and mining operations, in particular, have experienced and/or may in the future be subject to fatalities and injuries as a result of accidents such as collapses, explosions and machinery incidents.

The Group has safety supervisory and management departments both at the holding company level as well as in each operating subsidiary. These departments are responsible for formulating and implementing rules, regulations and standards on occupational safety including Rules on Supervision and Management of Occupational Health and Safety. Each safety supervisory and management department is headed by a Director of Safety. These departments also coordinate with the Group's human resources department to provide training to its employees with respect to occupational safety. The Group also sets up a safety supervisory and management department for each of its construction projects which is responsible for on-site implementation and compliance with safety-related rules, regulations and internal policies and other safety-related matters. The Group believes that its businesses are in compliance with currently applicable national, local and foreign health and safety laws and regulations in all material aspects. As at 31 December 2021 and save as disclosed in this Offering Circular, the Group was not aware of any material penalties associated with the breach of any existing health and safety laws or regulations.

The Group's primary operations comply with international health and safety standards. It attained OHSAS18000 (Occupational Health and Safety Assessment Series 18000), which is the only internationally recognised standard for health and safety management. The Group recognises that its primary operations involve the carrying out of inherently hazardous activities which may cause accidents resulting in harm to persons, property and the environment, and the Group is committed to continuously meeting health and safety standards required by the applicable laws and managing such health and safety related risks.

ENVIRONMENTAL PROTECTION AND SOCIAL RESPONSIBILITY

The Group is subject to PRC national and local environmental laws and regulations governing air pollution, noise emissions, hazardous substances, water and waste discharge and other environmental matters issued by PRC national, provincial and municipal government and authorities.

In particular, for the investment projects in which the Group is involved, such as its property development projects, it is required to carry out environmental assessments and submit environmental impact assessment documents to the relevant government authorities for approval before it commences construction of the projects. The Group believes that it has obtained all the relevant government approvals and submitted the necessary environmental impact assessment documents with the local authorities for all of its investment projects. The Group places great emphasis on environmental protection. It is dedicated to environmental protection projects and the research and development of new environmental protection technologies, equipment and products.

Some of the Group's environmental protection measures include the following:

- establishing and implementing environmental protection procedures and building environmental facilities for its construction projects, which must be approved by the Group's department of safety, quality and environmental protection as part of the initial project planning process;

- disposing of pollutants discharged from the Group's operations in accordance with the local standards to reduce water, atmospheric and solid waste pollution and recycling such wastes where possible;

- investing in noise-reduction equipment, anti-vibration devices, sound-proofing and noise-absorption methods to reduce noise pollution;

- using only equipment and products that comply with national environmental protection standards and encouraging the use of natural and clean resources which in turn enhances product quality; and

- utilising green building practices so as to minimise any impact on the natural environment which its construction operations may cause. The Group uses non-invasive construction designs and methods where possible to avoid harming the flora and fauna. For example, it constructs bridges instead of roadbeds and does not build construction campsites when building railways or roads in conservation areas, and carry out reforestation after completion of works; and obtaining and maintaining production safety permits for its mining operations and complying with all governmental policies and regulations relating to the exploration, development, production, taxation, labour standards, vocational health and safety, waste treatment, environmental monitoring, protection and control laws in the relevant jurisdictions where it has mining operations.

The Group has implemented environmental protection control standards meeting the requirements of the ISO14001 standards. The Group has received ISO14001 certification with respect to each of its major operating subsidiaries. The Group believes that its businesses are in compliance with currently applicable national, local and foreign environmental laws and regulations in all material aspects. As at the date of this Offering Circular, the Group is not aware of any penalties associated with the breach of, or non-compliance with, any environment laws and regulations.

With regard to its overseas operations, the Group places great importance on its ability to comply with applicable foreign laws and regulations. Such compliance directly affects its success in any particular foreign project and, therefore, is one of the many factors that the Group considers prior to its decision to enter into a project. If necessary, the Group engages local counsel to provide it with advice on such issues.

EMPLOYEES

As at 31 December 2021, the number of employees hired by the Group was 294,013. The Group enters into an employment contract with each of its employees in accordance with applicable PRC laws. Such contracts include provisions on wages, vacation, employee benefits, training programmes, health and safety, confidentiality obligations and grounds for termination.

In accordance with applicable regulations, the Group makes contributions to the employees' pension contribution plan, medical insurance, unemployment insurance, maternity insurance and workers' compensation insurance. The amount of contributions is based on the specified percentages of employees' aggregate salaries as required by relevant PRC authorities. The Group also contributes to an employee housing fund according to applicable PRC regulations. In addition to statutory contributions, the Group also provides voluntary benefits to current employees and retired employees. These benefits include supplemental medical insurance plans and supplemental pension plans, for both current and retired employees, and annuities for current employees.

The Group invests in continuing education and training programmes for the management staff and technical staff with a view to continuously upgrading their skills and knowledge. In addition to sending some of the top managers overseas for training, the Group also offers management courses to its senior managers and annual project management training for its project managers.

In the infrastructure construction business, the Group often engages labour sub-contractors to provide additional manpower on large projects. See "*Risk Factors – Risks relating to the Group's business and the industries in which the Group operates – The Group employs labour sub-contractors to provide additional manpower for its projects, which may expose the Group to reputation and litigation risks*".

INSURANCE

The Group purchases construction all-risk and third party liability insurance for most of the projects it undertakes. Such policies generally extend for the entire contract period, including the maintenance period following completion of the project. In addition, with regard to its infrastructure construction business, the Group generally purchases insurance for its fixed assets, such as its key equipment, vessels, stock and office buildings, and employer's liability insurance/worker's compensation insurance. With regard to its engineering equipment and component manufacturing business, the Group generally purchase all risk insurance for its fixed assets and current assets and transit insurance for goods transported by rail, road and sea.

The Group makes contributions to the employee pension contribution plan, medical insurance, unemployment insurance, maternity insurance and workers' compensation insurance for its employees according to the relevant PRC laws and regulations. The Group also purchases appropriate liability insurance coverage for the directors, supervisors and senior management of the Company. It maintains insurance coverage in amounts that it believes are consistent and sufficient with its risk of loss and industry practice, while it does not carry any business interruption insurance, key-man insurance or insurance covering potential environmental damage claims. Such insurance policies are not mandatory under the laws and regulations of the PRC, and are subject to standard qualifications, exclusions and limitations.

LEGAL PROCEEDINGS

The Group is occasionally involved in legal proceedings arising out of the ordinary course of its business. Provision has been made for the probable losses to the Group on those claims when the management can reasonably estimate the outcome of the lawsuits taking into account of the legal advice. Please refer to Note 44 in the "Notes to the Consolidated Financial Statements" of the 2021 Annual Report for more details.

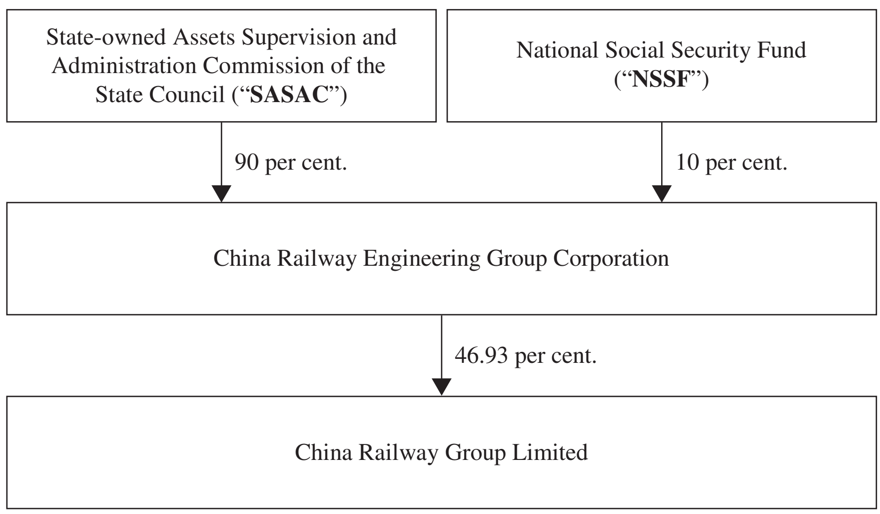
To the best of the Group's knowledge, there are no current litigation or arbitration proceedings against the Group or any of its Directors that could have a material adverse effect on its financial condition or results of operations.

CONTROLLING SHAREHOLDER OF THE GUARANTOR

As at the date of this Offering Circular, China Railway Engineering Group Corporation held 46.93 per cent. of the Company's issued share capital and is the controlling shareholder of the Company. China Railway Engineering Group Corporation is a super-scale central enterprise group supervised by SASAC established on 7 March 1990 with its headquarters in Beijing. In September 2007, China Railway Engineering Group Corporation restructured by injecting the major scope of business and related assets, and employees into the Company and established the Company as the sole promoter.

SASAC is the ministry-level organisation directly under the State Council which was set up in accordance with the Institutional Reform Plan of the State Council and the Notice of the State Council on Establishment of Institutions passed at the First Session of the 10th National People's Congress. Under authorisation of the State Council, SASAC performs its duties as an investor on behalf of the PRC state. The scope of supervision of SASAC extends to the state-owned assets of the PRC central government owned enterprises (excluding financial enterprises). SASAC owns 90 per cent. of the shareholding of China Railway Engineering Group Corporation.

National Social Security Fund ("**NSSF**") is established in August 2000. It is currently managed and operated by The National National Council for Social Security Fund, a ministry-level institution directly under the State Council. According to Article 71 of the Social Insurance Law of the People's Republic of China adopted at the 17th Session of the 11th National People's Congress Standing Committee, the NSSF shall be managed and operated by the National Social Security Fund management and operation agency, with the premise of ensuring safety and achieving value-added of state-owned assets. NSSF owns 10 per cent. of the shareholding of China Railway Engineering Group Corporation.



As at the date of this Offering Circular, save for China Railway Engineering Group Corporation and HKSCC Nominees Limited (which holds the shares on behalf of its various clients), no other shareholder of the Company holds more than 10 per cent. of the Company's shares capital.

DIRECTORS, SUPERVISORS AND SENIOR MANAGEMENT

DIRECTORS

The directors of the Company as at the date of this Offering Circular are as follows:

Name	Age	Position
Mr. CHEN Yun (陳雲)	59	Chairman, Executive Director and Secretary to the CPC Committee
Mr. CHEN Wenjian (陳文健)	49	Executive Director, President and Deputy Secretary to the CPC Committee
Mr. WANG Shiqi (王士奇)	56	Executive Director, Deputy Secretary to the CPC Committee and Chairman of the Labour Union
Mr. WEN Limin (文利民)	56	Non-executive Director
Mr. CHUNG Shui Ming Timpson (鍾瑞明)	70	Independent Non-executive Director
Mr. ZHANG Cheng (張誠)	64	Independent Non-executive Director
Mr. XIU Long (修龍)	65	Independent Non-executive Director

The biographies of the directors of the Company are set out below.

Mr. CHEN Yun (陳雲)

Chairman, Executive Director and Secretary to the CPC Committee

CHEN Yun, aged 59, senior economist, currently is the President, an executive director, Secretary to the CPC Committee and Chairman of the Strategy Committee and the Nomination Committee under the Board of the Directors of the Company, and is the Chairman and the Secretary to the CPC Committee of CREC. He served as a Standing Member of the CPC Committee of China Communications Construction Group and a Standing Member of the CPC Committee and the Deputy General Manager of China Communications Construction Company Limited from April 2007 to March 2017; the Deputy Secretary to the CPC Committee of China Communications Construction Group and the Deputy Secretary to the CPC Committee and the Vice President of China Communications Construction Company Limited from March 2017 to September 2017; the Deputy Secretary to the CPC Committee of China Communications Construction Group and the Deputy Secretary to the CPC Committee and an executive director of China Communications Construction Company Limited from September 2017 to November 2017; the Deputy Secretary to the CPC Committee and the Chairman of the Labor Union of China Communications Construction Group and the Deputy Secretary to the CPC Committee, an executive director and the Chairman of the Labor Union of China Communications Construction Company Limited from November 2017 to June 2019. He served as the Deputy Secretary to the CPC Committee of the Company and the Deputy Secretary to the CPC Committee of CREC from June 2019 to August 2019; the President and the Deputy Secretary to the CPC Committee of the Company and the General Manager, a director and the Deputy Secretary to the CPC Committee of CREC from August 2019 to October 2019; the President, an executive director and the Deputy Secretary to the CPC Committee of the Company and the General Manager, a director and the Deputy Secretary to the CPC Committee of CREC from October 2019 to November 2020. He served as the President, an executive director and the Deputy Secretary to the CPC Committee of the Company and the Chairman and the Secretary to the CPC Committee of CREC from November 2020 to December 2020; and served as the Chairman, an executive director and the Secretary to the CPC Committee of the Company and the Chairman and the Secretary to the CPC Committee of CREC since December 2020.

Mr. CHEN Wenjian (陳文健)

Executive Director, President and Deputy Secretary to the CPC Committee

CHEN Wenjian, aged 49, senior engineer, currently is the President, an executive director, the Deputy Secretary to the CPC Committee and Chairman of the Safety, Health and Environmental Protection Committee under the Board of the Directors of the Company, and is concurrently the General Manager, a director and the Deputy Secretary to the CPC Committee of CREC. He served as the General Manager and the Secretary to the CPC Committee of the Algeria branch of CSCEC from January 2007 to September 2014; the General Manager of the Overseas Business Department of China State Construction Engineering Corporation Limited ("CSCEC") from September 2014 to August 2016; the General Manager and the Secretary to the Community Party Working Committee of the Overseas Business Department of CSCEC from August 2016 to December 2017; the General Manager and the Secretary to the Community Party Working Committee of the Overseas Business Department of CSCEC and the General Manager of the Overseas Department of CSCEC from December 2017 to June 2018; the General Manager of the Overseas Department of CSCEC and the Chairman and the Secretary to the CPC Committee of the China State Construction Engineering Corporation International Operations ("CSCEC International Operations") from June 2018 to October 2018; the General Manager of the Overseas Department of CSCEC, the Chairman and the Secretary to the CPC Committee of CSCEC International Operations and the Chairman of China Construction (South Pacific) Development Co., Pte Ltd. From October 2018 to March 2020; the Secretary to the CPC Committee and the Chairman of the China Construction Third Engineering Bureau Co., Ltd. From March 2020 to November 2020. He served as the General Manager, a director and the Deputy Secretary to the CPC Committee of CREC from November 2020 to December 2020. He served as the President and the Deputy Secretary to the CPC Committee of the Company, and the General Manager, a director and the Deputy Secretary to the CPC Committee of CREC from December 2020 to March 2021. He has been serving as the President, an executive director and the Deputy Secretary to the CPC Committee of the Company and the General Manager, a director and the Deputy Secretary to the CPC Committee of CREC since March 2021.

Mr. WANG Shiqi (王士奇)

Executive Director, Deputy Secretary to the CPC Committee and Chairman of the Labour Union

WANG Shiqi, aged 56, currently is an executive director, the Deputy Secretary to the CPC Committee and Chairman of the Labor Union of the Company, and the employee director, Deputy Secretary to the CPC Committee and Chairman of the Labor Union of CREC. He served as the discipline inspector (deputy bureau director) and supervision commissioner of the Case Hearing Office of the Central Commission for Discipline Inspection of the Communist Party ("CCDI") from February 2009 to April 2014. He served as the Secretary to the Discipline Inspection Committee of the CPC Committee of the Company and the Secretary to the Discipline Inspection Committee of the CPC Committee of CREC from April 2014 to January 2020; and the Secretary to the Discipline Inspection Committee of the CPC Committee of the Company and the Deputy Secretary to the CPC Committee of CREC from January 2020 to February 2020. He served as the Deputy Secretary to the CPC Committee of the Company and the Deputy Secretary to the CPC Committee of CREC from February 2020 to April 2020; and an executive Director and the Deputy Secretary to the CPC Committee of the Company and the Deputy Secretary to the CPC Committee of CREC from April 2020 to January 2021. He has been serving as the executive Director, the Deputy Secretary to the CPC Committee and the Chairman of the Labour Union of the Company and the employee director, the Deputy Secretary to the CPC Committee and the Chairman of the Labour Union of CREC since January 2021.

Mr. WEN Limin (文利民)

Non-executive Director

WEN Limin, aged 56, senior accountant and certified public accountant, currently is a non-executive Director of the Company and an external director of China Aerospace Science & Technology Corporation and an external director of China First Heavy Industries Group Co. Ltd. He served as the Chief Accountant of Dongfang Electric Corporation from September 2005 to August 2016 with concurrent position as the Chairman of the Supervisory Committee of Dongfang Electric Co., Ltd. from June 2014 to March 2018, the Chief Accountant and a member of the CPC Committee Leadership Group of Dongfang Electric Corporation from August 2016 to January 2018, and the Chief Accountant and a member of the CPC Committee Leadership Group of China Southern Power Grid Company Limited from January 2018 to September 2020. He has been an external director of China Aerospace Science & Technology Corporation and an external director of China First Heavy Industries Group Co. Ltd. since December 2020. He has been a non-executive Director of the Company since March 2021.

Mr. CHUNG Shui Ming Timpson (鍾瑞明)

Independent Non-executive Director

CHUNG Shui Ming Timpson, aged 70, currently is an independent non-executive director of the Company, a member of the National Committee of the 13th Chinese People's Political Consultative Conference and a Pro-Chancellor of the City University of Hong Kong. He is currently an independent non-executive director of The Miramar Hotel & Investment Co., Limited, China Unicom (Hong Kong) Limited, China Overseas Grand Oceans Group Limited, China Everbright Limited, Orient Overseas (International) Limited and Postal Savings Bank of China Co., Ltd., and an external director of China COSCO Shipping Corporation Limited. He served as a member of the 10th to 12th National Committee of the Chinese People's Political Consultative Conference, a senior audit officer of PricewaterhouseCoopers, an independent non-executive director of China Netcom Group Corporation (Hong Kong) Limited, the chairman of China Business of Jardine Fleming Holdings Limited, deputy chief executive officer of BOC International Limited, director general of the Democratic Alliance for the Betterment and Progress of Hong Kong, chairman of the Advisory Committee on Art Developments, chairman of the Council of the City University of Hong Kong, chairman of the Hong Kong Housing Society, member of the Executive Council of the Hong Kong Special Administrative Region, vice chairman of the Land Fund Advisory Committee of Hong Kong Special Administrative Region Government, member of the Managing Committee of the Kowloon-Canton Railway Corporation, member of the Hong Kong Housing Authority, member of the Disaster Relief Fund Advisory Committee, independent non-executive director of Henderson Land Development Company Limited and Nine Dragons Paper (Holdings) Limited, and China Construction Bank Corporation, independent director of China Everbright Bank Corporation Limited and China State Construction Engineering Corporation Limited, and external director of China Mobile Communications Corporation. He holds a bachelor of science degree from the University of Hong Kong and a master's degree of business administration from the Chinese University of Hong Kong and obtained a Doctor of Social Sciences honoris causa from the City University of Hong Kong. He was appointed as a Justice of the Peace and received the Gold Bauhinia Star from the Government of Hong Kong Special Administrative Region. He has been an independent non-executive director of the Company since June 2017.

Mr. ZHANG Cheng (張誠)

Independent Non-executive Director

ZHANG Cheng, aged 64, senior engineer, currently is an independent non-executive director of the Company and an external director of Dongfang Electric Corporation. He served as the General Manager and the Secretary to the CPC Committee of China Yangtze Power Co., Ltd. from January 2006 to March 2010, a member of the CPC Committee Leadership Group and a Deputy General Manager of China Three Gorges Corporation with concurrent position as the General Manager and a director of China Yangtze Power Co., Ltd. from March 2010 to April 2015, and concurrently a director of China National Nuclear Power Co., Ltd. from May 2013 to December 2018, as well as a member of the CPC Committee Leadership Group and a Deputy General Manager of China Three Gorges Corporation with concurrent position as Vice Chairman of China Yangtze Power Co., Ltd. From May 2015 to December 2017. He has been an external director of Dongfang Electric Corporation since June 2020. He has been an independent non-executive director of the Company since March 2021.

Mr. XIU Long (修龍)

Independent Non-executive Director

XIU Long, aged 65, senior engineer, researcher and an expert with special State Council allowances, currently is an independent non-executive director of the Company, an external director of China Green Development and Investment Group Co., Ltd. and concurrently the Chairman of the Architectural Society of China. He served as the President and the Deputy Secretary to the CPC Committee of China Architecture Design & Research Group from January 2007 to December 2017 with concurrent position as the Chairman of China Construction Technology Consulting Co., Ltd in 2014, and the Secretary to the CPC Committee and the Chairman of China Construction Technology Co., Ltd. from January 2018 to July 2020 with concurrent position as the Secretary to the CPC Committee and the Chairman of China Construction Technology Consulting Co., Ltd. He has been the Chairman of the Architectural Society of China since 2016 and an external director of China Green Development and Investment Group Co., Ltd. since November 2020. He has been an independent non-executive director of the Company since March 2021.

SUPERVISORS

The supervisors of the Company as at the date of this Offering Circular are as follows:

Name	Age	Position
Mr. JIA Huiping (賈惠平)	57	Chairman of the Supervisory Committee and Shareholder Representative Supervisor
Mr. YUAN Baoying (苑寶印)	58	Supervisor
Mr. LI Xiaosheng (李曉聲)	49	Supervisor
Mr. WANG Xinhua (王新華)	51	Supervisor
Mr. WANG Ming (萬明)	51	Supervisor

The biographies of the supervisors of the Company are set out below.

Mr. JIA Huiping (賈惠平)

Chairman of the Supervisory Committee and Shareholder Representative Supervisor

JIA Huiping, aged 57, senior economist and senior political work professional, currently is the Chairman of the Supervisory Committee and Shareholder Representative Supervisor of the Company. He served as the Deputy Secretary to the CPC Committee and the Secretary to the Disciplinary Committee of China Railway No.7 Engineering Group Co., Ltd. from March 2008 to November 2010; the Deputy Secretary to the CPC Committee, the Secretary to the Discipline Inspection Committee, and the Chairman of the Supervisory Committee of China Railway Airport Construction Co., Ltd. from November 2010 to December 2011; the Deputy Secretary to the CPC Committee, the Secretary to the Discipline Inspection Committee and the Chairman of the Supervisory Committee of China Railway Airport Construction Co., Ltd., and head of the South China Center of China Railway Airport Construction Co., Ltd. from December 2011 to August 2014; the Chairman and the Secretary to the CPC Committee of Wuhan Railway Electrification Bureau Group Co., Ltd. from August 2014 to June 2017, as well as head of the cadre department of the Company and head of the cadre department of the CPC Committee of CREC from June 2017 to February 2020. He served as the Vice Chairman of the Labour Union of the Company and the Vice Chairman of the Labour Union of CREC from February 2020 to March 2021. He has been the Chairman of the Supervisory Committee and Shareholder Representative Supervisor of the Company since March 2021.

Mr. YUAN Baoying (苑寶印)

Supervisor

YUAN Baoying, aged 58, senior engineer, currently is an employee representative supervisor and the Deputy Secretary to the Discipline Inspection Committee of the Company and concurrently the Deputy Secretary to the Discipline Inspection Committee of CREC. He served as the Deputy Secretary to the CPC Committee and Secretary to the Discipline Inspection Committee of China Railway No.9 Group Co., Ltd. from March 2008 to March 2011; the Deputy Secretary to the Discipline Inspection Committee of the Company and concurrently the Deputy Secretary to the Discipline Inspection Committee of CREC from March 2011 to January 2013; the Chairman and the Secretary to the CPC Committee of China Railway No.9 Group Co., Ltd. From January 2013 to March 2014. He has served as the Deputy Secretary to the Discipline Inspection Committee of the Company and the Deputy Secretary to the Discipline Inspection Committee of CREC from March 2014 to September 2019. He has been an employee representative supervisor and the Deputy Secretary to the Discipline Inspection Committee of the Company, and the Deputy Secretary to the Discipline Inspection Committee of CREC since September 2019.

Mr. LI Xiaosheng (李曉聲)

Supervisor

LI Xiaosheng, aged 49, senior political work professional, currently is an employee representative supervisor and Vice Chairman of the Labour Union of the Company, and concurrently the Vice Chairman of the Labour Union of CREC. He served as the Deputy Secretary to the CP Committee of China Railway No.5 Engineering Group Co., Ltd. from January 2008 to August 2011 and concurrently the external director and vice-chairman of China Railway No.5 Mechanized Engineering Co., Ltd. from April 2009, and the Commanding Officer of China Railway No.5 China-Laos Railway Construction Headquarters from December 2010; the Secretary to the CPC Committee, director and vice-chairman of China Railway International Economic Cooperation Co. Ltd. from August 2011 to October 2013. He served as the deputy chief economist and head of the International Business Department of the Company from October 2013 to April 2015; the vice-chairman of the Labour Union of the Company and CREC from April 2015 to March 2021. He has been an employee representative supervisor and the vice-chairman of the Labour Union of the Company and the vice-chairman of the Labour Union of CREC since March 2021.

Mr. WANG Xinhua (王新華)

Supervisor

WANG Xinhua, aged 51, senior accountant, currently is an employee representative supervisor and head (supervisor) of the Audit Department (Office of the Supervisory Committee) of the Company. He served as the chief accountant of the Seventh Engineering Branch of China Railway No.4 Engineering Group Co., Ltd. from January 2011 to July 2014; head of the Finance and Accounting Department, deputy chief accountant, Secretary to the Board of Directors, chief accountant and member of the Standing Committee of the CPC Committee of China Railway No.6 Engineering Group Co., Ltd. from August 2014 to January 2020. He served as the deputy head of the Audit Department of the Company from January 2020 to July 2020, and the head (supervisor) of the Audit Department (Office of Supervisory Committee) of the Company from July 2020 to March 2021. He has been an employee representative supervisor and the head (supervisor) of the Audit Department (Office of Supervisory Committee) of the Company since March 2021.

Mr. WANG Ming (萬明)

Supervisor

WANG Ming, aged 51, senior economist, currently is an employee representative supervisor, and head of the Legal and Compliance Department of the Company. He served as the Chief Legal Advisor of the 8th Engineering Co., Ltd. of CTCE Group from December 2006 to April 2008; the director of the General Office of the Office of the Board of Directors of the Company form April 2008 to March 2011; the deputy director of the Office of the Board of Directors (Office of Supervisory Committee) from March 2011 to September 2015; the director of the Office of Discipline Inspection Committee and director of the Inspection Office of the Company from September 2015 to March 2018; a Standing Member of the CPC Committee, Deputy Secretary to the CPC Committee and the Secretary to the Discipline Inspection Committee of the CPC (kept original rank) of the Company from March 2018 to May 2021; head of the Legal and Compliance Department of the Company from May 2021 to September 2021. He has been an employee representative supervisor, and head of the Legal and Compliance Department of the Company since September 2021.

SENIOR MANAGEMENT

The senior management members of the Company as at the date of this Offering Circular are as follows:

Name	Age	Position
Mr. SUN Cui (孫璀)	56	Chief Accountant
Mr. YU Tengqun (于騰群)	52	Vice President and General Legal Advisor
Mr. LIU Baolong (劉寶龍)	58	Vice President
Mr. REN Hongpeng (任鴻鵬)	48	Vice President
Mr. KONG Dun (孔遁)	56	Vice President and Chief Engineer
Mr. MA Jiangqian (馬江黔)	53	Vice President
Mr. LI Xinsheng (李新生)	42	Vice President
Mr. HE Wen (何文)	58	Secretary to the Board of Directors and Joint Company Secretary
Mr. ZHAO Bin (趙斌)	53	Chief Economist
Mr. GENG Shubiao (耿樹標)	44	Assistant President
Mr. TAM Chun Chung (譚振忠)	49	Joint Company Secretary and Qualified Accountant

Set out below are the biographies of the senior management members of the Company.

Mr. SUN Cui (孫璀)

Chief Accountant

SUN Cui, aged 56, senior accountant, currently is a Standing Member of the CPC Committee and Chief Accountant of the Company and is also a Standing Member of the CPC Committee of CREC. He served as a member of Preparatory Group and a temporary Standing Member of the CPC Committee of Power Construction Corporation of China, and a Standing Member of the CPC Committee of Sinohydro Corporation and Chief Accountant and Standing Member of the CPC Committee of Sinohydro Group Ltd. from March 2011 to August 2011; the Chief Accountant of Power Construction Corporation of China, a Standing Member of the CPC Committee of Sinohydro Corporation, and Chief Accountant and Standing Member of the CPC Committee of Sinohydro Group Ltd. from August 2011 to December 2011; the Chief Accountant of Power Construction Corporation of China and a Standing Member of the CPC Committee of Sinohydro Corporation from December 2011 to February 2014; a Standing Member of the CPC Committee of Power Construction Corporation of China and a Standing Member of the CPC Committee and Chief Accountant of Powerchina Limited from February 2014 to January 2020 (from September 2015 to November 2015, studied in the 65th Training Class for bureau-level cadres of the CPC Party School); a Standing Member of the CPC Committee of CREC from January 2020 to March 2020. He has been a Standing Member of the CPC Committee and Chief Accountant of the Company and a Standing Member of the CPC Committee of CREC since March 2020.

Mr. YU Tengqun (于騰群)

Vice President and General Legal Advisor

YU Tengqun, aged 52, senior economist, currently is a Standing Member of the CPC Committee, the Vice President and General Legal Advisor of the Company, and concurrently a Standing Member of the CPC Committee of CREC. He is the Vice Chairman of the Institute of Securities Law of CLS, Chairman of the Working Committee of Legal Services of China Construction Industry Association, and Vice President of "One Belt One Road" (China) Court of Arbitration ("一帶一路"(中國)仲裁院). He served as the Secretary to the Board of Directors and spokesperson of the Company from September 2007 to March 2014; the Secretary to the Board of Directors, General Legal Advisor and spokesperson of the Company from March 2014 to September 2017 (from March 2016 to January 2017, studied in a one-year middle-aged and youth training course organized by the Central Community Party School); a Standing Member of the CPC Committee, the Secretary to the Board of Directors, General Legal Advisor and spokesperson of the Company and a Standing Member of the CPC Committee of CREC from September 2017 to June 2018; a Standing Member of the CPC Committee, Vice President, the Secretary to the Board of Directors, General Legal Advisor and spokesperson of the Company and a Standing Member of the CPC Committee of CREC from June 2018 to August 2018. He has been a Standing Member of the CPC Committee, Vice President and General Legal Advisor of the Company and a Standing Member of the CPC Committee of CREC since August 2018 (from October 2020 to January 2021, studied in a middle-aged and youth training course 1 organized by the Central Community Party School).

Mr. LIU Baolong (劉寶龍)

Vice President

LIU Baolong (劉寶龍), formerly named as LIU Baolong (劉保龍), aged 58, senior engineer, currently is a Standing Member of the CPC Committee and the Vice President of the Company and a Standing Member of the CPC Committee of CREC. He served as the General Manager, Deputy Secretary to the CPC Committee and Vice Chairman of China Railway No.3 Engineering Group Co., Ltd. and the Commanding Officer of the Construction Headquarters of the Beijing-Shanghai Express Railway undertaken by China Railway No.3 Engineering Group Co., Ltd. from November 2009 to January 2013; a Secretary to the CPC Committee and Vice Chairman of China Railway No.3 Engineering Group Co., Ltd. from January 2013 to March 2014; Secretary to the CPC Committee, Chairman and legal representative of China Railway No.3 Engineering Group Co., Ltd. from March 2014 to August 2018. He was a Vice President of the Company from June 2018 to March 2021. He has been a Standing Member of the CPC Committee and the Vice President of the Company and a Standing Member of the CPC Committee of CREC since March 2021.

Mr. REN Hongpeng (任鴻鵬)

Vice President

REN Hongpeng, aged 48, senior engineer, currently is a Standing Member of the CPC Committee and the Vice President of the Company and a Standing Member of the CPC Committee of CREC. He served as a Deputy General Manager of China Road and Bridge Corporation from September 2011 to August 2015, a Deputy General Manager and Standing Member of the CPC Committee of China Road and Bridge Corporation from August 2015 to December 2015; a Deputy General Manager and Standing Member of the CPC Committee of China Road and Bridge Corporation and director of CCCG Real Estate Group Co., Ltd. from December 2015 to January 2016; a director of CCCG Real Estate Group Co., Ltd., director, General Manager (legal representative) and temporary Secretary to the CPC Committee of CCCG Overseas Real Estate Pte. Ltd. from January 2016 to February 2017; a director and temporary member of CPC Committee of CCCG Real Estate Group Co., Ltd. and a director, General Manager (legal representative) and temporary Secretary to the CPC Committee of CCCG Overseas Real Estate Pte. Ltd. from February 2017 to June 2018. He served as the Vice President of the Company from June 2018 to March 2021. He has been a Standing Member of the CPC Committee and the Vice President of the Company and a Standing Member of the CPC Committee of CREC since March 2021.

Mr. KONG Dun (孔遁)

Vice President and Chief Engineer

KONG Dun, aged 56, senior engineer currently is a Standing Member of the CPC Committee, Vice President, and the Chief Engineer of the Company. He served as a director, General Manager, and Deputy Secretary to the CPC Committee of Shanghai Civil Engineering Co., Ltd. of CREC from November 2010 to June 2018. He was the Chief Engineer of the Company from June 2018 to April 2021. He has been a Standing Member of the CPC Committee, Vice President, and Chief Engineer of the Company since April 2021.

Mr. MA Jiangqian (馬江黔)

Vice President

MA Jiangqian, aged 53, senior economist, currently is a Standing Member of the CPC Committee and Vice President of the Company. He severed as the Secretary to the CPC Committee and director of China Railway No.5 Engineering Group Co., Ltd. from November 2010 to August 2011; the Chairman and Secretary to the CPC Committee of China Railway No.5 Engineering Group Co., Ltd. from August 2011 to January 2013; the General Manager, Deputy Secretary to the CPC Committee and director of China Railway No.6 Engineering Group Co., Ltd. from January 2013 to June 2014; the General Manager, Deputy Secretary to the CPC Committee and Vice Chairman of China Railway No.6 Engineering Group Co., Ltd. from June 2014 to June 2018. He served as the Chief Economist of the Company from June 2018 to April 2021. He has been a Standing Member of the CPC Committee and Vice President of the Company since April 2021.

Mr. LI Xinsheng (李新生)

Vice President

LI Xinsheng, aged 42, senior political work professional and senior economist, currently is a Standing member of the CPC Committee and Vice President of the Company. He served as a member of the CPC Committee and the Secretary of the Youth League Committee of the Company from January 2008 to April 2014; the Deputy Secretary to the CPC Committee, the Secretary to the Discipline Inspection Committee of the CPC Committee, Chairman of the Labor Union, and Chairman of Supervisory of Committee of China Railway Resources Group Co., Ltd. from April 2014 to November 2015; the Secretary to the CPC Committee, Executive Director and legal representative of China Railway Material Trade Co., Ltd. from November 2015 to June 2017; the Director of the Party Committee Office (Confidentiality Office) of the Company from June 2017 to October 2017; a member of the CPC Committee, and the Director of the Party Committee Office (Confidentiality Office) of the Company from October 2017 to January 2020; and the Secretary of the CPC Committee, Chairman, and legal representative of China Railway No.5 Engineering Group Co., Ltd. from January 2020 to April 2021. He has been a Standing Member of the CPC Committee and Vice President of the Company since April 2021.

Mr. HE Wen (何文)

Secretary to the Board of Directors and Joint Company Secretary

HE Wen, aged 58, senior accountant, currently is the Secretary to the Board of Directors and Joint Company Secretary of the Company, and concurrently the head of the Appraisal and Distribution Department of the Company. He served as a director and Chief Accountant of China Railway No.4 Engineering Group Co., Ltd. from April 2007 to November 2013, and the Secretary to the CPC Committee, Chairman of the Board of Supervisors and Secretary to the Discipline Inspection Committee of China Railway Trust Co., Ltd. from November 2013 to March 2014. He served as the Deputy Chief Accountant and head of the Finance Department of the Company from March 2014 to June 2017; the head of the Finance Department of the Company from June 2017 to August 2018; the Secretary to the Board of Directors, Joint Company Secretary of the Company, and the head of the Finance and Financial Management Department of the Company from August 2018 to May 2021. He has been the Secretary to the Board of Directors, Joint Company Secretary of the Company, and the head of Appraisal and Distribution Department of the Company since May 2021.

Mr. ZHAO Bin (趙斌)

Chief Economist

ZHAO Bin, aged 53, senior engineer, currently is the Chief Economist and the General Manager of the operation and development center of the Company. He served as the Deputy General Manager and a Standing Member of the CPC Committee of Shanghai Civil Engineering Co., Ltd. of CREC from November 2010 to December 2017; the Deputy General Manager (preside over work at managerial level), the Deputy Secretary to the CPC Committee and a director of China Railway Guangzhou Engineering Group Co., Ltd from December 2017 to March 2018; the General Manager, the Deputy Secretary to the CPC Committee and a director of China Railway Guangzhou Engineering Group Co., Ltd from March 2018 to May 2021; the General Manager of operation and development center of the Company since May 2021, and the Chief Economist of the Company since June 2022. He graduated from Shanghai Railway Institute majoring in railway engineering (上海鐵道學院鐵道工程專業) and later obtained a master's degree in architecture and civil engineering from Southwest Jiaotong University.

Mr. GENG Shubiao (耿樹標)

Assistant President

GENG Shubiao, aged 44, senior engineer, currently is the Assistant President of the Company, Director (Chairman) of Planning and Development Department (Corporate Management Laboratory), the General Manager of China Railway High-quality Development Scientific Research Institute Co., Ltd. and the Dean of Research Institute of Three Transformations of China Railway Group. He served as the General Manager, the Deputy Secretary to the CPC Committee and a Vice Chairman of The Third Construction Co., Ltd. of CTCE Group from May 2011 to June 2014; the General Manager Assistant of China Railway No. 4 Engineering Group Co., Ltd from June 2014 to August 2015; the Deputy General Manager of China Railway No. 4 Engineering Group Co., Ltd from August 2015 to December 2019; the Deputy General Manager of China Railway No. 4 Engineering Group Co., Ltd and the Standing Deputy Leader of Preparatory Group of China Railway Specialized Water Affairs and Environmental Protection Company (later known as China Tiegong Investment & Construction Group Co., Ltd) from December 2019 to January 2020; the General Manager, the Deputy Secretary to the CPC Committee and a director of China Tiegong Investment & Construction Group Co., Ltd from January 2020 to May 2021; the Director (Chairman) of Planning and Development Department (Corporate Management Laboratory) of the Company, the General Manager of China Railway High-quality Development Scientific Research Institute Co., Ltd. and the Dean of Research Institute of Three Transformations of China Railway Group since May 2021, and the Assistant President of the Company since June 2022. He graduated from Anhui Institute of Civil Engineering and Architecture majoring in engineering management and later obtained a postgraduate degree in economic management from the Central Party School.

Mr. TAM Chun Chung (譚振忠)

Joint Company Secretary and Qualified Accountant

TAM Chun Chung, aged 49, currently is the Joint Company Secretary and Qualified Accountant of the Company and also an independent non-executive director of Lap Kei Engineering (Holdings) Limited. Mr. TAM joined the Company in November 2007. Prior to joining the Company, He served as a Qualified Accountant and Joint Company Secretary of an H-share listed company in Hong Kong. He had also held various senior positions including senior manager of internal audit and senior manager of finance department in another Hong Kong listed company previously. From 1994 to 2000, Mr. TAM worked for a large international accounting firm as an assistant manager. Mr. TAM has over 27 years of experience in the accounting and auditing field. He has been a member of the Hong Kong Institute of Certified Public Accountants since December 1997 and a fellow of the Chartered Association of Certified Accountants since November 2002.

THE GUARANTEE OF THE BONDS

On 12 May 2014, the SAFE promulgated the SAFE Regulations. The SAFE Regulations, which came into force on 1 June 2014, replaced 12 other regulations regarding cross-border security and introduced a number of significant changes, including: (i) abolishing prior SAFE approval and quota requirements for cross-border security; (ii) requiring SAFE registration for two specific types of cross-border security only; (iii) removing eligibility requirements for providers of cross-border security; (iv) the validity of any cross-border security agreement no longer subject to SAFE approval, registration, filing, and any other SAFE administrative requirements; (v) removing SAFE verification requirement for performance of cross-border security. A cross-border guarantee is a form of security under the SAFE Regulations. The SAFE Regulations classify cross-border security into three types:

- Nei Bao Wai Dai ("**NBWD**"): security/guarantee provided by an onshore security provider for a debt owing by an offshore debtor to an offshore creditor.
- Wai Bao Nei Dai ("**WBND**"): security/guarantee provided by an offshore security provider for a debt owing by an onshore debtor to an onshore creditor.
- Other Types of Cross-Border Security: any cross-border security/guarantee other than NBWD and WBND.

In respect of NBWD, in the case where the onshore security provider is a non-financial institution, it shall conduct a registration of the relevant security/guarantee with SAFE within 15 working days after its execution (or 15 working days after the date of any change to the security).

The Guarantor will unconditionally and irrevocably guarantee the due payment of all sums expressed to be payable by the Issuer under the Bonds and the Trust Deed. The Guarantor's obligations in respect of the Bonds and the Trust Deed are contained in the Deed of Guarantee. The Deed of Guarantee will be executed by the Guarantor on or before the Issue Date. Under the SAFE Regulations, the Deed of Guarantee does not require any pre-approval by SAFE and is binding and effective upon execution.

The Guarantor is required to submit the Deed of Guarantee to the local SAFE for registration within 15 working days after its execution. The SAFE registration is merely a post signing registration requirement, which is not a condition to the effectiveness of the Guarantee of the Bonds.

Upon completion of the review of the Deed of Guarantee, the local SAFE will issue a registration notice or record to the Guarantor to confirm the completion of the registration.

Under the SAFE Regulations:

- non-registration does not render the Guarantee of the Bonds ineffective or invalid under PRC law although SAFE may impose penalties on the Guarantor if submission for registration is not carried out within the stipulated time frame of 15 working days; and
- there may be logistical hurdles at the time of remittance (if any cross border payment is to be made by the Guarantor under the Guarantee of the Bonds) as domestic banks may require evidence of SAFE registration in order to effect such remittance, although this does not affect the validity of the Guarantee of the Bonds itself.

Condition 3(c) of the Terms and Conditions of the Bonds (*Registration with SAFE*) provides that the Guarantor will register, or cause to be registered, the Deed of Guarantee with SAFE in accordance with, and within the time period prescribed by, the SAFE Regulations and use its best endeavours to complete the registration and obtain a registration record from SAFE on or before the SAFE Registration Deadline. If the Guarantor fails to complete the SAFE registration and deliver the registration records to the Trustee before the SAFE Registration Deadline, the Bondholders may exercise its option to require the Issuer to redeem all but not some only of the Bonds at their principal amount together with accrued interest up to, but excluding, the Put Settlement Date (see Condition 5(c) of the Terms and Conditions of the Bonds (*Redemption for a Relevant Event*)).

TAXATION

The following summary of certain tax consequences of the purchase, ownership and disposition of the Bonds is based upon applicable laws, regulations, rulings and decisions in effect as at the date of this Offering Circular, all of which are subject to change (possibly with retroactive effect). This summary does not purport to be a comprehensive description of all the tax considerations that may be relevant to a decision to purchase, own or dispose of the Bonds and does not purport to deal with consequences applicable to all categories of investors, some of which may be subject to special rules. Neither these statements nor any other statements in this Offering Circular are to be regarded as advice on the tax position of any holder of the Bonds or any person acquiring, selling or otherwise dealing in the Bonds or on any tax implications arising from the acquisition, sale or other dealings in respect of the Bonds. Persons considering the purchase of the Bonds should consult their own tax advisers concerning the tax consequences of the purchase, ownership and disposition of the Bonds.

BRITISH VIRGIN ISLANDS

The Issuer is exempt from all provisions of the Income Tax Ordinance of the British Virgin Islands.

Payments of principal, premium or interest in respect of the Bonds to persons who are not resident in the British Virgin Islands are not subject to British Virgin Islands tax or withholding tax.

Capital gains realised with respect to the Bonds by persons who are not persons resident in the British Virgin Islands are also exempt from all provisions of the Income Tax Ordinance of the British Virgin Islands.

No estate, inheritance, succession or gift tax, rate, duty, levy or other charge is payable by persons who are not resident in the British Virgin Islands with respect to the Bonds.

All instruments relating to transactions in respect of the Bonds are exempt from payment of stamp duty in the British Virgin Islands. This assumes that the Issuer does not hold an interest in real estate in the British Virgin Islands.

PRC

The following summary describes the principal PRC tax consequences of ownership of the Bonds by beneficial owners who, or which, are not residents of mainland China for PRC tax purposes. These beneficial owners are referred to as non PRC Bondholders in this section. In considering whether to invest in the Bonds, investors should consult their individual tax advisers with regard to the application of PRC tax laws to their particular situations as well as any tax consequences arising under the laws of any other tax jurisdiction. Reference is made to PRC taxes from the taxable year beginning on or after 1 January 2008.

Enterprise Income Tax

Pursuant to the EIT Law and its implementation regulations, enterprises that are established under laws of foreign countries and regions (including Hong Kong, Macau and Taiwan) but whose "de facto management bodies" are within the territory of China shall be PRC tax resident enterprises for the purpose of the EIT Law and they shall pay enterprise income tax at the rate of 25 per cent. in respect of their income sourced from both within and outside China. If relevant PRC tax authorities decide, in accordance with applicable tax rules and regulations, that the "de facto management body" of the Issuer is within the territory of the PRC, the Issuer may be held to be a PRC tax resident enterprise for the purpose of the EIT Law and be subject to enterprise income tax at the rate of 25 per cent. for its income sourced from both within and outside PRC. As confirmed by the Issuer and the Guarantor, as at the date of this Offering Circular, neither the Issuer nor the Guarantor has been notified or informed by the PRC tax authorities that the Issuer is considered as a PRC tax resident enterprise for the purpose of the EIT Law. However, there is no assurance that the Issuer will not be treated as a PRC tax resident enterprise under the EIT Law and related implementation regulations in the future.

Pursuant to the EIT Law and its implementation regulations, any non-resident enterprise without establishment within the PRC or whose income has no actual connection to its establishment inside the PRC shall pay enterprise income tax at the rate of 10 per cent. on the income sourced inside the PRC, unless a preferential rate is provided by tax treaties or arrangements entered into between the country or region where the non-resident enterprise is established and the PRC, and such income tax shall be withheld by sources with the PRC payer acting as the obligatory withholder, who shall withhold the tax amount from each payment or payment due.

Pursuant to the Individual Income Tax Law of the PRC and its implementation regulations, any non-resident individual shall pay individual income tax at the rate of 20 per cent. on the income sourced inside the PRC, unless a preferential rate is provided by tax treaties or arrangements entered into between the country or region of the non-resident individual, and such income tax shall be withheld by sources with the PRC payer acting as the obligatory withholder, who shall withhold the tax amount from each payment or payment due.

Accordingly, in the event the Issuer is deemed to be a PRC tax resident enterprise by the PRC tax authorities in the future, the Issuer shall withhold income tax from the payments of interest in respect of the Bonds for any non-PRC Bondholder.

In addition, in the event that the Guarantor is required to discharge its obligations under the Guarantee of the Bonds, the Guarantor will be obliged to withhold PRC enterprise income tax at the rate up to 10 per cent. on the payments of interest made by it under the Guarantee of the Bonds to non-PRC enterprise Bondholders (or PRC individual income tax at the rate up to 20 per cent. in the case of payment to non-PRC individual Bondholders) as such payments of interest will be regarded as being derived from sources within the PRC. To the extent that the PRC has entered into arrangements relating to the avoidance of double taxation with any jurisdiction, such as Hong Kong, that exempt or allow a lower rate of withholding tax, such lower rate may apply to qualified non-PRC Bondholders. Repayment of the principal made by the Issuer or the Guarantor will not be subject to PRC withholding tax.

Non-PRC enterprise Bondholders will not be subject to the PRC tax on any capital gains derived from a sale or transfer of Bonds consummated outside mainland China between non-PRC Bondholders, except however, if the Issuer is treated as a PRC tax resident enterprise under the EIT Law, the Individual Income Tax Law and related implementation regulations in the future, any gain realised by the non-PRC enterprise Bondholders from the transfer of the Bonds may be regarded as being derived from sources within the PRC and accordingly would be subject to up to 10 per cent. of PRC withholding tax (or in the case of enterprise Bondholders or up to 20 per cent. PRC withholding tax in the case of individual Bondholders).

Value Added Tax ("VAT")

On 23 March 2016, the MOF and the SAT jointly issued the Circular 36 which confirms that business tax will be completely replaced by VAT from 1 May 2016. With effect from 1 May 2016, the income derived from the provision of financial services which previously attracted business tax are entirely replaced by, and subject to, VAT.

According to Circular 36, the entities and individuals providing the services within PRC shall be subject to VAT. The services are treated as being provided within PRC where either the service provider or the service recipient is located in PRC. The services subject to VAT include the provision of financial services such as the provision of loans. It is further clarified under Circular 36 that the "loans" refers to the activity of lending capital for another's use and receiving the interest income thereon. Based on the interpretation of "loans" under the Circular 36, the issuance of Bonds may be treated as the holders of the Bonds providing loans to the Issuer and the Guarantor, which thus could be regarded as the provision of financial services that could be subject to VAT. If the PRC tax authorities take the view that the holders of the Bonds are providing loans within the PRC (due to the Issuer being treated as PRC tax residents or due to the fact that the Guarantor is located in the PRC), then the holders of the Bonds could be regarded as providing financial services within PRC and consequently, the holders of the Bonds shall be subject to VAT at the rate up to 6 per cent. when receiving the interest payments under the Bonds from the Guarantor. In addition, the holders of the Bonds shall be subject to the local levies at approximately 12 per cent. of the VAT payment and consequently, the combined rate of VAT and local levies would be around 6.7 per cent. Hence, if the Issuer or the Guarantor pays interest income to Bondholders who are located outside the PRC, the Issuer (if VAT applicable) or the Guarantor, acting as the obligatory withholder in accordance with applicable law, shall withhold VAT and local levies from the payment of interest income to Bondholders who are located outside of the PRC.

Where a holder of the Bonds who is an entity or individual located outside of the PRC resells the Bonds to an entity or individual located outside of the PRC and derives any gain, since neither the service provider nor the service recipient is located in the PRC, theoretically Circular 36 does not apply and the Issuer or the Guarantor does not have the obligation to withhold the VAT or the local levies.

Circular 36 became effective on 1 May 2016 and the above disclosure may be subject to further change upon the issuance of further clarification rules and/or different interpretation by the competent tax authority. There is uncertainty as to the application of the Circular 36.

Pursuant to the EIT Law, the Individual Income Tax Law and the VAT reform detailed above, the Issuer or the Guarantor may need to withhold income tax (should such tax apply) from the payments of interest in respect of the Bonds for any non-PRC Bondholder and the Issuer or the Guarantor may need to withhold VAT (should such tax apply) from the payments of interest in respect of the Bonds for any Bondholders located outside the PRC. However, in the event that the Issuer or the Guarantor is required to make such a deduction or withholding (whether by way of income, VAT or otherwise), the Issuer and the Guarantor have agreed to pay such additional amounts as will result in receipt by the Bondholders of such amounts after such withholding or deduction as would have been received by them had no such withholding or deduction been required.

For more information, see "Terms and Conditions of the Bonds – Condition 7 (Taxation)".

Stamp Duty

No PRC stamp duty will be chargeable upon the issue or transfer (for so long as the register of Bondholders is maintained outside the PRC and the issuance and the sale of the Bonds is made outside the PRC) of a Bond.

HONG KONG

Withholding tax

No withholding tax is payable in Hong Kong in respect of payments of principal (including any premium payable on redemption of the Bonds) or interest on the Bonds or in respect of any capital gains arising from the sale of the Bonds.

Profits tax

Hong Kong profits tax is chargeable on every person carrying on a trade, profession or business in Hong Kong in respect of profits arising in or derived from Hong Kong from such trade, profession or business (excluding profits arising from the sale of capital assets).

Interest on the Bonds may be deemed to be profits arising in or derived from Hong Kong from a trade, profession or business carried on in Hong Kong in the following circumstances:

(a) Interest on the Bonds is derived from Hong Kong and is received by or accrues to a corporation carrying on a trade, profession or business in Hong Kong;

(b) Interest on the Bonds is derived from Hong Kong and is received by or accrues to a person other than a corporation (such as a partnership), carrying on a trade, profession or business in Hong Kong and is in respect of the funds of that trade, profession or business;

(c) Interest on the Bonds is received by or accrues to a financial institution (as defined in the Inland Revenue Ordinance (Cap. 112 of the laws of Hong Kong)) (the "**IRO**") and arises through or from the carrying on by the financial institution of its business in Hong Kong; or

(d) Interest on the Bonds is received by or accrues to a corporation (other than a financial institution) and arises through or from the carrying on in Hong Kong by the corporation of its intra-group financing business (within the meaning of section 16(3) of the IRO).

Sums received by or accrued to a financial institution by way of gains or profits arising through or from the carrying on by the financial institution of its business in Hong Kong from the sale, disposal and redemption of Bonds will be subject to Hong Kong profits tax.

Sums derived from the sale, disposal or redemption of Bonds will be subject to Hong Kong profits tax where received by or accrued to a person, other than a financial institution, who carries on a trade, profession or business in Hong Kong and the sum has a Hong Kong source unless otherwise exempted. The source of such sums will generally be determined by having regard to the manner in which the Bonds are acquired and disposed of.

Sums received by or accrued to a corporation (other than a financial institution) by way of gains or profits arising through or from the carrying on in Hong Kong by the corporation of its intra-group financing business (within the meaning of section 16(3) of the IRO) from the sale, disposal and redemption of Bonds will be subject to profits tax.

In certain circumstances, Hong Kong profits tax exemptions (such as concessionary tax rates) may be available. Investors are advised to consult their own tax advisors to ascertain the applicability of any exemptions to their individual position.

Stamp duty

No Hong Kong stamp duty will be chargeable upon the issue or transfer of a Bond.

SUBSCRIPTION AND SALE

The Issuer and the Guarantor have entered into a subscription agreement with BOCI Asia Limited, Standard Chartered Bank, CLSA Limited, The Hongkong and Shanghai Banking Corporation Limited, China International Capital Corporation Hong Kong Securities Limited, ICBC International Securities Limited and CMB International Capital Limited (each as a Joint Lead Manager and a Joint Bookrunner) dated [●] 2022 (the "**Subscription Agreement**"), pursuant to which and subject to certain conditions contained therein, the Issuer and the Guarantor have jointly and severally agreed to sell to the Joint Lead Managers, and the Joint Lead Managers have severally and not jointly agreed to subscribe and pay for, or to procure subscribers to subscribe and pay for, the aggregate principal amount of the Bonds indicated opposite its name below:

	Principal Amount of Bonds
	(U.S.$)
BOCI Asia Limited	[●]
Standard Chartered Bank	[●]
CLSA Limited	[●]
The Hongkong and Shanghai Banking Corporation Limited	[●]
China International Capital Corporation Hong Kong Securities Limited	[●]
ICBC International Securities Limited	[●]
CMB International Capital Limited	[●]
Total	[●]

The Subscription Agreement provides that the Issuer and the Guarantor will jointly and severally indemnify the Joint Lead Managers against certain liabilities in connection with the offer and sale of the Bonds. The Subscription Agreement provides that the obligations of the Joint Lead Managers are subject to certain conditions precedent, and entitles the Joint Lead Managers to terminate it in certain circumstances prior to payment being made to the Issuer.

The Joint Lead Managers and certain of their subsidiaries or affiliates may have performed certain investment banking and advisory services for, and entered into certain commercial banking transactions with the Issuer, the Guarantor or any member of the Group and/or their respective subsidiaries and affiliates, from time to time, for which they have received customary fees and expenses. The Joint Lead Managers and their subsidiaries or affiliates may, from time to time, engage in transactions with and perform services for the Issuer, the Guarantor or any member of the Group and/or their respective subsidiaries and affiliates in the ordinary course of their business.

The Joint Lead Managers or their respective affiliates may purchase the Bonds for its or their own account and enter into transactions, including credit derivatives, such as asset swaps, repackaging and credit default swaps relating to the Bonds and/or other securities of the Issuer or the Guarantor or their respective subsidiaries or associates at the same time as the offer and sale of the Bonds or in secondary market transactions. Such transactions would be carried out as bilateral trades with selected counterparties and separately from any existing sale or resale of the Bonds to which this Offering Circular relates (notwithstanding that such selected counterparties may also be purchasers of the Bonds).

No action has been or will be taken that would, or is intended to, permit a public offering of the Bonds, or the possession or distribution of this Offering Circular or any amendment or supplement thereto or any offering or publicity material relating to the Bonds, in any country or jurisdiction where action for that purpose is required.

Accordingly, the Bonds should not be offered or sold, directly or indirectly, and neither this Offering Circular nor any other offering material, circular, prospectus, form of application or advertisement in connection with the Bonds should be distributed or published in or from any jurisdiction, except in circumstances which will result in compliance with any applicable laws and regulations and will not, save as disclosed in this Offering Circular, impose any obligations on the Issuer, the Guarantor or the Joint Lead Managers.

If a jurisdiction requires that the offering be made by a licensed broker or dealer and the Joint Lead Managers or any affiliate of the Joint Lead Managers is a licensed broker or dealer in that jurisdiction, the offering shall be deemed to be made by that Joint Lead Manager or its affiliate on behalf of the Issuer in such jurisdiction.

The distribution of this Offering Circular, or any offering material, and the offering, sale or delivery of the Bonds is restricted by law in certain jurisdictions. Therefore, persons who may come into possession of this Offering Circular, or any offering material, are advised to consult with their own legal advisers as to what restrictions may be applicable to them and to observe such restrictions. This Offering Circular may not be used for the purpose of an offer or invitation in any circumstances in which such offer or invitation is not authorised.

GENERAL

No action has been taken or will be taken in any jurisdiction that would permit a public offering of the Bonds, or possession or distribution of this Offering Circular or any amendment or supplement thereto or any other offering or publicity material relating to the Bonds, in any country or jurisdiction where action for that purpose is required. The Group will have no responsibility for, and each Joint Lead Manager will obtain any consent, approval or permission required by it for, the acquisition, offer, sale or delivery by it of Bonds under the laws and regulations in force in any jurisdiction to which it is subject or in or from which it makes any acquisition, offer, sale or delivery. None of the Joint Lead Managers is authorised to make any representation or use any information in connection with the issue, subscription and sale of the Bonds, other than as contained in this Offering Circular or any amendment or supplement thereto.

UNITED STATES

The Bonds and the Guarantee of the Bonds have not been and will not be registered under the U.S. Securities Act of 1933, as amended (the "Securities Act") and may not be offered or sold within the United States except pursuant to an exemption from, or in a transaction not subject to, the registration requirements of the Securities Act. Each of the Joint Lead Managers represents that it has offered or sold, and agrees that it will not offer or sell, any of the Bond or the Guarantee constituting part of its allotment within the United States except in accordance with Rule 903 of Regulation S under the Securities Act. Accordingly, neither it, their respective affiliates nor any persons acting on its or their behalf have engaged or will engage in any directed selling efforts with respect to the Bond or the Guarantee. Terms used in this paragraph have the meanings given to them by Regulation S under the Securities Act.

Each of the Joint Lead Managers represents and agrees that neither it nor any of its respective affiliates (as defined in Rule 501(b) of Regulation D under the Securities Act ("Regulation D")), nor any person acting on its or their behalf has engaged or will engage in any form of general solicitation or general advertising (within the meaning of Regulation D) in connection with any offer and sale of the Bonds and the Guarantee in the United States.

PROHIBITION OF SALES TO EEA RETAIL INVESTORS

Each Joint Lead Manager has represented and agreed that it has not offered, sold or otherwise made available and will not offer, sell or otherwise make available any Bonds to any retail investor in the EEA. For the purposes of this provision, the expression "retail investor" means a person who is one (or more) of the following:

(a) a retail client as defined in point (11) of Article 4(1) of EU MiFID II; or

(b) a customer within the meaning of the Insurance Distribution Directive, where that customer would not qualify as a professional client as defined in point (10) of Article 4(1) of EU MiFID II.

the expression "an offer" includes the communication in any form and by any means of sufficient information on the terms of the offer and the Bonds to be offered so as to enable an investor to decide to purchase or subscribe for the Bonds.

PROHIBITION OF SALES TO UK RETAIL INVESTORS

Each Joint Lead Manager has represented and agreed that it has not offered, sold or otherwise made available and will not offer, sell or otherwise make available any Bonds to any retail investor in the UK. For the purposes of this provision the expression "retail investor" means a person who is one (or more) of the following:

(a) a retail client as defined in point (8) of Article 2 of Regulation (EU) No 2017/565 as it forms part of domestic law by virtue of the EUWA; or

(b) a customer within the meaning of the provisions of the FSMA and any rules or regulations made under the FSMA to implement Insurance Distribution Directive, where that customer would not qualify as a professional client, as defined in point (8) of Article 2(1) of Regulation (EU) No 600/2014 as it forms part of domestic law by virtue of the EUWA.

the expression "an offer" includes the communication in any form and by any means of sufficient information on the terms of the offer and the Bonds to be offered so as to enable an investor to decide to purchase or subscribe for the Bonds.

OTHER UK REGULATORY RESTRICTIONS

Each of the Joint Lead Managers has represented, warranted and undertaken that:

(a) it has only communicated or caused to be communicated and will only communicate or cause to be communicated any invitation or inducement to engage in investment activity (within the meaning of Section 21 of the Financial Services and Markets Act 2000 (the "**FSMA**")) received by it in connection with the issue or sale of any Bonds in circumstances in which Section 21(1) of the FSMA does not apply to the Issuer or the Guarantor; and

(b) it has complied and will comply with all applicable provisions of the FSMA with respect to anything done by it in relation to the Bonds in, from or otherwise involving the United Kingdom.

HONG KONG

Each of the Joint Lead Managers has represented, warranted and undertaken that:

(a) it has not offered or sold and will not offer or sell in Hong Kong, by means of any document, any Bonds other than (i) to "**professional investors**" as defined in the Securities and Futures Ordinance (Cap. 571 of the laws of Hong Kong) (the "**SFO**") and any rules made under the SFO; or (ii) in other circumstances which do not result in the document being a "**prospectus**" as defined in the Companies (Winding Up and Miscellaneous Provisions) Ordinance (Cap. 32 of the laws of Hong Kong) (the "**C(WUMP)O**")or which do not constitute an offer to the public within the meaning of the C(WUMP)O; and

(b) it has not issued or had in its possession for the purposes of issue, and will not issue or have in its possession for the purposes of issue, whether in Hong Kong or elsewhere, any advertisement, invitation or document relating to the Bonds, which is directed at, or the contents of which are likely to be accessed or read by, the public of Hong Kong (except if permitted to do so under the securities laws of Hong Kong) other than with respect to Bonds which are or are intended to be disposed of only to persons outside Hong Kong or only to "**professional investors**" as defined in the SFO and any rules made under the SFO.

THE PEOPLE'S REPUBLIC OF CHINA

Each Joint Lead Manager represented, warranted and undertaken that the Bonds are not being offered or sold and may not be offered or sold, directly or indirectly, in the People's Republic of China (for such purposes, not including Hong Kong and Macau Special Administrative Region or Taiwan), except as permitted by the securities laws of the People's Republic of China.

SINGAPORE

Each of the Joint Lead Managers has acknowledged that this Offering Circular has not been and will not be registered as a prospectus with the Monetary Authority of Singapore. Accordingly, each Joint Lead Manager has represented, warranted and undertaken that it has not offered or sold any Bonds or caused such Bonds to be made the subject of an invitation for subscription or purchase and will not offer or sell such Bonds or cause such Bonds to be made the subject of an invitation for subscription or purchase, and has not circulated or distributed, nor will it circulate or distribute, this Offering Circular or any other document or material in connection with the offer or sale, or invitation for subscription or purchase, of such Bonds, whether directly or indirectly, to persons in Singapore other than (i) to an institutional investor (as defined in Section 4A of the Securities and Futures Act 2001 of Singapore, as modified or amended from time to time (the "**SFA**")) pursuant to Section 274 of the SFA, (ii) to a relevant person (as defined in Section 275(2) of the SFA) pursuant to Section 275(1) of the SFA, or any person pursuant to Section 275(1A) of the SFA, and in accordance with the conditions specified in Section 275 of the SFA, or (iii) otherwise pursuant to, and in accordance with the conditions of, any other applicable provision of the SFA.

Where the Bonds are subscribed or purchased under Section 275 of the SFA by a relevant person which is:

(a) a corporation (which is not an accredited investor (as defined in Section 4A of the SFA)) the sole business of which is to hold investments and the entire share capital of which is owned by one or more individuals, each of whom is an accredited investor; or

(b) a trust (where the trustee is not an accredited investor) whose sole purpose is to hold investments and each beneficiary of the trust is an individual who is an accredited investor,

securities (as defined in Section 239(1) of the SFA) of that corporation or the beneficiaries' rights and interest (howsoever described) in that trust shall not be transferred within six months after that corporation or that trust has acquired the Bonds pursuant to an offer made under Section 275 of the SFA, except:

(i) to an institutional investor or to a relevant person defined in Section 275(2) of the SFA, or to any person arising from an offer referred to in Section 275(1A) or Section 276(4)(i)(B) of the SFA;

(ii) where no consideration is or will be given for the transfer;

(iii) where the transfer is by operation of law;

(iv) as specified in Section 276(7) of the SFA; or

(v) as specified in Regulation 37A of the Securities and Futures (Offers of Investments) (Securities and Securities-based Derivatives Contracts) Regulations 2018.

In connection with Section 309B of the SFA and the Securities and Futures (Capital Markets Products) Regulations 2018 of Singapore (the "CMP Regulations 2018"), the Issuer has determined the classification of the Bonds as "prescribed capital markets products" (as defined in the CMP Regulations 2018) and Excluded Investment Products (as defined in MAS Notice SFA 04-N12: Notice on the Sale of Investment Products and MAS Notice FAA-N16: Notice on Recommendations on Investment Products).

JAPAN

The Bonds have not been and will not be registered under the Financial Instruments and Exchange Act of Japan (Act No. 25 of 1948, as amended) (the "**Financial Instruments and Exchange Act**") and, accordingly, each Joint Lead Manager has represented, warranted and undertaken that it has not, directly or indirectly, offered or sold and will not, directly or indirectly, offer or sell any Bonds in Japan or to, or for the benefit of, any resident of Japan (which term as used herein means any person resident in Japan, including any corporation or other entity organised under the laws of Japan) or to others for re offering or re sale, directly or indirectly, in Japan or to, or for the benefit of, any resident of Japan except pursuant to an exemption from the registration requirements of, or otherwise in compliance with the Financial Instruments and Exchange Act and other relevant laws and regulations of Japan.

KOREA

Each Joint Lead Manager has represented, warranted and undertaken that a registration statement for the offering and sale of the Bonds has not been filed with the Financial Services Commission of Korea (the "**FSC**") and that under the current laws and regulations of Korea, subject to certain exceptions, the Bonds may not be transferred or sold to any resident of Korea (as defined under the Foreign Exchange Transaction Law) unless a registration statement for the offering and sale of the Bonds has been filed with the FSC. Accordingly, each Joint Lead Manager has represented, warranted and undertaken that it has not offered, sold or delivered, and will not offer, sell or deliver the Bonds, directly or indirectly, in Korea or to any resident of Korea (as defined under the Foreign Exchange Transaction Law) or to others for reoffering or resale, directly or indirectly in Korea or for the account or benefit of any resident of Korea (as defined under the Foreign Exchange Transaction Law), except as otherwise permitted by applicable Korean laws and regulations.

TAIWAN

Each Joint Lead Manager has represented, warranted and undertaken that it has not offered, sold or delivered, and will not offer, sell or deliver, at any time, directly or indirectly, any Bonds acquired by it as part of an offering in Taiwan or to, or for the account or benefit of, any resident of Taiwan, unless otherwise permitted by the laws and regulations of Taiwan.

MACAU

Each Joint Lead Manager has represented, warranted and undertaken that the Bonds may not be promoted, distributed, sold or delivered in Macau, or any document relating to the Bonds be distributed or circulated in Macau, except under the terms of and in compliance with the Macau Financial System Act and any other laws in Macau that may apply to the offer and sale of the Bonds in Macau. The Bonds are not registered or otherwise authorised for public offer under the Financial System Act of Macau, thus may not be offered or sold in Macau, unless such offer is made by Macau licensed entities according to the Macau Financial System Act and upon their communication to the Macau Monetary Authority, in observation of the guidelines and recommendations issued by the Macau local regulatory authority from time to time.

BRITISH VIRGIN ISLANDS

Each of the Joint Lead Managers has represented, warranted and agreed that no invitation has been made or will be made directly or indirectly to the public in the British Virgin Islands or to any person in the British Virgin Islands to purchase the Bonds and the Bonds are not being offered or sold and may not be offered or sold, directly or indirectly, in the British Virgin Islands, except as otherwise permitted by British Virgin Islands law.

GENERAL INFORMATION

1. **Clearing Systems**: The Bonds have been accepted for clearance through Euroclear and Clearstream under Common Code 248684054 and the International Securities Identification Number for the Bonds is XS2486840544.

2. **Authorisations**: The Issuer has obtained all necessary consents, approvals and authorisations in connection with the issue of and performance of its obligations under, the Bonds, the Trust Deed and the Agency Agreement. The issue of the Bonds was authorised by resolutions of the board of directors of the Issuer passed on 28 April 2022. The Guarantor has obtained all consents, approvals and authorisations in connection with the giving of the Guarantee of the Bonds and the performance of its obligations under the Trust Deed, the Deed of Guarantee and the Agency Agreement. The giving of the Guarantee of the Bonds was authorised by resolutions of the shareholders of the Guarantor passed on 23 June 2020 and resolutions of the board of directors of the Guarantor passed on 30 March 2021. An Enterprise Foreign Debt Filing Certificate dated 13 May 2022 has been obtained from the NDRC in connection with the issuance of the Bonds pursuant to the NDRC Circular.

3. **No Material Adverse Change**: Except as disclosed in this Offering Circular, there has been no material adverse change since 31 December 2021 (in the case of the Guarantor) or the date of incorporation (in the case of the Issuer), in the financial or trading position of the Issuer, the Guarantor or the Group.

4. **Litigation**: None of the Issuer, the Guarantor or any member of the Group is involved in any litigation or arbitration proceedings, which the Issuer and the Guarantor believe are material in the context of the Bonds and the giving of the Guarantee of the Bonds and, so far as the Issuer and the Guarantor are aware, no such litigation or arbitration proceedings are pending or threatened.

5. **Listing of Bonds**: Application will be made to the Hong Kong Stock Exchange for the listing of, and permission to deal in, the Bonds by way of debt issues to Professional Investors only and such permission is expected to become effective on or about [●] 2022.

6. **Available Documents**: As long as any Bond is outstanding, copies of the following documents will be available for inspection and, in the case of the documents referred to in paragraphs (b) to (d) below, copies may be obtained during normal business hours at the specified office of the Trustee, being at the date hereof 20/F, CCB Tower, 3 Connaught Road Central, Central, Hong Kong.

   (a) Articles of Association of the Issuer and the Guarantor;

   (b) the audited consolidated financial statements of the Guarantor as at and for the years ended 31 December 2020 and 2021;

   (c) the Agency Agreement;

   (d) the Deed of Guarantee; and

   (e) the Trust Deed.

7. **Audited Financial Statements**: The audited consolidated financial statements of the Guarantor as at and for the years ended 31 December 2020 and 2021, which are included elsewhere in this Offering Circular, have been audited by PricewaterhouseCoopers in accordance with ISA, the independent auditor of the Guarantor, as stated in its reports appearing herein.

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[7] The audited consolidated financial statements of the Guarantor set out herein have been reproduced from the annual reports for the years ended 31 December 2020 and 2021 which were published on the Hong Kong Stock Exchange and page references to pages set forth the respective annual reports.

INDEPENDENT AUDITOR'S REPORT

To the Shareholders of China Railway Group Limited
(incorporated in the People's Republic of China with limited liability)

Opinion

What we have audited

The consolidated financial statements of China Railway Group Limited (the "Company") and its subsidiaries (the "Group") set out on pages 114 to 286, which comprise:

- the consolidated balance sheet as at 31 December 2021;
- the consolidated income statement for the year then ended;
- the consolidated statement of comprehensive income for the year then ended;
- the consolidated statement of changes in equity for the year then ended;
- the consolidated statement of cash flows for the year then ended; and
- the notes to the consolidated financial statements, which include a summary of significant accounting policies.

Our opinion

In our opinion, the consolidated financial statements give a true and fair view of the consolidated financial position of the Group as at 31 December 2021, and of its consolidated financial performance and its consolidated cash flows for the year then ended in accordance with International Financial Reporting Standards ("IFRSs") and have been properly prepared in compliance with the disclosure requirements of the Hong Kong Companies Ordinance.

Basis for Opinion

We conducted our audit in accordance with International Standards on Auditing ("ISAs"). Our responsibilities under those standards are further described in the Auditor's Responsibilities for the Audit of the Consolidated Financial Statements section of our report.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Independence

We are independent of the Group in accordance with the International Code of Ethics for Professional Accountants (including International Independence Standards) issued by the International Ethics Standards Board for Accountants ("the Codes"), and we have fulfilled our other ethical responsibilities in accordance with the Codes.

Key Audit Matters

Key audit matters are those matters that, in our professional judgment, were of most significance in our audit of the consolidated financial statements of the current period. These matters were addressed in the context of our audit of the consolidated financial statements as a whole, and in forming our opinion thereon, and we do not provide a separate opinion on these matters.

Key audit matters identified in our audit are summarised as follows:

- Revenue and cost recognition from infrastructure construction contracts
- Expected credit losses of trade receivables and contract assets

INDEPENDENT AUDITOR'S REPORT

Key Audit Matters (Continued)

Key Audit Matter	How our audit addressed the Key Audit Matter
Revenue and cost recognition from infrastructure construction contracts	
Refer to Note 2.32(a), Note 4(b)(i), and Note 5 to the consolidated financial statements. For the year ended 31 December 2021, the revenue from infrastructure construction contracts amounted to RMB923,435 million. The Group's revenue from infrastructure construction contracts is recognised over the period of the contract by reference to the progress towards complete satisfaction of that performance obligation, depending on the nature of the contract, is measured mainly by reference to the proportion of contract costs incurred for work performed to date to estimated total contract costs for each contract. Management estimates the total contract revenue and total contract costs at the inception of each contract. As the contract progresses, management regularly reviews and revises the estimates of contract revenue and contract costs if circumstances change, such as variations in contract work, claims and incentive payments. The increases or decreases in estimated total contract revenue or total contract costs resulted in the adjustments to the extent of progress toward completion and revenue recognised in the period in which the circumstances that give rise to the revision becomes known by management.	We performed the following procedures in relation to management's estimates of contract revenue and contract costs: – We obtained an understanding of management's internal control and assessment process of revenue and cost recognition from infrastructure construction contracts, and assessed the inherent risk of material misstatement by considering the degree of estimation uncertainty and level of other inherent risk factors such as complexity, subjectivity, changes and susceptibility to management bias; – We evaluated and tested the key controls over estimates of total contract revenue, preparation and review of total contract costs, budget adjustments and review and other key controls related to revenue and cost recognition from infrastructure construction contracts; – We compared, on a sample basis, the actual total contract revenue and total contract costs of completed projects during the year, against the most updated estimates before completion to assess the reliability of the estimates; – We checked construction costs incurred during the year by tracing to supporting documents, such as purchase agreements, materials receipt notes and labour cost records on a sample basis, and performed cut-off tests on construction costs; – In respect of projects under construction, we performed the following procedures on a sample basis:

Key Audit Matters (Continued)

Key Audit Matter	How our audit addressed the Key Audit Matter
We focused on the revenue and cost recognition from infrastructure construction contracts because the high degree of judgement and estimation of contract revenue and contract costs. Therefore, we identified the recognition of revenue and cost from infrastructure construction contracts as a key audit matter.	(i) Reviewed the terms and conditions of the infrastructure construction contracts, inspected the contract sum, budget information, variation orders, claims and incentive payments, if any, on which the estimated total contract revenue and total contract costs were based, and evaluated the appropriateness of the basis for management's estimation; (ii) Confirmed contract variations, settlement and historical payment records with owners of infrastructure construction projects; (iii) Assessed the reasonableness of the progress toward completion by visiting the selected sites of infrastructure construction projects to observe the progress of the contract work, and discussing with the site project management the extent to completion of the contract work; and (iv) Tested the mathematical accuracy of the progress toward completion and revenue recognised during the year based on estimates of total contract revenue, total contract costs, and actual contract costs incurred. Based on our work, we found the judgement and estimates adopted by management in determining the revenue and cost from infrastructure construction contracts are supported by available evidence.

Key Audit Matters (Continued)

Key Audit Matter	How our audit addressed the Key Audit Matter
Expected credit losses of trade receivables and contract assets	
Refer to Note 2.20, Note 2.21, Note 4(b)(ii), Note 33, and Note 34 to the consolidated financial statements. As at 31 December 2021, the carrying amounts of trade receivables and contract assets amounted to RMB122,121 million and RMB310,519 million, respectively, with loss allowances amounted to RMB10,152 million and RMB3,339 million, respectively. Provision for credit loss allowance of trade receivables and contract assets was made based on an assessment of the lifetime expected credit losses. For trade receivables and contract assets which have impaired, the Group assessed individually and provided for credit losses allowance. For other trade receivables and contract assets, given no reasonable and supportable information is available without undue cost for expected credit losses measurement, the trade receivables and contract assets were grouped by reference to the credit risk characteristics and assessed for credit losses allowance through exposure at default and the lifetime expected credit loss rates. When measuring expected credit loss, the Group considers its own credit loss incurred in the past, and adjusts by taking into consideration current conditions and forward looking factors. In assessing forward-looking information, the Group considers factors mainly including macroeconomic indicators, economic scenarios and weights.	We performed the following procedures in relation to management's assessment on the expected credit losses of trade receivables and contract assets: – We obtained an understanding of management's internal control and assessment process of expected credit losses of trade receivables and contract assets, and assessed the inherent risk of material misstatement by considering the degree of estimation uncertainty and level of other inherent risk factors such as complexity, subjectivity, changes and susceptibility to management bias; – We evaluated and tested the key controls in place on management's assessment on the expected credit losses of trade receivables and contract assets; – For trade receivables and contract assets assessed individually, we obtained an understanding of management's assessment of financial position and creditworthiness of customers, historical payment and settlement records and forecasted future economic conditions. On a sample basis, we collaborated management's assessment against available evidence to assess the reasonableness of expected credit loss allowance provided by management.

Key Audit Matters (Continued)

Key Audit Matter	How our audit addressed the Key Audit Matter
We focused on auditing the expected credit losses of trade receivables and contract assets because the judgement and estimation of expected credit losses is subject to high degree of estimation uncertainty. The inherent risk in relation to the expected credit losses of trade receivables and contract assets is considered significant due to the subjectivity of significant assumptions and estimates used. Therefore, we identified the expected credit losses of trade receivables and contract assets as a key audit matter.	– For trade receivables and contract assets assessed collectively by reference to the credit risk characteristics, we assessed the reasonableness of the grouping and the measurement method of the expected credit loss model, and tested, on a sample basis, the accuracy of the grouping, the accuracy and the completeness of the source data in the model and the aging profile of trade receivables and contract assets. We evaluated the basis of determining forward-looking factors made by management, including the reasonableness of management's selection of macroeconomic indicators, economic scenarios and weights, and examined the macroeconomic indicators to publicly available external data sources to analyse the reasonableness of forecasted values. We reviewed the sensitivity analysis performed by management on the forward-looking factors to assess the potential impact on expected credit losses if the relevant key assumptions were to change in a reasonable and probable manner; and recalculated the amount of expected credit losses. – We tested the cash collections of trade receivable and settlement of contract assets subsequent to end of the reporting period on a sample basis. Based on our work, we considered that the significant judgments and estimates made by management in relation to the expected credit losses of trade receivables and contract assets were supportable by the evidence obtained and procedures performed.

Other Information

The directors of the Company are responsible for the other information. The other information comprises all of the information included in the annual report other than the consolidated financial statements and our auditor's report thereon.

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

Other Information (Continued)

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

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

Responsibilities of Directors and Audit and Risk Management Committee for the Consolidated Financial Statements

The directors of the Company are responsible for the preparation of the consolidated financial statements that give a true and fair view in accordance with IFRSs and the disclosure requirements of the Hong Kong Companies Ordinance, and for such internal control as the directors determine is necessary to enable the preparation of consolidated financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the consolidated financial statements, the directors are responsible for assessing the Group's ability to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless the directors either intend to liquidate the Group or to cease operations, or have no realistic alternative but to do so.

Audit and Risk Management Committee are responsible for overseeing the Group's financial reporting process.

Auditor's Responsibilities for the Audit of the Consolidated Financial Statements

Our objectives are to obtain reasonable assurance about whether the consolidated financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. We report our opinion solely to you, as a body, and for no other purpose. We do not assume responsibility towards or accept liability to any other person for the contents of this report. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with ISAs will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these consolidated financial statements.

As part of an audit in accordance with ISAs, we exercise professional judgment and maintain professional scepticism throughout the audit. We also:

- Identify and assess the risks of material misstatement of the consolidated financial statements, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.

- Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Group's internal control.

Auditor's Responsibilities for the Audit of the Consolidated Financial Statements (Continued)

- Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by the directors.

- Conclude on the appropriateness of the directors' use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Group's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditor's report to the related disclosures in the consolidated financial statements or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditor's report. However, future events or conditions may cause the Group to cease to continue as a going concern.

- Evaluate the overall presentation, structure and content of the consolidated financial statements, including the disclosures, and whether the consolidated financial statements represent the underlying transactions and events in a manner that achieves fair presentation.

- Obtain sufficient appropriate audit evidence regarding the financial information of the entities or business activities within the Group to express an opinion on the consolidated financial statements. We are responsible for the direction, supervision and performance of the group audit. We remain solely responsible for our audit opinion.

We communicate with Audit and Risk Management Committee regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.

We also provide Audit and Risk Management Committee with a statement that we have complied with relevant ethical requirements regarding independence, and to communicate with them all relationships and other matters that may reasonably be thought to bear on our independence, and where applicable, actions taken to eliminate threats or safeguards applied.

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

The engagement partner on the audit resulting in this independent auditor's report is Tsun NG.

PricewaterhouseCoopers
Certified Public Accountants

Hong Kong, 30 March 2022

CONSOLIDATED INCOME STATEMENT

	Note	Year ended 31 December 2021 RMB million	2020 RMB million
Revenue	5	**1,073,272**	974,732
Cost of sales and services	11	**(969,886)**	(884,543)
Gross profit		**103,386**	90,189
Other income	6	**2,736**	2,219
Other expenses	6	**(24,756)**	(21,838)
Net impairment losses on financial assets and contract assets	7	**(5,478)**	(2,556)
Other (losses)/gains, net	8	**(82)**	662
Losses from derecognition of financial assets at amortised cost	9	**(4,595)**	(3,302)
Selling and marketing expenses	11	**(5,948)**	(4,857)
Administrative expenses	11	**(27,418)**	(24,668)
Operating profit		**37,845**	35,849
Finance income	10	**6,105**	4,324
Finance costs	10	**(7,616)**	(6,756)
Share of post-tax (losses)/profits of joint ventures	26	**(507)**	164
Share of post-tax profits of associates	26	**3,809**	2,031
Profit before income tax		**39,636**	35,612
Income tax expense	13	**(9,166)**	(8,362)
Profit for the year		**30,470**	27,250
Profit attributable to:			
– Owners of the Company		**27,618**	25,188
– Non-controlling interests		**2,852**	2,062
		30,470	27,250
Earnings per share for profit attributable to owners of the Company			
(expressed in RMB per share)			
– Basic	15	**1.037**	0.963
– Diluted	15	**1.037**	0.963

The above consolidated income statement should be read in conjunction with the accompanying notes.

CONSOLIDATED STATEMENT OF COMPREHENSIVE INCOME

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

The above consolidated statement of comprehensive income should be read in conjunction with the accompanying notes.

CONSOLIDATED BALANCE SHEET

	Note	As at 31 December 2021 RMB million	2020 RMB million
ASSETS			
Non-current assets			
Property, plant and equipment	*18*	**77,368**	74,384
Right-of-use assets	*19*	**1,659**	1,892
Lease prepayments	*20*	**14,561**	14,826
Deposits for investments	*21*	**441**	453
Investment properties	*22*	**12,065**	12,046
Intangible assets	*23*	**110,496**	62,599
Mining assets	*24*	**3,479**	3,582
Contract assets	*34*	**161,377**	138,759
Investments in joint ventures	*26*	**49,831**	40,216
Investments in associates	*26*	**46,181**	38,133
Goodwill	*28*	**1,568**	1,412
Financial assets at fair value through other comprehensive income	*29*	**12,164**	9,668
Other financial assets at amortised cost	*30*	**22,960**	18,773
Financial assets at fair value through profit or loss	*35*	**12,294**	10,564
Deferred tax assets	*45*	**10,372**	9,333
Other prepayments		**332**	429
Trade and other receivables	*33*	**23,374**	20,801
		560,522	457,870
Current assets			
Lease prepayments	*20*	**269**	319
Properties held for sale	*31*	**48,745**	34,143
Properties under development for sale	*31*	**109,330**	117,576
Inventories	*32*	**45,371**	40,943
Financial assets at fair value through other comprehensive income	*29*	**526**	522
Trade and other receivables	*33*	**249,169**	209,861
Contract assets	*34*	**149,142**	145,611
Current income tax recoverable		**3,736**	3,451
Other financial assets at amortised cost	*30*	**8,553**	9,694
Financial assets at fair value through profit or loss	*35*	**7,304**	5,218
Restricted cash	*36*	**30,797**	29,305
Cash and cash equivalents	*37*	**148,116**	145,464
		801,058	742,107
Total assets		**1,361,580**	1,199,977

CONSOLIDATED BALANCE SHEET

	Note	As at 31 December 2021 RMB million	2020 RMB million
EQUITY			
Equity attributable to owners of the Company			
Share capital	*38*	**24,571**	24,571
Share premium and reserves	*39*	**204,927**	183,888
Perpetual notes	*40*	**45,624**	46,738
		275,122	255,197
Non-controlling interests		**83,072**	57,849
Total equity		**358,194**	313,046
LIABILITIES			
Non-current liabilities			
Trade and other payables	*41*	**10,263**	7,983
Borrowings	*42*	**198,503**	166,997
Lease liabilities	*19*	**972**	1,237
Retirement and other supplemental benefit obligations	*43*	**2,293**	2,482
Provisions	*44*	**761**	562
Deferred government grants and income		**1,087**	1,071
Deferred tax liabilities	*45*	**1,647**	1,454
		215,526	181,786
Current liabilities			
Trade and other payables	*41*	**522,411**	488,304
Contract liabilities	*34*	**144,095**	124,660
Current income tax liabilities		**7,100**	7,969
Borrowings	*42*	**113,424**	83,058
Lease liabilities	*19*	**360**	526
Retirement and other supplemental benefit obligations	*43*	**300**	323
Financial liabilities at fair value through profit or loss	*35*	**122**	65
Provision	*44*	**48**	240
		787,860	705,145
Total liabilities		**1,003,386**	886,931
Total equity and liabilities		**1,361,580**	1,199,977

The above consolidated balance sheet should be read in conjunction with the accompanying notes.

The financial statements on pages 114 to 286 were approved by the Board of Directors on 30 March 2022 and were signed on its behalf.

Director
Chen Yun

Director
Chen Wenjian

CONSOLIDATED STATEMENT OF CHANGES IN EQUITY

		Attributable to owners of the Company										
		Share capital	Share premium	Capital reserve	Statutory reserve (Note 39)	Foreign currency translation reserve	Investment revaluation reserve	Retained earnings	Perpetual notes (Note 40)	Total	Non-controlling interests	Total
	Note	RMB million	RMB million	RMB million	RMB million	RMB million	RMB million	RMB million	RMB million	RMB million	RMB million	RMB million
Balance at 1 January 2021		24,571	51,936	3,128	14,562	(886)	(42)	115,190	46,738	255,197	57,849	313,046
Profit for the year		–	–	–	–	–	–	25,469	2,149	27,618	2,852	30,470
Other comprehensive expenses		–	–	(65)	–	(49)	(46)	–	–	(160)	(37)	(197)
Total comprehensive (expenses)/ income for the year		–	–	(65)	–	(49)	(46)	25,469	2,149	27,458	2,815	30,273
Total transactions with owners, recognised directly in equity												
Capital contributions from non-controlling shareholders of subsidiaries		–	–	–	–	–	–	–	–	–	26,720	26,720
Transaction with non-controlling interests resulting from acquisition of equity interests of certain subsidiaries		–	–	159	–	–	–	–	–	159	(520)	(361)
Acquisition of subsidiaries		–	–	–	–	–	–	–	–	–	221	221
Disposal of subsidiaries		–	–	–	–	–	–	–	–	–	(2,053)	(2,053)
Issuance of perpetual notes	*40*	–	–	–	–	–	–	–	11,890	11,890	–	11,890
Redemption of perpetual notes	*40*	–	(6)	–	–	–	–	–	(12,994)	(13,000)	–	(13,000)
Dividends declared to shareholders	*16*	–	–	–	–	–	–	(4,423)	–	(4,423)	–	(4,423)
Dividends declared to non-controlling shareholders of subsidiaries		–	–	–	–	–	–	–	–	–	(1,239)	(1,239)
Dividends declared to perpetual notes holders	*40*	–	–	–	–	–	–	–	(2,159)	(2,159)	(721)	(2,880)
Transferred to reserves		–	–	–	2,102	–	–	(2,102)	–	–	–	–
Balance at 31 December 2021		24,571	51,930	3,222	16,664	(935)	(88)	134,134	45,624	275,122	83,072	358,194

CONSOLIDATED STATEMENT OF CHANGES IN EQUITY

		Attributable to owners of the Company										
		Share capital	Share premium	Capital reserve	Statutory reserve (Note 39)	Foreign currency translation reserve	Investment revaluation reserve	Retained earnings	Perpetual notes (Note 40)	Total	Non-controlling interests	Total
	Note	RMB million	RMB million	RMB million	RMB million	RMB million	RMB million	RMB million	RMB million	RMB million	RMB million	RMB million
Balance at 1 January 2020		24,571	51,978	3,112	12,495	(426)	314	97,731	31,535	221,310	24,018	245,328
Profit for the year		–	–	–	–	–	–	23,668	1,520	25,188	2,062	27,250
Other comprehensive income/ (expenses)		–	–	5	–	(460)	(356)	–	–	(811)	(72)	(883)
Total comprehensive income/ (expenses) for the year		–	–	5	–	(460)	(356)	23,668	1,520	24,377	1,990	26,367
Total transactions with owners, recognised directly in equity												
Capital contributions from non-controlling shareholders of subsidiaries		–	–	–	–	–	–	–	–	–	30,965	30,965
Transaction with non-controlling interests resulting from acquisition of equity interests of certain subsidiaries		–	–	11	–	–	–	–	–	11	(762)	(751)
Transfer of gains on disposal of financial assets at fair value through other comprehensive income to retained earnings		–	–	–	–	–	–	10	–	10	–	10
Acquisition of subsidiaries		–	–	–	–	–	–	–	–	–	2,720	2,720
Disposal of subsidiaries		–	–	–	–	–	–	–	–	–	(63)	(63)
Issuance of perpetual notes	*40*	–	–	–	–	–	–	–	23,986	23,986	–	23,986
Redemption of perpetual notes	*40*	–	(42)	–	–	–	–	–	(8,958)	(9,000)	–	(9,000)
Dividends declared to shareholders	*16*	–	–	–	–	–	–	(4,152)	–	(4,152)	–	(4,152)
Dividends declared to non-controlling shareholders of subsidiaries		–	–	–	–	–	–	–	–	–	(1,019)	(1,019)
Dividends declared to perpetual notes holders	*40*	–	–	–	–	–	–	–	(1,345)	(1,345)	–	(1,345)
Transferred to reserves		–	–	–	2,067	–	–	(2,067)	–	–	–	–
Balance at 31 December 2020		24,571	51,936	3,128	14,562	(886)	(42)	115,190	46,738	255,197	57,849	313,046

The above consolidated statement of changes in equity should be read in conjunction with the accompanying notes.

CONSOLIDATED STATEMENT OF CASH FLOWS

		Year ended 31 December	
		2021	2020
		RMB million	RMB million
Cash flows from operating activities			
Cash generated from operations	*46*	**23,970**	38,829
Income tax paid		**(10,901)**	(7,835)
Net cash generated from operating activities		**13,069**	30,994
Cash flows from investing activities			
– Payments for property, plant and equipment		**(10,556)**	(11,373)
– Proceeds from disposal of property, plant and equipment		**1,620**	1,169
– Payments for lease prepayments		**(322)**	(896)
– Proceeds from disposal of lease prepayments		**604**	478
– Payments for investment properties		**(256)**	(217)
– Proceeds from disposal of investment properties		**20**	8
– Payments for intangible assets		**(44,837)**	(30,689)
– Proceeds from disposal of intangible assets		**17**	14
– Payments for mining assets		**(2)**	(116)
– Payments for acquisition of subsidiaries, net of cash acquired		**(749)**	(100)
– Net proceeds from sale of subsidiaries		**(696)**	2,540
– Payments for investments in associates		**(7,821)**	(9,301)
– Payments for investments in joint ventures		**(8,455)**	(9,696)
– Proceeds from disposal of associates		**845**	1,145
– Proceeds from disposal of joint ventures		**575**	171
– Payments for financial assets at fair value through profit or loss		**(9,023)**	(6,870)
– Proceeds from disposal of financial assets at fair value through profit or loss		**4,593**	5,524
– Payments for financial assets at fair value through other comprehensive income		**(3,646)**	(2,917)
– Proceeds from disposal of financial assets at fair value through other comprehensive income		**1,035**	82
– Net flow in respect of other financial assets at amortised cost		**(6,705)**	3,493
– Interests received		**744**	1,595
– Dividends received		**1,464**	848
– Decrease of term deposits with initial term of over three months		**5,198**	725
– Increase of term deposits with initial term of over three months		**(824)**	(4,454)
– Other investing cash flows		**(280)**	(4,304)
Net cash used in investing activities		**(77,457)**	(63,141)

CONSOLIDATED STATEMENT OF CASH FLOWS

	Year ended 31 December	
	2021	2020
	RMB million	RMB million
Cash flows from financing activities		
– Capital contributions from non-controlling shareholders of subsidiaries	**27,320**	30,965
– Transaction with non-controlling interests resulting from acquisition of equity interests of certain subsidiaries	**(10)**	(757)
– Proceeds from debentures	**14,495**	11,996
– Repayment of debentures	**(983)**	(8,653)
– Proceeds from issuance of perpetual notes	**11,890**	23,986
– Redemption of perpetual notes	**(13,000)**	(9,000)
– Proceeds from bank borrowings	**162,736**	186,034
– Repayments of bank borrowings	**(114,154)**	(173,445)
– Proceeds from other borrowings	**2,322**	10,863
– Repayment of other borrowings	**(2,618)**	(10,782)
– Interests paid	**(12,265)**	(11,595)
– Dividends paid to non-controlling shareholders of subsidiaries	**(1,900)**	(979)
– Dividends paid to owners of the Company	**(4,423)**	(4,152)
– Dividends paid to holders of perpetual notes	**(1,970)**	(1,461)
– Repayments of lease liabilities	**(960)**	(1,435)
– Other financing cash flow	**885**	(1,384)
Net cash generate from financing activities	**67,365**	40,201
Net increase in cash and cash equivalents	**2,977**	8,054
Cash and cash equivalents at beginning of the year	**145,464**	138,186
Effect of foreign exchange rate changes	**(325)**	(776)
Cash and cash equivalents at end of the year	**148,116**	145,464

The above consolidated statement of cash flow should be read in conjunction with the accompanying notes.

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

1. General Information

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

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

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

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

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

2. Summary of Significant Accounting Policies

The principal accounting policies applied in the preparation of these consolidated financial statements are set out below. These policies have been consistently applied to all the years presented, unless otherwise stated.

2.1 Basis of preparation

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

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

The preparation of financial statements in conformity with IFRS requires the use of certain critical accounting estimates. It also requires management to exercise its judgement in the process of applying the Group's accounting policies. The areas involving a higher degree of judgement or complexity, or areas where assumptions and estimates are significant to the consolidated financial statements are disclosed in Note 4.

2. Summary of Significant Accounting Policies (Continued)

2.1 Basis of preparation (Continued)

(a) Amended standards adopted by the Group

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

	Effective for accounting periods beginning on or after
Amendments to IFRS 16 "Covid-19-related Rent Concessions" beyond 30 June 2021	1 April 2021
Amendments to IFRS 9, IAS 39, IFRS 7, IFRS 4 and IFRS 16 "Interest Rate Benchmark Reform Phase 2"	1 January 2021

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

2. Summary of Significant Accounting Policies (Continued)

2.1 Basis of preparation (Continued)

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

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

	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 IAS 16 "Proceeds before intended use"	1 January 2022
Amendments to IAS 37 "Onerous contracts – costs of fulfilling a contract"	1 January 2022
Amendments to IFRS 3 "Update reference to the Conceptual framework"	1 January 2022
Annual Improvements to IFRS Standards 2018-2020 affecting IFRS 1, IFRS 9, IFRS 16 and IAS 41	1 January 2022
Amendments to IFRS 10 and IAS 28 "Sale or contribution of assets between an investor and its associate or joint venture"	to be determined

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

2. Summary of Significant Accounting Policies (Continued)

2.2 Principles of consolidation and equity accounting

(a) Subsidiaries

Subsidiaries are all entities (including structured entities) over which the Group has control. The Group controls an entity when the Group is exposed to, or has rights to, variable returns from its involvement with the entity and has the ability to affect those returns through its power to direct the activities of the entity. Subsidiaries are fully consolidated from the date on which control is transferred to the Group. They are deconsolidated from the date that control ceases.

Intercompany transactions, balances and unrealised gains on transactions between Group companies are eliminated. Unrealised losses are also eliminated unless the transaction provides evidence of an impairment of the transferred asset. Accounting policies of subsidiaries have been changed where necessary to ensure consistency with the policies adopted by the Group.

Non-controlling interests in the results and equity of subsidiaries are shown separately in the consolidated income statement, statement of comprehensive income, statement of changes in equity and balance sheet respectively.

(b) Associates

Associates are all entities over which the Group has significant influence but not control or joint control. This is generally the case where the Group holds between 20% and 50% of the voting rights. Investments in associates are accounted for using the equity method of accounting (see (d) below), after initially being recognised at cost.

In the Company's balance sheet, the investments in associates are stated at cost less provision for impairment losses. The results of associates are accounted for by the Company on the basis of dividends received and receivable.

2. Summary of Significant Accounting Policies (Continued)

2.2 Principles of consolidation and equity accounting (Continued)

(c) Joint arrangements

Under IFRS 11 Joint Arrangements, investments in joint arrangements are classified as either joint operations or joint ventures. The classification depends on the contractual rights and obligations of each investor, rather than the legal structure of the joint arrangement. The Group has both joint operations and joint ventures.

Joint operations

The Group recognises its direct right to the assets, liabilities, revenues and expenses of joint operations and its share of any jointly held or incurred assets, liabilities, revenues and expenses. These have been incorporated in the financial statements under the appropriate headings. Details of the joint operations are set out in Note 27.

Joint ventures

Interests in joint ventures are accounted for using the equity method (see (d) below), after initially being recognised at cost in the consolidated balance sheet.

In the Company's balance sheet, investments in joint ventures are stated at cost less provision for impairment losses. The results of joint ventures are accounted for by the Company on the basis of dividends received and receivable.

(d) Equity accounting

Under the equity method of accounting, the investments are initially recognised at cost and adjusted thereafter to recognise the Group's share of the post-acquisition profits or losses of the investee in profit or loss, and the Group's share of movements in other comprehensive income of the investee in other comprehensive income. Dividends received or receivable from associates and joint ventures are recognised as a reduction in the carrying amount of the investment.

When the Group's share of losses in an equity-accounted investment equals or exceeds its interest in the entity, including any other unsecured long-term receivables, the Group does not recognise further losses, unless it has incurred obligations or made payments on behalf of the other entity.

Unrealised gains on transactions between the Group and its associates and joint ventures are eliminated to the extent of the Group's interest in these entities. Unrealised losses are also eliminated unless the transaction provides evidence of an impairment of the asset transferred. Accounting policies of equity accounted investees have been changed where necessary to ensure consistency with the policies adopted by the Group.

The carrying amount of equity-accounted investments is tested for impairment in accordance with the policy described in Note 2.13.

2. Summary of Significant Accounting Policies (Continued)

2.2 Principles of consolidation and equity accounting (Continued)

(e) Changes in ownership interests

The Group treats transactions with non-controlling interests that do not result in a loss of control as transactions with equity owners of the Group. A change in ownership interest results in an adjustment between the carrying amounts of the controlling and non-controlling interests to reflect their relative interests in the subsidiary. Any difference between the amount of the adjustment to non-controlling interests and any consideration paid or received is recognised in a separate reserve within equity attributable to owners of the Company.

When the Group ceases to consolidate or equity account for an investment because of a loss of control, joint control or significant influence, any retained interest in the entity is remeasured to its fair value, with the change in carrying amount recognised in profit or loss. This fair value becomes the initial carrying amount for the purposes of subsequently accounting for the retained interest as an associate, joint venture or financial asset. In addition, any amounts previously recognised in other comprehensive income in respect of that entity are accounted for as if the Group had directly disposed of the related assets or liabilities. This may mean that amounts previously recognised in other comprehensive income are reclassified to profit or loss or transferred to another category of equity as specified/permitted by applicable IFRSs.

If the ownership interest in a joint venture or an associate is reduced but joint control or significant influence is retained, only a proportionate share of the amounts previously recognised in other comprehensive income are reclassified to profit or loss where appropriate.

2.3 Business combinations

The acquisition method of accounting is used to account for the acquisitions of subsidiaries of the Group, except for those acquisitions which are considered as a business combination under common control in a manner similar to pooling-of-interests and with reference to the principles of merger accounting under Hong Kong Accounting Guideline 5 "Merger Accounting for Common Control Combinations".

Merger accounting for common control combinations

The consolidated financial statements incorporate the financial statements of the combining entities or businesses in which the common control combination occurs as if they had been combined from the date when the combining entities or businesses first came under the control of the ultimate controlling party.

The net assets of the combining entities or businesses are combined using the existing book values from the ultimate controlling parties' perspective. No amount is recognised in consideration for goodwill or excess of acquirers' interest in the net fair value of acquiree's identifiable assets, liabilities and contingent liabilities over cost at the time of common control combination, to the extent of the continuation of the ultimate controlling party's interest.

2. Summary of Significant Accounting Policies (Continued)

2.3 Business combinations (Continued)

Merger accounting for common control combinations (Continued)

The consolidated income statement includes the results of each of the combining entities or businesses from the earliest date presented or since the date when the combining entities or businesses first came under the common control, where there is a shorter period, regardless of the date of the common control combination.

The comparative amounts in the consolidated financial statements are presented as if the entities or businesses had been combined at the previous end of the reporting period or when they first came under common control, whichever is shorter.

Transaction costs, including professional fees, registration fees, costs of furnishing information to shareholders, costs incurred in combining operations of the previously separate businesses, etc., incurred in relation to the common control combination that is to be accounted for by using merger accounting is recognised as an expense in the year in which it is incurred.

Acquisition method of accounting for non-common control combinations

The Group applies the acquisition method to account for non-common control business combinations. The consideration transferred for the acquisition of a subsidiary comprises the:

- fair values of the assets transferred
- liabilities incurred to the former owners of the acquired business
- equity interests issued by the Group
- fair value of any asset or liability resulting from a contingent consideration arrangement, and
- fair value of any pre-existing equity interest in the subsidiary.

Identifiable assets acquired and liabilities and contingent liabilities assumed in a business combination are, with limited exceptions, measured initially at their fair values at the acquisition date. The Group recognises any non-controlling interest in the acquired entity on an acquisition-by-acquisition basis either at fair value or at the non-controlling interest's proportionate share of the acquired entity's net identifiable assets.

2. Summary of Significant Accounting Policies (Continued)

2.3 Business combinations (Continued)

Acquisition method of accounting for non-common control combinations (Continued)

Acquisition-related costs are expensed as incurred.

The excess of the
- consideration transferred,
- amount of any non-controlling interest in the acquired entity, and
- acquisition-date fair value of any previous equity interest in the acquired entity

over the fair value of the net identifiable assets acquired is recorded as goodwill. If those amounts are less than the fair value of the net identifiable assets of the business acquired, the difference is recognised directly in profit or loss as a bargain purchase.

Where settlement of any part of cash consideration is deferred, the amounts payable in the future are discounted to their present value as at the date of exchange. The discount rate used is the entity's incremental borrowing rate, being the rate at which a similar borrowing could be obtained from an independent financier under comparable terms and conditions.

Any contingent consideration to be transferred by the Group is recognised at fair value at the acquisition date. Subsequent changes to the fair value of the contingent consideration that is deemed to be an asset or liability is recognised in accordance with IAS 39 either in profit or loss or as a change to other comprehensive income. Contingent consideration that is classified as equity is not remeasured, and its subsequent settlement is accounted for within equity.

If the business combination is achieved in stages, the acquisition date carrying value of the acquirer's previously held equity interest in the acquiree is remeasured to fair value at the acquisition date. Any gains or losses arising from such remeasurement are recognised in profit or loss.

2.4 Separate financial statements

Investments in subsidiaries are accounted for at cost less impairment. Cost includes direct attributable costs of investment. The results of subsidiaries are accounted for by the Company on the basis of dividend received and receivable.

Impairment testing of the investments in subsidiaries is required upon receiving a dividend from these investments if the dividend exceeds the total comprehensive income of the subsidiary in the period the dividend is declared or if the carrying amount of the investment in the separate financial statements exceeds the carrying amount in the consolidated financial statements of the investee's net assets including goodwill.

2. Summary of Significant Accounting Policies (Continued)

2.5 Segment reporting

Operating segments are reported in a manner consistent with the internal reporting provided to the board of directors of the Company (the "Directors"), who is the chief operating decision-maker. The Directors are responsible for allocating resources and assessing performance of the operating segments, and making strategic decisions.

2.6 Foreign currency translation

(a) Functional and presentation currency

Items included in the financial statements of each of the Group's entities are measured using the currency of the primary economic environment in which the entity operates ("the functional currency"). The consolidated financial statements are presented in RMB, which is the Company's functional and the Group's presentation currency.

(b) Transactions and balances

Foreign currency transactions are translated into the functional currency using the exchange rates prevailing at the dates of the transactions or valuation where items are remeasured. Foreign exchange gains and losses resulting from the settlement of such transactions and from the translation at year-end exchange rates of monetary assets and liabilities denominated in foreign currencies are recognised in the consolidated income statement, except when deferred in other comprehensive income as qualifying cash flow hedges and qualifying net investment hedges.

Foreign exchange gains and losses are presented in the consolidated income statement within "Other gains/(losses), net".

Non-monetary items that are measured at fair value in a foreign currency are translated using the exchange rates at the date when the fair value was determined. Translation differences on assets and liabilities carried at fair value are reported as part of the fair value gain or loss. For example, translation differences on non-monetary financial assets and liabilities such as equities held at fair value through profit or loss are recognised in profit or loss as part of the fair value gain or loss. Translation differences on non-monetary financial assets such as equities classified as at fair value through other comprehensive income are included in other comprehensive income.

2. Summary of Significant Accounting Policies (Continued)

2.6 Foreign currency translation (Continued)

(c) Group companies

The results and financial position of all the group entities (none of which has the currency of a hyperinflationary economy) that have a functional currency different from the presentation currency are translated into the presentation currency as follows:

(i) assets and liabilities for each balance sheet presented are translated at the closing rate at the date of that balance sheet;

(ii) income and expenses for each income statement are translated at average exchange rates (unless this average is not a reasonable approximation of the cumulative effect of the rates prevailing on the transaction dates, in which case income and expenses are translated at the rate on the dates of the transactions); and

(iii) all resulting exchange differences are recognised in other comprehensive income.

Goodwill and fair value adjustments arising on the acquisition of a foreign entity are treated as assets and liabilities of the foreign entity and translated at the closing rate. Currency translation differences arising are recognised in other comprehensive income.

(d) Disposal of foreign operation and partial disposal

On the disposal of a foreign operation (that is, a disposal of the Group's entire interest in a foreign operation, or a disposal involving loss of control over a subsidiary that includes a foreign operation, a disposal involving loss of joint control over a joint venture that includes a foreign operation, or a disposal involving loss of significant influence over an associate that includes a foreign operation), all of the currency translation differences accumulated in equity in respect of that operation attributable to the owners of the Company are reclassified to profit or loss.

In the case of a partial disposal that does not result in the Group losing control over a subsidiary that includes a foreign operation, the proportionate share of accumulated currency translation differences are re-attributed to non-controlling interests and are not recognised in profit or loss. For all other partial disposals (that is, reductions in the Group's ownership interest in associates or joint ventures that do not result in the Group losing significant influence or joint control) the proportionate share of the accumulated exchange difference is reclassified to profit or loss.

2. Summary of Significant Accounting Policies (Continued)

2.7 Property, plant and equipment

Property, plant and equipment are stated at historical cost less depreciation. Historical cost includes expenditure that is directly attributable to the acquisition of the items.

Subsequent costs are included in the asset's carrying amount or recognised as a separate asset, as appropriate, only when it is probable that future economic benefits associated with the item will flow to the Group and the cost of the item can be measured reliably. The carrying amount of any component accounted for as a separate asset is derecognised when replaced. All other repairs and maintenance are charged to the consolidated income statement during the financial period in which they are incurred.

Depreciation is calculated using the straight-line method and the units of production method to allocate their cost to their residual values over their estimated useful lives, as follows:

– Buildings	15-50 years
– Infrastructure construction equipment	8-15 years
	Units of production method
– Transportation equipment	4-12 years
– Manufacturing equipment	5-18 years
– Testing equipment and instruments	5-10 years
– Other equipment	3-10 years

Construction-in-progress represents buildings, machinery and equipments under construction or pending installation and is stated at cost less accumulated impairment losses, if any. Costs include construction and acquisition costs, and interest charges arising from borrowings used to finance the assets during the construction period. No provision for depreciation is made on construction-in-progress until such time as the relevant assets are completed and available for use. When the assets concerned become available for use, the costs are transferred to appropriate category of property, plant and equipment and depreciated in accordance with the policy as stated above.

2. Summary of Significant Accounting Policies (Continued)

2.7 Property, plant and equipment (Continued)

The assets' residual values, useful lives and expected output are reviewed, and adjusted if appropriate, at the end of each reporting period.

An asset's carrying amount is written down immediately to its recoverable amount if the asset's carrying amount is greater than its estimated recoverable amount.

Gains and losses on disposals are determined by comparing the proceeds with the carrying amount and are recognised within "Other gains/(losses), net" in the consolidated income statement.

2.8 Investment properties

Investment properties, principally comprising leasehold buildings, are held for long-term rental yields and are not occupied by the Group. They also include properties that are being constructed or developed for future use as investment properties. Investment properties are stated at historical cost less accumulated depreciation and accumulated impairment losses, if any.

Depreciation is calculated using the straight-line method to write off the cost less accumulated impairment loss of the asset over its estimated useful life.

The assets' residual values and useful lives are reviewed, and adjusted if appropriate, at the end of each reporting period.

Gains and losses on disposals are determined by comparing the proceeds with the carrying amount and are recognised within "Other gains/(losses), net" in the consolidated income statement.

2.9 Lease prepayments

Lease prepayments represent upfront prepayments made for the land use rights and are expensed in the consolidated income statement on a straight-line basis over the period of the lease or when there is impairment, the impairment is expensed in the consolidated income statement.

2. Summary of Significant Accounting Policies (Continued)

2.10 Intangible assets

(a) Service concession arrangements

The Group is engaged in certain service concession arrangements in which the Group carries out construction work (e.g. toll highways and others) in exchange for a right for the Group to operate the asset concerned in accordance with pre-established conditions set by the granting authority. In accordance with the IFRIC Interpretation 12 Service Concession Arrangement (IFRIC 12), the assets under the concession arrangements may be classified as intangible assets or financial assets. The assets are classified as intangibles if the operator receives a right (a license) to charge users of the public service or as financial assets if the operator has an unconditional contractual right to receive cash or another financial asset from or at the direction of the grantor for the construction services. The Group classifies the non-current assets linked to the long-term investment as "service concession arrangements" within intangible assets on the balance sheet if the intangible asset model is adopted. Such concession assets represented the consideration received for its construction service rendered (Note 2.32). Once the underlying infrastructure of the concession arrangements is completed, the concession assets are amortised over the expected useful lives or the term of the concession, whichever is shorter, using traffic flow method or straight-line method under the intangible asset model.

(b) Patent and non-patented technologies

Separately acquired patent and non-patented technologies are shown at historical cost. Patent and non-patented technologies acquired in a business combination are recognised at fair value at the acquisition date. Patent and non-patented technologies have a finite useful life and are subsequently carried at cost less accumulated amortisation and impairment losses. Amortisation is calculated using the straight-line method to allocate the cost over their estimated useful lives of 2 to 10 years.

(c) Computer software

Acquired computer software license costs recognised as assets are amortised over their estimated useful lives of 2 to 10 years.

2. Summary of Significant Accounting Policies (Continued)

2.11 Mining assets

(a) Exploration and evaluation assets

Exploration and evaluation assets are recognised at cost on initial recognition. Subsequent to initial recognition, exploration and evaluation assets are stated at cost less any identified impairment loss.

Exploration and evaluation assets include the cost of exploration rights and the expenditures incurred in the search for mineral resources as well as the determination of the technical feasibility and commercial viability of extracting those resources. Exploration and evaluation assets are assessed for impairment when facts and circumstances suggest that the carrying amount of an exploration and evaluation asset may exceed its recoverable amount. An impairment loss is recognised in profit and loss.

When the technical feasibility and commercial viability of extracting a mineral resource become demonstrable and the mining rights are obtained, any previously recognised exploration and evaluation assets are reclassified as mining rights or property, plant and equipment, as appropriate. Exploration and evaluation assets are assessed for impairment and any impairment loss is recognised before reclassification.

(b) Mining rights

Mining rights acquired separately are initially measured at cost. Mining rights are reclassified from exploration and evaluation assets at the carrying amount when the technical feasibility and commercial viability of extracting mineral resources are demonstrable. Mining rights with finite useful lives are carried at costs less accumulated amortisation and any identified impairment loss. Amortisation for mining rights with finite useful lives is provided using the unit of production method based on the actual production volume over the estimated total proved and probable reserves of the ores mines.

2.12 Goodwill

Goodwill arises on the acquisition of subsidiaries and represents the excess of the consideration transferred, the amount of any non-controlling interest in the acquiree and the acquisition-date fair value of any previous equity interest in the acquiree over the fair value of the identified net assets acquired.

For the purpose of impairment testing, goodwill acquired in a business combination is allocated to each of the cash-generating units ("CGUs"), or groups of CGUs, that is expected to benefit from the synergies of the combination. Each unit or group of units to which the goodwill is allocated represents the lowest level within the entity at which the goodwill is monitored for internal management purposes. Goodwill is monitored at the individual acquisition group level within respective operation segment.

Goodwill impairment reviews are undertaken annually or more frequently if events or changes in circumstances indicate a potential impairment. The carrying value of CGU containing the goodwill is compared to the recoverable amount, which is the higher of value in use and the fair value less costs of disposal. Any impairment is recognised immediately as an expense and is not subsequently reversed.

2. Summary of Significant Accounting Policies (Continued)

2.13 Impairment of non-financial assets

Assets that have an indefinite useful life, for example, goodwill, or exploration and evaluation assets, are not subject to amortisation and are tested annually for impairment, or more frequently if events or changes in circumstances indicate that they might be impaired. Other assets are tested for impairment whenever events or changes in circumstances indicate that the carrying amount may not be recoverable. An impairment loss is recognised for the amount by which the asset's carrying amount exceeds its recoverable amount. The recoverable amount is the higher of an asset's fair value less costs of disposal and value in use. For the purposes of assessing impairment, assets are grouped at the lowest levels for which there are separately identifiable cash flows which are largely independent of the cash inflows from other assets or groups of assets (cash-generating units). Non-financial assets other than goodwill that suffered an impairment are reviewed for possible reversal of the impairment at each reporting date.

2.14 Investments and other financial assets

2.14.1 Classification

The Group classifies its financial assets in the following measurement categories:

- those to be measured subsequently at fair value (either through other comprehensive income, or through profit or loss), and

- those to be measured at amortised cost.

The classification depends on the entity's business model for managing the financial assets and the contractual terms of the cash flows.

For assets measured at fair value, gains and losses will either be recorded in profit or loss or other comprehensive income. For investments in debt instruments, this will depend on the business model in which the investment is held. For investments in equity instruments that are not held for trading, this will depend on whether the Group has made an irrevocable election at the time of initial recognition to account for the equity investment at fair value through other comprehensive income ("FVOCI").

The Group reclassifies debt investments when and only when its business model for managing those assets changes.

2. Summary of Significant Accounting Policies (Continued)

2.14 Investments and other financial assets (Continued)

2.14.2 Recognition and derecognition

Regular way purchases and sales of financial assets are recognised on trade date, the date on which the Group commits to purchase or sell the asset. Financial assets are derecognised when the rights to receive cash flows from the financial assets have expired or have been transferred and the Group has transferred substantially all the risks and rewards of ownership.

2.14.3 Measurement

At initial recognition, the Group measures a financial asset at its fair value plus, in the case of a financial asset not at fair value through profit or loss ("FVPL"), transaction costs that are directly attributable to the acquisition of the financial asset. Transaction costs of financial assets carried at FVPL are expensed in profit or loss.

Financial assets with embedded derivatives are considered in their entirety when determining whether their cash flows are solely payment of principal and interest.

Debt instruments

Subsequent measurement of debt instruments depends on the Group's business model for managing the asset and the cash flow characteristics of the asset. There are three measurement categories into which the Group classifies its debt instruments:

- Amortised cost: Assets that are held for collection of contractual cash flows where those cash flows represent solely payments of principal and interest are measured at amortised cost. Interest income from these financial assets is included in finance income using the effective interest rate method. Any gain or loss arising on derecognition is recognised directly in profit or loss and presented in "other gains/(losses), net", together with foreign exchange gains and losses. Impairment losses are presented as separate line item in the statement of profit or loss.

- FVOCI: Assets that are held for collection of contractual cash flows and for selling the financial assets, where the assets' cash flows represent solely payments of principal and interest, are measured at FVOCI. Movements in the carrying amount are taken through other comprehensive income, except for the recognition of impairment gains or losses, interest income and foreign exchange gains and losses which are recognised in profit or loss. When the financial asset is derecognised, the cumulative gain or loss previously recognised in other comprehensive income is reclassified from equity to profit or loss and recognised in "other gains/(losses), net". Interest income from these financial assets is included in finance income using the effective interest rate method. Foreign exchange gains and losses are presented in "other gains/(losses), net" and impairment expenses are presented as separate line item in the statement of profit or loss.

2. Summary of Significant Accounting Policies (Continued)

2.14 Investments and other financial assets (Continued)

2.14.3 Measurement (Continued)

Debt instruments (Continued)

- FVPL: Assets that do not meet the criteria for amortised cost or FVOCI are measured at FVPL. A gain or loss on a debt investment that is subsequently measured at FVPL is recognised in profit or loss and presented net within "other gains/(losses), net" in the period in which it arises.

Equity instruments

The Group subsequently measures all equity investments at fair value. Where the Group's management has elected to present fair value gains and losses on equity investments in other comprehensive income, there is no subsequent reclassification of fair value gains and losses to profit or loss following the derecognition of the investment. Dividends from such investments continue to be recognised in profit or loss as other income when the Group's right to receive payments is established.

Changes in the fair value of financial assets at FVPL are recognised in "other gains/(losses), net" in the consolidated income statement as applicable. Impairment losses (and reversal of impairment losses) on equity investments measured at FVOCI are not reported separately from other changes in fair value.

2.14.4 Impairment

The Group assesses on a forward looking basis the expected credit losses associated with its debt instruments carried at amortised cost and FVOCI. The impairment methodology applied depends on whether there has been a significant increase in credit risk.

For trade and bills receivables, the Group applies the simplified approach permitted by IFRS 9, which requires expected lifetime losses to be recognised from initial recognition of the receivables, see Note 33 for further details.

2.15 Offsetting financial instruments

Financial assets and liabilities are offset and the net amount reported in the balance sheet when the Group currently has a legally enforceable right to offset the recognised amounts, and there is an intention to settle on a net basis or realise the asset and settle the liability simultaneously. The Group has also entered into arrangements that do not meet the criteria for offsetting but still allow for the related amounts to be set off in certain circumstances, such as bankruptcy or the termination of a contract.

2. Summary of Significant Accounting Policies (Continued)

2.16 Financial Guarantee Contracts

Financial guarantee contracts are recognised as a financial liability at the time the guarantee is issued. The liability is initially measured at fair value and subsequently at the higher of:

- the amount determined in accordance with the expected credit loss model under IFRS 9 Financial Instruments and

- the amount initially recognised less, where appropriate, the cumulative amount of income recognised in accordance with the principles of IFRS 15 Revenue from Contracts with Customers.

The fair value of financial guarantees is determined based on the present value of the difference in cash flows between the contractual payments required under the debt instrument and the payments that would be required without the guarantee, or the estimated amount that would be payable to a third party for assuming the obligations.

Where guarantees in relation to loans or other payables of associates and joint ventures are provided for no compensation, the fair values are accounted for as contributions and recognised as part of the cost of the investment.

2.17 Derivatives and hedging activities

Derivatives are initially recognised at fair value on the date a derivative contract is entered into and are subsequently remeasured to their fair value at the end of each reporting period. The accounting for subsequent changes in fair value depends on whether the derivative is designated as a hedging instrument, and if so, the nature of the item being hedged. The Group designates certain derivatives as either:

- hedges of the fair value of recognised assets or liabilities or a firm commitment (fair value hedges)

- hedges of a particular risk associated with the cash flows of recognised assets and liabilities and highly probable forecast transactions (cash flow hedges), or

- hedges of a net investment in a foreign operation (net investment hedges).

At the inception of the hedging, the Group documents the economic, relationship between hedging instruments and hedged items, including whether changes in the cash flows of the hedging instruments are expected to offset changes in the cash flows of hedges items. The Group documents its risk management objective and strategy for undertaking its hedge transactions.

The fair values of derivative financial instruments designated in hedge relationships are disclosed in Note 3. Movements in the hedging reserve in shareholders' equity are shown in the consolidated statement of changes in equity. The full fair value of a hedging derivative is classified as a non-current asset or liability when the remaining maturity of the hedged item is more than 12 months; it is classified as a current asset or liability when the remaining maturity of the hedged item is less than 12 months. Trading derivatives are classified as a current asset or liability.

2. Summary of Significant Accounting Policies (Continued)

2.17 Derivatives and hedging activities (Continued)

(i) Cash flow hedge that quantity for hedge accounting

The effective portion of changes in the fair value of derivatives that are designated and qualify as cash flow hedges is recognised in cash flow hedge reserve within equity. The gain or loss relating to the ineffective portion is recognised immediately in profit or loss within "other gains/(losses), net".

When option contracts are used to hedge forecast transactions, the Group designates only the intrinsic value of the options as the hedging instrument.

Gains or losses relating to the effective portion of the change in intrinsic value of the options are recognised in the cash flow hedge reserve within equity. The changes in the time value of the options that relate to the hedged item ("aligned time value") are recognised within other comprehensive income in the costs of hedging reserve within equity.

When forward contracts are used to hedge forecast transactions, the Group generally designates only the change in fair value of the forward contract related to the spot component as the hedging instrument. Gains or losses relating to the effective portion of the change in the spot component of the forward contracts are recognised in the cash flow hedge reserve within equity. The change in the forward element of the contract that relates to the hedged item ("aligned forward element") is recognised within other comprehensive income in the costs of hedging reserve within equity. In some cases, the entity may designate the full change in fair value of the forward contract (including forward points) as the hedging instrument. In such cases, the gains or losses relating to the effective portion of the change in fair value of the entire forward contract are recognised in the cash flow hedge reserve within equity.

Amounts accumulated in equity are reclassified in the periods when the hedged item affects profit or loss, as follows:

- Where the hedged item subsequently results in the recognition of a non-financial asset (such as inventory), both the deferred hedging gains and losses and the deferred time value of the option contracts or deferred forward points, if any, are included within the initial cost of the asset. The deferred amounts are ultimately recognised in profit or loss as the hedged item affects profit or loss (for example through "cost of sales").

- The gain or loss relating to the effective portion of the interest rate swaps hedging variable rate borrowings is recognised in profit or loss within finance cost at the same time as the interest expense on the hedged borrowings.

When a hedging instrument expires, or is sold or terminated, or when a hedge no longer meets the criteria for hedge accounting, any cumulative deferred gain or loss and deferred costs of hedging in equity at that time remains in equity until the forecast transaction occurs, resulting in the recognition of a non-financial asset such as inventory. When the forecast transaction is no longer expected to occur, the cumulative gain or loss and deferred costs of hedging that were reported in equity are immediately reclassified to profit or loss.

2. Summary of Significant Accounting Policies (Continued)

2.17 Derivatives and hedging activities (Continued)

(ii) Net investment hedges

Hedges of net investments in foreign operations are accounted for similarly to cash flow hedges.

Any gain or loss on the hedging instrument relating to the effective portion of the hedge is recognised in other comprehensive income and accumulated in reserves in equity. The gain or loss relating to the ineffective portion is recognised immediately in profit or loss within "other gains/(losses), net".

Gains and losses accumulated in equity are reclassified to profit or loss when the foreign operation is partially disposed of or sold.

(iii) Derivatives that do not qualify for hedge accounting

Certain derivative instruments do not qualify for hedge accounting. Changes in the fair value of any derivative instrument that does not qualify for hedge accounting are recognised immediately in profit or loss and are included in "other gains/(losses), net".

2.18 Inventories

Inventories comprise raw materials and consumables, work in progress and finished goods. Inventories are stated at the lower of cost and net realisable value. Cost is determined using the first-in-first-out, weighted average or specific identification method for inventories with a different nature or use. The cost of finished goods and work in progress comprises raw materials, direct labour, other direct costs and related production overheads (based on normal operating capacity). It excludes borrowing costs. Net realisable value is the estimated selling price in the ordinary course of business, less the estimated costs of completion and the estimated costs necessary to make the sale.

2.19 Properties held for sale/properties under development for sale

Properties held for sale and under development for sale are stated at the lower of cost and net realisable value. Development cost of properties comprises cost of land use rights, construction costs and borrowing costs eligible for capitalisation incurred during the construction period. Upon completion, the properties are transferred to completed properties held for sale. Net realisable value takes into account the price ultimately expected to be realised, less applicable variable selling expenses and the anticipated costs to completion. Properties held for sale and under development for sale are classified as current assets unless the construction period of the relevant property development project is expected to complete beyond normal operating cycle.

2. Summary of Significant Accounting Policies (Continued)

2.20 Trade receivables

Trade receivables are amounts due from customers for services performed or products sold in the ordinary course of business. If collection of trade receivables is expected in one year or less (or in the normal operating cycle of the business if longer), they are classified as current assets. If not, they are presented as non-current assets.

Trade receivables are recognised initially at the amount of consideration that is unconditional unless they contain significant financing components, when they are recognised at fair value. The Group holds the trade receivables with the objective to collect the contractual cash flows and therefore measures them subsequently at amortised cost using the effective interest method. See Note 33 for further information about the Group's accounting for trade receivables and a description of the Group's impairment policies.

2.21 Contract assets and liabilities

A contract asset is the Group's right to consideration in exchange for goods or services that the Group has transferred to the customer. A contract asset becomes a receivable when the Group's right to consideration is unconditional, which is the case when only the passage of time is required before payment of the consideration is due.

The Group applied the simplified approach to measure expected credit losses which uses a lifetime expected loss allowance for contract assets, see Note 34 for further details.

A contract liability is the Group's obligation to transfer, or to stand ready to transfer goods or services to the customer that the Group has received consideration or the amount is due from the customer. The Group derecognised a contract liability when the Group transfers goods or services and, therefore satisfies performance obligation.

Contract in the financial statements is presented as a contract asset or a contract liability, depending on the relationship between the Group's performance and the customer's payment.

2.22 Cash and cash equivalents

For the purpose of presentation in the statement of cash flows, cash and cash equivalents includes cash on hand, deposits held at call with financial institutions, other short-term, highly liquid investments with original maturities of three months or less that are readily convertible to known amounts of cash and which are subject to an insignificant risk of changes in value, and bank overdrafts. Bank overdrafts are shown within borrowings in current liabilities in the balance sheet.

2.23 Share capital

Ordinary shares are classified as equity. Incremental costs directly attributable to the issue of new shares or options are shown in equity as a deduction, net of tax, from the proceeds.

2. Summary of Significant Accounting Policies (Continued)

2.24 Financial instruments classified as equity

Financial instruments issued by the Group are classified as equity instruments when all the following conditions have been met:

(i) The financial instruments have no contracted obligation to pay cash or other financial assets to others, nor to exchange financial assets or liabilities with others under potential unfavorable circumstance;

(ii) The financial instruments will or may be settled in the Group's own equity instruments: if the financial instrument is non-derivative, it should not have the contractual obligation to be settled by the Group delivering a variable number of its own equity instruments; if the financial instrument is derivative, it should solely be settled by the Group delivering a fixed number of its own equity instruments in exchange for a fixed amount of cash or other financial assets.

Financial instruments classified as equity instruments are recognised initially at fair value, net of transaction costs incurred.

2.25 Trade payables

Trade payables are obligations to pay for goods or services that have been acquired in the ordinary course of business from suppliers. Trade payables are classified as current liabilities if payment is due within one year or less (or in the normal operating cycle of the business if longer). If not, they are presented as non-current liabilities.

Trade payables are recognised initially at fair value and subsequently measured at amortised cost using the effective interest method.

2.26 Borrowings

Borrowings are initially recognised at fair value, net of transaction costs incurred. Borrowings are subsequently carried at amortised cost; any difference between the proceeds (net of transaction costs) and the redemption amount is recognised in the consolidated income statement over the period of the borrowings using the effective interest method.

Fees paid on the establishment of loan facilities are recognised as transaction costs of the loan to the extent that it is probable that some or all of the facility will be drawn down. In this case, the fee is deferred until the draw-down occurs. To the extent there is no evidence that it is probable that some or all of the facility will be drawn down, the fee is capitalised as a pre-payment for liquidity services and amortised over the period of the facility to which it relates.

Borrowings are removed from the balance sheet when the obligation specified in the contract is discharged, cancelled or expired. The difference between the carrying amount of a financial liability that has been extinguished or transferred to another party and the consideration paid, including any non-cash assets transferred or liabilities assumed, is recognised in profit or loss as finance costs.

2. Summary of Significant Accounting Policies (Continued)

2.26 Borrowings (Continued)

Where the terms of a financial liability are renegotiated and the entity issues equity instruments to a creditor to extinguish all or part of the liability (debt for equity swap), a gain or loss is recognised in profit or loss, which is measured as the difference between the carrying amount of the financial liability and the fair value of the equity instruments issued.

Borrowings are classified as current liabilities unless the Group has an unconditional right to defer settlement of the liability for at least 12 months after the end of the reporting period.

2.27 Borrowing costs

General and specific borrowing costs directly attributable to the acquisition, construction or production of qualifying assets, which are assets that necessarily take a substantial period of time to get ready for its intended use or sale, are added to the cost of those assets, until such time as the assets are substantially ready for their intended use or sale.

Investment income earned on the temporary investment of specific borrowings pending their expenditure on qualifying assets is deducted from the borrowing costs eligible for capitalisation.

All other borrowing costs are recognised in profit or loss in the period in which they are incurred.

2.28 Current and deferred income tax

The income tax expense for the period is the tax payable on the current period's taxable income based on the applicable income tax rate for each jurisdiction adjusted by changes in deferred tax assets and liabilities attributable to temporary differences and to unused tax losses. Income tax is recognised in the consolidated income statement, except to the extent that it relates to items recognised in other comprehensive income or directly in equity. In this case, the income tax is also recognised in other comprehensive income or directly in equity, respectively.

(a) Current income tax

The current income tax charge is calculated on the basis of the tax laws enacted or substantively enacted at the balance sheet date in the countries where the Company and its subsidiaries, joint ventures and associates operate and generate taxable income. Management periodically evaluates positions taken in tax returns with respect to situations in which applicable tax regulation is subject to interpretation. It establishes provisions where appropriate on the basis of amounts expected to be paid to the tax authorities.

2. Summary of Significant Accounting Policies (Continued)

2.28 Current and deferred income tax (Continued)

(b) Deferred income tax

Inside basis differences

Deferred income tax is recognised, using the liability method, on temporary differences arising between the tax bases of assets and liabilities and their carrying amounts in the consolidated financial statements. However, deferred tax liabilities are not recognised if they arise from the initial recognition of goodwill. Deferred income tax is also not accounted for if it arises from initial recognition of an asset or liability in a transaction other than a business combination that at the time of the transaction affects neither accounting nor taxable profit or loss. Deferred income tax is determined using tax rates (and laws) that have been enacted or substantively enacted by the balance sheet date and are expected to apply when the related deferred income tax asset is realised or the deferred income tax liability is settled.

Deferred income tax assets are recognised only to the extent that it is probable that future taxable profit will be available against which the temporary differences can be utilised.

Outside basis differences

Deferred income tax is provided on temporary differences arising from investments in subsidiaries, associates and joint ventures, except for deferred income tax liability where the timing of the reversal of the temporary difference is controlled by the Group and it is probable that the temporary difference will not reverse in the foreseeable future.

Deferred income tax assets are recognised on deductible temporary differences arising from investments in subsidiaries, associates and joint ventures only to the extent that it is probable the temporary difference will reverse in the future and there is sufficient taxable profit available against which the temporary difference can be utilised.

(c) Offsetting

Deferred income tax assets and liabilities are offset when there is a legally enforceable right to offset current tax assets against current tax liabilities and when the deferred income tax assets and liabilities relate to income taxes levied by the same taxation authority on either the taxable entity or different taxable entities where there is an intention to settle the balances on a net basis.

2. Summary of Significant Accounting Policies (Continued)

2.29 Employee benefits

The Group operates various post-employment schemes, including both defined benefit and defined contribution pension plans and post-employment medical plans.

(a) Pension obligations

For defined contribution plans, the full-time employees of the Group in the Mainland China are covered by the government-sponsored state-managed retirement plans under which the employees are entitled to a monthly pension based on certain formula. The relevant government agencies are responsible for the pension liability to these retired employees. The Group pays contributions to these pension plans monthly, on a mandatory or contractual basis. The Group has no further payment obligations once the contributions have been paid. The contributions are recognised as employee benefit expense as incurred.

The Group also provides supplementary pension subsidies to certain qualified retired employees in Mainland China. Such supplementary pension subsidies are considered as defined benefit plans. The cost of providing benefits is determined using the projected unit credit method, with actuarial valuations being carried out at the end of each annual reporting period. The present value of the defined benefit plans is determined by discounting the estimated future cash outflows using interest rates of government bonds that are denominated in the currency in which the benefits will be paid, and that have terms to maturity approximating the terms of the related pension obligation. Remeasurement, comprising actuarial gains and losses is reflected immediately in the consolidated balance sheet with a charge or credit recognised in other comprehensive income in the period in which they occur. Remeasurement recognised in other comprehensive income will not be reclassified to profit or loss. Past service cost is recognised in profit or loss in the period of a plan amendment. Net interest is calculated by applying the discount rate at the beginning of the period to the net defined benefit liability or asset. Defined benefit costs are categorised as follows:

- service cost (including current service cost, past service cost, as well as gains and losses on curtailments and settlements);
- net interest expense or income; and
- remeasurement.

The Group presents the first two components of defined benefit costs in profit or loss. Curtailment gains and losses are accounted for as past service costs.

In addition, the Group participates in various defined contribution retirement schemes for its qualified employees in certain countries or jurisdictions outside Mainland China. Employees' and employers' contributions are calculated based on various percentages of employees' gross salaries of fixed sums and length of service.

2. Summary of Significant Accounting Policies (Continued)

2.29 Employee benefits (Continued)

(b) Other post-employment obligations

The Group provides post-retirement healthcare benefits to certain qualified retired employees. The expected costs of these benefits are accrued over the period of employment using the same accounting methodology as used for defined benefit pension plans. Actuarial gains and losses arising from experience adjustments and changes in actuarial assumptions are charged or credited to equity in other comprehensive income in the period in which they arise. These obligations are valued semiannually by independent qualified actuaries.

(c) Termination benefits

Termination benefits are payable when employment is terminated by the Group before the normal retirement date, or whenever an employee accepts voluntary redundancy in exchange for these benefits. The Group recognises termination benefits at the earlier of the following dates: (a) when the Group can no longer withdraw the offer of those benefits; and (b) when the entity recognise costs for a restructuring that is within the scope of IAS 37 and involves the payment of termination benefits. In the case of an offer made to encourage voluntary redundancy, the termination benefits are measured based on the number of employees expected to accept the offer. Benefits falling due more than 12 months after the end of the reporting period are discounted to their present value.

(d) Short-term employee benefits

Short-term employee benefits are recognised at the undiscounted amount of the benefits expected to be paid as and when employees rendered the services. All short-term employee benefits are recognised as an expense unless another IFRS requires or permits the inclusion of the benefits in the cost of an asset.

A liability is recognised for benefits accruing to employees (such as wages and salaries, annual leave and sick leave) after deducting any amount already paid.

(e) Housing funds

All full-time employees of the Group in Mainland China are entitled to participate in various government-sponsored housing funds. The Group contributes on a monthly basis to these funds based on certain percentages of the salaries of the employees. The Group's liability in respect of these funds is limited to the contributions payable in each period.

2. Summary of Significant Accounting Policies (Continued)

2.30 Provisions

Provisions are recognised when: the Group has a present legal or constructive obligation as a result of past events; it is probable that an outflow of resources will be required to settle the obligation; and the amount has been reliably estimated. Provisions are not recognised for future operating losses.

Where there are a number of similar obligations, the likelihood that an outflow will be required in settlement is determined by considering the class of obligations as a whole. A provision is recognised even if the likelihood of an outflow with respect to any one item included in the same class of obligations may be small.

Provisions are measured at the present value of management's best estimate of the expenditures required to settle the present obligation at the end of the reporting period using a pre-tax rate that reflects current market assessments of the time value of money and the risks specific to the obligation. The increase in the provision due to passage of time is recognised as interest expense.

2.31 Government grants

Grants from the government are recognised where there is a reasonable assurance that the grant will be received and the Group will comply with all attached conditions.

Government grants relating to costs are deferred and recognised in the consolidated income statement over the period necessary to match them with the costs that they are intended to compensate.

Government grants relating to property, plant and equipment and intangible assets are included in non-current liabilities as deferred government grants and are credited to the consolidated income statement on a straight-line basis over the expected lives of the related assets.

2.32 Revenue recognition

Revenue is measured at the transaction price agreed under the contract. Revenue is shown, net of discounts and after eliminating sales within the Group. The Group considers the effects of variable consideration, constraining estimates of variable consideration, the existence of a significant financing component in the contract, non-cash consideration and consideration payable to a customer to determine the transaction price.

Revenues are recognised when or as the control of the asset is transferred to the customer and when specific criteria have been met for each of the Group's activities, as described below. The Group bases its estimates on historical results, taking into consideration the type of customer, the type of transaction and the specifics of each arrangement.

2. Summary of Significant Accounting Policies (Continued)

2.32 Revenue recognition (Continued)

(a) Revenue from infrastructure construction contracts and bridge steel structure manufacturing and installation services

Revenue from infrastructure construction contracts and bridge steel structure manufacturing and installation services is recognised when or as the constructions projects and bridge steel structure products and related installation services are transferred to the customer. Depending on the terms of the contracts and the laws that are applicable to the contracts, control of the construction projects and bridge steel structure products and related installation services may transfer over time or at a point in time. If the construction projects and the bridge steel structure manufacturing and installation services have no alternative use to the Group contractually and the Group has an enforceable right to payment from the customers for performance completed to date, the Group satisfies the performance obligation over time, and therefore, recognises revenue over the period of the contract by reference to the progress towards complete satisfaction of that performance obligation. The progress towards complete satisfaction of the performance obligation, in an amount that reflects the consideration expected to be entitled and, depending on the nature of the contract, is measured mainly by reference to (a) the proportion of contract costs incurred for work performed to date to estimated total contract costs for each contract; (b) the amount of work certified by site engineers; or (c) completion of physical proportion of the contract work.

(b) Services rendered

Revenue for services rendered including surveying, design, consulting, research and development, feasibility study, compliance certification services with respect to infrastructure projects, is recognised over the period of services are rendered by the progress towards complete satisfaction of that performance obligation measured by reference to (a) the proportion of contract costs incurred for work performed to date to estimated total contract costs for each contract; (b) stage of completion of the specific transactions and when it is probable that the economic benefits associated with the transaction will flow to the entity.

For (a) and (b) above, estimates of revenue, costs or extent of progress toward completion are revised if circumstances change. Any resulting increases or decreases in estimated revenues or costs are reflected in profit or loss in the period in which the circumstances that give rise to the revision become known by management.

The excess of cumulative revenue recognised in profit or loss over the cumulative billings to customers is recognised as contract assets. The excess of cumulative billings to customers over the cumulative revenue recognised in profit or loss is recognised as contract liabilities.

2. Summary of Significant Accounting Policies (Continued)

2.32 Revenue recognition (Continued)

(c) Revenue from properties development

Revenue from sale of properties is recognised when control over the property has been transferred to the customer. The properties have generally no alternative use for the Group due to contractual restrictions. However, an enforceable right to payment does not arise until legal title has passed to the customer. Therefore, revenue is recognised at a point in time when the legal title has passed to the customer.

Some of the Group's primary land development recognised revenue over time, and the progress of implementation is based on the proportion of the cost incurred over the budgeted cost by the end of the reporting period. Some recognised revenue at a point in time.

(d) Sale of goods

Sales of goods are recognised when an entity has transferred the products to the customer, and the customer has obtained control of the products.

2.33 Interest income

Interest income is calculated by applying the effective interest rate to the gross carrying amount of a financial asset except for financial assets that subsequently become credit-impaired. For credit-impaired financial assets the effective interest rate is applied to the net carrying amount of the financial asset (after deduction of the loss allowance).

Interest income is presented as finance income where it is earned from financial assets that are held for cash management purposes.

2.34 Dividends

Dividends are received from financial assets measured at FVPL and at FVOCI. Dividends are recognised as other income in profit or loss when the right to receive payment is established. This applies even if they are paid out of pre-acquisition profits, unless the dividend clearly represents a recovery of part of the cost of an investment. In this case, the dividend is recognised in other comprehensive income if it relates to an investment measured at FVOCI. However, the investment may need to be tested for impairment as a consequence.

2. Summary of Significant Accounting Policies (Continued)

2.35 Leases

Assets and liabilities arising from a lease are initially measured on a present value basis. Lease liabilities include the net present value of the following lease payments:

- fixed payments (including in-substance fixed payments), less any lease incentives receivable,
- variable lease payment that are based on an index or a rate, initially measured using the index or rate as at the commencement date,
- amounts expected to be payable by the group under residual value guarantees,
- the exercise price of a purchase option if the Group is reasonably certain to exercise that option, and
- payments of penalties for terminating the lease, if the lease term reflects the group exercising that option.

Lease payments to be made under reasonably certain extension options are also included in the measurement of the liability.

The lease payments are discounted using the interest rate implicit in the lease. If that rate cannot be readily determined, the lessee's incremental borrowing rate is used, being the rate that the individual lessee would have to pay to borrow the funds necessary to obtain an asset of similar value to the right-of-use asset in a similar economic environment with similar terms, security and conditions.

To determine the incremental borrowing rate, the Group:

- where possible, uses recent third-party financing received by the individual lessee as a starting point, adjusted to reflect changes in financing conditions since third party financing was received
- uses a build-up approach that starts with a risk-free interest rate adjusted for credit risk for leases held by the Group, which does not have recent third party financing, and
- makes adjustments specific to the lease, eg term, country, currency and security.

If a readily observable amortising loan rate is available to the individual lessee (through recent financing or market data) which has a similar payment profile to the lease, then the Group entities use that rate as a starting point to determine the incremental borrowing rate.

The Group is exposed to potential future increases in variable lease payments based on an index or rate, which are not included in the lease liability until they take effect. When adjustments to lease payments based on an index or rate take effect, the lease liability is reassessed and adjusted against the right-of-use asset.

2. Summary of Significant Accounting Policies (Continued)

2.35 Leases (Continued)

Lease payments are allocated between principal and finance cost. The finance cost is charged to profit or loss over the lease period so as to produce a constant periodic rate of interest on the remaining balance of the liability for each period.

Right-of-use assets are measured at cost comprising the following:

- the amount of the initial measurement of lease liability
- any lease payments made at or before the commencement date less any lease incentives received
- any initial direct costs, and
- restoration costs.

Right-of-use assets are generally depreciated over the shorter of the asset's useful life and the lease term on a straight-line basis. If the Group is reasonably certain to exercise a purchase option, the right-of-use asset is depreciated over the underlying asset's useful life.

Payments associated with short-term leases and leases of low-value assets are recognised on a straight-line basis as an expense in profit or loss. Short-term leases are leases with a lease term of 12 months or less without a purchase option.

The Group has adopted Amendment to IFRS 16 Covid-19-Related Rent Concessions retrospectively from 1 January 2020. Moreover, the Group has early adopted Amendment to IFRS 16 Covid-19-Related Rent Concessions beyond 30 June 2021, which extended the practical expedient to lease payments that were due on or before 30 June 2022. The Group has applied the practical expedient to all qualifying COVID-19-related rent concessions.

For the lessor, the Group derecognises assets held under a finance lease in balance sheet and present them as a receivable at the present value of the lease payments. Lease income from operating leases is recognised in the consolidated income statement on a straight-line basis over the lease term. Initial direct costs incurred in obtaining an operating lease are added to the carrying amount of the underlying asset and recognised as expense over the lease term on the same basis as lease income. The respective leased assets are included in the balance sheet based on their nature.

2. Summary of Significant Accounting Policies (Continued)

2.36 Research and development

Research expenditure is recognised as an expense as incurred. Costs incurred on development projects (relating to the design and developing of new or improved products and processes) are recognised as intangible assets when it is probable that the project will be a success considering its commercial and technical feasibility and its costs can be measured reliably. Other development expenditures that do not meet these criteria are recognised as an expense when incurred. Development costs previously recognised as an expense are not recognised as an asset in a subsequent period.

Capitalised development cost is measured at cost less accumulated amortisation and accumulated impairment losses. Amortisation of capitalised development cost is calculated using the straight-line method over its expected useful life from the date they are available for use.

2.37 Dividend distribution

Dividend distribution to the Company's shareholders is recognised as a liability in the Group's and the Company's financial statements in the period in which the dividends are approved by the Company's shareholders.

3. Financial Risk Management

3.1 Financial risk factors

The Group's activities expose it to a variety of financial risks: market risk (including foreign currency risk, price risk and cash flow and fair value interest rate risk), credit risk, and liquidity risk.

The Group's overall risk management programme focuses on the unpredictability of financial markets and seeks to minimise potential adverse effects on the Group's financial performance. The Group identifies, evaluates and uses derivative financial instruments to hedge certain risk exposures.

There has been no change to the types of the Group's exposure in respect of financial instruments or the manner in which it manages and measures the risks.

3. Financial Risk Management (Continued)

3.1 Financial risk factors (Continued)

(a) Market risk

(i) Foreign currency risk

The functional currency of majority of the entities within the Group is RMB. Most of the Group's transactions are based and settled in RMB. Foreign currencies are used to settle the Group's revenue from overseas operations, the Group's purchases of machinery and equipment from overseas suppliers, and certain expenses.

RMB is not freely convertible into other foreign currencies and conversion of RMB into foreign currencies is subject to rules and regulations of foreign exchange control promulgated by the PRC Government.

Details of the Group's other financial assets at amortised cost, trade and other receivables, restricted cash, cash and cash equivalents, trade and other payables and borrowings as at 31 December 2021, denominated in foreign currencies, mainly United States Dollars ("USD"), are disclosed in Notes 30, 33, 36, 37, 41 and 42 respectively.

The management of the Group monitors foreign exchange exposure and will consider hedging significant foreign exchange exposure should the need arises.

As at 31 December 2021, if RMB had strengthened/weakened by 2% against USD with all other variables held constant, post-tax profit for the year would have been approximately RMB34 million lower/higher (2020: 6%, RMB3 million lower/higher), mainly as a result of foreign exchange gains/losses on translation of USD-denominated cash and cash equivalents, trade and other receivables, other financial assets at amortised cost, restricted cash, borrowings, and trade and other payables.

3. Financial Risk Management (Continued)

3.1 Financial risk factors (Continued)

(a) Market risk (Continued)

(ii) Price risk

The Group's exposure to equity securities price risk arises from investments held by the Group and classified in the balance sheet either as at FVPL or at FVOCI and measured by reference to quoted prices.

The Group currently does not have a policy to hedge the securities price risk. However, the management closely monitors such risk by maintaining a diversified portfolio of investments with different risks.

The Group's sensitivity to equity price risk on the financial assets and liabilities at FVPL and at FVOCI at the end of the reporting period while all other variables were held constant is as follows:

	2021	2020
Increase/decrease in quoted price in open markets	**6%**	12%

	2021 **RMB million**	2020 RMB million
Increase/(decrease) in post-tax profit for the year		
– as a result of increase in equity price	**49**	10
– as a result of decrease in equity price	**(49)**	(10)
Increase/(decrease) in other comprehensive income		
– as a result of increase in equity price	**36**	75
– as a result of decrease in equity price	**(36)**	(75)

3. Financial Risk Management (Continued)

3.1 Financial risk factors (Continued)

(a) Market risk (Continued)

(iii) Cash flow and fair value interest rate risk

The fair value interest rate risk relates primarily to the Group's fixed-rate borrowings and other financial assets at amortised cost. The cash flow interest rate risks of the Group relates primarily to floating-rate bank borrowing and unlisted debt related entrusted products classified in the balance sheet at FVPL. The management of the Group monitors interest rate exposure and will consider hedging significant interest rate exposure should the need arise. The fair value interest rate risk on bank deposits is insignificant as the fixed rate deposits are short-term. During 2021 and 2020, the Group's borrowings at variable rate were mainly denominated in RMB and USD.

The Group's sensitivity to interest rate risk is prepared assuming the amount of floating-rate borrowings at the end of the reporting period were outstanding and the amount of unlisted debt related entrusted products classified in the balance sheet at FVPL at the end of the reporting period retained for the whole year. Bank balances are excluded from sensitivity analysis as the Directors consider that the exposure of cash flow interest rate risk arising from variable-rate bank balances is insignificant.

	2021	2020
Increase/decrease in interest rate	**25 basis points**	25 basis points

	2021 **RMB million**	2020 RMB million
(Decrease)/increase in post-tax profit for the year		
– as a result of increase in interest rate	**(280)**	(135)
– as a result of decrease in interest rate	**280**	135

3. Financial Risk Management (Continued)

3.1 Financial risk factors (Continued)

(b) Credit risk

Credit risk arises from cash and bank balances, trade and other receivables except for prepayments, contract assets, debt investments carried at amortised cost and FVOCI, and the nominal value of the guarantees provided on liabilities.

In order to minimise the credit risk, the management of the Group has delegated the teams responsible for assessment of the credit quality of the customer, taking into account its financial position, past experience and other factors and determination of credit limits, credit approvals and other monitoring procedures to ensure that follow-up action is taken to recover long aged debts. In addition, the Group reviews the recoverable amount of each material individual debt at the end of the reporting period to ensure that adequate expected credit losses are made for irrecoverable amounts. One major customer (including its controlled entities), which is a wholly state-owned enterprise, contributes a significant portion of the revenue and receivables of the Group. The management considers that the credit risk in respect of this customer is limited.

The Group's concentration of credit risk by geographical locations is mainly in Mainland China, where the Group's operations are primarily located.

The Group has concentration of credit risk in respect of trade receivable as the Group's largest trade receivable and the five largest trade receivables represent 9% (2020: 10%) and 18% (2020: 19%) of the total trade receivables respectively.

The Group has concentration of credit risk in respect of other financial assets at amortised cost as the Group's largest other financial assets at amortised cost and the five largest other financial assets at amortised cost represent 9% (2020: 11%) and 31% (2020: 32%) of the total other financial assets at amortised cost respectively.

3. Financial Risk Management (Continued)

3.1 Financial risk factors (Continued)

(b) Credit risk (Continued)

(i) Impairment of financial assets

The Group has four types of financial assets that are subject to the expected credit loss model:

- trade and other receivables
- contract assets
- debt investments carried at amortised cost, and
- debt investments carried at FVOCI.

The Group holds substantially all of bank deposits in major financial institutions located in the PRC and certain overseas banks with proper credit ratings. While cash and cash equivalents are also subject to the impairment requirements of IFRS 9, the identified impairment loss was immaterial.

Trade receivables and contract assets

For trade receivables and contract assets which have impaired, the Group assessed individually and provided for credit losses allowance. For other trade receivables and contract assets, given no reasonable and supportable information is available without undue cost for expected credit losses measurement, the trade receivables and contract assets were grouped by reference to the credit risk characteristics and assessed for credit losses allowance through exposure at default and the lifetime expected credit loss rates. When measuring expected credit loss, the Group considers its own credit loss incurred in the past, and adjusts by taking into consideration current conditions and forward looking factors. In assessing forward-looking information, the Group considers factors mainly including macroeconomic indicators, economic scenarios and weights.

Debt investments

The Group assesses the loss allowance for debt investments at amortised costs and FVOCI based on expected credit loss model. The management assesses whether the credit risk of debt investments have increased significantly since their initial recognition, and apply a three-stage impairment model to calculate their expected credit loss. For debt investments classified into stages 1 for which credit risk has not increased significantly since initial recognition, the management assesses loss allowance at an amount equal to 12-month expected credit loss. For debt investments classified into stages 2 for which credit risk has increased significantly since initial recognition but that are not credit-impaired, and debt investments classified into stages 3 that are credit-impaired since initial recognition, the management assesses loss allowance at an amount equal to lifetime expected credit loss. When measuring expected credit loss, the Group considers its own credit loss incurred in the past, and adjusts by taking into consideration current conditions and forward looking factors.

3. Financial Risk Management (Continued)

3.1 Financial risk factors (Continued)

(b) Credit risk (Continued)

(ii) Financial guarantees and shortfall payments

The Group has provided guarantees to banks in respect of banking facilities utilised by certain related companies and third parties.

The Company has provided shortfall payments given to the senior tranches in respect of asset-backed medium-term notes ("ABN") & asset-backed securitisation ("ABS") issued by the subsidiaries of the Company.

The maximum exposure of these financial guarantees and shortfall payments to the Group is as follows:

	2021		2020	
	RMB million	**Expiry period**	RMB million	Expiry period
Guarantees given to banks in respect of banking facilities to:				
Joint ventures	**2,969**	**2022-2042**	5,048	2022-2042
Associates	**4,730**	**2023**	2,441	2023
Government-related entities	**480**	**2021-2030**	480	2021-2030
Property purchasers	**51,313**	**2021-2046**	44,684	2021-2046
Shortfall payments given to the senior tranches in respect of ABN & ABS	**93,898**	**2021-2036**	54,651	2021-2026
	153,390		107,304	

(c) Liquidity risk

Liquidity risk encompasses the risk that the Group cannot meet its financial obligations in full.

Prudent liquidity risk management includes maintaining sufficient cash and the availability of funding from an adequate amount of committed credit facilities to meet obligations when due. Due to capital intensive nature of the Group's business, the Group ensures that it maintains flexibility through keeping sufficient cash and cash equivalents and credit lines to meet its liquidity requirements. The Group finances its working capital requirements through a combination of funds generated from operations and bank and other borrowings.

3. Financial Risk Management (Continued)

3.1 Financial risk factors (Continued)

(c) Liquidity risk (Continued)

The table below analyses the Group's non-derivative financial liabilities for which the contractual maturities are essential for an understanding of the timing of cash flows into relevant maturity groupings based on the remaining period at the balance sheet date to the contractual maturity date. The spot rate as at the end of the reporting period is used for the cash flow calculation in relation to the amounts settled with foreign currencies. The amounts disclosed in the table are the contractual undiscounted cash flows. To the extent that interest cash flows are floating rate, the undiscounted amount is derived from interest rate at the end of the reporting period.

	On demand or Less than 1 year	Between 1 and 2 years	Between 2 and 5 years	Over 5 years	Total undiscounted cash flows	Carrying amount
	RMB million	RMB million	RMB million	RMB million	RMB million	RMB million
At 31 December 2021						
Trade and other payables (excluding statutory and non-financial liabilities) *(Note 41)*	**487,681**	**6,427**	**3,377**	**1,096**	**498,581**	**497,930**
Borrowings *(Note 42)*	**123,005**	**38,882**	**81,143**	**154,193**	**397,223**	**311,927**
Lease liabilities *(Note 19)*	**421**	**291**	**306**	**390**	**1,408**	**1,332**
Financial guarantee contracts and shortfall payments	**153,390**	**–**	**–**	**–**	**153,390**	**–**
Financial liabilities at FVPL *(Note 35)*	**122**	**–**	**–**	**–**	**122**	**122**
	764,619	**45,600**	**84,826**	**155,679**	**1,050,724**	**811,311**
At 31 December 2020						
Trade and other payables (excluding statutory and non-financial liabilities) *(Note 41)*	456,959	4,926	2,465	996	465,346	464,900
Borrowings *(Note 42)*	89,018	52,562	63,007	92,090	296,677	250,055
Lease liabilities *(Note 19)*	550	632	390	329	1,901	1,763
Financial guarantee contracts and shortfall payments	107,304	–	–	–	107,304	–
Financial liabilities at FVPL *(Note 35)*	65	–	–	–	65	65
	653,896	58,120	65,862	93,415	871,293	716,783

Note: The difference between total undiscounted cash flows and the carrying amount of trade and other payables represents the imputed interest expenses on interest-free retention payables.

As at 31 December 2021, there is no bank borrowing that contains a repayment on demand clause.

3. Financial Risk Management (Continued)

3.1 Financial risk factors (Continued)

(c) Liquidity risk (Continued)

The amounts included above for financial guarantee contracts and shortfall payment agreements are the maximum amounts the Group could be required to settle under the arrangement for the full guaranteed amount if that amount is claimed by the counterparty to the guarantee. Based on expectations at the end of the reporting period, the Group considers that it is more likely than not that no amount will be payable under the arrangement. However, this estimate is subject to change depending on the probability of the counterparty claiming under the guarantee or shortfall payment which is a function of the likelihood that the financial receivables held by the counterparty which are guaranteed suffer credit losses.

The amounts included above for variable interest rate instruments for non-derivative financial liabilities are subject to change if changes in variable interest rates differ to those estimates of interest rates determined at the end of the reporting period.

(d) Capital risk management

The Group's objectives when managing capital are to safeguard the Group's ability to continue as a going concern in order to provide returns for shareholders and benefits for other stakeholders and to maintain an optimal capital structure to reduce the cost of capital.

In order to maintain or adjust the capital structure, the Group may adjust the amount of dividends paid to shareholders, return capital to shareholders, issue new shares or sell assets to reduce debt.

The Group monitors capital on the basis of the asset-liability ratio. This ratio is calculated as total liabilities divided by total assets. The Group aims to maintain the asset-liability ratio at a reasonable level.

	2021 **RMB million**	2020 RMB million
Total liabilities	**1,003,386**	886,931
Total assets	**1,361,580**	1,199,977
Asset-liability ratio	**73.69%**	73.91%

The asset-liability ratio as at 31 December 2021 decreased by 0.22% percentage points compared with that in 2020 primarily attributable to capital contribution from non-controlling interests in 2021.

3. Financial Risk Management (Continued)

3.2 Fair value estimation

Some of the Group's financial assets and financial liabilities are measured at fair value at the end of each reporting period. The following table gives information about how the fair values of these financial assets and financial liabilities are determined (in particular, the valuation technique(s) and inputs used), as well as the level of the fair value hierarchy into which the fair value measurements are categorised (levels 1 to 3) based on the degree to which the inputs to the fair value measurements is observable.

- Level 1: The fair value of financial instruments traded in active markets is based on quoted market prices at the end of the reporting period. The quoted market price used for financial assets held by the Group is the current bid price. These instruments are included in level 1.

- Level 2: The fair value of financial instruments that are not traded in an active market is determined using valuation techniques which maximise the use of observable market data and rely as little as possible on entity-specific estimates. If all significant inputs required to fair value an instrument are observable, the instrument is included in level 2.

- Level 3: If one or more of the significant inputs is not based on observable market data, the instrument is included in level 3. This is the case for unlisted equity securities, unlisted open-end equity funds, unlisted entrusted products, and other financial assets at FVPL.

3. Financial Risk Management (Continued)

3.2 Fair value estimation (Continued)

(a) Fair value of the Group's financial assets and financial liabilities that are measured at fair value

Financial assets/financial liabilities	Fair value as at (RMB million) 2021		2020		Fair value hierarchy	Valuation technique(s) and key input(s)	Significant unobservable input(s)	Range of inputs (probability-weighted average)	Relationship of unobservable inputs to fair value
1) Derivative financial instruments	**Assets/Liabilities**	**Amount**	Assets/Liabilities	Amount	Level 3	Option pricing model	Risk-free interest, Volatility	3.04%, 28.31%	The higher the risk-free interest rate, the higher the option value. The higher the volatility, the higher the option value.
	Assets	**149**	Assets	160					
2) Listed equity securities and money – market securities investment funds at FVPL	**Held-for-trading financial assets in Mainland China:**		Held-for-trading financial assets in Mainland China:		Level 1	Quoted bid prices in active markets.	N/A	N/A	N/A
	Industry	**Amount**	Industry	Amount					
	Finance	**5,791**	Finance	2,437					
	Manufacturing	**65**	Manufacturing	46					
	Transportation	**1**	Transportation	–					
	Others	**1**	Others	2					
		5,858		2,485					
	Finance	**–**	Finance	1,175	Level 3	Market valuation method by reference to discount rate that reflects the liquidity level.	N/A	N/A	N/A
	Total	**5,858**	Total	3,660					
3) Listed equity securities at fair value through other comprehensive income ("FVOCI")	**Listed equity securities in Mainland China:**		Listed equity securities in Mainland China:		Level 1	Quoted bid prices in active markets.	N/A	N/A	N/A
	Industry	**Amount**	Industry	Amount					
	Finance	**522**	Finance	568					

3. Financial Risk Management (Continued)

3.2 Fair value estimation (Continued)

(a) Fair value of the Group's financial assets and financial liabilities that are measured at fair value (Continued)

Financial assets/financial liabilities	Fair value as at (RMB million) 2021		Fair value as at (RMB million) 2020		Fair value hierarchy	Valuation technique(s) and key input(s)	Significant unobservable input(s)	Range of inputs (probability-weighted average)	Relationship of unobservable inputs to fair value
	Listed equity securities in Hong Kong:		Listed equity securities in Hong Kong:		Level 1	Quoted bid prices in active markets.	N/A	N/A	N/A
	Industry	**Amount**	Amount	Amount					
	Manufacturing	**288**	Manufacturing	269					
4) Unlisted open-end equity funds at FVPL	**Unlisted open-end equity funds in Mainland China:**		Unlisted open-end equity funds in Mainland China:						
	Assets Industry	**Amount**	Assets Industry	Amount					
	Finance	**396**	Finance	1,381	Level 1	Quoted bid prices in active markets.	N/A	N/A	N/A
	Finance	**1,870**	Finance	1,384	Level 3	Discounted cash flow. Future cash flows are estimated based on expected recoverable amounts, discounted at rates that reflect management's best estimation of the expected risk level.	Expected future cash flow, Discount rates that correspond to the expected risk level.	2.59%	The higher the future cash flow, the higher the fair value. The lower the discount rate, the higher the fair value.
	Total	**2,266**	Total	2,765					
	Liabilities Industry	**Amount**	Liabilities Industry	Amount					
	Finance	**54**	Finance	65	Level 3	Discounted cash flow. Future cash flows are estimated based on expected recoverable amounts, discounted at rates that reflect management's best estimation of the expected risk level.	Expected future cash flow, Discount rates that correspond to the expected risk level.	2.59%	The higher the future cash flow, the higher the fair value. The lower the discount rate, the higher the fair value.

3. Financial Risk Management (Continued)

3.2 Fair value estimation (Continued)

(a) Fair value of the Group's financial assets and financial liabilities that are measured at fair value (Continued)

Financial assets/financial liabilities	Fair value as at (RMB million) 2021		2020		Fair value hierarchy	Valuation technique(s) and key input(s)	Significant unobservable input(s)	Range of inputs (probability-weighted average)	Relationship of unobservable inputs to fair value
5) Unlisted entrusted products and other financial assets at FVPL	**Unlisted entrusted products in Mainland China:**		Unlisted entrusted products in Mainland China:		Level 3	Discounted cash flow. Future cash flows that are estimated based on expected recoverable amounts, discounted at rates that reflect management's best estimation of the expected risk level.	Expected future cash flow, Discount rates that correspond to the expected risk level.	7.21%-10.64%	The higher the future cash flow, the higher the fair value. The lower the discount rate, the higher the fair value.
	Industry	**Amount**	Industry	Amount					
	Real estate	**1,662**	Real estate	1,583					
	Construction	**846**	Construction	1,543					
	Finance	**3,485**	Finance	1,428					
	Mining	**10**	Mining	10					
	Others	**256**	Others	456					
	Total	**6,259**	Total	5,020					
6) Unlisted equity investments at FVOCI	**Unlisted equity investment in Mainland China:**		Unlisted equity investment in Mainland China:		Level 3	Market valuation method by reference to P/B ratio, P/S ratio, P/E ratio, discount rate that reflects the liquidity level; and cost method by reference to the original investment cost.	P/B ratio, P/S ratio, P/E ratio, Discount rates that reflects the liquidity level, Original investment cost	0.46-1.80, 1.19-5.57, 11.94-30.56, 10.00%-40.00%, n/a	The higher the P/B ratio, P/S ratio, P/E ratio, the higher the fair value. The lower discount rate, the higher the fair value. The original investment cost is positively correlated with the fair value of unlisted equity instruments.
	Industry	**Amount**	Industry	Amount					
	Construction	**8,228**	Construction	6,433					
	Finance	**132**	Finance	834					
	Manufacturing	**947**	Manufacturing	80					
	Real estate	**13**	Real estate	11					
	Mining	**5**	Mining	5					
	Others	**2,029**	Others	1,468					
	Total	**11,354**	Total	8,831					

3. Financial Risk Management (Continued)

3.2 Fair value estimation (Continued)

(a) Fair value of the Group's financial assets and financial liabilities that are measured at fair value (Continued)

Financial assets/financial liabilities	Fair value as at (RMB million) 2021	Fair value as at (RMB million) 2020	Fair value hierarchy	Valuation technique(s) and key input(s)	Significant unobservable input(s)	Range of inputs (probability-weighted average)	Relationship of unobservable inputs to fair value
7) Unlisted equity investments at FVPL	**Unlisted equity investment in Mainland China:** **Industry / Amount** **Finance / 5,066**	Unlisted equity investment in Mainland China: Industry / Amount Finance / 4,177	Level 3	Market valuation method by reference to P/B ratio, discount rate that reflects the liquidity level; and cost method by reference to the original investment cost.	P/B ratio, Discount rates that reflect the liquidity level, Original investment cost	0.46-1.80, 20.54%, n/a	The higher the P/B ratio, the higher the fair value. The lower discount rate, the higher the fair value. The original investment cost is positively correlated with the fair value of unlisted equity instruments.
8) Bills receivables at FVOCI	**Bills receivables in Mainland China:** **Industry / Amount** **Construction / 526**	Bills receivables in Mainland China: Industry / Amount Construction / 522	Level 3	Discounted cash flow with future cash flows that are estimated based on expected recoverable amounts, discounted at rates that reflect management's best estimation of the expected risk level.	Expected future cash flow, Discount rates that correspond to the expected risk level.	3.85%	The higher the future cash flow, the higher the fair value. The lower the discount rate, the higher the fair value.

3. Financial Risk Management (Continued)

3.2 Fair value estimation (Continued)

(a) Fair value of the Group's financial assets and financial liabilities that are measured at fair value (Continued)

There were no transfer between Level 1 and 2 during the year.

Reconciliation of Level 3 fair value measurements:

	Unlisted entrusted products RMB million	Unlisted open-end funds RMB million	Unlisted equity investments RMB million	Listed equity securities RMB million	Others RMB million	Total RMB million
Opening balance at 1 January 2021	**4,057**	**1,319**	**13,008**	**1,175**	**1,645**	**21,204**
Acquisitions	**2,398**	**970**	**5,827**	**–**	**2,502**	**11,697**
Losses recognised in profit or loss	**(25)**	**(23)**	**(17)**	**(103)**	**(291)**	**(459)**
Gains recognised in other comprehensive income	**–**	**–**	**80**	**–**	**–**	**80**
Disposals	**(3,305)**	**(450)**	**(2,478)**	**(1,072)**	**(47)**	**(7,352)**
Closing balance at 31 December 2021	**3,125**	**1,816**	**16,420**	**–**	**3,809**	**25,170**

	Unlisted entrusted products RMB million	Unlisted open-end funds RMB million	Unlisted equity investments RMB million	Listed equity securities RMB million	Others RMB million	Total RMB million
Opening balance at 1 January 2020	6,132	664	10,088	941	1,195	19,020
Acquisitions	2,706	1,834	6,383	–	967	11,890
Gains/(losses) recognised in profit or loss	147	(31)	9	234	(241)	118
Gains recognised in other comprehensive income	–	–	2	–	–	2
Disposals	(4,928)	(1,148)	(3,474)	–	(276)	(9,826)
Closing balance at 31 December 2020	4,057	1,319	13,008	1,175	1,645	21,204

3. Financial Risk Management (Continued)

3.2 Fair value estimation (Continued)

(b) Fair value of financial assets and liabilities measured at amortised cost

Except as detailed in the following table, the Directors consider that the carrying amounts of financial assets and financial liabilities recorded at amortised cost in the consolidated financial statements approximate to their fair values:

	2021		2020	
	Carrying amount	**Fair value**	Carrying amount	Fair value
	RMB million	**RMB million**	RMB million	RMB million
Financial assets				
Other financial assets at amortised cost – fixed rate	**29,513**	**30,849**	25,467	26,960
Financial liabilities				
Long-term bank borrowings – fixed rate	**43,674**	**45,638**	28,267	28,863
Long-term debentures – fixed rate	**55,007**	**55,657**	49,443	48,952
Other long-term borrowings – fixed rate	**–**	**–**	259	259

The fair values hierarchy of the fair value of fixed rate other financial assets at amortised cost, bank borrowings, long-term debentures and other long-term borrowings are included in level 3. The fair values have been determined based on a discounted cash flow analysis, with the most significant input being the discount rate that reflects the credit risk of counterparties or the issuer.

4. Critical Accounting Estimates, Assumptions and Judgments

The preparation of financial statements requires the use of accounting estimates which, by definition, will seldom equal the actual results. Management also needs to exercise judgement in applying the Group's accounting policies.

Estimates and judgments are continually evaluated and are based on historical experience and other factors, including expectations of future events that may have a financial impact on the entity and that are believed to be reasonable under the circumstances.

(a) Critical judgements in application of accounting policies

(i) Revenue from sale of properties

Revenue from sales of properties is recognised at a point in time when the buyer obtains control of the completed property. The Group may recognise the revenue from sales of properties over time when the Group's performance do not create an asset with an alternative use to the Group and the Group has an enforceable right to payment for performance completed to date. Normally, the Group may not change or substitute the property unit or redirect the property unit for another use due to the contractual restrictions with the customer and thus the property unit does not have an alternative use to the Group. However, whether there is an enforceable right to payment depends on the terms of sales contract and the interpretation of the applicable laws that apply to the contract. Such determination requires significant judgments.

The Group provided guarantees in respect of mortgage facilities granted by certain banks relating to the mortgage loans arranged for certain purchasers of the Group's properties. These guarantees will expire when relevant property ownership certificates are mortgaged to banks by the purchasers. In addition, based on the past experiences, defaults of mortgage facilities by the purchasers which resulted in the bank guarantees being called upon were rare. Further, the credit risk of the Group under the circumstance that a purchaser defaults on the payment of its mortgage during the term of the guarantee is very low. The Group believes that significant risks and rewards associated to the ownership of the properties have been transferred to the purchasers when the buyer checks and accepts the property or when the buyer is regarded as checking and accepting the property.

(ii) Determination of control over structured entities

The Group invested in several structured entities which were mainly engaged in infrastructure investment activities or acted as manager to a number of structured entities and also carries interests in these entities. Determining whether the Group controls these structured entities usually focuses on the assessment of the power of the Group, its variable returns (including but not limited to any carried interests and commission income or management fees earned) and the ability to exercise its power to influence the variable returns from these structured entities.

Management considers a number of factors to assess if the Group has control over these structured entities, including the Group acts as a principal or an agent through analysis of the scope of the decision-making authority of the Group, its remuneration entitlement, other interests the Group held, and the rights held by other parties. Based on the assessment following the accounting policies set out in Notes 2.2 and 2.3, the Group consolidates certain structured entities that it has control, accounts for as joint ventures or associates when it has joint control or significant influence over the structured entities. For those that the Group has neither control, joint control nor significant influence, the Group accounts for as financial assets. Judgement is involved when performing the assessment. Should those joint ventures, associates and financial assets be consolidated, net assets, revenue and profit of the Group could be affected.

4. Critical Accounting Estimates, Assumptions and Judgments (Continued)

(a) Critical judgements in application of accounting policies (Continued)

(ii) Determination of control over structured entities (Continued)

Further disclosure in respect of unconsolidated structured entities in which the Group has an interest has been set out in Note 25.

(iii) Classification of financial assets

The Group classified the financial assets based on the business model for managing the financial assets and the contractual cash flow characteristics of the financial asset.

The Group's business model is determined at a level that reflects how groups of financial assets are managed together to achieve a particular business objective. The judgement when the Group assesses its business model for managing financial assets includes:

a. how the performance of the business model and the financial assets held within that business model are evaluated and reported to the entity's key management personnel;

b. the risks that affect the performance of the business model (and the financial assets held within that business model) and, in particular, the way in which those risks are managed; and

c. how managers of the business are compensated (for example, whether the compensation is based on the fair value of the assets managed or on the contractual cash flows collected).

The judgement in assessing contractual cash flows are consistent with a basic lending arrangement include:

a. if the timing or amount of principal may change over the life of the financial asset (for example, if there are repayment of principal before maturity);

b. if the interest consists of consideration for the time value of money, for the credit risk associated with the principal amount outstanding during a particular period of time and for other basic lending risks and costs, as well as a profit margin.

For example, the prepayment amount before maturity solely represents unpaid amounts of principal and interest on the principal amount outstanding, which may include reasonable additional compensation of the early termination of the contract.

4. Critical Accounting Estimates, Assumptions and Judgments (Continued)

(b) Critical accounting estimates and assumptions

The following critical accounting estimates and assumptions have important risks that will cause significant adjustments to the value of assets and liabilities in the next year:

(i) Revenue recognition from infrastructure construction contracts

Revenue from infrastructure construction contracts is recognised over the period of the contract by reference to the progress towards complete satisfaction of that performance obligation, depending on the nature of the contract, is measured mainly by reference to the proportion of contract costs incurred for work performed to date to estimated total contract costs for each contract. Management estimates the total contract revenue and total contract costs at the inception of each contract. As the contract progresses, management regularly reviews and revises the estimates of contract revenue and contract costs if circumstances change, such as variations in contract work, claims and incentive payments. The increases or decreases in estimated total contract revenue or total contract costs resulted in the adjustments to the extent of progress toward completion and revenue recognised in the period in which the circumstances that give rise to the revision becomes known by management.

(ii) Expected credit losses of trade receivables and contract assets

The Group applies the IFRS 9 simplified approach to measure expected credit losses which uses a lifetime expected loss allowance for all trade receivables and contract assets. For trade receivables and contract assets which have impaired, the Group assessed individually and provided for credit losses allowance. For other trade receivables and contract assets, given no reasonable and supportable information is available without undue cost for expected credit losses measurement, the trade receivables and contract assets were grouped by reference to the credit risk characteristics and assessed for credit losses allowance through exposure at default and the lifetime expected credit loss rates. When measuring expected credit loss, the Group considers its own credit loss incurred in the past, and adjusts by taking into consideration current conditions and forward looking factors.

4. Critical Accounting Estimates, Assumptions and Judgments (Continued)

(b) Critical accounting estimates and assumptions (Continued)

(ii) Expected credit losses of trade receivables and contract assets (Continued)

In assessing forward-looking information, the Group considers different macroeconomic scenarios and weights. In 2021, the weights of the three economic scenarios of "baseline", "unfavourable" and "favourable" are 50%, 40% and 10% respectively. The Group regularly monitors and reviews critical macroeconomic assumptions and parameters related to the measurement of expected credit loss, including the economic policies, macroeconomic indicators, industry risks, and changes in customer conditions, etc. In 2021, the Group has considered the uncertainty caused by the COVID-19 outbreak and updated relevant assumptions and parameters accordingly. The key macroeconomic parameters applicable to each scenario are set out below:

	Scenario		
	Baseline	Unfavourable	Favourable
GDP	5.48%	5.10%	5.60%
Industrial Added Value	5.23%	3.93%	6.00%

The details of the expected credit loss of trade receivables and contract assets are set out in Note 33 and Note 34, respectively.

(iii) Expected credit losses of debt investments at amortised cost and FVOCI

The Group assesses on a forward looking basis the expected credit losses associated with its debt investments at amortised cost and FVOCI using the risk parameters including exposure at default and expected credit loss rate, which is determined based on probabilities of default and default rates. When measuring expected credit loss, the Group considers its own credit loss incurred in the past, and adjusts by taking into consideration current conditions and forward looking factors.

In assessing forward-looking information, the Group adopted the method consistent with expected credit losses of trade receivables and contract assets.

4. Critical Accounting Estimates, Assumptions and Judgments (Continued)

(b) Critical accounting estimates and assumptions (Continued)

(iii) Expected credit losses of debt investments at amortised cost and FVOCI (Continued)

To assess whether there is a significant increase in credit risks the Group compares the risk of a default occurring on the asset as at the reporting date with the risk of default as at the date of initial recognition. It considers available reasonable and supportive forwarding-looking information. Especially the following indicators are incorporated:

- past due information
- actual or expected significant adverse changes in business, financial or economic conditions that are expected to cause a significant change to the borrower's ability to meet its obligations
- internal and external credit rating
- actual or expected significant changes in the operating results of the borrower
- significant changes in the value of the collateral supporting the obligation or in the quality of third-party guarantees or credit enhancements.

(iv) Impairment of properties held for sale and under development for sale

The Group measures properties held for sale and under development for sale at the lower of cost and net realisable value on the balance sheet date. The net realisable value calculation requires the use of assumptions and estimates on the selling price and the costs and expenses that will be incurred until completion. Where the expectation is different from the original estimate, such differences will have an impact on the net realisable value calculation and the provision for inventory impairment in the periods in which such estimate is changed.

(v) Fair value of financial instruments

The fair value of financial instruments that are traded in an active market is measured at quoted price. If the market for a financial instrument is not active, the Group determines fair value by using valuation techniques. The Group uses its judgment to select a variety of methods and make assumptions that are mainly based on market conditions existing at each end of the reporting period. For details of the key assumptions used and the impact of changes to these assumptions see Note 3.2.

4. Critical Accounting Estimates, Assumptions and Judgments (Continued)

(b) Critical accounting estimates and assumptions (Continued)

(vi) Income taxes

The Group is subject to income taxes in the PRC and other jurisdictions. Significant judgment is required in determining the worldwide provision for income taxes. There are many transactions and calculations for which the ultimate tax determination is uncertain. Where the final tax outcome of these matters is different from the amounts that were initially recorded, such differences will impact the current income tax and deferred income tax provisions in the period in which such determination are made.

Certain subsidiaries of the Group are qualified as high-tech enterprises and are entitled to the preferential income tax rate of 15%. The qualification is valid 3 years, and upon expiry the subsidiaries are required to submit the application to relevant government authorities to certify the high-tech qualification. If the subsidiaries disqualified from the high-tech certification, they cannot enjoy the preferential income tax, and the change in tax rate will affect the current and deferred income taxes in the period in which the change takes place.

Deferred income tax assets relating to tax losses are recognised as management considers it is probable that future taxable profit will be available against which the tax losses can be utilised.

Future taxable profit includes the profit from operating results and taxable profits of future periods reversed of taxable temporary differences. Estimates and judgement are required in determining the timing and amount of future taxable profit generated. In case where the actual future taxable profit generated are less than expected, or change in facts and circumstances which result in revision of future taxable profit estimation, a material reversal or further recognition of deferred tax assets may arise, which will be recognised in the consolidated income statement in the period in which such a reversal or further recognition takes place.

(vii) Pension benefits

The present value of the pension obligations depends on a number of factors that are determined on an actuarial basis using a number of assumptions. The assumptions used in determining the net cost (income) for pensions include the discount rate. Any changes in these assumptions will impact the carrying amount of pension obligations.

The Group determines the appropriate discount rate at the end of each year. This is the interest rate that should be used to determine the present value of estimated future cash outflows expected to be required to settle the pension obligations. In determining the appropriate discount rate, the Group considers the interest rates of government bonds that are denominated in the currency in which the benefits will be paid, and that have terms to maturity approximating the terms of the related pension obligation.

Other key assumptions for pension obligations are based in part on current market conditions. Additional information is disclosed in Note 43.

4. Critical Accounting Estimates, Assumptions and Judgments (Continued)

(b) Critical accounting estimates and assumptions (Continued)

(viii) Amortisation of service concession arrangements in relation to toll highways

Amortisation of service concession arrangements in relation to the toll highways operations are calculated to write off their cost, over their expected useful lives or the remaining concession period, whichever is the shorter, commencing from the date of commencement of commercial operation of the toll highways, based on a units-of-usage basis, which is the ratio of actual traffic volume compared to the total expected traffic volume of the toll highways as estimated by the management or by reference to traffic projection reports prepared by independent traffic consultants. Appropriate adjustment will be made should there be any material change.

5. Segment Information

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

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

(a) Construction of railways, highways, bridges, tunnels, metropolitan railways (including subways and light railways), buildings, irrigation works, hydroelectricity projects, ports, docks, airports and other municipal works ("Infrastructure construction");

(b) Survey, design, consulting, research and development, feasibility study and compliance certification services with respect to infrastructure construction projects ("Survey, design and consulting services");

(c) Design, research and development, manufacture and sale of turnouts, bridge steel structures, and other railway related equipment, engineering machinery and materials ("Engineering equipment and component manufacturing");

(d) Development, sale and management of residential and commercial properties ("Property development"); and

(e) Mining, financial business, operation of service concession arrangements, merchandise trading and other ancillary business ("Other businesses").

Revenue between segments is carried out at actual transaction prices.

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

5. Segment Information (Continued)

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

	For the year ended 31 December 2021						
	Infrastructure construction RMB million	Survey, design and consulting services RMB million	Engineering equipment and component manufacturing RMB million	Property development RMB million	Other businesses RMB million	Elimination RMB million	Total RMB million
External revenue	923,435	17,604	23,831	50,249	51,744	–	1,066,863
Inter-segment revenue	25,855	820	8,864	488	48,175	(84,202)	–
Other revenue	3,356	183	481	563	1,826	–	6,409
Inter-segment other revenue	392	–	–	–	197	(589)	–
Segment revenue	953,038	18,607	33,176	51,300	101,942	(84,791)	1,073,272
Segment results							
Profit before income tax	34,204	1,615	2,029	1,622	5,830	(7,714)	37,586
Segment results included:							
Share of (losses)/profit of joint ventures	(239)	1	104	(13)	(360)	–	(507)
Share of profit of associates	912	17	46	33	2,801	–	3,809
Interest income	1,043	70	94	198	4,264	(627)	5,042
Interest expenses	(2,514)	(37)	(90)	(1,249)	(4,624)	1,124	(7,390)
Losses from derecognition of financial assets at amortised cost	(4,298)	(4)	(117)	–	(176)	–	(4,595)

5. Segment Information (Continued)

	For the year ended 31 December 2020						
	Infrastructure construction RMB million	Survey, design and consulting services RMB million	Engineering equipment and component manufacturing RMB million	Property development RMB million	Other businesses RMB million	Elimination RMB million	Total RMB million
External revenue	844,110	16,187	23,074	49,304	36,286	–	968,961
Inter-segment revenue	29,553	1,026	6,368	–	35,153	(72,100)	–
Other revenue	2,328	108	351	459	2,525	–	5,771
Inter-segment other revenue	319	–	–	–	219	(538)	–
Segment revenue	876,310	17,321	29,793	49,763	74,183	(72,638)	974,732
Segment results							
Profit before income tax	36,876	2,241	2,132	(4,096)	5,016	(8,785)	33,384
Segment results included:							
Share of profit/(losses) of joint ventures	430	5	106	140	(517)	–	164
Share of profit of associates	654	5	48	132	1,192	–	2,031
Interest income	935	70	56	333	2,272	(870)	2,796
Interest expenses	(2,400)	(189)	(69)	(1,612)	(2,852)	654	(6,468)
Losses from derecognition of financial assets at amortised cost	(3,172)	(8)	(64)	–	(58)	–	(3,302)

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

5. Segment Information (Continued)

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

	2021 **RMB million**	2020 RMB million
(i) Segment interest income, before inter-segment elimination	**5,669**	3,666
Inter-segment elimination	**(627)**	(870)
	5,042	2,796
Reconciling items:		
Reclassification of interest income obtained from other financial assets at amortised cost *(Note 10)*	**1,063**	1,528
Total consolidated finance income, as reported	**6,105**	4,324
(ii) Segment interest expenses, before inter-segment elimination	**8,514**	7,122
Inter-segment elimination	**(1,124)**	(654)
	7,390	6,468
Reconciling item:		
Imputed interest expenses on retention payables *(Note 10)*	**226**	288
Total consolidated finance costs, as reported	**7,616**	6,756
(iii) Segment results, before inter-segment elimination	**45,300**	42,169
Inter-segment elimination	**(7,714)**	(8,785)
	37,586	33,384
Reconciling item:		
Land appreciation tax *(Note (a))*	**2,050**	2,228
Total consolidated profit before income tax, as reported	**39,636**	35,612

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

5. Segment Information (Continued)

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

	As at 31 December 2021						
	Infrastructure construction RMB million	Survey, design and consulting services RMB million	Engineering equipment and component manufacturing RMB million	Property development RMB million	Other businesses RMB million	Elimination RMB million	Total RMB million
Segment assets	751,756	27,476	62,116	281,252	559,696	(333,527)	1,348,769
Investments in joint ventures	38,653	171	438	403	10,166	–	49,831
Investments in associates	36,874	888	680	379	7,360	–	46,181
Unallocated assets							12,811
Total assets							1,361,580
Segment liabilities	626,780	12,324	35,318	254,905	392,472	(324,002)	997,797
Unallocated liabilities							5,589
Total liabilities							1,003,386

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

5. Segment Information (Continued)

	As at 31 December 2020						
	Infrastructure construction RMB million	Survey, design and consulting services RMB million	Engineering equipment and component manufacturing RMB million	Property development RMB million	Other businesses RMB million	Elimination RMB million	Total RMB million
Segment assets	711,979	24,550	55,851	252,295	444,050	(300,532)	1,188,193
Investments in joint ventures	29,768	81	385	417	9,565	–	40,216
Investments in associates	31,899	816	607	322	4,489	–	38,133
Unallocated assets							11,784
Total assets							1,199,977
Segment liabilities	574,136	13,197	30,579	228,249	334,894	(300,247)	880,808
Unallocated liabilities							6,123
Total liabilities							886,931

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

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

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

5. Segment Information (Continued)

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

	2021 **RMB million**	2020 RMB million
Segment assets, before inter-segment elimination	**1,682,296**	1,488,725
Inter-segment elimination	**(333,527)**	(300,532)
	1,348,769	1,188,193
Reconciling items:		
Deferred tax assets	**10,372**	9,333
Non-tradable shares reform of subsidiaries *(Note (a))*	**(148)**	(148)
Current income tax recoverable	**3,736**	3,451
Prepaid land appreciation tax included in current income tax recoverable	**(1,149)**	(852)
	12,811	11,784
Total consolidated assets, as reported	**1,361,580**	1,199,977
Segment liabilities, before inter-segment elimination	**1,321,799**	1,181,055
Inter-segment elimination	**(324,002)**	(300,247)
	997,797	880,808
Reconciling items:		
Deferred tax liabilities	**1,647**	1,454
Current income tax liabilities	**7,100**	7,969
Land appreciation tax payable included in current income tax liabilities	**(3,158)**	(3,300)
	5,589	6,123
Total consolidated liabilities, as reported	**1,003,386**	886,931

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

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

5. Segment Information (Continued)

Other segment information:

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

5. Segment Information (Continued)

Other segment information:

	Year ended 31 December 2020					
	Infrastructure construction RMB million	Survey, design and consulting services RMB million	Engineering equipment and component manufacturing RMB million	Property development RMB million	Other businesses RMB million	Consolidated RMB million
Capital expenditure:						
Property, plant and equipment	10,818	760	861	746	2,194	15,379
Lease prepayments	1,372	214	17	379	16	1,998
Investment properties	516	61	–	6	205	788
Intangible assets	359	50	48	109	36,995	37,561
Mining assets	–	–	–	–	116	116
Right-of-use assets	710	18	36	4	143	911
Total	13,775	1,103	962	1,244	39,669	56,753
Depreciation and amortisation:						
Property, plant and equipment	5,549	293	598	312	1,348	8,100
Lease prepayments	214	13	44	65	78	414
Investment properties	16	6	6	322	47	397
Intangible assets	88	27	37	1	309	462
Mining assets	–	–	–	–	262	262
Right-of-use assets	722	34	56	20	149	981
Other prepayments	65	1	27	1	66	160
Total	6,654	374	768	721	2,259	10,776
(Gains)/losses on disposal and/or write-off of property, plant and equipment	(195)	2	(40)	(7)	12	(228)
Gains on disposal of lease prepayments	(180)	(181)	–	–	–	(361)
Increase in foreseeable losses on contracts	228	–	–	–	–	228
Impairment loss/(reversal of impairment) on trade and other receivables	783	(97)	11	2,389	(970)	2,116
Impairment loss/(reversal of impairment) on other financial assets at amortised cost	66	(38)	–	(112)	117	33
Impairment loss on contract assets	260	–	–	–	147	407
Impairment loss on property, plant and equipment	1	–	–	–	40	41
Impairment loss on investment properties	3	–	–	–	–	3

5. Segment Information (Continued)

(i) Disaggregation of revenue

	Year ended 31 December 2021					
Type of services and products	Infrastructure construction RMB million	Survey, design and consulting services RMB million	Engineering equipment and component manufacturing RMB million	Property development RMB million	Other businesses RMB million	Total RMB million
Infrastructure construction contracts	923,435	–	–	–	–	923,435
Manufacturing and sales of engineering equipment and component	–	–	23,831	–	–	23,831
Rendering of services	–	17,604	–	–	5,384	22,988
Sales of properties	–	–	–	50,249	–	50,249
Sales of goods and others	3,356	183	481	563	48,186	52,769
Total revenue	926,791	17,787	24,312	50,812	53,570	1,073,272
Timing of revenue recognition:						
– At a point of time	3,356	183	15,873	49,329	52,256	120,997
– Over time	923,435	17,604	7,900	1,483	–	950,422
Total revenue from contracts with customers	926,791	17,787	23,773	50,812	52,256	1,071,419
Rental income	–	–	539	–	1,314	1,853
Total revenue	926,791	17,787	24,312	50,812	53,570	1,073,272

5. Segment Information (Continued)

(i) Disaggregation of revenue (Continued)

	Year ended 31 December 2020					
Type of services and products	Infrastructure construction	Survey, design and consulting services	Engineering equipment and component manufacturing	Property development	Other businesses	Total
	RMB million	RMB million	RMB million	RMB million	RMB million	RMB million
Infrastructure construction contracts	844,110	–	–	–	–	844,110
Manufacturing and sales of engineering equipment and component	–	–	23,074	–	–	23,074
Rendering of services	–	16,187	–	–	4,845	21,032
Sales of properties	–	–	–	49,304	–	49,304
Sales of goods and others	2,328	108	351	459	33,966	37,212
Total revenue	846,438	16,295	23,425	49,763	38,811	974,732
Timing of revenue recognition:						
– At a point of time	2,328	108	16,378	46,775	36,951	102,540
– Over time	844,110	16,187	7,047	2,988	–	870,332
Total revenue from contracts with customers	846,438	16,295	23,425	49,763	36,951	972,872
Rental income	–	–	–	–	1,860	1,860
Total revenue	846,438	16,295	23,425	49,763	38,811	974,732

5. Segment Information (Continued)

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

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

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

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

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

6. Other Income and Expenses

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

Notes:

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

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

7. Net Impairment Losses on Financial Assets and Contract Assets

	2021 **RMB million**	2020 RMB million
Trade and other receivables (excluding advance to suppliers)	**3,694**	2,116
Contract assets	**1,224**	407
Other financial assets at amortised cost *(Note 30(a))*	**560**	33
	5,478	2,556

8. Other (losses)/gains, Net

	2021 **RMB million**	2020 RMB million
Gains/(losses) on disposal and/or write-off of:		
– Interest in subsidiaries	**72**	(133)
– Interest in associates	**14**	(27)
– Lease prepayments	**98**	361
– Property, plant and equipment	**328**	228
Gains on disposal of financial assets/liabilities at FVPL	**47**	58
(Losses)/gains arising on change in fair value of financial assets/liabilities at FVPL *(Note 35(c))*	**(515)**	218
Gains on debt restructurings	**135**	180
Impairment loss recognised on:		
– Property, plant and equipment *(Note 18)*	**(132)**	(41)
– Advance to suppliers	**(4)**	(39)
– Investment properties *(Note 22)*	**(48)**	(3)
Foreign exchange losses, net	**(80)**	(45)
Others	**3**	(95)
	(82)	662

9. Losses From Derecognition of Financial Assets at Amortised Cost

	2021 **RMB million**	2020 RMB million
ABN & ABS *(Note 33)*	**3,910**	2,619
Factoring expense *(Note 33)*	**634**	683
Bills receivables discounted expense	**51**	–
	4,595	3,302

10. Finance Income and Costs

	2021	2020
	RMB million	RMB million
Finance income from:		
Trade receivables and contract assets	**4,150**	2,029
Other financial assets at amortised cost	**1,063**	1,528
Cash and cash equivalents and restricted cash	**892**	767
Total finance income	**6,105**	4,324
Interest expenses on:		
Bank borrowings	**9,177**	8,482
Long-term debentures	**1,647**	1,467
Other long-term borrowings	**430**	424
Other short-term borrowings	**411**	398
Total borrowing costs	**11,665**	10,771
Less: amount capitalised	**(4,822)**	(4,755)
	6,843	6,016
Lease *(Note 19)*	**65**	59
Imputed interest expenses on retention payables	**226**	288
Imputed interest expenses on defined benefit obligations *(Note 43)*	**85**	85
Others	**397**	308
Total finance costs	**7,616**	6,756

Borrowing costs directly attributable to the construction and acquisition of qualifying assets were capitalised as part of the costs of those assets. Borrowing costs of RMB4,822 million (2020: RMB4,755 million) were capitalised in the year ended 31 December 2021, of which approximately RMB2,985 million was charged to properties under development for sale, approximately RMB20 million was included in cost of construction-in-progress and approximately RMB1,817 million was included in the cost of intangible assets (2020: RMB3,808 million was charged to properties under development for sale, approximately RMB21 million was included in cost of construction-in-progress and approximately RMB926 million was included in the cost of intangible assets). A general capitalisation rate of 3.25%-9.50% per annum (2020: 2.50%-9.50%) was used, representing the costs of the borrowings used to finance the qualifying assets.

11. Expenses by Nature

The additional information of cost of sales and services, selling and marketing expenses and administrative expenses is as follows:

	2021 **RMB million**	2020 RMB million
Employee benefit expenses & subcontracting costs	**432,359**	382,846
Raw materials and consumables used	**398,360**	367,594
Equipment usage costs	**39,113**	34,312
Cost of property development	**39,098**	37,864
Depreciation of property, plant and equipment *(Note 18)*, right-of-use assets *(Note 19)* and investment properties *(Note 22)*	**9,433**	9,478
Taxes and surcharges	**3,881**	3,496
Transportation costs	**2,795**	2,404
Amortisation of:		
Intangible assets *(Note 23)*	**797**	462
Lease prepayments *(Note 20)*	**459**	414
Mining assets *(Note 24)*	**104**	262
Other prepayments	**133**	160
Advertising and publication costs	**1,401**	1,342
Auditors' remuneration	**43**	39

12. Employee Benefit Expenses

	2021 **RMB million**	2020 RMB million
Salaries, wages and bonuses	**51,148**	47,999
Welfare, medical and other expenses	**23,328**	19,998
Pension costs – defined contribution plans *(i)*	**8,194**	5,978
Housing benefits	**4,693**	4,324
	87,363	78,299

(i) The Group did not have any forfeited contribution for the year ended 31 December 2021 in connection with the defined contribution plan operated by local governments.

13. Income Tax Expense

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

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

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

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

13. Income Tax Expense (Continued)

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

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

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

13. Income Tax Expense (Continued)

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

	2021			2020		
	Before tax	**Tax charge**	**After tax**	Before tax	Tax charge	After tax
	RMB million	**RMB million**	**RMB million**	RMB million	RMB million	RMB million
Actuarial (losses)/gains on retirement and other supplemental benefit obligations	**(78)**	**13**	**(65)**	1	2	3
Changes in fair value of financial assets at FVOCI	**57**	**(19)**	**38**	(260)	63	(197)
Share of other comprehensive income of associates	**(106)**	**–**	**(106)**	(189)	–	(189)
Exchange differences	**(64)**	**–**	**(64)**	(500)	–	(500)
Other comprehensive expenses	**(191)**	**(6)**	**(197)**	(948)	65	(883)
Current income tax		**–**			–	
Deferred income tax *(Note 45)*		**(6)**			65	
		(6)			65	

14. Profit Attributable to Owners of the Company

The profit attributable to owners of the Company is dealt with in the financial statements of the Company to the extent of RMB18,343 million (2020: RMB17,987 million).

15. Earnings Per Share

(a) Basic

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

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

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

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

(b) Diluted

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

16. Dividends

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

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

17. Emoluments of Directors, Chief Executive, Supervisors and Employees

(a) Directors', Chief Executives and Supervisors' Emoluments

	2021 **RMB'000**	2020 RMB'000
Directors, chief executives and supervisors		
– Basis salaries, housing allowances and other allowances	**4,150**	4,104
– Fees	**295**	260
– Contributions to pension plans	**423**	336
– Discretionary bonuses *(note)*	**4,141**	4,143
	9,009	8,843

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

17. Emoluments of Directors, Chief Executive, Supervisors and Employees (Continued)

(a) Directors', Chief Executives and Supervisors' Emoluments (Continued)

The emoluments of every director and supervisor for the year ended 31 December 2021 are set out below:

Name	Basis salaries, housing allowances and other allowances RMB'000	Fees RMB'000	Contributions to pension plans RMB'000	Discretionary bonuses RMB'000 (note)	Total RMB'000
Executive directors					
Chen Yun	430	–	53	676	1,159
Wang Shiqi	402	–	53	607	1,062
Chen Wenjian *(i)*	432	–	53	352	837
Independent directors					
Guo Peizhang *(ii)*	–	35	–	–	35
Wen Baoman *(iii)*	–	35	–	–	35
Zheng Qingzhi *(iv)*	–	35	–	–	35
Chung Shui Ming Timpson	–	100	–	57	157
Zhang Cheng *(v)*	–	45	–	–	45
Xiu Long *(vi)*	–	45	–	–	45
Non-executive director					
Wen Limin *(vii)*	–	–	–	–	–
Directors' remunerations	1,264	295	159	1,692	3,410

17. Emoluments of Directors, Chief Executive, Supervisors and Employees (Continued)

(a) Directors', Chief Executives and Supervisors' Emoluments (Continued)

Name	Basis salaries, housing allowances and other allowances RMB'000	Fees RMB'000	Contributions to pension plans RMB'000	Discretionary bonuses RMB'000 *(note)*	Total RMB'000
Supervisors					
Zhang Huijia *(viii)*	148	–	13	237	398
Liu Jianyuan *(ix)*	89	–	4	194	287
Chen Wenxin *(x)*	159	–	13	113	285
Fan Jinghua *(xi)*	55	–	4	41	100
Jia Huiping *(xii)*	334	–	40	264	638
Li Xiaosheng *(xiii)*	614	–	53	407	1,074
Wang Xinhua *(xiv)*	521	–	53	472	1,046
Wan Ming *(xv)*	183	–	18	63	264
Hou Shezhong *(xvi)*	181	–	13	230	424
Yuan Baoyin	602	–	53	428	1,083
Supervisors' remunerations	2,886	–	264	2,449	5,599
Total	4,150	295	423	4,141	9,009

(i) *Mr. Chen Wenjian was appointed as the executive director of the Company on 12 March 2021.*

(ii) *Mr. Guo Peizhang resigned from his position as an independent director of the Company on 12 March 2021.*

(iii) *Mr. Wen Baoman resigned from his position as an independent director of the Company on 12 March 2021.*

(iv) *Mr Zheng Qingzhi resigned from his position as an independent director of the Company on 12 March 2021.*

(v) *Mr Zhang Cheng was appointed as the independent director of the Company on 12 March 2021.*

(vi) *Mr Xiu Long was appointed as the independent director of the Company on 12 March 2021.*

17. Emoluments of Directors, Chief Executive, Supervisors and Employees (Continued)

(a) Directors', Chief Executives and Supervisors' Emoluments (Continued)

(vii) *Mr Wen Limin was appointed as the non-executive director of the Company on 12 March 2021.*

(viii) *Mr Zhang Huijia resigned from his position as a supervisor of the Company on 12 March 2021.*

(ix) *Mr Liu Jianyuan resigned from his position as a supervisor of the Company on 26 January 2021.*

(x) *Mr Chen Wenxin resigned from his position as a supervisor of the Company on 12 March 2021.*

(xi) *Mr Fan Jinghua resigned from his position as a supervisor of the Company on 26 January 2021.*

(xii) *Mr Jia Huiping was appointed as the supervisor of the Company on 12 March 2021.*

(xiii) *Mr Li Xiaosheng was appointed as the supervisor of the Company on 26 January 2021.*

(xiv) *Mr Wang Xinhua was appointed as the supervisor of the Company on 26 January 2021.*

(xv) *Mr. Wan Ming was appointed as the supervisor of the Company on 29 September 2021.*

(xvi) *Mr. Hou Shezhong was appointed as the supervisor of the Company on 26 January 2021 and resigned from his position as a supervisor of the Company on 10 March 2021.*

17. Emoluments of Directors, Chief Executive, Supervisors and Employees (Continued)

(a) Directors', Chief Executives and Supervisors' Emoluments (Continued)

The emoluments of every director and supervisor for the year ended 31 December 2020 are set out below:

Name	Basis salaries, housing allowances and other allowances RMB'000	Fees RMB'000	Contributions to pension plans RMB'000	Discretionary bonuses RMB'000 *(note)*	Total RMB'000
Executive directors					
Chen Yun *(i)*	427	–	39	461	927
Wang Shiqi *(ii)*	307	–	29	497	833
Zhang Zongyan *(iii)*	427	–	39	641	1,107
Zhang Xian *(iv)*	371	–	34	534	939
Independent directors					
Guo Peizhang	–	60	–	–	60
Wen Baoman	–	60	–	–	60
Zheng Qingzhi	–	60	–	–	60
Chung Shui Ming Timpson	–	80	–	69	149
Non-executive director					
Ma Zonglin *(v)*	–	–	–	–	–
Directors' remunerations	1,532	260	141	2,202	4,135

17. Emoluments of Directors, Chief Executive, Supervisors and Employees (Continued)

(a) Directors', Chief Executives and Supervisors' Emoluments (Continued)

Name	Basis salaries, housing allowances and other allowances RMB'000	Fees RMB'000	Contributions to pension plans RMB'000	Discretionary bonuses RMB'000 *(note)*	Total RMB'000
Supervisors					
Zhang Huijia	401	–	39	535	975
Liu Jianyuan	405	–	39	537	981
Chen Wenxin	570	–	39	327	936
Fan Jinghua	599	–	39	198	836
Yuan Baoyin	597	–	39	344	980
Supervisors' remunerations	2,572	–	195	1,941	4,708
Total	4,104	260	336	4,143	8,843

(i) Mr. Chen Yun was appointed as the chairman of the Company on 22 December 2020.

(ii) Mr. Wang Shiqi was appointed as a director of the Company on 29 April 2020.

(iii) Mr. Zhang Zongyan resigned from his position as the chairmen of the Company on 22 December 2020.

(iv) Mr. Zhang Xian resigned from his position as a director of the Company on 4 November 2020.

(v) Mr. Ma Zonglin resigned from his position as a non-executive director of the Company on 26 August 2020.

The executive directors', chief executive's and supervisors' emolument shown above were mainly for their services in connection with the management affairs of the Company and the Group. The independent directors' emoluments shown above were mainly for their services as directors of the Company.

During the year, no directors, supervisors or senior management of the Company waived any emoluments and no emoluments were paid by the Company to any of the directors, supervisors or senior management as an inducement to join or upon joining the Group or as compensation for loss of office.

17. Emoluments of Directors, Chief Executive, Supervisors and Employees (Continued)

(b) Five Highest Paid Individuals

None of the directors and supervisors was amongst the five highest paid individuals during both years. The emoluments of the five highest paid individuals in the Group during the year are as follows:

	2021 **RMB'000**	2020 RMB'000
Basic salaries, housing allowances, and other allowances and benefits in kind	**8,713**	9,543
Contributions to pension plans	**206**	13
Discretionary bonuses *(note)*	**14,634**	7,742
	23,553	17,298

The emoluments of the above individuals fall within the following bands:

	2021	2020
– HKD3,000,000 to HKD3,500,000 (equivalent to approximately RMB2,452,800 to RMB2,861,600)	**–**	1
– HKD4,000,001 to HKD4,500,000 (equivalent to approximately RMB3,270,401 to RMB3,679,200)	**–**	3
– HKD4,500,001 to HKD5,000,000 (equivalent to approximately RMB3,679,201 to RMB4,088,000)	**2**	1
– HKD5,500,001 to HKD6,000,000 (equivalent to approximately RMB4,496,801 to RMB4,905,600)	**2**	–
– HKD7,500,001 to HKD8,000,000 (equivalent to approximately RMB6,132,001 to RMB6,540,800)	**1**	–

Note: The discretionary bonus is determined by the remuneration committee in accordance with the relevant human resources policies.

18. Property, Plant and Equipment

	Buildings RMB million	Infra-structure construction equipment RMB million	Transportation equipment RMB million	Manufacturing equipment RMB million	Testing equipment and instruments RMB million	Other equipment RMB million	Construction in progress RMB million	Total RMB million
At 1 January 2020								
Cost	38,647	51,036	13,308	9,291	3,861	5,609	7,407	129,159
Accumulated depreciation and impairment	(8,763)	(30,024)	(10,061)	(4,915)	(2,711)	(3,716)	(563)	(60,753)
Net book amount	29,884	21,012	3,247	4,376	1,150	1,893	6,844	68,406
Year ended 31 December 2020								
Opening net book amount	29,884	21,012	3,247	4,376	1,150	1,893	6,844	68,406
Additions	141	3,865	1,739	703	407	843	4,510	12,208
Transfers	2,307	797	38	183	10	131	(3,466)	–
Transferred from investment properties *(Note 22)*	10	–	–	–	–	–	–	10
Transferred from properties under development for sale and properties held for sale *(Note 31)*	215	58	–	1	–	–	1,169	1,443
Acquisition of subsidiaries	1,600	20	23	1,289	20	15	204	3,171
Disposal of subsidiaries	(2)	(10)	(1)	–	(1)	–	–	(14)
Disposals	(109)	(732)	(16)	(68)	(19)	(87)	(1,279)	(2,310)
Transferred to investment properties *(Note 22)*	(166)	–	–	–	–	–	–	(166)
Depreciation charge *(Note 11)*	(1,358)	(3,545)	(1,170)	(1,021)	(356)	(650)	–	(8,100)
Impairment losses recognised *(Note 8)*	–	–	–	–	–	–	(41)	(41)
Exchange differences	(81)	(49)	(9)	(62)	(1)	(15)	(6)	(223)
Closing net book amount	32,441	21,416	3,851	5,401	1,210	2,130	7,935	74,384
At 31 December 2020								
Cost	42,554	52,747	14,353	11,135	4,124	6,292	8,531	139,736
Accumulated depreciation and impairment	(10,113)	(31,331)	(10,502)	(5,734)	(2,914)	(4,162)	(596)	(65,352)
Net book amount	32,441	21,416	3,851	5,401	1,210	2,130	7,935	74,384

18. Property, Plant and Equipment (Continued)

	Buildings RMB million	Infrastructure construction equipment RMB million	Transportation equipment RMB million	Manufacturing equipment RMB million	Testing equipment and instruments RMB million	Other equipment RMB million	Construction in progress RMB million	Total RMB million
Year ended 31 December 2021								
Opening net book amount	32,441	21,416	3,851	5,401	1,210	2,130	7,935	74,384
Additions	666	3,762	1,193	451	400	1,000	5,207	12,679
Transfers	1,794	1,152	7	329	13	352	(3,647)	–
Transferred from investment properties *(Note 22)*	606	–	–	–	–	–	–	606
Transferred from properties under development for sale and properties held for sale *(Note 31)*	639	–	–	–	–	–	314	953
Transferred from inventories	–	214	–	–	1	–	–	215
Acquisition of subsidiaries	52	–	2	–	–	1	286	341
Disposal of subsidiaries	–	–	–	–	–	–	–	–
Disposals	(181)	(1,249)	(46)	(14)	(11)	(10)	(1,184)	(2,695)
Transferred to investment properties *(Note 22)*	(164)	–	–	–	–	–	(218)	(382)
Transferred to intangible assets *(Note 23)*	–	–	–	–	–	–	(117)	(117)
Depreciation charge *(Note 11)*	(1,434)	(3,814)	(1,021)	(909)	(386)	(779)	–	(8,343)
Impairment losses recognised *(Note 8)*	(128)	(1)	–	(2)	–	(1)	–	(132)
Exchange differences	(23)	(69)	(9)	(18)	(1)	(5)	(16)	(141)
Closing net book amount	34,268	21,411	3,977	5,238	1,226	2,688	8,560	77,368
At 31 December 2021								
Cost	45,671	53,170	14,955	11,580	4,376	7,439	9,113	146,304
Accumulated depreciation and impairment	(11,403)	(31,759)	(10,978)	(6,342)	(3,150)	(4,751)	(553)	(68,936)
Net book amount	34,268	21,411	3,977	5,238	1,226	2,688	8,560	77,368

18. Property, Plant and Equipment (Continued)

(a) Depreciation of the Group's property, plant and equipment of RMB6,874 million (2020: RMB6,899 million) has been charged to cost of sales, RMB289 million (2020: RMB179 million) to other expenses, RMB1,120 million (2020: RMB971 million) to administrative expenses, and RMB60 million (2020: RMB51 million) to selling and marketing expenses.

(b) As at 31 December 2021, bank borrowings amounting to RMB295 million (2020: RMB367 million) are secured by certain property, plant and equipment with an aggregate book carrying amount of approximately RMB1,715 million (2020: RMB1,022 million) (Note 42).

(c) As at 31 December 2021, the Group is in the process of applying for registration of the ownership certificates for certain of its properties with an aggregate book carrying amount of approximately RMB2,657 million (2020: RMB3,565 million). The Directors of the Company are of the opinion that the Group is entitled to lawfully and validly occupy or use these properties.

(d) The category of infrastructure construction equipment, transportation equipment and other equipment leased by the Group to third parties under operating leases with the following carrying amounts:

	2021 **RMB million**	2020 RMB million
Cost	**445**	98
Accumulated depreciation	**(130)**	(41)
Net book amount	**315**	57

19. Lease

This note provides information for leases where the Group is a lessee.

(a) Amounts recognised in the consolidated balance sheet

The consolidated balance sheet shows the following amounts relating to leases:

Right-of-use assets	2021 RMB million	2020 RMB million
Buildings	**1,074**	1,109
Infrastructure construction equipment	**441**	651
Transportation equipment	**47**	79
Manufacturing equipment	**1**	–
Other equipment	**96**	53
	1,659	1,892

Lease liabilities	2021 RMB million	2020 RMB million
Current	**360**	526
Non-current	**972**	1,237
	1,332	1,763

Additions to the right-of-use assets during the year ended 31 December 2021 were RMB580 million. Maturity and modification to the right-of-use assets during the year ended 31 December 2021 were RMB490 million.

19. Lease (Continued)

(b) Amounts recognised in the consolidated income statement

The consolidated income statement shows the following amounts relating to leases:

Depreciation charge of right-of-use assets	2021 RMB million	2020 RMB million
Buildings	**382**	393
Infrastructure construction equipment	**240**	504
Transportation equipment	**50**	77
Manufacturing equipment	**1**	1
Other equipment	**22**	6
	695	981
Interest expenses (included in finance cost) *(Note 10)*	**65**	59
Expenses relating to leases of low-value assets that are not shown above as short-term leases (included in cost of sales and services and administrative expenses)	**24,644**	23,108

The total cash outflow for leases in the year ended 31 December 2021 was RMB25,010 million (2020: RMB23,822 million).

(c) The Group's leasing activities and how these are accounted for

The Group leases buildings, infrastructure construction equipment, transportation equipment, manufacturing equipment and other equipment. Rental contracts are made for fixed periods, but may have extension options as described in (d) below.

Lease terms are negotiated on an individual basis and contain a wide range of different terms and conditions. The lease agreements do not impose any covenants, but leased assets may not be used as security for borrowing purposes.

(d) Extension and termination options

Extension and termination options are included in a number of property and equipment leases across the Group. These are used to maximise operational flexibility in terms of managing the assets used in the Group's operations. The majority of extension and termination options held are exercisable only by the Group and not by the respective lessor.

20. Lease Prepayments

	2021 RMB million	2020 RMB million
At 1 January		
Cost	**18,357**	16,394
Accumulated amortisation and impairment	**(3,212)**	(2,840)
Net book amount	**15,145**	13,554
For the year ended 31 December		
Opening net book amount	**15,145**	13,554
Additions	**317**	896
Transferred from properties held for sale *(Note 31(b))*	**409**	169
Acquisition of subsidiaries	**5**	1,102
Disposals	**(506)**	(117)
Disposal of subsidiaries	**–**	(2)
Transferred to properties held for sale *(Note 31(b))*	**(81)**	(43)
Amortisation charge *(Note 11)*	**(459)**	(414)
Closing net book amount	**14,830**	15,145
At 31 December		
Cost	**18,459**	18,357
Accumulated amortisation and impairment	**(3,629)**	(3,212)
Net book amount	**14,830**	15,145
Analysed for reporting purpose as:		
– Non-current	**14,561**	14,826
– Current	**269**	319
	14,830	15,145

(a) Amortisation of the Group's lease prepayments of RMB244 million (2020: RMB188 million) has been charged to cost of sales and services, and RMB215 million (2020: RMB226 million) to administrative expenses.

(b) As at 31 December 2021, the Group is in the process of applying for registration of the title certificates for certain of its leasehold land with an aggregate carrying value of approximately RMB175 million (2020: RMB299 million). The Directors of the Company are of the opinion that the Group is entitled to lawfully and validly occupy or use these leasehold land.

(c) As at 31 December 2021, no bank borrowings were secured by lease prepayments (As at 31 December 2020, bank borrowings amounting to RMB197 million were secured by lease prepayments with carrying amount of approximately RMB309 million).

21. Deposits for Investments

	2021 RMB million	2020 RMB million
Deposits for investments accounted for using the equity method	**441**	453

22. Investment Properties

	2021 RMB million	2020 RMB million
At 1 January		
Cost	**14,119**	12,856
Accumulated depreciation and impairment	**(2,073)**	(1,689)
Net book amount	**12,046**	11,167
For the year ended 31 December		
Opening net book amount	**12,046**	11,167
Additions	**256**	217
Acquisition of subsidiaries	**19**	571
Transferred from property, plant and equipment *(Note 18)*	**382**	166
Transfer from properties held for sale *(Note 31(b))*	**632**	631
Transfer to property, plant and equipment *(Note 18)*	**(606)**	(10)
Transfer to properties held for sale *(Note 31(b))*	**(193)**	(270)
Disposals	**(20)**	(8)
Depreciation charge *(Note 11)*	**(395)**	(397)
Impairment losses recognised *(Note 8)*	**(48)**	(3)
Exchange difference	**(8)**	(18)
Closing net book amount	**12,065**	12,046
At 31 December		
Cost	**14,595**	14,119
Accumulated depreciation and impairment	**(2,530)**	(2,073)
Net book amount	**12,065**	12,046
Fair value at end of the year *(a)*	**22,502**	21,960

22. Investment Properties (Continued)

(a) As at 31 December 2021, the fair value of the Group's investment properties is based on valuations performed by Jones Lang LaSalle Corporate Appraisal and Advisory Limited, a firm of independent and professionally qualified valuers. The investment properties, mainly located in the Mainland China, are valued by the income approach by taking into account the net rental income of the properties derived from the existing leases and/or achievable in the existing market with due allowance for the reversionary income potential of the leases, which have been then capitalised to determine the fair value at an appropriate capitalisation rate, or by the comparison approach by making reference to comparable market transactions, which rests on the wide acceptance of the market transactions as the best indicator and pre-supposes that evidence of relevant transactions in the market place can be extrapolated to similar properties, subject to allowances for variable factors. The fair value falls into the category of fair value measurements using significant unobservable inputs (level 3) including future rental cash inflows, capitalisation rate and current prices in an active market for similar properties.

(b) Rental income and depreciation of the Group's investment properties of RMB890 million and RMB395 million (2020: RMB775 million and RMB397 million), respectively, was recognised as "revenue" and "cost of sales and services" in the consolidated income statement for the year ended 31 December 2021.

(c) As at 31 December 2021, the Group had no unprovided contractual obligations for future repairs and maintenance (2020: nil).

(d) The Group is in the process of applying for the title certificates for certain of its investment properties with an aggregate carrying value of RMB1,715 million (2020: RMB1,870 million) as at 31 December 2021. The Directors are of the opinion that the Group is entitled to lawfully and validly occupy or use these investment properties.

(e) Minimum lease payments receivable on leases of investment properties are as follows:

	2021 RMB million	2020 RMB million
Within 1 year	**579**	599
Between 1 and 2 years	**404**	291
Between 2 and 3 years	**348**	315
Between 3 and 4 years	**228**	257
Between 4 and 5 years	**152**	159
Later than 5 years	**369**	372
	2,080	1,993

23. Intangible Assets

	Service concession arrangements RMB million	Non-patented technologies RMB million	Patents RMB million	Computer software RMB million	Others RMB million	Total RMB million
At 1 January 2020						
Cost	24,132	666	13	829	873	26,513
Accumulated amortisation and impairment	(164)	(227)	(10)	(417)	(136)	(954)
Net book amount	23,968	439	3	412	737	25,559
Year ended at 31 December 2020						
Opening net book amount	23,968	439	3	412	737	25,559
Additions	33,021	–	2	255	8	33,286
Acquisition of subsidiaries	4,217	–	5	16	37	4,275
Disposals	(13)	–	–	(1)	–	(14)
Amortisation charge *(Note 11)*	(273)	(52)	(1)	(119)	(17)	(462)
Exchange differences	(45)	–	–	–	–	(45)
Closing net book amount	60,875	387	9	563	765	62,599
At 31 December 2020						
Cost	61,305	666	23	1,109	911	64,014
Accumulated amortisation and impairment	(430)	(279)	(14)	(546)	(146)	(1,415)
Net book amount	60,875	387	9	563	765	62,599
Year ended at 31 December 2021						
Opening net book amount	**60,875**	**387**	**9**	**563**	**765**	**62,599**
Additions	**50,799**	**106**	**4**	**415**	**18**	**51,342**
Acquisition of subsidiaries	**–**	**–**	**–**	**1**	**–**	**1**
Disposals	**–**	**–**	**–**	**(10)**	**(7)**	**(17)**
Disposals of subsidiaries	**(2,620)**	**–**	**–**	**–**	**–**	**(2,620)**
Amortisation charge *(Note 11)*	**(484)**	**(52)**	**(2)**	**(142)**	**(117)**	**(797)**
Exchange differences	**(12)**	**–**	**–**	**–**	**–**	**(12)**
Closing net book amount	**108,558**	**441**	**11**	**827**	**659**	**110,496**
At 31 December 2021						
Cost	**109,471**	**771**	**22**	**1,503**	**911**	**112,678**
Accumulated amortisation and impairment	**(913)**	**(330)**	**(11)**	**(676)**	**(252)**	**(2,182)**
Net book amount	**108,558**	**441**	**11**	**827**	**659**	**110,496**

23. Intangible Assets (Continued)

(a) The Group has entered into a number of service concession arrangements with certain government authorities in the PRC in respect of its toll road operations, sewage plants and other constructions in exchange for a right for the Group to operate the asset. The assets are classified as intangible assets if the operator receives a right to charge users of the public service and this right is not an unconditional contractual right to receive cash. Pursuant to the service concession arrangement contracts, the Group is responsible for the construction of toll roads, sewage plants and other constructions, and the acquisition of the related facilities and equipment, and is entitled to operate the toll roads, the sewage plants and other construction upon completion for a specified remaining concession period from 12 to 40 years (2020: from 12 to 40 years) by charging users of the public service, which amounts are contingent on the extent that the public uses the service. The Group will not hold any residual interest in the toll roads, the sewage plants and other constructions upon expiration of the concession period. As such, the service concession arrangement contracts are accounted for as service concession arrangements and an intangible asset was recognised at an amount equals to the fair value of the consideration for provision of construction service upon initial recognition.

(b) As at 31 December 2021, the cost of service concession arrangements have been put into operations amounted to RMB26,772 million (2020: RMB12,437 million). The cost of service concession arrangements where the related projects were under construction amounted to RMB82,699 million (2020: RMB48,868 million).

(c) Amortisation of the Group's intangible assets of RMB633 million (2020: RMB349 million) has been charged to cost of sales and services, and RMB164 million (2020: RMB113 million) to administrative expenses.

(d) As at 31 December 2021, bank borrowings amounting to RMB45,894 million (2020: RMB39,104 million) are secured by concession assets with carrying amount of approximately RMB64,728 million (2020: RMB50,991 million) (Note 42).

24. Mining Assets

	Mining rights RMB million	Exploration and evaluation assets RMB million	Total RMB million
At 1 January 2020			
Cost	5,147	134	5,281
Accumulated amortisation and impairment	(1,428)	(121)	(1,549)
Net book amount	3,719	13	3,732
Year ended at 31 December 2020			
Opening net book amount	3,719	13	3,732
Additions	116	–	116
Amortisation charge *(Note 11)*	(262)	–	(262)
Exchange differences	(4)	–	(4)
Closing net book amount	3,569	13	3,582
At 31 December 2020			
Cost	5,379	134	5,513
Accumulated amortisation and impairment	(1,810)	(121)	(1,931)
Net book amount	3,569	13	3,582
Year ended at 31 December 2021			
Opening net book amount	**3,569**	**13**	**3,582**
Additions	**2**	**–**	**2**
Amortisation charge *(Note 11)*	**(104)**	**–**	**(104)**
Exchange differences	**(1)**	**–**	**(1)**
Closing net book amount	**3,466**	**13**	**3,479**
At 31 December 2021			
Cost	**5,380**	**134**	**5,514**
Accumulated amortisation and impairment	**(1,914)**	**(121)**	**(2,035)**
Net book amount	**3,466**	**13**	**3,479**

The exploration and evaluation assets represent the expenditure on exploration and evaluation of mine projects at Australia and Heilongjiang.

25. Subsidiaries

(a) Details of the principal subsidiaries as at 31 December 2021 are shown in Note 51.

(b) Material non-controlling interests

The table below shows the details of non-wholly-owned subsidiaries of the Group that have material non-controlling interests.

Name of subsidiary	中鐵高新工業股份有限公司 China Railway Hi-Tech Industry Co., Ltd. ("China Railway Industry")
Principal activities	Engineering Equipment and Component Manufacturing
Country/place of establishment and operation	PRC

	2021 RMB million	2020 RMB million
Particulars of issued share capital	**2,222**	2,222
Proportion of interest and voting power held by non-controlling interests	**50.88%**	50.88%
Accumulated non-controlling interests	**13,204**	12,503
Total comprehensive income allocated to non-controlling interests	**981**	956

25. Subsidiaries (Continued)

(b) Material non-controlling interests (Continued)

Financial information on subsidiaries with material non-controlling interests

Set out below is summarised financial information for China Railway Industry in which there is non-controlling interests that are material to the Group. The amounts disclosed are before inter-company eliminations.

Summarised balance sheet	2021 RMB million	2020 RMB million
Current		
Assets	**36,178**	32,482
Liabilities	**25,182**	21,489
Total current net assets	**10,996**	10,993
Non-current		
Assets	**12,999**	11,708
Liabilities	**734**	812
Total non-current net assets	**12,265**	10,896
Net assets	**23,261**	21,889

Summarised income statement	2021 RMB million	2020 RMB million
Revenue	**27,157**	24,292
Profit for the year attributable to owners of company	**1,856**	1,826
Other comprehensive (expenses)/income attributable to owners of company	**(51)**	(15)
Total comprehensive income attributable to owners of company	**1,805**	1,811
Total comprehensive income attributable to non-controlling interests	**981**	956
Dividends paid to non-controlling interests	**13**	13

25. Subsidiaries (Continued)

(b) Material non-controlling interests (Continued)

Financial information on subsidiaries with material non-controlling interests (Continued)

Summarised cash flows	2021 RMB million	2020 RMB million
Net cash generated from operating activities	**1,627**	1,074
Net cash used in investing activities	**(1,472)**	(831)
Net cash (used in)/generated from financing activities	**(420)**	1,142
Effect of foreign exchange rate changes	**44**	(7)
Net (decrease)/increase in cash and cash equivalents	**(221)**	1,378

(c) Consolidation of the structured entities

To determine whether to consolidate the structured entities (mainly the unlisted entrust products) or not, the main factor considered by the Group is the ability to control these structured entities. For those structured entities managed and invested by China Railway Trust Co., Ltd. ("China Railway Trust"), the directly owned subsidiary of the Company, the Group consolidated those structured entities when the Group is exposed to significant variable returns and has the ability to affect the variable returns, including the returns of its interests in these structured entities as investor and trust commission fee earned from these structured entities as manager.

As at 31 December 2021, the total assets of the consolidated structured entities amounted to RMB11,947 million (2020: RMB9,015 million), and the interests of other investors in these structured entities amounted to RMB2,162 million (2020: RMB3,499 million).

As at 31 December 2021 and 2020, there was no contractual liquidity arrangements, guarantees or other commitments between the Group and the consolidated structured entities.

(d) Interests in unconsolidated structured entities

(i) China Railway Trust serves as manager of unconsolidated structured entities (mainly the unlisted entrust products) and earns trust commission fee. In the opinion of the Directors, the Group did not consolidate these structured entities that it has no control over these structured entities.

As at 31 December 2021, the scale of the unconsolidated structured entities established with interest held by the Group amounted to RMB51,815 million (2020: RMB38,311 million). As at 31 December 2021, the maximum exposure to the loss of the Group's investments and the amount recognised as financial assets at fair value through profit or loss in the consolidated financial statements over these unconsolidated structured entities which the Group has interests in amounted to RMB739 million (2020: RMB1,550 million).

As at 31 December 2021, the scale of the unconsolidated structured entities established with no interest held by the Group amounted to RMB336,602 million (2020: RMB363,292 million).

25. Subsidiaries (Continued)

(d) Interests in unconsolidated structured entities (Continued)

(ii) The Group and several unlisted entrust products ("Investee Entrust Products"), which the Group has interests in, invested in certain limited liability partnership funds (the "Funds"). The Funds are mainly engaged in infrastructure activities. Some asset managers (related parties of the Group), or together with the Group, acted as general partners of the Fund, and applied various investment strategies to accomplish the respective investment objectives of the Funds. A number of Investee Entrust Products acted as limited partners of the Funds to finance the operation activities of the Funds.

The Directors of the Company are of the opinion that the Group did not have control over Investee Entrust Products and the Funds and therefore, these Investee Entrust Products and the Funds were deemed as structured entities and were not consolidated by the Group.

As at 31 December 2021, the scale of these unconsolidated structured entities amounted to RMB24,724 million (2020: RMB23,771 million).

The maximum exposure to the loss of the Group's investments in the unconsolidated structured entities as at 31 December 2021 is disclosed in the following table.

	2021 **RMB million**	2020 RMB million
Investments in joint ventures	**7,166**	4,931
Financial assets at fair value through profit or loss	**1,099**	1,314
	8,265	6,245

As at 31 December 2021 and 2020, there was no contractual liquidity arrangements, guarantees or other commitments between the Group and the unconsolidated structured entities.

26. Investments Accounted for Using the Equity Method

The amounts recognised in the consolidated balance sheet are as follows:

	2021 RMB million	2020 RMB million
Associates	**46,181**	38,133
Joint ventures	**49,831**	40,216
	96,012	78,349

The amounts recognised in the consolidated income statement are as follows:

	2021 RMB million	2020 RMB million
Associates	**3,809**	2,031
Joint ventures	**(507)**	164
	3,302	2,195

(a) Investments in associates

	2021 RMB million	2020 RMB million
At 1 January	**38,133**	30,565
Additions	**7,932**	10,517
Disposals	**(2,702)**	(2,260)
Share of profit or loss, net	**3,809**	2,031
Dividend distribution	**(488)**	(547)
Share of other comprehensive income of associates	**(106)**	(189)
Share of other reserves of associates	**(397)**	(1,984)
At 31 December	**46,181**	38,133

26. Investments Accounted for Using the Equity Method (Continued)

(a) Investments in associates (Continued)

(i) All of the associates of the Group are unlisted and there is no quoted market price available for their shares.

(ii) In 2021, the Group acts as the guarantors for various external borrowings made by an associate amounted to RMB4,730 million (2020: RMB2,441 million).

(iii) Details of Group's material associates as at 31 December 2021 and 2020 are as follows:

Name of associate	Country/place of establishment/ operations	Proportion of ownership interest held by the Group		Principal activities
		2021	2020	
雲南省滇中引水工程有限公司 Yunnan Dianzhong Water Diversion Engineering Co., Ltd. ("Dianzhong Water")	PRC	**9.47%**	9.47%	Build-operate-transfer service concession arrangement
華剛礦業股份有限公司 LA Sino-Congolaise Des Mines S.A. ("SICOMINGS S.A.")	Democratic Republic of the Congo	**41.72%**	41.72%	Mining

Summarised financial information in respect of each of the Group's material associates is set out below. The summarised financial information below represents amounts shown in the associates financial statements prepared in accordance with IFRSs.

All of these associates are accounted for using the equity method in the consolidated financial statements.

26. Investments Accounted for Using the Equity Method (Continued)

(a) Investments in associates (Continued)

	2021		2020	
	Dianzhong Water RMB million (Unaudited)	SICOMINGS S.A. RMB million (Unaudited)	Dianzhong Water RMB million (Unaudited)	SICOMINGS S.A. RMB million (Unaudited)
Current assets	6,473	11,016	6,721	10,707
Non-current assets	29,007	20,768	10,837	17,896
Current liabilities	100	2,545	316	2,020
Non-current liabilities	124	15,411	–	18,472
Revenue	–	10,411	–	5,917
Profit for the year	–	6,586	–	2,805
Other comprehensive income for the year	–	(259)	–	(447)
Total comprehensive income for the year	–	6,327	–	2,358
Dividends received	–	402	–	359

Reconciliation of the above summarised financial information to the carrying amount of the interests in associates recognised in the consolidated financial statements:

	2021		2020	
	Dianzhong Water RMB million (Unaudited)	SICOMINGS S.A. RMB million (Unaudited)	Dianzhong Water RMB million (Unaudited)	SICOMINGS S.A. RMB million (Unaudited)
Net assets of associates	35,256	13,828	17,242	8,111
Proportion of the Group's ownership in associates	9.47%	41.72%	9.47%	41.72%
Other adjustments	2,566	(977)	4,272	(574)
Carrying amount of the Group's interests in associates	5,904	4,792	5,904	2,810

26. Investments Accounted for Using the Equity Method (Continued)

(a) Investments in associates (Continued)

In addition to the interests in associates disclosed above, the Group also has interests in a number of individually immaterial associates that are accounted for using the equity method.

	2021 RMB million	2020 RMB million
Aggregate carrying amount of the Group's interests in these associates	**35,485**	29,419
The Group's share of profits	**1,061**	860
The Group's share of other comprehensive expenses	**1**	(2)
The Group's share of total comprehensive income	**1,062**	858

(b) Investments in joint ventures

	2021 RMB million	2020 RMB million
At 1 January	**40,216**	29,314
Additions	**12,171**	11,469
Disposals	**(1,780)**	(171)
Share of profit or loss, net	**(507)**	164
Dividend distribution	**(246)**	(560)
Share of other reserves of joint ventures	**(23)**	–
At 31 December	**49,831**	40,216

(i) All of the joint ventures of the Group are unlisted and there is no quoted market price available for their shares.

(ii) In 2021, the Group acts as the guarantor for external borrowing made by a joint venture amounted to RMB2,969 million (2020: RMB5,048 million).

26. Investments Accounted for Using the Equity Method (Continued)

(b) Investments in joint ventures (Continued)

(iii) Details of Group's material joint ventures as at 31 December 2021 and 2020 are as follows:

Name of joint venture	Country/place of establishment/ operations	Proportion of ownership interest held by the Group		Principal activities
		2021	2020	
招商中鐵控股有限公司 China Merchants Railway Co., Ltd. (Formerly "Guangxi China Railway Expressway Management Co., Ltd.")	PRC	**49.00%**	49.00%	Build-operate-transfer service concession arrangement
昆明軌道交通四號線土建項目建設管理有限公司 Kunming Rail Transit Line 4 Construction Management Co., Ltd. ("Kunming Line 4")	PRC	**75.73%**	75.73%	Subway construction management
四川天府機場高速公路有限公司 Sichuan Tianfu Airport Expressway Co., Ltd. ("Sichuan Tianfu")	PRC	**50.00%**	50.00%	Build-operate-transfer service concession arrangement

26. Investments Accounted for Using the Equity Method (Continued)

(b) Investments in joint ventures (Continued)

Summarised financial information in respect of each of the Group's material joint venture is set out below. The summarised financial information below represents amounts shown in the joint ventures financial statements prepared in accordance with IFRSs.

The joint ventures are accounted for using the equity method in the consolidated financial statements.

	2021			2020		
	China Merchants Railway Co., Ltd. RMB million (Unaudited)	Kunming Line 4 RMB million (Unaudited)	Sichuan Tianfu RMB million (Unaudited)	China Merchants Railway Co., Ltd. RMB million (Unaudited)	Kunming Line 4 RMB million (Unaudited)	Sichuan Tianfu RMB million (Unaudited)
Current assets	2,318	1,136	482	980	100	201
Including: cash and cash equivalents	2,120	55	469	680	73	200
Non-current assets	39,516	16,334	36,184	40,977	17,231	32,873
Current liabilities	9,287	764	1,530	8,332	711	254
Non-current liabilities	19,351	10,583	28,095	20,080	10,440	25,796
Revenue	3,290	436	45	2,462	–	–
Interest expenses	(1,168)	(646)	(155)	1,259	–	–
Losses and total comprehensive expenses for the year	(101)	(4)	(208)	(788)	–	–
Dividends received	127	–	–	–	–	–

26. Investments Accounted for Using the Equity Method (Continued)

(b) Investments in joint ventures (Continued)

Reconciliation of the above summarised financial information to the carrying amount of the interests in joint ventures recognised in the consolidated financial statements:

	2021			2020		
	China Merchants Railway Co., Ltd.	Kunming Line 4	Sichuan Tianfu	China Merchants Railway Co., Ltd.	Kunming Line 4	Sichuan Tianfu
	RMB million (Unaudited)	RMB million (Unaudited)	RMB million (Unaudited)	RMB million (Unaudited)	RMB million (Unaudited)	RMB million (Unaudited)
Net assets of joint ventures	**10,615**	**6,123**	**7,041**	10,976	6,180	7,024
Proportion of the Group's ownership in joint ventures	**49.00%**	**75.73%**	**50.00%**	49.00%	75.73%	50.00%
Other adjustments	**–**	**40**	**–**	–	–	(112)
Carrying amount of the Group's interests in joint ventures	**5,201**	**4,677**	**3,521**	5,378	4,680	3,400

In addition to the interests in joint ventures disclosed above, the Group also has interests in a number of individually immaterial joint ventures that are accounted for using the equity method.

	2021 RMB million	2020 RMB million
Aggregate carrying amount of the Group's interests in these joint ventures	**36,432**	26,758
The Group's share of profits	**(351)**	550
The Group's share of total comprehensive income	**(351)**	550

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

27. Joint Operations

In 2021, the Group has one joint operation in Hong Kong (2020: one) and has 30% share (2020: 30%) in the ownership of this construction project. The Group is entitled to a proportionate share of the assets, the liabilities and the construction revenue, and bears a proportionate share of the joint operation's expenses.

28. Goodwill

	2021 **RMB million**	2020 RMB million
Cost		
At beginning of year	**1,440**	1,068
Addition	**156**	374
Disposal	**–**	(2)
At end of year	**1,596**	1,440
Impairment		
At beginning of year	**(28)**	(28)
Disposal	**–**	–
At end of year	**(28)**	(28)
Net book amount		
At beginning of year	**1,412**	1,040
At end of year	**1,568**	1,412

28. Goodwill (Continued)

The carrying amount of goodwill at the end of the reporting period is attributable to acquisition of subsidiaries in the following subsidiaries (whose principal activities are disclosed in Note 51) and sub-groups headed by these subsidiaries:

	2021	2020
	RMB million	RMB million
China Railway No.1 Engineering Group Co., Ltd.	**64**	64
China Railway No.2 Engineering Group Co., Ltd.	**77**	77
China Railway No.3 Engineering Group Co., Ltd.	**51**	51
China Railway No.4 Engineering Group Co., Ltd.	**195**	195
China Railway No.5 Engineering Group Co., Ltd.	**82**	82
China Railway No.6 Engineering Group Co., Ltd.	**12**	12
China Railway No.8 Engineering Group Co., Ltd.	**26**	26
China Railway No.9 Engineering Group Co., Ltd.	**48**	48
China Railway No.10 Engineering Group Co., Ltd.	**26**	26
China Railway Major Bridge Engineering Group Co., Ltd.	**28**	28
China Railway Electrification Engineering Group Co., Ltd.	**100**	100
China Railway Construction Group Co., Ltd.	**218**	62
China Railway Tunnel Group Co., Ltd.	**19**	19
China Railway Trust	**206**	206
China Railway No.6 Survey and Design Institute Group Co., Ltd.	**24**	24
China Railway Prefabricate Construction Co., Ltd.	**333**	333
China Railway Changjiang Transport Design Group Co., Ltd.	**36**	36
China Railway Water Conservancy & Hydropower Planning and Design Group Co.,Ltd.	**5**	5
Other Subsidiaries	**18**	18
	1,568	1,412

The basis of determining the recoverable amounts of the above subsidiaries and their major underlying assumptions are summarised below:

China Railway Trust, which is included in other businesses of the Group, is principally engaged in financial trust management. The recoverable amount in respect of this subsidiary has been determined based on fair value less costs of disposal. The key assumptions in determining the fair value is the publicly disclosed value ratio of comparable transactions and estimated costs of disposal. Management believes that any reasonably possible change in the assumptions would not cause the carrying amount of this subsidiary to exceed its recoverable amount.

28. Goodwill (Continued)

The recoverable amounts in respect of subsidiaries, which are principally engaged in infrastructure construction, survey, design and consulting services and engineering equipment and component manufacturing, other than China Railway Trust, have been determined based on a value in use calculation. That calculation uses cash flow projections based on the most recent financial budgets of five years approved by management and an extrapolated financial budget for the following five years, and a discount rate of 10% (2020: 10%). One of the key assumptions in preparing cash flow projections is annual growth rates in revenue which vary among different subsidiaries for the most recent financial budgets period and a nil growth rate for the extrapolation period. The growth rates are based on the relevant industry growth forecasts and do not exceed the average long-term growth rate for the relevant industry. Another key assumption for the cash flow projections is the stable budgeted gross margin, which is determined based on the subsidiaries' past performance. Management believes that any reasonably possible change in any of these assumptions would not cause the carrying amounts of the subsidiaries to exceed its recoverable amounts.

29. Financial Assets at Fair Value Through Other Comprehensive Income

Financial assets at FVOCI comprise:

- Equity securities which are not held for trading, and which the Group has irrevocably elected at initial recognition to recognise in this category. These are strategic investments and the Group considers this classification to be more relevant.

- Debt securities where the contractual cash flows are solely payments of principal and interest and the objective of the Group's business model is achieved both by collecting contractual cash flows and selling financial assets.

29. Financial Assets at Fair Value Through Other Comprehensive Income (Continued)

(a) Financial assets at FVOCI include the following:

	2021 RMB million	2020 RMB million
Non-current assets		
Unlisted equity investments	**11,354**	8,831
Listed equity securities		
– Mainland China	**522**	568
– Hong Kong	**288**	269
	12,164	9,668
Current assets		
Bills receiveables	**526**	522

On disposal of these equity instruments, any related balance within the FVOCI reserve is reclassified to retained earnings.

In 2021, the Group disposed certain listed equity securities and unlisted equity investments at a fair value of RMB79 million (2020: RMB402 million). The Group realised no gain or loss in 2021 (2020: RMB12 million).

29. Financial Assets at Fair Value Through Other Comprehensive Income (Continued)

(b) Amounts recognised in profit or loss and other comprehensive income

During the year, the following gains were recognised in profit or loss and other comprehensive income:

	2021 **RMB million**	2020 RMB million
Gains recognised in other comprehensive income	**57**	(248)
Gains reclassified from other comprehensive income to retained earnings upon disposal of financial assets at FVOCI	**–**	(12)
Dividends from equity instruments held at FVOCI recognised in profit or loss in other income *(Note 6)*:		
– Related to instruments held at the end of the year	**84**	57
– Related to instruments derecognised during the year	**1**	1

(c) Fair value, impairment and risk exposure

Information about the methods and assumptions used in determining fair value is provided in Note 3.2.

The loss allowance for debt instruments at FVOCI as a result of applying the expected credit risk model is immaterial.

Financial assets at FVOCI are denominated in the following currencies:

	2021 **RMB million**	2020 RMB million
RMB	**12,402**	9,921
HKD	**288**	269
	12,690	10,190

30. Other Financial Assets at Amortised Cost

	2021 RMB million	2020 RMB million
Debt investments		
– Short-term	**9,369**	10,579
– Long-term	**27,541**	23,316
	36,910	33,895
Less: Loss allowance for debt investments *(a)*	**(5,397)**	(5,428)
Total other financial assets at amortised cost	**31,513**	28,467
Less: Amount due within one year included in current assets	**(8,553)**	(9,694)
Amount due after one year	**22,960**	18,773

(a) Movements in impairment on debt instruments are as follows:

	2021 RMB million	2020 RMB million
At 31 December in prior year	**5,428**	5,400
Impairment losses recognised during the year *(Note 7)*	**560**	33
Write off	**(591)**	–
Exchange differences	**–**	(5)
At 31 December	**5,397**	5,428

(b) The other financial assets at amortised cost carry fixed-rate interests within a range of 1.25% to 24.00% (31 December 2020: 1.31% to 24.00%) per annum.

(c) As at 31 December 2021, other financial assets at amortised cost amounting to RMB4,881 million (31 December 2020: RMB5,355 million) are secured by property, plant and equipments, investment properties or guaranteed by a third party.

30. Other Financial Assets at Amortised Cost (Continued)

(d) Other financial assets at amortised cost are denominated in the following currencies:

	2021	2020
	RMB million	RMB million
RMB	**31,016**	27,958
USD	**497**	509
	31,513	28,467

31. Properties Held for Sale/Properties Under Development for Sale

(a) Properties under development for sale

	2021	2020
	RMB million	RMB million
As at 1 January	**121,171**	134,747
Additions	**46,772**	37,595
Properties completed during the year	**(55,320)**	(49,152)
Transfers to property, plant and equipment *(Note 18)*	**(314)**	(1,169)
Disposal of subsidiaries	**(117)**	(850)
	112,192	121,171
Less: provision for impairment	**(2,862)**	(3,595)
As at 31 December	**109,330**	117,576

	2021	2020
	RMB million	RMB million
Properties under development for sale comprise:		
Land use rights	**84,383**	90,068
Construction cost	**17,531**	17,322
Borrowing costs capitalised	**10,278**	13,781
	112,192	121,171

31. Properties Held for Sale/Properties Under Development for Sale (Continued)

(b) Properties held for sale

	2021 RMB million	2020 RMB million
As at 1 January	**36,789**	25,746
Additions	**55,320**	49,152
Transferred from investment properties *(Note 22)*	**193**	270
Transferred from lease prepayments *(Note 20)*	**81**	43
Properties sold during the year	**(37,334)**	(37,348)
Transferred to investment properties *(Note 22)*	**(632)**	(631)
Transferred to lease prepayments *(Note 20)*	**(409)**	(169)
Transferred to property, plant and equipment *(Note 18)*	**(854)**	(274)
	53,154	36,789
Less: provision for impairment	**(4,409)**	(2,646)
As at 31 December	**48,745**	34,143

Properties under development for sale amounting to RMB30,698 million (2020: RMB37,371 million) have been pledged to secure bank borrowings amounting to RMB7,699 million (2020: RMB11,769 million) granted to the Group (Note 42).

All of the properties under development are expected to be completed within the Group's normal operating cycle and are included under current assets.

The Group's properties held for sale and properties under development for sale at the end of the reporting period are stated at the lower of cost and net realisable value.

32. Inventories

	2021 RMB million	2020 RMB million
Raw materials and consumables	**29,444**	26,919
Work in progress	**8,222**	7,383
Finished goods	**7,705**	6,641
	45,371	40,943

33. Trade and Other Receivables

	2021 RMB million	2020 RMB million
Trade and bills receivables	**157,025**	139,831
Less: Loss allowance	**(13,935)**	(10,314)
Trade and bills receivables – net	**143,090**	129,517
Other receivables (net of impairment)	**81,688**	70,854
Advance to suppliers (net of impairment)	**47,765**	30,291
	272,543	230,662
Less: Amount due after one year included in non-current assets	**(23,374)**	(20,801)
Amount due within one year included in current assets	**249,169**	209,861

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

	2021 RMB million	2020 RMB million
Less than 1 year	**118,517**	105,239
1 year to 2 years	**14,919**	16,642
2 years to 3 years	**10,297**	6,238
3 years to 4 years	**4,562**	2,815
4 years to 5 years	**1,407**	1,695
More than 5 years	**7,323**	7,202
Total	**157,025**	139,831

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

33. Trade and Other Receivables (Continued)

(b) Trade and bills receivables of RMB221 million (31 December 2020: RMB310 million) were pledged to secure borrowings amounting to RMB221 million (31 December 2020: RMB310 million) (Note 42).

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

(d) As at 31 December 2021, bills receivables – bank acceptance and commercial acceptance notes of RMB310 million (31 December 2020: RMB640 million) were endorsed to suppliers, and RMB46 million (31 December 2020: RMB520 million) were discounted with banks. In the opinion of the Directors, as the counter party bears higher credit risk, such transactions did not qualify for derecognition. In addition, as at 31 December 2021, bills receivables – bank acceptance notes of RMB670 million (31 December 2020: RMB2,142 million) were endorsed to suppliers, and RMB119 million (31 December 2020: RMB170 million) were discounted with banks. Relevant bills receivables were derecognised as the Directors are of the opinion that the substantial risks and rewards associated with those bank acceptance notes have been transferred and therefore qualified for derecognition.

(e) As at 31 December 2021, trade receivables net of credit loss allowance, which were collectively assessed for impairment, are as follows:

Central-governmental enterprises

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

33. Trade and Other Receivables (Continued)

(e) As at 31 December 2021, trade receivables net of credit loss allowance, which were collectively assessed for impairment, are as follows: (Continued)

Locally-administrated state-owned enterprises

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

China State Railway Group Co.,Ltd.

	As at 31 December 2021 RMB million	As at 31 December 2020 RMB million
Less than 1 year	**9,522**	12,418
1 year to 2 years	**780**	1,412
2 years to 3 years	**703**	653
3 years to 4 years	**167**	225
4 years to 5 years	**89**	146
More than 5 years	**155**	108
Total	**11,416**	14,962

33. Trade and Other Receivables (Continued)

(e) As at 31 December 2021, trade receivables net of credit loss allowance, which were collectively assessed for impairment, are as follows: (Continued)

Overseas enterprises

	As at	
	31 December 2021	31 December 2020
	RMB million	RMB million
Less than 1 year	**1,723**	1,864
1 year to 2 years	**56**	641
2 years to 3 years	**12**	466
3 years to 4 years	**230**	34
4 years to 5 years	**25**	8
More than 5 years	**–**	7
Total	**2,046**	3,020

Other entities

	As at	
	31 December 2021	31 December 2020
	RMB million	RMB million
Less than 1 year	**17,339**	16,175
1 year to 2 years	**1,908**	2,686
2 years to 3 years	**1,345**	1,375
3 years to 4 years	**835**	372
4 years to 5 years	**207**	200
More than 5 years	**288**	181
Total	**21,922**	20,989

33. Trade and Other Receivables (Continued)

(e) As at 31 December 2021, trade receivables net of credit loss allowance, which were collectively assessed for impairment, are as follows: (Continued)

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

As at 31 December 2021, bills receivables – bank acceptance notes of RMB1,108 million (31 December 2020: RMB501 million) were not impaired. Commercial acceptance notes, which were collectively assessed for impairment, were RMB1,480 million (31 December 2020: RMB5,048 million) with the provision for credit loss allowance of RMB4 million (31 December 2020: RMB12 million). The amount of individually impaired commercial acceptance notes was RMB2,832 million (31 December 2020: nil) with the provision for credit loss allowance of RMB467 million (31 December 2020: nil).

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

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

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

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

33. Trade and Other Receivables (Continued)

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

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

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

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

34. Assets and Liabilities Related to Contracts with Customers

The Group has recognised the following assets and liabilities related to contracts with customers:

	2021 **RMB million**	2020 RMB million
Contract assets		
– Amount due from contract customers for contract work and Retentions	**197,140**	185,138
– Financial assets under concession arrangements *(a)*	**109,694**	94,809
– Primary land development	**7,024**	6,679
	313,858	286,626
Less: loss allowance *(b)*	**(3,339)**	(2,256)
Less: Amount due after one year included in non-current assets	**161,377**	138,759
Amount due within one year included in current assets	**149,142**	145,611
Contract liabilities		
– Sale of properties	**56,551**	49,530
– Infrastructure construction and engineering contracts	**43,668**	42,562
– Amount due to contract customers for contract work	**27,801**	20,026
– Sales of manufacturing products	**7,049**	5,466
– Design and consulting services	**4,253**	3,120
– Sales of materials	**1,263**	759
– Others	**3,510**	3,197
Total current contract liabilities	**144,095**	124,660

(a) Financial assets under concession arrangements represent the contract assets recognised when the related projects were under construction or have been put into operations before the Group has an unconditional contractual right to receive cash from or at the direction of the granting authority.

34. Assets and Liabilities Related to Contracts with Customers (Continued)

(b) As at 31 December 2021, the impairment of contract assets is determined as follows:

Contract assets	Expected loss rate	Gross carrying amount RMB million	Loss allowance RMB million
Amounts due from customers for contract work	**1.01%**	**115,848**	**1,166**
Retentions	**0.50%**	**75,821**	**380**
Financial assets under concession arrangements	**0.50%**	**109,694**	**548**
Total		**301,363**	**2,094**

The amount of individually impaired contract assets was RMB12,495 million (31 December 2020: RMB3,255 million) with the provision of RMB1,245 million (31 December 2020: RMB503 million).

(c) As at 31 December 2021, borrowings amounting to RMB29,825 million (2020: RMB28,523 million) are secured by contract assets with carrying amount of approximately RMB48,320 million (2020: RMB48,339 million) (Note 42).

35. Financial Assets/(Liabilities) at Fair Value Through Profit or Loss

The Group classifies the following financial assets at FVPL:

- Debt investments that do not qualify for measurement at either amortised cost or FVOCI (Note 29);
- Equity investments that are held for trading, and
- Equity investments for which the entity has not elected to recognise fair value gains and losses through other comprehensive income.

35. Financial Assets/(Liabilities) at Fair Value Through Profit or Loss (Continued)

(a) Financial assets at FVPL include the following:

	2021 **RMB million**	2020 RMB million
Non-current assets		
Equity instruments		
Equity securities listed in Mainland China	**51**	1,215
Unlisted equity investments	**5,066**	4,177
	5,117	5,392
Debt instruments		
Unlisted entrusted products	**2,712**	3,169
Unlisted open-end equity funds	**1,642**	1,130
Others	**2,823**	873
	7,177	5,172
	12,294	10,564
Current assets		
Equity instruments		
Listed equity securities		
– Mainland China	**1,039**	68
Debt instruments		
Money-market securities investment funds	**4,768**	2,377
Unlisted open-end equity funds	**624**	1,635
Unlisted entrusted products	**413**	888
Others	**311**	90
	6,116	4,990
Derivative financial instruments		
– Option Contract	**149**	160
	7,304	5,218
Total	**19,598**	15,782

35. Financial Assets/(Liabilities) at Fair Value Through Profit or Loss (Continued)

(b) Financial liabilities at FVPL include the following:

	2021 RMB million	2020 RMB million
Current liabilities		
Unlisted open-end equity funds	**122**	65

(c) Amounts recognised in profit or loss

	2021 RMB million	2020 RMB million
Fair value (losses)/gains on financial assets at FVPL	**(442)**	198
Fair value gains on financial liabilities at FVPL	**(73)**	20
	(515)	218

(d) Risk exposure and fair value measurements

Information about the Group's exposure to price risk is provided in Note 3.1.

For information about the methods and assumptions used in determining fair value refer to Note 3.2.

36. Restricted Cash

	2021	2020
	RMB million	RMB million
Restricted bank deposits	**29,255**	23,389
Term deposits with initial term of over three months	**1,542**	5,916
	30,797	29,305

As at 31 December 2021, restricted bank deposits mainly included deposits for issuance of bank acceptance notes, performance bonds, letters of credit to customers, and mandatory reserve deposits placed with People's Bank of China.

Term deposits with initial term of over three months are excluded from cash and cash equivalents, as management are of the opinion that these term deposits are not readily convertible to known amounts of cash without significant risk of changes in value.

The carrying amount of restricted cash are denominated in the following currencies:

	2021	2020
	RMB million	RMB million
RMB	**30,712**	29,219
USD	**13**	30
Other currencies	**72**	56
	30,797	29,305

37. Cash and Cash Equivalents

	2021 RMB million	2020 RMB million
Cash on hand	**46**	88
Bank deposits	**148,070**	145,376
Cash and cash equivalents	**148,116**	145,464

The maximum exposure to credit risk approximates the carrying amounts of the Group's cash and cash equivalents at the end of the reporting period.

The weighted average effective interest rate on bank deposits was 0.50% per annum as at 31 December 2021 (2020: 0.44% per annum).

The carrying amount of cash and cash equivalents are denominated in the following currencies:

	2021 RMB million	2020 RMB million
RMB	**132,167**	131,600
USD	**13,067**	11,355
Others	**2,882**	2,509
	148,116	145,464

The Group's cash and bank balances denominated in RMB are deposited with banks in the PRC. The conversion of these RMB denominated balances into foreign currencies is subject to the rules and regulation of foreign exchange control promulgated by the PRC Government.

As at 31 December 2021, less than 0.83% (2020: less than 0.94%) of the cash and cash equivalents balances denominated in currencies other than RMB was deposited in banks in certain countries which are subject to foreign exchange control and the currencies are not freely convertible into other currencies or remitted out of those countries.

38. Share Capital and Premium

	Number of shares		Nominal value	
	2021	2020	**2021**	2020
	(thousands)	(thousands)	**RMB million**	RMB million
Registered, issued and fully paid				
A shares of RMB1.00 each				
At beginning and end of year	**20,363,540**	20,363,540	**20,364**	20,364
H shares of RMB1.00 each				
At beginning and end of year	**4,207,390**	4,207,390	**4,207**	4,207
	24,570,930	24,570,930	**24,571**	24,571

As at 31 December 2021, the A Shares (20,363,540 thousands shares) and H Shares (4,207,390 thousands shares) issued are the ordinary shares in the share capital of the Company. All cash dividends in respect of the H Shares are to be declared in Renminbi and paid by the Company in Hong Kong dollars whereas all cash dividends in respect of A Shares are to be paid by the Company in Renminbi.

In addition, A Shares and H Shares are regarded as different classes of shares under the Company's Articles of Association. The differences between the two classes of shares, including provisions on class rights, the dispatch of notices and financial reports to shareholders, dispute resolution, registration of shares on different branches of the registers of shareholders, the method of share transfer and appointment of dividend receiving agents are set out in the Company's Articles of Association.

A Shares and H Shares however rank pari passu with each other in all other respects.

39. Statutory Reserves

The statutory reserves comprise the statutory surplus reserve, trust compensation reserve and general risk reserve.

According to the PRC Company Law and the Company's article of association, the Company is required to make an appropriation at 10 percent of the profit for the year as shown in the PRC statutory financial statements, prepared in accordance with the relevant PRC accounting standards, to the statutory surplus reserve fund until the balance reached 50 percent of the registered capital of the Company. The statutory surplus reserve can only make up losses or use to increase the registered capital of the Company and is not distributable.

According to the relevant laws and regulations for financial institutions and trust management entities in the PRC, certain subsidiaries of the Company are required to set aside certain amounts to trust compensation reserve and general risk reserve to address unidentified potential impairment risks.

40. Perpetual Notes

	2020 RMB million	Additions RMB million	Redemption/ Declaration RMB million	**2021** **RMB million**
Public medium notes *(Note (a))*	15,521	–	(5,796)	**9,725**
Public renewable corporate bonds *(Note (b))*	30,951	11,890	(7,198)	**35,643**
Dividends *(Note (c))*	266	2,149	(2,159)	**256**
Total	46,738	14,039	(15,153)	**45,624**

40. Perpetual Notes (Continued)

(a) In November and December 2021, the Company redeemed the public medium notes ("Medium Notes") (category one) issued from 26 November 2018 to 27 November 2018, 11 December 2018 to 12 December 2018 and on 17 December 2018 in cash consideration of RMB1.6 billion, RMB2 billion and RMB2.2 billion, respectively.

From 26 November 2018 to 27 November 2018, 11 December 2018 to 12 December 2018 and on 17 December 2018, the Company issued three tranches of Medium Notes (category two) with an aggregate principal amount of RMB1.4 billion, RMB1 billion and RMB0.8 billion, respectively. The Medium Notes are unsecured or unguaranteed. Pursuant to the terms and conditions of the Medium Notes, the Medium Notes bear the initial interest rate of 4.8%, 4.8% and 4.8% per annum, respectively and has no maturity date. The interest rate will be reset every five years from issuance date. The interest is payable annually in arrears. As long as the compulsory interest payment events have not occurred, the Company may, at its sole discretion, elect to defer the distribution of interest, and is not subject to any restriction as to the number of times the distribution can be deferred. The Medium Notes are subject to redemption in whole, at the option of the Company, five years after the issue date, at their principal amount together with accrued interest. The Directors of the Company are of the opinion that the Group has no contractual obligation to repay the principal or to pay the distribution for the Medium Notes, the Medium Notes should be classified as equity.

From 21 November 2019 to 22 November 2019, the Company issued two tranches of Medium Notes with an aggregate principal amount of RMB2.5 billion, respectively. The Medium Notes are unsecured or unguaranteed. Pursuant to the terms and conditions of the Medium Notes, the Medium Notes bear the initial interest rate of 4.11% per annum (category one) and 4.41% per annum (category two), respectively, and has no maturity date. The interest rate will be reset every three years (category one) and every five years (category two) from issuance date. The interest is payable annually in arrears. As long as the compulsory interest payment events have not occurred, the Company may, at its sole discretion, elect to defer the distribution of interest, and is not subject to any restriction as to the number of times the distribution can be deferred. The Medium Notes are subject to redemption in whole, at the option of the Company, three years (category one) and five years (category two) after the issue date, at their principal amount together with accrued interest. The Directors of the Company are of the opinion that the Group has no contractual obligation to repay the principal or to pay the distribution for the Medium Notes, the Medium Notes should be classified as equity.

On 16 September 2020 and from 29 December 2020 to 30 December 2020, the Company issued two tranches of Medium Notes with an aggregate principal amount of RMB1.5 billion and RMB2.5 billion, respectively. The Medium Notes are unsecured or unguaranteed. Pursuant to the terms and conditions of the Medium Notes, the Medium Notes bear the initial interest rate of 4.45% per annum and 3.94% per annum, respectively, and has no maturity date. The interest rate will be reset every three years and two years, respectively, from issuance date. The interest is payable annually in arrears. As long as the compulsory interest payment events have not occurred, the Company may, at its sole discretion, elect to defer the distribution of interest, and is not subject to any restriction as to the number of times the distribution can be deferred. The Medium Notes are subject to redemption in whole, at the option of the Company, three years and two years, respectively, after the issue date, at their principal amount together with accrued interest. The Directors of the Company are of the opinion that the Group has no contractual obligation to repay the principal or to pay the distribution for the Medium Notes, the Medium Notes should be classified as equity.

40. Perpetual Notes (Continued)

(b) In October, November and December 2021, the Company redeemed four tranches of the public renewable corporate bonds ("Renewable Bonds") (category one) issued on 5 November 2018, 14 November 2018, 26 November 2018, 17 December 2018 and 28 October 2020 in cash consideration of RMB2.3 billion, RMB1.2 billion, RMB1.6 billion, RMB1.2 billion and RMB0.9 billion, respectively.

On 5 November 2018, 14 November 2018, 26 November 2018 and 17 December 2018, the Company issued four tranches of Renewable Bonds (category two) with an aggregate principal amount of RMB0.7 billion, RMB1.8 billion, RMB1.4 billion and RMB0.8 billion, respectively. The Renewable Bonds are unsecured or unguaranteed and listed on the Shanghai Stock Exchange by way of bond issues to qualified investors. Pursuant to the terms and conditions of the Renewable Bonds, the Renewable Bonds bear the initial interest rate of 4.99%, 4.90%, 4.80% and 4.78% per annum, respectively, and has no maturity date. The interest rate will be reset every five years from the issuance date. The interest is payable annually in arrears. As long as the compulsory interest payment events have not occurred, the Company may, at its sole discretion, elect to defer the distribution of interest, and is not subject to any restriction as to the number of times the distribution can be deferred. The Renewable Bonds are subject to redemption in whole, at the option of the Company, five years after the issue date, at their principal amount together with accrued interest. The Directors of the Company are of the opinion that the Group has no contractual obligation to repay the principal or to pay the distribution for the Renewable Bonds, the Renewable Bonds should be classified as equity.

On 26 May 2020, 23 June 2020, 23 July 2020 and 18 August 2020, the Company issued four tranches of Renewable Bonds with an aggregate principal amount of RMB2.6 billion, RMB1 billion, RMB3.5 billion, RMB3.5 billion, respectively. The Renewable Bonds are unsecured or unguaranteed and listed on the Shanghai Stock Exchange by way of bond issues to qualified investors. Pursuant to the terms and conditions of the Renewable Bonds, the Renewable Bonds bear the initial interest rate of 3.11%, 3.60%, 3.95% and 3.95% per annum, respectively, and has no maturity date. The interest rate will be reset every three years from the issuance date. The interest is payable annually in arrears. As long as the compulsory interest payment events have not occurred, the Company may, at its sole discretion, elect to defer the distribution of interest, and is not subject to any restriction as to the number of times the distribution can be deferred. The Renewable Bonds are subject to redemption in whole, at the option of the Company, three years after the issue date, at their principal amount together with accrued interest. The Directors of the Company are of the opinion that the Group has no contractual obligation to repay the principal or to pay the distribution for the Renewable Bonds, the Renewable Bonds should be classified as equity.

40. Perpetual Notes (Continued)

(b) (Continued)

On 15 June 2020, 16 October 2020 and 28 October 2020, the Company issued three tranches of Renewable Bonds with an aggregate principal amount of RMB3.5 billion, RMB3 billion and RMB2 billion, respectively. The Renewable Bonds are unsecured or unguaranteed and listed on the Shanghai Stock Exchange by way of bond issues to qualified investors. Pursuant to the terms and conditions of the Renewable Bonds, the Renewable Bonds bear the initial interest rate of 3.50% and 4.20% per annum (category one), respectively, and 3.99%, 4.47% and 3.94% per annum (category two), respectively, and has no maturity date. The interest rate will be reset every three years and two years (category one), respectively, and every five years, three years and two years (category two), respectively, from the issuance date. The interest is payable annually in arrears. As long as the compulsory interest payment events have not occurred, the Company may, at its sole discretion, elect to defer the distribution of interest, and is not subject to any restriction as to the number of times the distribution can be deferred. The Renewable Bond are subject to redemption in whole, at the option of the Company, three years and two years (category one), respectively and five years, three years and two years (category two), respectively after the issue date, at their principal amount together with accrued interest. The Directors of the Company are of the opinion that the Group has no contractual obligation to repay the principal or to pay the distribution for the Renewable Bond, the Renewable Bond should be classified as equity.

On 2 June 2021, 17 June 2021, 9 November 2021 and 23 November 2021, the Company issued four tranches Renewable Bonds with an aggregate principal amount of RMB3 billion, RMB3 billion, RMB3 billion and RMB2.9 billion respectively. The Renewable Bonds are unsecured or unguaranteed and listed on the Shanghai Stock Exchange by way of bond issues to qualified investors. Pursuant to the terms and conditions of the Renewable Bonds, the Renewable Bonds bear the initial interest rate of 3.63%, 3.73%, 3.15% and 3.14% per annum (category one), respectively, and 3.85%, 4.05%, 3.37% and 3.30% per annum (category two), respectively, and has no maturity date. The interest rate will be reset every three years, three years, two years and two years (category one), respectively and every five years, five years, three years and three years (category two), respectively from the issuance date. The interest is payable annually in arrears. As long as the compulsory interest payment events have not occurred, the Company may, at its sole discretion, elect to defer the distribution of interest, and is not subject to any restriction as to the number of times the distribution can be deferred. The Renewable Bonds are subject to redemption in whole, at the option of the Company, three years, three years, two years and two years (category one), respectively and five years, five years, three years and three years (category two), respectively, after the issue date, at their principal amount together with accrued interest. The Directors of the Company are of the opinion that the Group has no contractual obligation to repay the principal or to pay the distribution for the Renewable Bonds, the Renewable Bonds should be classified as equity.

(c) For the year ended 31 December 2021, as a consequence of the compulsory interest payment event, i.e. the final dividend declared to the shareholders of the Company, the Company declared dividends to perpetual notes holders totaling RMB2,159 million, including the interest of RMB1,893 million which was generated during the period was deducted from retained earnings, and RMB266 million represented the accrued interest in the balance of perpetual notes as at 31 December 2020.

41. Trade and Other Payables

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

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

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

41. Trade and Other Payables (Continued)

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

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

(b) China Railway Finance Co., Ltd. ("CREC Finance"), a subsidiary of the Company, accepted deposits from related parties and third parties. These deposits were due within one year with average annual interest rate of 1.265%.

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

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

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

42. Borrowings

	2021 RMB million	2020 RMB million
Bank borrowings：		
– Secured	**81,976**	80,127
– Unsecured	**152,824**	102,340
	234,800	182,467
Long-term debentures, unsecured *(a)*	**55,007**	49,443
Other borrowings:		
– Secured	**1,992**	262
– Unsecured	**20,128**	17,883
	22,120	18,145
	311,927	250,055
Analysed for reporting purposes:		
Non-current	**198,503**	166,997
Current	**113,424**	83,058
	311,927	250,055

42. Borrowings (Continued)

(a) On 28 January, 23 March, and 29 April 2021, the first tranche of the corporate bond, the first tranche of the medium-term note, the second tranche of the medium-term note, issued on 28 January 2016, 22 March 2011 and 25 April 2019, of a principal amount of RMB1,135 million, RMB4,659 million, and RMB1,000 million respectively have been fully paid off.

On 12 April 2019, the Company issued the second tranche of the corporate bond of a principal amount of RMB3,500 million with a maturity date of 15 April 2022, including RMB1,300 million for category 1 with investors' put options and issuer's coupon rate adjustment options at the end of the first year and the second year and RMB2,200 million for category 2 with investors' put options and issuer's coupon rate adjustment options at the end of the second year. The interest rates are 3.40% (category 1) and 3.70% (category 2) per annum, payable annually in arrears. In March 2021, the Company exercised the coupon rate adjustment option and adjust the interest rate from 3.70% to 3.20% (category 2). In April 2021, the investors partially exercised put option. The category 1 and the category 2 of the second tranche of the corporate bond of a principal amount of RMB1,300 million and RMB1,780 million respectively was fully paid off. At 31 December 2021, the Company continued holding the rest part of the category 2 of the second tranche of corporate bond with a principal amount of RMB420 million.

On 23 April, 26 May, 9 July and 13 August 2021, the Company issued four tranches of the medium-term notes of a principal amount of RMB3,000 million, RMB2,500 million, RMB3,000 million and RMB3,000 million with a maturity date of 27 April, 28 May, 13 July and 17 August 2024, respectively. The notes bear interest at a coupon rate of 3.37%, 3.34%, 3.20% and 3.09% per annum respectively, all payable annually in arrears.

On 22 July 2021, the Company issued the first tranche of the corporate bond, including 3-year corporate bond in a principal amount of RMB2,200 million (category 1), with a maturity date of 23 July 2024, and 5-year corporate bond in a principal amount of RMB800 million (category 2), with a maturity date of 23 July 2026. The interest rates are 3.14% (category 1) and 3.40% (category 2) per annum, payable annually in arrears.

On 17 January 2022, the first tranche of the corporate bond of a principal amount of RMB2,500 million issued on 16 January 2019 has been fully paid off.

On 21 January 2022, the first tranche of the medium-term note of a principal amount of RMB1,000 million (category 1) issued on 17 January 2019 has been fully paid off.

42. Borrowings (Continued)

(b) Bank borrowings carry interest at rates ranging from 0.75% to 9.50% (31 December 2020: 0.75% to 9.55%) per annum.

Long-term debentures were issued at fixed rates ranging from 2.14% to 4.50% (31 December 2020: 2.14% to 4.50%) per annum.

Other borrowings carry interest at rate of 2.35% (31 December 2020: 3.85% to 7.00%) per annum.

(c) The details of secured borrowings are set out below:

	2021		2020	
	Secured borrowings	**Carrying amount of pledged assets and contract value of certain rights**	Secured borrowings	Carrying amount of pledged assets and contract value of certain rights
	RMB million	**RMB million**	RMB million	RMB million
Property, plant and equipment *(Note 18)*	**295**	**1,715**	367	1,022
Lease prepayments *(Note 20)*	**–**	**–**	197	309
Intangible assets *(Note 23)*	**45,894**	**64,728**	39,104	50,991
Properties under development for sale *(Note 31)*	**7,699**	**30,698**	11,769	37,371
Trade and bills receivables *(Note 33)*	**221**	**221**	310	310
Trade receivables from fellow subsidiaries of the Group	**34**	**375**	119	375
Contract assets *(Note 34)*	**29,825**	**48,320**	28,523	48,339
	83,968	**146,057**	80,389	138,717

42. Borrowings (Continued)

(d) The exposure of the Group's variable rate bank borrowings to interest rate changes and the contractual repricing dates at the end of the year are as follows:

	2021 RMB million	2020 RMB million
6 months or less	**30,969**	47,772
6 -12 months	**123,580**	81,316
1-5 years	**1,891**	288
	156,440	129,376

(e) The Group's borrowings were repayable as follows:

	2021 RMB million	2020 RMB million
Within 1 year	**113,424**	83,058
Between 1 and 2 years	**31,351**	46,920
Between 2 and 5 years	**64,552**	52,212
Over 5 years	**102,600**	67,865
	311,927	250,055

(f) The carrying amounts of the borrowings are denominated in the following currencies:

	2021 RMB million	2020 RMB million
RMB	**299,876**	239,539
USD	**11,682**	10,501
EUR	**13**	2
Others	**356**	13
	311,927	250,055

42. Borrowings (Continued)

(g) The carrying amounts of current portion of long-term borrowings and short-term borrowings approximate their fair values, as the impact of discounting is not significant.

The carrying amounts and fair values of the non-current borrowings are as follows:

	2021 **RMB million**	2020 RMB million
Carrying amount		
– Bank borrowings	**161,579**	119,970
– Long-term debentures	**33,563**	41,705
– Other borrowings	**3,361**	5,322
	198,503	166,997
Fair value		
Level 3		
– Bank borrowings	**168,180**	121,511
– Long-term debentures	**33,735**	41,214
– Other borrowings	**3,361**	5,322
	205,276	168,047

(h) The Group has the following undrawn borrowing facilities:

	2021 **RMB million**	2020 RMB million
Expiring within one year	**49,863**	95,962
Expiring beyond one year	**1,151,628**	1,096,468
	1,201,491	1,192,430

43. Retirement Benefit Obligations

(a) State-managed retirement plans and supplementary defined contribution retirement schemes

The employees of the group entities established in the PRC are members of a state-managed retirement benefit scheme operated by the PRC government. These PRC companies are required to contribute a certain percentage of payroll costs, depending on the applicable local regulations to the state-managed retirement plans. The Group also participates in supplementary defined contribution retirement schemes. The only obligation of these PRC companies with respect to the state-managed retirement plans and supplementary defined contribution retirement schemes is to make the specified contributions. The total costs charged to profit or loss during the year were RMB6,273 million and RMB1,921 million respectively (2020: RMB4,186 million and RMB1,792 million respectively).

As at 31 December 2021, the amounts due in respect of the reporting period not yet paid to the state-managed retirement plans and supplementary defined contribution retirement schemes, and included in trade and other payables were RMB216 million and RMB60 million respectively (2020: RMB155 million and RMB46 million respectively).

(b) Retirement and other supplemental benefit obligations

The Group paid supplementary pension subsidies and other post-employment medical benefits to its retired employees in the PRC. In addition, the Group was committed to make periodic benefits payments to certain former employees who were terminated or early retired and the dependents of deceased employees in accordance with various employee benefit schemes adopted by the Group.

The plan exposes the Group to actuarial risks such as interest rate risk, benefit risk and average medical expense risk.

Interest rate risk	The present value of the defined benefit plan obligations is calculated using a discount rate determined by reference to government bond yields. A decrease in the bond interest rate will increase the plan liability.
Benefit risk	The present value of the defined benefit plan obligations is calculated by reference to the future benefits of plan participants. As such, an increase in the benefits of the plan participants will increase the plan liability.
Average medical cost risk	The present value of the defined benefit plan obligations is calculated by reference to the future average medical cost of plan participants. As such, an increase in the average medical cost of the plan participants will increase the plan liability.

43. Retirement Benefit Obligations (Continued)

(b) Retirement and other supplemental benefit obligations (Continued)

No other post-retirement benefits are provided to these employees.

The most recent actuarial valuations of the present value of the defined benefit obligations as at 31 December 2021 were carried out by an independent firm of actuaries, Willis Towers Watson. The present value of the defined benefit obligations, and the related current service cost and past cost were measured using the Projected Unit Credit Method.

The principal assumptions used for the purposes of the actuarial valuations were as follows:

	2021	2020
Discount rate	**2.75%**	3.25%
Early-retiree's salary and supplemental benefit inflation rate	**4.50%**	4.50%
Average medical cost growth rate	**8.00%**	8.00%

Amounts recognised in the consolidated income statement and consolidated statement of comprehensive income in respect of these defined benefit plans are as follows:

	2021 **RMB million**	2020 RMB million
Net finance costs *(Note 10)*	**85**	85
Components of defined benefit costs recognised in profit or loss	**85**	85
Remeasurement on the net defined benefit obligations:		
Actuarial losses/(gains) arising from experience adjustments	**78**	(1)
Components of defined benefit costs recognised in other comprehensive income	**78**	(1)
Total	**163**	84

The current service cost and the net interest expense for the year are included in the employee benefits expense in profit or loss. The remeasurement of the net defined benefit liability is included in other comprehensive income.

43. Retirement Benefit Obligations (Continued)

(b) Retirement and other supplemental benefit obligations (Continued)

The amount included in the consolidated balance sheet arising from the Group's obligation in respect of its defined benefit plans is as follows:

	2021 **RMB million**	2020 RMB million
Present value of unfunded defined benefit obligations	**2,593**	2,805
Net liability arising from defined benefit obligations	**2,593**	2,805
Less: Amount due within one year	**(300)**	(323)
Amount due after one year	**2,293**	2,482

Movements in the present value of the retirement and other supplemental benefit obligations in the current year were as follows:

	2021 **RMB million**	2020 RMB million
Opening defined benefit obligations	**2,805**	3,129
Finance costs	**85**	85
Remeasurement losses		
Actuarial losses/(gains) arising from experience adjustments	**78**	(1)
Benefits paid	**(375)**	(408)
Closing defined benefit obligations	**2,593**	2,805

43. Retirement Benefit Obligations (Continued)

(b) Retirement and other supplemental benefit obligations (Continued)

Significant actuarial assumptions for the determination of the defined benefit obligation are discount rate, benefit inflation rate and the average medical cost growth rate. The sensitivity analyses below have been determined based on reasonably possible changes of the respective assumptions occurring at the end of the reporting period, while holding all other assumptions constant.

- If the discount rate on benefit obligation increases or decreases by 0.25 percentage point, the defined benefit obligation would have been decreased by RMB43 million or increased by RMB45 million (2020: decreased by RMB46 million or increased by RMB48 million).

- If the benefit inflation rate increases or decreases by 1 percentage point, the defined benefit obligation would have been increased by RMB94 million or decreased by RMB82 million (2020: increased by RMB101 million or decreased by RMB88 million).

- If the average medical cost growth rate increases or decreases by 1 percentage point, the defined benefit obligation would have been increased by RMB6 million or decreased by RMB6 million (2020: increased by RMB8 million or decreased by RMB7 million).

The sensitivity analysis presented above may not be representative of the actual change in the defined benefit obligations as it is unlikely that the change in assumptions would occur in isolation of one another as some of the assumptions may be correlated.

Furthermore, in presenting the above sensitivity analysis, the present value of the defined benefit obligations has been calculated using the projected unit credit method at the end of the reporting period, which is the same as that applied in calculating the defined benefit obligations liability recognised in the consolidated balance sheet.

There was no change in the methods and assumptions used in preparing the sensitivity analysis from prior years.

43. Retirement Benefit Obligations (Continued)

(b) Retirement and other supplemental benefit obligations (Continued)

The average expected future lifetime of the defined benefit obligation as at 31 December 2021 is 10 years (2020: 10.4 years). This number can be analysed as follows:

- civil retirees: 3.6 years (2020: 3.8 years);
- retired members: 10 years (2020: 10.4 years); and
- beneficiaries: 11 years (2020: 11.4 years).

The duration of the defined benefit obligation as at 31 December 2021 is 6.4 years (2020: 6.8 years).

44. Provisions

	2021 **RMB million**	2020 RMB million
Forseeable losses on contracts	**357**	686
Lawsuits	**122**	116
Others	**330**	–
	809	802
Analysed for reporting purpose as:		
Non-current	**761**	562
Current	**48**	240
	809	802

44. Provisions (Continued)

Movements in each class of provision during the financial year are set out below:

	Forseeable losses on contracts RMB million	Lawsuits RMB million	Others RMB million	Total RMB million
At 1 January 2020	458	606	–	1,064
Charged/(credited) to the consolidated income statement:				
– Additional provisions	442	45	–	487
– Utilised/reversed during the year	(214)	(535)	–	(749)
At 31 December 2020	686	116	–	802
At 1 January 2021	**686**	**116**	**–**	**802**
Charged/(credited) to the consolidated income statement:				
– Additional provisions	**109**	**50**	**330**	**489**
– Utilised/reversed during the year	**(438)**	**(44)**	**–**	**(482)**
At 31 December 2021	**357**	**122**	**330**	**809**

45. Deferred Taxation

(a) The analysis of deferred tax assets and deferred tax liabilities is as follows:

	2021		2020	
	Deferred tax assets	**Deferred tax liabilities**	Deferred tax assets	Deferred tax liabilities
	RMB million	**RMB million**	RMB million	RMB million
The balances before offsetting	**10,966**	**(2,241)**	9,935	(2,056)
Offsetting	**(594)**	**594**	(602)	602
	10,372	**(1,647)**	9,333	(1,454)

(b) The gross movement on the deferred income tax account is as follows:

	2021	2020
	RMB million	RMB million
At 31 December in prior year	**7,879**	6,228
Recognised in the income statement *(Note 13)*	**838**	1,451
Recognised in other comprehensive income *(Note 13)*	**(6)**	65
Effect of change in tax rate charged to profit or loss *(Note 13)*	**28**	166
Acquisition of subsidiaries	**(4)**	(160)
Disposal of subsidiaries	**(11)**	(11)
Exchange differences	**1**	140
At 31 December	**8,725**	7,879

45. Deferred Taxation (Continued)

(c) The movement in deferred tax assets and liabilities during the year, without taking into consideration the offsetting of balances within the same tax jurisdiction, is as follows:

Deferred Tax Liabilities

	Financial assets/ liabilities measured at fair value RMB million	Unrealised loss from intercompany transactions RMB million	Depreciation and amortisation RMB million	Acquisition of subsidiaries RMB million	Others RMB million	Total RMB million
At 1 January 2020	(687)	(28)	(322)	(410)	(767)	(2,214)
Credited/(charged) to the consolidated income statement	–	4	(19)	29	(6)	8
Credited to other comprehensive income	9	–	–	–	–	9
Acquisition of subsidiaries	–	–	–	(152)	(60)	(212)
Effect of change in tax rate credited to profit or loss	–	–	–	–	205	205
Exchange differences	–	–	148	–	–	148
At 31 December 2020	(678)	(24)	(193)	(533)	(628)	(2,056)
At 1 January 2021	**(678)**	**(24)**	**(193)**	**(533)**	**(628)**	**(2,056)**
Credited/(charged) to the consolidated income statement	**5**	**1**	**(12)**	**47**	**(209)**	**(168)**
Charged to other comprehensive income	**(10)**	**–**	**–**	**–**	**–**	**(10)**
Acquisition of subsidiaries	**–**	**–**	**–**	**(9)**	**–**	**(9)**
Exchange differences	**–**	**–**	**–**	**2**	**–**	**2**
At 31 December 2021	**(683)**	**(23)**	**(205)**	**(493)**	**(837)**	**(2,241)**

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45. Deferred Taxation (Continued)

(c) The movement in deferred tax assets and liabilities during the year, without taking into consideration the offsetting of balances within the same tax jurisdiction, is as follows: (Continued)

Deferred Tax Assets:

	Provision for impairment of assets RMB million	Depreciation and amortisation RMB million	Financial assets/ liabilities measured at fair value RMB million	Provision for employee benefits RMB million	Tax losses RMB million	Unrealised profit from intercompany transactions RMB million	Other RMB million	Total RMB million
At 1 January 2020	3,519	23	172	457	1,839	1,958	474	8,442
Credited/(charged) to the consolidated income statement	288	28	79	(39)	340	442	305	1,443
Credited/(charged) to other comprehensive income	–	–	54	2	–	–	–	56
Acquisition of subsidiaries	46	–	–	–	4	2	–	52
Disposal of subsidiaries	–	–	–	–	(11)	–	–	(11)
Effect of change in tax rate credited to profit or loss	(8)	–	–	8	(37)	–	(2)	(39)
Exchange differences	–	–	–	–	(8)	–	–	(8)
At 31 December 2020	3,845	51	305	428	2,127	2,402	777	9,935
At 1 January 2021	**3,845**	**51**	**305**	**428**	**2,127**	**2,402**	**777**	**9,935**
Credited/(charged) to the consolidated income statement	**288**	**8**	**119**	**(44)**	**208**	**310**	**117**	**1,006**
(Charged)/credit to other comprehensive income	**–**	**–**	**(10)**	**13**	**–**	**–**	**1**	**4**
Acquisition of subsidiaries	**–**	**–**	**–**	**–**	**5**	**–**	**–**	**5**
Disposal of subsidiaries	**(11)**	**–**	**–**	**–**	**–**	**–**	**–**	**(11)**
Effect of change in tax rate credited to profit or loss	**27**	**4**	**–**	**6**	**(9)**	**–**	**–**	**28**
Exchange differences	**–**	**–**	**–**	**–**	**(1)**	**–**	**–**	**(1)**
At 31 December 2021	**4,149**	**63**	**414**	**403**	**2,330**	**2,712**	**895**	**10,966**

45. Deferred Taxation (Continued)

(d) Deferred income tax assets are recognised for tax loss carry-forwards to the extent that the realisation of the related tax benefit through future taxable profits is probable. As at 31 December 2021, the Group did not recognise deferred tax assets of RMB2,893 million (2020: RMB2,491 million) in respect of tax losses amounting to RMB13,132 million (2020: RMB11,363 million) as the Directors believes it is more likely than not that such tax losses would not be utilised before they expire.

As at 31 December 2021, the tax losses with no deferred tax assets recognised carried forward are as follows:

	2021 **RMB million**	2020 RMB million
Year of expiry of tax losses		
2021	**N/A**	1,733
2022	**2,645**	2,651
2023	**2,598**	2,601
2024	**726**	755
2025	**3,523**	3,566
2026-2030	**3,640**	57
	13,132	11,363

(e) As at 31 December 2021, the Group did not recognise deferred tax assets of RMB6,503 million (2020: RMB5,782 million) in respect of deductible temporary differences amounting to RMB31,006 million (2020: RMB27,346 million) as the Directors believe it is not probable that such deductible temporary differences would be utilised.

46. Cash Generated from Operations

(a) Cash Generated from Operations

	2021 RMB million	2020 RMB million
Profit for the year	**30,470**	27,250
Adjustments for:		
– Income tax expense	**9,166**	8,362
– Interest income	**(1,063)**	(1,528)
– Dividends from financial assets at FVPL	**(603)**	(115)
– Dividends from financial assets at FVOCI	**(85)**	(58)
– (Gains)/losses on disposal and/or write-off of:		
Property, plant and equipment	**(328)**	(228)
Lease prepayments	**(98)**	(361)
Interests in associates	**(14)**	27
Interests in subsidiaries	**(72)**	133
Financial assets/liabilities at FVPL	**(47)**	(7)
– Foreign exchange losses, net	**80**	45
– Fair value losses/(gains) on financial assets/liabilities at FVPL	**515**	(218)
– Gain on debt restructuring	**(135)**	(180)
– Net impairment losses recognised on:		
Trade and other receivables (excluding advance to suppliers)	**3,694**	2,116
Other financial assets at amortised cost	**560**	33
Contract assets	**1,224**	407
– Impairment losses recognised on:		
Property, plant and equipment	**132**	41
Inventories	**5**	(64)
Properties under development for sale	**770**	1,727
Properties held for sale	**1,533**	3,657
Advance to suppliers	**4**	39
Investment properties	**48**	3
– (Decrease)/increase in provision	**(371)**	272
– Interest expenses	**7,531**	6,662
– Losses from derecognition of financial assets at amortised cost	**4,595**	3,302

46. Cash Generated from Operations (Continued)

(a) Cash Generated from Operations (Continued)

	2021 RMB million	2020 RMB million
– Share of losses/(profits) of joint ventures	**507**	(164)
– Share of profits of associates	**(3,809)**	(2,031)
– Charge to retirement benefit obligations	**85**	85
– Government subsidies	**86**	87
– Depreciation and amortisation	**10,926**	10,776
Operating cash flows before movements in working capital	**65,306**	60,070
Changes in working capital (excluding the effects of acquisition and exchange differences on consolidation):		
– Increase in other prepayments	**(145)**	(220)
– Increase in properties held for sale	**(17,810)**	(12,783)
– Decrease in properties under development for sale	**12,822**	16,351
– (Increase)/decrease in inventories	**(3,867)**	137
– Increase in trade and other receivables	**(16,998)**	(29,393)
– Decrease in retirement and other supplemental benefit obligations	**(375)**	(389)
– Increase in trade and other payables	**41,579**	38,850
– Increase/(decrease) in other financial assets at amortised cost	**1,168**	(5,232)
– Decrease in payables arising from consolidated structured entities	**(2,036)**	(659)
– Increase in contract assets	**(69,535)**	(38,417)
– Increase in contract liabilities	**18,610**	13,985
– Increase/(decrease) in provisions	**336**	(535)
– Decrease in government grant	**(70)**	(40)
– Decrease in financial assets at FVPL	**1,009**	466
– (Decrease)/increase in deposits in CREC Finance	**(153)**	2,255
– Increase in restricted bank deposits	**(5,871)**	(5,617)
Cash generated from operations	**23,970**	38,829

46. Cash Generated from Operations (Continued)

(b) Non-cash investing and financing activities

	2021 **RMB million**	2020 RMB million
Additions of right-of-use assets	**580**	898
Bills receivables paid for purchase	**2,578**	4,427
Total	**3,158**	5,325

(c) Net debt reconciliation

This section sets out an analysis of net debt for each of the periods presented.

	2021 **RMB million**	2020 RMB million
Cash and cash equivalents *(Note 37)*	**148,116**	145,464
Restricted cash *(Note 36)*	**30,797**	29,305
Financial assets at FVPL – current *(Note 35)*	**7,304**	5,218
Borrowings – repayable within one year *(Note 42)*	**(113,424)**	(83,058)
Borrowings – repayable after one year *(Note 42)*	**(198,503)**	(166,997)
Net debt	**(125,710)**	(70,068)

	2021 **RMB million**	2020 RMB million
Cash and Financial assets at FVPL	**186,217**	179,987
Gross debt – fixed interest rates	**(155,487)**	(120,679)
Gross debt – variable interest rates	**(156,440)**	(129,376)
Net debt	**(125,710)**	(70,068)

No change in financial assets are included in cash flows of financing activities during the year of 2021.

47. Disposal of Subsidiaries

Disposal of Guiyang Subway Line 3 Phase I Engineering Construction Management Co., Ltd. (hereinafter referred to as "Guiyang Subway Line 3")

In December 2020, China Railway Capital Co., Ltd. (hereinafter referred to as "China Railway Capital"), a subsidiary the Company and one of the then shareholders of Guiyang Subway Line 3, entered into an equity transfer agreement with China Railway Huixin Equity Investment Fund Management Co., Ltd. (a then joint venture of the Group, hereinafter referred to as "China Railway Huixin"), pursuant to which China Railway Capital disposed of unfunded 21% equity interests in Guiyang Subway Line 3 to China Railway Huixin.

As of April 2021, the external funds amounting to RMB510 million have been injected into Guiyang Subway Line 3 through China Railway Huixin – Guiyang Subway Private Equity Investment Fund (hereinafter referred to as the "Investment Fund"), while China Railway Huixin as the fund manager. As a result of the new shareholder and the external funds injection, the Group lost the control over Guiyang Subway Line 3. Upon the completion of equity transfer, the Group retained 49% equity interests in and has joint control over Guiyang Subway Line 3. Thereafter, Guiyang Subway Line 3 has been accounted as a joint venture using the equity method.

Details of sales proceeds and gains on disposal are as follows:

	Guiyang Subway Line 3 RMB million
Sales proceeds:	
— Cash received	–
Less: net assets disposed	(10)
Gains on disposal	10

48. Contingent Liabilities

	2021 **RMB million**	2020 RMB million
Pending lawsuits *(a)*		
– arising in the ordinary course of business	**5,256**	3,073

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

49. Commitments

(a) Capital expenditure

Significant capital expenditure contracted for at the end of reporting period but not recognised as liabilities is as follows:

	2021 **RMB million**	2020 RMB million
Property, plant and equipment	**2,418**	3,544

(b) Investment commitment

According to relevant agreements, the Group has the following commitments:

	2021 **RMB million**	2020 RMB million
Investment commitment to associates, joint ventures and others	**53,024**	51,393

(i) It includes the Group's investment in certain mining projects (including development and construction expenditures) of an associate in the Democratic Republic of the Congo pursuant to co-operation agreements signed between the co-operation partners. Since the signing of relevant co-operation agreements, the co-operation partners have carried out continuous negotiation on the details of the cooperation and gradually promoted the mining development and infrastructure construction. The amount of investment commitment disclosed above was based on the latest situation of the mining projects which is subject to change based on the projects progress in the future.

(c) Operating Lease Commitments – as lessor

As the lessor, the Group's undiscounted amount of lease receivables after the balance sheet date are summarized as follows:

	2021 **RMB million**	2020 RMB million
No later than 1 year	**579**	599
Later than 1 year and no later than 5 years	**1,132**	1,022
Later than 5 years	**369**	372
	2,080	1,993

50. Related-party Transactions

The Company is controlled by the following entity:

Name	Relationship	Place of incorporation and operation	Ownership interest 2021	Ownership interest 2020
CREC	Parent and ultimate holding company	PRC	**47.21%**	47.21%

The Company is controlled by CREC, the parent company and a state-owned enterprise established in the PRC. CREC is controlled by the PRC government (CREC and its subsidiaries other than the Group are referred to as the "CREC Group"). The Group operates in an economic environment currently predominated by entities controlled, jointly controlled or under significant influence by the PRC government ("government-related entities").

During the year, the Group had transactions with government-related entities including, but not limited to, the provision of infrastructure construction services, survey, design and consulting services and sales of goods. The Directors consider that the transactions with these government-related entities are activities in the ordinary course of the Group's business and that the dealings of the Group have not been significantly or unduly affected by the fact that the Group and these government-related entities are ultimately controlled or owned by the PRC government. The Group has also established pricing policies for services and products, and such pricing policies do not depend on whether or not the customers are government-related entities. For the purpose of the related party transaction disclosures, management believes that meaningful information relating to related party transactions has been adequately disclosed.

The following is a summary of significant related party transactions between the Group and its related parties during the year and balances arising from related party transactions at the end of the reporting period.

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

50. Related-party Transactions (Continued)

(a) Significant related party transactions

The following g transactions were carried out with related parties other than government-related entities:

	2021 RMB million	2020 RMB million
Transactions with the CREC Group		
– Service expenses paid	**103**	7
– Rental expense	**17**	17
– Interest income	**55**	36
– Interest expense	**17**	10
– Provision of borrowings	**980**	1,870
– Repayment of borrowings	**1,927**	150
Transactions with joint ventures		
– Revenue from construction contracts	**42,228**	35,629
– Revenue from sales of goods	**333**	519
– Purchase	**1,804**	1,539
– Rental income	**2**	2
– Rental expense	**–**	38
– Interest income	**467**	463
– Interest expense	**5**	1
– Lending funds	**6,018**	4,615
Transactions with associates		
– Revenue from construction contracts	**15,121**	24,014
– Revenue from sales of goods	**2,261**	1,582
– Purchase	**10,958**	1,104
– Rental income	**3**	2
– Rental expense	**–**	6
– Interest income	**182**	63
– Interest expense	**–**	–
– Lending funds	**629**	1,943

These transactions are carried out on terms agreed with the counter parties in the ordinary course of business.

50. Related-party Transactions (Continued)

(b) Balances with related parties

	2021 **RMB million**	2020 RMB million
Balances with the CREC Group		
Trade and bills receivables	**18**	2
Other financial assets at amortised cost	**980**	1,840
Other payables	**287**	68
Deposits	**748**	1,307
Right-of-use assets	**7**	1
Lease liabilities	**7**	1
Contract liabilities	**–**	1
Balances with joint ventures		
Trade and bills receivables	**3,693**	2,403
Other receivables	**630**	1,193
Advance to suppliers	**22**	136
Other financial assets at amortised cost	**9,030**	5,245
Contract assets	**801**	2,978
Trade payables	**869**	963
Other payables	**149**	222
Contract liabilities	**5,933**	6,585
Advance from customers	**131**	323
Deposits	**1,300**	985
Balances with associates		
Trade and bills receivables	**4,417**	5,015
Other receivables	**1,348**	1,233
Contract assets	**3,278**	3,558
Advance to suppliers	**71**	71
Trade payables	**1,171**	501
Other payables	**492**	544
Contract liabilities	**1,958**	1,720
Advance from customers	**2**	3
Deposits	**211**	77

50. Related-party Transactions (Continued)

(c) Guarantees

	2021 RMB million	2020 RMB million
Outstanding loan guarantees provided by the Group to		
– Joint ventures	**2,969**	5,048
– Associates	**4,730**	2,441
– Government-related entities	**480**	480
Outstanding debentures guarantees provided by CREC to the Group	**3,500**	3,500

(d) Key management compensation

The remuneration of Directors and other members of key management during the year were as follows:

	2021 RMB'000	2020 RMB'000
Basic salaries, housing allowances and other allowances	**4,767**	5,137
Fees	**295**	260
Contributions to pension plans	**614**	512
Others	**6,232**	7,175
	11,908	13,084

Key management represents the Directors and other senior management personnel disclosed in the annual report. The remuneration of key management is determined by the remuneration committee having regard to the performance of the respective individuals and the market trends.

51. Particulars of Principal Subsidiaries

(a) General information of principal subsidiaries

As at 31 December 2021 and 2020, the Company had the following principal subsidiaries:

Name of subsidiary	Country/ place of establishment and operation	Issued and paid in capital	Proportion of interest and voting power held by the Group		Proportional of ordinary shares held by non-controlling interests		Principal activities
		RMB'000	**2021**	2020	**2021**	2020	
Listed-							
中鐵高新工業股份有限公司 China Railway Industry *(i)*	PRC	RMB2,221,552	**49.12%**	49.12%	**50.88%**	50.88%	Engineering Equipment and Component Manufacturing
中鐵裝配式建築股份有限公司 China Railway Prefabricated Construction Co., Ltd. *(ii)*	PRC	RMB245,912	**26.51%**	26.51%	**73.49%**	73.49%	Installation and sales of prefabricated assembly products
Unlisted-							
中鐵一局集團有限公司 China Railway No.1 Engineering Group Co., Ltd.	PRC	RMB6,152,100	**100%**	100%	**–**	–	Infrastructure construction
中鐵二局集團有限公司 China Railway No.2 Engineering Group Co., Ltd.	PRC	RMB7,692,920	**100%**	100%	**–**	–	Infrastructure construction
中鐵三局集團有限公司 China Railway No.3 Engineering Group Co., Ltd.	PRC	RMB5,213,991	**100%**	100%	**–**	–	Infrastructure construction
中鐵四局集團有限公司 China Railway No.4 Engineering Group Co., Ltd.	PRC	RMB8,272,699	**100%**	100%	**–**	–	Infrastructure construction
中鐵五局集團有限公司 China Railway No.5 Engineering Group Co., Ltd.	PRC	RMB5,615,152	**100%**	100%	**–**	–	Infrastructure construction
中鐵六局集團有限公司 China Railway No.6 Engineering Group Co., Ltd.	PRC	RMB2,200,000	**100%**	100%	**–**	–	Infrastructure construction
中鐵七局集團有限公司 China Railway No.7 Engineering Group Co., Ltd.	PRC	RMB2,611,810	**100%**	100%	**–**	–	Infrastructure construction

51. Particulars of Principal Subsidiaries (Continued)

(a) General information of principal subsidiaries (Continued)

Name of subsidiary	Country/ place of establishment and operation	Issued and paid in capital	Proportion of interest and voting power held by the Group		Proportional of ordinary shares held by non-controlling interests		Principal activities
		RMB'000	**2021**	2020	**2021**	2020	
中鐵八局集團有限公司 China Railway No.8 Engineering Group Co., Ltd.	PRC	RMB5,906,056	**100%**	100%	**–**	–	Infrastructure construction
中鐵九局集團有限公司 China Railway No.9 Engineering Group Co., Ltd.	PRC	RMB2,500,000	**100%**	100%	**–**	–	Infrastructure construction
中鐵十局集團有限公司 China Railway No.10 Engineering Group Co., Ltd.	PRC	RMB3,836,510	**100%**	100%	**–**	–	Infrastructure construction
中鐵大橋局集團有限公司 China Railway Major Bridge Engineering Group Co., Ltd.	PRC	RMB4,278,453	**100%**	100%	**–**	–	Infrastructure construction
中鐵電氣化局集團有限公司 China Railway Electrification Engineering Group Co., Ltd.	PRC	RMB4,409,280	**100%**	100%	**–**	–	Infrastructure construction
中鐵建工集團有限公司 China Railway Construction Group Co., Ltd.	PRC	RMB9,611,430	**100%**	100%	**–**	–	Infrastructure construction
中鐵隧道局集團有限公司 China Railway Tunnel Group Co., Ltd.	PRC	RMB2,997,688	**100%**	100%	**–**	–	Infrastructure construction
中鐵國際集團有限公司 China Railway International Group Co., Ltd.	PRC	RMB2,500,000	**100%**	100%	**–**	–	Infrastructure construction
中鐵二局建設有限公司 China Railway No.2 Construction Co., Ltd.	PRC	RMB8,263,820	**100%**	100%	**–**	–	Infrastructure construction
中鐵二院工程集團有限責任公司 China Railway Eryuan Engineering Group Co. Ltd.	PRC	RMB1,246,138	**100%**	100%	**–**	–	Survey and design

51. Particulars of Principal Subsidiaries (Continued)

(a) General information of principal subsidiaries (Continued)

Name of subsidiary	Country/ place of establishment and operation	Issued and paid in capital	Proportion of interest and voting power held by the Group		Proportional of ordinary shares held by non-controlling interests		Principal activities
		RMB'000	2021	2020	2021	2020	
中鐵北京工程局集團有限公司 China Railway Beijing Engineering Group Co. Ltd.	PRC	RMB3,485,846	100%	100%	–	–	Infrastructure construction
中鐵廣州工程局集團有限公司 China Railway Guangzhou Engineering Group Co. Ltd.	PRC	RMB3,050,000	100%	100%	–	–	Infrastructure construction
中鐵上海工程局集團有限公司 China Railway Shanghai Engineering Group Co. Ltd.	PRC	RMB2,276,368	100%	100%	–	–	Infrastructure construction
中鐵置業集團有限公司 China Railway Real Estate Group Co., Ltd.	PRC	RMB6,508,410	100%	100%	–	–	Property development
中鐵資源集團有限公司 China Railway Resources Group Co., Ltd.	PRC	RMB5,427,127	100%	100%	–	–	Mining
中鐵交通投資集團有限公司 China Railway Communications Investment Group Co., Ltd.	PRC	RMB8,049,920	100%	100%	–	–	Build-operate-transfer service concession arrangement
中鐵南方投資集團有限公司 China Railway Southern Investment Group Co..Ltd.	PRC	RMB3,343,367	100%	100%	–	–	Infrastructure construction and asset management
中鐵投資集團有限公司 China Railway Investment Group Co., Ltd.	PRC	RMB2,698,448	100%	100%	–	–	Infrastructure construction and asset management
中鐵開發投資有限公司 China Railway Development & Investment Co., Ltd.	PRC	RMB4,094,814	100%	100%	–	–	Infrastructure construction and asset management

51. Particulars of Principal Subsidiaries (Continued)

(a) General information of principal subsidiaries (Continued)

Name of subsidiary	Country/ place of establishment and operation	Issued and paid in capital	Proportion of interest and voting power held by the Group		Proportional of ordinary shares held by non-controlling interests		Principal activities
		RMB'000	**2021**	2020	**2021**	2020	
中鐵城市發展投資集團有限公司 China Railway City Development and Investment Group Co. Ltd.	PRC	RMB5,000,000	**100%**	100%	**–**	–	Infrastructure construction and asset management
中鐵(上海)投資集團有限公司 China Railway (Shanghai) Investment Group Co., Ltd.	PRC	RMB2,933,240	**100%**	100%	**–**	–	Infrastructure construction and asset management
中鐵信託有限責任公司 China Railway Trust *(iii)*	PRC	RMB5,000,000	**93%**	93%	**7%**	7%	Financial trust management
中鐵財務有限責任公司 China Railway Finance Co., Ltd.	PRC	RMB9,000,000	**95%**	95%	**5%**	5%	Comprehensive financial service
中鐵資本有限公司 China Railway Capital Co., Ltd.	PRC	RMB3,760,410	**100%**	100%	**–**	–	Asset Management
中鐵物貿集團有限公司 China Railway Material Trade Co., Ltd.	PRC	RMB3,000,000	**100%**	100%	**–**	–	Trade
中鐵文化旅遊投資有限公司 China Railway Cultural and Tourism Investment Co., Ltd.	PRC	RMB1,500,000	**100%**	100%	**–**	–	Tourism, sports and cultural projects investment
中鐵第六勘察設計院集團有限公司 China Railway Liuyuan Group Co., Ltd.	PRC	RMB600,000	**100%**	100%	**–**	–	Survey and design
中鐵工程設計諮詢集團有限公司 China Railway Engineering Consulting Group Co., Ltd.	PRC	RMB730,818	**70%**	70%	**–**	–	Survey and design

51. Particulars of Principal Subsidiaries (Continued)

(a) General information of principal subsidiaries (Continued)

Name of subsidiary	Country/ place of establishment and operation	Issued and paid in capital	Proportion of interest and voting power held by the Group		Proportional of ordinary shares held by non-controlling interests		Principal activities
		RMB'000	**2021**	2020	**2021**	2020	
中鐵大橋勘測設計院集團有限公司 China Railway Major Bridge Reconnaissance & Design Institute Co., Ltd. *(iv)*	PRC	RMB148,337	**100%**	100%	**-**	–	Survey and design
中鐵科學研究院有限公司 China Railway Academy Co., Ltd.	PRC	RMB600,000	**100%**	100%	**-**	–	Survey and design
中鐵華鐵工程設計集團有限公司 China Railway Huatie Engineering Designing Group Co., Ltd.	PRC	RMB217,084	**100%**	100%	**-**	–	Survey and design
中鐵貴陽投資發展有限公司 China Railway Guiyang Investment & Development Co., Ltd. *(v)*	PRC	NA	**NA**	100%	**NA**	–	Infrastructure construction and asset management
中鐵人才交流諮詢有限責任公司 China Railway Talent Exchange Consulting Co., Ltd.	PRC	RMB500	**100%**	100%	**-**	–	Talent information network service
中鐵東方國際集團有限公司 China Railway Oriental International Group Co., Ltd	Malaysia	–	**100%**	100%	**-**	–	Infrastructure construction and real estate development
鐵工(香港)財資管理有限公司 CR (Hong Kong) Treasury Management Co., Ltd.	Hongkong	RMB69	**100%**	100%	**-**	–	asset management
中鐵(廣州)投資發展有限公司 China Railway (Guangzhou) Investment Development Co., Ltd.	PRC	RMB780,000	**100%**	100%	**-**	–	Infrastructure construction

51. Particulars of Principal Subsidiaries (Continued)

(a) General information of principal subsidiaries (Continued)

Name of subsidiary	Country/ place of establishment and operation	Issued and paid in capital	Proportion of interest and voting power held by the Group		Proportional of ordinary shares held by non-controlling interests		Principal activities
		RMB'000	**2021**	2020	**2021**	2020	
中鐵武漢電氣化局集團有限公司 China Railway Wuhan Electrification Bureau Group Co., Ltd.	PRC	RMB902,960	**100%**	100%	**–**	–	Infrastructure construction
中鐵北方投資有限公司 China Railway North Investment Co., Ltd.	PRC	RMB1,525,997	**100%**	100%	**–**	–	Infrastructure construction and asset management
中鐵發展投資有限公司 China Railway Development Investment Co., Ltd.	PRC	RMB4,734,839	**100%**	100%	**–**	–	Infrastructure construction and asset management
中鐵雲網信息科技有限公司 China Railway Cloud Network Information Technology Co., Ltd.	PRC	RMB200,000	**100%**	100%	**–**	–	Software and information technology services
中國鐵工投資建設集團有限公司 China Tiegong Investment and Construction Co., Ltd.	PRC	RMB4,749,147	**100%**	100%	**–**	–	Infrastructure construction
中國中鐵匈牙利有限責任公司 China Railway Hungary Co., Ltd.	Hungary	–	**100%**	100%	**–**	–	Infrastructure construction
中鐵站城融合投資發展有限公司 China Railway Station City Integration Investment Development Co., Ltd.	PRC	RMB100,000	**100%**	100%	**–**	–	Infrastructure construction and asset management
中鐵水利水電規劃設計研究院集團有限公司 China Railway Water Conservancy & Hydropower Planning and Design Group Co., Ltd.	PRC	RMB300,000	**65%**	65%	**35%**	35%	Research, design and construction of water conservancy and hydropower

51. Particulars of Principal Subsidiaries (Continued)

(a) General information of principal subsidiaries (Continued)

Name of subsidiary	Country/ place of establishment and operation	Issued and paid in capital	Proportion of interest and voting power held by the Group		Proportional of ordinary shares held by non-controlling interests		Principal activities
		RMB'000	**2021**	2020	**2021**	2020	
中鐵長江交通設計集團有限公司 China Railway Changjiang Transport Design Group Co., Ltd.	PRC	RMB147,059	**66%**	66%	**34%**	34%	Survey, design and management of communications
中國海外工程有限責任公司 China Overseas Engineering Group Co., Ltd.	PRC	RMB2,000,000	**100%**	100%	**-**	-	Infrastructure construction

All the above subsidiaries were established as limited liability companies in the PRC, which have similar characteristics of limited liability company incorporated under the Hong Kong Companies Ordinance.

The above table lists the subsidiaries of the Company which, in the opinion of the Directors, principally affected the results or assets of the Group. To give details of other subsidiaries would, in the opinion of the Directors, result in particulars of excessive length.

Unless otherwise stated, above subsidiaries have share capital consisting solely of ordinary shares that are held directly by the Group.

(i) At 31 December 2021, 28.57% (2020: 28.57%) of ordinary shares of China Railway Industry is indirectly held by the Group.

(ii) At 31 December 2021, the Company directly held 26.51% (2020: 26.51%) of ordinary shares of China Railway Prefabricated Construction Co., Ltd. ("CRPC"). In addition, as the then controlling shareholder waived his voting rights which accounted for 30.62% of the total shares of CRPC, the Company has 38.21% of the voting rights and has the ability to control CRPC.

(iii) At 31 December 2021, 14% (2020: 14%) of ordinary shares of China Railway Trust is indirectly held by the Group.

(iv) At 31 December 2021, 35% (2020: 35%) of ordinary shares of China Railway Major Bridge Reconnaissance & Design Institute Co., Ltd. is indirectly held by the Group.

(v) The subsidiary of the Company, China Railway Guiyang Investment & Development Co., Ltd. was cancelled in December 2021.

51. Particulars of Principal Subsidiaries (Continued)

(b) Information of debt securities

As at 31 December 2021, the Group had outstanding issued debt securities as follows:

Name	Face value of debt securities RMB Million	Maturity date
China Railway Group Limited	3,500	19/10/2025
	2,120	28/01/2026
	2,500	17/01/2022
	1,000	21/01/2022
	1,000	27/01/2024
	420	15/04/2022
	1,500	29/04/2022
	2,500	18/06/2022
	500	18/06/2024
	1,900	16/07/2022
	1,100	16/07/2024
	1,500	10/04/2023
	1,500	10/04/2023
	3,000	24/04/2023
	3,000	15/05/2023
	3,000	05/06/2023
	3,000	27/04/2024
	2,500	28/05/2024
	3,000	13/07/2024
	2,200	23/07/2024
	800	23/07/2026
	3,000	17/08/2024
China Railway Resources Huitung Limited	3,488	05/02/2023
China Railway Xunjie Co. Limited	3,488	25/07/2022
	3,488	28/07/2026

51. Particulars of Principal Subsidiaries (Continued)

(b) Information of debt securities (Continued)

As at 31 December 2020, the Group had outstanding issued debt securities as follows:

Name	Face value of debt securities RMB Million	Maturity date
China Railway Group Limited	3,500	19/10/2025
	4,659	23/03/2021
	1,135	28/01/2021
	2,120	28/01/2026
	2,500	17/01/2022
	1,000	21/01/2022
	1,000	27/01/2024
	147	15/04/2022
	2,200	15/04/2022
	1,000	29/04/2021
	1,500	29/04/2022
	2,500	18/06/2022
	500	18/06/2024
	1,900	16/07/2022
	1,100	16/07/2024
	1,500	10/04/2023
	1,500	10/04/2023
	3,000	24/04/2023
	3,000	15/05/2023
	3,000	05/06/2023
China Railway Resources Huitung Limited	3,488	05/02/2023
China Railway Xunjie Co. Limited	3,488	25/07/2022
	3,488	28/07/2026

52. Events Occurring after the Balance Sheet Date

Subsequent to 31 December 2021, the following significant event took place:

(a) As approved by the Board meeting on 30 March 2022, the Company declared a dividend in respect of the year ended 31 December 2021 of RMB0.196 per ordinary share, amounting to a total dividend of RMB4,849 million. The dividend is to be approved at the 2021 annual general meeting in 2022.

(b) On 30 December 2021 and 12 January 2022, the Proposal on the 2021 Restricted Share Incentive Scheme (Draft) (the "Scheme") and its Summary was considered and approved at the Company's 2021 second extraordinary general meeting, the 2021 first A Share class shareholders' meeting and the 2021 first H Share class shareholders' meeting respectively.

On 17 January 2022, the Proposal on the First Grant of Restricted Shares to the Incentive Recipients was considered and approved by the Board meeting of the Company. The first grant date of the restricted shares was determined to be 17 January 2022. The number of the first grant is 171 million restricted shares and the number of incentive recipients of the first grant is 697. As of 28 January 2022, the Company had received RMB606 million from 697 incentive recipients, of which RMB171 million was added to the share capital and the remaining RMB435 million was credited to capital surplus (share premium). On 23 February 2022, the Company completed the registration of shares at China Securities Depository and Clearing Company Limited Shanghai Branch.

According to the Scheme, the unlocking periods of the restricted shares of the Scheme are divided into three phases, 24-month, 36-months and 48-month period from the date of completion of registration of the restricted shares being granted respectively. The percentage of restricted shares to be unlocked is one-third each phase. The Company estimated that the total expenses to be amortised under the Scheme would be RMB415 million.

(c) On 11 January 2022, the Company issued the first tranche of the corporate bond, including 3-year corporate bond in a principal amount of RMB2,000 million (category 1), with a maturity date of 12 January 2025, and 5-year corporate bond in a principal amount of RMB1,000 million (category 2), with a maturity date of 12 January 2027. The interest rates are 2.93% (category 1) and 3.28% (category 2) per annum, both payable annually in arrears.

53. Reclassification

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

54. Balance Sheet and Reserve Movement of the Company

	2021 RMB million	2020 RMB million
ASSETS		
Non-current assets		
Other non-current assets	**55,759**	51,575
Investments in subsidiaries	**246,825**	227,365
	302,584	278,940
Current assets		
Amounts due from subsidiaries	**98,928**	89,658
Other current assets	**15,536**	11,830
Bank balances and cash	**12,893**	47,486
	127,357	148,974
Total assets	**429,941**	427,914
EQUITY		
Share capital	**24,571**	24,571
Perpetual notes	**45,624**	46,738
Share premium and reserves	**149,481**	137,720
Total equity	**219,676**	209,029
LIABILITIES		
Non-current liabilities		
Borrowings	**27,844**	35,600
Other non-current liabilities	**18,928**	19,917
	46,772	55,517
Current liabilities		
Amounts due to subsidiaries	**116,257**	130,985
Other current liabilities	**47,236**	32,383
	163,493	163,368
Total liabilities	**210,265**	218,885

The balance sheet of the Company was approved by the Board of Directors on 30 March 2022 were signed on its behalf.

Director	*Director*
Chen Yun	Chen Wenjian

54. Balance Sheet and Reserve Movement of the Company (Continued)

(a) Reserve movement of the Company

	Share premium RMB million	Capital reserves RMB million	Statutory reserve RMB million	Retained earnings RMB million	Total RMB million
At 31 December 2019	53,109	7,587	9,065	55,667	125,428
Profit and total comprehensive income for the year	–	19	–	17,987	18,006
Redemption of perpetual notes	(42)	–	–	–	(42)
Transfer to reserves	–	–	1,847	(1,847)	–
Dividends recognised as distribution	–	–	–	(4,152)	(4,152)
Dividends declared to perpetual notes holders	–	–	–	(1,520)	(1,520)
At 31 December 2020	53,067	7,606	10,912	66,135	137,720
Profit and total comprehensive income for the year	**–**	**(4)**	**–**	**18,343**	**18,339**
Redemption of perpetual notes	**(6)**	**–**	**–**	**–**	**(6)**
Transfer to reserves	**–**	**–**	**1,838**	**(1,838)**	**–**
Dividends recognised as distribution	**–**	**–**	**–**	**(4,423)**	**(4,423)**
Dividends declared to perpetual notes holders	**–**	**–**	**–**	**(2,149)**	**(2,149)**
At 31 December 2021	**53,061**	**7,602**	**12,750**	**76,068**	**149,481**

INDEPENDENT AUDITOR'S REPORT

TO THE SHAREHOLDERS OF CHINA RAILWAY GROUP LIMITED
(incorporated in the People's Republic of China with limited liability)

Opinion

What we have audited

The consolidated financial statements of China Railway Group Limited (the "Company") and its subsidiaries (the "Group") set out on pages 98 to 275, which comprise:

- the consolidated balance sheet as at 31 December 2020;
- the consolidated income statement for the year then ended;
- the consolidated statement of comprehensive income for the year then ended;
- the consolidated statement of changes in equity for the year then ended;
- the consolidated statement of cash flows for the year then ended; and
- the notes to the consolidated financial statements, which include a summary of significant accounting policies.

Our opinion

In our opinion, the consolidated financial statements give a true and fair view of the consolidated financial position of the Group as at 31 December 2020, and of its consolidated financial performance and its consolidated cash flows for the year then ended in accordance with International Financial Reporting Standards ("IFRSs") and have been properly prepared in compliance with the disclosure requirements of the Hong Kong Companies Ordinance.

Basis for Opinion

We conducted our audit in accordance with International Standards on Auditing ("ISAs"). Our responsibilities under those standards are further described in the Auditor's Responsibilities for the Audit of the Consolidated Financial Statements section of our report.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Independence

We are independent of the Group in accordance with the International Code of Ethics for Professional Accountants (including International Independence Standards) issued by the International Ethics Standards Board for Accountants ("IESBA Code"), and we have fulfilled our other ethical responsibilities in accordance with the IESBA Code.

Key Audit Matters

Key audit matters are those matters that, in our professional judgment, were of most significance in our audit of the consolidated financial statements of the current period. These matters were addressed in the context of our audit of the consolidated financial statements as a whole, and in forming our opinion thereon, and we do not provide a separate opinion on these matters.

Key audit matters identified in our audit are summarised as follows:

- Revenue recognition from infrastructure construction contracts
- Expected credit losses of trade receivables and contract assets

INDEPENDENT AUDITOR'S REPORT

Key Audit Matters (Continued)

Key Audit Matter	How our audit addressed the Key Audit Matter
Revenue recognition from infrastructure construction contracts	
Refer to Note 2.32(a), Note 4(b)(i), and Note 5 to the consolidated financial statements. The Group's revenue from infrastructure construction contracts is recognised over the period of the contract. For the year ended 31 December 2020, the revenue from infrastructure construction contracts amounted to RMB844,110 million. Revenue from infrastructure construction contracts is recognised over the period of the contract by reference to the progress towards complete satisfaction of that performance obligation, depending on the nature of the contract, is measured mainly by reference to the proportion of contract costs incurred for work performed to date to estimated total contract costs for each contract. Management estimates the total contract revenue and total contract costs at the inception of each contract. As the contract progresses, management regularly reviews and revises the estimates of contract revenue and contract costs if circumstances change, such as variations in contract work, claims and incentive payments. The increases or decreases in estimated total contract revenue or total contract costs resulted in the adjustments to the extent of progress toward completion and revenue recognised in the period in which the circumstances that give rise to the revision becomes known by management. We focused on the revenue recognition from infrastructure construction contracts because the judgement and estimation of contract revenue and contract costs is subject to high degree of estimation uncertainty. The inherent risk in relation to the contract revenue and contract costs is considered significant due to the subjectivity of significant assumptions and estimates used. Therefore, we identified the recognition of revenue from infrastructure construction contracts as a key audit matter.	We performed the following procedures in relation to management's estimates of contract revenue and contract costs: – We obtained an understanding of management's internal control and assessment process of revenue recognition from infrastructure construction contracts, and assessed the inherent risk of material misstatement by considering the degree of estimation uncertainty and level of other inherent risk factors such as complexity, subjectivity, changes and susceptibility to management bias or fraud; – We evaluated and tested the relevant controls over estimates of total contract revenue, preparation and review of total contract costs, budget adjustments and review and other controls related to revenue recognition from infrastructure construction contracts; – We compared, on a sample basis, the actual total contract revenue and total contract costs of completed projects during the year, against the most updated estimates before completion to assess the reliability of the estimates; – We checked construction costs incurred during the year by tracing to supporting documents, such as purchase agreements, materials receipt notes and labour cost records on a sample basis; – In respect of projects under construction, we performed the following procedures on a sample basis: (i) Reviewed the terms and conditions of the infrastructure construction contracts, inspected the contract sum, budget information, variation orders, claims and incentive payments, if any, on which the estimated total contract revenue and total contract costs were based, and evaluated the appropriateness of management's estimation; (ii) Tested the mathematical accuracy of the progress toward completion and revenue and costs recognised during the year; (iii) Confirmed key contract terms with owners of infrastructure construction projects; and (iv) Assessed the reasonableness of the progress toward completion by visiting the selected sites of infrastructure construction projects to observe the progress of the contract work, and discussing with the site project management the extent to completion of the contract work. Based on our work, we found the judgement and estimates adopted by management in determining the revenue from infrastructure construction contracts are supported by available evidence.

Key Audit Matters (Continued)

Key Audit Matter	How our audit addressed the Key Audit Matter
Expected credit losses of trade receivables and contract assets	
Refer to Note 2.20, Note 2.21, Note 4(b)(ii), Note 33, and Note 34 to the consolidated financial statements. As at 31 December 2020, the carrying amounts of trade receivables and contract assets amounted to RMB107,877 million and RMB255,113 million, respectively, with loss allowances amounted to RMB6,828 million and RMB2,109 million, respectively. Provision for credit loss allowance of trade receivables and contract assets was made based on an assessment of the lifetime expected credit losses. For trade receivables and contract assets which have impaired, the Group assessed individually and provided for credit losses allowance. If no reasonable and supportable information is available without undue cost for expected credit losses measurement, the trade receivables and contract assets were grouped by reference to the credit risk characteristics and assessed collectively for credit losses allowance. When measuring expected credit loss, the Group considers its own credit loss incurred in the past, and adjusts by taking into consideration current conditions and forward looking factors. In assessing forward-looking information, the Group considers factors including economic policies, macroeconomic indicators, industry risks and changes in customers' conditions. We focused on auditing the expected credit losses of trade receivables and contract assets because the judgement and estimation of expected credit losses is subject to high degree of estimation uncertainty. The inherent risk in relation to the expected credit losses of trade receivables and contract assets is considered significant due to the subjectivity of significant assumptions and estimates used. Therefore, we identified the expected credit losses of trade receivables and contract assets as a key audit matter.	We performed the following procedures in relation to management's assessment on the expected credit losses of trade receivables and contract assets: – We obtained an understanding of management's internal control and assessment process of expected credit losses of trade receivables and contract assets, and assessed the inherent risk of material misstatement by considering the degree of estimation uncertainty and level of other inherent risk factors such as complexity, subjectivity, changes and susceptibility to management bias or fraud; – We evaluated and tested the relevant controls in place on management's assessment on the expected credit losses of trade receivables and contract assets; – For trade receivables and contract assets assessed individually, on a sample basis, we reviewed management's assessment of financial position and creditworthiness of customers, historical payment and settlement records and forecasted future economic conditions. We also corroborated management's assessment against available evidence, including searching for customers' background, historical transactions with the Group, respective collection and settlement pattern, examined the basis of determining forward-looking factors, to assess the reasonableness of expected credit loss allowance provided by management. – For trade receivables and contract assets assessed collectively by reference to the credit risk characteristics, we assessed the reasonableness of the grouping and the respective expected credit loss based on the historical credit loss incurred including the historical payment and settlement pattern of debtors, aging profile of trade receivables and contract assets, current conditions and forward looking factors. We recalculated the historical default rate, evaluated the basis of determining forward-looking adjustment, and tested the accuracy of the aging of the trade receivables and contract assets on a sample basis, and assessed the mathematical accuracy of calculation of the expected credit loss allowance; and – We tested the cash collections of trade receivable and settlement of contract assets subsequent to end of the reporting period on a sample basis. Based on our work, we considered that the significant judgments and estimates made by management in relation to the expected credit losses of trade receivables and contract assets were supportable by the evidence obtained and procedures performed.

INDEPENDENT AUDITOR'S REPORT

Other Information

The directors of the Company are responsible for the other information. The other information comprises all of the information included in the annual report other than the consolidated financial statements and our auditor's report thereon.

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

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

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

Responsibilities of Directors and Audit and Risk Management Committee for the Consolidated Financial Statements

The directors of the Company are responsible for the preparation of the consolidated financial statements that give a true and fair view in accordance with IFRSs and the disclosure requirements of the Hong Kong Companies Ordinance, and for such internal control as the directors determine is necessary to enable the preparation of consolidated financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the consolidated financial statements, the directors are responsible for assessing the Group's ability to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless the directors either intend to liquidate the Group or to cease operations, or have no realistic alternative but to do so.

Audit and Risk Management Committee are responsible for overseeing the Group's financial reporting process.

Auditor's Responsibilities for the Audit of the Consolidated Financial Statements

Our objectives are to obtain reasonable assurance about whether the consolidated financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. We report our opinion solely to you, as a body, and for no other purpose. We do not assume responsibility towards or accept liability to any other person for the contents of this report. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with ISAs will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these consolidated financial statements.

Auditor's Responsibilities for the Audit of the Consolidated Financial Statements (Continued)

As part of an audit in accordance with ISAs, we exercise professional judgment and maintain professional scepticism throughout the audit. We also:

- Identify and assess the risks of material misstatement of the consolidated financial statements, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.

- Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Group's internal control.

- Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by the directors.

- Conclude on the appropriateness of the directors' use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Group's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditor's report to the related disclosures in the consolidated financial statements or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditor's report. However, future events or conditions may cause the Group to cease to continue as a going concern.

- Evaluate the overall presentation, structure and content of the consolidated financial statements, including the disclosures, and whether the consolidated financial statements represent the underlying transactions and events in a manner that achieves fair presentation.

- Obtain sufficient appropriate audit evidence regarding the financial information of the entities or business activities within the Group to express an opinion on the consolidated financial statements. We are responsible for the direction, supervision and performance of the group audit. We remain solely responsible for our audit opinion.

We communicate with Audit and Risk Management Committee regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.

We also provide Audit and Risk Management Committee with a statement that we have complied with relevant ethical requirements regarding independence, and to communicate with them all relationships and other matters that may reasonably be thought to bear on our independence, and where applicable, actions taken to eliminate threats or safeguards applied.

Auditor's Responsibilities for the Audit of the Consolidated Financial Statements (Continued)

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

The engagement partner on the audit resulting in this independent auditor's report is Tsun NG.

PricewaterhouseCoopers
Certified Public Accountants

Hong Kong, 30 March 2021

CONSOLIDATED INCOME STATEMENT

		Year ended 31 December	
		2020	2019
	Note	**RMB million**	RMB million
Revenue	*5*	**974,732**	850,843
Cost of sales and services	*11*	**(884,380)**	(770,979)
Gross profit		**90,352**	79,864
Other income	*6*	**2,219**	1,996
Other expenses	*6*	**(21,838)**	(16,511)
Net impairment losses on financial assets and contract assets	*7*	**(2,556)**	(4,507)
Other gains, net	*8*	**662**	5,705
Losses from derecognition of financial assets at amortised cost	*9*	**(3,302)**	(3,367)
Selling and marketing expenses	*11*	**(5,020)**	(4,605)
Administrative expenses	*11*	**(24,668)**	(24,474)
Operating profit		**35,849**	34,101
Finance income	*10*	**4,324**	2,200
Finance costs	*10*	**(6,756)**	(5,574)
Share of post-tax profits of joint ventures	*26*	**164**	360
Share of post-tax profits of associates	*26*	**2,031**	2,100
Profit before income tax		**35,612**	33,187
Income tax expense	*13*	**(8,362)**	(7,808)
Profit for the year		**27,250**	25,379
Profit attributable to:			
– Owners of the Company		**25,188**	23,678
– Non-controlling interests		**2,062**	1,701
		27,250	25,379
Earnings per share for profit attributable to owners of the Company (expressed in RMB per share)			
– Basic	*15*	**0.963**	0.950
– Diluted	*15*	**0.963**	0.950

The above consolidated income statement should be read in conjunction with the accompanying notes.

CONSOLIDATED STATEMENT OF COMPREHENSIVE INCOME

	Note	Year ended 31 December 2020 RMB million	2019 RMB million
Profit for the year		**27,250**	25,379
Other comprehensive income/(expenses), net of income tax			
Items that will not be reclassified to profit or loss:			
Remeasurement of retirement and other supplemental benefit obligations		**1**	(16)
Income tax relating to remeasurement of retirement and other supplemental benefit obligations		**2**	–
Changes in the fair value of equity investments at fair value through other comprehensive income		**(260)**	(94)
Income tax relating to changes in the fair value of equity investments at fair value through other comprehensive income		**63**	17
		(194)	(93)
Items that may be reclassified subsequently to profit or loss:			
Exchange differences on translating foreign operations		**(500)**	114
Share of other comprehensive income of associates		**(189)**	42
Fair value gains on cash flow hedging instrument, net of deferred tax		**–**	1
		(689)	157
Other comprehensive (expenses)/income for the year, net of tax		**(883)**	64
Total comprehensive income for the year		**26,367**	25,443
Total comprehensive income for the year attributable to:			
– Owners of the Company		**24,377**	23,736
– Non-controlling interests		**1,990**	1,707
		26,367	25,443

The above consolidated statement of comprehensive income should be read in conjunction with the accompanying notes.

CONSOLIDATED BALANCE SHEET

	Note	As at 31 December 2020 RMB million	2019 RMB million
ASSETS			
Non-current assets			
Property, plant and equipment	18	**74,384**	68,406
Right-of-use assets	19	**1,892**	2,229
Lease prepayments	20	**14,826**	13,198
Deposits for investments	21	**453**	1,098
Investment properties	22	**12,046**	11,167
Intangible assets	23	**62,599**	25,559
Mining assets	24	**3,582**	3,732
Contract assets	34	**111,209**	87,885
Investments in joint ventures	26	**40,216**	29,314
Investments in associates	26	**38,133**	30,565
Goodwill	28	**1,412**	1,040
Financial assets at fair value through other comprehensive income	29	**9,668**	10,472
Other financial assets at amortised cost	30	**18,773**	13,929
Financial assets at fair value through profit or loss	35	**10,564**	8,637
Deferred tax assets	45	**9,333**	8,012
Other prepayments		**429**	345
Trade and other receivables	33	**48,351**	30,683
		457,870	346,271
Current assets			
Lease prepayments	20	**319**	356
Properties held for sale	31	**34,143**	25,018
Properties under development for sale	31	**117,576**	133,776
Inventories	32	**40,943**	40,945
Financial assets at fair value through other comprehensive income	29	**522**	393
Trade and other receivables	33	**211,568**	203,256
Contract assets	34	**143,904**	130,155
Current income tax recoverable		**3,451**	2,641
Other financial assets at amortised cost	30	**9,694**	9,630
Financial assets at fair value through profit or loss	35	**5,218**	5,441
Restricted cash	36	**29,305**	19,973
Cash and cash equivalents	37	**145,464**	138,186
		742,107	709,770
Total assets		**1,199,977**	1,056,041

CONSOLIDATED BALANCE SHEET

		As at 31 December	
		2020	2019
	Note	**RMB million**	RMB million
EQUITY			
Equity attributable to owners of the Company			
Share capital	*38*	**24,571**	24,571
Share premium and reserves	*39*	**183,888**	165,204
Perpetual notes	*40*	**46,738**	31,535
		255,197	221,310
Non-controlling interests		**57,849**	24,018
Total equity		**313,046**	245,328
LIABILITIES			
Non-current liabilities			
Trade and other payables	*41*	**7,983**	7,681
Borrowings	*42*	**166,997**	118,934
Lease liabilities	*19*	**1,237**	1,450
Retirement and other supplemental benefit obligations	*43*	**2,482**	2,770
Provisions	*44*	**562**	1,053
Deferred government grants and income		**1,071**	1,007
Deferred tax liabilities	*45*	**1,454**	1,784
		181,786	134,679
Current liabilities			
Trade and other payables	*41*	**488,304**	446,037
Contract liabilities	*34*	**124,660**	110,370
Current income tax liabilities		**7,969**	5,824
Borrowings	*42*	**83,058**	112,311
Lease liabilities	*19*	**526**	1,037
Retirement and other supplemental benefit obligations	*43*	**323**	359
Financial liabilities at fair value through profit or loss	*35*	**65**	85
Provision	*44*	**240**	11
		705,145	676,034
Total liabilities		**886,931**	810,713
Total equity and liabilities		**1,199,977**	1,056,041

The above consolidated balance sheet should be read in conjunction with the accompanying notes.

The financial statements on pages 98 to 275 were approved by the Board of Directors on 30 March 2021 and were signed on its behalf.

Director	*Director*
Chen Yun	Chen Wenjian

CONSOLIDATED STATEMENT OF CHANGES IN EQUITY

		Attributable to owners of the Company										
		Share capital	Share premium	Capital reserve	Statutory reserve (Note 39)	Foreign currency translation reserve	Investment revaluation reserve	Retained earnings	Perpetual notes (Note 40)	Total	Non-controlling interests	Total
	Note	RMB million	RMB million	RMB million	RMB million	RMB million	RMB million	RMB million	RMB million	RMB million	RMB million	RMB million
Balance at 1 January 2020		24,571	51,978	3,112	12,495	(426)	314	97,731	31,535	221,310	24,018	245,328
Profit for the year		–	–	–	–	–	–	23,668	1,520	25,188	2,062	27,250
Other comprehensive income/ (expenses)		–	–	5	–	(460)	(356)	–	–	(811)	(72)	(883)
Total comprehensive income/ (expenses) for the year		–	–	5	–	(460)	(356)	23,668	1,520	24,377	1,990	26,367
Total transactions with owners, recognised directly in equity												
Capital contributions from non-controlling shareholders of subsidiaries		–	–	–	–	–	–	–	–	–	30,965	30,965
Transaction with non-controlling interests resulting from acquisition of equity interests of certain subsidiaries		–	–	11	–	–	–	–	–	11	(762)	(751)
Transfer of gains on disposal of financial assets at fair value through other comprehensive income to retained earnings		–	–	–	–	–	–	10	–	10	–	10
Acquisition of subsidiaries		–	–	–	–	–	–	–	–	–	2,720	2,720
Disposal of subsidiaries		–	–	–	–	–	–	–	–	–	(63)	(63)
Issuance of perpetual notes	*40*	–	–	–	–	–	–	–	23,986	23,986	–	23,986
Redemption of perpetual notes	*40*	–	(42)	–	–	–	–	–	(8,958)	(9,000)	–	(9,000)
Dividends declared to shareholders	*16*	–	–	–	–	–	–	(4,152)	–	(4,152)	–	(4,152)
Dividends declared to non-controlling shareholders of subsidiaries		–	–	–	–	–	–	–	–	–	(1,019)	(1,019)
Dividends declared to perpetual notes holders	*40*	–	–	–	–	–	–	–	(1,345)	(1,345)	–	(1,345)
Transferred to reserves		–	–	–	2,067	–	–	(2,067)	–	–	–	–
Balance at 31 December 2020		24,571	51,936	3,128	14,562	(886)	(42)	115,190	46,738	255,197	57,849	313,046

CONSOLIDATED STATEMENT OF CHANGES IN EQUITY

		Attributable to owners of the Company										
		Share capital	Share premium	Capital reserve	Statutory reserve (Note 39)	Foreign currency translation reserve	Investment revaluation reserve	Retained earnings	Perpetual notes (Note 40)	Total	Non-controlling interests	Total
	Note	RMB million	RMB million	RMB million	RMB million	RMB million	RMB million	RMB million	RMB million	RMB million	RMB million	RMB million
Balance at 1 January 2019		22,844	43,982	2,020	10,896	(525)	343	79,950	32,109	191,619	30,362	221,981
Profit for the year		–	–	–	–	–	–	22,119	1,559	23,678	1,701	25,379
Other comprehensive (expenses)/ income		–	–	(12)	–	99	(29)	–	–	58	6	64
Total comprehensive (expenses)/ income for the year		–	–	(12)	–	99	(29)	22,119	1,559	23,736	1,707	25,443
Total transactions with owners, recognised directly in equity												
Additional issuance of A shares	*38*	1,727	8,014	–	–	–	–	–	–	9,741	(9,741)	–
Capital contributions from non-controlling shareholders and perpetual notes holders of subsidiaries		–	–	–	–	–	–	–	–	–	3,616	3,616
Transaction with non-controlling interests		–	–	180	–	–	–	89	–	269	460	729
Disposal of financial assets at fair value through other comprehensive income		–	–	–	–	–	–	96	–	96	–	96
Acquisition of subsidiaries		–	–	–	–	–	–	–	–	–	1,012	1,012
Disposal of subsidiaries		–	–	–	–	–	–	–	–	–	(2,274)	(2,274)
Share of other reserves of a joint venture		–	–	924	–	–	–	–	–	924	–	924
Issuance of perpetual notes	*40*	–	–	–	–	–	–	–	2,498	2,498	–	2,498
Redemption of perpetual notes	*40*	–	(18)	–	–	–	–	–	(2,985)	(3,003)	–	(3,003)
Dividends declared to shareholders	*16*	–	–	–	–	–	–	(2,924)	–	(2,924)	–	(2,924)
Dividends declared to non-controlling shareholders of subsidiaries		–	–	–	–	–	–	–	–	–	(1,124)	(1,124)
Dividends declared to perpetual notes holders	*40*	–	–	–	–	–	–	–	(1,646)	(1,646)	–	(1,646)
Transferred to reserves		–	–	–	1,599	–	–	(1,599)	–	–	–	–
Balance at 31 December 2019		24,571	51,978	3,112	12,495	(426)	314	97,731	31,535	221,310	24,018	245,328

The above consolidated statement of changes in equity should be read in conjunction with the accompanying notes.

CONSOLIDATED STATEMENT OF CASH FLOWS

	Note	Year ended 31 December 2020 RMB million	2019 RMB million
Cash flows from operating activities			
Cash generated from operations	*46*	**38,829**	30,624
Income tax paid		**(7,835)**	(8,426)
Net cash generated from operating activities		**30,994**	22,198
Cash flows from investing activities			
– Payments for property, plant and equipment		**(11,373)**	(11,747)
– Proceeds from disposal of property, plant and equipment		**1,169**	1,033
– Payments for lease prepayments		**(896)**	(1,105)
– Proceeds from disposal of lease prepayments		**478**	938
– Payments for investment properties		**(217)**	(594)
– Proceeds from disposal of investment properties		**8**	21
– Payments for intangible assets		**(30,689)**	(6,781)
– Proceeds from disposal of intangible assets		**14**	1
– Payments for mining assets		**(116)**	(24)
– Payments for acquisition of subsidiaries, net of cash acquired		**(100)**	(1,621)
– Proceeds from sale of subsidiaries		**2,540**	2,815
– Payments for investments in associates		**(9,301)**	(13,684)
– Payments for investments in joint ventures		**(9,696)**	(7,347)
– Proceeds from disposal of associates		**1,145**	699
– Proceeds from disposal of joint ventures		**171**	913
– Payments for financial assets at fair value through profit or loss		**(6,870)**	(6,281)
– Proceeds from disposal of financial assets at fair value through profit or loss		**5,524**	5,625
– Payments for financial assets at fair value through other comprehensive income		**(2,917)**	(5,187)
– Proceeds from disposal of financial assets at fair value through other comprehensive income		**82**	316
– Net flow in respect of other financial assets at amortised cost		**3,493**	546
– Interests received		**1,595**	882
– Dividends received		**848**	1,037
– Decrease of term deposits with initial term of over three months		**725**	1,580
– Increase of term deposits with initial term of over three months		**(4,454)**	(1,311)
– Deposits paid for investments		**(171)**	(660)
– Other investing cash flows		**(4,133)**	(243)
Net cash used in investing activities		**(63,141)**	(40,179)

CONSOLIDATED STATEMENT OF CASH FLOWS

	Year ended 31 December	
	2020	2019
	RMB million	RMB million
Cash flows from financing activities		
– Capital contributions from non-controlling shareholders of subsidiaries	**30,965**	3,616
– Transaction with non-controlling interests resulting from acquisition of equity interests of certain subsidiaries	**(757)**	(89)
– Proceeds from debentures	**11,996**	16,494
– Repayment of debentures	**(8,653)**	(915)
– Proceeds from issuance of perpetual notes	**23,986**	2,498
– Redemption of perpetual notes	**(9,000)**	(3,003)
– Proceeds from bank borrowings	**186,034**	151,349
– Repayments of bank borrowings	**(173,445)**	(118,523)
– Proceeds from other borrowings	**10,863**	8,264
– Repayment of other borrowings	**(12,166)**	(4,550)
– Interests paid	**(11,595)**	(10,464)
– Dividends paid to non-controlling shareholders of subsidiaries	**(979)**	(1,005)
– Dividends paid to owners of the Company	**(4,152)**	(2,924)
– Dividends paid to holders of perpetual notes	**(1,461)**	(1,646)
– Repayments of lease liabilities	**(1,435)**	(887)
Net cash generate from financing activities	**40,201**	38,215
Net increase in cash and cash equivalents	**8,054**	20,234
Cash and cash equivalents at beginning of the year	**138,186**	117,768
Effect of foreign exchange rate changes	**(776)**	184
Cash and cash equivalents at end of the year	**145,464**	138,186

The above consolidated statement of cash flows should be read in conjunction with the accompanying notes.

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

1. General Information

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

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

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

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

These consolidated financial statements have been approved for issue by the Board of Directors on 30 March 2021.

2. Summary of Significant Accounting Policies

The principal accounting policies applied in the preparation of these consolidated financial statements are set out below. These policies have been consistently applied to all the years presented, unless otherwise stated.

2.1 Basis of preparation

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

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

The preparation of financial statements in conformity with IFRS requires the use of certain critical accounting estimates. It also requires management to exercise its judgement in the process of applying the Group's accounting policies. The areas involving a higher degree of judgement or complexity, or areas where assumptions and estimates are significant to the consolidated financial statements are disclosed in Note 4.

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

2. Summary of Significant Accounting Policies (Continued)

2.1 Basis of preparation (Continued)

(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 2020.

	Effective for accounting periods beginning on or after
Amendments to IAS 1 and IAS 8 "Definition of Material"	1 January 2020
Amendments to IFRS 3 "Definition of a Business"	1 January 2020
Amendments to IFRS 9, IAS 39 and IFRS 7 "Interest Rate Benchmark Reform"	1 January 2020
Revised Conceptual Framework for Financial Reporting	1 January 2020

The adoption of above did not have any material impact on the Group's results for the year ended 31 December 2020 and the Group's financial position as at 31 December 2020. The Group did not have to change its accounting policies or make retrospective adjustments as a result of adopting these amended standards.

2. Summary of Significant Accounting Policies (Continued)

2.1 Basis of preparation (Continued)

(a) Amended standards adopted by the Group (Continued)

The Group also elected to adopt the following amendments early. Details of the early adoption are set out in Note 2.38.

	Effective for accounting periods beginning on or after
Amendments to IFRS 16 "COVID-19-Related Rent Concessions"	1 June 2020

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

Certain new and amended standards are effective for annual periods beginning after 1 January 2020, and have not been applied in preparing the consolidated financial statements.

	Effective for accounting periods beginning on or after
IFRS 17 "Insurance Contracts"	1 January 2023
Amendments to IFRS 3 "Reference to the Conceptual Framework"	1 January 2022
Amendments to IAS 16 "Property, Plant and Equipment: Proceeds before intended use"	1 January 2022
Amendments to IAS 37 "Onerous Contracts – Cost of Fulfilling a Contract"	1 January 2022
Annual Improvements to IFRS Standards 2018-2020 affecting IFRS 1, IFRS 9, IFRS 16 and IAS 41	1 January 2022
Amendments to IAS 1 "Classification of Liabilities as Current or Non-current"	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.

2. Summary of Significant Accounting Policies (Continued)

2.2 Principles of consolidation and equity accounting

(a) Subsidiaries

Subsidiaries are all entities (including structured entities) over which the Group has control. The Group controls an entity when the Group is exposed to, or has rights to, variable returns from its involvement with the entity and has the ability to affect those returns through its power to direct the activities of the entity. Subsidiaries are fully consolidated from the date on which control is transferred to the Group. They are deconsolidated from the date that control ceases.

Intercompany transactions, balances and unrealised gains on transactions between Group companies are eliminated. Unrealised losses are also eliminated unless the transaction provides evidence of an impairment of the transferred asset. Accounting policies of subsidiaries have been changed where necessary to ensure consistency with the policies adopted by the Group.

Non-controlling interests in the results and equity of subsidiaries are shown separately in the consolidated income statement, statement of comprehensive income, statement of changes in equity and balance sheet respectively.

(b) Associates

Associates are all entities over which the Group has significant influence but not control or joint control. This is generally the case where the Group holds between 20% and 50% of the voting rights. Investments in associates are accounted for using the equity method of accounting (see (d) below), after initially being recognised at cost.

In the Company's balance sheet, the investments in associates are stated at cost less provision for impairment losses. The results of associates are accounted for by the Company on the basis of dividends received and receivable.

2. Summary of Significant Accounting Policies (Continued)

2.2 Principles of consolidation and equity accounting (Continued)

(c) Joint arrangements

Under IFRS 11 Joint Arrangements, investments in joint arrangements are classified as either joint operations or joint ventures. The classification depends on the contractual rights and obligations of each investor, rather than the legal structure of the joint arrangement. The Group has both joint operations and joint ventures.

Joint operations

The Group recognises its direct right to the assets, liabilities, revenues and expenses of joint operations and its share of any jointly held or incurred assets, liabilities, revenues and expenses. These have been incorporated in the financial statements under the appropriate headings. Details of the joint operations are set out in Note 27.

Joint ventures

Interests in joint ventures are accounted for using the equity method (see (d) below), after initially being recognised at cost in the consolidated balance sheet.

In the Company's balance sheet, investments in joint ventures are stated at cost less provision for impairment losses. The results of joint ventures are accounted for by the Company on the basis of dividends received and receivable.

(d) Equity accounting

Under the equity method of accounting, the investments are initially recognised at cost and adjusted thereafter to recognise the Group's share of the post-acquisition profits or losses of the investee in profit or loss, and the Group's share of movements in other comprehensive income of the investee in other comprehensive income. Dividends received or receivable from associates and joint ventures are recognised as a reduction in the carrying amount of the investment.

When the Group's share of losses in an equity-accounted investment equals or exceeds its interest in the entity, including any other unsecured long-term receivables, the Group does not recognise further losses, unless it has incurred obligations or made payments on behalf of the other entity.

Unrealised gains on transactions between the Group and its associates and joint ventures are eliminated to the extent of the Group's interest in these entities. Unrealised losses are also eliminated unless the transaction provides evidence of an impairment of the asset transferred. Accounting policies of equity accounted investees have been changed where necessary to ensure consistency with the policies adopted by the Group.

The carrying amount of equity-accounted investments is tested for impairment in accordance with the policy described in Note 2.13.

2. Summary of Significant Accounting Policies (Continued)

2.2 Principles of consolidation and equity accounting (Continued)

(e) Changes in ownership interests

The Group treats transactions with non-controlling interests that do not result in a loss of control as transactions with equity owners of the Group. A change in ownership interest results in an adjustment between the carrying amounts of the controlling and non-controlling interests to reflect their relative interests in the subsidiary. Any difference between the amount of the adjustment to non-controlling interests and any consideration paid or received is recognised in a separate reserve within equity attributable to owners of the Company.

When the Group ceases to consolidate or equity account for an investment because of a loss of control, joint control or significant influence, any retained interest in the entity is remeasured to its fair value, with the change in carrying amount recognised in profit or loss. This fair value becomes the initial carrying amount for the purposes of subsequently accounting for the retained interest as an associate, joint venture or financial asset. In addition, any amounts previously recognised in other comprehensive income in respect of that entity are accounted for as if the Group had directly disposed of the related assets or liabilities. This may mean that amounts previously recognised in other comprehensive income are reclassified to profit or loss or transferred to another category of equity as specified/permitted by applicable IFRSs.

If the ownership interest in a joint venture or an associate is reduced but joint control or significant influence is retained, only a proportionate share of the amounts previously recognised in other comprehensive income are reclassified to profit or loss where appropriate.

2.3 Business combinations

The acquisition method of accounting is used to account for the acquisitions of subsidiaries of the Group, except for those acquisitions which are considered as a business combination under common control in a manner similar to pooling-of-interests and with reference to the principles of merger accounting under Hong Kong Accounting Guideline 5 "Merger Accounting for Common Control Combinations".

Merger accounting for common control combinations

The consolidated financial statements incorporate the financial statements of the combining entities or businesses in which the common control combination occurs as if they had been combined from the date when the combining entities or businesses first came under the control of the ultimate controlling party.

The net assets of the combining entities or businesses are combined using the existing book values from the ultimate controlling parties' perspective. No amount is recognised in consideration for goodwill or excess of acquirers' interest in the net fair value of acquiree's identifiable assets, liabilities and contingent liabilities over cost at the time of common control combination, to the extent of the continuation of the ultimate controlling party's interest.

2. Summary of Significant Accounting Policies (Continued)

2.3 Business combinations (Continued)

Merger accounting for common control combinations (Continued)

The consolidated income statement includes the results of each of the combining entities or businesses from the earliest date presented or since the date when the combining entities or businesses first came under the common control, where there is a shorter period, regardless of the date of the common control combination.

The comparative amounts in the consolidated financial statements are presented as if the entities or businesses had been combined at the previous end of the reporting period or when they first came under common control, whichever is shorter.

Transaction costs, including professional fees, registration fees, costs of furnishing information to shareholders, costs incurred in combining operations of the previously separate businesses, etc., incurred in relation to the common control combination that is to be accounted for by using merger accounting is recognised as an expense in the year in which it is incurred.

Acquisition method of accounting for non-common control combinations

The Group applies the acquisition method to account for non-common control business combinations. The consideration transferred for the acquisition of a subsidiary comprises the:

- fair values of the assets transferred
- liabilities incurred to the former owners of the acquired business
- equity interests issued by the Group
- fair value of any asset or liability resulting from a contingent consideration arrangement, and
- fair value of any pre-existing equity interest in the subsidiary.

Identifiable assets acquired and liabilities and contingent liabilities assumed in a business combination are, with limited exceptions, measured initially at their fair values at the acquisition date. The Group recognises any non-controlling interest in the acquired entity on an acquisition-by-acquisition basis either at fair value or at the non-controlling interest's proportionate share of the acquired entity's net identifiable assets.

2. Summary of Significant Accounting Policies (Continued)

2.3 Business combinations (Continued)

Acquisition method of accounting for non-common control combinations (Continued)

Acquisition-related costs are expensed as incurred.

The excess of the

- consideration transferred,
- amount of any non-controlling interest in the acquired entity, and
- acquisition-date fair value of any previous equity interest in the acquired entity

over the fair value of the net identifiable assets acquired is recorded as goodwill. If those amounts are less than the fair value of the net identifiable assets of the business acquired, the difference is recognised directly in profit or loss as a bargain purchase.

Where settlement of any part of cash consideration is deferred, the amounts payable in the future are discounted to their present value as at the date of exchange. The discount rate used is the entity's incremental borrowing rate, being the rate at which a similar borrowing could be obtained from an independent financier under comparable terms and conditions.

Any contingent consideration to be transferred by the Group is recognised at fair value at the acquisition date. Subsequent changes to the fair value of the contingent consideration that is deemed to be an asset or liability is recognised in accordance with IAS 39 either in profit or loss or as a change to other comprehensive income. Contingent consideration that is classified as equity is not remeasured, and its subsequent settlement is accounted for within equity.

If the business combination is achieved in stages, the acquisition date carrying value of the acquirer's previously held equity interest in the acquiree is remeasured to fair value at the acquisition date. Any gains or losses arising from such remeasurement are recognised in profit or loss.

2.4 Separate financial statements

Investments in subsidiaries are accounted for at cost less impairment. Cost includes direct attributable costs of investment. The results of subsidiaries are accounted for by the Company on the basis of dividend received and receivable.

Impairment testing of the investments in subsidiaries is required upon receiving a dividend from these investments if the dividend exceeds the total comprehensive income of the subsidiary in the period the dividend is declared or if the carrying amount of the investment in the separate financial statements exceeds the carrying amount in the consolidated financial statements of the investee's net assets including goodwill.

2. Summary of Significant Accounting Policies (Continued)

2.5 Segment reporting

Operating segments are reported in a manner consistent with the internal reporting provided to the board of directors of the Company (the "Directors"), who is the chief operating decision-maker. The Directors are responsible for allocating resources and assessing performance of the operating segments, and making strategic decisions.

2.6 Foreign currency translation

(a) Functional and presentation currency

Items included in the financial statements of each of the Group's entities are measured using the currency of the primary economic environment in which the entity operates ("the functional currency"). The consolidated financial statements are presented in RMB, which is the Company's functional and the Group's presentation currency.

(b) Transactions and balances

Foreign currency transactions are translated into the functional currency using the exchange rates prevailing at the dates of the transactions or valuation where items are remeasured. Foreign exchange gains and losses resulting from the settlement of such transactions and from the translation at year-end exchange rates of monetary assets and liabilities denominated in foreign currencies are recognised in the consolidated income statement, except when deferred in other comprehensive income as qualifying cash flow hedges and qualifying net investment hedges.

Foreign exchange gains and losses are presented in the consolidated income statement within "Other gains/(losses), net".

Non-monetary items that are measured at fair value in a foreign currency are translated using the exchange rates at the date when the fair value was determined. Translation differences on assets and liabilities carried at fair value are reported as part of the fair value gain or loss. For example, translation differences on non-monetary financial assets and liabilities such as equities held at fair value through profit or loss are recognised in profit or loss as part of the fair value gain or loss. Translation differences on non-monetary financial assets such as equities classified as at fair value through other comprehensive income are included in other comprehensive income.

2. Summary of Significant Accounting Policies (Continued)

2.6 Foreign currency translation (Continued)

(c) Group companies

The results and financial position of all the group entities (none of which has the currency of a hyperinflationary economy) that have a functional currency different from the presentation currency are translated into the presentation currency as follows:

(i) assets and liabilities for each balance sheet presented are translated at the closing rate at the date of that balance sheet;

(ii) income and expenses for each income statement are translated at average exchange rates (unless this average is not a reasonable approximation of the cumulative effect of the rates prevailing on the transaction dates, in which case income and expenses are translated at the rate on the dates of the transactions); and

(iii) all resulting exchange differences are recognised in other comprehensive income.

Goodwill and fair value adjustments arising on the acquisition of a foreign entity are treated as assets and liabilities of the foreign entity and translated at the closing rate. Currency translation differences arising are recognised in other comprehensive income.

(d) Disposal of foreign operation and partial disposal

On the disposal of a foreign operation (that is, a disposal of the Group's entire interest in a foreign operation, or a disposal involving loss of control over a subsidiary that includes a foreign operation, a disposal involving loss of joint control over a joint venture that includes a foreign operation, or a disposal involving loss of significant influence over an associate that includes a foreign operation), all of the currency translation differences accumulated in equity in respect of that operation attributable to the owners of the Company are reclassified to profit or loss.

In the case of a partial disposal that does not result in the Group losing control over a subsidiary that includes a foreign operation, the proportionate share of accumulated currency translation differences are re-attributed to non-controlling interests and are not recognised in profit or loss. For all other partial disposals (that is, reductions in the Group's ownership interest in associates or joint ventures that do not result in the Group losing significant influence or joint control) the proportionate share of the accumulated exchange difference is reclassified to profit or loss.

2. Summary of Significant Accounting Policies (Continued)

2.7 Property, plant and equipment

Property, plant and equipment are stated at historical cost less depreciation. Historical cost includes expenditure that is directly attributable to the acquisition of the items.

Subsequent costs are included in the asset's carrying amount or recognised as a separate asset, as appropriate, only when it is probable that future economic benefits associated with the item will flow to the Group and the cost of the item can be measured reliably. The carrying amount of any component accounted for as a separate asset is derecognised when replaced. All other repairs and maintenance are charged to the consolidated income statement during the financial period in which they are incurred.

Depreciation is calculated using the straight-line method and the units of production method to allocate their cost to their residual values over their estimated useful lives, as follows:

– Buildings	15-50 years
– Infrastructure construction equipment	8-15 years
	Units of production method
– Transportation equipment	4-12 years
– Manufacturing equipment	5-18 years
– Testing equipment and instruments	5-10 years
– Other equipment	3-10 years

Construction-in-progress represents buildings, machinery and equipments under construction or pending installation and is stated at cost less accumulated impairment losses, if any. Costs include construction and acquisition costs, and interest charges arising from borrowings used to finance the assets during the construction period. No provision for depreciation is made on construction-in-progress until such time as the relevant assets are completed and available for use. When the assets concerned become available for use, the costs are transferred to appropriate category of property, plant and equipment and depreciated in accordance with the policy as stated above.

2. Summary of Significant Accounting Policies (Continued)

2.7 Property, plant and equipment (Continued)

The assets' residual values, useful lives and expected output are reviewed, and adjusted if appropriate, at the end of each reporting period.

An asset's carrying amount is written down immediately to its recoverable amount if the asset's carrying amount is greater than its estimated recoverable amount.

Gains and losses on disposals are determined by comparing the proceeds with the carrying amount and are recognised within "Other gains/(losses), net" in the consolidated income statement.

2.8 Investment properties

Investment properties, principally comprising leasehold buildings, are held for long-term rental yields and are not occupied by the Group. They also include properties that are being constructed or developed for future use as investment properties. Investment properties are stated at historical cost less accumulated depreciation and accumulated impairment losses, if any.

Depreciation is calculated using the straight-line method to write off the cost less accumulated impairment loss of the asset over its estimated useful life.

The assets' residual values and useful lives are reviewed, and adjusted if appropriate, at the end of each reporting period.

Gains and losses on disposals are determined by comparing the proceeds with the carrying amount and are recognised within "Other gains/(losses), net" in the consolidated income statement.

2.9 Lease prepayments

Lease prepayments represent upfront prepayments made for the land use rights and are expensed in the consolidated income statement on a straight-line basis over the period of the lease or when there is impairment, the impairment is expensed in the consolidated income statement.

2. Summary of Significant Accounting Policies (Continued)

2.10 Intangible assets

(a) Service concession arrangements

The Group is engaged in certain service concession arrangements in which the Group carries out construction work (e.g. toll highways and others) in exchange for a right for the Group to operate the asset concerned in accordance with pre-established conditions set by the granting authority. In accordance with the IFRIC Interpretation 12 Service Concession Arrangement (IFRIC 12), the assets under the concession arrangements may be classified as intangible assets or financial assets. The assets are classified as intangibles if the operator receives a right (a license) to charge users of the public service or as financial assets if the operator has an unconditional contractual right to receive cash or another financial asset from or at the direction of the grantor for the construction services. The Group classifies the non-current assets linked to the long-term investment as "service concession arrangements" within intangible assets on the balance sheet if the intangible asset model is adopted. Such concession assets represented the consideration received for its construction service rendered (Note 2.32). Once the underlying infrastructure of the concession arrangements is completed, the concession assets are amortised over the expected useful lives or the term of the concession, whichever is shorter, using traffic flow method or straight-line method under the intangible asset model.

(b) Patent and non-patented technologies

Separately acquired patent and non-patented technologies are shown at historical cost. Patent and non-patented technologies acquired in a business combination are recognised at fair value at the acquisition date. Patent and non-patented technologies have a finite useful life and are subsequently carried at cost less accumulated amortisation and impairment losses. Amortisation is calculated using the straight-line method to allocate the cost over their estimated useful lives of 2 to 10 years.

(c) Computer software

Acquired computer software license costs recognised as assets are amortised over their estimated useful lives of 2 to 10 years.

2. Summary of Significant Accounting Policies (Continued)

2.11 Mining assets

(a) Exploration and evaluation assets

Exploration and evaluation assets are recognised at cost on initial recognition. Subsequent to initial recognition, exploration and evaluation assets are stated at cost less any identified impairment loss.

Exploration and evaluation assets include the cost of exploration rights and the expenditures incurred in the search for mineral resources as well as the determination of the technical feasibility and commercial viability of extracting those resources. Exploration and evaluation assets are assessed for impairment when facts and circumstances suggest that the carrying amount of an exploration and evaluation asset may exceed its recoverable amount. An impairment loss is recognised in profit and loss.

When the technical feasibility and commercial viability of extracting a mineral resource become demonstrable and the mining rights are obtained, any previously recognised exploration and evaluation assets are reclassified as mining rights or property, plant and equipment, as appropriate. Exploration and evaluation assets are assessed for impairment and any impairment loss is recognised before reclassification.

(b) Mining rights

Mining rights acquired separately are initially measured at cost. Mining rights are reclassified from exploration and evaluation assets at the carrying amount when the technical feasibility and commercial viability of extracting mineral resources are demonstrable. Mining rights with finite useful lives are carried at costs less accumulated amortisation and any identified impairment loss. Amortisation for mining rights with finite useful lives is provided using the unit of production method based on the actual production volume over the estimated total proved and probable reserves of the ores mines.

2.12 Goodwill

Goodwill arises on the acquisition of subsidiaries and represents the excess of the consideration transferred, the amount of any non-controlling interest in the acquiree and the acquisition-date fair value of any previous equity interest in the acquiree over the fair value of the identified net assets acquired.

For the purpose of impairment testing, goodwill acquired in a business combination is allocated to each of the cash-generating units ("CGUs"), or groups of CGUs, that is expected to benefit from the synergies of the combination. Each unit or group of units to which the goodwill is allocated represents the lowest level within the entity at which the goodwill is monitored for internal management purposes. Goodwill is monitored at the individual acquisition group level within respective operation segment.

Goodwill impairment reviews are undertaken annually or more frequently if events or changes in circumstances indicate a potential impairment. The carrying value of CGU containing the goodwill is compared to the recoverable amount, which is the higher of value in use and the fair value less costs of disposal. Any impairment is recognised immediately as an expense and is not subsequently reversed.

2. Summary of Significant Accounting Policies (Continued)

2.13 Impairment of non-financial assets

Assets that have an indefinite useful life, for example, goodwill, or exploration and evaluation assets, are not subject to amortisation and are tested annually for impairment, or more frequently if events or changes in circumstances indicate that they might be impaired. Other assets are tested for impairment whenever events or changes in circumstances indicate that the carrying amount may not be recoverable. An impairment loss is recognised for the amount by which the asset's carrying amount exceeds its recoverable amount. The recoverable amount is the higher of an asset's fair value less costs of disposal and value in use. For the purposes of assessing impairment, assets are grouped at the lowest levels for which there are separately identifiable cash flows which are largely independent of the cash inflows from other assets or groups of assets (cash-generating units). Non-financial assets other than goodwill that suffered an impairment are reviewed for possible reversal of the impairment at each reporting date.

2.14 Investments and other financial assets

2.14.1 Classification

The Group classifies its financial assets in the following measurement categories:

- those to be measured subsequently at fair value (either through other comprehensive income, or through profit or loss), and

- those to be measured at amortised cost.

The classification depends on the entity's business model for managing the financial assets and the contractual terms of the cash flows.

For assets measured at fair value, gains and losses will either be recorded in profit or loss or other comprehensive income. For investments in debt instruments, this will depend on the business model in which the investment is held. For investments in equity instruments that are not held for trading, this will depend on whether the Group has made an irrevocable election at the time of initial recognition to account for the equity investment at fair value through other comprehensive income ("FVOCI").

The Group reclassifies debt investments when and only when its business model for managing those assets changes.

2. Summary of Significant Accounting Policies (Continued)

2.14 Investments and other financial assets (Continued)

2.14.2 Recognition and derecognition

Regular way purchases and sales of financial assets are recognised on trade date, the date on which the Group commits to purchase or sell the asset. Financial assets are derecognised when the rights to receive cash flows from the financial assets have expired or have been transferred and the Group has transferred substantially all the risks and rewards of ownership.

2.14.3 Measurement

At initial recognition, the Group measures a financial asset at its fair value plus, in the case of a financial asset not at fair value through profit or loss ("FVPL"), transaction costs that are directly attributable to the acquisition of the financial asset. Transaction costs of financial assets carried at FVPL are expensed in profit or loss.

Financial assets with embedded derivatives are considered in their entirety when determining whether their cash flows are solely payment of principal and interest.

Debt instruments

Subsequent measurement of debt instruments depends on the Group's business model for managing the asset and the cash flow characteristics of the asset. There are three measurement categories into which the Group classifies its debt instruments:

- Amortised cost: Assets that are held for collection of contractual cash flows where those cash flows represent solely payments of principal and interest are measured at amortised cost. Interest income from these financial assets is included in finance income using the effective interest rate method. Any gain or loss arising on derecognition is recognised directly in profit or loss and presented in "other gains/(losses), net", together with foreign exchange gains and losses. Impairment losses are presented as separate line item in the statement of profit or loss.

- FVOCI: Assets that are held for collection of contractual cash flows and for selling the financial assets, where the assets' cash flows represent solely payments of principal and interest, are measured at FVOCI. Movements in the carrying amount are taken through other comprehensive income, except for the recognition of impairment gains or losses, interest income and foreign exchange gains and losses which are recognised in profit or loss. When the financial asset is derecognised, the cumulative gain or loss previously recognised in other comprehensive income is reclassified from equity to profit or loss and recognised in "other gains/(losses), net". Interest income from these financial assets is included in finance income using the effective interest rate method. Foreign exchange gains and losses are presented in "other gains/(losses), net" and impairment expenses are presented as separate line item in the statement of profit or loss.

2. Summary of Significant Accounting Policies (Continued)

2.14 Investments and other financial assets (Continued)

2.14.3 Measurement (Continued)

Debt instruments (Continued)

- FVPL: Assets that do not meet the criteria for amortised cost or FVOCI are measured at FVPL. A gain or loss on a debt investment that is subsequently measured at FVPL is recognised in profit or loss and presented net within "other gains/(losses), net" in the period in which it arises.

Equity instruments

The Group subsequently measures all equity investments at fair value. Where the Group's management has elected to present fair value gains and losses on equity investments in other comprehensive income, there is no subsequent reclassification of fair value gains and losses to profit or loss following the derecognition of the investment. Dividends from such investments continue to be recognised in profit or loss as other income when the Group's right to receive payments is established.

Changes in the fair value of financial assets at FVPL are recognised in "other gains/(losses), net" in the consolidated income statement as applicable. Impairment losses (and reversal of impairment losses) on equity investments measured at FVOCI are not reported separately from other changes in fair value.

2.14.4 Impairment

The Group assesses on a forward looking basis the expected credit losses associated with its debt instruments carried at amortised cost and FVOCI. The impairment methodology applied depends on whether there has been a significant increase in credit risk.

For trade and bills receivables, the Group applies the simplified approach permitted by IFRS 9, which requires expected lifetime losses to be recognised from initial recognition of the receivables, see Note 33 for further details.

2.15 Offsetting financial instruments

Financial assets and liabilities are offset and the net amount reported in the balance sheet when the Group currently has a legally enforceable right to offset the recognised amounts, and there is an intention to settle on a net basis or realise the asset and settle the liability simultaneously. The Group has also entered into arrangements that do not meet the criteria for offsetting but still allow for the related amounts to be set off in certain circumstances, such as bankruptcy or the termination of a contract.

2. Summary of Significant Accounting Policies (Continued)

2.16 Financial Guarantee Contracts

Financial guarantee contracts are recognised as a financial liability at the time the guarantee is issued. The liability is initially measured at fair value and subsequently at the higher of:

- the amount determined in accordance with the expected credit loss model under IFRS 9 Financial Instruments and
- the amount initially recognised less, where appropriate, the cumulative amount of income recognised in accordance with the principles of IFRS 15 Revenue from Contracts with Customers.

The fair value of financial guarantees is determined based on the present value of the difference in cash flows between the contractual payments required under the debt instrument and the payments that would be required without the guarantee, or the estimated amount that would be payable to a third party for assuming the obligations.

Where guarantees in relation to loans or other payables of associates and joint ventures are provided for no compensation, the fair values are accounted for as contributions and recognised as part of the cost of the investment.

2.17 Derivatives and hedging activities

Derivatives are initially recognised at fair value on the date a derivative contract is entered into and are subsequently remeasured to their fair value at the end of each reporting period. The accounting for subsequent changes in fair value depends on whether the derivative is designated as a hedging instrument, and if so, the nature of the item being hedged. The Group designates certain derivatives as either:

- hedges of the fair value of recognised assets or liabilities or a firm commitment (fair value hedges)
- hedges of a particular risk associated with the cash flows of recognised assets and liabilities and highly probable forecast transactions (cash flow hedges), or
- hedges of a net investment in a foreign operation (net investment hedges).

At the inception of the hedging, the Group documents the economic, relationship between hedging instruments and hedged items, including whether changes in the cash flows of the hedging instruments are expected to offset changes in the cash flows of hedges items. The Group documents its risk management objective and strategy for undertaking its hedge transactions.

The fair values of derivative financial instruments designated in hedge relationships are disclosed in Note 3. Movements in the hedging reserve in shareholders' equity are shown in the consolidated statement of changes in equity. The full fair value of a hedging derivative is classified as a non-current asset or liability when the remaining maturity of the hedged item is more than 12 months; it is classified as a current asset or liability when the remaining maturity of the hedged item is less than 12 months. Trading derivatives are classified as a current asset or liability.

2. Summary of Significant Accounting Policies (Continued)

2.17 Derivatives and hedging activities (Continued)

(i) Cash flow hedge that quantity for hedge accounting

The effective portion of changes in the fair value of derivatives that are designated and qualify as cash flow hedges is recognised in cash flow hedge reserve within equity. The gain or loss relating to the ineffective portion is recognised immediately in profit or loss within "other gains/(losses), net".

When option contracts are used to hedge forecast transactions, the Group designates only the intrinsic value of the options as the hedging instrument.

Gains or losses relating to the effective portion of the change in intrinsic value of the options are recognised in the cash flow hedge reserve within equity. The changes in the time value of the options that relate to the hedged item ("aligned time value") are recognised within other comprehensive income in the costs of hedging reserve within equity.

When forward contracts are used to hedge forecast transactions, the Group generally designates only the change in fair value of the forward contract related to the spot component as the hedging instrument. Gains or losses relating to the effective portion of the change in the spot component of the forward contracts are recognised in the cash flow hedge reserve within equity. The change in the forward element of the contract that relates to the hedged item ("aligned forward element") is recognised within other comprehensive income in the costs of hedging reserve within equity. In some cases, the entity may designate the full change in fair value of the forward contract (including forward points) as the hedging instrument. In such cases, the gains or losses relating to the effective portion of the change in fair value of the entire forward contract are recognised in the cash flow hedge reserve within equity.

Amounts accumulated in equity are reclassified in the periods when the hedged item affects profit or loss, as follows:

- Where the hedged item subsequently results in the recognition of a non-financial asset (such as inventory), both the deferred hedging gains and losses and the deferred time value of the option contracts or deferred forward points, if any, are included within the initial cost of the asset. The deferred amounts are ultimately recognised in profit or loss as the hedged item affects profit or loss (for example through "cost of sales").

- The gain or loss relating to the effective portion of the interest rate swaps hedging variable rate borrowings is recognised in profit or loss within finance cost at the same time as the interest expense on the hedged borrowings.

When a hedging instrument expires, or is sold or terminated, or when a hedge no longer meets the criteria for hedge accounting, any cumulative deferred gain or loss and deferred costs of hedging in equity at that time remains in equity until the forecast transaction occurs, resulting in the recognition of a non-financial asset such as inventory. When the forecast transaction is no longer expected to occur, the cumulative gain or loss and deferred costs of hedging that were reported in equity are immediately reclassified to profit or loss.

2. Summary of Significant Accounting Policies (Continued)

2.17 Derivatives and hedging activities (Continued)

(ii) Net investment hedges

Hedges of net investments in foreign operations are accounted for similarly to cash flow hedges.

Any gain or loss on the hedging instrument relating to the effective portion of the hedge is recognised in other comprehensive income and accumulated in reserves in equity. The gain or loss relating to the ineffective portion is recognised immediately in profit or loss within "other gains/(losses), net".

Gains and losses accumulated in equity are reclassified to profit or loss when the foreign operation is partially disposed of or sold.

(iii) Derivatives that do not qualify for hedge accounting

Certain derivative instruments do not qualify for hedge accounting. Changes in the fair value of any derivative instrument that does not qualify for hedge accounting are recognised immediately in profit or loss and are included in "other gains/(losses), net".

2.18 Inventories

Inventories comprise raw materials and consumables, work in progress and finished goods. Inventories are stated at the lower of cost and net realisable value. Cost is determined using the first-in-first-out, weighted average or specific identification method for inventories with a different nature or use. The cost of finished goods and work in progress comprises raw materials, direct labour, other direct costs and related production overheads (based on normal operating capacity). It excludes borrowing costs. Net realisable value is the estimated selling price in the ordinary course of business, less the estimated costs of completion and the estimated costs necessary to make the sale.

2.19 Properties held for sale/properties under development for sale

Properties held for sale and under development for sale are stated at the lower of cost and net realisable value. Development cost of properties comprises cost of land use rights, construction costs and borrowing costs eligible for capitalisation incurred during the construction period. Upon completion, the properties are transferred to completed properties held for sale. Net realisable value takes into account the price ultimately expected to be realised, less applicable variable selling expenses and the anticipated costs to completion. Properties held for sale and under development for sale are classified as current assets unless the construction period of the relevant property development project is expected to complete beyond normal operating cycle.

2. Summary of Significant Accounting Policies (Continued)

2.20 Trade receivables

Trade receivables are amounts due from customers for services performed or products sold in the ordinary course of business. If collection of trade receivables is expected in one year or less (or in the normal operating cycle of the business if longer), they are classified as current assets. If not, they are presented as non-current assets.

Trade receivables are recognised initially at the amount of consideration that is unconditional unless they contain significant financing components, when they are recognised at fair value. The Group holds the trade receivables with the objective to collect the contractual cash flows and therefore measures them subsequently at amortised cost using the effective interest method. See Note 33 for further information about the Group's accounting for trade receivables and a description of the Group's impairment policies.

2.21 Contract assets and liabilities

A contract asset is the Group's right to consideration in exchange for goods or services that the Group has transferred to the customer. A contract asset becomes a receivable when the Group's right to consideration is unconditional, which is the case when only the passage of time is required before payment of the consideration is due.

The Group applied the simplified approach to measure expected credit losses which uses a lifetime expected loss allowance for contract assets, see Note 34 for further details.

A contract liability is the Group's obligation to transfer, or to stand ready to transfer goods or services to the customer that the Group has received consideration or the amount is due from the customer. The Group derecognised a contract liability when the Group transfers goods or services and, therefore satisfies performance obligation.

Contract in the financial statements is presented as a contract asset or a contract liability, depending on the relationship between the Group's performance and the customer's payment.

2.22 Cash and cash equivalents

For the purpose of presentation in the statement of cash flows, cash and cash equivalents includes cash on hand, deposits held at call with financial institutions, other short-term, highly liquid investments with original maturities of three months or less that are readily convertible to known amounts of cash and which are subject to an insignificant risk of changes in value, and bank overdrafts. Bank overdrafts are shown within borrowings in current liabilities in the balance sheet.

2.23 Share capital

Ordinary shares are classified as equity. Incremental costs directly attributable to the issue of new shares or options are shown in equity as a deduction, net of tax, from the proceeds.

2. Summary of Significant Accounting Policies (Continued)

2.24 Financial instruments classified as equity

Financial instruments issued by the Group are classified as equity instruments when all the following conditions have been met:

(i) The financial instruments have no contracted obligation to pay cash or other financial assets to others, nor to exchange financial assets or liabilities with others under potential unfavorable circumstance;

(ii) The financial instruments will or may be settled in the Group's own equity instruments: if the financial instrument is non-derivative, it should not have the contractual obligation to be settled by the Group delivering a variable number of its own equity instruments; if the financial instrument is derivative, it should solely be settled by the Group delivering a fixed number of its own equity instruments in exchange for a fixed amount of cash or other financial assets.

Financial instruments classified as equity instruments are recognised initially at fair value, net of transaction costs incurred.

2.25 Trade payables

Trade payables are obligations to pay for goods or services that have been acquired in the ordinary course of business from suppliers. Trade payables are classified as current liabilities if payment is due within one year or less (or in the normal operating cycle of the business if longer). If not, they are presented as non-current liabilities.

Trade payables are recognised initially at fair value and subsequently measured at amortised cost using the effective interest method.

2.26 Borrowings

Borrowings are initially recognised at fair value, net of transaction costs incurred. Borrowings are subsequently carried at amortised cost; any difference between the proceeds (net of transaction costs) and the redemption amount is recognised in the consolidated income statement over the period of the borrowings using the effective interest method.

Fees paid on the establishment of loan facilities are recognised as transaction costs of the loan to the extent that it is probable that some or all of the facility will be drawn down. In this case, the fee is deferred until the draw-down occurs. To the extent there is no evidence that it is probable that some or all of the facility will be drawn down, the fee is capitalised as a pre-payment for liquidity services and amortised over the period of the facility to which it relates.

Borrowings are removed from the balance sheet when the obligation specified in the contract is discharged, cancelled or expired. The difference between the carrying amount of a financial liability that has been extinguished or transferred to another party and the consideration paid, including any non-cash assets transferred or liabilities assumed, is recognised in profit or loss as finance costs.

2. Summary of Significant Accounting Policies (Continued)

2.26 Borrowings (Continued)

Where the terms of a financial liability are renegotiated and the entity issues equity instruments to a creditor to extinguish all or part of the liability (debt for equity swap), a gain or loss is recognised in profit or loss, which is measured as the difference between the carrying amount of the financial liability and the fair value of the equity instruments issued.

Borrowings are classified as current liabilities unless the Group has an unconditional right to defer settlement of the liability for at least 12 months after the end of the reporting period.

2.27 Borrowing costs

General and specific borrowing costs directly attributable to the acquisition, construction or production of qualifying assets, which are assets that necessarily take a substantial period of time to get ready for its intended use or sale, are added to the cost of those assets, until such time as the assets are substantially ready for their intended use or sale.

Investment income earned on the temporary investment of specific borrowings pending their expenditure on qualifying assets is deducted from the borrowing costs eligible for capitalisation.

All other borrowing costs are recognised in profit or loss in the period in which they are incurred.

2.28 Current and deferred income tax

The income tax expense for the period is the tax payable on the current period's taxable income based on the applicable income tax rate for each jurisdiction adjusted by changes in deferred tax assets and liabilities attributable to temporary differences and to unused tax losses. Income tax is recognised in the consolidated income statement, except to the extent that it relates to items recognised in other comprehensive income or directly in equity. In this case, the income tax is also recognised in other comprehensive income or directly in equity, respectively.

(a) Current income tax

The current income tax charge is calculated on the basis of the tax laws enacted or substantively enacted at the balance sheet date in the countries where the Company and its subsidiaries, joint ventures and associates operate and generate taxable income. Management periodically evaluates positions taken in tax returns with respect to situations in which applicable tax regulation is subject to interpretation. It establishes provisions where appropriate on the basis of amounts expected to be paid to the tax authorities.

2. Summary of Significant Accounting Policies (Continued)

2.28 Current and deferred income tax (Continued)

(b) Deferred income tax

Inside basis differences

Deferred income tax is recognised, using the liability method, on temporary differences arising between the tax bases of assets and liabilities and their carrying amounts in the consolidated financial statements. However, deferred tax liabilities are not recognised if they arise from the initial recognition of goodwill. Deferred income tax is also not accounted for if it arises from initial recognition of an asset or liability in a transaction other than a business combination that at the time of the transaction affects neither accounting nor taxable profit or loss. Deferred income tax is determined using tax rates (and laws) that have been enacted or substantively enacted by the balance sheet date and are expected to apply when the related deferred income tax asset is realised or the deferred income tax liability is settled.

Deferred income tax assets are recognised only to the extent that it is probable that future taxable profit will be available against which the temporary differences can be utilised.

Outside basis differences

Deferred income tax is provided on temporary differences arising from investments in subsidiaries, associates and joint ventures, except for deferred income tax liability where the timing of the reversal of the temporary difference is controlled by the Group and it is probable that the temporary difference will not reverse in the foreseeable future.

Deferred income tax assets are recognised on deductible temporary differences arising from investments in subsidiaries, associates and joint ventures only to the extent that it is probable the temporary difference will reverse in the future and there is sufficient taxable profit available against which the temporary difference can be utilised.

(c) Offsetting

Deferred income tax assets and liabilities are offset when there is a legally enforceable right to offset current tax assets against current tax liabilities and when the deferred income tax assets and liabilities relate to income taxes levied by the same taxation authority on either the taxable entity or different taxable entities where there is an intention to settle the balances on a net basis.

2. Summary of Significant Accounting Policies (Continued)

2.29 Employee benefits

The Group operates various post-employment schemes, including both defined benefit and defined contribution pension plans and post-employment medical plans.

(a) Pension obligations

For defined contribution plans, the full-time employees of the Group in the Mainland China are covered by the government-sponsored state-managed retirement plans under which the employees are entitled to a monthly pension based on certain formula. The relevant government agencies are responsible for the pension liability to these retired employees. The Group pays contributions to these pension plans monthly, on a mandatory or contractual basis. The Group has no further payment obligations once the contributions have been paid. The contributions are recognised as employee benefit expense as incurred.

The Group also provides supplementary pension subsidies to certain qualified retired employees in Mainland China. Such supplementary pension subsidies are considered as defined benefit plans. The cost of providing benefits is determined using the projected unit credit method, with actuarial valuations being carried out at the end of each annual reporting period. The present value of the defined benefit plans is determined by discounting the estimated future cash outflows using interest rates of government bonds that are denominated in the currency in which the benefits will be paid, and that have terms to maturity approximating the terms of the related pension obligation. Remeasurement, comprising actuarial gains and losses is reflected immediately in the consolidated balance sheet with a charge or credit recognised in other comprehensive income in the period in which they occur. Remeasurement recognised in other comprehensive income will not be reclassified to profit or loss. Past service cost is recognised in profit or loss in the period of a plan amendment. Net interest is calculated by applying the discount rate at the beginning of the period to the net defined benefit liability or asset. Defined benefit costs are categorised as follows:

- service cost (including current service cost, past service cost, as well as gains and losses on curtailments and settlements);
- net interest expense or income; and
- remeasurement.

The Group presents the first two components of defined benefit costs in profit or loss. Curtailment gains and losses are accounted for as past service costs.

In addition, the Group participates in various defined contribution retirement schemes for its qualified employees in certain countries or jurisdictions outside Mainland China. Employees' and employers' contributions are calculated based on various percentages of employees' gross salaries of fixed sums and length of service.

2. Summary of Significant Accounting Policies (Continued)

2.29 Employee benefits (Continued)

(b) Other post-employment obligations

The Group provides post-retirement healthcare benefits to certain qualified retired employees. The expected costs of these benefits are accrued over the period of employment using the same accounting methodology as used for defined benefit pension plans. Actuarial gains and losses arising from experience adjustments and changes in actuarial assumptions are charged or credited to equity in other comprehensive income in the period in which they arise. These obligations are valued semiannually by independent qualified actuaries.

(c) Termination benefits

Termination benefits are payable when employment is terminated by the Group before the normal retirement date, or whenever an employee accepts voluntary redundancy in exchange for these benefits. The Group recognises termination benefits at the earlier of the following dates: (a) when the Group can no longer withdraw the offer of those benefits; and (b) when the entity recognise costs for a restructuring that is within the scope of IAS 37 and involves the payment of termination benefits. In the case of an offer made to encourage voluntary redundancy, the termination benefits are measured based on the number of employees expected to accept the offer. Benefits falling due more than 12 months after the end of the reporting period are discounted to their present value.

(d) Short-term employee benefits

Short-term employee benefits are recognised at the undiscounted amount of the benefits expected to be paid as and when employees rendered the services. All short-term employee benefits are recognised as an expense unless another IFRS requires or permits the inclusion of the benefits in the cost of an asset.

A liability is recognised for benefits accruing to employees (such as wages and salaries, annual leave and sick leave) after deducting any amount already paid.

(e) Housing funds

All full-time employees of the Group in Mainland China are entitled to participate in various government-sponsored housing funds. The Group contributes on a monthly basis to these funds based on certain percentages of the salaries of the employees. The Group’s liability in respect of these funds is limited to the contributions payable in each period.

2. Summary of Significant Accounting Policies (Continued)

2.30 Provisions

Provisions are recognised when: the Group has a present legal or constructive obligation as a result of past events; it is probable that an outflow of resources will be required to settle the obligation; and the amount has been reliably estimated. Provisions are not recognised for future operating losses.

Where there are a number of similar obligations, the likelihood that an outflow will be required in settlement is determined by considering the class of obligations as a whole. A provision is recognised even if the likelihood of an outflow with respect to any one item included in the same class of obligations may be small.

Provisions are measured at the present value of management's best estimate of the expenditures required to settle the present obligation at the end of the reporting period using a pre-tax rate that reflects current market assessments of the time value of money and the risks specific to the obligation. The increase in the provision due to passage of time is recognised as interest expense.

2.31 Government grants

Grants from the government are recognised where there is a reasonable assurance that the grant will be received and the Group will comply with all attached conditions.

Government grants relating to costs are deferred and recognised in the consolidated income statement over the period necessary to match them with the costs that they are intended to compensate.

Government grants relating to property, plant and equipment and intangible assets are included in non-current liabilities as deferred government grants and are credited to the consolidated income statement on a straight-line basis over the expected lives of the related assets.

2.32 Revenue recognition

Revenue is measured at the transaction price agreed under the contract. Revenue is shown, net of discounts and after eliminating sales within the Group. The Group considers the effects of variable consideration, constraining estimates of variable consideration, the existence of a significant financing component in the contract, non-cash consideration and consideration payable to a customer to determine the transaction price.

Revenues are recognised when or as the control of the asset is transferred to the customer and when specific criteria have been met for each of the Group's activities, as described below. The Group bases its estimates on historical results, taking into consideration the type of customer, the type of transaction and the specifics of each arrangement.

2. Summary of Significant Accounting Policies (Continued)

2.32 Revenue recognition (Continued)

(a) Revenue from infrastructure construction contracts and bridge steel structure manufacturing and installation services

Revenue from infrastructure construction contracts and bridge steel structure manufacturing and installation services is recognised when or as the constructions projects and bridge steel structure products and related installation services are transferred to the customer. Depending on the terms of the contracts and the laws that are applicable to the contracts, control of the construction projects and bridge steel structure products and related installation services may transfer over time or at a point in time. If the construction projects and the bridge steel structure manufacturing and installation services have no alternative use to the Group contractually and the Group has an enforceable right to payment from the customers for performance completed to date, the Group satisfies the performance obligation over time, and therefore, recognises revenue over the period of the contract by reference to the progress towards complete satisfaction of that performance obligation. The progress towards complete satisfaction of the performance obligation, in an amount that reflects the consideration expected to be entitled and, depending on the nature of the contract, is measured mainly by reference to (a) the proportion of contract costs incurred for work performed to date to estimated total contract costs for each contract; (b) the amount of work certified by site engineers; or (c) completion of physical proportion of the contract work.

(b) Services rendered

Revenue for services rendered including surveying, design, consulting, research and development, feasibility study, compliance certification services with respect to infrastructure projects, is recognised over the period of services are rendered by the progress towards complete satisfaction of that performance obligation measured by reference to (a) the proportion of contract costs incurred for work performed to date to estimated total contract costs for each contract; (b) stage of completion of the specific transactions and when it is probable that the economic benefits associated with the transaction will flow to the entity.

For (a) and (b) above, estimates of revenue, costs or extent of progress toward completion are revised if circumstances change. Any resulting increases or decreases in estimated revenues or costs are reflected in profit or loss in the period in which the circumstances that give rise to the revision become known by management.

The excess of cumulative revenue recognised in profit or loss over the cumulative billings to customers is recognised as contract assets. The excess of cumulative billings to customers over the cumulative revenue recognised in profit or loss is recognised as contract liabilities.

2. Summary of Significant Accounting Policies (Continued)

2.32 Revenue recognition (Continued)

(c) Revenue from properties development

Revenue from sale of properties is recognised when control over the property has been transferred to the customer. The properties have generally no alternative use for the Group due to contractual restrictions. However, an enforceable right to payment does not arise until legal title has passed to the customer. Therefore, revenue is recognised at a point in time when the legal title has passed to the customer.

Some of the Group's primary land development recognised revenue over time, and the progress of implementation is based on the proportion of the cost incurred over the budgeted cost by the end of the reporting period. Some recognised revenue at a point in time.

(d) Sale of goods

Sales of goods are recognised when an entity has transferred the products to the customer, and the customer has obtained control of the products.

2.33 Interest income

Interest income is calculated by applying the effective interest rate to the gross carrying amount of a financial asset except for financial assets that subsequently become credit-impaired. For credit-impaired financial assets the effective interest rate is applied to the net carrying amount of the financial asset (after deduction of the loss allowance).

Interest income is presented as finance income where it is earned from financial assets that are held for cash management purposes.

2.34 Dividends

Dividends are received from financial assets measured at FVPL and at FVOCI. Dividends are recognised as other income in profit or loss when the right to receive payment is established. This applies even if they are paid out of pre-acquisition profits, unless the dividend clearly represents a recovery of part of the cost of an investment. In this case, the dividend is recognised in other comprehensive income if it relates to an investment measured at FVOCI. However, the investment may need to be tested for impairment as a consequence.

2. Summary of Significant Accounting Policies (Continued)

2.35 Leases

Assets and liabilities arising from a lease are initially measured on a present value basis. Lease liabilities include the net present value of the following lease payments:

- fixed payments (including in-substance fixed payments), less any lease incentives receivable,
- variable lease payment that are based on an index or a rate, initially measured using the index or rate as at the commencement date,
- amounts expected to be payable by the group under residual value guarantees,
- the exercise price of a purchase option if the Group is reasonably certain to exercise that option, and
- payments of penalties for terminating the lease, if the lease term reflects the group exercising that option.

Lease payments to be made under reasonably certain extension options are also included in the measurement of the liability.

The lease payments are discounted using the interest rate implicit in the lease. If that rate cannot be readily determined, the lessee's incremental borrowing rate is used, being the rate that the individual lessee would have to pay to borrow the funds necessary to obtain an asset of similar value to the right-of-use asset in a similar economic environment with similar terms, security and conditions.

To determine the incremental borrowing rate, the Group:

- where possible, uses recent third-party financing received by the individual lessee as a starting point, adjusted to reflect changes in financing conditions since third party financing was received
- uses a build-up approach that starts with a risk-free interest rate adjusted for credit risk for leases held by the Group, which does not have recent third party financing, and
- makes adjustments specific to the lease, e.g. term, country, currency and security.

If a readily observable amortising loan rate is available to the individual lessee (through recent financing or market data) which has a similar payment profile to the lease, then the Group entities use that rate as a starting point to determine the incremental borrowing rate.

The Group is exposed to potential future increases in variable lease payments based on an index or rate, which are not included in the lease liability until they take effect. When adjustments to lease payments based on an index or rate take effect, the lease liability is reassessed and adjusted against the right-of-use asset.

2. Summary of Significant Accounting Policies (Continued)

2.35 Leases (Continued)

Lease payments are allocated between principal and finance cost. The finance cost is charged to profit or loss over the lease period so as to produce a constant periodic rate of interest on the remaining balance of the liability for each period.

Right-of-use assets are measured at cost comprising the following:

- the amount of the initial measurement of lease liability
- any lease payments made at or before the commencement date less any lease incentives received
- any initial direct costs, and
- restoration costs.

Right-of-use assets are generally depreciated over the shorter of the asset's useful life and the lease term on a straight-line basis. If the Group is reasonably certain to exercise a purchase option, the right-of-use asset is depreciated over the underlying asset's useful life.

Payments associated with short-term leases and leases of low-value assets are recognised on a straight-line basis as an expense in profit or loss. Short-term leases are leases with a lease term of 12 months or less without a purchase option.

For the lessor, the Group derecognises assets held under a finance lease in balance sheet and present them as a receivable at the present value of the lease payments. Lease income from operating leases is recognised in the consolidated income statement on a straight-line basis over the lease term. Initial direct costs incurred in obtaining an operating lease are added to the carrying amount of the underlying asset and recognised as expense over the lease term on the same basis as lease income. The respective leased assets are included in the balance sheet based on their nature.

2. Summary of Significant Accounting Policies (Continued)

2.36 Research and development

Research expenditure is recognised as an expense as incurred. Costs incurred on development projects (relating to the design and developing of new or improved products and processes) are recognised as intangible assets when it is probable that the project will be a success considering its commercial and technical feasibility and its costs can be measured reliably. Other development expenditures that do not meet these criteria are recognised as an expense when incurred. Development costs previously recognised as an expense are not recognised as an asset in a subsequent period.

Capitalised development cost is measured at cost less accumulated amortisation and accumulated impairment losses. Amortisation of capitalised development cost is calculated using the straight-line method over its expected useful life from the date they are available for use.

2.37 Dividend distribution

Dividend distribution to the Company's shareholders is recognised as a liability in the Group's and the Company's financial statements in the period in which the dividends are approved by the Company's shareholders.

2.38 Changes in accounting policies

The Group has early adopted Amendments to IFRS 16 COVID-19-Related Rent Concessions retrospectively from 1 January 2020. The amendment provides an optional practical expedient allowing lessees to elect not to assess whether a rent concession related to COVID-19 is a lease modification. Lessees adopting this election may account for qualifying rent concessions in the same way as they would if they were not lease modifications. The practical expedient only applies to rent concessions occurring as a direct consequence of the COVID-19 pandemic and only if all of the following conditions are met: a) the change in lease payments results in revised consideration for the lease that is substantially the same as, or less than, the consideration for the lease immediately preceding the change; b) any reduction in lease payments affects only payments due on or before 30 June 2021; and c) there is no substantive change to other terms and conditions of the lease.

The Group has applied the practical expedient to all qualifying COVID-19-related rent concessions. The adoption did not have material impact on the Group's results for the year ended 31 December 2020. There is no impact on the opening balance of equity at 1 January 2020.

3. Financial Risk Management

3.1 Financial risk factors

The Group's activities expose it to a variety of financial risks: market risk (including foreign currency risk, price risk and cash flow and fair value interest rate risk), credit risk, and liquidity risk.

The Group's overall risk management programme focuses on the unpredictability of financial markets and seeks to minimise potential adverse effects on the Group's financial performance. The Group identifies, evaluates and uses derivative financial instruments to hedge certain risk exposures.

There has been no change to the types of the Group's exposure in respect of financial instruments or the manner in which it manages and measures the risks.

(a) Market risk

(i) Foreign currency risk

The functional currency of majority of the entities within the Group is RMB. Most of the Group's transactions are based and settled in RMB. Foreign currencies are used to settle the Group's revenue from overseas operations, the Group's purchases of machinery and equipment from overseas suppliers, and certain expenses.

RMB is not freely convertible into other foreign currencies and conversion of RMB into foreign currencies is subject to rules and regulations of foreign exchange control promulgated by the PRC Government.

Details of the Group's other financial assets at amortised cost, trade and other receivables, restricted cash, cash and cash equivalents, trade and other payables and borrowings as at 31 December 2020, denominated in foreign currencies, mainly United States Dollars ("USD"), are disclosed in Notes 30, 33, 36, 37, 41 and 42 respectively.

The management of the Group monitors foreign exchange exposure and will consider hedging significant foreign exchange exposure should the need arises.

As at 31 December 2020, if RMB had strengthened/weakened by 6% against USD with all other variables held constant, post-tax profit for the year would have been approximately RMB3 million higher/lower (2019: 2%, RMB19 million lower/higher), mainly as a result of foreign exchange gains/losses on translation of USD-denominated cash and cash equivalents, trade and other receivables, other financial assets at amortised cost, restricted cash, borrowings, and trade and other payables.

3. Financial Risk Management (Continued)

3.1 Financial risk factors (Continued)

(a) Market risk (Continued)

(ii) Price risk

The Group's exposure to equity securities price risk arises from investments held by the Group and classified in the balance sheet either as at FVPL or at FVOCI and measured by reference to quoted prices.

The Group currently does not have a policy to hedge the securities price risk. However, the management closely monitors such risk by maintaining a diversified portfolio of investments with different risks.

The Group's sensitivity to equity price risk on the financial assets and liabilities at FVPL and at FVOCI at the end of the reporting period while all other variables were held constant is as follows:

	2020	2019
Increase/decrease in quoted price in open markets	**12%**	19%

	2020 **RMB million**	2019 RMB million
Increase/(decrease) in post-tax profit for the year		
– as a result of increase in equity price	**10**	5
– as a result of decrease in equity price	**(10)**	(5)
Increase/(decrease) in other comprehensive income		
– as a result of increase in equity price	**75**	158
– as a result of decrease in equity price	**(75)**	(158)

3. Financial Risk Management (Continued)

3.1 Financial risk factors (Continued)

(a) Market risk (Continued)

(iii) Cash flow and fair value interest rate risk

The fair value interest rate risk relates primarily to the Group's fixed-rate borrowings and other financial assets at amortised cost. The cash flow interest rate risks of the Group relates primarily to floating-rate bank borrowing and unlisted debt related entrusted products classified in the balance sheet at FVPL. The management of the Group monitors interest rate exposure and will consider hedging significant interest rate exposure should the need arise. The fair value interest rate risk on bank deposits is insignificant as the fixed rate deposits are short-term. During 2020 and 2019, the Group's borrowings at variable rate were mainly denominated in RMB and USD.

The Group's sensitivity to interest rate risk is prepared assuming the amount of floating-rate borrowings at the end of the reporting period were outstanding and the amount of unlisted debt related entrusted products classified in the balance sheet at FVPL at the end of the reporting period retained for the whole year. Bank balances are excluded from sensitivity analysis as the Directors consider that the exposure of cash flow interest rate risk arising from variable-rate bank balances is insignificant.

	2020	2019
Increase/decrease in interest rate	**25 basis points**	25 basis points

	2020	2019
	RMB million	RMB million
(Decrease)/increase in post-tax profit for the year		
– as a result of increase in interest rate	**(135)**	(158)
– as a result of decrease in interest rate	**135**	158

3. Financial Risk Management (Continued)

3.1 Financial risk factors (Continued)

(b) Credit risk

Credit risk arises from cash and bank balances, trade and other receivables except for prepayments, contract assets, debt investments carried at amortised cost and FVOCI, and the nominal value of the guarantees provided on liabilities.

In order to minimise the credit risk, the management of the Group has delegated the teams responsible for assessment of the credit quality of the customer, taking into account its financial position, past experience and other factors and determination of credit limits, credit approvals and other monitoring procedures to ensure that follow-up action is taken to recover long aged debts. In addition, the Group reviews the recoverable amount of each material individual debt at the end of the reporting period to ensure that adequate expected credit losses are made for irrecoverable amounts. One major customer (including its controlled entities), which is a wholly state-owned enterprise, contributes a significant portion of the revenue and receivables of the Group. The management considers that the credit risk in respect of this customer is limited.

The Group's concentration of credit risk by geographical locations is mainly in Mainland China, where the Group's operations are primarily located.

The Group has concentration of credit risk in respect of trade receivable as the Group's largest trade receivable and the five largest trade receivables represent 10% (2019: 12%) and 28% (2019: 27%) of the total trade receivables respectively.

The Group has concentration of credit risk in respect of other financial assets at amortised cost as the Group's largest other financial assets at amortised cost and the five largest other financial assets at amortised cost represent 11% (2019: 5%) and 32% (2019: 15%) of the total other financial assets at amortised cost respectively.

3. Financial Risk Management (Continued)

3.1 Financial risk factors (Continued)

(b) Credit risk (Continued)

(i) Impairment of financial assets

The Group has four types of financial assets that are subject to the expected credit loss model:

- trade and other receivables
- contract assets
- debt investments carried at amortised cost, and
- debt investments carried at FVOCI.

The Group holds substantially all of bank deposits in major financial institutions located in the PRC and certain overseas banks with proper credit ratings. While cash and cash equivalents are also subject to the impairment requirements of IFRS 9, the identified impairment loss was immaterial.

Trade receivables and contract assets

For trade receivables and contract assets which have impaired, the Group assessed individually and provided for credit losses allowance. If no reasonable and supportable information is available without undue cost for expected credit losses measurement, the trade receivables and contract assets were grouped by reference to the credit risk characteristics and assessed collectively for credit losses allowance. When measuring expected credit loss, the Group considers its own credit loss incurred in the past, and adjusts by taking into consideration current conditions and forward looking factors.

Debt investments

The Group assesses the loss allowance for debt investments at amortised costs and FVOCI based on expected credit loss model. The management assesses whether the credit risk of debt investments have increased significantly since their initial recognition, and apply a three-stage impairment model to calculate their expected credit loss. For debt investments classified into stages 1 for which credit risk has not increased significantly since initial recognition, the management assesses loss allowance at an amount equal to 12-month expected credit loss. For debt investments classified into stages 2 for which credit risk has increased significantly since initial recognition but that are not credit-impaired, and debt investments classified into stages 3 that are credit-impaired since initial recognition, the management assesses loss allowance at an amount equal to lifetime expected credit loss. When measuring expected credit loss, the Group considers its own credit loss incurred in the past, and adjusts by taking into consideration current conditions and forward looking factors.

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

3. Financial Risk Management (Continued)

3.1 Financial risk factors (Continued)

(b) Credit risk (Continued)

(ii) Financial guarantees

The Group has provided guarantees to banks in respect of banking facilities utilised by certain related companies and third parties. The maximum exposure of these financial guarantees to the Group is as follows:

	2020		2019	
	RMB million	**Expiry period**	RMB million	Expiry period
Guarantees given to banks in respect of banking facilities to:				
Joint ventures	**5,048**	**2022-2042**	7,239	2020-2042
An associate	**2,441**	**2023**	2,325	2023
Government-related entities	**480**	**2021-2030**	570	2020-2030
Property purchasers	**44,684**	**2021-2046**	36,075	2020-2038
	52,653		46,209	

(c) Liquidity risk

Liquidity risk encompasses the risk that the Group cannot meet its financial obligations in full.

Prudent liquidity risk management includes maintaining sufficient cash and the availability of funding from an adequate amount of committed credit facilities to meet obligations when due. Due to capital intensive nature of the Group's business, the Group ensures that it maintains flexibility through keeping sufficient cash and cash equivalents and credit lines to meet its liquidity requirements. The Group finances its working capital requirements through a combination of funds generated from operations and bank and other borrowings.

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

3. Financial Risk Management (Continued)

3.1 Financial risk factors (Continued)

(c) Liquidity risk (Continued)

The table below analyses the Group's non-derivative financial liabilities for which the contractual maturities are essential for an understanding of the timing of cash flows into relevant maturity groupings based on the remaining period at the balance sheet date to the contractual maturity date. The spot rate as at the end of the reporting period is used for the cash flow calculation in relation to the amounts settled with foreign currencies. The amounts disclosed in the table are the contractual undiscounted cash flows. To the extent that interest cash flows are floating rate, the undiscounted amount is derived from interest rate at the end of the reporting period.

	On demand or Less than 1 year RMB million	Between 1 and 2 years RMB million	Between 2 and 5 years RMB million	Over 5 years RMB million	Total undiscounted cash flows RMB million	Carrying amount RMB million
At 31 December 2020						
Trade and other payables (excluding statutory and non-financial liabilities) *(Note 41)*	**456,959**	**4,926**	**2,465**	**996**	**465,346**	**464,900**
Borrowings *(Note 42)*	**89,018**	**52,562**	**63,007**	**92,090**	**296,677**	**250,055**
Lease liabilities *(Note 19)*	**550**	**632**	**390**	**329**	**1,901**	**1,763**
Financial guarantee contracts	**52,653**	**–**	**–**	**–**	**52,653**	**–**
Financial liabilities at FVPL *(Note 35)*	**65**	**–**	**–**	**–**	**65**	**65**
	599,245	**58,120**	**65,862**	**93,415**	**816,642**	**716,783**
At 31 December 2019						
Trade and other payables (excluding statutory and non-financial liabilities) *(Note 41)*	417,025	5,697	2,110	240	425,072	424,659
Borrowings *(Note 42)*	119,234	38,198	61,684	38,603	257,719	231,245
Lease liabilities *(Note 19)*	1,098	713	551	425	2,787	2,487
Financial guarantee contracts	46,209	–	–	–	46,209	–
Financial liabilities at FVPL *(Note 35)*	85	–	–	–	85	85
	583,651	44,608	64,345	39,268	731,872	658,476

Note: The difference between total undiscounted cash flows and the carrying amount of trade and other payables represents the imputed interest expenses on interest-free retention payables.

As at 31 December 2020, there is no bank borrowing that contains a repayment on demand clause.

3. Financial Risk Management (Continued)

3.1 Financial risk factors (Continued)

(c) Liquidity risk (Continued)

The amounts included above for financial guarantee contracts are the maximum amounts the Group could be required to settle under the arrangement for the full guaranteed amount if that amount is claimed by the counterparty to the guarantee. Based on expectations at the end of the reporting period, the Group considers that it is more likely than not that no amount will be payable under the arrangement. However, this estimate is subject to change depending on the probability of the counterparty claiming under the guarantee which is a function of the likelihood that the financial receivables held by the counterparty which are guaranteed suffer credit losses.

The amounts included above for variable interest rate instruments for non-derivative financial liabilities are subject to change if changes in variable interest rates differ to those estimates of interest rates determined at the end of the reporting period.

(d) Capital risk management

The Group's objectives when managing capital are to safeguard the Group's ability to continue as a going concern in order to provide returns for shareholders and benefits for other stakeholders and to maintain an optimal capital structure to reduce the cost of capital.

In order to maintain or adjust the capital structure, the Group may adjust the amount of dividends paid to shareholders, return capital to shareholders, issue new shares or sell assets to reduce debt.

The Group monitors capital on the basis of the asset-liability ratio. This ratio is calculated as total liabilities divided by total assets. The Group aims to maintain the asset-liability ratio at a reasonable level.

	2020 **RMB million**	2019 RMB million
Total liabilities	**886,931**	810,713
Total assets	**1,199,977**	1,056,041
Asset-liability ratio	**73.91%**	76.77%

The asset-liability ratio as at 31 December 2020 decreased by 2.86% percentage points compared with that in 2019 primarily attributable to the issuance of perpetual notes and capital contribution from non-controlling interests in 2020.

3. Financial Risk Management (Continued)

3.2 Fair value estimation

Some of the Group's financial assets and financial liabilities are measured at fair value at the end of each reporting period. The following table gives information about how the fair values of these financial assets and financial liabilities are determined (in particular, the valuation technique(s) and inputs used), as well as the level of the fair value hierarchy into which the fair value measurements are categorised (levels 1 to 3) based on the degree to which the inputs to the fair value measurements is observable.

- Level 1: The fair value of financial instruments traded in active markets is based on quoted market prices at the end of the reporting period. The quoted market price used for financial assets held by the Group is the current bid price. These instruments are included in level 1.

- Level 2: The fair value of financial instruments that are not traded in an active market is determined using valuation techniques which maximise the use of observable market data and rely as little as possible on entity-specific estimates. If all significant inputs required to fair value an instrument are observable, the instrument is included in level 2.

- Level 3: If one or more of the significant inputs is not based on observable market data, the instrument is included in level 3. This is the case for unlisted equity securities, unlisted open-end equity funds, unlisted entrusted products, and other financial assets at FVPL.

3. Financial Risk Management (Continued)

3.2 Fair value estimation (Continued)

(a) Fair value of the Group's financial assets and financial liabilities that are measured at fair value

Financial assets/financial liabilities	Fair value as at (RMB million) 2020		2019		Fair value hierarchy	Valuation technique(s) and key input(s)	Significant unobservable input(s)	Range of inputs (probability-weighted average)	Relationship of unobservable inputs to fair value
1) Derivative financial instruments	**Assets/Liabilities**	**Amount**	Assets/Liabilities	Amount	Level 3	Option pricing model	Risk-free interest, Volatility	3.54%, 30.99%	The higher the risk-free interest rate, the higher the option value. The higher the volatility, the higher the option value.
	Assets	**160**	Assets	–					
2) Listed equity securities and money – market securities investment funds at FVPL	**Held-for-trading financial assets in Mainland China:**		Held-for-trading financial assets in Mainland China:		Level 1	Quoted bid prices in active markets.	N/A	N/A	N/A
	Industry	**Amount**	Industry	Amount					
	Finance	**2,437**	Finance	2,332					
	Manufacturing	**46**	Manufacturing	58					
	Mining	**–**	Mining	1					
	Others	**2**	Others	2					
		2,485		2,393					
	Finance	**1,175**	Finance	941	Level 3	Market valuation method by reference to discount rate that reflects the liquidity level.	Discount rates that correspond to the expected liquidity level.	4.02%	The lower the discount rate, the higher the fair value.
	Total	**3,660**	Total	3,334					

3. Financial Risk Management (Continued)

3.2 Fair value estimation (Continued)

(a) Fair value of the Group's financial assets and financial liabilities that are measured at fair value (Continued)

Financial assets/financial liabilities	Fair value as at (RMB million) 2020	Fair value as at (RMB million) 2019	Fair value hierarchy	Valuation technique(s) and key input(s)	Significant unobservable input(s)	Range of inputs (probability-weighted average)	Relationship of unobservable inputs to fair value
3) Listed equity securities at fair value through other comprehensive income ("FVOCI")	**Listed equity securities in Mainland China:**	Listed equity securities in Mainland China:	Level 1	Quoted bid prices in active markets.	N/A	N/A	N/A
	Industry / Amount	Industry / Amount					
	Finance 568	Finance 629					
	Listed equity securities in Hong Kong:	Listed equity securities in Hong Kong:	Level 1	Quoted bid prices in active markets.	N/A	N/A	N/A
	Industry / Amount	Industry / Amount					
	Manufacturing 269	Manufacturing 480					

3. Financial Risk Management (Continued)

3.2 Fair value estimation (Continued)

(a) Fair value of the Group's financial assets and financial liabilities that are measured at fair value (Continued)

Financial assets/financial liabilities	Fair value as at (RMB million) 2020		2019		Fair value hierarchy	Valuation technique(s) and key input(s)	Significant unobservable input(s)	Range of inputs (probability-weighted average)	Relationship of unobservable inputs to fair value
4) Unlisted open-end equity funds at FVPL	**Unlisted opened equity funds in Mainland China:**		Unlisted open-end equity funds in Mainland China:						
	Assets Industry	**Amount**	Assets Industry	Amount					
	Finance	**1,381**	Finance	2,193	Level 1	Quoted bid prices in active markets.	N/A	N/A	N/A
	Finance	**1,384**	Finance	749	Level 3	Discounted cash flow. Future cash flows are estimated based on expected recoverable amounts, discounted at rates that reflect management's best estimation of the expected risk level.	Expected future cash flow, Discount rates that correspond to the expected risk level.	2.30%	The higher the future cash flow, the higher the fair value. The lower the discount rate, the higher the fair value.
	Total	**2,765**	Total	2,942					
	Liabilities Industry	**Amount**	Liabilities Industry	Amount					
	Finance	**65**	Finance	85	Level 3	Discounted cash flow. Future cash flows are estimated based on expected recoverable amounts, discounted at rates that reflect management's best estimation of the expected risk level.	Expected future cash flow, Discount rates that correspond to the expected risk level.	2.30%	The higher the future cash flow, the higher the fair value. The lower the discount rate, the higher the fair value.

3. Financial Risk Management (Continued)

3.2 Fair value estimation (Continued)

(a) Fair value of the Group's financial assets and financial liabilities that are measured at fair value (Continued)

Financial assets/financial liabilities	Fair value as at (RMB million) 2020		Fair value as at (RMB million) 2019		Fair value hierarchy	Valuation technique(s) and key input(s)	Significant unobservable input(s)	Range of inputs (probability-weighted average)	Relationship of unobservable inputs to fair value
5) Unlisted entrusted products and other financial assets at FVPL	**Unlisted entrusted products in Mainland China:**		Unlisted entrusted products in Mainland China:		Level 3	Discounted cash flow. Future cash flows that are estimated based on expected recoverable amounts, discounted at rates that reflect management's best estimation of the expected risk level.	Expected future cash flow, Discount rates that correspond to the expected risk level.	7.35%-10.22%	The higher the future cash flow, the higher the fair value. The lower the discount rate, the higher the fair value.
	Industry	**Amount**	Industry	Amount					
	Real estate	**1,583**	Real estate	1,444					
	Construction	**1,543**	Construction	2,239					
	Finance	**1,428**	Finance	2,619					
	Mining	**10**	Mining	10					
	Manufacturing	**–**	Manufacturing	3					
	Others	**456**	Others	762					
	Total	**5,020**	Total	7,077					

3. Financial Risk Management (Continued)

3.2 Fair value estimation (Continued)

(a) Fair value of the Group's financial assets and financial liabilities that are measured at fair value (Continued)

Financial assets/financial liabilities	Fair value as at (RMB million) 2020		2019		Fair value hierarchy	Valuation technique(s) and key input(s)	Significant unobservable input(s)	Range of inputs (probability-weighted average)	Relationship of unobservable inputs to fair value
6) Unlisted equity investments at FVOCI	**Unlisted equity investment in Mainland China:**		Unlisted equity investment in Mainland China:		Level 3	Market valuation method by reference to P/B ratio, P/S ratio, P/E ratio and discount rate that reflects the liquidity level.	P/B ratio, P/S ratio, P/E ratio, Discount rates that reflects the liquidity level	0.53-1.67, 0.66-3.93, 16.40, 9.91%	The higher the P/B ratio, P/S ratio, P/E ratio, the higher the fair value. The lower discount rate, the higher the fair value.
	Industry	**Amount**	Industry	Amount					
	Construction	**6,433**	Construction	6,025					
	Finance	**834**	Finance	2,189					
	Manufacturing	**80**	Manufacturing	80					
	Real estate	**11**	Real estate	33					
	Mining	**5**	Mining	5					
	Others	**1,468**	Others	1,031					
	Total	**8,831**	Total	9,363					
7) Unlisted equity investments at FVPL	**Unlisted equity investment in Mainland China:**		Unlisted equity investment in Mainland China:		Level 3	Market valuation method by reference to P/B ratio and discount rate that reflects the liquidity level.	P/B ratio, Discount rates that reflects the liquidity level	0.89, 9.91%	The higher the P/B ratio, the higher the fair value. The lower discount rate, the higher the fair value.
	Industry	**Amount**	Industry	Amount					
	Finance	**4,177**	Finance	725					
8) Bills receivables at FVOCI	**Bills receivables in Mainland China:**		Bills receivables in Mainland China:		Level 3	Discounted cash flow with future cash flows that are estimated based on expected recoverable amounts, discounted at rates that reflect management's best estimation of the expected risk level.	Expected future cash flow, Discount rates that correspond to the expected risk level.	4.75%	The higher the future cash flow, the higher the fair value. The lower the discount rate, the higher the fair value.
	Industry	**Amount**	Industry	Amount					
	Construction	**522**	Construction	393					

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

3. Financial Risk Management (Continued)

3.2 Fair value estimation (Continued)

(a) Fair value of the Group's financial assets and financial liabilities that are measured at fair value (Continued)

There were no transfer between Level 1 and 2 during the year.

Reconciliation of Level 3 fair value measurements:

	Unlisted entrusted products RMB million	Unlisted open-end funds RMB million	Unlisted equity investments RMB million	Listed equity securities RMB million	Others RMB million	Total RMB million
Opening balance at 1 January 2020	**6,132**	**664**	**10,088**	**941**	**1,195**	**19,020**
Acquisitions	**2,706**	**1,834**	**6,383**	**–**	**967**	**11,890**
Gains/(losses) recognised in profit or loss	**147**	**(31)**	**9**	**234**	**(241)**	**118**
Losses recognised in other comprehensive income	**–**	**–**	**2**	**–**	**–**	**2**
Disposals	**(4,928)**	**(1,148)**	**(3,474)**	**–**	**(276)**	**(9,826)**
Closing balance at 31 December 2020	**4,057**	**1,319**	**13,008**	**1,175**	**1,645**	**21,204**

	Unlisted entrusted products RMB million	Unlisted open-end funds RMB million	Unlisted equity investments RMB million	Listed equity securities RMB million	Others RMB million	Total RMB million
Opening balance at 1 January 2019	4,405	665	5,310	657	1,264	12,301
Acquisitions	4,689	105	5,187	–	38	10,019
Gains/(losses) recognised in profit or loss	111	(23)	15	284	(107)	280
Losses recognised in other comprehensive income	–	–	(18)	–	–	(18)
Disposals	(3,073)	(83)	(406)	–	–	(3,562)
Closing balance at 31 December 2019	6,132	664	10,088	941	1,195	19,020

3. Financial Risk Management (Continued)

3.2 Fair value estimation (Continued)

(b) Fair value of financial assets and liabilities measured at amortised cost

Except as detailed in the following table, the Directors consider that the carrying amounts of financial assets and financial liabilities recorded at amortised cost in the consolidated financial statements approximate to their fair values:

	2020		2019	
	Carrying amount RMB million	**Fair value RMB million**	Carrying amount RMB million	Fair value RMB million
Financial assets				
Other financial assets at amortised cost – fixed rate	**25,467**	**26,960**	23,559	24,855
Financial liabilities				
Long-term bank borrowings – fixed rate	**28,267**	**28,863**	24,591	25,913
Long-term debentures – fixed rate	**49,443**	**48,952**	46,848	46,505
Other long-term borrowings – fixed rate	**259**	**259**	3,338	3,439

The fair values hierarchy of the fair value of fixed rate other financial assets at amortised cost, bank borrowings, long-term debentures and other long-term borrowings are included in level 3. The fair values have been determined based on a discounted cash flow analysis, with the most significant input being the discount rate that reflects the credit risk of counterparties or the issuer.

4. Critical Accounting Estimates, Assumptions and Judgments

The preparation of financial statements requires the use of accounting estimates which, by definition, will seldom equal the actual results. Management also needs to exercise judgement in applying the Group's accounting policies.

Estimates and judgments are continually evaluated and are based on historical experience and other factors, including expectations of future events that may have a financial impact on the entity and that are believed to be reasonable under the circumstances.

(a) Critical judgements in application of accounting policies

(i) Revenue from sale of properties

The assessment of when an entity has transferred the significant risks and rewards of interestship to buyers requires the judgment according to the circumstances of the transaction. In most cases, the transfer point of risks and rewards of ownership coincides with the date when the buyer checks and accepts the property or when the buyer is regarded as checking and accepting the property.

The Group provided guarantees in respect of mortgage facilities granted by certain banks relating to the mortgage loans arranged for certain purchasers of the Group's properties. These guarantees will expire when relevant property ownership certificates are mortgaged to banks by the purchasers. In addition, based on the past experiences, defaults of mortgage facilities by the purchasers which resulted in the bank guarantees being called upon were rare. Further, the credit risk of the Group under the circumstance that a purchaser defaults on the payment of its mortgage during the term of the guarantee is very low. The Group believes that significant risks and rewards associated to the ownership of the properties have been transferred to the purchasers when the buyer checks and accepts the property or when the buyer is regarded as checking and accepting the property.

(ii) Determination of control over structured entities

The Group invested in several structured entities which were mainly engaged in infrastructure investment activities or acted as manager to a number of structured entities and also carries interests in these entities. Determining whether the Group controls these structured entities usually focuses on the assessment of the power of the Group, its variable returns (including but not limited to any carried interests and commission income or management fees earned) and the ability to exercise its power to influence the variable returns from these structured entities.

Management considers a number of factors to assess if the Group has control over these structured entities, including the Group acts as a principal or an agent through analysis of the scope of the decision-making authority of the Group, its remuneration entitlement, other interests the Group held, and the rights held by other parties. Based on the assessment following the accounting policies set out in Notes 2.2 and 2.3, the Group consolidates certain structured entities that it has control, accounts for as joint ventures or associates when it has joint control or significant influence over the structured entities. For those that the Group has neither control, joint control nor significant influence, the Group accounts for as financial assets. Judgement is involved when performing the assessment. Should those joint ventures, associates and financial assets be consolidated, net assets, revenue and profit of the Group could be affected.

4. Critical Accounting Estimates, Assumptions and Judgments (Continued)

(a) Critical judgements in application of accounting policies (Continued)

(ii) Determination of control over structured entities (Continued)

Further disclosure in respect of unconsolidated structured entities in which the Group has an interest has been set out in Note 25.

(iii) Classification of financial assets

The Group classified the financial assets based on the business model for managing the financial assets and the contractual cash flow characteristics of the financial asset.

The Group's business model is determined at a level that reflects how groups of financial assets are managed together to achieve a particular business objective. The judgement when the Group assesses its business model for managing financial assets includes:

a. how the performance of the business model and the financial assets held within that business model are evaluated and reported to the entity's key management personnel;

b. the risks that affect the performance of the business model (and the financial assets held within that business model) and, in particular, the way in which those risks are managed; and

c. how managers of the business are compensated (for example, whether the compensation is based on the fair value of the assets managed or on the contractual cash flows collected).

The judgement in assessing contractual cash flows are consistent with a basic lending arrangement include:

a. if the timing or amount of principal may change over the life of the financial asset (for example, if there are repayment of principal before maturity);

b. if the interest consists of consideration for the time value of money, for the credit risk associated with the principal amount outstanding during a particular period of time and for other basic lending risks and costs, as well as a profit margin.

For example, the prepayment amount before maturity solely represents unpaid amounts of principal and interest on the principal amount outstanding, which may include reasonable additional compensation of the early termination of the contract.

4. Critical Accounting Estimates, Assumptions and Judgments (Continued)

(b) Critical accounting estimates and assumptions

The following critical accounting estimates and assumptions have important risks that will cause significant adjustments to the value of assets and liabilities in the next year:

(i) Revenue recognition from infrastructure construction contracts

Revenue from infrastructure construction contracts is recognised over the period of the contract by reference to the progress towards complete satisfaction of that performance obligation, depending on the nature of the contract, is measured mainly by reference to the proportion of contract costs incurred for work performed to date to estimated total contract costs for each contract. Management estimates the total contract revenue and total contract costs at the inception of each contract. As the contract progresses, management regularly reviews and revises the estimates of contract revenue and contract costs if circumstances change, such as variations in contract work, claims and incentive payments. The increases or decreases in estimated total contract revenue or total contract costs resulted in the adjustments to the extent of progress toward completion and revenue recognised in the period in which the circumstances that give rise to the revision becomes known by management.

(ii) Expected credit losses of trade receivables and contract assets

The Group applies the IFRS 9 simplified approach to measure expected credit losses which uses a lifetime expected loss allowance for all trade receivables and contract assets. For trade receivables and contract assets which have impaired, the Group assessed individually and provided for credit losses allowance. If no reasonable and supportable information is available without undue cost for expected credit losses measurement, the trade receivables and contract assets were grouped by reference to the credit risk characteristics and assessed collectively for credit losses allowance. When measuring expected credit loss, the Group considers its own credit loss incurred in the past, and adjusts by taking into consideration current conditions and forward looking factors.

In assessing forward-looking information, the Group considers different macroeconomic scenarios and weightings. In 2020, the weights of the three economic scenarios of "baseline", "unfavourable" and "favourable" are 50%, 40% and 10% respectively. The Group regularly monitors and reviews critical macroeconomic assumptions and parameters related to the measurement of expected credit loss, including the economic policies, macroeconomic indicators, industry risks, and changes in customer conditions, etc. In 2020, the Group has considered the uncertainty caused by the COVID-19 outbreak and updated relevant assumptions and parameters accordingly. The benchmark macroeconomic parameters obtained from market forecast data were 9% of GDP and 1.4% of industrial producer price index, which were used to calculate systemic risk factors that affect the probability of default. The systemic risk factor under unfavourable and favourable scenarios deviate amount to 10% of that under baseline scenario. The impact of macro-economy on the probability of default under three economic scenarios is calculated respectively, and the forward-looking impact is calculated by weighting according to the three economic scenario weight.

The details of the expected credit losses of trade receivables and contract assets are set out in Note 33 and Note 34 respectively.

4. Critical Accounting Estimates, Assumptions and Judgments (Continued)

(b) Critical accounting estimates and assumptions (Continued)

(iii) Expected credit losses of debt investments at amortised cost and FVOCI

The Group assesses on a forward looking basis the expected credit losses associated with its debt investments at amortised cost and FVOCI using the risk parameters including exposure at default and expected credit loss rate, which is determined based on probabilities of default and default rates. When measuring expected credit loss, the Group considers its own credit loss incurred in the past, and adjusts by taking into consideration current conditions and forward looking factors.

In assessing forward-looking information, the Group adopted the method consistent with expected credit losses of trade receivables and contract assets.

To assess whether there is a significant increase in credit risks the Group compares the risk of a default occurring on the asset as at the reporting date with the risk of default as at the date of initial recognition. It considers available reasonable and supportive forwarding-looking information. Especially the following indicators are incorporated:

- past due information
- actual or expected significant adverse changes in business, financial or economic conditions that are expected to cause a significant change to the borrower's ability to meet its obligations
- internal and external credit rating
- actual or expected significant changes in the operating results of the borrower
- significant changes in the value of the collateral supporting the obligation or in the quality of third-party guarantees or credit enhancements.

(iv) Impairment of properties held for sale and under development for sale

The Group measures properties held for sale and under development for sale at the lower of cost and net realisable value on the balance sheet date. The net realisable value calculation requires the use of assumptions and estimates on the selling price and the costs and expenses that will be incurred until completion. Where the expectation is different from the original estimate, such differences will have an impact on the net realisable value calculation and the provision for inventory impairment in the periods in which such estimate is changed.

4. Critical Accounting Estimates, Assumptions and Judgments (Continued)

(b) Critical accounting estimates and assumptions (Continued)

(v) Fair value of financial instruments

The fair value of financial instruments that are traded in an active market is measured at quoted price. If the market for a financial instrument is not active, the Group determines fair value by using valuation techniques. The Group uses its judgment to select a variety of methods and make assumptions that are mainly based on market conditions existing at each end of the reporting period. For details of the key assumptions used and the impact of changes to these assumptions see Note 3.2.

(vi) Income taxes

The Group is subject to income taxes in the PRC and other jurisdictions. Significant judgment is required in determining the worldwide provision for income taxes. There are many transactions and calculations for which the ultimate tax determination is uncertain. Where the final tax outcome of these matters is different from the amounts that were initially recorded, such differences will impact the current income tax and deferred income tax provisions in the period in which such determination are made.

Certain subsidiaries of the Group are qualified as high-tech enterprises and are entitled to the preferential income tax rate of 15%. The qualification is valid 3 years, and upon expiry the subsidiaries are required to submit the application to relevant government authorities to certify the high-tech qualification. If the subsidiaries disqualified from the high-tech certification, they cannot enjoy the preferential income tax, and the change in tax rate will affect the current and deferred income taxes in the period in which the change takes place.

Deferred income tax assets relating to tax losses are recognised as management considers it is probable that future taxable profit will be available against which the tax losses can be utilised. Future taxable profit includes the profit from operating results and taxable profits of future periods reversed of taxable temporary differences. Estimates and judgement are required in determining the timing and amount of future taxable profit generated. In case where the actual future taxable profit generated are less than expected, or change in facts and circumstances which result in revision of future taxable profit estimation, a material reversal or further recognition of deferred tax assets may arise, which will be recognised in the consolidated income statement in the period in which such a reversal or further recognition takes place.

4. Critical Accounting Estimates, Assumptions and Judgments (Continued)

(b) Critical accounting estimates and assumptions (Continued)

(vii) Pension benefits

The present value of the pension obligations depends on a number of factors that are determined on an actuarial basis using a number of assumptions. The assumptions used in determining the net cost (income) for pensions include the discount rate. Any changes in these assumptions will impact the carrying amount of pension obligations.

The Group determines the appropriate discount rate at the end of each year. This is the interest rate that should be used to determine the present value of estimated future cash outflows expected to be required to settle the pension obligations. In determining the appropriate discount rate, the Group considers the interest rates of government bonds that are denominated in the currency in which the benefits will be paid, and that have terms to maturity approximating the terms of the related pension obligation.

Other key assumptions for pension obligations are based in part on current market conditions. Additional information is disclosed in Note 43.

(viii) Amortisation of service concession arrangements in relation to toll highways

Amortisation of service concession arrangements in relation to the toll highways operations are calculated to write off their cost, over their expected useful lives or the remaining concession period, whichever is the shorter, commencing from the date of commencement of commercial operation of the toll highways, based on a units-of-usage basis, which is the ratio of actual traffic volume compared to the total expected traffic volume of the toll highways as estimated by the management or by reference to traffic projection reports prepared by independent traffic consultants. Appropriate adjustment will be made should there be any material change.

5. Segment Information

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

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

(a) Construction of railways, highways, bridges, tunnels, metropolitan railways (including subways and light railways), buildings, irrigation works, hydroelectricity projects, ports, docks, airports and other municipal works ("Infrastructure construction");

(b) Survey, design, consulting, research and development, feasibility study and compliance certification services with respect to infrastructure construction projects ("Survey, design and consulting services");

(c) Design, research and development, manufacture and sale of turnouts, bridge steel structures, and other railway related equipment, engineering machinery and materials ("Engineering equipment and component manufacturing");

(d) Development, sale and management of residential and commercial properties ("Property development"); and

(e) Mining, financial business, operation of service concession arrangements, merchandise trading and other ancillary business ("Other businesses").

Revenue between segments is carried out at actual transaction prices.

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

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

5. Segment Information (Continued)

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

	For the year ended 31 December 2020						
	Infrastructure construction RMB million	Survey, design and consulting services RMB million	Engineering equipment and component manufacturing RMB million	Property development RMB million	Other businesses RMB million	Elimination RMB million	Total RMB million
External revenue	844,110	16,187	23,074	49,304	36,286	–	968,961
Inter-segment revenue	29,553	1,026	6,368	–	35,153	(72,100)	–
Other revenue	2,328	108	351	459	2,525	–	5,771
Inter-segment other revenue	319	–	–	–	219	(538)	–
Segment revenue	876,310	17,321	29,793	49,763	74,183	(72,638)	974,732
Segment results							
Profit before income tax	36,876	2,241	2,132	(4,096)	5,016	(8,785)	33,384
Segment results included:							
Share of profit/(losses) of joint ventures	430	5	106	140	(517)	–	164
Share of profit of associates	654	5	48	132	1,192	–	2,031
Interest income	935	70	56	333	2,272	(870)	2,796
Interest expenses	(2,400)	(189)	(69)	(1,612)	(2,852)	654	(6,468)
Losses from derecognition of financial assets at amortised cost	(3,172)	(8)	(64)	–	(58)	–	(3,302)

5. Segment Information (Continued)

	For the year ended 31 December 2019						
	Infrastructure construction	Survey, design and consulting services	Engineering equipment and component manufacturing	Property development	Other businesses	Elimination	Total
	RMB million	RMB million	RMB million	RMB million	RMB million	RMB million	RMB million
External revenue	731,562	16,172	16,974	43,031	37,205	–	844,944
Inter-segment revenue	26,950	502	6,860	181	31,713	(66,206)	–
Other revenue	3,276	357	488	450	1,328	–	5,899
Inter-segment other revenue	296	–	–	–	156	(452)	–
Segment revenue	762,084	17,031	24,322	43,662	70,402	(66,658)	850,843
Segment results							
Profit before income tax	20,936	962	1,999	3,652	8,950	(5,166)	31,333
Segment results included:							
Share of profit/(losses) of joint ventures	241	7	70	(21)	63	–	360
Share of profit of associates	944	9	59	36	1,052	–	2,100
Interest income	889	86	58	225	618	(1,014)	862
Interest expenses	(2,214)	(136)	(22)	(2,005)	(3,603)	2,641	(5,339)
Losses from derecognition of financial assets at amortised cost	(3,315)	(3)	(54)	–	5	–	(3,367)

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

5. Segment Information (Continued)

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

	2020 **RMB million**	2019 RMB million
(i) Segment interest income, before inter-segment elimination	**3,666**	1,876
Inter-segment elimination	**(870)**	(1,014)
	2,796	862
Reconciling items:		
Reclassification of interest income obtained from other financial assets at amortised cost *(Note 10)*	**1,528**	1,338
Total consolidated finance income, as reported	**4,324**	2,200
(ii) Segment interest expenses, before inter-segment elimination	**7,122**	7,980
Inter-segment elimination	**(654)**	(2,641)
	6,468	5,339
Reconciling item:		
Imputed interest expenses on retention payables *(Note 10)*	**288**	235
Total consolidated finance costs, as reported	**6,756**	5,574
(iii) Segment results, before inter-segment elimination	**42,169**	36,499
Inter-segment elimination	**(8,785)**	(5,166)
	33,384	31,333
Reconciling item:		
Land appreciation tax *(Note (a))*	**2,228**	1,854
Total consolidated profit before income tax, as reported	**35,612**	33,187

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

5. Segment Information (Continued)

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

	As at 31 December 2020						
	Infrastructure construction RMB million	Survey, design and consulting services RMB million	Engineering equipment and component manufacturing RMB million	Property development RMB million	Other businesses RMB million	Elimination RMB million	Total RMB million
Segment assets	711,979	24,550	55,851	252,295	444,050	(300,532)	1,188,193
Investments in joint ventures	29,768	81	385	417	9,565	–	40,216
Investments in associates	31,899	816	607	322	4,489	–	38,133
Unallocated assets							11,784
Total assets							1,199,977
Segment liabilities	574,136	13,197	30,579	228,249	334,894	(300,247)	880,808
Unallocated liabilities							6,123
Total liabilities							886,931

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

5. Segment Information (Continued)

	As at 31 December 2019						
	Infrastructure construction	Survey, design and consulting services	Engineering equipment and component manufacturing	Property development	Other businesses	Elimination	Total
	RMB million	RMB million	RMB million	RMB million	RMB million	RMB million	RMB million
Segment assets	685,225	17,361	44,947	249,778	348,864	(300,022)	1,046,153
Investments in joint ventures	19,225	71	351	277	9,390	–	29,314
Investments in associates	26,130	678	476	218	3,063	–	30,565
Unallocated assets							9,888
Total assets							1,056,041
Segment liabilities	628,983	9,062	24,107	184,339	284,074	(324,809)	805,756
Unallocated liabilities							4,957
Total liabilities							810,713

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.

5. Segment Information (Continued)

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

	2020 RMB million	2019 RMB million
Segment assets, before inter-segment elimination	**1,488,725**	1,346,175
Inter-segment elimination	**(300,532)**	(300,022)
	1,188,193	1,046,153
Reconciling items:		
Deferred tax assets	**9,333**	8,012
Non-tradable shares reform of subsidiaries *(Note (a))*	**(148)**	(148)
Current income tax recoverable	**3,451**	2,641
Prepaid land appreciation tax included in current income tax recoverable	**(852)**	(617)
	11,784	9,888
Total consolidated assets, as reported	**1,199,977**	1,056,041
Segment liabilities, before inter-segment elimination	**1,181,055**	1,130,565
Inter-segment elimination	**(300,247)**	(324,809)
	880,808	805,756
Reconciling items:		
Deferred tax liabilities	**1,454**	1,784
Current income tax liabilities	**7,969**	5,824
Land appreciation tax payable included in current income tax liabilities	**(3,300)**	(2,651)
	6,123	4,957
Total consolidated liabilities, as reported	**886,931**	810,713

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

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

5. Segment Information (Continued)

Other segment information:

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

5. Segment Information (Continued)

Other segment information:

	Year ended 31 December 2019					
	Infrastructure construction RMB million	Survey, design and consulting services RMB million	Engineering equipment and component manufacturing RMB million	Property development RMB million	Other businesses RMB million	Consolidated RMB million
Capital expenditure:						
Property, plant and equipment	7,045	327	1,064	633	2,176	11,245
Lease prepayments	809	151	1	321	(98)	1,184
Investment properties	364	–	–	220	10	594
Intangible assets	726	11	256	18	16,326	17,337
Mining assets	–	–	–	–	24	24
Right-of-use assets	753	53	4	122	406	1,338
Total	9,697	542	1,325	1,314	18,844	31,722
Depreciation and amortisation:						
Property, plant and equipment	5,465	250	481	323	1,434	7,953
Lease prepayments	235	29	41	51	15	371
Investment properties	75	6	2	251	36	370
Intangible assets	234	43	27	(5)	956	1,255
Mining assets	–	–	–	–	166	166
Right-of-use assets	1,028	26	–	5	251	1,310
Other prepayments	73	15	14	–	38	140
Total	7,110	369	565	625	2,896	11,565
Gains on disposal and/or write-off of property, plant and equipment	(41)	(27)	(11)	–	(12)	(91)
(Gains)/losses on disposal of lease prepayments	(525)	–	1	–	–	(524)
Increase in foreseeable losses on contracts	64	–	–	–	–	64
Impairment loss on trade and other receivables	442	506	(43)	448	520	1,873
Impairment loss on other financial assets at amortised cost	1,891	160	–	7	143	2,201
Impairment loss on contract assets	433	–	–	–	–	433
Impairment loss on property, plant and equipment	–	–	–	–	70	70

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

5. Segment Information (Continued)

(i) Disaggregation of revenue from contracts with customers

	Year ended 31 December 2020					
Type of services and products	Infrastructure construction RMB million	Survey, design and consulting services RMB million	Engineering equipment and component manufacturing RMB million	Property development RMB million	Other businesses RMB million	Total RMB million
Infrastructure construction contracts	844,110	–	–	–	–	844,110
Manufacturing and sales of engineering equipment and component	–	–	23,074	–	–	23,074
Rendering of services	–	16,187	–	–	4,845	21,032
Sales of properties	–	–	–	49,304	–	49,304
Sales of goods and others	2,328	108	351	459	33,966	37,212
Total	846,438	16,295	23,425	49,763	38,811	974,732
Timing of revenue recognition:						
– At a point of time	2,328	108	16,378	46,775	36,951	102,540
– Over time	844,110	16,187	7,047	2,988	–	870,332
Rental income	–	–	–	–	1,860	1,860
Total revenue from contracts with customers	846,438	16,295	23,425	49,763	38,811	974,732

5. Segment Information (Continued)

(i) Disaggregation of revenue from contracts with customers (Continued)

	Year ended 31 December 2019					
Type of services and products	Infrastructure construction RMB million	Survey, design and consulting services RMB million	Engineering equipment and component manufacturing RMB million	Property development RMB million	Other businesses RMB million	Total RMB million
Infrastructure construction contracts	731,562	–	–	–	–	731,562
Manufacturing and sales of engineering equipment and component	–	–	16,974	–	–	16,974
Rendering of services	–	16,172	–	–	5,964	22,136
Sales of properties	–	–	–	43,031	–	43,031
Sales of goods and others	3,276	357	488	450	32,569	37,140
Total	734,838	16,529	17,462	43,481	38,533	850,843
Timing of revenue recognition:						
– At a point of time	3,276	357	11,937	38,440	36,818	90,828
– Over time	731,562	16,172	5,525	5,041	–	758,300
Rental income	–	–	–	–	1,715	1,715
Total revenue from contracts with customers	734,838	16,529	17,462	43,481	38,533	850,843

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

5. Segment Information (Continued)

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

	For the year ended 31 December	
	2020	2019
	RMB million	RMB million
Mainland China	**927,647**	805,766
Other regions (including Hong Kong and Macau)	**47,085**	45,077
	974,732	850,843

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

	2020	2019
	RMB million	RMB million
Mainland China	**269,900**	201,527
Other regions (including Hong Kong and Macau)	**12,479**	12,034
	282,379	213,561

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

6. Other Income and Expenses

	2020 RMB million	2019 RMB million
Other income from:		
Government subsidies *(a)*	**1,147**	1,012
Dividends from financial assets at FVPL	**398**	569
Compensation and claims	**139**	129
Dividends from financial assets at FVOCI	**58**	47
Relocation compensation	**43**	39
Others	**434**	200
	2,219	1,996
Other expenses on:		
Research and development expenditures	**21,838**	16,511

Notes:

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

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

7. Net Impairment Losses on Financial Assets and Contract Assets

	2020 RMB million	2019 RMB million
Trade and other receivables (excluding advance to suppliers)	**2,263**	1,873
Contract assets	**260**	433
Other financial assets at amortised cost *(Note 30(a))*	**33**	2,201
	2,556	4,507

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

8. Other Gains, Net

	2020 **RMB million**	2019 RMB million
(Losses)/gains on disposal and/or write-off of:		
– Interest in subsidiaries	**(133)**	4,961
– Interest in associates	**(27)**	(52)
– Interest in joint ventures	**–**	29
– Lease prepayments	**361**	524
– Property, plant and equipment	**228**	91
Gains/(losses) on disposal of financial assets/liabilities at FVPL	**58**	(32)
Gains arising on change in fair value of financial assets/ liabilities at FVPL *(Note 35(c))*	**218**	275
Gains on debt restructurings	**–**	15
Impairment loss recognised on:		
– Property, plant and equipment *(Note 18)*	**(41)**	(70)
– Advance to suppliers	**(39)**	(26)
– Investment properties *(Note 22)*	**(3)**	–
Foreign exchange losses, net	**(45)**	(40)
Others	**85**	30
	662	5,705

9. Losses from Derecognition of Financial Assets at Amortised Cost

	2020 **RMB million**	2019 RMB million
Asset-backed medium-term notes (“ABN”) & Asset-backed securitisation (“ABS”) *(Note 33)*	**2,619**	2,805
Factoring expense *(Note 33)*	**683**	562
	3,302	3,367

10. Finance Income and Costs

	2020 RMB million	2019 RMB million
Finance income from:		
Cash and cash equivalents and restricted cash	**767**	513
Other financial assets at amortised cost	**1,528**	1,338
Trade receivables and contract assets	**2,029**	349
Total finance income	**4,324**	2,200
Interest expenses on:		
Bank borrowings	**8,482**	7,623
Long-term debentures	**1,467**	1,584
Other long-term borrowings	**424**	628
Other short-term borrowings	**398**	243
Total borrowing costs	**10,771**	10,078
Less: amount capitalised	**(4,755)**	(5,231)
	6,016	4,847
Lease *(Note 19)*	**59**	69
Imputed interest expenses on retention payables	**288**	235
Imputed interest expenses on defined benefit obligations *(Note 43)*	**85**	104
Others	**308**	319
Total finance costs	**6,756**	5,574

Borrowing costs directly attributable to the construction and acquisition of qualifying assets were capitalised as part of the costs of those assets. Borrowing costs of RMB4,755 million (2019: RMB5,231 million) were capitalised in the year ended 31 December 2020, of which approximately RMB3,808 million was charged to properties under development for sale, approximately RMB21 million was included in cost of construction-in-progress and approximately RMB926 million was included in the cost of intangible assets (2019: RMB4,775 million was charged to properties under development for sale, approximately RMB21 million was included in cost of construction-in-progress and approximately RMB435 million was included in the cost of intangible assets). A general capitalisation rate of 2.50%-9.50% per annum (2019: 1.42%-8.79%) was used, representing the costs of the borrowings used to finance the qualifying assets.

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

11. Expenses by Nature

The additional information of cost of sales and services, selling and marketing expenses and administrative expenses is as follows:

	2020 RMB million	2019 RMB million
Employee benefit expenses & subcontracting costs	**382,846**	329,395
Raw materials and consumables used	**367,594**	315,452
Cost of property development	**37,864**	30,485
Equipment usage costs	**34,312**	31,666
Depreciation of property, plant and equipment *(Note 18)*, right-of-use assets *(Note 19)* and investment properties *(Note 22)*	**9,478**	9,633
Taxes and surcharges	**3,496**	3,521
Transportation costs	**2,404**	2,313
Amortisation of:		
Intangible assets *(Note 23)*	**462**	1,255
Lease prepayments *(Note 20)*	**414**	371
Mining assets *(Note 24)*	**262**	166
Other prepayments	**160**	140
Advertising and publication costs	**1,342**	1,355
Auditors' remuneration	**39**	39

12. Employee Benefit Expenses

	2020 RMB million	2019 RMB million
Salaries, wages and bonuses	**47,999**	43,392
Welfare, medical and other expenses	**19,998**	17,159
Pension costs – defined contribution plans	**5,978**	7,106
Housing benefits	**4,324**	3,806
	78,299	71,463

13. Income Tax Expense

	2020 RMB million	2019 RMB million
Current income tax		
– Enterprise income tax ("EIT")	**7,838**	6,405
– Land appreciation tax ("LAT")	**2,228**	1,854
– Over provision in prior years	**(87)**	(11)
Deferred income tax	**(1,617)**	(440)
Income tax expense	**8,362**	7,808

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% (2019: 25%) is applied to the Group except for certain subsidiaries which were mainly either exempted from EIT or entitled to the preferential tax rate of 20% and 15% (2019: 20% and 15%) for the year ended 31 December 2020.

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%, 25%, 30% and 30% (2019: 18%, 24%, 24%, 30%, 22%, 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.

13. Income Tax Expense (Continued)

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

	2020 RMB million	2019 RMB million
Profit before income tax	**35,612**	33,187
Tax at PRC EIT rate of 25% (2019: 25%)	**8,903**	8,297
Tax effect of:		
Non-deductible expenses	**93**	310
Non-taxable income	**(123)**	(200)
Share of profit of joint ventures	**(41)**	(90)
Share of profit of associates	**(508)**	(525)
Tax losses not recognised as deferred tax assets	**891**	248
Utilisation of tax losses previously not recognised as deferred tax assets	**(99)**	(161)
Other deductible temporary differences not recognised as deferred tax assets	**1,350**	798
Utilisation of other deductible temporary differences previously not recognised as deferred tax assets	**(126)**	(355)
Preferential tax rates on income of group entities and other income tax credits	**(3,149)**	(1,872)
Deferred tax (credit)/charges resulting from changes in applicable tax rates	**(166)**	175
LAT	**2,228**	1,854
Tax effect of LAT	**(557)**	(464)
Over provision in prior years	**(87)**	(11)
Deductible dividends on perpetual notes	**(356)**	(379)
Others	**109**	183
Income tax expense for the year	**8,362**	7,808

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

13. Income Tax Expense (Continued)

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

	2020			2019		
	Before tax	**Tax charge**	**After tax**	Before tax	Tax charge	After tax
	RMB million	**RMB million**	**RMB million**	RMB million	RMB million	RMB million
Actuarial gains/(losses) on retirement and other supplemental benefit obligations	**1**	**2**	**3**	(16)	–	(16)
Changes in fair value of financial assets at FVOCI	**(260)**	**63**	**(197)**	(94)	17	(77)
Fair value gains on cash flow hedging instrument	**–**	**–**	**–**	1	–	1
Share of other comprehensive income of associates	**(189)**	**–**	**(189)**	42	–	42
Exchange differences	**(500)**	**–**	**(500)**	114	–	114
Other comprehensive expenses	**(948)**	**65**	**(883)**	47	17	64
Current income tax		**–**			–	
Deferred income tax *(Note 45)*		**65**			17	
		65			17	

14. Profit Attributable to Owners of the Company

The profit attributable to owners of the Company is dealt with in the financial statements of the Company to the extent of RMB17,987 million (2019: RMB13,330 million).

15. Earnings per Share

(a) Basic

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

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

	2020	2019
Profit attributable to owners of the Company (RMB million)	**25,188**	23,678
Less: dividends attributable to the perpetual notes (RMB million) *(Note (i))*	**1,520**	1,559
Profit used to determine basic earnings per share (RMB million)	**23,668**	22,119
Weighted average number of ordinary shares in issue (millions)	**24,571**	23,276
Basic earnings per share (RMB per share)	**0.963**	0.950

(i) The perpetual notes issued by the Company were classified as equity instruments with deferrable cumulative interest distribution and payment. The perpetual notes interests which have been generated and attributable to the year ended 31 December 2020, were deducted from earnings when calculate the earnings per share for the year ended 31 December 2020.

(b) Diluted

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

16. Dividends

	2020 RMB million	2019 RMB million
Proposed final dividend of RMB0.180 per ordinary share (2019: RMB0.169)	**4,423**	4,152

The dividends paid in 2020 and 2019 were RMB4,152 million (RMB0.169 per ordinary share) and RMB2,924 million (RMB0.128 per ordinary share) respectively. A dividend in respect of the year ended 31 December 2020 of RMB0.180 per ordinary share, amounting to a total dividend of RMB4,423 million, is to be approved at the 2020 annual general meeting of the Company. These financial statements do not reflect this dividend payable.

17. Emoluments of Directors, Chief Executive, Supervisors and Employees

(a) Directors', Chief Executives and Supervisors' Emoluments

	2020 RMB'000	2019 RMB'000
Directors, chief executives and supervisors		
– Basis salaries, housing allowances and other allowances	**4,104**	3,261
– Fees	**260**	260
– Contributions to pension plans	**336**	411
– Discretionary bonuses *(note)*	**4,143**	6,296
	8,843	10,228

17. Emoluments of Directors, Chief Executive, Supervisors and Employees (Continued)

(a) Directors', Chief Executives and Supervisors' Emoluments (Continued)

The emoluments of every director and supervisor for the year ended 31 December 2020 are set out below:

Name	Basis salaries, housing allowances and other allowances RMB'000	Fees RMB'000	Contributions to pension plans RMB'000	Discretionary bonuses RMB'000 *(note)*	Total RMB'000
Executive directors					
Chen Yun *(i)*	427	–	39	461	927
Wang Shiqi *(ii)*	307	–	29	497	833
Zhang Zongyan *(iii)*	427	–	39	641	1,107
Zhang Xian *(iv)*	371	–	34	534	939
Independent directors					
Guo Peizhang	–	60	–	–	60
Wen Baoman	–	60	–	–	60
Zheng Qingzhi	–	60	–	–	60
Chung Shui Ming Timpson	–	80	–	69	149
Non-executive director					
Ma Zonglin *(v)*	–	–	–	–	–
Directors' remunerations	1,532	260	141	2,202	4,135

17. Emoluments of Directors, Chief Executive, Supervisors and Employees (Continued)

(a) Directors', Chief Executives and Supervisors' Emoluments (Continued)

Name	Basis salaries, housing allowances and other allowances	Fees	Contributions to pension plans	Discretionary bonuses	Total
	RMB' 000	RMB' 000	RMB' 000	RMB' 000	RMB' 000
				(note)	
Supervisors					
Zhang Huijia	401	–	39	535	975
Liu Jianyuan	405	–	39	537	981
Chen Wenxin	570	–	39	327	936
Fan Jinghua	599	–	39	198	836
Yuan Baoyin	597	–	39	344	980
Supervisors' remunerations	2,572	–	195	1,941	4,708
Total	4,104	260	336	4,143	8,843

(i) *Mr. Chen Yun was appointed as the chairman of the Company on 22 December 2020.*

(ii) *Mr. Wang Shiqi was appointed as a director of the Company on 29 April 2020.*

(iii) *Mr. Zhang Zongyan resigned from his position as the chairmen of the Company on 22 December 2020.*

(iv) *Mr. Zhang Xian resigned from his position as a director of the Company on 4 November 2020.*

(v) *Mr. Ma Zonglin resigned from his position as a non-executive director of the Company on 26 August 2020.*

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

17. Emoluments of Directors, Chief Executive, Supervisors and Employees (Continued)

(a) Directors', Chief Executives and Supervisors' Emoluments (Continued)

The emoluments of every director and supervisor for the year ended 31 December 2019 are set out below:

Name	Basis salaries, housing allowances and other allowances RMB'000	Fees RMB'000	Contributions to pension plans RMB'000	Discretionary bonuses RMB'000 *(note)*	Total RMB'000
Executive directors					
Zhang Zongyan *(i)*	367	–	50	1,257	1,674
Chen Yun *(ii)*	137	–	19	138	294
Zhang Xian	342	–	50	1,110	1,502
Li Changjin *(iii)*	187	–	27	1,091	1,305
Zhou Mengbo *(iv)*	106	–	23	222	351
Independent directors					
Guo Peizhang	–	60	–	–	60
Wen Baoman	–	60	–	–	60
Zheng Qingzhi	–	60	–	–	60
Chung Shui Ming Timpson	–	80	–	51	131
Non-executive director					
Ma Zonglin	–	–	–	–	–
Directors' remunerations	1,139	260	169	3,869	5,437

17. Emoluments of Directors, Chief Executive, Supervisors and Employees (Continued)

(a) Directors', Chief Executives and Supervisors' Emoluments (Continued)

Name	Basis salaries, housing allowances and other allowances RMB'000	Fees RMB'000	Contributions to pension plans RMB'000	Discretionary bonuses RMB'000 *(note)*	Total RMB'000
Supervisors					
Zhang Huijia	324	–	50	462	836
Liu Jianyuan	329	–	50	1,050	1,429
Wang Hongguang *(v)*	285	–	27	118	430
Chen Wenxin	515	–	50	337	902
Fan Jinghua	496	–	50	332	878
Yuan Baoyin *(vi)*	173	–	15	128	316
Supervisors' remunerations	2,122	–	242	2,427	4,791
Total	**3,261**	**260**	**411**	**6,296**	**10,228**

(i) Mr. Zhang Zongyan was appointed as the chairman of the Company on 25 August 2019.

(ii) Mr. Chen Yun was appointed as the CEO of the Company on 25 August 2019 and a director of the Company on 30 October 2019.

(iii) Mr. Li Changjin resigned from his position as the chairmen of the Company on 19 June 2019.

(iv) Mr. Zhou Mengbo resigned from his position as a director of the Company on 19 June 2019.

(v) Mr. Wang Hongguang resigned from his position as a supervisor of the Company on 20 September 2019.

(vi) Mr. Yuan Baoyin was appointed as a supervisor of the Company on 20 September 2019.

The executive directors', chief executive's and supervisors' emolument shown above were mainly for their services in connection with the management affairs of the Company and the Group. The independent directors' emoluments shown above were mainly for their services as directors of the Company.

During the year, no directors, supervisors or senior management of the Company waived any emoluments and no emoluments were paid by the Company to any of the directors, supervisors or senior management as an inducement to join or upon joining the Group or as compensation for loss of office.

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

17. Emoluments of Directors, Chief Executive, Supervisors and Employees (Continued)

(b) Five Highest Paid Individuals

None of the directors and supervisors was amongst the five highest paid individuals during both years. The emoluments of the five highest paid individuals in the Group during the year are as follows:

	2020 **RMB'000**	2019 RMB'000
Basic salaries, housing allowances, and other allowances and benefits in kind	**9,543**	3,833
Contributions to pension plans	**13**	182
Discretionary bonuses *(note)*	**7,742**	11,945
	17,298	15,960

The emoluments of the above individuals fall within the following bands:

	2020	2019
– HKD3,000,000 to HKD3,500,000 (equivalent to approximately RMB2,524,920 to RMB2,945,740)	**1**	2
– HKD3,500,001 to HKD4,000,000 (equivalent to approximately RMB2,945,741 to RMB3,366,560)	**1**	1
– HKD4,000,001 to HKD4,500,000 (equivalent to approximately RMB3,366,561 to RMB3,787,380)	**2**	2
– HKD4,500,001 to HKD5,000,000 (equivalent to approximately RMB3,787,381 to RMB4,208,200)	**1**	–

Note: The discretionary bonus is determined by the remuneration committee in accordance with the relevant human resources policies.

18. Property, Plant and Equipment

	Buildings	Infrastructure construction equipment	Transportation equipment	Manufacturing equipment	Testing equipment and instruments	Other equipment	Construction in progress	Total
	RMB million	RMB million	RMB million	RMB million	RMB million	RMB million	RMB million	RMB million
At 1 January 2019								
Cost	32,420	49,757	12,855	8,300	3,521	5,141	9,922	121,916
Accumulated depreciation and impairment	(7,549)	(27,745)	(9,665)	(4,056)	(2,474)	(3,163)	(563)	(55,215)
Net book amount	24,871	22,012	3,190	4,244	1,047	1,978	9,359	66,701
Year ended 31 December 2019								
Opening net book amount	24,871	22,012	3,190	4,244	1,047	1,978	9,359	66,701
Adjustment for change in accounting policy	–	(280)	–	–	–	–	–	(280)
Restated opening net book amount	24,871	21,732	3,190	4,244	1,047	1,978	9,359	66,421
Additions	610	3,611	961	700	406	645	4,559	11,492
Transfers	5,617	314	24	141	50	81	(6,227)	–
Transferred from investment properties *(Note 22)*	100	–	–	–	–	–	–	100
Transferred from properties held for sale *(Note 31(b))*	91	–	–	–	–	–	–	91
Acquisition of subsidiaries	53	–	3	–	5	1	–	62
Disposal of subsidiaries	(25)	11	(4)	(1)	–	(3)	(5)	(27)
Disposals	(63)	(528)	(49)	(33)	(11)	(121)	(852)	(1,657)
Transferred to investment properties *(Note 22)*	(108)	–	–	–	–	–	–	(108)
Depreciation charge *(Note 11)*	(1,274)	(4,068)	(883)	(691)	(348)	(689)	–	(7,953)
Impairment losses recognised *(Note 8)*	–	(70)	–	–	–	–	–	(70)
Exchange differences	12	10	5	16	1	1	10	55
Closing net book amount	29,884	21,012	3,247	4,376	1,150	1,893	6,844	68,406
At 31 December 2019								
Cost	38,647	51,036	13,308	9,291	3,861	5,609	7,407	129,159
Accumulated depreciation and impairment	(8,763)	(30,024)	(10,061)	(4,915)	(2,711)	(3,716)	(563)	(60,753)
Net book amount	29,884	21,012	3,247	4,376	1,150	1,893	6,844	68,406

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

18. Property, Plant and Equipment (Continued)

	Buildings	Infrastructure construction equipment	Transportation equipment	Manufacturing equipment	Testing equipment and instruments	Other equipment	Construction in progress	Total
	RMB million	RMB million	RMB million	RMB million	RMB million	RMB million	RMB million	RMB million
Year ended 31 December 2020								
Opening net book amount	29,884	21,012	3,247	4,376	1,150	1,893	6,844	68,406
Additions	141	3,865	1,739	703	407	843	4,510	12,208
Transfers	2,307	797	38	183	10	131	(3,466)	–
Transferred from investment properties *(Note 22)*	10	–	–	–	–	–	–	10
Transferred from properties under development for sale and properties held for sale *(Note 31)*	215	58	–	1	–	–	1,169	1,443
Acquisition of subsidiaries	1,600	20	23	1,289	20	15	204	3,171
Disposal of subsidiaries	(2)	(10)	(1)	–	(1)	–	–	(14)
Disposals	(109)	(732)	(16)	(68)	(19)	(87)	(1,279)	(2,310)
Transferred to investment properties *(Note 22)*	(166)	–	–	–	–	–	–	(166)
Depreciation charge *(Note 11)*	(1,358)	(3,545)	(1,170)	(1,021)	(356)	(650)	–	(8,100)
Impairment losses recognised *(Note 8)*	–	–	–	–	–	–	(41)	(41)
Exchange differences	(81)	(49)	(9)	(62)	(1)	(15)	(6)	(223)
Closing net book amount	32,441	21,416	3,851	5,401	1,210	2,130	7,935	74,384
At 31 December 2020								
Cost	42,554	52,747	14,353	11,135	4,124	6,292	8,531	139,736
Accumulated depreciation and impairment	(10,113)	(31,331)	(10,502)	(5,734)	(2,914)	(4,162)	(596)	(65,352)
Net book amount	32,441	21,416	3,851	5,401	1,210	2,130	7,935	74,384

18. Property, Plant and Equipment (Continued)

(a) Depreciation of the Group's property, plant and equipment of RMB6,899 million (2019: RMB6,712 million) has been charged to cost of sales, RMB179 million (2019: RMB188 million) to other expenses, RMB971 million (2019: RMB1,009 million) to administrative expenses, and RMB51 million (2019: RMB44 million) to selling and marketing expenses.

(b) As at 31 December 2020, bank borrowings amounting to RMB367 million (2019: RMB7 million) are secured by certain property, plant and equipment with an aggregate book carrying amount of approximately RMB1,022 million (2019: RMB3 million) (Note 42).

(c) As at 31 December 2020, the Group is in the process of applying for registration of the ownership certificates for certain of its properties with an aggregate book carrying amount of approximately RMB3,565 million (2019: RMB3,408 million). The Directors of the Company are of the opinion that the Group is entitled to lawfully and validly occupy or use these properties.

(d) The category of infrastructure construction equipment, transportation equipment and other equipment leased by the Group to third parties under operating leases with the following carrying amounts:

	2020 **RMB million**	2019 RMB million
Cost	**98**	99
Accumulated depreciation	**(41)**	(47)
Net book amount	**57**	52

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

19. Lease

This note provides information for leases where the Group is a lessee.

(a) Amounts recognised in the consolidated balance sheet

The consolidated balance sheet shows the following amounts relating to leases:

Right-of-use assets	2020 RMB million	2019 RMB million
Buildings	**1,109**	1,062
Infrastructure construction equipment	**651**	1,032
Transportation equipment	**79**	79
Manufacturing equipment	**–**	1
Other equipment	**53**	55
	1,892	2,229

Lease liabilities	2020 RMB million	2019 RMB million
Current	**526**	1,037
Non-current	**1,237**	1,450
	1,763	2,487

Additions to the right-of-use assets during the year ended 31 December 2020 were RMB911 million. Maturity and modification to the right-of-use assets during the year ended 31 December 2020 were RMB907 million.

19. Lease (Continued)

(b) Amounts recognised in the consolidated income statement

The consolidated income statement shows the following amounts relating to leases:

Depreciation charge of right-of-use assets	2020 RMB million	2019 RMB million
Buildings	**393**	278
Infrastructure construction equipment	**504**	941
Transportation equipment	**77**	86
Manufacturing equipment	**1**	2
Other equipment	**6**	3
	981	1,310
Interest expenses (included in finance cost) *(Note 10)*	**59**	69
Expenses relating to leases of low-value assets that are not shown above as short-term leases (included in cost of sales and services and administrative expenses)	**23,108**	18,732

The total cash outflow for leases in the year ended 31 December 2020 was RMB23,822 million (2019: RMB16,346 million).

(c) The Group's leasing activities and how these are accounted for

The Group leases buildings, infrastructure construction equipment, transportation equipment, manufacturing equipment and other equipment. Rental contracts are made for fixed periods, but may have extension options as described in (d) below.

Lease terms are negotiated on an individual basis and contain a wide range of different terms and conditions. The lease agreements do not impose any covenants, but leased assets may not be used as security for borrowing purposes.

(d) Extension and termination options

Extension and termination options are included in a number of property and equipment leases across the Group. These are used to maximise operational flexibility in terms of managing the assets used in the Group's operations. The majority of extension and termination options held are exercisable only by the Group and not by the respective lessor.

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

20. Lease Prepayments

	2020 RMB million	2019 RMB million
At 1 January		
Cost	**16,394**	15,613
Accumulated amortisation and impairment	**(2,840)**	(2,569)
Net book amount	**13,554**	13,044
For the year ended 31 December		
Opening net book amount	**13,554**	13,044
Additions	**896**	1,381
Transferred from properties held for sale *(Note 31(b))*	**169**	42
Acquisition of subsidiaries	**1,102**	7
Disposals	**(117)**	(414)
Disposal of subsidiaries	**(2)**	(84)
Transferred to properties held for sale *(Note 31(b))*	**(43)**	(51)
Amortisation charge *(Note 11)*	**(414)**	(371)
Closing net book amount	**15,145**	13,554
At 31 December		
Cost	**18,357**	16,394
Accumulated amortisation and impairment	**(3,212)**	(2,840)
Net book amount	**15,145**	13,554
Analysed for reporting purpose as:		
– Non-current	**14,826**	13,198
– Current	**319**	356
	15,145	13,554

(a) Amortisation of the Group's lease prepayments of RMB188 million (2019: RMB196 million) has been charged to cost of sales and services, and RMB226 million (2019: RMB175 million) to administrative expenses.

(b) As at 31 December 2020, the Group is in the process of applying for registration of the title certificates for certain of its leasehold land with an aggregate carrying value of approximately RMB299 million (2019: RMB151 million). The Directors of the Company are of the opinion that the Group is entitled to lawfully and validly occupy or use these leasehold land.

(c) As at 31 December 2020, bank borrowings amounting to RMB197 million (2019: nil) were secured by lease prepayments with carrying amount of approximately RMB309 million (2019: nil).

21. Deposits for Investments

	2020 RMB million	2019 RMB million
Deposits for investments accounted for using the equity method	**453**	1,098

22. Investment Properties

	2020 RMB million	2019 RMB million
At 1 January		
Cost	**12,856**	9,913
Accumulated depreciation and impairment	**(1,689)**	(1,370)
Net book amount	**11,167**	8,543
For the year ended 31 December		
Opening net book amount	**11,167**	8,543
Additions	**217**	594
Acquisition of subsidiaries	**571**	–
Transferred from property, plant and equipment *(Note 18)*	**166**	108
Transfer from properties held for sale *(Note 31(b))*	**631**	2,475
Transfer to property, plant and equipment *(Note 18)*	**(10)**	(100)
Transfer to properties held for sale *(Note 31(b))*	**(270)**	(62)
Disposals	**(8)**	(21)
Depreciation charge *(Note 11)*	**(397)**	(370)
Impairment losses recognised *(Note 8)*	**(3)**	–
Exchange difference	**(18)**	–
Closing net book amount	**12,046**	11,167
At 31 December		
Cost	**14,119**	12,856
Accumulated depreciation and impairment	**(2,073)**	(1,689)
Net book amount	**12,046**	11,167
Fair value at end of the year *(a)*	**21,960**	21,395

22. Investment Properties (Continued)

(a) As at 31 December 2020, the fair value of the Group's investment properties is based on valuations performed by Jones Lang LaSalle Corporate Appraisal and Advisory Limited, a firm of independent and professionally qualified valuers. The investment properties, mainly located in the Mainland China, are valued by the income approach by taking into account the net rental income of the properties derived from the existing leases and/or achievable in the existing market with due allowance for the reversionary income potential of the leases, which have been then capitalised to determine the fair value at an appropriate capitalisation rate, or by the comparison approach by making reference to comparable market transactions, which rests on the wide acceptance of the market transactions as the best indicator and pre-supposes that evidence of relevant transactions in the market place can be extrapolated to similar properties, subject to allowances for variable factors. The fair value falls into the category of fair value measurements using significant unobservable inputs (level 3) including future rental cash inflows, capitalisation rate and current prices in an active market for similar properties.

(b) Rental income and depreciation of the Group's investment properties of RMB775 million and RMB397 million (2019: RMB728 million and RMB370 million), respectively, was recognised as "revenue" and "cost of sales and services" in the consolidated income statement for the year ended 31 December 2020.

(c) As at 31 December 2020, the Group had no unprovided contractual obligations for future repairs and maintenance (2019: nil).

(d) The Group is in the process of applying for the title certificates for certain of its investment properties with an aggregate carrying value of RMB1,870 million (2019: RMB2,891 million) as at 31 December 2020. The Directors are of the opinion that the Group is entitled to lawfully and validly occupy or use these investment properties.

(e) Minimum lease payments receivable on leases of investment properties are as follows:

	2020 **RMB million**	2019 RMB million
Within 1 year	**599**	536
Between 1 and 2 years	**291**	287
Between 2 and 3 years	**315**	233
Between 3 and 4 years	**257**	191
Between 4 and 5 years	**159**	161
Later than 5 years	**372**	474
	1,993	1,882

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23. Intangible Assets

	Service concession arrangements RMB million	Non-patented technologies RMB million	Patents RMB million	Computer software RMB million	Others RMB million	Total RMB million
At 1 January 2019						
Cost	50,914	95	14	585	882	52,490
Accumulated amortisation and impairment	(5,735)	(83)	(10)	(325)	(137)	(6,290)
Net book amount	45,179	12	4	260	745	46,200
Year ended at 31 December 2019						
Opening net book amount	45,179	12	4	260	745	46,200
Additions	8,851	5	–	252	5	9,113
Acquisition of subsidiaries	7,648	566	–	4	6	8,224
Disposals	(4,446)	–	–	(1)	–	(4,447)
Amortisation charge *(Note 11)*	(990)	(144)	(1)	(101)	(19)	(1,255)
Disposals of subsidiaries	(32,274)	–	–	(2)	–	(32,276)
Closing net book amount	23,968	439	3	412	737	25,559
At 31 December 2019						
Cost	24,132	666	13	829	873	26,513
Accumulated amortisation and impairment	(164)	(227)	(10)	(417)	(136)	(954)
Net book amount	23,968	439	3	412	737	25,559
Year ended at 31 December 2020						
Opening net book amount	**23,968**	**439**	**3**	**412**	**737**	**25,559**
Additions	**33,021**	**–**	**2**	**255**	**8**	**33,286**
Acquisition of subsidiaries	**4,217**	**–**	**5**	**16**	**37**	**4,275**
Disposals	**(13)**	**–**	**–**	**(1)**	**–**	**(14)**
Amortisation charge *(Note 11)*	**(273)**	**(52)**	**(1)**	**(119)**	**(17)**	**(462)**
Exchange differences	**(45)**	**–**	**–**	**–**	**–**	**(45)**
Closing net book amount	**60,875**	**387**	**9**	**563**	**765**	**62,599**
At 31 December 2020						
Cost	**61,305**	**666**	**23**	**1,109**	**911**	**64,014**
Accumulated amortisation and impairment	**(430)**	**(279)**	**(14)**	**(546)**	**(146)**	**(1,415)**
Net book amount	**60,875**	**387**	**9**	**563**	**765**	**62,599**

23. Intangible Assets (Continued)

(a) The Group has entered into a number of service concession arrangements with certain government authorities in the PRC on a "Build-Operate-Transfer" ("BOT") basis in respect of its toll road operations, sewage plants and other constructions. Pursuant to the service concession arrangement contracts, the Group (i) is responsible for the construction of toll roads, sewage plants and other constructions, and the acquisition of the related facilities and equipment; (ii) has the contractual obligations to maintain or restore the infrastructures at a specified level of serviceability; and (iii) is entitled to operate the toll roads, the sewage plants and other construction upon completion for a specified remaining concession period from 12 to 40 years (2019: from 19 to 40 years) by charging users of the public service, which amounts are contingent on the extent that the public uses the service. The Group will not hold any residual interest in the toll roads, the sewage plants and other constructions upon expiration of the concession period. As such, the service concession arrangement contracts are accounted for as service concession arrangements and an intangible asset was recognised at an amount equals to the fair value of the consideration for provision of construction service upon initial recognition.

(b) As at 31 December 2020, the cost of service concession arrangements have been put into operations amounted to RMB12,437 million (2019: RMB4,402 million). The cost of service concession arrangements where the related projects were under construction amounted to RMB48,868 million (2019: RMB19,730 million).

(c) Amortisation of the Group's intangible assets of RMB349 million (2019: RMB1,123 million) has been charged to cost of sales and services, and RMB113 million (2019: RMB132 million) to administrative expenses.

(d) As at 31 December 2020, bank borrowings amounting to RMB39,104 million (2019: RMB12,238 million) are secured by concession assets with carrying amount of approximately RMB50,991 million (2019: RMB21,802 million) (Note 42).

24. Mining Assets

	Mining rights RMB million	Exploration and evaluation assets RMB million	Total RMB million
At 1 January 2019			
Cost	5,126	130	5,256
Accumulated amortisation and impairment	(1,383)	–	(1,383)
Net book amount	3,743	130	3,873
Year ended at 31 December 2019			
Opening net book amount	3,743	130	3,873
Additions	24	–	24
Amortisation charge *(Note 11)*	(166)	–	(166)
Exchange differences	1	–	1
Closing net book amount	3,602	130	3,732
At 31 December 2019			
Cost	**5,151**	**130**	**5,281**
Accumulated amortisation and impairment	**(1,549)**	**–**	**(1,549)**
Net book amount	**3,602**	**130**	**3,732**
Year ended at 31 December 2020			
Opening net book amount	**3,602**	**130**	**3,732**
Additions	**116**	**–**	**116**
Amortisation charge *(Note 11)*	**(262)**	**–**	**(262)**
Exchange differences	**(4)**	**–**	**(4)**
Closing net book amount	**3,452**	**130**	**3,582**
At 31 December 2020			
Cost	**5,263**	**130**	**5,393**
Accumulated amortisation and impairment	**(1,811)**	**–**	**(1,811)**
Net book amount	**3,452**	**130**	**3,582**

The exploration and evaluation assets represent the expenditure on exploration and evaluation of mine projects at Inner Mongolia, Heilongjiang, Mongolia, and the Democratic Republic of the Congo.

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

25. Subsidiaries

(a) Details of the principal subsidiaries as at 31 December 2020 are shown in Note 51.

(b) Material non-controlling interests

The table below shows the details of non-wholly-owned subsidiaries of the Group that have material non-controlling interests.

Name of subsidiary	中鐵高新工業股份有限公司 China Railway Hi-Tech Industry Co., Ltd. (“China Railway Industry”)
Principal activities	Engineering Equipment and Component Manufacturing
Country/place of establishment and operation	PRC

	2020 **RMB million**	2019 RMB million
Particulars of issued share capital	**2,222**	2,222
Proportion of interest and voting power held by non-controlling interests	**50.88%**	50.88%
Accumulated non-controlling interests	**12,503**	10,372
Total comprehensive income allocated to non-controlling interests	**956**	800

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

25. Subsidiaries (Continued)

(b) Material non-controlling interests (Continued)

Financial information on subsidiaries with material non-controlling interests

Set out below is summarised financial information for China Railway Industry in which there is non-controlling interests that are material to the Group.

The amounts disclosed are before inter-company eliminations.

Summarised balance sheet	2020 RMB million	2019 RMB million
Current		
Assets	**32,482**	28,052
Liabilities	**21,489**	19,071
Total current net assets	**10,993**	8,981
Non-current		
Assets	**11,708**	10,832
Liabilities	**812**	919
Total non-current net assets	**10,896**	9,913
Net assets	**21,889**	18,894

Summarised income statement	2020 RMB million	2019 RMB million
Revenue	**24,292**	20,575
Profit for the year attributable to owners of company	**1,826**	1,627
Other comprehensive (expenses)/income attributable to owners of company	**(15)**	40
Total comprehensive income attributable to owners of company	**1,811**	1,667
Total comprehensive income attributable to non-controlling interests	**956**	800
Dividends paid to non-controlling interests	**13**	142

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

25. Subsidiaries (Continued)

(b) Material non-controlling interests (Continued)

Summarised cash flows	2020 RMB million	2019 RMB million
Net cash generated from operating activities	**1,074**	1,424
Net cash used in investing activities	**(831)**	(1,055)
Net cash generated from financing activities	**1,142**	996
Effect of foreign exchange rate changes	**(7)**	1
Net increase in cash and cash equivalents	**1,378**	1,366

(c) Consolidation of the structured entities

To determine whether to consolidate the structured entities (mainly the unlisted entrust products) or not, the main factor considered by the Group is the ability to control these structured entities. For those structured entities managed and invested by China Railway Trust Co., Ltd. ("China Railway Trust"), the directly owned subsidiary of the Company, the Group consolidated those structured entities when the Group is exposed to significant variable returns and has the ability to affect the variable returns, including the returns of its interests in these structured entities as investor and trust commission fee earned from these structured entities as manager.

As at 31 December 2020, the total assets of the consolidated structured entities amounted to RMB9,015 million (2019: RMB9,108 million), and the interests of other investors in these structured entities amounted to RMB3,499 million (2019: RMB4,056 million).

As at 31 December 2020 and 2019, there was no contractual liquidity arrangements, guarantees or other commitments between the Group and the consolidated structured entities.

(d) Interests in unconsolidated structured entities

(i) China Railway Trust serves as manager of unconsolidated structured entities (mainly the unlisted entrust products) and earns trust commission fee. In the opinion of the Directors, the Group did not consolidate these structured entities that it has no control over these structured entities.

As at 31 December 2020, the scale of the unconsolidated structured entities established with interest held by the Group amounted to RMB38,311 million (2019: RMB37,665 million). As at 31 December 2020, the maximum exposure to the loss of the Group's investments and the amount recognised as financial assets at fair value through profit or loss in the consolidated financial statements over these unconsolidated structured entities which the Group has interests in amounted to RMB1,550 million (2019: RMB2,349 million).

As at 31 December 2020, the scale of the unconsolidated structured entities established with no interest held by the Group amounted to RMB363,292 million (2019: RMB425,412 million).

25. Subsidiaries (Continued)

(d) Interests in unconsolidated structured entities (Continued)

(ii) The Group and several unlisted entrust products ("Investee Entrust Products"), which the Group has interests in, invested in certain limited liability partnership funds (the "Funds"). The Funds are mainly engaged in infrastructure activities. Some asset managers (related parties of the Group), or together with the Group, acted as general partners of the Fund, and applied various investment strategies to accomplish the respective investment objectives of the Funds. A number of Investee Entrust Products acted as limited partners of the Funds to finance the operation activities of the Funds.

The Directors of the Company are of the opinion that the Group did not have control over Investee Entrust Products and the Funds and therefore, these Investee Entrust Products and the Funds were deemed as structured entities and were not consolidated by the Group.

As at 31 December 2020, the scale of these unconsolidated structured entities amounted to RMB23,771 million (2019: RMB18,231 million).

The maximum exposure to the loss of the Group's investments in the unconsolidated structured entities as at 31 December 2020 is disclosed in the following table.

	2020 **RMB million**	2019 RMB million
Investments in joint ventures	**4,931**	936
Financial assets at fair value through profit or loss	**1,314**	1,823
	6,245	2,759

As at 31 December 2020 and 2019, there was no contractual liquidity arrangements, guarantees or other commitments between the Group and the unconsolidated structured entities.

26. Investments Accounted for Using The Equity Method

The amounts recognised in the consolidated balance sheet are as follows:

	2020 RMB million	2019 RMB million
Associates	**38,133**	30,565
Joint ventures	**40,216**	29,314
	78,349	59,879

The amounts recognised in the consolidated income statement are as follows:

	2020 RMB million	2019 RMB million
Associates	**2,031**	2,100
Joint ventures	**164**	360
	2,195	2,460

(a) Investments in associates

	2020 RMB million	2019 RMB million
At 1 January	**30,565**	15,672
Additions	**10,517**	14,544
Disposals	**(2,260)**	(762)
Share of profit or loss, net	**2,031**	2,100
Dividend distribution	**(547)**	(635)
Share of other comprehensive income of associates	**(189)**	42
Share of other reserves of associates	**(1,984)**	(396)
At 31 December	**38,133**	30,565

26. Investments Accounted for Using The Equity Method (Continued)

(a) Investments in associates (Continued)

(i) All of the associates of the Group are unlisted and there is no quoted market price available for their shares.

(ii) In 2020, the Group acts as the guarantors for various external borrowings made by an associate amounted to RMB2,441 million (2019: RMB2,325 million).

(iii) Details of Group's material associates as at 31 December 2020 and 2019 are as follows:

Name of associate	Country/place of establishment/ operations	Proportion of ownership interest held by the Group		Principal activities
		2020	2019	
雲南省滇中引水工程有限公司 Yunnan Dianzhong Water Diversion Engineering Co., Ltd. ("Dianzhong Water")	PRC	**9.47%**	9.47%	Build-operate-transfer service concession arrangement
華剛礦業股份有限公司 LA Sino-Congolaise Des Mines S.A. ("SICOMINGS S.A.")	Democratic Republic of the Congo	**41.72%**	41.72%	Mining

Summarised financial information in respect of each of the Group's material associates is set out below. The summarised financial information below represents amounts shown in the associates financial statements prepared in accordance with IFRSs.

All of these associates are accounted for using the equity method in the consolidated financial statements.

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

26. Investments Accounted for Using The Equity Method (Continued)

(a) Investments in associates (Continued)

	2020		2019	
	Dianzhong Water	**SICOMINGS S.A.**	Dianzhong Water	SICOMINGS S.A.
	RMB million (Unaudited)	**RMB million (Unaudited)**	RMB million (Unaudited)	RMB million (Unaudited)
Current assets	**6,721**	**10,707**	7,732	5,170
Non-current assets	**10,837**	**17,896**	3,898	17,719
Current liabilities	**316**	**2,020**	28	1,897
Non-current liabilities	**–**	**18,472**	–	14,379
Revenue	**–**	**5,917**	–	5,545
Profit for the year	**–**	**2,805**	–	2,456
Other comprehensive income for the year	**–**	**(447)**	–	101
Total comprehensive income for the year	**–**	**2,358**	–	2,557
Dividends received	**–**	**359**	–	406

Reconciliation of the above summarised financial information to the carrying amount of the interests in associates recognised in the consolidated financial statements:

	2020		2019	
	Dianzhong Water	**SICOMINGS S.A.**	Dianzhong Water	SICOMINGS S.A.
	RMB million (Unaudited)	**RMB million (Unaudited)**	RMB million (Unaudited)	RMB million (Unaudited)
Net assets of associates	**17,242**	**8,111**	11,602	6,613
Proportion of the Group's ownership in associates	**9.47%**	**41.72%**	9.47%	41.72%
Other adjustments	**4,272**	**(574)**	4,138	(490)
Carrying amount of the Group's interests in associates	**5,904**	**2,810**	5,236	2,270

26. Investments Accounted for Using The Equity Method (Continued)

(a) Investments in associates (Continued)

In addition to the interests in associates disclosed above, the Group also has interests in a number of individually immaterial associates that are accounted for using the equity method.

	2020 RMB million	2019 RMB million
Aggregate carrying amount of the Group's interests in these associates	**29,419**	23,059
The Group's share of profits	**860**	1,075
The Group's share of other comprehensive expenses	**(2)**	–
The Group's share of total comprehensive income	**858**	1,075

(b) Investments in joint ventures

	2020 RMB million	2019 RMB million
At 1 January	**29,314**	19,597
Additions	**11,469**	11,350
Disposals	**(171)**	(4,645)
Share of profit or loss, net	**164**	360
Dividend distribution	**(560)**	(378)
Share of other reserves of joint ventures	**–**	3,030
At 31 December	**40,216**	29,314

(i) All of the joint ventures of the Group are unlisted and there is no quoted market price available for their shares.

(ii) In 2020, the Group acts as the guarantor for external borrowing made by a joint venture amounted to RMB5,048 million (2019: RMB7,239 million).

26. Investments Accounted for Using The Equity Method (Continued)

(b) Investments in joint ventures (Continued)

(iii) Details of Group's material joint ventures as at 31 December 2020 and 2019 are as follows:

Name of joint venture	Country/place of establishment/ operations	Proportion of ownership interest held by the Group		Principal activities
		2020	2019	
招商中鐵控股有限公司 China Merchants Railway Co., Ltd. (Formerly "Guangxi China Railway Expressway Management Co., Ltd.")	PRC	**49.00%**	49.00%	Build-operate-transfer service concession arrangement
昆明軌道交通四號線土建項目建設管理有限公司 Kunming Rail Transit Line 4 Construction Management Co., Ltd. ("Kunming Line 4")	PRC	**75.73%**	75.73%	Subway construction management
四川天府機場高速公路有限公司 Sichuan Tianfu Airport Expressway Co., Ltd. ("Sichuan Tianfu")	PRC	**50.00%**	50.00%	Build-operate-transfer service concession arrangement

26. Investments Accounted for Using The Equity Method (Continued)

(b) Investments in joint ventures (Continued)

Summarised financial information in respect of each of the Group's material joint venture is set out below. The summarised financial information below represents amounts shown in the joint ventures financial statements prepared in accordance with IFRSs.

The joint ventures are accounted for using the equity method in the consolidated financial statements.

	2020			2019		
	China Merchants Railway Co., Ltd.	**Kunming Line 4**	**Sichuan Tianfu**	China Merchants Railway Co., Ltd.	Kunming Line 4	Sichuan Tianfu
	RMB million (Unaudited)	**RMB million (Unaudited)**	**RMB million (Unaudited)**	RMB million (Unaudited)	RMB million (Unaudited)	RMB million (Unaudited)
Current assets	**980**	**100**	**201**	1,211	71	887
Including: cash and cash equivalents	**680**	**73**	**200**	596	5	886
Non-current assets	**40,977**	**17,231**	**32,873**	39,202	15,151	27,949
Current liabilities	**8,332**	**711**	**254**	10,258	1,213	228
Non-current liabilities	**20,080**	**10,440**	**25,796**	16,107	7,865	22,408
Revenue	**2,462**	**–**	**–**	2,933	–	–
Interest expenses	**1,259**	**–**	**–**	1,237	–	–
Losses and total comprehensive expenses for the year	**(788)**	**–**	**–**	(138)	–	–
Dividends received	**–**	**–**	**–**	–	–	–

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26. Investments Accounted for Using The Equity Method (Continued)

(b) Investments in joint ventures (Continued)

Reconciliation of the above summarised financial information to the carrying amount of the interests in joint ventures recognised in the consolidated financial statements:

	2020			2019		
	China Merchants Railway Co., Ltd.	**Kunming Line 4**	**Sichuan Tianfu**	China Merchants Railway Co., Ltd.	Kunming Line 4	Sichuan Tianfu
	RMB million	**RMB million**	**RMB million**	RMB million	RMB million	RMB million
	(Unaudited)	**(Unaudited)**	**(Unaudited)**	(Unaudited)	(Unaudited)	(Unaudited)
Net assets of joint ventures	**10,976**	**6,180**	**7,024**	11,763	6,144	6,200
Proportion of the Group's ownership in joint ventures	**49.00%**	**75.73%**	**50.00%**	49.00%	75.73%	50.00%
Other adjustments	**–**	**–**	**(112)**	–	27	–
Carrying amount of the Group's interests in joint ventures	**5,378**	**4,680**	**3,400**	5,764	4,680	3,100

In addition to the interests in joint ventures disclosed above, the Group also has interests in a number of individually immaterial joint ventures that are accounted for using the equity method.

	2020	2019
	RMB million	RMB million
Aggregate carrying amount of the Group's interests in these joint ventures	**26,758**	15,770
The Group's share of profits	**550**	361
The Group's share of total comprehensive income	**550**	361

27. Joint Operations

In 2020, the Group has one joint operation in Hong Kong (2019: one) and has 30% share (2019: 30%) in the ownership of this construction project. The Group is entitled to a proportionate share of the assets, the liabilities and the construction revenue, and bears a proportionate share of the joint operation's expenses.

28. Goodwill

	2020	2019
	RMB million	RMB million
Cost		
At beginning of year	**1,068**	929
Addition	**374**	243
Disposal	**(2)**	(104)
At end of year	**1,440**	1,068
Impairment		
At beginning of year	**(28)**	(30)
Disposal	**–**	2
At end of year	**(28)**	(28)
Net book amount		
At beginning of year	**1,040**	899
At end of year	**1,412**	1,040

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

28. Goodwill (Continued)

The carrying amount of goodwill at the end of the reporting period is attributable to acquisition of subsidiaries in the following subsidiaries (whose principal activities are disclosed in Note 51) and sub-groups headed by these subsidiaries:

	2020 **RMB million**	2019 RMB million
China Railway No.1 Engineering Group Co., Ltd.	**64**	66
China Railway No.2 Engineering Group Co., Ltd.	**77**	77
China Railway No.3 Engineering Group Co., Ltd.	**51**	51
China Railway No.4 Engineering Group Co., Ltd.	**195**	195
China Railway No.5 Engineering Group Co., Ltd.	**82**	82
China Railway No.6 Engineering Group Co., Ltd.	**12**	12
China Railway No.8 Engineering Group Co., Ltd.	**26**	26
China Railway No.9 Engineering Group Co., Ltd.	**48**	48
China Railway No.10 Engineering Group Co., Ltd.	**26**	26
China Railway Major Bridge Engineering Group Co., Ltd.	**28**	28
China Railway Electrification Engineering Group Co., Ltd.	**100**	100
China Railway Construction Group Co., Ltd.	**62**	62
China Railway Tunnel Group Co., Ltd.	**19**	19
China Railway Trust	**24**	24
China Railway No.6 Survey and Design Institute Group Co., Ltd.	**206**	206
China Railway Prefabricate Construction Co., Ltd. *(Note 47(b))*	**333**	–
China Railway Changjiang Transport Design Group Co., Ltd. *(Note 47(d))*	**36**	–
China Railway Water Conservancy & Hydropower Planning and Design Group Co., Ltd. *(Note 47(c))*	**5**	–
Other Subsidiaries	**18**	18
	1,412	1,040

The basis of determining the recoverable amounts of the above subsidiaries and their major underlying assumptions are summarised below:

China Railway Trust, which is included in other businesses of the Group, is principally engaged in financial trust management. The recoverable amount in respect of this subsidiary has been determined based on fair value less costs of disposal. The key assumptions in determining the fair value is the publicly disclosed value ratio of comparable transactions and estimated costs of disposal. Management believes that any reasonably possible change in the assumptions would not cause the carrying amount of this subsidiary to exceed its recoverable amount.

28. Goodwill (Continued)

The recoverable amounts in respect of subsidiaries, which are principally engaged in infrastructure construction, survey, design and consulting services and engineering equipment and component manufacturing, other than China Railway Trust, have been determined based on a value in use calculation. That calculation uses cash flow projections based on the most recent financial budgets of five years approved by management and an extrapolated financial budget for the following five years, and a discount rate of 10% (2019: 10%). One of the key assumptions in preparing cash flow projections is annual growth rates in revenue which vary among different subsidiaries for the most recent financial budgets period and a nil growth rate for the extrapolation period. The growth rates are based on the relevant industry growth forecasts and do not exceed the average long-term growth rate for the relevant industry. Another key assumption for the cash flow projections is the stable budgeted gross margin, which is determined based on the subsidiaries' past performance. Management believes that any reasonably possible change in any of these assumptions would not cause the carrying amounts of the subsidiaries to exceed its recoverable amounts.

29. Financial Assets at Fair Value Through Other Comprehensive Income

Financial assets at FVOCI comprise:

- Equity securities which are not held for trading, and which the Group has irrevocably elected at initial recognition to recognise in this category. These are strategic investments and the Group considers this classification to be more relevant.

- Debt securities where the contractual cash flows are solely payments of principal and interest and the objective of the Group's business model is achieved both by collecting contractual cash flows and selling financial assets.

29. Financial Assets at Fair Value Through Other Comprehensive Income (Continued)

(a) Financial assets at FVOCI include the following:

	2020 RMB million	2019 RMB million
Non-current assets		
Unlisted equity investments	**8,831**	9,363
Listed equity securities		
– Mainland China	**568**	629
– Hong Kong	**269**	480
	9,668	10,472
Current assets		
Bills receivables	**522**	393

On disposal of these equity instruments, any related balance within the FVOCI reserve is reclassified to retained earnings.

In 2020, the Group disposed certain listed equity securities and unlisted equity investments at a fair value of RMB402 million (2019: RMB348 million). The Group realised a gain of RMB12 million (2019: RMB31 million), which had already been included in other comprehensive income before disposal. The gain has been transferred to retained earnings.

29. Financial Assets at Fair Value Through Other Comprehensive Income (Continued)

(b) Amounts recognised in profit or loss and other comprehensive income

During the year, the following gains were recognised in profit or loss and other comprehensive income:

	2020	2019
	RMB million	RMB million
Gains recognised in other comprehensive income	**(248)**	(63)
Gains reclassified from other comprehensive income to retained earnings upon disposal of financial assets at FVOCI	**(12)**	(31)
Dividends from equity instruments held at FVOCI recognised in profit or loss in other income *(Note 6)*:		
– Related to instruments held at the end of the year	**57**	44
– Related to instruments derecognised during the year	**1**	3

(c) Fair value, impairment and risk exposure

Information about the methods and assumptions used in determining fair value is provided in Note 3.2.

The loss allowance for debt instruments at FVOCI as a result of applying the expected credit risk model is immaterial.

Financial assets at FVOCI are denominated in the following currencies:

	2020	2019
	RMB million	RMB million
RMB	**9,921**	10,385
HKD	**269**	480
	10,190	10,865

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

30. Other Financial Assets at Amortised Cost

	2020 RMB million	2019 RMB million
Debt investments		
– Short-term	**10,579**	10,667
– Long-term	**23,316**	18,292
	33,895	28,959
Less: Loss allowance for debt investments *(a)*	**(5,428)**	(5,400)
Total other financial assets at amortised cost	**28,467**	23,559
Less: Amount due within one year included in current assets	**(9,694)**	(9,630)
Amount due after one year	**18,773**	13,929

(a) Movements in impairment on debt instruments are as follows:

	2020 RMB million	2019 RMB million
At 31 December in prior year	**5,400**	3,196
Impairment losses recognised during the year *(Note 7)*	**33**	2,201
Exchange differences	**(5)**	3
At 31 December	**5,428**	5,400

(b) The other financial assets at amortised cost carry fixed-rate interests within a range of 1.31% to 24.00% (31 December 2019: 2.91% to 24.00%) per annum.

(c) As at 31 December 2020, other financial assets at amortised cost amounting to RMB5,355 million (31 December 2019: RMB4,938 million) are secured by property, plant and equipments, investment properties or guaranteed by a third party.

30. Other Financial Assets at Amortised Cost (Continued)

(d) Other financial assets at amortised cost are denominated in the following currencies:

	2020 RMB million	2019 RMB million
RMB	**27,958**	22,954
USD	**509**	605
	28,467	23,559

31. Properties Held for Sale/Properties Under Development for Sale

(a) Properties under development for sale

	2020 RMB million	2019 RMB million
As at 1 January	**134,747**	99,563
Additions	**37,595**	64,462
Properties completed during the year	**(49,152)**	(29,278)
Transfers to property, plant and equipment *(Note 18)*	**(1,169)**	–
Disposal of subsidiaries	**(850)**	–
	121,171	134,747
Less: provision for impairment	**(3,595)**	(971)
As at 31 December	**117,576**	133,776

	2020 RMB million	2019 RMB million
Properties under development for sale comprise:		
Land use rights	**90,068**	97,235
Construction cost	**17,322**	23,177
Borrowing costs capitalised	**13,781**	14,335
	121,171	134,747

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

31. Properties Held for Sale/Properties Under Development for Sale (Continued)

(b) Properties held for sale

	2020 RMB million	2019 RMB million
As at 1 January	**25,746**	27,420
Additions	**49,152**	29,278
Transferred from investment properties *(Note 22)*	**270**	62
Transferred from lease prepayments *(Note 20)*	**43**	51
Properties sold during the year	**(37,348)**	(28,457)
Transferred to investment properties *(Note 22)*	**(631)**	(2,475)
Transferred to lease prepayments *(Note 20)*	**(169)**	(42)
Transferred to property, plant and equipment *(Note 18)*	**(274)**	(91)
	36,789	25,746
Less: provision for impairment	**(2,646)**	(728)
As at 31 December	**34,143**	25,018

Properties under development for sale amounting to RMB37,371 million (2019: RMB33,637 million) have been pledged to secure bank borrowings amounting to RMB11,769 million (2019: RMB14,346 million) granted to the Group (Note 42).

All of the properties under development are expected to be completed within the Group's normal operating cycle and are included under current assets.

The Group's properties held for sale and properties under development for sale at the end of the reporting period are stated at the lower of cost and net realisable value.

32. Inventories

	2020 RMB million	2019 RMB million
Raw materials and consumables	**26,919**	27,304
Work in progress	**7,383**	6,724
Finished goods	**6,641**	6,917
	40,943	40,945

33. Trade and Other Receivables

	2020 RMB million	2019 RMB million
Trade and bills receivables	**169,235**	148,525
Less: Loss allowance	**(10,461)**	(9,445)
Trade and bills receivables – net	**158,774**	139,080
Other receivables (net of impairment)	**70,854**	67,143
Advance to suppliers (net of impairment)	**30,291**	27,716
	259,919	233,939
Less: Amount due after one year included in non-current assets	**(48,351)**	(30,683)
Amount due within one year included in current assets	**211,568**	203,256

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

	2020 RMB million	2019 RMB million
Less than 1 year	**134,643**	121,708
1 year to 2 years	**16,642**	12,399
2 years to 3 years	**6,238**	4,643
3 years to 4 years	**2,815**	2,354
4 years to 5 years	**1,695**	1,319
More than 5 years	**7,202**	6,102
Total	**169,235**	148,525

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.

33. Trade and Other Receivables (Continued)

(b) Trade and bills receivables of RMB13,807 million (31 December 2019: RMB4,491 million) were pledged to secure borrowings amounting to RMB6,535 million (31 December 2019: RMB2,911 million) (Note 42).

(c) As at 31 December 2020, trade receivables of RMB55,142 million (31 December 2019: RMB51,508 million) had been transferred in accordance with relevant ABN and ABS issuance, and trade receivables of RMB16,854 million (31 December 2019: RMB16,062 million) had been transferred to financial institutions in accordance with relevant non-recourse factoring agreements. Relevant trade receivables were derecognised as the Directors are of the opinion that the substantial risks and rewards associated with the trade receivables have been transferred and therefore qualified for derecognition.

(d) As at 31 December 2020, bills receivables – bank acceptance and commercial acceptance notes of RMB640 million (31 December 2019: RMB315 million) were endorsed to suppliers, and RMB520 million (31 December 2019: RMB21 million) were discounted with banks. In the opinion of the Directors, as the counter party bears higher credit risk, such transactions did not qualify for derecognition. In addition, as at 31 December 2020, bills receivables – bank acceptance notes of RMB2,142 million (31 December 2019: RMB1,754 million) were endorsed to suppliers, and RMB170 million (31 December 2019: RMB570 million) were discounted with banks. Relevant bills receivables were derecognised as the Directors are of the opinion that the substantial risks and rewards associated with those bank acceptance notes have been transferred and therefore qualified for derecognition.

(e) As at 31 December 2020, trade receivables net of credit loss allowance, which were collectively assessed for impairment, are as follows:

Central-governmental enterprises

	As at	
	31 December 2020	31 December 2019
	RMB million	RMB million
Less than 1 year	**7,438**	7,431
1 year to 2 years	**975**	1,053
2 years to 3 years	**389**	382
3 years to 4 years	**215**	231
4 years to 5 years	**150**	112
More than 5 years	**104**	78
Total	**9,271**	9,287

33. Trade and Other Receivables (Continued)

(e) As at 31 December 2020, trade receivables net of credit loss allowance, which were collectively assessed for impairment, are as follows: (Continued)

Locally-administrated state-owned enterprises

	As at 31 December 2020 RMB million	31 December 2019 RMB million
Less than 1 year	**45,212**	42,974
1 year to 2 years	**6,557**	5,154
2 years to 3 years	**2,297**	2,307
3 years to 4 years	**1,266**	1,011
4 years to 5 years	**653**	364
More than 5 years	**509**	362
Total	**56,494**	52,172

China State Railway Group Co., Ltd.

	As at 31 December 2020 RMB million	31 December 2019 RMB million
Less than 1 year	**12,418**	13,519
1 year to 2 years	**1,412**	2,016
2 years to 3 years	**653**	421
3 years to 4 years	**225**	261
4 years to 5 years	**146**	99
More than 5 years	**108**	83
Total	**14,962**	16,399

33. Trade and Other Receivables (Continued)

(e) As at 31 December 2020, trade receivables net of credit loss allowance, which were collectively assessed for impairment, are as follows: (Continued)

Overseas enterprises

	As at	
	31 December 2020 RMB million	31 December 2019 RMB million
Less than 1 year	**1,864**	2,075
1 year to 2 years	**641**	870
2 years to 3 years	**466**	55
3 years to 4 years	**34**	17
4 years to 5 years	**8**	2
More than 5 years	**7**	6
Total	**3,020**	3,025

Other entities

	As at	
	31 December 2020 RMB million	31 December 2019 RMB million
Less than 1 year	**16,175**	13,159
1 year to 2 years	**2,686**	2,095
2 years to 3 years	**1,375**	696
3 years to 4 years	**372**	289
4 years to 5 years	**200**	148
More than 5 years	**181**	175
Total	**20,989**	16,562

33. Trade and Other Receivables (Continued)

(e) As at 31 December 2020, trade receivables net of credit loss allowance, which were collectively assessed for impairment, are as follows: (Continued)

As at 31 December 2020, the amount of individually impaired trade receivables was RMB6,509 million (31 December 2019: RMB9,615 million) with the provision for loss allowance of RMB3,368 million (31 December 2019: RMB3,348 million).

As at 31 December 2020, bills receivables – bank acceptance notes of RMB501 million (31 December 2019: RMB533 million) were not impaired. Commercial acceptance notes, which were collectively assessed for impairment, were RMB5,048 million (31 December 2019: RMB2,766 million) with the provision for loss allowance of RMB12 million (31 December 2019: RMB7 million).

As at 31 December 2020, the amount of collectively impaired long-term trade receivables was RMB44,131 million (31 December 2019: RMB31,188 million) with the provision for loss allowance of RMB198 million (31 December 2019: RMB152 million). The amount of individually impaired long-term trade receivables was RMB4,850 million (31 December 2019: RMB4,261 million) with the provision for loss allowance of RMB3,423 million (31 December 2019: RMB3,221 million).

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

	2020 **RMB million**	2019 RMB million
At 31 December in prior year	**23,664**	22,084
Increase in loss allowance recognised in profit or loss during the year	**4,899**	3,370
Amount reversed	**(2,597)**	(1,472)
Receivables written off during the year as non-collectible	**(1,577)**	(348)
Others	**30**	30
At 31 December	**24,419**	23,664

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

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

33. Trade and Other Receivables (Continued)

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

	2020 **RMB million**	2019 RMB million
RMB	**249,453**	223,077
USD	**3,963**	5,964
HKD	**3,075**	16
West African CFA Franc	**291**	327
Ethiopian Birr	**174**	246
EUR	**217**	177
Other currencies	**2,746**	4,132
	259,919	233,939

As at 31 December 2020, other currencies mainly comprised of Bangladesh Taka, Malaysian Ringgit and South African Rand.

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

34. Assets and Liabilities Related to Contracts with Customers

The Group has recognised the following assets and liabilities related to contracts with customers:

	2020 RMB million	2019 RMB million
Contract assets		
– Amount due from contract customers for contract work and Retentions	**185,136**	182,650
– Primary land development	**6,679**	6,234
– Financial assets under concession arrangements	**65,407**	30,876
	257,222	219,760
Less: loss allowance *(a)*	**(2,109)**	(1,720)
Less: Amount due after one year included in non-current assets	**111,209**	87,885
Amount due within one year included in current assets	**143,904**	130,155
Contract liabilities		
– Sale of properties	**49,530**	36,961
– Infrastructure construction and engineering contracts	**42,562**	36,837
– Amount due to contract customers for contract work	**20,026**	24,471
– Design and consulting services	**3,120**	2,784
– Sales of manufacturing products	**5,466**	4,976
– Sales of materials	**759**	1,392
– Others	**3,197**	2,949
Total current contract liabilities	**124,660**	110,370

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

34. Assets and Liabilities Related to Contracts with Customers (Continued)

(a) As at 31 December 2020, the impairment of contract assets is determined as follows:

Contract assets	Expected loss rate	Gross carrying amount RMB million	Loss allowance RMB million
Amounts due from customers for contract work			
– Less than 1 year	0.20%	107,404	210
– 1 year to 2 years	4.00%	8,599	344
– 2 years to 3 years	8.00%	1,587	127
– 3 years to 4 years	12.00%	1,283	154
– 4 years to 5 years	16.00%	200	32
– Over 5 years	20.00%	355	71
Total		119,428	938
Primary land development	0.50%	6,679	33
Retentions	0.50%	62,453	310
Financial assets under concession arrangements	0.50%	65,407	325
Total		253,967	1,606

The amount of individually impaired contract assets was RMB3,255 million (31 December 2019: RMB3,705 million) with the provision of RMB503 million (31 December 2019: RMB356 million).

(b) As at 31 December 2020, bank borrowings amounting to RMB22,298 million (2019: RMB11,281 million) are secured by contract assets with carrying amount of approximately RMB34,842 million (2019: RMB26,926 million) (Note 42).

35. Financial Assets/(Liabilities) at Fair Value Through Profit or Loss

The Group classifies the following financial assets at FVPL:

- Debt investments that do not qualify for measurement at either amortised cost or FVOCI (Note 29);
- Equity investments that are held for trading, and
- Equity investments for which the entity has not elected to recognise fair value gains and losses through other comprehensive income.

35. Financial Assets/(Liabilities) at Fair Value Through Profit or Loss (Continued)

(a) Financial assets at FVPL include the following:

	2020 RMB million	2019 RMB million
Non-current assets		
Equity instruments		
Equity securities listed in Mainland China	1,215	977
Unlisted equity investments	4,177	725
	5,392	1,702
Debt instruments		
Unlisted entrusted products	3,169	4,684
Unlisted open-end equity funds	1,130	1,325
Others	873	926
	5,172	6,935
	10,564	8,637
Current assets		
Equity instruments		
Listed equity securities		
– Mainland China	68	138
Debt instruments		
Money-market securities investment funds	2,377	2,219
Unlisted open-end equity funds	1,635	1,617
Unlisted entrusted products	888	1,448
Others	90	19
	4,990	5,303
Derivative financial instruments		
– Option Contract	160	–
	5,218	5,441
Total	15,782	14,078

35. Financial Assets/(Liabilities) at Fair Value Through Profit or Loss (Continued)

(b) Financial liabilities at FVPL include the following:

	2020 **RMB million**	2019 RMB million
Current liabilities		
Unlisted open-end equity funds	**65**	85

(c) Amounts recognised in profit or loss

	2020 **RMB million**	2019 RMB million
Fair value gains on financial assets at FVPL	**198**	291
Fair value gains/(losses) on financial liabilities at FVPL	**20**	(16)
	218	275

(d) Risk exposure and fair value measurements

Information about the Group's exposure to price risk is provided in Note 3.1.

For information about the methods and assumptions used in determining fair value refer to Note 3.2.

36. Restricted Cash

	2020 RMB million	2019 RMB million
Restricted bank deposits	**23,389**	17,786
Term deposits with initial term of over three months	**5,916**	2,187
	29,305	19,973

As at 31 December 2020, restricted bank deposits mainly included deposits for issuance of bank acceptance notes, performance bonds, letters of credit to customers, and mandatory reserve deposits placed with People's Bank of China.

Term deposits with initial term of over three months are excluded from cash and cash equivalents, as management are of the opinion that these term deposits are not readily convertible to known amounts of cash without significant risk of changes in value.

The carrying amount of restricted cash are denominated in the following currencies:

	2020 RMB million	2019 RMB million
RMB	**29,219**	19,457
USD	**30**	391
Other currencies	**56**	125
	29,305	19,973

37. Cash and Cash Equivalents

	2020 **RMB million**	2019 RMB million
Cash on hand	**88**	152
Bank deposits	**145,376**	138,034
Cash and cash equivalents	**145,464**	138,186

The maximum exposure to credit risk approximates the carrying amounts of the Group's cash and cash equivalents at the end of the reporting period.

The weighted average effective interest rate on bank deposits was 0.44% per annum as at 31 December 2020 (2019: 0.55% per annum).

The carrying amount of cash and cash equivalents are denominated in the following currencies:

	2020 **RMB million**	2019 RMB million
RMB	**131,600**	125,030
USD	**11,355**	10,546
Others	**2,509**	2,610
	145,464	138,186

The Group's cash and bank balances denominated in RMB are deposited with banks in the PRC. The conversion of these RMB denominated balances into foreign currencies is subject to the rules and regulation of foreign exchange control promulgated by the PRC Government.

As at 31 December 2020, less than 0.94% (2019: less than 1.33%) of the cash and cash equivalents balances denominated in currencies other than RMB was deposited in banks in certain countries which are subject to foreign exchange control and the currencies are not freely convertible into other currencies or remitted out of those countries.

38. Share Capital and Premium

	Number of shares		Nominal value	
	2020	2019	**2020**	2019
	(thousands)	(thousands)	**RMB million**	RMB million
Registered, issued and fully paid				
A shares of RMB1.00 each				
At beginning and end of year	**20,363,540**	20,363,540	**20,364**	20,364
H shares of RMB1.00 each				
At beginning and end of year	**4,207,390**	4,207,390	**4,207**	4,207
	24,570,930	24,570,930	**24,571**	24,571

As at 31 December 2020, the A Shares (20,363,540 thousands shares) and H Shares (4,207,390 thousands shares) issued are the ordinary shares in the share capital of the Company. All cash dividends in respect of the H Shares are to be declared in Renminbi and paid by the Company in Hong Kong dollars whereas all cash dividends in respect of A Shares are to be paid by the Company in Renminbi.

In addition, A Shares and H Shares are regarded as different classes of shares under the Company's Articles of Association. The differences between the two classes of shares, including provisions on class rights, the dispatch of notices and financial reports to shareholders, dispute resolution, registration of shares on different branches of the registers of shareholders, the method of share transfer and appointment of dividend receiving agents are set out in the Company's Articles of Association.

A Shares and H Shares however rank pari passu with each other in all other respects.

39. Statutory Reserves

The statutory reserves comprise the statutory surplus reserve, trust compensation reserve and general risk reserve.

According to the PRC Company Law and the Company's article of association, the Company is required to make an appropriation at 10 percent of the profit for the year as shown in the PRC statutory financial statements, prepared in accordance with the relevant PRC accounting standards, to the statutory surplus reserve fund until the balance reached 50 percent of the registered capital of the Company. The statutory surplus reserve can only make up losses or use to increase the registered capital of the Company and is not distributable.

According to the relevant laws and regulations for financial institutions and trust management entities in the PRC, certain subsidiaries of the Company are required to set aside certain amounts to trust compensation reserve and general risk reserve to address unidentified potential impairment risks.

40. Perpetual Notes

	2019	Additions	Redemption/ Declaration	**2020**
	RMB million	RMB million	RMB million	**RMB million**
Public medium notes *(Note (a))*	18,447	4,032	(6,958)	**15,521**
Private perpetual notes *(Note (b))*	2,000	–	(2,000)	**–**
Public renewable corporate bonds *(Note (c))*	10,997	19,954	–	**30,951**
Dividends	91	1,520	(1,345)	**266**
Total	31,535	25,506	(10,303)	**46,738**

40. Perpetual Notes (Continued)

(a) In January and June 2020, the Company redeemed the public medium notes ("Medium Notes") issued on 21 January 2015 and 11 June 2015 in cash consideration of RMB4 billion and RMB3 billion, respectively.

From 26 November 2018 to 27 November 2018, 11 December 2018 to 12 December 2018 and 17 December 2018 to 18 December 2018, the Company issued three tranches of Medium Notes with an aggregate principal amount of RMB3 billion, RMB3 billion and RMB3 billion, respectively. The Medium Notes are unsecured or unguaranteed. Pursuant to the terms and conditions of the Medium Notes, the Medium Notes bear the initial interest rate of 4.56%, 4.53% and 4.60% per annum (category one), respectively and 4.80%, 4.80% and 4.80% per annum (category two), respectively, and has no maturity date. The interest rate will be reset every three years (category one) and every five years (category two) from issuance date. The interest is payable annually in arrears. As long as the compulsory interest payment events have not occurred, the Company may, at its sole discretion, elect to defer the distribution of interest, and is not subject to any restriction as to the number of times the distribution can be deferred. The Medium Notes are subject to redemption in whole, at the option of the Company, three years (category one) and five years (category two) after the issue date, at their principal amount together with accrued interest. The Directors of the Company are of the opinion that the Group has no contractual obligation to repay the principal or to pay the distribution for the Medium Notes, the Medium Notes should be classified as equity.

From 21 November 2019 to 22 November 2019, the Company issued two tranches of Medium Notes with an aggregate principal amount of RMB2.5 billion, respectively. The Medium Notes are unsecured or unguaranteed. Pursuant to the terms and conditions of the Medium Notes, the Medium Notes bear the initial interest rate of 4.11% per annum (category one), respectively and 4.41% per annum (category two), respectively, and has no maturity date. The interest rate will be reset every three years (category one) and every five years (category two) from issuance date. The interest is payable annually in arrears. As long as the compulsory interest payment events have not occurred, the Company may, at its sole discretion, elect to defer the distribution of interest, and is not subject to any restriction as to the number of times the distribution can be deferred. The Medium Notes are subject to redemption in whole, at the option of the Company, three years (category one) and five years (category two) after the issue date, at their principal amount together with accrued interest. The Directors of the Company are of the opinion that the Group has no contractual obligation to repay the principal or to pay the distribution for the Medium Notes, the Medium Notes should be classified as equity.

From 16 September 2020 to 29 December 2020, the Company issued two tranches of Medium Notes with an aggregate principal amount of RMB1.5 billion and RMB2.5 billion, respectively. The Medium Notes are unsecured or unguaranteed. Pursuant to the terms and conditions of the Medium Notes, the Medium Notes bear the initial interest rate of 4.45% per annum and 3.94% per annum, respectively, and has no maturity date. The interest rate will be reset every three years from issuance date. The interest is payable annually in arrears. As long as the compulsory interest payment events have not occurred, the Company may, at its sole discretion, elect to defer the distribution of interest, and is not subject to any restriction as to the number of times the distribution can be deferred. The Medium Notes are subject to redemption in whole, at the option of the Company, three years after the issue date, at their principal amount together with accrued interest. The Directors of the Company are of the opinion that the Group has no contractual obligation to repay the principal or to pay the distribution for the Medium Notes, the Medium Notes should be classified as equity.

40. Perpetual Notes (Continued)

(b) In April 2020, the Company redeemed the private perpetual notes issued on 3 April 2015 in cash consideration of RMB2 billion.

(c) On 6 November 2018, 15 November 2018, 27 November 2018 and 18 December 2018, the Company issued four tranches of public renewable corporate bonds ("Renewable Bonds") with an aggregate principal amount of RMB3 billion, RMB3 billion, RMB3 billion and RMB2 billion, respectively. The Renewable Bonds are unsecured or unguaranteed and listed on the Shanghai Stock Exchange by way of bond issues to qualified investors. Pursuant to the terms and conditions of the Renewable Bonds, the Renewable Bonds bear the initial interest rate of 4.69%, 4.59%, 4.55% and 4.55% per annum (category one), respectively, and 4.99%, 4.90%, 4.80% and 4.78% per annum (category two), respectively, and has no maturity date. The interest rate will be reset every three years (category one) and every five years (category two) from the issuance date. The interest is payable annually in arrears. As long as the compulsory interest payment events have not occurred, the Company may, at its sole discretion, elect to defer the distribution of interest, and is not subject to any restriction as to the number of times the distribution can be deferred. The Renewable Bonds are subject to redemption in whole, at the option of the Company, three years (category one) and five years (category two) after the issue date, at their principal amount together with accrued interest. The Directors of the Company are of the opinion that the Group has no contractual obligation to repay the principal or to pay the distribution for the Renewable Bonds, the Renewable Bonds should be classified as equity.

On 27 May 2020, 24 June 2020, 24 July 2020 and 19 August 2020, the Company issued four tranches of Renewable Bonds with an aggregate principal amount of RMB2.6 billion, RMB1 billion, RMB3.5 billion, RMB3.5 billion, respectively. The Renewable Bonds are unsecured or unguaranteed and listed on the Shanghai Stock Exchange by way of bond issues to qualified investors. Pursuant to the terms and conditions of the Renewable Bonds, the Renewable Bonds bear the initial interest rate of 3.11% per annum, 3.60% per annum, 3.95% per annum and 3.95% per annum and has no maturity date. The interest rate will be reset every three years from the issuance date. The interest is payable annually in arrears. As long as the compulsory interest payment events have not occurred, the Company may, at its sole discretion, elect to defer the distribution of interest, and is not subject to any restriction as to the number of times the distribution can be deferred. The Renewable Bonds are subject to redemption in whole, at the option of the Company, three years after the issue date, at their principal amount together with accrued interest. The Directors of the Company are of the opinion that the Group has no contractual obligation to repay the principal or to pay the distribution for the Renewable Bonds, the Renewable Bonds should be classified as equity.

40. Perpetual Notes (Continued)

(c) (Continued)

On 16 June 2020, 19 October 2020 and 29 October 2020, the Company issued three tranche of Renewable Bonds with an aggregate principal amount of RMB3.5 billion, RMB3 billion and RMB2.9 billion. The Renewable Bonds are unsecured or unguaranteed and listed on the Shanghai Stock Exchange by way of bond issues to qualified investors. Pursuant to the terms and conditions of the Renewable Bonds, the Renewable Bonds bear the initial interest rate of 3.50% per annum, 4.20% per annum and 3.62% per annum (category one), and 3.99% per annum, 4.47% per annum, 3.94% per annum (category two), respectively, and has no maturity date. The interest rate will be reset every three years, two years and one year (category one), respectively and every five years, three years and two years (category two), respectively from the issuance date. The interest is payable annually in arrears. As long as the compulsory interest payment events have not occurred, the Company may, at its sole discretion, elect to defer the distribution of interest, and is not subject to any restriction as to the number of times the distribution can be deferred. The Renewable Bond are subject to redemption in whole, at the option of the Company, three years, two years and one year (category one), respectively and five years, three years and two years (category two), respectively after the issue date, at their principal amount together with accrued interest. The Directors of the Company are of the opinion that the Group has no contractual obligation to repay the principal or to pay the distribution for the Renewable Bond, the Renewable Bond should be classified as equity.

41. Trade and Other Payables

	2020 **RMB million**	2019 RMB million
Trade and bills payables *(a)*	**384,565**	353,258
Dividend payables	**453**	530
Accrued payroll and welfare	**3,777**	3,671
Other taxes	**3,859**	4,133
Deposit received in advance	**950**	952
Deposits *(b)*	**3,396**	1,141
Advance from customers	**393**	293
Other payables	**98,894**	89,740
	496,287	453,718
Analysed for reporting purposes:		
Non-current	**7,983**	7,681
Current	**488,304**	446,037
	496,287	453,718

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

41. Trade and Other Payables (Continued)

The credit period on purchases of goods ranges from 180 days to 360 days. Included in trade and bills payables are retention payables of RMB10,791 million (31 December 2019: RMB9,697 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:

	2020 **RMB million**	2019 RMB million
Less than 1 year	**354,958**	328,356
1 year to 2 years	**19,725**	14,270
2 years to 3 years	**4,933**	5,153
More than 3 years	**4,949**	5,479
	384,565	353,258

(b) China Railway Finance Co., Ltd. ("CREC Finance"), a subsidiary of the Company, accepted deposits from related parties and third parties. These deposits were due within one year with average annual interest rate of 1.286%.

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

	2020 **RMB million**	2019 RMB million
RMB	**482,438**	437,279
USD	**7,389**	5,348
Other currencies	**6,460**	11,091
	496,287	453,718

At 31 December 2020, other currencies mainly consist of West African Franc, Ethiopian Birr, and HKD.

42. Borrowings

	2020 **RMB million**	2019 RMB million
Bank borrowings:		
– Secured	**80,127**	40,756
– Unsecured	**102,340**	123,919
	182,467	164,675
Long-term debentures, unsecured *(a)*	**49,443**	46,848
Other borrowings:		
– Secured	**262**	688
– Unsecured	**17,883**	19,034
	67,588	66,570
	250,055	231,245
Analysed for reporting purposes:		
Non-current	**166,997**	118,934
Current	**83,058**	112,311
	250,055	231,245

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

42. Borrowings (Continued)

(a) On 27 January 2020, the first tranche of the medium-term note of a principal amount of RMB5,000 million issued on 27 January 2010 has been fully paid off.

On 19 October 2010, the Company issued the second tranche of the medium-term note, including 10-year medium-term note in a principal amount of RMB2,500 million (category 1) and 15-year medium-term note in a principal amount of RMB3,500 million (category 2). The interest rate are 4.34% (category 1) and 4.50% (category 2) per annum, payable annually in arrears. At 19 October 2020, these debentures are fully paid off (category 1). At 31 December 2020, the Company continued holding the medium-term note of a principal amount of RMB3,500 million (category 2).

On 15 April 2019, the Company issued the second tranche of the corporate bond of a principle amount of RMB3,500 million with a maturity date of 15 April 2022, including RMB1,300 million for category 1 with investors' put options and issuer's coupon rate adjustment options at the end of the first year and the second year and RMB2,200 million for category 2 with investors' put options and issuer's coupon rate adjustment options at the end of the second year. The interest rates are 3.40% (category 1) and 3.70% (category 2) per annum, payable annually in arrears. In March 2020, the Company exercised the coupon rate adjustment option and adjust the interest rate from 3.40% to 2.70% (category 1). In April 2020, the investors partially exercised put option and RMB1,153 million was paid off to the investors (category 1). At 31 December 2020, the Company continued holding the corporate bond of a principal amount of RMB147 million (category 1).

On 8 April 2020, the Company issued the first tranche of the medium-term note of a principle amount of RMB3,000 million with a maturity date of 10 April 2023, including RMB1,500 million for category 1 with investors' put options and issuer's coupon rate adjustment options at the end of the second year and RMB1,500 million for category 2. The interest rates are 2.33% (category 1) and 2.48% (category 2) per annum, payable annually in arrears.

On 24 April 2020, the Company issued the second tranche of the medium-term note of a principle amount of RMB3,000 million with a maturity date of 24 April 2023. The notes bear interest at a coupon rate of 2.28% per annum, payable annually in arrears.

On 15 May 2020, the Company issued the third tranche of the medium-term note of a principle amount of RMB3,000 million with a maturity date of 15 May 2023 and investors' put options and issuer's coupon rate adjustment options at the end of the second year. The notes bear interest at a coupon rate of 2.14% per annum, payable annually in arrears.

On 5 June 2020, the Company issued the fourth tranche of the medium-term note of a principle amount of RMB3,000 million with a maturity date of 5 June 2023 and investors' put options and issuer's coupon rate adjustment options at the end of the second year. The notes bear interest at a coupon rate of 2.85% per annum, payable annually in arrears.

On 28 January 2021, the first tranche of the corporate bond of a principal amount of RMB1,135 million issued on 28 January 2016 has been fully paid off.

On 23 March 2021, the first tranche of the medium-term note of a principal amount of RMB4,659 million issued on 23 March 2011 has been fully paid off.

42. Borrowings (Continued)

(b) Bank borrowings carry interest at rates ranging from 0.75% to 9.55% (31 December 2019: 0.75% to 9.50%) per annum.

Long-term debentures were issued at fixed rates ranging from 2.14% to 4.50% (31 December 2019: 2.88% to 4.88%) per annum.

Other borrowings carry interest at rates ranging from 3.85% to 7.00% (31 December 2019: 4.35% to 7.00%) per annum.

(c) The details of secured borrowings are set out below:

	2020		2019	
	Secured borrowings	**Carrying amount of pledged assets and contract value of certain rights**	Secured borrowings	Carrying amount of pledged assets and contract value of certain rights
	RMB million	**RMB million**	RMB million	RMB million
Property, plant and equipment *(Note 18)*	**367**	**1,022**	7	3
Lease prepayments *(Note 20)*	**197**	**309**	–	–
Intangible assets *(Note 23)*	**39,104**	**50,991**	12,238	21,802
Properties under development for sale *(Note 31)*	**11,769**	**37,371**	14,346	33,637
Trade and bills receivables *(Note 33)*	**6,535**	**13,807**	2,911	4,491
Trade receivables from fellow subsidiaries of the Group	**119**	**375**	661	1,357
Contract assets *(Note 34)*	**22,298**	**34,842**	11,281	26,926
	80,389	**138,717**	41,444	88,216

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

42. Borrowings (Continued)

(d) The exposure of the Group's variable rate bank borrowings to interest rate changes and the contractual repricing dates at the end of the year are as follows:

	2020 RMB million	2019 RMB million
6 months or less	**47,772**	19,743
6 -12 months	**81,316**	72,948
1-5 years	**288**	836
	129,376	93,527

(e) The Group's borrowings were repayable as follows:

	2020 RMB million	2019 RMB million
Within 1 year	**83,058**	112,311
Between 1 and 2 years	**46,920**	33,644
Between 2 and 5 years	**52,212**	54,970
Over 5 years	**67,865**	30,320
	250,055	231,245

(f) The carrying amounts of the borrowings are denominated in the following currencies:

	2020 RMB million	2019 RMB million
RMB	**239,539**	230,655
USD	**10,501**	173
EUR	**2**	25
Others	**13**	392
	250,055	231,245

42. Borrowings (Continued)

(g) The carrying amounts of current portion of long-term borrowings and short-term borrowings approximate their fair values, as the impact of discounting is not significant.

The carrying amounts and fair values of the non-current borrowings are as follows:

	2020	2019
	RMB million	RMB million
Carrying amount		
– Bank borrowings	**119,970**	71,710
– Long-term debentures	**41,705**	38,314
– Other borrowings	**5,322**	8,910
	166,997	118,934
Fair value		
Level 3		
– Bank borrowings	**121,511**	75,541
– Long-term debentures	**41,214**	37,970
– Other borrowings	**5,322**	9,011
	168,047	122,522

(h) The Group has the following undrawn borrowing facilities:

	2020	2019
	RMB million	RMB million
Expiring within one year	**95,962**	134,105
Expiring beyond one year	**1,096,468**	826,115
	1,192,430	960,220

43. Retirement Benefit Obligations

(a) State-managed retirement plans and supplementary defined contribution retirement schemes

The employees of the group entities established in the PRC are members of a state-managed retirement benefit scheme operated by the PRC government. These PRC companies are required to contribute a certain percentage of payroll costs, depending on the applicable local regulations to the state-managed retirement plans. The Group also participates in supplementary defined contribution retirement schemes. The only obligation of these PRC companies with respect to the state-managed retirement plans and supplementary defined contribution retirement schemes is to make the specified contributions. The total costs charged to profit or loss during the year were RMB4,186 million and RMB1,792 million respectively (2019: RMB5,864 million and RMB1,242 million respectively).

As at 31 December 2020, the amounts due in respect of the reporting period not yet paid to the state-managed retirement plans and supplementary defined contribution retirement schemes, and included in trade and other payables were RMB155 million and RMB46 million respectively (2019: RMB175 million and RMB51 million respectively).

(b) Retirement and other supplemental benefit obligations

The Group paid supplementary pension subsidies and other post-employment medical benefits to its retired employees in the PRC. In addition, the Group was committed to make periodic benefits payments to certain former employees who were terminated or early retired and the dependents of deceased employees in accordance with various employee benefit schemes adopted by the Group.

The plan exposes the Group to actuarial risks such as interest rate risk, benefit risk and average medical expense risk.

Interest rate risk	The present value of the defined benefit plan obligations is calculated using a discount rate determined by reference to government bond yields. A decrease in the bond interest rate will increase the plan liability.
Benefit risk	The present value of the defined benefit plan obligations is calculated by reference to the future benefits of plan participants. As such, an increase in the benefits of the plan participants will increase the plan liability.
Average medical expense risk	The present value of the defined benefit plan obligations is calculated by reference to the future average medical expense of plan participants. As such, an increase in the average medical expense of the plan participants will increase the plan liability.

43. Retirement Benefit Obligations (Continued)

(b) Retirement and other supplemental benefit obligations (Continued)

No other post-retirement benefits are provided to these employees.

The most recent actuarial valuations of the present value of the defined benefit obligations as at 31 December 2020 were carried out by an independent firm of actuaries, Willis Towers Watson. The present value of the defined benefit obligations, and the related current service cost and past cost were measured using the Projected Unit Credit Method.

The principal assumptions used for the purposes of the actuarial valuations were as follows:

	2020	2019
Discount rate	**3.25%**	3.25%
Early-retiree's salary and supplemental benefit inflation rate	**4.50%**	4.50%
Medical cost growth rate	**8.00%**	8.00%

Amounts recognised in the consolidated income statement and consolidated statement of comprehensive income in respect of these defined benefit plans are as follows:

	2020 RMB million	2019 RMB million
Net finance costs *(Note 10)*	**85**	104
Components of defined benefit costs recognised in profit or loss	**85**	104
Remeasurement on the net defined benefit obligations:		
Actuarial (gains)/losses arising from experience adjustments	**(1)**	16
Components of defined benefit costs recognised in other comprehensive income	**(1)**	16
Total	**84**	120

The current service cost and the net interest expense for the year are included in the employee benefits expense in profit or loss. The remeasurement of the net defined benefit liability is included in other comprehensive income.

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

43. Retirement Benefit Obligations (Continued)

(b) Retirement and other supplemental benefit obligations (Continued)

The amount included in the consolidated balance sheet arising from the Group's obligation in respect of its defined benefit plans is as follows:

	2020 **RMB million**	2019 RMB million
Present value of unfunded defined benefit obligations	**2,805**	3,129
Net liability arising from defined benefit obligations	**2,805**	3,129
Less: Amount due within one year	**(323)**	(359)
Amount due after one year	**2,482**	2,770

Movements in the present value of the retirement and other supplemental benefit obligations in the current year were as follows:

	2020 **RMB million**	2019 RMB million
Opening defined benefit obligations	**3,129**	3,398
Finance costs	**85**	104
Remeasurement losses		
Actuarial (gains)/losses arising from experience adjustments	**(1)**	16
Benefits paid	**(408)**	(389)
Closing defined benefit obligations	**2,805**	3,129

43. Retirement Benefit Obligations (Continued)

(b) Retirement and other supplemental benefit obligations (Continued)

Significant actuarial assumptions for the determination of the defined benefit obligation are discount rate, benefit inflation rate and the average medical expense rate. The sensitivity analyses below have been determined based on reasonably possible changes of the respective assumptions occurring at the end of the reporting period, while holding all other assumptions constant.

- If the discount rate on benefit obligation increases or decreases by 0.25 percentage point, the defined benefit obligation would have been decreased by RMB46 million or increased by RMB48 million (2019: decreased by RMB53 million or increased by RMB55 million).

- If the benefit inflation rate increases or decreases by 1 percentage point, the defined benefit obligation would have been increased by RMB101 million or decreased by RMB88 million (2019: increased by RMB115 million or decreased by RMB101 million).

- If the average medical expenses rate increases or decreases by 1 percentage point, the defined benefit obligation would have been increased by RMB8 million or decreased by RMB7 million (2019: increased by RMB10 million or decreased by RMB9 million).

The sensitivity analysis presented above may not be representative of the actual change in the defined benefit obligations as it is unlikely that the change in assumptions would occur in isolation of one another as some of the assumptions may be correlated.

Furthermore, in presenting the above sensitivity analysis, the present value of the defined benefit obligations has been calculated using the projected unit credit method at the end of the reporting period, which is the same as that applied in calculating the defined benefit obligations liability recognised in the consolidated balance sheet.

There was no change in the methods and assumptions used in preparing the sensitivity analysis from prior years.

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

43. Retirement Benefit Obligations (Continued)

(b) Retirement and other supplemental benefit obligations (Continued)

The average expected future lifetime of the defined benefit obligation as at 31 December 2020 is 10.4 years (2019: 10.9 years). This number can be analysed as follows:

- civil retirees: 3.8 years (2019: 4.0 years);
- retired members: 10.4 years (2019: 10.9 years); and
- beneficiaries: 11.4 years (2019: 12.0 years).

The duration of the defined benefit obligation as at 31 December 2020 is 6.8 years (2019: 6.9 years).

44. Provisions

	2020 **RMB million**	2019 RMB million
Lawsuits	**116**	606
Foreseeable losses on contracts	**686**	458
	802	1,064
Analysed for reporting purpose as:		
Non-current	**562**	1,053
Current	**240**	11
	802	1,064

44. Provisions (Continued)

Movements in each class of provision during the financial year are set out below:

	Toll highways' repair and maintenance obligation RMB million	Foreseeable losses on contracts RMB million	Doubtful trust RMB million	Lawsuits RMB million	Total RMB million
At 1 January 2019	527	394	28	71	1,020
Charged/(credited) to the consolidated income statement:					
– Additional provisions	163	273	–	535	971
– Utilised/reversed during the year	(690)	(209)	(28)	–	(927)
At 31 December 2019	–	458	–	606	1,064
At 1 January 2020	**–**	**458**	**–**	**606**	**1,064**
Charged/(credited) to the consolidated income statement:					
– Additional provisions	**–**	**442**	**–**	**45**	**487**
– Utilised/reversed during the year	**–**	**(214)**	**–**	**(535)**	**(749)**
At 31 December 2020	**–**	**686**	**–**	**116**	**802**

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

45. Deferred Taxation

(a) The analysis of deferred tax assets and deferred tax liabilities is as follows:

	2020		2019	
	Deferred tax assets RMB million	**Deferred tax liabilities RMB million**	Deferred tax assets RMB million	Deferred tax liabilities RMB million
The balances before offsetting	**9,935**	**(2,056)**	8,442	(2,214)
Offsetting	**(602)**	**602**	(430)	430
	9,333	**(1,454)**	8,012	(1,784)

(b) The gross movement on the deferred income tax account is as follows:

	2020 RMB million	2019 RMB million
At 31 December in prior year	**6,228**	5,703
Recognised in the income statement *(Note 13)*	**1,451**	615
Recognised in other comprehensive income *(Note 13)*	**65**	17
Effect of change in tax rate charged to profit or loss *(Note 13)*	**166**	(175)
Acquisition of subsidiaries	**(160)**	(55)
Disposal of subsidiaries	**(11)**	124
Exchange differences	**140**	(1)
At 31 December	**7,879**	6,228

45. Deferred Taxation (Continued)

(c) The movement in deferred tax assets and liabilities during the year, without taking into consideration the offsetting of balances within the same tax jurisdiction, is as follows:

Deferred Tax Liabilities

	Financial assets/ liabilities measured at fair value RMB million	Unrealised loss from intercompany transactions RMB million	Depreciation and amortisation RMB million	Acquisition of subsidiaries RMB million	Others RMB million	Total RMB million
At 1 January 2019	(114)	(54)	(500)	(562)	(137)	(1,367)
(Charged)/credited to the consolidated income statement	(578)	26	(2)	147	(628)	(1,035)
Credited to other comprehensive income	5	–	–	–	–	5
Acquisition of subsidiaries	–	–	–	(63)	(5)	(68)
Disposal of subsidiaries	–	–	183	68	1	252
Effect of change in tax rate credited to profit or loss	–	–	2	–	2	4
Exchange differences	–	–	(5)	–	–	(5)
At 31 December 2019	(687)	(28)	(322)	(410)	(767)	(2,214)
At 1 January 2020	**(687)**	**(28)**	**(322)**	**(410)**	**(767)**	**(2,214)**
Credited/(charged) to the consolidated income statement	**–**	**4**	**(19)**	**29**	**(6)**	**8**
Credited to other comprehensive income	**9**	**–**	**–**	**–**	**–**	**9**
Acquisition of subsidiaries	**–**	**–**	**–**	**(152)**	**(60)**	**(212)**
Effect of change in tax rate credited to profit or loss	**–**	**–**	**–**	**–**	**205**	**205**
Exchange differences	**–**	**–**	**148**	**–**	**–**	**148**
At 31 December 2020	**(678)**	**(24)**	**(193)**	**(533)**	**(628)**	**(2,056)**

45. Deferred Taxation (Continued)

(c) The movement in deferred tax assets and liabilities during the year, without taking into consideration the offsetting of balances within the same tax jurisdiction, is as follows: (Continued)

Deferred Tax Assets:

	Provision for impairment of assets RMB million	Depreciation and amortisation RMB million	Financial assets/ liabilities measured at fair value RMB million	Provision for employee benefits RMB million	Tax losses RMB million	Unrealised profit from intercompany transactions RMB million	Other RMB million	Total RMB million
At 1 January 2019	2,844	12	218	528	1,173	1,839	456	7,070
Credited/(charged) to the consolidated income statement	722	11	(59)	(41)	687	224	106	1,650
Credited/(charged) to other comprehensive income	–	–	13	(1)	–	–	–	12
Acquisition of subsidiaries	8	–	–	–	5	–	–	13
Disposal of subsidiaries	(4)	–	–	–	(23)	–	(101)	(128)
Effect of change in tax rate credited to profit or loss	(52)	–	–	(29)	(5)	(105)	12	(179)
Exchange differences	1	–	–	–	2	–	1	4
At 31 December 2019	3,519	23	172	457	1,839	1,958	474	8,442
At 1 January 2020	**3,519**	**23**	**172**	**457**	**1,839**	**1,958**	**474**	**8,442**
Credited/(charged) to the consolidated income statement	**288**	**28**	**79**	**(39)**	**340**	**442**	**305**	**1,443**
Credited/(charged) to other comprehensive income	**–**	**–**	**54**	**2**	**–**	**–**	**–**	**56**
Acquisition of subsidiaries	**46**	**–**	**–**	**–**	**4**	**2**	**–**	**52**
Disposal of subsidiaries	**–**	**–**	**–**	**–**	**(11)**	**–**	**–**	**(11)**
Effect of change in tax rate credited to profit or loss	**(8)**	**–**	**–**	**8**	**(37)**	**–**	**(2)**	**(39)**
Exchange differences	**–**	**–**	**–**	**–**	**(8)**	**–**	**–**	**(8)**
At 31 December 2020	**3,845**	**51**	**305**	**428**	**2,127**	**2,402**	**777**	**9,935**

45. Deferred Taxation (Continued)

(d) Deferred income tax assets are recognised for tax loss carry-forwards to the extent that the realisation of the related tax benefit through future taxable profits is probable. As at 31 December 2020, the Group did not recognise deferred tax assets of RMB2,491 million (2019: RMB2,050 million) in respect of tax losses amounting to RMB11,363 million (2019: RMB8,830 million) as the Directors believes it is more likely than not that such tax losses would not be utilised before they expire.

As at 31 December 2020, the tax losses with no deferred tax assets recognised carried forward are as follows:

	2020 **RMB million**	2019 RMB million
Year of expiry of tax losses		
2020	**N/A**	489
2021	**1,733**	1,842
2022	**2,651**	2,675
2023	**2,601**	2,645
2024	**755**	1,062
2025-2029	**3,623**	117
	11,363	8,830

(e) As at 31 December 2020, the Group did not recognise deferred tax assets of RMB5,782 million (2019: RMB4,826 million) in respect of deductible temporary differences amounting to RMB27,346 million (2019: RMB22,608 million) as the Directors believe it is not probable that such deductible temporary differences would be utilised.

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

46. Cash Generated from Operations

(a) Cash Generated from Operations

	2020 RMB million	2019 RMB million
Profit for the year	**27,250**	25,379
Adjustments for:		
– Income tax expense	**8,362**	7,808
– Interest income	**(1,528)**	(1,338)
– Dividends from financial assets at FVPL	**(115)**	(99)
– Dividends from financial assets at FVOCI	**(58)**	(47)
– (Gains)/losses on disposal and/or write-off of:		
Property, plant and equipment	**(228)**	(91)
Lease prepayments	**(361)**	(524)
Interests in associates	**27**	52
Interests in a joint venture	**–**	(29)
Interests in subsidiaries	**133**	(4,961)
Financial assets/liabilities at FVPL	**(7)**	–
– Negative goodwill arising from acquisition of a subsidiary	**–**	(22)
– Foreign exchange losses, net	**45**	40
– Fair value increase on financial assets/liabilities at FVPL	**(218)**	(275)
– Gain on debt restructuring	**–**	(15)
– Net impairment losses recognised on:		
Trade and other receivables (excluding advance to suppliers)	**2,263**	1,873
Other financial assets at amortised cost	**33**	2,201
Contract assets	**260**	433
– Impairment losses recognised on:		
Property, plant and equipment	**41**	70
Inventories	**(64)**	1
Properties under development for sale	**1,727**	829
Properties held for sale	**3,657**	602
Advance to suppliers	**39**	26
Investment properties	**3**	–
– Increase in provision	**272**	273
– Interest expenses	**6,662**	5,468
– Losses from derecognition of financial assets at amortised cost	**3,302**	3,367

46. Cash Generated from Operations (Continued)

(a) Cash Generated from Operations (Continued)

	2020 RMB million	2019 RMB million
– Share of profits of joint ventures	**(164)**	(360)
– Share of profits of associates	**(2,031)**	(2,100)
– Charge to retirement benefit obligations	**85**	104
– Government subsidies	**87**	(166)
– Depreciation and amortisation	**10,776**	11,565
Operating cash flows before movements in working capital	**60,250**	50,064
Changes in working capital (excluding the effects of acquisition and exchange differences on consolidation):		
– Increase in other prepayments	**(220)**	(98)
– Increase in properties held for sale	**(12,783)**	(827)
– Decrease (increase) in properties under development for sale	**16,351**	(30,430)
– Decrease (increase) in inventories	**137**	(2,253)
– Increase in trade and other receivables	**(29,393)**	(7,389)
– Decrease in retirement and other supplemental benefit obligations	**(389)**	(389)
– Increase in trade and other payables	**38,670**	26,803
– (Increase) decrease in other financial assets at amortised cost	**(5,232)**	2,624
– Decrease in payables arising from consolidated structured entities	**(659)**	(208)
– Increase in contract assets	**(38,417)**	(22,355)
– Increase in contract liabilities	**13,985**	18,384
– (Decrease) increase in provisions	**(535)**	411
– Increase in government grant	**(40)**	(355)
– Decrease (increase) in financial assets at FVPL	**466**	(149)
– Increase in deposits in CREC Finance	**2,255**	318
– Restricted bank deposits	**(5,617)**	(3,527)
Cash generated from operations	**38,829**	30,624

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

46. Cash Generated from Operations (Continued)

(b) Non-cash investing and financing activities

	2020 **RMB million**	2019 RMB million
Addition of right-of-use assets	**898**	1,338
Trade and other receivables paid for purchase	**4,427**	3,923
Total	**5,325**	5,261

(c) Net debt reconciliation

This section sets out an analysis of net debt for each of the periods presented.

	2020 **RMB million**	2019 RMB million
Cash and cash equivalents *(Note 37)*	**145,464**	138,186
Restricted cash *(Note 36)*	**29,305**	19,973
Financial assets at FVPL *(Note 35)*	**5,218**	5,441
Borrowings – repayable within one year *(Note 42)*	**(83,058)**	(112,311)
Borrowings – repayable after one year *(Note 42)*	**(166,997)**	(118,934)
Net debt	**(70,068)**	(67,645)

	2020 **RMB million**	2019 RMB million
Cash and Financial assets at FVPL	**179,987**	163,600
Gross debt – fixed interest rates	**(120,679)**	(137,718)
Gross debt – variable interest rates	**(129,376)**	(93,527)
Net debt	**(70,068)**	(67,645)

No change in financial assets are included in cash flows of financing activities during the year of 2020.

47. Business Combinations

(a) Acquisition of Yinchuan China Railway Water Group Co., Ltd.

Yinchuan China Railway Water Group Co., Ltd. ("Yinchuan Water") was a then associate of the Group, in which the Group indirectly held 49% equity interests. In June 2019, the Group entered into the share transfer agreement with the third party investor, Yinchuan Tonglian Capital Investment Operation Co., Ltd., in which the Group would acquire additional 30.97% of equity interests in Yinchuan Water at a cash consideration of approximately RMB383 million, and increase the capital by cash injection of RMB1,240 million in Yinchuan Water. As at 31 December 2019, the capital injection was not completed and Yinchuan Water was still accounted for as an associate of the Group. In 2020, the Group continued the capital injection and obtained the control over Yinchuan Water on 28 April 2020, being the completion date of the acquisition. Upon completion of the acquisition, Yinchuan Water became a subsidiary of the Group.

Yinchuan Water was incorporated in Ningxia Province, PRC, and is mainly engaged in water supplies in Yinchuan.

The following table summarises the consideration paid or payable for Yinchuan Water and the amounts of the assets acquired and liabilities assumed at the acquisition date.

	At 28 April 2020 RMB million
Purchase consideration	
– Fair value of 90% equity interests held at the acquisition date	**2,359**
Amounts of identifiable assets acquired and liabilities assumed:	
Yinchuan Water	
Cash and cash equivalents	**369**
Inventory	**20**
Contract assets	**65**
Trade and other receivables	**1,131**
Lease prepayment	**33**
Property, plant and equipment	**1,451**
Intangible assets	**4,122**

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

47. Business Combinations (Continued)

(a) Acquisition of Yinchuan China Railway Water Group Co., Ltd. (Continued)

	At 28 April 2020 RMB million
Other prepayment	**30**
Deferred tax assets	**4**
Borrowings	**(3,431)**
Trade and other payables	**(1,083)**
Deferred tax liabilities	**(90)**
Non-controlling interests	**(262)**
Net assets acquired by the Group	**2,359**
Goodwill	**–**
Net cash inflow in respect of the acquisition of the Yinchuan Water is analysed as follows:	
Purchase consideration	
— cash paid by the Group during the year ended 31 December 2020	**100**
Less: cash and cash equivalents in acquired subsidiary	**369**
Net cash inflow on acquisition	**269**

Yinchuan Water contributed revenue of RMB848 million and net profit of RMB16 million to the Group for the period from the acquisition date to 31 December 2020. If the acquisition had occurred on 1 January 2020, unaudited revenue and net profit for the year ended 31 December 2020 would have been RMB960 million and RMB10 million, respectively.

(b) Acquisition of China Railway Prefabricated Construction Co., Ltd.

In May 2019, the Company entered into the share transfer agreement with Sun Zhiqiang, the former largest shareholder and Zhucheng Chenguang Jingtai Equity Investment Fund Co., Ltd., the former second largest shareholder of China Railway Prefabricate Construction Co., Ltd. ("CRPCC", previously named as Beijing Hengtong Innovation Luxwood Technology Co., Ltd.), in which the Company would acquire 26.51% of shares in CRPCC at a cash consideration of approximately RMB782 million. On 31 July 2020, the share transfer and registration procedures has been completed. Upon the waiver of voting rights by the then controlling shareholder, the Company obtained control over China Railway Prefabricated Construction. As a result, CRPCC became a subsidiary of the Group.

47. Business Combinations (Continued)

(b) Acquisition of China Railway Prefabricated Construction Co., Ltd. (Continued)

CRPCC was incorporated in Beijing, PRC, and is mainly engaged in installation and sales of prefabricated assembly products.

The following table summarises the consideration paid or payable for CRPCC and the amounts of the assets acquired and liabilities assumed at the acquisition date.

	At 31 July 2020 RMB million
Purchase consideration	
– Fair value of 26.51% shares held at the acquisition date	782
Amounts of identifiable assets acquired and liabilities assumed:	
CRPCC	
Cash and cash equivalents	118
Inventory	99
Contract assets	118
Trade and other receivables	883
Property, plant and equipment	1,158
Right-of-use assets	13
Lease prepayment	127
Investment properties	482
Intangible assets	84
Financial assets at fair value through other comprehensive income	12
Deferred tax assets	21
Borrowings	(799)
Trade and other payables	(494)
Contract liabilities	(54)
Lease liabilities	(14)
Deferred government grants and income	(5)
Deferred tax liabilities	(53)
Non-controlling interests	(1,247)
Net assets acquired by the Group	449
Goodwill	333

47. Business Combinations (Continued)

(b) Acquisition of China Railway Prefabricated Construction Co., Ltd. (Continued)

	At 31 July 2020 RMB million
Net cash outflow in respect of the acquisition of the CRPCC is analysed as follows:	
Purchase consideration	
– cash paid by the Group during the year ended 31 December 2020	**626**
Less: cash and cash equivalents in acquired subsidiary	**118**
Net cash outflow on acquisition	**508**

CRPCC contributed revenue of RMB600 million and net profit of RMB401,762 to the Group for the period from the acquisition date to 31 December 2020. If the acquisition had occurred on 1 January 2020, unaudited revenue and net profit for the year ended 31 December 2020 would have been RMB991 million and RMB14 million, respectively.

(c) Acquisition of China Railway Water Conservancy & Hydropower Planning and Design Group Co., Ltd.

In 2020, the Group acquired the 65% equity interests of China Railway Water Conservancy & Hydropower Planning and Design Group Co., Ltd. ("CRWCH", previously named as Jiangxi Water Conservancy Planning and Design Institute Co., Ltd.) at a cash consideration of approximately RMB883 million. The acquisition was completed on 31 October 2020, being the date of the Group obtaining control over Jiangxi Institute. Upon completion of the acquisition, CRWCH became a subsidiary of the Group.

CRWCH was incorporated in Jiangxi Province, PRC, and is primarily engaged in research, design and construction of water conservancy and hydropower.

47. Business Combinations (Continued)

(c) Acquisition of China Railway Water Conservancy & Hydropower Planning and Design Group Co., Ltd. (Continued)

The following table summarises the consideration paid or payable for CRWCH and the amounts of the assets acquired and liabilities assumed at the acquisition date.

	At 31 October 2020 RMB million
Purchase consideration	
– Fair value of 65% equity interests held at the acquisition date	883
Amounts of identifiable assets acquired and liabilities assumed:	
CRWCH	
Cash and cash equivalents	862
Inventory	24
Contract assets	14
Trade and other receivables	354
Property, plant and equipment	164
Lease prepayment	212
Investment properties	61
Intangible assets	6
Investments in associates	10
Deferred tax assets	8
Trade and other payables	(220)
Contract liabilities	(97)
Deferred tax liabilities	(47)
Non-controlling interests	(473)
Net assets acquired by the Group	878
Goodwill	5

47. Business Combinations (Continued)

(c) Acquisition of China Railway Water Conservancy & Hydropower Planning and Design Group Co., Ltd. (Continued)

	At 31 October 2020 RMB million
Net cash outflow in respect of the acquisition of the CRWCH is analysed as follows:	
Purchase consideration	
– cash paid by the Group during the year ended 31 December 2020	**883**
Less: cash and cash equivalents in acquired subsidiary	**862**
Net cash outflow on acquisition	**21**

CRWCH contributed revenue of RMB219 million and net loss of RMB4 million to the Group for the period from the acquisition date to 31 December 2020. If the acquisition had occurred on 1 January 2020, unaudited revenue and net profit for the year ended 31 December 2020 would have been RMB675 million and RMB34 million, respectively.

(d) Acquisition of China Railway Changjiang Transport Design Group Co., Ltd.

In 2020, the Group acquired the 66% equity interests of China Railway Changjiang Transport Design Group Co., Ltd. ("China Railway Changjiang Institute", previously named as "Chongqing Transport Reconnaissance Design Institute Co., Ltd.") at a cash consideration of approximately RMB1,376 million. The acquisition was completed on 31 December 2020, being the date of the Group obtaining control over Changjiang Institute. Upon completion of the acquisition, Changjiang Institute became a subsidiary of the Group.

China Railway Changjiang Institute was incorporated in Chongqing, PRC, and is primarily engaged in survey, design and management of communications.

47. Business Combinations (Continued)

(d) Acquisition of China Railway Changjiang Transport Design Group Co., Ltd. (Continued)

The following table summarises the consideration paid or payable for China Railway Changjiang Institute and the amounts of the assets acquired and liabilities assumed at the acquisition date.

	At 31 December 2020 RMB million
Purchase consideration	
–Fair value of 66% equity interests held at the acquisition date	1,376
Amounts of identifiable assets acquired and liabilities assumed:	
China Railway Changjiang Institute	
Cash and cash equivalents	1,714
Financial assets at fair value through profit or loss	4
Inventory	37
Trade and other receivables	755
Property, plant and equipment	275
Intangible assets	8
Investments in associates	9
Financial assets at fair value through other comprehensive income	11
Deferred tax assets	20
Borrowings	(8)
Trade and other payables	(648)
Contract liabilities	(124)
Deferred government grants and income	(1)
Deferred tax liabilities	(23)
Non-controlling interests	(690)
Net assets acquired by the Group	1,339
Goodwill	37

47. Business Combinations (Continued)

(d) Acquisition of China Railway Changjiang Transport Design Group Co., Ltd. (Continued)

	At 31 December 2020 RMB million
Net cash inflow in respect of the acquisition of the China Railway Changjiang Institute is analysed as follows:	
Purchase consideration	
– cash paid by the Group during the year ended 31 December 2020	**1,376**
Less: cash and cash equivalents in acquired subsidiary	**1,714**
Net cash inflow on acquisition	**338**

China Railway Changjiang Institute contributed none of revenue and net profit to the Group for the period from the acquisition date to 31 December 2020. If the acquisition had occurred on 1 January 2020, unaudited revenue and net profit for the year ended 31 December 2020 would have been RMB546 million and RMB24 million, respectively.

48. Contingent Liabilities

	2020 RMB million	2019 RMB million
Pending lawsuits *(a)*		
– arising in the ordinary course of business	**3,073**	3,446

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

49. Commitments

(a) Capital expenditure

Significant capital expenditure contracted for at the end of reporting period but not recognised as liabilities is as follows:

	2020	2019
	RMB million	RMB million
Property, plant and equipment	**3,544**	4,886

(b) Investment commitment

According to relevant agreements, the Group has the following commitments:

	2020	2019
	RMB million	RMB million
Investment commitment to a subsidiary, associates, joint ventures and others	**51,393**	23,700

It includes the Group's investment in certain mining projects (including development and construction expenditures) of an associate in the Democratic Republic of the Congo pursuant to co-operation agreements signed between the co-operation partners. The co-operation partners have been discussing the mining project details and negotiating the investment amounts. The negotiation was still in progress as at the date of issuance of the consolidated financial statements. The amount of investment commitment disclosed above was based on the latest status of the negotiation between the co-operation partners which is subject to change based on the projects and the negotiation progress in the future.

(c) Operating Lease Commitments – as lessor

As the lessor, the Group's undiscounted amount of lease receivables after the balance sheet date are summarized as follows:

	2020	2019
	RMB million	RMB million
No later than 1 year	**599**	536
Later than 1 year and no later than 5 years	**1,022**	871
Later than 5 years	**372**	475
	1,993	1,882

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

50. Related-Party Transactions

The Company is controlled by the following entity:

Name	Relationship	Place of incorporation and operation	Ownership interest 2020	Ownership interest 2019
CREC	Parent and ultimate holding company	PRC	**47.21%**	47.21%

The Company is controlled by CREC, the parent company and a state-owned enterprise established in the PRC. CREC is controlled by the PRC government (CREC and its subsidiaries other than the Group are referred to as the "CREC Group"). The Group operates in an economic environment currently predominated by entities controlled, jointly controlled or under significant influence by the PRC government ("government-related entities").

During the year, the Group had transactions with government-related entities including, but not limited to, the provision of infrastructure construction services, survey, design and consulting services and sales of goods. The Directors consider that the transactions with these government-related entities are activities in the ordinary course of the Group's business and that the dealings of the Group have not been significantly or unduly affected by the fact that the Group and these government-related entities are ultimately controlled or owned by the PRC government. The Group has also established pricing policies for services and products, and such pricing policies do not depend on whether or not the customers are government-related entities. For the purpose of the related party transaction disclosures, management believes that meaningful information relating to related party transactions has been adequately disclosed.

The following is a summary of significant related party transactions between the Group and its related parties during the year and balances arising from related party transactions at the end of the reporting period.

50. Related-Party Transactions (Continued)

(a) Significant related party transactions

The following transactions were carried out with related parties other than government-related entities:

	2020 RMB million	2019 RMB million
Transactions with the CREC Group		
– Service expenses paid	7	24
– Revenue from rendering of services	–	22
– Rental expense	17	24
– Interest income	36	112
– Interest expense	10	5
– Provision of borrowings	1,870	2,150
– Repayment of borrowings	150	3,950
Transactions with joint ventures		
– Revenue from construction contracts	35,629	32,271
– Revenue from sales of goods	519	411
– Purchase	1,539	2,247
– Rental income	2	2
– Rental expense	38	–
– Interest income	463	377
– Interest expense	1	–
– Lending funds	4,615	3,720
Transactions with associates		
– Revenue from construction contracts	24,014	19,703
– Revenue from sales of goods	1,582	848
– Purchase	1,104	5,800
– Rental income	2	3
– Rental expense	6	5
– Interest income	63	102
– Interest expense	–	1
– Lending funds	1,943	–

These transactions are carried out on terms agreed with the counter parties in the ordinary course of business.

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

50. Related-Party Transactions (Continued)

(b) Balances with related parties

	2020 RMB million	2019 RMB million
Balances with the CREC Group		
Trade and bills receivables	**2**	11
Other receivables	**–**	–
Other financial assets at amortised cost	**1,840**	147
Trade payables	**–**	13
Other payables	**68**	108
Deposits	**1,307**	265
Right-of-use assets	**1**	11
Lease liabilities	**1**	16
Contract liabilities	**1**	–
Balances with joint ventures		
Trade and bills receivables	**2,403**	8,846
Other receivables	**1,193**	335
Advance to suppliers	**136**	52
Other financial assets at amortised cost	**5,245**	3,888
Contract assets	**2,978**	3,479
Trade payables	**963**	1,046
Other payables	**222**	691
Contract liabilities	**6,585**	6,169
Advance from customers	**323**	14
Deposits	**985**	626
Balances with associates		
Trade and bills receivables	**4,903**	3,990
Other receivables	**1,233**	328
Contract assets	**3,558**	2,202
Advance to suppliers	**71**	13
Trade payables	**501**	604
Other payables	**544**	585
Contract liabilities	**1,720**	1,261
Advance from customers	**3**	96
Deposits	**77**	10
Right-of-use assets	**–**	12
Lease liabilities	**–**	6

50. Related-Party Transactions (Continued)

(c) Guarantees

	2020 RMB million	2019 RMB million
Outstanding loan guarantees provided by the Group to		
– Joint ventures	**5,048**	7,239
– An associate	**2,441**	2,325
– Government-related entities	**480**	570
Outstanding debentures guarantees provided by MCREC to the Group	**3,500**	11,000

(d) Key management compensation

The remuneration of Directors and other members of key management during the year were as follows:

	2020 RMB' 000	2019 RMB' 000
Basic salaries, housing allowances and other allowances	**5,137**	4,128
Fees	**260**	260
Contributions to pension plans	**512**	620
Others	**7,175**	10,070
	13,084	15,078

Key management represents the Directors and other senior management personnel disclosed in the annual report. The remuneration of key management is determined by the remuneration committee having regard to the performance of the respective individuals and the market trends.

51. Particulars of Principal Subsidiaries

(a) General information of principal subsidiaries

As at 31 December 2020 and 2019, the Company had the following principal subsidiaries:

Name of subsidiary	Country/ place of establishment and operation	Issued and paid in capital	Proportion of interest and voting power held by the Group		Proportional of ordinary shares held by non-controlling interests		Principal activities
		RMB '000	**2020**	2019	**2020**	2019	
Listed-							
中鐵高新工業股份有限公司 China Railway Industry *(i)*	PRC	RMB2,221,552	**49.12%**	49.12%	**50.88%**	50.88%	Engineering Equipment and Component Manufacturing
中鐵裝配式建築股份有限公司 CRPCC *(Note 47(b))*	PRC	RMB245,912	**26.51%**	NA	**73.49%**	NA	Installation and sales of prefabricated assembly products
Unlisted-							
中鐵一局集團有限公司 China Railway No.1 Engineering Group Co., Ltd.	PRC	RMB6,152,100	**100%**	100%	**–**	–	Infrastructure construction
中鐵二局集團有限公司 China Railway No.2 Engineering Group Co., Ltd.	PRC	RMB7,692,920	**100%**	100%	**–**	–	Infrastructure construction
中鐵三局集團有限公司 China Railway No.3 Engineering Group Co., Ltd.	PRC	RMB5,213,991	**100%**	100%	**–**	–	Infrastructure construction
中鐵四局集團有限公司 China Railway No.4 Engineering Group Co., Ltd.	PRC	RMB8,272,699	**100%**	100%	**–**	–	Infrastructure construction
中鐵五局集團有限公司 China Railway No.5 Engineering Group Co., Ltd.	PRC	RMB5,615,152	**100%**	100%	**–**	–	Infrastructure construction
中鐵六局集團有限公司 China Railway No.6 Engineering Group Co., Ltd.	PRC	RMB2,200,000	**100%**	100%	**–**	–	Infrastructure construction
中鐵七局集團有限公司 China Railway No.7 Engineering Group Co., Ltd.	PRC	RMB2,611,810	**100%**	100%	**–**	–	Infrastructure construction

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

51. Particulars of Principal Subsidiaries (Continued)

(a) General information of principal subsidiaries (Continued)

Name of subsidiary	Country/ place of establishment and operation	Issued and paid in capital	Proportion of interest and voting power held by the Group		Proportional of ordinary shares held by non-controlling interests		Principal activities
		RMB '000	2020	2019	2020	2019	
中鐵八局集團有限公司 China Railway No.8 Engineering Group Co., Ltd.	PRC	RMB5,906,056	100%	100%	–	–	Infrastructure construction
中鐵九局集團有限公司 China Railway No.9 Engineering Group Co., Ltd.	PRC	RMB2,500,000	100%	100%	–	–	Infrastructure construction
中鐵十局集團有限公司 China Railway No.10 Engineering Group Co., Ltd.	PRC	RMB3,836,510	100%	100%	–	–	Infrastructure construction
中鐵大橋局集團有限公司 China Railway Major Bridge Engineering Group Co., Ltd.	PRC	RMB4,278,453	100%	100%	–	–	Infrastructure construction
中鐵電氣化局集團有限公司 China Railway Electrification Engineering Group Co., Ltd.	PRC	RMB4,409,280	100%	100%	–	–	Infrastructure construction
中鐵建工集團有限公司 China Railway Construction Group Co., Ltd.	PRC	RMB9,611,430	100%	100%	–	–	Infrastructure construction
中鐵隧道局集團有限公司 China Railway Tunnel Group Co., Ltd.	PRC	RMB2,997,688	100%	100%	–	–	Infrastructure construction
中鐵國際集團有限公司 China Railway International Group Co., Ltd.	PRC	RMB2,500,000	100%	100%	–	–	Infrastructure construction
中鐵二局建設有限公司 China Railway No.2 Construction Co., Ltd.	PRC	RMB8,263,820	100%	100%	–	–	Infrastructure construction
中鐵二院工程集團有限責任公司 China Railway Eryuan Engineering Group Co. Ltd.	PRC	RMB1,246,138	100%	100%	–	–	Survey and design

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

51. Particulars of Principal Subsidiaries (Continued)

(a) General information of principal subsidiaries (Continued)

Name of subsidiary	Country/ place of establishment and operation	Issued and paid in capital	Proportion of interest and voting power held by the Group		Proportional of ordinary shares held by non-controlling interests		Principal activities
		RMB '000	2020	2019	2020	2019	
中鐵北京工程局集團有限公司 China Railway Beijing Engineering Group Co. Ltd.	PRC	RMB3,485,846	100%	100%	-	–	Infrastructure construction
中鐵廣州工程局集團有限公司 China Railway Guangzhou Engineering Group Co. Ltd.	PRC	RMB3,050,000	100%	100%	-	–	Infrastructure construction
中鐵上海工程局集團有限公司 China Railway Shanghai Engineering Group Co. Ltd.	PRC	RMB2,276,368	100%	100%	-	–	Infrastructure construction
中鐵置業集團有限公司 China Railway Real Estate Group Co., Ltd.	PRC	RMB6,508,410	100%	100%	-	–	Property development
中鐵資源集團有限公司 China Railway Resources Group Co., Ltd.	PRC	RMB5,427,127	100%	100%	-	–	Mining
中鐵交通投資集團有限公司 China Railway Communications Investment Group Co., Ltd.	PRC	RMB8,049,920	100%	100%	-	–	Build-operate-transfer service concession arrangement
中鐵南方投資集團有限公司 China Southern Investment Group Co..Ltd.	PRC	RMB2,919,977	100%	100%	-	–	Infrastructure construction and asset management
中鐵投資集團有限公司 China Railway Investment Group Co., Ltd.	PRC	RMB2,572,768	100%	100%	-	–	Infrastructure construction and asset management
中鐵開發投資有限公司 China Railway Development & Investment Co., Ltd.	PRC	RMB4,094,814	100%	100%	-	–	Infrastructure construction and asset management

51. Particulars of Principal Subsidiaries (Continued)

(a) General information of principal subsidiaries (Continued)

Name of subsidiary	Country/ place of establishment and operation	Issued and paid in capital	Proportion of interest and voting power held by the Group		Proportional of ordinary shares held by non-controlling interests		Principal activities
		RMB '000	**2020**	2019	**2020**	2019	
中鐵城市發展投資集團有限公司 China Railway City Development and Investment Group Co. Ltd.	PRC	RMB4,354,240	**100%**	100%	**–**	–	Infrastructure construction and asset management
中鐵(上海)投資集團有限公司 China Railway (Shanghai) Investment Group Co., Ltd.	PRC	RMB1,179,990	**100%**	100%	**–**	–	Infrastructure construction and asset management
中鐵信託有限責任公司 China Railway Trust (ii)	PRC	RMB5,000,000	**93%**	93%	**7%**	7%	Financial trust management
中鐵財務有限責任公司 China Railway Finance Co., Ltd.	PRC	RMB9,000,000	**95%**	95%	**5%**	5%	Comprehensive financial service
中鐵資本有限公司 China Railway Capital Co., Ltd.	PRC	RMB3,760,410	**100%**	100%	**–**	–	Asset Management
中鐵物貿集團有限公司 China Railway Material Trade Co., Ltd.	PRC	RMB3,000,000	**100%**	100%	**–**	–	Trade
中鐵文化旅遊投資有限公司 China Railway Cultural and Tourism Investment Co., Ltd.	PRC	RMB1,500,000	**100%**	100%	**–**	–	Tourism, sports and cultural projects investment
中鐵第六勘察設計院集團有限公司 China Railway Liuyuan Group Co., Ltd.	PRC	RMB600,000	**100%**	100%	**–**	–	Survey and design
中鐵工程設計諮詢集團有限公司 China Railway Engineering Consulting Group Co., Ltd.	PRC	RMB730,818	**70%**	70%	**–**	–	Survey and design

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

51. Particulars of Principal Subsidiaries (Continued)

(a) General information of principal subsidiaries (Continued)

Name of subsidiary	Country/ place of establishment and operation	Issued and paid in capital	Proportion of interest and voting power held by the Group		Proportional of ordinary shares held by non-controlling interests		Principal activities
		RMB '000	2020	2019	2020	2019	
中鐵大橋勘測設計院集團有限公司 China Railway Major Bridge Reconnaissance & Design Institute Co., Ltd. (iii)	PRC	RMB148,337	100%	100%	–	–	Survey and design
中鐵科學研究院有限公司 China Railway Academy Co., Ltd.	PRC	RMB600,000	100%	100%	–	–	Survey and design
中鐵華鐵工程設計集團有限公司 China Railway Huatie Engineering Designing Group Co., Ltd.	PRC	RMB217,084	100%	100%	–	–	Survey and design
中鐵貴陽投資發展有限公司 China Railway Guiyang Investment & Development Co., Ltd. (iv)	PRC	RMB300,000	100%	100%	–	–	Infrastructure construction and asset management
中鐵人才交流諮詢有限責任公司 China Railway Talent Exchange Consulting Co., Ltd.	PRC	RMB500	100%	100%	–	–	Talent information network service
中鐵東方國際集團有限公司 China Railway Oriental International Group Co., Ltd	Malaysia	–	100%	100%	–	–	Infrastructure construction and real estate development
鐵工(香港)財資管理有限公司 CR (Hong Kong) Treasury Management Co., Ltd.	Hongkong	RMB69	100%	100%	–	–	asset management
中鐵(廣州)投資發展有限公司 China Railway (Guangzhou) Investment Development Co., Ltd.	PRC	RMB780,000	100%	100%	–	–	Infrastructure construction

51. Particulars of Principal Subsidiaries (Continued)

(a) General information of principal subsidiaries (Continued)

Name of subsidiary	Country/ place of establishment and operation	Issued and paid in capital	Proportion of interest and voting power held by the Group		Proportional of ordinary shares held by non-controlling interests		Principal activities
		RMB '000	**2020**	2019	**2020**	2019	
中鐵武漢電氣化局集團有限公司 China Railway Wuhan Electrification Bureau Group Co., Ltd.	PRC	RMB902,960	**100%**	100%	**–**	–	Infrastructure construction
中鐵北方投資有限公司 China Railway North Investment Co., Ltd.	PRC	RMB1,510,487	**100%**	NA	**–**	NA	Infrastructure construction and asset management
中鐵發展投資有限公司 China Railway Development Investment Co., Ltd.	PRC	RMB4,672,620	**100%**	NA	**–**	NA	Infrastructure construction and asset management
中鐵雲網信息科技有限公司 China Railway Cloud Network Information Technology Co., Ltd.	PRC	RMB200,000	**100%**	NA	**–**	NA	Software and information technology services
中國鐵工投資建設集團有限公司 China Tiegong Investment and Construction Co., Ltd.	PRC	RMB4,749,147	**100%**	NA	**–**	NA	Infrastructure construction
中國中鐵匈牙利有限責任公司 China Railway Hungary Co., Ltd.	Hungary	–	**100%**	NA	**–**	NA	Infrastructure construction
中鐵站城融合投資發展有限公司 China Railway Station City Integration Investment Development Co., Ltd.	PRC	RMB100,000	**100%**	NA	**–**	NA	Infrastructure construction and asset management
中鐵水利水電規劃設計研究院集團有限公司 CRWCH *(Note 47(c))*	PRC	RMB12,000	**65%**	NA	**35%**	NA	Research, design and construction of water conservancy and hydropower

51. Particulars of Principal Subsidiaries (Continued)

(a) General information of principal subsidiaries (Continued)

Name of subsidiary	Country/ place of establishment and operation	Issued and paid in capital	Proportion of interest and voting power held by the Group		Proportional of ordinary shares held by non-controlling interests		Principal activities
		RMB '000	2020	2019	2020	2019	
中鐵長江交通設計集團有限公司 China Railway Changjiang Institute *(Note 47(d))*	PRC	RMB147,059	66%	NA	34%	NA	Survey, design and management of communications
中國海外工程有限責任公司 China Overseas Engineering Group Co., Ltd.	PRC	RMB1,608,070	100%	NA	-	NA	Infrastructure construction

All the above subsidiaries were established as limited liability companies in the PRC, which have similar characteristics of limited liability company incorporated under the Hong Kong Companies Ordinance.

The above table lists the subsidiaries of the Company which, in the opinion of the Directors, principally affected the results or assets of the Group. To give details of other subsidiaries would, in the opinion of the Directors, result in particulars of excessive length.

Unless otherwise stated, above subsidiaries have share capital consisting solely of ordinary shares that are held directly by the Group.

(i) At 31 December 2020, 28.57% (2019: 28.57%) of ordinary shares of China Railway Industry is indirectly held by the Group.

(ii) At 31 December 2020, 14% (2019: 14%) of ordinary shares of China Railway Trust is indirectly held by the Group.

(iii) At 31 December 2020, 35% (2019: 35%) of ordinary shares of China Railway Major Bridge Reconnaissance & Design Institute Co., Ltd. is indirectly held by the Group.

(iv) At 31 December 2020, 45% (2019: 45%) of ordinary shares of China Railway Guiyang Investment & Development Co., Ltd. is indirectly held by the Group.

51. Particulars of Principal Subsidiaries (Continued)

(b) Information of debt securities

As at 31 December 2020, the Group had outstanding issued debt securities as follows:

Name	Face value of debt securities RMB Million	Maturity date
China Railway Group Limited	**3,500**	**19/10/2025**
	4,659	**23/03/2021**
	1,135	**28/01/2021**
	2,120	**28/01/2026**
	2,500	**17/01/2022**
	1,000	**21/01/2022**
	1,000	**27/01/2024**
	147	**15/04/2022**
	2,200	**15/04/2022**
	1,000	**29/04/2021**
	1,500	**29/04/2022**
	2,500	**18/06/2022**
	500	**18/06/2024**
	1,900	**16/07/2022**
	1,100	**16/07/2024**
	1,500	**10/04/2023**
	1,500	**10/04/2023**
	3,000	**24/04/2023**
	3,000	**15/05/2023**
	3,000	**05/06/2023**
China Railway Resources Huitung Limited	**3,488**	**05/02/2023**
China Railway Xunjie Co. Limited	**3,488**	**25/07/2022**
	3,488	**28/07/2026**

51. Particulars of Principal Subsidiaries (Continued)

(b) Information of debt securities (Continued)

As at 31 December 2019, the Group had outstanding issued debt securities as follows:

Name	Face value of debt securities RMB Million	Maturity date
China Railway Group Limited	5,000	27/01/2020
	2,500	19/10/2020
	3,500	19/10/2025
	4,659	23/03/2021
	1,135	28/01/2021
	2,120	28/01/2026
	2,500	17/01/2022
	1,000	21/01/2022
	1,000	27/01/2024
	1,300	15/04/2022
	2,200	15/04/2022
	1,000	29/04/2021
	1,500	29/04/2022
	2,500	18/06/2022
	500	18/06/2024
	1,900	16/07/2022
	1,100	16/07/2024
China Railway Resources Huitung Limited	3,488	05/02/2023
China Railway Xunjie Co. Limited	3,488	25/07/2022
	3,488	28/07/2026

52. Events Occurring After the Balance Sheet Date

Subsequent to 31 December 2020, the following significant event took place:

(a) As approved by the Board meeting on 30 March 2021, the Company declared a dividend in respect of the year ended 31 December 2020 of RMB0.180 per ordinary share, amounting to a total dividend of RMB4,423 million. The dividend is to be approved at the 2020 annual general meeting in 2021.

53. Balance Sheet and Reserve Movement of the Company

	2020 RMB million	2019 RMB million
ASSETS		
Non-current assets		
Amounts due from subsidiaries	–	224
Other non-current assets	51,575	27,315
Investments in subsidiaries	227,365	187,502
	278,940	215,041
Current assets		
Amounts due from subsidiaries	89,658	92,072
Other current assets	11,830	6,025
Bank balances and cash	47,486	38,028
	148,974	136,125
Total assets	427,914	351,166
EQUITY		
Share capital	24,571	24,571
Perpetual notes	46,738	31,535
Share premium and reserves	137,720	125,428
Total equity	209,029	181,534
LIABILITIES		
Non-current liabilities		
Borrowings	35,600	27,898
Other non-current liabilities	19,917	4,231
	55,517	32,129
Current liabilities		
Amounts due to subsidiaries	130,985	99,204
Other current liabilities	32,383	38,299
	163,368	137,503
Total liabilities	218,885	169,632

The balance sheet of the Company was approved by the Board of Directors on 30 March 2021 and were signed on its behalf.

Director	*Director*
Chen Yun	Chen Wenjian

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

53. Balance Sheet and Reserve Movement of the Company (Continued)

(a) Reserve movement of the Company

	Share premium RMB million	Capital reserves RMB million	Statutory reserve RMB million	Retained earnings RMB million	Total RMB million
At 31 December 2018	43,982	7,548	7,705	48,357	107,592
Profit and total comprehensive income for the year	–	39	–	13,330	13,369
Issuance of A shares	9,145	–	–	–	9,145
Redemption of perpetual notes	(18)	–	–	–	(18)
Transfer to reserves	–	–	1,360	(1,360)	–
Dividend recognised as distribution	–	–	–	(2,924)	(2,924)
Dividend declared to perpetual notes holders	–	–	–	(1,736)	(1,736)
At 31 December 2019	53,109	7,587	9,065	55,667	125,428
Profit and total comprehensive income for the year	**–**	**19**	**–**	**17,987**	**18,006**
Redemption of perpetual notes	**(42)**	**–**	**–**	**–**	**(42)**
Transfer to reserves	**–**	**–**	**1,847**	**(1,847)**	**–**
Dividend recognised as distribution	**–**	**–**	**–**	**(4,152)**	**(4,152)**
Dividend declared to perpetual notes holders	**–**	**–**	**–**	**(1,520)**	**(1,520)**
At 31 December 2020	**53,067**	**7,606**	**10,912**	**66,135**	**137,720**

ISSUER

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