I GENERAL INFORMATION AND PRINCIPAL ACTIVITIES

Bank of China Limited (the "Bank"), formerly known as Bank of China, a State-owned joint stock commercial bank, was founded on 5 February 1912. From its formation until 1949, the Bank performed various functions of a central bank, foreign exchange bank and commercial bank specialising in trade finance. After 1949, the Bank was designated as the state-designated specialised foreign exchange and trade bank. Since 1994, the Bank has evolved into a State-owned commercial bank. In this regard, in accordance with the Master Implementation Plan for the Joint Stock Reform approved by the State Council of the PRC, the Bank was converted into a joint stock commercial bank on 26 August 2004 and its name was changed from Bank of China to Bank of China Limited. In 2006, the Bank listed on the Stock Exchange of Hong Kong Limited and the Shanghai Stock Exchange.

The Bank is licensed as a financial institution by the China Banking and Insurance Regulatory Commission (the "CBIRC") No. B0003H111000001 and is issued the business license of legal enterprise with unified social credit code No. 911000001000013428 by the State Administration of Industry and Commerce of the PRC. The registered address is No.1, Fuxingmen Nei Dajie, Beijing, China.

The Bank and its subsidiaries (together the "Group") provide a full range of corporate banking, personal banking, treasury operations, investment banking, insurance and other services to its customers in the Chinese mainland, Hong Kong (China), Macao (China), Taiwan (China) and other major international financial centres.

The Bank's principal regulator is the CBIRC. The operations in Hong Kong (China), Macao (China), Taiwan (China) and other countries and regions of the Group are subject to the supervision of local regulators.

The parent company is Central Huijin Investment Limited ("Huijin"), a wholly owned subsidiary of China Investment Corporation ("CIC").

These consolidated financial statements have been approved by the Board of Directors on 29 March 2022.

II SUMMARY OF PRINCIPAL ACCOUNTING POLICIES

1 Basis of preparation

The consolidated financial statements of the Group have been prepared in accordance with International Financial Reporting Standards ("IFRSs"). In addition, the consolidated financial statements comply with the disclosure requirements of the Hong Kong Companies Ordinance.

Financial assets at fair value through other comprehensive income, financial assets and financial liabilities at fair value through profit or loss (including derivative financial instruments) and investment properties are measured at their fair values in the consolidated financial statements. Other accounting items are measured at their historical costs. Impairment allowance is recognised and measured in accordance with the relevant policy.

The preparation of financial statements in conformity with IFRSs 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 III.

(Amount in millions of Renminbi, unless otherwise stated)

II SUMMARY OF PRINCIPAL ACCOUNTING POLICIES (Continued)

1 Basis of preparation (Continued)

1.1 Standards and amendments effective in 2021 relevant to and adopted by the Group

On 1 January 2021, the Group has adopted the following IFRSs and amendments issued by the International Accounting Standards Board ("IASB"), which were mandatorily effective:

IFRS 9, IAS 39, IFRS 7, IFRS 4 and IFRS 16 Amendments	*Interest Rate Benchmark Reform ("IBOR Reform") — Phase 2*

The IFRS 9, IAS 39, IFRS 7, IFRS 4 and IFRS 16 — Phase 2 amendments address issues that arise upon replacing the existing interest rate benchmark with the alternative interest rates and introduces additional disclosure requirements. The Phase 2 amendments provide two key reliefs:

(1) for instruments measured using amortised cost measurement, the amendments provide a practical expedient to account for these changes in the basis for determining contractual cash flows as a result of IBOR Reform. Under the practical expedient, entities will account for these changes by updating the effective interest rate using the guidance in paragraph B5.4.5 of IFRS 9 without the recognition of an immediate gain or loss. This practical expedient applies only to such a change and only to the extent that it is necessary as a direct consequence of IBOR Reform, and the new basis for determining the contractual of cash flows is economically equivalent to the previous basis;

(2) the amendments also provide additional temporary reliefs from applying specific IAS 39 and IFRS 9 hedge accounting requirements to hedging relationships directly affected by IBOR Reform.

The adoption of the above standards and amendments does not have any significant impact on the operating results, financial position and comprehensive income of the Group for the year ended 31 December 2021.

1.2 Standards and amendments that were early adopted by the Group in 2021

Amendment to IFRS 16	*COVID-19 Related rent concessions extension of the practical expedient*

In May 2020, the IASB published an amendment to IFRS 16 that provided an optional practical expedient for lessees to assess whether a rent concession due on or before 30 June 2021 related to COVID-19 is a lease modification. In March 2021, the IASB published an additional amendment to extend the date of the rent concession from 30 June 2021 to 30 June 2022. The amendment is effective for annual reporting periods beginning on or after 1 April 2021 with earlier application permitted. The Group has early adopted this amendment for the current year.

The adoption of the above standards and amendments does not have any significant impact on the operating results, financial position and comprehensive income of the Group for the year ended 31 December 2021.

II SUMMARY OF PRINCIPAL ACCOUNTING POLICIES (Continued)

1 Basis of preparation (Continued)

1.3 Standards and amendments that are not yet effective in the current year and have not been adopted before their effective dates by the Group

		Effective for annual periods beginning on or after
IFRS 3 Amendments	*Business Combination*	1 January 2022
IAS 16 Amendments	*Property, Plant and Equipment: Proceeds before Intended Use*	1 January 2022
IAS 37 Amendments	*Onerous Contracts — Cost of Fulfilling a Contract*	1 January 2022
Annual Improvements to IFRSs 2018–2020 Cycle (issued in May 2020)	*Minor Amendments to IFRS 1, IFRS 9, IAS 41 and IFRS 16*	1 January 2022
IFRS 17 and Amendments	*Insurance Contracts*	1 January 2023
IAS 1 and IFRS Practice Statement 2 Amendments	*Disclosure of Accounting Policies*	1 January 2023
IAS 8 Amendments	*Definition of Accounting Estimates*	1 January 2023
IAS 12 Amendments	*Deferred Tax related to Assets and Liabilities arising from a Single Transaction*	1 January 2023
IFRS 10 and IAS 28 Amendments	*Sale or Contribution of Assets between an Investor and its Associate or Joint Venture*	Effective date has been deferred indefinitely

Minor amendments were made to IFRS 3 Business Combinations to update the references to the Conceptual Framework for Financial Reporting and add an exception for the recognition of liabilities and contingent liabilities within the scope of IAS 37 Provisions, Contingent Liabilities and Contingent Assets and Interpretation 21 Levies. The amendments also confirm that contingent assets should not be recognised at the acquisition date.

IAS 16 Amendments prohibit entities from deducting from the cost of an item of property, plant and equipment, any proceeds received from selling items produced while the entity is preparing the asset for its intended use. It also clarifies that an entity is 'testing whether the asset is functioning properly' when it assesses the technical and physical performance of the asset. The financial performance of the asset is not relevant to this assessment. Entities must disclose separately the amounts of proceeds and costs relating to items produced that are not an output of the entity's ordinary activities.

IAS 37 Amendments specify which costs an entity needs to include when assessing whether a contract is onerous or loss-making. The amendments apply a "directly related cost approach". Costs that relate directly to a contract to provide goods or services include both incremental costs and an allocation of costs directly related to contract activities. Before recognising a separate provision for an onerous contract, the entity recognises any impairment loss that has occurred on assets used in fulfilling the contract. General and administrative costs do not relate directly to a contract and are excluded unless they are explicitly chargeable to the counterparty under the contract.

II SUMMARY OF PRINCIPAL ACCOUNTING POLICIES (Continued)

1 Basis of preparation (Continued)

1.3 Standards and amendments that are not yet effective in the current year and have not been adopted before their effective dates by the Group (Continued)

Annual Improvements to IFRSs 2018–2020 Cycle were issued in May 2020, including an amendment to IFRS 9 Financial Instruments, which clarifies fees that an entity includes when assessing whether the terms of a new or modified financial liability are substantially different from the terms of the original financial liability by conducting the "10 per cent" test for derecognition of financial liabilities. These fees include only those paid or received between the borrower and the lender, including fees paid or received by either the borrower or lender on the other's behalf. The improvements also include an amendment to lease incentives, which removes the illustration of payments from the lessor relating to leasehold improvements in illustrative example 13 accompanying IFRS 16 Leases, so as to remove potential confusion regarding the treatment of lease incentives when applying IFRS 16.

IFRS 17 Insurance Contracts and amendments replaced IFRS 4 Insurance Contracts. The standard provides a general model for insurance contracts and two additional approaches: the variable fee approach and the premium allocation approach. IFRS 17 and amendments cover the recognition, measurement, presentation and disclosure of insurance contracts and apply to all types of insurance contracts.

IAS 1 and IFRS Practice Statement 2 Amendments provide guidance to help entities apply materiality judgements to accounting policy disclosures. The amendments replace the requirement for entities to disclose their "significant" accounting policies with a requirement to disclose their "material" accounting policies. The amendments add guidance on how entities apply the concept of materiality in making decisions about accounting policy disclosures.

IAS 8 Amendments clarify how companies should distinguish changes in accounting policies from changes in accounting estimates. It introduces a new definition of "accounting estimates". The amendments are designed to clarify distinction between changes in accounting estimates and changes in accounting policies and correction of errors.

IAS 12 Amendments require companies to recognise deferred tax on transactions that, on initial recognition, give rise to equal amounts of taxable and deductible temporary differences. They will typically apply to transactions such as leases of lessees and decommissioning obligations and will require the recognition of additional deferred tax assets and liabilities. The amendments should be applied to transactions that occur on or after the beginning of the earliest comparative period presented.

IFRS 10 and IAS 28 Amendments clarify the accounting treatment for sales or contribution of assets between an investor and its associates or joint ventures. The amendments require a full recognition of a gain or loss when the sale or contribution between an investor and its associate or joint venture constitutes a business. For a transaction involving assets that do not constitute a business, a gain or loss resulting from the transaction is recognised in the investor's profit or loss only to the extent of the unrelated investor's interest in that associate or joint venture.

The Group is considering the impact of IFRS 17 and amendments on the consolidated and the Bank's financial statements. Except for IFRS 17 and amendments, the adoption of the above standards and amendments will have no material impact on the consolidated and the Bank's financial statements.

II SUMMARY OF PRINCIPAL ACCOUNTING POLICIES (Continued)

2 Consolidation

2.1 Subsidiaries

Subsidiaries are all entities (including structured entities) over which the Group has control. The Group controls an entity where 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. The existence and effect of potential voting rights that are currently exercisable or convertible and rights arising from other contractual arrangements are considered when assessing whether the Group controls another entity. Subsidiaries are fully consolidated from the date on which control is transferred to the Group. They are de-consolidated from the date that control ceases. If the changes of the relevant facts and circumstances resulting in changes of relevant elements in the definition of control, the Group will re-evaluate whether subsidiaries are controlled.

The Group uses acquisition method of accounting to account for business combinations. Consideration transferred for the acquisition of a subsidiary is the fair values of the assets transferred, the liabilities incurred to the former owners of the acquired business and the equity interests issued by the Group. Consideration transferred includes the fair value of any asset or liability resulting from a contingent consideration arrangement. Acquisition-related costs are expensed as incurred. Identifiable assets acquired and liabilities and contingent liabilities assumed in a business combination are measured initially at their fair values at the acquisition date. On an acquisition by acquisition basis, the Group recognises any non-controlling interest in the acquiree either at fair value or at the non-controlling interest's proportionate share of the acquiree's net identifiable assets.

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 net identifiable assets acquired is recorded as goodwill. If those amounts are less than the fair value of the net identifiable assets of the subsidiary acquired, in the case of a bargain purchase, the difference is recognised directly in the income statement. Goodwill is tested for impairment annually, or more frequently whenever there is an indication of possible impairment, and carried at cost less accumulated impairment losses. If there is any indication that goodwill is impaired, recoverable amount is estimated and the difference between carrying amount and recoverable amount is recognised as an impairment charge. Impairment losses on goodwill are not reversed. Gains and losses on the disposal of an entity include the carrying amount of goodwill relating to the entity sold.

All intra-group assets and liabilities, equity, income, expenses and cash flows relating to transactions between members of the Group are eliminated in full on consolidation. Where necessary, accounting policies of subsidiaries have been changed to ensure consistency with the policies adopted by the Group.

In the Bank's statement of financial position, investments in subsidiaries are accounted for at cost less impairment. Cost is adjusted to reflect changes in consideration arising from contingent consideration amendments, but does not include acquisition-related costs, which are expensed as incurred. Dividends or profits declared to distribute by the invested entity shall be recognised by the Bank as other operating income. The Group assesses at each financial reporting date whether there is objective evidence that an investment in subsidiaries is impaired. An impairment loss is recognised for the amount by which the investment in subsidiaries' carrying amount exceeds its recoverable amount. Recoverable amount is the higher of the investment in subsidiaries' fair value less costs to sell and value in use.

II SUMMARY OF PRINCIPAL ACCOUNTING POLICIES (Continued)

2 Consolidation (Continued)

2.2 Associates and joint ventures

Associates are all entities over which the Group has significant influence but no control or joint control, generally accompanying a shareholding of between 20% and 50% of the voting rights.

Joint ventures exist where the Group has a contractual arrangement with one or more parties to undertake economic activities which are subject to joint control.

Investments in associates and joint ventures are initially recognised at cost and accounted for using the equity method of accounting. The Group's "Investment in associates and joint ventures" includes goodwill.

Unrealised gains on transactions between the Group and its associates and joint ventures are eliminated to the extent of the Group's interests in the associates and joint ventures; unrealised losses are also eliminated unless the transaction provides evidence of impairment of the asset transferred. Accounting policies of associates and joint ventures have been changed where necessary to ensure consistency with the policies adopted by the Group.

The Group assesses at each financial reporting date whether there is objective evidence that investments in associates and joint ventures are impaired. Impairment losses are recognised for the amounts by which the investments in associates and joint ventures' carrying amounts exceed their recoverable amounts. The recoverable amounts are the higher of investments in associates and joint ventures' fair value less costs to sell and value in use.

2.3 Transactions with non-controlling 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. For purchases from non-controlling interests, the difference between any consideration paid and the relevant share acquired of the carrying value of net assets of the subsidiary is recorded in equity. Gains or losses on disposals to non-controlling interests are also recorded in equity.

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 re-measured to its fair value, with the change in carrying amount recognised in the income statement. The fair value is 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 reclassified to the income statement.

II SUMMARY OF PRINCIPAL ACCOUNTING POLICIES (Continued)

3 Foreign currency translation

3.1 Functional and presentation currency

The functional currency of the Group's operations in the Chinese mainland is Renminbi ("RMB"). Items included in the financial statements of each of the Group's operations in Hong Kong (China), Macao (China), Taiwan (China) and other countries and regions are measured using the currency of the primary economic environment in which the entity operates (the "functional currency"). The presentation currency of the Group is RMB.

3.2 Transactions and balances

Foreign currency transactions are translated into respective functional currency using the exchange rates prevailing at the dates of the transactions, or the exchange rates that approximate the exchange rates prevailing at the dates of the transaction. Foreign exchange gains and losses resulting from the settlement of such transactions are recognised in the income statement.

Monetary assets and liabilities denominated in foreign currencies at the financial reporting date are translated at the foreign exchange rates ruling at that date. Changes in the fair value of monetary securities denominated in foreign currency classified as financial assets at fair value through other comprehensive income are analysed between translation differences resulting from changes in the amortised cost of the security and other changes in the carrying amount of the security. Translation differences related to changes in the amortised cost are recognised in the income statement, and other changes in the carrying amount are recognised in other comprehensive income. Translation differences on all other monetary assets and liabilities are recognised in the income statement.

Non-monetary assets and liabilities that are measured at historical cost in foreign currencies are translated using the foreign exchange rates at the date of the transaction. Non-monetary assets and liabilities that are measured at fair value in foreign currencies are translated using the foreign exchange rates at the date the fair value is determined. Translation differences on non-monetary financial assets classified as financial assets at fair value through other comprehensive income are recognised in other comprehensive income. Translation differences on non-monetary financial assets and liabilities held at fair value through profit or loss are recognised as "Net trading gains" in the income statement.

II SUMMARY OF PRINCIPAL ACCOUNTING POLICIES (Continued)

3 Foreign currency translation (Continued)

3.2 Transactions and balances (Continued)

The results and financial positions of all the Group entities that have a functional currency different from the presentation currency are translated into the presentation currency as follows:

- assets and liabilities for each statement of financial position presented are translated at the closing rate at the date of that statement of financial position;
- income and expenses for each income statement are translated at exchange rates at the date of the transactions, or a rate that approximates the exchange rates of the date of the transaction; and
- all resulting exchange differences are recognised in other comprehensive income.

On consolidation, exchange differences arising from the translation of the net investment in foreign entities, and of customers deposits taken and other currency instruments designated as hedges of such investments are taken to other comprehensive income. When a foreign entity is disposed, these exchange differences are recognised in the income statement.

The effect of exchange rate changes on cash and cash equivalents is presented individually in the statement of cash flows.

4 Financial instruments

4.1 Initial recognition and measurement

The Group recognises a financial asset or financial liability in its statement of financial position when the Group becomes a party to the contractual provisions of the instrument, which is the trade date.

At initial recognition, the Group measures a financial asset or financial liability at its fair value. For a financial asset or financial liability at fair value through profit or loss, transaction costs are directly recognised in profit or loss. For other financial asset or liability, transaction costs are recognised in the initial measurement.

The fair value of a financial instrument at initial recognition is normally the transaction price. If the Group determines that the fair value at initial recognition differs from the transaction price, and if that fair value is evidenced by a quoted price in an active market for an identical asset or liability or based on a valuation technique that uses only data from observable markets, the Group recognises the difference between the fair value at initial recognition and the transaction price as a gain or loss.

II SUMMARY OF PRINCIPAL ACCOUNTING POLICIES (Continued)

4 Financial instruments (Continued)

4.2 Classification and Subsequent measurement

4.2.1 Financial assets

The Group classifies financial assets as subsequently measured at amortised cost, fair value through other comprehensive income or fair value through profit or loss on the basis of both the Group's business model for managing the financial assets and the contractual cash flow characteristics of the financial asset.

Business model

The Group's business model refers to how the Group manages its financial assets in order to generate cash flows. For example, financial assets are held within a business model whose objective is to hold assets to collect contractual cash flows or within a business model whose objective is achieved by both collecting contractual cash flows and selling financial assets. If above two situations are not applicable, the financial assets are classified as part of "other" business model. The Group's assessment of the business model is performed on a financial asset portfolio basis, and determined on the basis of scenarios which are reasonably expected to occur, taking into account: how cash flows were realised in the past, how the performance are evaluated and reported to the entity's key management personnel; the risks that affect the performance and the way in which those risks are assessed and managed; and how managers of the business are compensated, etc.

The contractual cash flow characteristics

The assessment of contractual cash flow characteristics is to determine whether the asset's contractual cash flows are solely payments of principal and interest on the principal amount outstanding. Principal is the fair value of the financial asset at initial recognition. However, the principal amount may change over the life of the financial asset (for example, if there are repayments of principal). 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.

(1) Financial assets at amortised cost

The Group classifies financial assets as subsequently measured at amortised cost if both of the following conditions are met:

- the financial asset is held within a business model whose objective is to hold financial assets in order to collect contractual cash flows; and
- the contractual terms of the financial asset give rise on specified dates to cash flows that are solely payments of principal and interest on the principal amount outstanding.

Such financial assets that the Group holds are subsequently measured at amortised cost. That is, the amount at which the financial asset is measured at initial recognition minus the principal repayments, plus or minus the cumulative amortisation using the effective interest method of any difference between that initial amount and the maturity amount and adjusted for any loss allowance.

II SUMMARY OF PRINCIPAL ACCOUNTING POLICIES (Continued)

4 Financial instruments (Continued)

4.2 Classification and Subsequent measurement (Continued)

4.2.1 Financial assets (Continued)

(2) Financial assets at fair value through other comprehensive income

The Group classifies financial assets as subsequently measured at fair value through other comprehensive income if both of the following conditions are met:

- the financial asset is held within a business model whose objective is achieved by both collecting contractual cash flows and selling financial assets; and

- the contractual terms of the financial asset give rise on specified dates to cash flows that are solely payments of principal and interest on the principal amount outstanding.

Such financial assets that the Group holds are subsequently measured at fair value. A gain or loss on a financial asset measured at fair value through other comprehensive income shall be recognised in "Other comprehensive income", except for interests calculated using effective interest method, impairment losses or reversal and foreign exchange gains and losses. 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. The impairment allowances for such financial assets are recognised in other comprehensive income, impairment losses or reversal are recognised in profit or loss, and not reduce the carrying amount of such financial assets in the statement of financial position.

Investments in equity instruments

The Group may, at initial recognition, irrevocably designate an investment in equity instrument, which is not held for trading, as at fair value through other comprehensive income when it meets the definition of an equity instrument under IAS 32 Financial Instruments: Presentation. When the equity instrument is derecognised, the cumulative gain or loss previously recognised in other comprehensive income shall be reclassified from other comprehensive income to undistributed profits under equity. Dividends, which the Group is entitled to collect, on equity investments in such measurement category are recognised in profit or loss. No impairment losses or reversal are recognised for such equity instruments.

(3) Financial assets at fair value through profit or loss

A financial asset is measured at fair value through profit or loss unless it is measured at amortised cost or at fair value through other comprehensive income, which includes financial assets held for trading, financial assets designated as at fair value through profit or loss and other financial assets mandatorily measured at fair value through profit or loss in accordance with IFRS 9.

Such financial assets that the Group holds are subsequently measured at fair value. A gain or loss on such financial asset is recognised in profit or loss unless it is part of a hedging relationship. Dividends, which the Group is entitled to collect, on equity investments in such measurement category are recognised in profit or loss.

When, and only when, the Group changes the business model for managing financial assets, the Group shall reclassify all affected financial assets. Reclassification is applied prospectively from the first day of the first reporting period following the change in business model.

II SUMMARY OF PRINCIPAL ACCOUNTING POLICIES (Continued)

4 Financial instruments (Continued)

4.2 Classification and Subsequent measurement (Continued)

4.2.2 Financial liabilities

The Group classifies all financial liabilities as subsequently measured at amortised cost, except for:

- financial liabilities at fair value through profit or loss. Such liabilities, include financial liabilities held for trading and financial liabilities designated as at fair value through profit or loss.

- financial liabilities that arise when a transfer of a financial asset does not qualify for derecognition or when the continuing involvement approach applies.

- financial guarantee contracts and commitments to provide a loan at a below-market interest rate.

Financial liabilities at fair value through profit or loss held by the Group are subsequently measured at fair value. A gain or loss on a financial liability that is measured at fair value is recognised in profit or loss unless:

- it is part of a hedging relationship; or

- it is a financial liability designated as at fair value through profit or loss and the effects of changes in the Group's credit risk are presented in other comprehensive income. When such financial liability is derecognised, the cumulative gain or loss previously recognised in other comprehensive income is reclassified from other comprehensive income to undistributed profits under equity.

The Group does not reclassify any financial liabilities.

4.2.3 Financial assets and financial liabilities held for trading

A financial asset or financial liability is classified as held for trading if it:

- is acquired or incurred principally for the purpose of selling or repurchasing it in the near term; or

- on initial recognition is part of a portfolio of identified financial instruments that are managed together and for which there is evidence of a recent actual pattern of short-term profit-taking; or

- is a derivative (except for a derivative that is a financial guarantee contract or a designated and effective hedging instrument).

II SUMMARY OF PRINCIPAL ACCOUNTING POLICIES (Continued)

4 Financial instruments (Continued)

4.2 Classification and Subsequent measurement (Continued)

4.2.4 Financial assets and financial liabilities designated as at fair value through profit or loss

The Group may, at initial recognition, irrevocably designate a financial asset or financial liability as measured at fair value through profit or loss, because either:

- it eliminates or significantly reduces a measurement or recognition inconsistency that would otherwise arise from measuring assets or liabilities or recognising the gains and losses on them on different bases; or

- a portfolio of financial liabilities or financial assets and financial liabilities is managed and its performance is evaluated on a fair value basis, in accordance with a documented risk management or investment strategy, and information about the portfolio is provided internally on that basis to the Group's key management personnel; or

- the financial liability contains one or more embedded derivatives, unless the embedded derivative(s) does not significantly modify the cash flows or it is clear, with little or no analysis, that it would not be separately recorded.

4.3 Financial guarantee contracts and loan commitments

Financial guarantee contracts are contracts that require the issuer to make specified payments to reimburse the holder for a loss it incurs because a specified debtor fails to make payments when due, in accordance with the terms of a debt instrument. Such financial guarantees are given to banks, financial institutions and other bodies to secure customer loans, overdrafts and other banking facilities.

Financial guarantees are initially recognised at fair value on the date the guarantee was given. Subsequent to initial recognition, the financial guarantee contracts are measured at the higher of the initial measurement less amortisation calculated and the impairment allowance determined by the expected credit loss ("ECL") model at the financial reporting date. Any increase in the liability relating to financial guarantee contracts is recognised in the income statement.

Loan commitments are commitments provided by the Group to customers to grant loans under the established contract terms during certain period. The impairment allowance for loan commitments is measured using the ECL model.

The impairment allowances for financial guarantees and loan commitments are presented in "Other liabilities — provision".

4.4 Determination of fair value

The fair value is the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. The fair values of quoted financial assets and financial liabilities in active markets are based on market prices, as appropriate. If there is no active market, the Group establishes fair value by using valuation techniques. These include the use of recent arm's length transactions, discounted cash flow analysis and option pricing models, and other valuation techniques commonly used by market participants.

II SUMMARY OF PRINCIPAL ACCOUNTING POLICIES (Continued)

4 Financial instruments (Continued)

4.4 Determination of fair value (Continued)

The Group uses the valuation techniques commonly used by market participants to price financial instruments and techniques which have been demonstrated to provide reliable estimates of prices obtained in actual market transactions. The Group makes use of all factors that market participants would consider in setting a price, and incorporates these into its chosen valuation techniques and tests for validity using prices from any observable current market transactions in the same instruments.

4.5 Derecognition of financial instruments

Financial assets are derecognised when the rights to receive cash flows from the investments have expired, or when a financial asset is transferred, the Group has transferred substantially all risks and rewards of ownership, or when the Group neither transfers nor retains substantially all risks or rewards of ownership of the financial asset but has not retained control of the financial asset.

Financial liabilities are derecognised when they are extinguished — that is, when the obligation is discharged, cancelled or expires.

4.6 Impairment measurement for losses on assets

At the financial reporting date, the Group assesses and recognises the relevant impairment allowances for financial assets measured at amortised cost, debt instruments measured at fair value through other comprehensive income, and loan commitments and financial guarantee contracts on the basis of expected credit losses.

Measurement of ECL

ECL is a weighted average of credit losses on financial instruments weighted at the risk of default. Credit loss is the difference between all contractual cash flows that are due to the Group in accordance with the contract and all cash flows expected to be received by the Group discounted at the original effective interest rate (or credit-adjusted effective interest rate for purchased or originated credit-impaired financial assets), i.e. the present value of all cash shortfalls.

According to the changes of credit risk of financial instruments since initial recognition, the Group calculates ECL by three stages:

- Stage 1: Financial instruments without significant increases in credit risk since initial recognition are included under Stage 1 to calculate their impairment allowance at an amount equivalent to the ECL of the financial instruments for the next 12 months;

- Stage 2: Financial instruments that have had a significant increase in credit risk since initial recognition but have no objective evidence of impairment are included under Stage 2, with their impairment allowance measured at an amount equivalent to the ECL over the lifetime of the financial instruments;

- Stage 3: Financial assets with objective evidence of impairment at the financial reporting date are included under Stage 3, with their impairment allowance measured at an amount equivalent to the ECL over the lifetime of the financial instruments.

II SUMMARY OF PRINCIPAL ACCOUNTING POLICIES (Continued)

4 Financial instruments (Continued)

4.6 Impairment measurement for losses on assets (Continued)

Measurement of ECL (Continued)

Where, in the previous accounting period, the impairment allowance of a financial instrument was measured based on the ECL of the instrument over the entire lifetime, and while, at the current financial reporting date, such financial instrument is no longer regarded as experiencing a significant increase in credit risk since its initial recognition, the Group measures the impairment allowance of the financial instrument as at the financial reporting date using the ECL of the instrument over the next 12 months.

For purchased or originated credit-impaired financial assets, the Group only recognises the cumulative changes in lifetime expected credit losses since initial recognition at the financial reporting date as an impairment allowance. At each financial reporting date, the Group recognises in profit or loss the amount of the change in lifetime expected credit losses as an impairment gain or loss.

The Group measures ECL of a financial instrument in a way that reflects:

- An unbiased and probability-weighted amount that is determined by evaluating a range of possible outcomes;

- Time value of money; and

- Reasonable and supportable information about past events, current conditions and forecasts of future economic conditions that is available without undue cost or effort at the financial reporting date.

When measuring ECL, an entity need not necessarily identify every possible scenario. However, the Group considers the risk or probability that a credit loss occurs by reflecting the possibility that a credit loss occurs and the possibility that no credit loss occurs, even if the possibility of a credit loss occurring is very low. The parameters, assumptions and estimation techniques used in measuring the ECL are disclosed in Note VI.2.3 measurement of ECL.

4.7 Modification of contractual cash flows

The Group sometimes modifies or renegotiates the contractual cash flows with a counterparty, which include extending payment term arrangements, repayment schedule modifications and changes to the interest settlement arrangement. When this happens, the Group assesses whether or not the new terms are substantially different to the original terms.

If the terms are not substantially different, it does not result in a derecognition of the original financial asset. The risk of default of such assets after modification is assessed at the financial reporting date and compared with the risk under the original terms at initial recognition. The gross carrying amount of the financial asset is recalculated based on the present value of the renegotiated or modified contractual cash flows discounted at the financial asset's original effective interest rate, and the related gain or loss is recognised in profit and loss.

II SUMMARY OF PRINCIPAL ACCOUNTING POLICIES (Continued)

4 Financial instruments (Continued)

4.7 Modification of contractual cash flows (Continued)

If the terms are substantially different, the Group derecognises the original financial asset and recognises a "new" asset at fair value and recalculates a new effective interest rate for the asset. The date of renegotiation is consequently considered to be the date of initial recognition for impairment calculation purposes, including for the purpose of determining whether a significant increase in credit risk has occurred. The Group also assesses whether the new financial asset recognised is deemed to be credit-impaired at initial recognition, especially in circumstances where the renegotiation was driven by the debtor being unable to make the originally agreed payments. Differences in the carrying amount are also recognised in profit or loss as a gain or loss on derecognition.

4.8 Write off

When the Group determines that a loan has no reasonable prospect of recovery after the Group has taken necessary actions and necessary proceedings, the loan is written off against its allowance for impairment losses. If in a subsequent period the loan written off is recovered, the amount recovered will be recognised in profit or loss captured within impairment losses on financial assets.

4.9 Derivative financial instruments and hedge accounting

Derivatives are initially recognised at fair value on the date a derivative contract is entered into and are subsequently remeasured at their fair value. Fair values are obtained from quoted market prices in active markets, including recent market transactions, or valuation techniques, including discounted cash flow analysis and option pricing models, as appropriate. Credit risk valuation adjustments are applied to the Group's over-the-counter derivatives to reflect the credit risk of the counterparties and the Group, respectively. They are dependent on the expected future values of exposures for each counterparty and default probabilities, etc. All derivatives are carried as assets when the fair value is positive and as liabilities when the fair value is negative.

The treatment of recognising the resulting fair value gain or loss depends on whether the derivative is designated and qualifies as a hedging instrument, and if so, the nature of the item being hedged. For derivatives not designated or qualified as hedging instruments, including those intended to provide effective economic hedges of specific interest rate and foreign exchange risks, but do not qualify for hedge accounting, changes in the fair value of these derivatives are recognised in "Net trading gains" in the income statement.

The Group documents, at inception, the relationship between hedging instruments and hedged items, as well as its risk management objective and strategy for undertaking hedge transactions. When designating a hedging relationship and on an ongoing basis, the Group assesses the hedge effectiveness, that is the extent to which changes in the fair value or cash flows of the hedging instrument offsets changes in fair values or cash flows of the hedged item.

II SUMMARY OF PRINCIPAL ACCOUNTING POLICIES (Continued)

4 Financial instruments (Continued)

4.9 Derivative financial instruments and hedge accounting (Continued)

The hedging relationship should meet all of the following hedge effectiveness requirements:

- There is an economic relationship between the hedged item and the hedging instrument. That means the hedging instrument and hedged item have values that generally move in the opposite direction because of the same risk, which is the hedged risk;

- The effect of credit risk does not dominate the value changes that result from that economic relationship; and

- The hedge ratio of the hedging relationship is the same as that resulting from the quantity of the hedged item that the entity actually hedges and the quantity of the hedging instrument that the entity actually uses to hedge that quantity of the hedged item. However, that designation shall not reflect an imbalance between the weightings of the hedged item and the hedging instrument that would create hedge ineffectiveness that could result in an accounting outcome that would be inconsistent with the purpose of hedge accounting.

Possible sources of ineffectiveness are as follows:

- Notional and timing differences between the hedged items and hedging instruments;

- Significant changes in counterparties' credit risk.

The Group discontinues hedge accounting prospectively when the hedging instrument expires or is sold, terminated or exercised (the replacement or rollover of a hedging instrument into another hedging instrument does not constitute an expiration or termination), or the hedging relationship ceases to meet the updated risk management objective, or to meet other qualifying criteria for hedging accounting.

If a hedging relationship ceases to meet the hedge effectiveness requirement relating to the hedge ratio but the risk management objective for that designated hedging relationship remains the same, the Group adjusts the hedge ratio of the hedging relationship so that it meets the qualifying criteria again.

II SUMMARY OF PRINCIPAL ACCOUNTING POLICIES (Continued)

4 Financial instruments (Continued)

4.9 Derivative financial instruments and hedge accounting (Continued)

(1) Fair value hedge

Fair value hedge is a hedge of the exposure to changes in fair value of a recognised asset or liability or an unrecognised firm commitment, or a component of any such item, that is attributable to a particular risk and could affect profit or loss.

The changes in fair value of hedging instruments that are designated and qualify as fair value hedges are recorded in the income statement, together with the changes in fair value of the hedged item attributable to the hedged risk. The net result is included as ineffectiveness in the income statement.

If the hedge no longer meets the criteria for hedge accounting, the adjustment to the carrying amount of a hedged item for which the effective interest method is used is amortised to the income statement over the period to maturity.

(2) Cash flow hedge

Cash flow hedge is a hedge of the exposure to variability in cash flows that is attributable to a particular risk associated with all, or a component of, a recognised asset or liability (such as all or some future interest payments on variable-rate debt) or a highly probable forecast transaction, and could affect profit or loss.

The effective portion of changes in the fair value of hedging instruments that are designated and qualify as cash flow hedges is recognised in "Other comprehensive income". The ineffective portion is recognised immediately in the income statement.

Amounts accumulated in equity are reclassified to the income statement in the same periods when the hedged future cash flows affect profit or loss.

When the Group discontinues hedge accounting for a cash flow hedge, if the hedged future cash flows are still expected to occur, that amount accumulated in the cash flow hedge reserve shall remain in equity. If the hedged future cash flows are no longer expected to occur, that amount shall be immediately reclassified from the cash flow hedge reserve to profit or loss.

(3) Net investment hedge

Net investment hedge is a hedge of a net investment in a foreign operation.

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 directly in other comprehensive income; the gain or loss relating to the ineffective portion is recognised immediately in the income statement. Gains and losses accumulated in equity are reclassified to the income statement when the foreign operation is disposed of as part of the gain or loss on the disposal.

II SUMMARY OF PRINCIPAL ACCOUNTING POLICIES (Continued)

4 Financial instruments (Continued)

4.9 Derivative financial instruments and hedge accounting (Continued)

(3) Net investment hedge (Continued)

When the Group separates the forward element and the spot element of a forward contract and designates as the hedging instrument only the change in the value of the spot element, the changes in the value of the forward element of the forward contract shall be recognised in other comprehensive income to the extent that it relates to the hedged item.

4.10 Embedded derivatives

An embedded derivative is a component of a hybrid (combined) instrument that also includes a non-derivative host contract with the effect that some of the cash flows of the hybrid (combined) instrument vary in a way similar to a stand-alone derivative.

If a hybrid contract contains a host that is a financial asset, the Group applies the requirements of classification and measurement to the entire hybrid contract. If a hybrid contract contains a host that is not a financial asset, the Group separates the embedded derivative from the host contract and accounts for it as a derivative, if, and only if:

- the economic characteristics and risks of the embedded derivative are not closely related to those of the host contract;
- a separate instrument with the same terms as the embedded derivative would meet the definition of a derivative; and
- the hybrid (combined) instrument is not measured at fair value with changes in fair value recognised in the income statement.

These embedded derivatives separated from the host contract are measured at fair value with changes in fair value recognised in the income statement.

If it is unable to measure the embedded derivative separately either at acquisition or at the subsequent financial reporting date, the Group will designate the entire hybrid instrument as at fair value through profit or loss.

4.11 Offsetting financial instruments

Financial assets and liabilities are offset and the net amount is reported in the statement of financial position when there is a current legally enforceable right to set off the recognised amounts and there is an intention to settle on a net basis, or realise the asset and settle the liability simultaneously.

II SUMMARY OF PRINCIPAL ACCOUNTING POLICIES (Continued)

5 Precious metals

Precious metals comprise gold, silver and other precious metals. The Group retains all risks and rewards of ownership related to precious metals deposited with the Group, including the right to freely pledge or transfer, and it records the precious metals received as an asset. A liability to return the amount of precious metals deposited is also recognised. Precious metals that are not related to the Group's precious metal market making and trading activities are initially measured at acquisition cost and subsequently measured at the lower of cost and net realisable value. Precious metals that are related to the Group's market making and trading activities are initially recognised at fair value and subsequent changes in fair value included in "Net trading gains" are recognised in the income statement.

6 Repurchase agreements, agreements to re-sell and securities lending

Securities and bills sold subject to repurchase agreements ("Repos") continue to be recognised, and are recorded as "Financial investments". The corresponding obligation is included in "Placements from banks and other financial institutions" and "Due to central banks". Securities and bills purchased under agreements to re-sell ("Reverse repos") are not recognised. The receivables are recorded as "Placements with and loans to banks and other financial institutions" or "Balances with central banks", as appropriate.

The difference between purchase and sale price is recognised as "Interest expense" or "Interest income" in the income statement over the life of the agreements using the effective interest method.

Securities lending transactions are generally secured, with collateral taking the form of securities or cash. Securities lent to counterparties by the Group are recorded in the consolidated financial statements. Securities borrowed from counterparties by the Group are not recognised in the consolidated financial statements of the Group. Cash collateral received or advanced is recognised as a liability or an asset in the consolidated financial statements.

7 Property and equipment

The Group's property and equipment mainly comprise buildings, equipment and motor vehicles, aircraft and construction in progress. When the costs attributable to the land use rights cannot be reliably measured and separated from that of the building at inception, the costs are included in the cost of buildings and recorded in "Property and equipment".

Assets purchased or constructed are initially measured at acquisition cost or deemed cost, as appropriate. Such initial cost includes expenditure that is directly attributable to the acquisition of the assets.

Subsequent costs are included in an asset's carrying amount, 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. All other repairs and maintenance costs are charged to the income statement during the financial period in which they are incurred.

(Amount in millions of Renminbi, unless otherwise stated)

II SUMMARY OF PRINCIPAL ACCOUNTING POLICIES (Continued)

7 Property and equipment (Continued)

Depreciation is calculated on a straight-line method to write down the cost of such assets to their residual values over their estimated useful lives. The residual values and useful lives of assets are reviewed, and adjusted if appropriate, at each financial reporting date.

Property and equipment are reviewed for impairment at each financial reporting date. Where the carrying amount of an asset is greater than its estimated recoverable amount, it is written down immediately to its recoverable amount. The recoverable amount is the higher of the asset's fair value less costs to sell and value in use.

Gains and losses on disposals are determined by the difference between proceeds and carrying amount, after deduction of relevant taxes and expenses. These are included in the income statement.

7.1 Buildings, equipment and motor vehicles

Buildings comprise primarily branch and office premises. The estimated useful lives, estimated residual value rate and depreciation rate of buildings, equipment and motor vehicles are as follows:

Type of assets	Estimated useful lives	Estimated residual value rate	Annual depreciation rate
Buildings	15–50 years	3%	1.9%–6.5%
Equipment	3–15 years	3%	6.4%–32.4%
Motor vehicles	4–6 years	3%	16.1%–24.3%

7.2 Aircraft

Aircraft are used in the Group's aircraft operating leasing business.

Aircraft are depreciated using the straight-line method over the expected useful life of 25 years, less the years in service at the time of purchase to an estimated residual value rate varying from 0% to 15%.

7.3 Construction in progress

Construction in progress consists of assets under construction or being installed and is stated at cost. Cost includes equipment cost, cost of construction, installation and other direct costs. Items classified as construction in progress are transferred to property and equipment when such assets are ready for their intended use and the depreciation charge commences after such assets are transferred to property and equipment.

8 Leases

At inception of a contract, the Group assesses whether the contract is, or contains, a lease. A contract is, or contains, a lease if the contract conveys the right to control the use of one or more identified assets for a period of time in exchange for consideration.

II SUMMARY OF PRINCIPAL ACCOUNTING POLICIES (Continued)

8 Leases (Continued)

8.1 As Lessee

The lease term is the non-cancellable period of a lease for which the Group has the right to use an underlying asset. The Group considers a lease that, at the commencement date of the lease, has a lease term of 12 months or less, and does not contain any option to purchase the underlying asset as a short-term lease; and a lease for which the value of the individual underlying asset is relatively low when new as a lease of low-value asset. The Group chooses not to recognise the right-of-use assets and lease liabilities for short-term leases and leases of low-value assets, and the rental expenses are recognised as "Operating expenses" in the income statement on a straight-line basis over each period of the lease term.

The Group uses the incremental borrowing rate as the discount rate to calculate the present value of lease payment. The economic circumstance and the observable interest rate set the foundation for each institution of the Group in determining the incremental borrowing rate. On this basis, the applicable incremental borrowing rate is calculated through the adjustment of the reference interest rate, which is determined according to the situation of the Bank and its subsidiaries and the underlying asset, the lease term, the amount of lease liability and other specific conditions of the lease.

Right-of-use assets

The right-of-use assets of the Group mainly include buildings, vehicles and other right-of-use assets.

At the commencement date of the lease, the Group recognises a right-of-use asset. The cost of the right-of-use asset comprises:

(1) the amount of the initial measurement of the lease liability;

(2) any lease payments made at or before the commencement date of the lease less any lease incentives received;

(3) any initial direct costs incurred when the Group is a lessee; and

(4) an estimate of costs to be incurred by the lessee in dismantling and removing the underlying asset, restoring the site on which it is located or restoring the underlying asset to the condition required by the terms and conditions of the lease.

The right-of-use assets are depreciated on a straight-line basis subsequently by the Group. If the Group is reasonably certain that the ownership of the underlying asset will be transferred to the Group at the end of the lease term, the Group depreciates the asset from the commencement date to the end of the useful life of the asset. Otherwise, the Group depreciates the asset from the commencement date to the earlier of the end of the useful life of the asset or the end of the lease term.

The Group remeasures the lease liabilities at the present value of the changed lease payments and adjusts the carrying amounts of the right-of-use assets accordingly. When the carrying amount of the right-of-use asset is reduced to zero, and there is a further reduction in the measurement of the lease liability, the Group recognises the remaining amount of the remeasurement in profit or loss.

II SUMMARY OF PRINCIPAL ACCOUNTING POLICIES (Continued)

8 Leases (Continued)

8.1 As Lessee (Continued)

Lease liabilities

At the commencement date of the lease, the Group measures the lease liabilities at the present value of the lease payments that are not paid at that date, except for short-term leases and leases of low-value assets.

In calculating the present value of the lease payments, the Group uses the incremental borrowing rate of lessee as the discount rate. The Group calculates the interest expenses of lease liabilities in each period during the lease term using the constant periodic rate of interest, and recognises such interest expenses in profit or loss. Variable lease payments that are not included in the measurement of lease liabilities are recognised in profit or loss as incurred.

After the commencement date, the Group remeasures lease liabilities by discounting the revised lease payments if any of the following occur: (i) there is a change in the in-substance fixed payments; (ii) there is a change in the amounts expected to be payable under a residual value guarantee; (iii) there is a change in future lease payments resulting from a change in an index or a rate used to determine those payments; or (iv) there is a change in the assessments of options to purchase the underlying asset, extend or terminate the lease, or the circumstances of the actual exercise of these options.

Lease modification

Lease modification is a change in the scope of a lease, the consideration for a lease or lease term, that was not part of the original terms and conditions of the lease. For example, adding or terminating the right to use one or more underlying assets, or extending or shortening the contractual lease term.

The Group accounts for a lease modification as a separate lease if both:

(1) the modification increases the scope of the lease by adding the right to use one or more underlying assets; and

(2) the consideration for the lease increases by an amount commensurate with the stand-alone price for the increase in scope and any appropriate adjustments to that stand-alone price to reflect the circumstances of the particular contract.

For a lease modification that is not accounted for as a separate lease, at the effective date of the lease modification, the Group remeasures the lease term and the lease liability by discounting the revised lease payments using a revised discount rate.

II SUMMARY OF PRINCIPAL ACCOUNTING POLICIES (Continued)

8 Leases (Continued)

8.2 As Lessor

At the inception date, a lease is classified as a finance lease if it transfers substantially all the risks and rewards incidental to ownership of an underlying asset. Otherwise, a lease is classified as an operating lease.

When the Group is a lessor under finance leases, the Group recognises the finance lease receivable and derecognises the assets under finance leases at the commencement date. The Group recognise assets held under a finance lease in the consolidated statement of financial position and such assets at an amount equal to the net investment in the lease. Net investment in the lease is the present value of the sum of the unguaranteed residual value and the lease payments that are not received at the commencement date, which is discounted by the interest rate implicit in the lease. The Group calculates and recognises the interest income in each period during the lease term using the constant periodic rate of interest, and recognises such interest income in profit or loss. Income relating to variable lease payments that are not measured as part of the net investment in the lease are recognised in profit or loss as incurred.

When the Group is a lessor under operating leases, the Group reflects the underlying assets as the Group's assets. The rental income is recognised as "Other operating income" in the income statement on a straight-line basis over each period of the lease term. Income relating to variable lease payments that are not measured as part of the receivable in the lease are recognised in profit or loss as incurred.

9 Investment properties

Investment properties, principally consisting of office buildings, are held to generate rental income or earn capital gains or both and are not occupied by the Group. Investment properties are carried at fair value and changes in fair value are recorded in the income statement, representing the open market value and other related information determined periodically by independent appraisers.

10 Intangible assets

Intangible assets are identifiable non-monetary assets without physical substance owned and controlled by the Group, including computer software and other intangible assets.

Computer software and other intangible assets are stated at acquisition cost less accumulated amortisation and impairment. These costs are amortised on a straight-line basis over their estimated useful lives with the amortisation recognised in the income statement.

The value of intangible assets is reviewed for impairment at each financial reporting date. Where the carrying amount of an asset is greater than its estimated recoverable amount, it is written down immediately to its recoverable amount.

The recoverable amount of an intangible asset is the higher of the asset's fair value less costs to sell and value in use.

11 Repossessed assets

Repossessed assets are initially recognised at fair value of the waived creditors' rights and other costs directly attributable to the assets when they are obtained as compensation for waiving the loans' principal and interest. When there are indicators that the recoverable amount is lower than carrying amount, the carrying amount is brought down to its recoverable amount.

II SUMMARY OF PRINCIPAL ACCOUNTING POLICIES (Continued)

12 Employee benefits

12.1 Defined contribution plans and Defined benefit plans

In accordance with the policies of relevant state and local governments, employees in Chinese mainland participate in various defined contribution retirement schemes administered by local Labour and Social Security Bureaus. Operations in Chinese mainland contribute to pension and insurance schemes administered by the local pension and insurance agencies using applicable contribution rates stipulated in the relevant local regulations. Upon retirement, the local Labour and Social Security Bureaus are responsible for the payment of the basic retirement benefits to the retired employees. In addition to these basic staff pension schemes, employees in Chinese mainland who retire after 1 January 2004 can also voluntarily participate in a defined contribution plan established by the Bank ("the Annuity Plan"). The Bank contributes to the Annuity Plan based on certain percentages of the employees' gross salaries.

All eligible employees in operations in Hong Kong (China), Macao (China), Taiwan (China) and other countries and regions participate in local defined contribution schemes or defined benefit plans.

Contributions made by the Group to the retirement schemes described above are recognised as "Operating expenses" in the income statement as incurred. Forfeited contributions by those employees who leave the schemes prior to the full vesting of their contributions are used to reduce the existing level of contributions or retained in the retirement schemes in accordance with the requirements of the respective defined contribution plans.

The obligations related to the defined benefit plans are calculated by independent actuaries using the projected unit credit method at each financial reporting date with actuarial gains or losses are recognised in "Other comprehensive income" immediately when they occur. Gains or losses arising from amendments to pension plans are charged or credited to the income statement immediately as "Operating expenses" when they occur.

12.2 Retirement benefit obligations

The Group pays supplemental retirement benefits to employees in Chinese mainland who retired prior to 31 December 2003 and early retirement benefits to those employees who accepted an early retirement arrangement.

Supplemental retirement benefits include supplemental pension payments and medical expense coverage.

Early retirement benefits have been paid to those employees who accept voluntary retirement before the normal retirement date, as approved by management. The related benefit payments are made from the date of early retirement to the normal retirement date.

Liabilities related to the above supplemental retirement benefit obligations and early retirement obligations existing at each financial reporting date is calculated by independent actuaries using the projected unit credit method and is recorded as a liability under "Retirement benefit obligations" in the statement of financial position. Liabilities represent the present value determined through discounting the estimated future cash outflows using interest rates of RMB treasury bonds which have terms to maturity approximating the terms of the related liability. Actuarial gains or losses of supplemental retirement benefit are recognised in "Other comprehensive income" immediately when they occur. Actuarial gains or losses of early retirement benefit obligations and gains or losses arising from amendments to retirement benefit obligations are charged or credited to the income statement immediately as "Operating expenses" when they occur.

II SUMMARY OF PRINCIPAL ACCOUNTING POLICIES (Continued)

12 Employee benefits (Continued)

12.3 Housing funds

Pursuant to local government regulations, all employees in Chinese mainland participate in various local housing funds administered by local governments. Operations in Chinese mainland contribute on a monthly basis to these funds based on certain percentages of the salaries of the employees. These payments are recognised as "Operating expenses" in the income statement as incurred.

12.4 Share-based compensation

(1) Equity-settled share-based compensation schemes

Fair value of the employee services received in exchange for the grant of the options under these schemes is recognised as an expense over the vesting period, with a corresponding increase in equity. Total amount to be expensed over the vesting period is determined by reference to the fair value of the options granted, excluding the impact of any non-market vesting conditions. Fair value of the equity instruments is measured at the grant date and is not subsequently re-measured. Non-market vesting conditions are included in assumptions about the number of options that are expected to become exercisable. At each financial reporting date, the Group revises its estimates of the number of options that are expected to become exercisable. It recognises the impact of the revision of original estimates, if any, as "Operating expenses" in the income statement over the remaining vesting period, with a corresponding adjustment to "Capital reserve".

The proceeds received net of any directly attributable transaction costs are credited to "Share capital" (nominal value) and "Capital reserve" when the options are exercised.

(2) Cash-settled share-based compensation schemes

The related cost of services received from the employees and the liability to pay for such services are measured at fair value and recognised over the vesting period as the employees render services. Fair value is established at the grant date, re-measured at each financial reporting date with any changes in fair value recognised as "Operating expenses" in the income statement for the period and derecognised when the liability is settled.

The total amount to be expensed over the vesting period is determined by reference to the fair value of the rights granted, excluding the impact of any non-market vesting conditions. Non-market conditions are included in the assumptions about the number of rights that are expected to vest. At each financial reporting date, the Group revises its estimates of the number of rights that are expected to vest. It recognises the impact of the revision to original estimates, if any, as "Operating expenses" in the income statement, with a corresponding adjustment to liability.

12.5 Bonus plans

The Group recognises a liability and an expense for bonuses, taking into consideration its business performance and profit attributable to the Bank's equity holders. The Group recognises a liability where contractually obliged or where there is a past practice that has created a constructive obligation.

II SUMMARY OF PRINCIPAL ACCOUNTING POLICIES (Continued)

13 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 embodying economic benefits will be required to settle the obligation, and a reliable estimate of the amount of the obligation can be made. The amount initially recognised as a provision should be the best estimate of the expenditure required to settle the present obligation.

14 Insurance contracts

14.1 Insurance contracts classification

The Group's insurance subsidiaries issue insurance contracts that transfer significant insurance risk. The Group performs a significant insurance risk test at the contract initial recognition date. Insurance risk is significant if, and only if, an insured event could cause an insurer to pay significant additional benefits in any scenario, excluding scenarios that lack commercial substance. The Group's insurance subsidiaries issue non-life insurance contracts, which cover casualty and property insurance risk, and life insurance contracts, which insure events associated with human life (for example death, or survival) over a long duration.

The Group does not separately measure embedded derivatives that itself meet the definition of an insurance contract or options to surrender insurance contracts for a fixed amount (or an amount based on a fixed amount and an interest rate).

14.2 Insurance contracts recognition and measurement

(1) Non-life insurance contracts

Premiums on non-life insurance contracts are recognised as revenue (earned premiums) proportionally over the period of coverage. The portion of premium received on in-force contracts that relates to unexpired risks at the financial reporting date is reported as the unearned premium liability in "Other liabilities". Claims and loss adjustment expenses are charged to the income statement as "Operating expenses" when incurred based on the estimated liability for compensation owed to contract holders or third parties damaged by the contract holders. They include direct and indirect claims settlement costs and arise from events that have occurred up to the financial reporting date even if they have not yet been reported to the Group.

(2) Life insurance contracts

Premiums on life insurance contracts are recognised as revenue when they become payable by the contract holders. Benefits and claims are recorded as an expense when they are incurred. A liability for contractual benefits that are expected to be incurred in the future is recorded when premiums are recognised. For certain long-term insurance contracts (investment-linked long-term insurance contracts) with embedded derivatives linking payments on the contract to units of an investment fund set up by the Group with the consideration received from the contract holders, the liability is adjusted for all changes in the fair value of the underlying assets, and includes a liability for contractual benefits that are expected to be incurred in the future which is recorded when the premiums are recognised.

II SUMMARY OF PRINCIPAL ACCOUNTING POLICIES (Continued)

14 Insurance contracts (Continued)

14.3 Liability adequacy test

At each financial reporting date, liability adequacy tests are performed to ensure the adequacy of the insurance contract liabilities (including unearned premium in the case of non-life insurance contracts). In performing these tests, current best estimates of future contractual cash flows and claims handling and administration expenses, as well as investment income from the assets backing such liabilities, are used. Any deficiency is immediately charged to the income statement and reported as "Operating expenses", with a provision established for losses arising from the liability adequacy test.

15 Preference shares and perpetual bonds

Preference shares issued by the Group contain no contractual obligation to deliver cash or another financial asset; or to exchange financial assets or financial liabilities with another entity under conditions that are potentially unfavourable to the Group. Preference shares issued are non-derivative instruments that will be settled in the Group's own equity instruments, but includes no contractual obligation for the Group to deliver a variable number of its own equity instruments. The Group classifies preference shares issued as an equity instrument. Fees, commissions and other transaction costs of preference shares issuance are deducted from equity. Dividends on preference shares are recognised as profit distribution at the time of declaration.

Perpetual bonds issued by the Group contain no contractual obligation to deliver cash or another financial asset; or to exchange financial assets or financial liabilities with another entity under conditions that are potentially unfavourable to the Group. Perpetual bonds issued include no terms and arrangements that the bonds must or will alternatively be settled in the Group's own equity instruments. The Group classifies perpetual bonds issued as an equity instrument. Fees, commissions and other transaction costs of perpetual bonds issuance are deducted from equity. Interest on perpetual bonds is recognised as profit distribution at the time of declaration.

16 Contingent liabilities

A contingent liability is a possible obligation that arises from past events and whose existence will only be confirmed by the occurrence or non-occurrence of one or more uncertain future events not wholly within the control of the Group. It can also be a present obligation arising from past events that is not recognised because it is not probable that an outflow of economic resources will be required or the amount of obligation cannot be measured reliably.

17 Fiduciary activities

The Group acts as a custodian, trustee or in other fiduciary capacities, that result in its holding or placing of assets on behalf of individuals, securities investment funds, social security funds, insurance companies, qualified foreign institutional investors, annuity schemes and other customers. These assets are not included in the statement of financial position of the Group, as they are not assets of the Group.

II SUMMARY OF PRINCIPAL ACCOUNTING POLICIES (Continued)

17 Fiduciary activities (Continued)

The Group also administers entrusted loans on behalf of third-party lenders. In this regard, the Group grants loans to borrowers, as an intermediary, at the direction of third-party lenders, who fund these loans. The Group has been contracted by these third-party lenders to manage the administration and collection of these loans on their behalf. The third-party lenders determine both the underwriting criteria for and all terms of the entrusted loans, including their purposes, amounts, interest rates, and repayment schedules. The Group charges a commission related to its activities in connection with the entrusted loans, but the risk of loss is borne by the third-party lenders. Entrusted loans are not recognised in the statement of financial position of the Group.

18 Interest income and expense

"Interest income" and "Interest expense" in the Group's income statement are the interest income and expense calculated using the effective interest method on financial assets at amortised cost, financial assets at fair value through other comprehensive income and financial liabilities at amortised cost.

Effective interest method is used in the calculation of the amortised cost of a financial asset or a financial liability and in the allocation and recognition of the interest income or interest expense in profit or loss over the relevant period. Effective interest rate is that exactly discounts estimated future cash flows through the expected life of a financial asset or financial liability to the gross carrying amount of a financial asset or the amortised cost of a financial liability. When calculating effective interest rate, the Group estimates the expected cash flows by considering all contractual terms of the financial instrument but does not consider expected credit losses. The calculation includes all amounts paid or received by the Group that are an integral part of the effective interest rate, transaction costs and all other premiums or discounts.

For those purchased or originated credit-impaired financial assets, the Group calculates the interest income by applying the credit-adjusted effective interest rate to the amortised cost of the financial asset from initial recognition. Credit-adjusted effective interest rate is that exactly discounts the estimated future cash flows through the expected life of the financial asset to the amortised cost of a financial asset that is a purchased or originated credit-impaired financial asset.

For those financial assets that are not purchased or originated credit-impaired financial assets but subsequently have become credit-impaired financial assets, the Group calculates the interest income by applying the effective interest rate to the amortised cost of the financial asset in subsequent reporting periods.

19 Fee and commission income

The Group earns fee and commission income from a diverse range of services it provides to its customers. For those services that are provided over a period of time, fee and commission income is accrued in accordance with the terms and conditions of the service agreement. For other services, fee and commission income is recognised when the transactions are completed.

20 Income taxes

Income taxes comprise current income tax and deferred income tax. Tax is recognised in the income statement except to the extent that it relates to items directly recognised in Equity, in which case, tax is also directly recognised in Equity.

20.1 Current income tax

Current income tax is the expected tax payable on the taxable income for the year, using tax rates enacted or substantially enacted at the financial reporting date, and any adjustment to tax payable in respect of previous years.

II SUMMARY OF PRINCIPAL ACCOUNTING POLICIES (Continued)

20 Income taxes (Continued)

20.2 Deferred income tax

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. Deferred income tax is determined using tax rates and laws that have been enacted or substantially enacted by the financial reporting date and are expected to apply when the related asset is realised, or the liability is settled.

The principal temporary differences arise from asset impairment allowances, revaluation of certain financial assets and financial liabilities including derivative contracts, revaluation of investment properties, depreciation and amortisation, provisions for pension, retirement benefits and salary payables.

Deferred income tax assets are recognised to the extent that it is probable that future taxable profit will be available against which deductible temporary differences can be utilised except the deferred tax asset arises from the initial recognition of an asset or liability in a transaction that is not a business combination and at the time of the transaction, affects neither accounting profit nor taxable profit/loss.

For deductible temporary differences associated with investment in subsidiaries, associates and joint ventures, a deferred tax asset is recognised to the extent that, and only to the extent that, it is probable that the temporary difference will reverse in the foreseeable future; and taxable profit will be available against which the temporary difference can be utilised.

Deferred tax liabilities shall be recognised for all taxable temporary differences, except to the extent that the deferred tax liability arises from the initial recognition of goodwill, or the initial recognition of an asset or liability in a transaction which is not a business combination, and at the time of the transaction, affects neither accounting profit nor taxable profit/loss.

Deferred income tax liabilities on taxable temporary differences arising from investments in subsidiaries, associates and joint ventures are recognised, except where the timing of the reversal of the temporary difference can be controlled and it is probable that the difference will not reverse in the foreseeable future.

The tax effects of income tax losses available for carrying forward are recognised as an asset when it is probable that future taxable profits will be available against which these losses can be utilised.

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 taxes are related to the same fiscal authority.

21 Segment reporting

The Group reviews the internal reporting in order to assess performance and allocate resources. Segment information is presented on the same basis as the Group's management and internal reporting.

22 Comparative figures

Certain comparative figures have been adjusted to conform with changes in disclosures in current year.

III CRITICAL ACCOUNTING ESTIMATES AND JUDGEMENTS IN APPLYING ACCOUNTING POLICIES

The accounting estimates and judgements made by the Group will generally affect the carrying amounts of assets and liabilities of the next financial year. Estimates and judgements are continually evaluated and are based on historical experience and other factors, including expectations of future events that are believed to be reasonable under the circumstances.

The Group has taken into consideration the impact of the economic environment on the industries and territories in which the Group operates when determining critical accounting estimates and judgements in applying accounting policies.

Areas susceptible to changes in critical estimates and judgements, which affect the carrying value of assets and liabilities, are set out below. It is possible that actual results may be materially different from the estimates and judgements referred below.

1 Measurement of ECL

The measurement of the expected credit loss allowance for financial assets measured at amortised cost, debt instruments measured at FVOCI and loan commitments and financial guarantee contracts is an area that requires the use of complex models and significant assumptions about future economic conditions and credit behaviour (the likelihood of customers defaulting and the resulting losses).

A number of significant judgements are required in applying the accounting requirements for measuring ECL, such as:

- Segmentation of portfolios sharing similar credit risk characteristics for the purposes of measuring ECL;
- Selection of appropriate models and assumptions for the measurement of ECL;
- Determination of criteria for determining significant increases in credit risk, default and credit-impaired financial assets;
- Economic indicators for forward-looking measurement, and the application of economic scenarios and weightings for different types of products; and
- Estimation of future cash flows for impaired loans and advances to customers where ECL is being assessed individually.

Refer to Note VI.2.3 measurement of ECL for the description of the parameters, assumptions and estimation techniques used in measuring the ECL.

III CRITICAL ACCOUNTING ESTIMATES AND JUDGEMENTS IN APPLYING ACCOUNTING POLICIES (Continued)

2 Fair value of financial instruments

The Group establishes fair value of financial instruments with reference to a quoted market price in an active market or, if there is no active market, using valuation techniques. These valuation techniques include the use of recent arm's length transactions, observable prices for similar instruments, discounted cash flow analysis using risk-adjusted interest rates, and commonly used market pricing models. Whenever possible these models use observable market inputs and data including, for example, interest rate yield curves, foreign currency rates and option volatilities. The results of using valuation techniques are calibrated against the industry practice and observable current market transactions in the same or similar instruments.

The Group assesses assumptions and estimates used in valuation techniques including review of valuation model assumptions and characteristics, changes to model assumptions, the quality of market data, whether markets are active or inactive, other fair value adjustments not specifically captured by models and consistency of application of techniques between reporting periods as part of its normal review and approval processes. Valuation techniques are validated and periodically reviewed and, where appropriate, have been updated to reflect market conditions at the financial reporting date.

With respect to the PRC government obligations related to large policy-directed financing transactions, fair value is determined using the stated terms of the related instrument and with reference to terms determined by the PRC government in similar transactions engaged in or directed by the PRC government. In this regard, there are no other relevant market prices or yields reflecting arm's length transactions of a comparable size and tenor.

3 Provisions

The Group uses judgement to assess whether the Group has a present legal or constructive obligation as a result of past events at each financial reporting date, and judgement is used to determine if it is probable that an outflow of resources embodying economic benefits will be required to settle the obligation, and to determine a reliable estimate of the amount of the obligation and relevant disclosure in the consolidated financial statements.

4 Employee retirement benefit obligations

As described in Note II.12.2 and Note V.33, the Bank has established liabilities in connection with benefits payable to certain retired and early retired employees. These liabilities are calculated using actuarial assumptions such as discount rates, pension benefit inflation rates, medical benefit inflation rates, and other factors. While management believes that its assumptions are appropriate, differences in actual experience or changes in assumptions may affect other comprehensive income, expenses and employee retirement benefit obligations.

5 Taxes

The Group is subject to income, value-added and other taxes in numerous jurisdictions, principally in Chinese mainland and Hong Kong (China). During the ordinary course of business, there are certain transactions and activities for which the final tax treatment is uncertain. The Group takes into account the existing tax legislations and past practice in determining the tax estimates.

Where the final tax outcome of these matters is different from the amounts that were initially estimated, such differences will impact the current income tax, deferred income tax, and value-added tax in the period during which such a determination is made.

III CRITICAL ACCOUNTING ESTIMATES AND JUDGEMENTS IN APPLYING ACCOUNTING POLICIES (Continued)

6 Impairment of non-financial assets

Non-financial assets are periodically reviewed for impairment and where the carrying amount of an asset is greater than its estimated recoverable amount, it is written down immediately to its recoverable amount. Recoverable amount is the higher of the asset's fair value less costs to sell and value in use.

When estimating the value in use of aircraft held by the subsidiary, the Group estimates expected future cash flows from the aircraft and uses a suitable discount rate to calculate present value. The Group obtains valuations of aircraft from independent appraisers for which the principal assumptions underlying aircraft value are based on current market transactions for similar aircraft in the same location and condition. The Group also uses the fair value of aircraft obtained from independent appraisers in its assessment of the recoverable amount of intangible assets and the goodwill arising from the purchase of the Group's aircraft leasing subsidiary.

7 Judgement in assessing control over structured entities

The Group is involved with structured entities in its normal business course, and the Group determines whether or not to consolidate those structured entities depending on whether the Group has control over them. When assessing control over structured entities, the Group takes consideration of power arising from rights it directly owns or indirectly owns through subsidiaries (including controlled structured entities), variable returns, and the link between power and returns.

Variable returns the Group is exposed to from its involvement with structured entities include decision makers' remuneration (such as management fees and performance-related fees), as well as other benefits (such as investment income, remuneration and exposure to loss from providing credit or liquidity support, and variable returns from transactions with structured entities). When assessing whether it controls a structured entity, the Group not only considers applicable legal or regulatory requirements, and contractual agreements, but also other circumstances where the Group may have obligation to absorb any loss of the structured entity.

The Group reassesses whether it controls a structured entity if facts and circumstances indicate that there are changes to one or more of the relevant elements of control.

IV TAXATION

The principal income and other taxes to which the Group is subject are listed below:

Taxes	Tax basis	Statutory rates
Chinese mainland		
Corporate income tax	Taxable income	25%
Value-added tax	Taxable added value	6%
City construction and maintenance tax	Turnover tax paid	1%–7%
Education surcharges	Turnover tax paid	3%
Local education surcharges	Turnover tax paid	2%
Hong Kong (China)		
Hong Kong (China) profits tax	Assessable profits	16.5%

V NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

1 Net interest income

	Year ended 31 December	
	2021	2020
Interest income		
Loans and advances to customers	**581,000**	550,354
— Corporate loans and advances	**309,436**	299,190
— Personal loans	**263,651**	241,907
— Discounted bills	**7,913**	9,257
Financial investments	**153,859**	150,553
— Financial assets at fair value through other comprehensive income	**53,550**	55,723
— Financial assets at amortised cost	**100,309**	94,830
Due from and placements with and loans to banks and other financial institutions and central banks	**54,629**	59,163
Subtotal	**789,488**	760,070
Interest expense		
Due to customers	**(263,599)**	(258,439)
Due to and placements from banks and other financial institutions	**(58,447)**	(49,419)
Bonds issued and other	**(42,300)**	(36,294)
Subtotal	**(364,346)**	(344,152)
Net interest income	**425,142**	415,918

2 Net fee and commission income

	Year ended 31 December	
	2021	2020
Agency commissions	**29,875**	25,367
Settlement and clearing fees	**15,371**	14,383
Bank card fees	**12,717**	13,825
Credit commitment fees	**11,868**	11,912
Custodian and other fiduciary service fees	**6,400**	4,831
Spread income from foreign exchange business	**5,520**	5,871
Consultancy and advisory fees	**4,576**	3,535
Other	**8,126**	8,916
Fee and commission income	**94,453**	88,640
Fee and commission expense	**(13,027)**	(13,118)
Net fee and commission income	**81,426**	75,522

(Amount in millions of Renminbi, unless otherwise stated)

V NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)

3 Net trading gains

	Year ended 31 December	
	2021	2020
Net gains from foreign exchange and foreign exchange products	**3,968**	4,007
Net gains from interest rate products	**13,065**	5,551
Net gains from fund investments and equity products	**10,322**	5,057
Net gains/(losses) from commodity products	**936**	(6,560)
Total[1]	**28,291**	8,055

(1) Included in "Net trading gains" above for the year ended 31 December 2021 were losses of RMB348 million in relation to financial assets and financial liabilities designated as at fair value through profit or loss (2020: gains of RMB1,082 million).

4 Net gains on transfers of financial asset

	Year ended 31 December	
	2021	2020
Net gains on derecognition of financial assets at fair value through other comprehensive income	**2,109**	7,987
Net gains on derecognition of financial assets at amortised cost[1]	**1,088**	1,560
Total	**3,197**	9,547

(1) All the net gains on the derecognition of financial assets at amortised cost result from disposals during the year ended 31 December 2021 and 2020.

5 Other operating income

	Year ended 31 December	
	2021	2020
Insurance premiums[1]	**33,027**	29,676
Aircraft leasing income	**12,021**	12,300
Revenue from sale of precious metals products	**10,004**	6,749
Dividend income[2]	**6,881**	5,601
Gains on disposal of property and equipment, intangible assets and other assets	**976**	1,394
Changes in fair value of investment properties (Note V.21)	**(427)**	(1,505)
Gains on disposal of subsidiaries, associates and joint ventures	**992**	202
Other	**4,187**	4,188
Total	**67,661**	58,605

(1) Details of insurance premium income are as follows:

	Year ended 31 December	
	2021	2020
Life insurance contracts		
Gross earned premiums	**36,806**	33,290
Less: gross written premiums ceded to reinsurers	**(9,004)**	(9,348)
Net insurance premium income	**27,802**	23,942
Non-life insurance contracts		
Gross earned premiums	**6,563**	6,953
Less: gross written premiums ceded to reinsurers	**(1,338)**	(1,219)
Net insurance premium income	**5,225**	5,734
Total	**33,027**	29,676

(2) For equity instruments classified as financial assets at fair value through other comprehensive income, RMB616 million of dividend income is recognised for the year ended 31 December 2021 (2020: RMB507 million).

V NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)

6 Operating expenses

	Year ended 31 December	
	2021	2020
Staff costs (Note V.7)	**99,317**	89,334
General operating and administrative expenses[(1)(2)]	**47,403**	38,944
Insurance benefits and claims		
— Life insurance contracts	**27,749**	26,340
— Non-life insurance contracts	**3,830**	4,241
Depreciation and amortisation	**23,882**	22,871
Cost of sales of precious metal products	**9,650**	6,424
Taxes and surcharges	**5,715**	5,465
Other	**8,809**	8,792
Total[(3)]	**226,355**	202,411

(1) Included in the "General operating and administrative expenses" is principal auditors' remuneration of RMB173 million for the year ended 31 December 2021 (2020: RMB237 million), of which RMB62 million is for Hong Kong (China), Macao (China), Taiwan (China) and other countries and regions of the Group (2020: RMB75 million).

(2) Included in the "General operating and administrative expenses" are lease expenses related to short-term leases, leases of low-value assets and others of RMB1,404 million for the year ended 31 December 2021 (2020: RMB1,302 million).

(3) Included in the "Operating expenses" are premises and equipment-related expenses (mainly comprised of property management and building maintenance expenses and taxes) of RMB12,986 million for the year ended 31 December 2021 (2020: RMB12,810 million).

7 Staff costs

	Year ended 31 December	
	2021	2020
Salary, bonus and subsidy	**68,798**	62,377
Staff welfare	**4,664**	4,218
Retirement benefits	**67**	50
Social insurance		
— Medical	**3,932**	3,109
— Pension	**6,205**	4,607
— Annuity	**3,527**	3,440
— Unemployment	**213**	150
— Injury at work	**81**	59
— Maternity insurance	**135**	136
Housing funds	**4,940**	4,774
Labour union fee and staff education fee	**2,052**	2,082
Reimbursement for cancellation of labour contract	**29**	28
Other	**4,674**	4,304
Total	**99,317**	89,334

(Amount in millions of Renminbi, unless otherwise stated)

V NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)

8 Directors', supervisors' and senior management's emoluments

Details of the directors' and supervisors' emoluments are as follows:

For the year ended 31 December 2021

	Fees	Remuneration paid	Contributions to pension schemes	Benefits in kind	Total
	RMB'000	RMB'000	RMB'000	RMB'000	RMB'000
Executive directors					
LIU Liange[4]	–[2]	619	117	85	821
LIU Jin[4][5]	–[2]	465	88	63	616
WANG Wei[4]	–[2]	557	111	84	752
LIN Jingzhen[4]	–[2]	557	111	84	752
WANG Jiang[4][6]	–[2]	51	10	7	68
Non-executive directors					
XIAO Lihong[1]	–	–	–	–	–
WANG Xiaoya[1]	–	–	–	–	–
ZHANG Jiangang[1]	–	–	–	–	–
CHEN Jianbo[1]	–	–	–	–	–
ZHAO Jie[1][6]	–	–	–	–	–
Independent directors					
WANG Changyun	600	–	–	–	600
Angela CHAO	450	–	–	–	450
JIANG Guohua	600	–	–	–	600
Martin Cheung Kong LIAO	450	–	–	–	450
CHEN Chunhua	500	–	–	–	500
CHUI Sai Peng Jose	450	–	–	–	450
Supervisors					
ZHANG Keqiu[4][5]	–	619	117	85	821
WEI Hanguang[5]	8[3]	–	–	–	8
ZHOU Hehua[5]	8[3]	–	–	–	8
LENG Jie	50[3]	–	–	–	50
JIA Xiangsen	260	–	–	–	260
ZHENG Zhiguang	260	–	–	–	260
WANG Xiquan[4][6]	–	51	10	7	68
WANG Zhiheng[6]	25[3]	–	–	–	25
LI Changlin[6]	46[3]	–	–	–	46
	3,707	2,919	564	415	7,605

V NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)

8 Directors', supervisors' and senior management's emoluments (Continued)

For the year ended 31 December 2020

	Fees	Remuneration paid	Contributions to pension schemes	Benefits in kind	Total
	RMB'000	RMB'000	RMB'000	RMB'000	RMB'000
Executive directors					
LIU Liange[4]	–[2]	811	78	79	968
LIU Jin[4][5]	–[2]	–	–	–	–
WANG Wei[4]	–[2]	729	74	79	882
LIN Jingzhen[4]	–[2]	729	74	79	882
WANG Jiang[4][6]	–[2]	811	78	79	968
WU Fulin[4]	–[2]	61	5	7	73
Non-executive directors					
XIAO Lihong[1]	–	–	–	–	–
WANG Xiaoya[1]	–	–	–	–	–
ZHANG Jiangang[1]	–	–	–	–	–
CHEN Jianbo[1]	–	–	–	–	–
LIAO Qiang[1]	–	–	–	–	–
ZHAO Jie[1][6]	–	–	–	–	–
Independent directors					
WANG Changyun	635	–	–	–	635
Angela CHAO	450	–	–	–	450
JIANG Guohua	609	–	–	–	609
Martin Cheung Kong LIAO	450	–	–	–	450
CHEN Chunhua	224	–	–	–	224
CHUI Sai Peng Jose	138	–	–	–	138
Supervisors					
ZHANG Keqiu[4][5]	–	–	–	–	–
LENG Jie	50[3]	–	–	–	50
JIA Xiangsen	260	–	–	–	260
ZHENG Zhiguang	260	–	–	–	260
WANG Xiquan[4][6]	–	811	78	79	968
WANG Zhiheng[6]	50[3]	–	–	–	50
LI Changlin[6]	50[3]	–	–	–	50
	3,176	3,952	387	402	7,917

(Amount in millions of Renminbi, unless otherwise stated)

V NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)

8 Directors', supervisors' and senior management's emoluments (Continued)

(1) For the years ended 31 December 2021 and 2020, these non-executive directors of the Bank were not remunerated by the Bank.

(2) For the years ended 31 December 2021 and 2020, these executive directors of the Bank did not receive any fees.

(3) Employee supervisors' compensation presented above is paid for serving as the supervisors of the Bank.

(4) A portion of the discretionary bonus payments for executive directors and the Chairman of the Board of Supervisors are deferred for a minimum of 3 years, which is contingent upon the future performance in accordance with relevant regulations of the PRC authorities.

The total compensation packages for executive directors and certain supervisors for the year ended 31 December 2021 including discretionary bonus have not yet been finalised in accordance with the relevant regulations of the PRC authorities. The amount of the compensation not provided for is not expected to have any significant impact on the Group's 2021 financial statements. The final compensation for the year ended 31 December 2021 will be disclosed in a separate announcement when determined.

The compensation amounts for these directors and supervisors for the year ended 31 December 2020 were restated based on the finalised amounts as disclosed in the Bank's announcement on resolutions of the Board of Directors dated 30 August 2021.

(5) LIU Jin began to serve as Vice-Chairman of the Board of Directors and Executive Director of the Bank as of 16 June 2021. ZHANG Keqiu began to serve as Chairwoman of the Board of Supervisors and Shareholder Supervisor of the Bank as of 18 January 2021. WEI Hanguang and ZHOU Hehua began to serve as Employee Supervisor as of 18 November 2021. HUI Ping began to serve as External Supervisor as of 17 February 2022. Since HUI Ping did not hold any position at the Board of Supervisors of the Bank in 2021, no emoluments were disclosed in 2021.

(6) WANG Jiang ceased to serve as Vice-Chairman of the Board of Directors and Executive Director of the Bank as of 5 February 2021. ZHAO Jie ceased to serve as Non-executive Director of the Bank as of 15 March 2022. WANG Xiquan ceased to serve as Chairman of the Board of Supervisors and Shareholder Supervisor of the Bank as of 18 January 2021. WANG Zhiheng ceased to serve as Employee Supervisor as of 24 June 2021. LI Changlin ceased to serve as Employee Supervisor as of 18 November 2021.

Five highest paid individuals

Of the five individuals with the highest emoluments, none of them are directors or supervisors whose emoluments are disclosed above.

The emoluments payable to the five individuals whose emoluments were the highest in the Group for the years ended 31 December 2021 and 2020, respectively are as follows:

	Year ended 31 December	
	2021	2020
Basic salaries and allowances	**18**	23
Discretionary bonuses	**63**	98
Contributions to pension schemes and other	**2**	3
	83	124

V NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)

8 Directors', supervisors' and senior management's emoluments (Continued)

Five highest paid individuals (Continued)

Emoluments of the individuals were within the following bands:

	Year ended 31 December	
Amounts in RMB	**2021**	2020
10,000,001–20,000,000	**4**	4
20,000,001–30,000,000	**1**	–
30,000,001–50,000,000	**–**	1

The above five highest paid individuals' emoluments are based on best estimates of discretionary bonuses. Discretionary bonuses include portions of payments that are deferred to future periods.

During the years ended 31 December 2021 and 2020, the Group has not paid any emoluments to the directors, supervisors, or senior management as an inducement to join or upon joining the Group or as compensation for loss of office.

9 Impairment losses on assets

	Year ended 31 December	
	2021	2020
Loans and advances		
— Loans and advances at amortised cost	**98,289**	103,743
— Loans and advances at fair value through other comprehensive income	**9**	(113)
Subtotal	**98,298**	103,630
Financial investments		
— Financial assets at amortised cost	**721**	1,872
— Financial assets at fair value through other comprehensive income	**763**	4,244
Subtotal	**1,484**	6,116
Credit commitments	**(3,038)**	5,454
Other	**6,335**	3,181
Subtotal of impairment losses on credit	**103,079**	118,381
Other impairment losses on assets	**1,141**	635
Total	**104,220**	119,016

(Amount in millions of Renminbi, unless otherwise stated)

V NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)

10 Income tax expense

	Year ended 31 December	
	2021	2020
Current income tax		
— Chinese mainland income tax	**35,039**	45,296
— Hong Kong (China) profits tax	**4,348**	5,242
— Macao (China), Taiwan (China) and other countries and regions taxation	**3,537**	3,455
Adjustments in respect of current income tax of prior years	**(345)**	1,557
Subtotal	**42,579**	55,550
Deferred income tax (Note V.35.3)	**6,702**	(14,268)
Total	**49,281**	41,282

The principal tax rates applicable to the Group are set out in Note IV.

Provision for Chinese mainland income tax includes income tax based on the statutory tax rate of 25% of the taxable income of the Bank and each of its subsidiaries established in the Chinese mainland, and supplementary PRC tax on overseas operations as determined in accordance with the relevant PRC income tax rules and regulations.

Taxation on profits of Hong Kong (China), Macao (China), Taiwan (China) and other countries and regions has been calculated on the estimated assessable profits in accordance with local tax regulations at the rates of taxation prevailing in the countries or regions in which the Group operates.

The tax rate on the Group's profit before income tax differs from the theoretical amount that would arise using the basic Chinese mainland tax rate of the Bank as follows:

	Year ended 31 December	
	2021	2020
Profit before income tax	**276,620**	246,378
Tax calculated at the basic Chinese mainland tax rate	**69,155**	61,595
Effect of different tax rates for Hong Kong (China), Macao (China), Taiwan (China) and other countries and regions	**(4,337)**	(4,278)
Supplementary PRC tax on overseas income	**2,927**	2,924
Income not subject to tax(1)	**(29,556)**	(29,791)
Items not deductible for tax purposes(2)	**12,257**	11,226
Other	**(1,165)**	(394)
Income tax expense	**49,281**	41,282

(1) Income not subject to tax mainly comprises interest income from PRC treasury bonds and Chinese local government bonds, and tax-free income recognised by the overseas entities in accordance with the relevant local tax law.

(2) Non-deductible items primarily include non-deductible losses resulting from the write-off of certain non-performing loans, and marketing and entertainment expenses in excess of the relevant deductible threshold under the relevant PRC tax regulations.

V NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)

11 Earnings per share (basic and diluted)

Basic earnings per share was computed by dividing the profit attributable to the ordinary shareholders of the Bank by the weighted average number of ordinary shares in issue during the period.

Diluted earnings per share was computed by dividing the adjusted profit attributable to the ordinary shareholders of the Bank based on assuming conversion of all potentially dilutive shares for the period by the adjusted weighted average number of ordinary shares in issue. There was no difference between basic and diluted earnings per share as there were no potentially dilutive shares outstanding for the years ended 31 December 2021 and 2020.

	Year ended 31 December	
	2021	2020
Profit attributable to equity holders of the Bank	**216,559**	192,870
Less: dividends/interest on preference shares/ perpetual bonds declared	**(10,651)**	(12,029)
Profit attributable to ordinary shareholders of the Bank	**205,908**	180,841
Weighted average number of ordinary shares in issue (in million shares)	**294,379**	294,381
Basic and diluted earnings per share (in RMB)	**0.70**	0.61

Weighted average number of ordinary shares in issue (in million shares)

	Year ended 31 December	
	2021	2020
Issued ordinary shares as at 1 January	**294,388**	294,388
Less: weighted average number of treasury shares	**(9)**	(7)
Weighted average number of ordinary shares in issue	**294,379**	294,381

(Amount in millions of Renminbi, unless otherwise stated)

V NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)

12 Other comprehensive income

	Year ended 31 December	
	2021	2020
Items that will not be reclassified to profit or loss		
Actuarial (losses)/gains on defined benefit plans	**(83)**	101
Changes in fair value on equity instruments designated at fair value through other comprehensive income	**335**	(622)
Less: related income tax impact	**(185)**	(29)
Other	**83**	10
Subtotal	**150**	(540)
Items that may be reclassified to profit or loss		
Changes in fair value on debt instruments measured at fair value through other comprehensive income	**8,412**	3,950
Less: related income tax impact	**(1,557)**	(742)
Amount transferred to the income statement	**(1,687)**	(7,711)
Less: related income tax impact	**276**	1,527
	5,444	(2,976)
Allowance for credit losses on debt instruments measured at fair value through other comprehensive income	**761**	4,108
Less: related income tax impact	**(190)**	(1,024)
	571	3,084
Share of other comprehensive income of associates and joint ventures accounted for using the equity method	**10**	(174)
Less: related income tax impact	**(2)**	44
	8	(130)
Exchange differences from the translation of foreign operations	**(12,760)**	(21,549)
Other	**351**	(751)
Subtotal	**(6,386)**	(22,322)
Total	**(6,236)**	(22,862)

V NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)

12 Other comprehensive income (Continued)

Other comprehensive income attributable to equity holders of the Bank in the consolidated statement of financial position:

	Gains/(losses) on financial assets at fair value through other comprehensive income	Exchange differences from the translation of foreign operations	Other	Total
As at 1 January 2020	22,534	(6,172)	3,251	19,613
Changes for the previous year	(344)	(14,285)	(675)	(15,304)
As at 1 January 2021	**22,190**	**(20,457)**	**2,576**	**4,309**
Changes for the year	**6,700**	**(9,782)**	**190**	**(2,892)**
As at 31 December 2021	**28,890**	**(30,239)**	**2,766**	**1,417**

13 Cash and due from banks and other financial institutions

	As at 31 December	
	2021	2020
Cash	**59,518**	78,825
Due from banks in Chinese mainland	**464,417**	602,340
Due from other financial institutions in Chinese mainland	**8,709**	7,515
Due from banks in Hong Kong (China), Macao (China), Taiwan (China) and other countries and regions	**110,948**	110,662
Due from other financial institutions in Hong Kong (China), Macao (China), Taiwan (China) and other countries and regions	**926**	559
Subtotal(1)	**585,000**	721,076
Accrued interest	**1,835**	4,327
Less: allowance for impairment losses(1)	**(1,537)**	(1,083)
Subtotal due from banks and other financial institutions	**585,298**	724,320
Total	**644,816**	803,145

(1) As at 31 December 2021 and 2020, the Group included the predominant majority of due from banks and other financial institutions under Stage 1, and measured the impairment losses based on expected credit losses in the next 12 months.

(Amount in millions of Renminbi, unless otherwise stated)

V NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)

14 Balances with central banks

	As at 31 December	
	2021	2020
Mandatory reserves[1]	**1,478,465**	1,442,384
Surplus reserves and others[2]	**753,369**	633,761
Subtotal	**2,231,834**	2,076,145
Accrued interest	**672**	695
Less: allowance for impairment losses	**(3,780)**	–
Total	**2,228,726**	2,076,840

(1) The Group places mandatory reserve funds with the People's Bank of China (the "PBOC") and the central banks of Hong Kong (China), Macao (China), Taiwan (China) and other countries and regions where it has operations. As at 31 December 2021, mandatory reserve funds placed with the PBOC were calculated at 10.0% (31 December 2020: 11.0%) and 9.0% (31 December 2020: 5.0%) of qualified RMB deposits and foreign currency deposits from customers in Chinese mainland of the Bank, respectively. The mandatory reserve funds placed with the central bank of domestic subsidiaries of the Group are determined by the PBOC. The amounts of mandatory reserve funds placed with the central banks of other jurisdictions are determined by local regulations.

(2) These represent funds for clearing purposes and balances other than mandatory reserves placed with the PBOC, the central banks of Hong Kong (China), Macao (China), Taiwan (China) and other countries and regions.

V NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)

15 Placements with and loans to banks and other financial institutions

	As at 31 December	
	2021	2020
Placements with and loans to:		
Banks in Chinese mainland	**150,556**	91,709
Other financial institutions in Chinese mainland	**589,919**	529,152
Banks in Hong Kong (China), Macao (China), Taiwan (China) and other countries and regions	**450,817**	294,358
Other financial institutions in Hong Kong (China), Macao (China), Taiwan (China) and other countries and regions	**67,055**	24,157
Subtotal(1)(2)	**1,258,347**	939,376
Accrued interest	**3,109**	2,429
Less: allowance for impairment losses(2)	**(4,043)**	(2,485)
Total	**1,257,413**	939,320

(1) "Placements with and loans to banks and other financial institutions" include balances arising from reverse repo agreements and collateralised financing agreements. They are presented by collateral type as follows:

	As at 31 December	
	2021	2020
Debt securities		
— Governments	**396,324**	182,724
— Policy banks	**101,436**	40,968
— Financial institutions	**6,914**	6,109
— Corporates	**1,222**	256
Subtotal(2)	**505,896**	230,057
Less: allowance for impairment losses(2)	**(668)**	–
Total	**505,228**	230,057

(2) As at 31 December 2021 and 2020, the Group included the predominant majority of its placements with and loans to banks and other financial institutions under Stage 1, and measured the impairment losses based on expected credit losses in the next 12 months.

(Amount in millions of Renminbi, unless otherwise stated)

V NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)

16 Derivative financial instruments and hedge accounting

The Group enters into foreign currency exchange rate, interest rate, equity, credit or precious metals and other commodity-related derivative financial instruments for trading, hedging, asset and liability management and customer initiated transactions.

The contractual/notional amounts and fair values of derivative instruments held by the Group are set out in the following tables. The contractual/notional amounts of financial instruments provide a basis for comparison with the fair values of instruments recognised in the statement of financial position but do not necessarily indicate the amounts of future cash flows involved or the current fair value of the instruments and, therefore, do not indicate the Group's exposure to credit or market risks. The derivative instruments become favourable (assets) or unfavourable (liabilities) as a result of fluctuations in market interest rates, foreign currency exchange rates, credit spreads, or equity/commodity prices relative to their terms. The aggregate fair values of derivative financial assets and liabilities can fluctuate significantly from time to time.

16.1 Derivative financial instruments

	As at 31 December 2021			As at 31 December 2020		
	Contractual/ Notional amount	Fair value Assets	Fair value Liabilities	Contractual/ Notional amount	Fair value Assets	Fair value Liabilities
Exchange rate derivatives						
Currency forwards and swaps, and cross-currency interest rate swaps	**5,966,594**	**61,172**	**(52,535)**	6,304,310	118,600	(151,412)
Currency options	**593,654**	**4,996**	**(4,196)**	419,338	6,921	(3,789)
Currency futures	**1,250**	**1**	**(3)**	1,746	7	(20)
Subtotal	**6,561,498**	**66,169**	**(56,734)**	6,725,394	125,528	(155,221)
Interest rate derivatives						
Interest rate swaps	**4,032,069**	**23,860**	**(27,179)**	3,817,876	32,789	(42,520)
Interest rate options	**22,988**	**136**	**(135)**	63,772	16	(11)
Interest rate futures	**2,058**	**2**	**(4)**	543	–	(1)
Subtotal	**4,057,115**	**23,998**	**(27,318)**	3,882,191	32,805	(42,532)
Equity derivatives	**4,776**	**185**	**(120)**	12,927	376	(413)
Commodity derivatives and other	**288,773**	**5,447**	**(4,979)**	392,823	13,029	(13,886)
Total[(1)]	**10,912,162**	**95,799**	**(89,151)**	11,013,335	171,738	(212,052)

(1) The derivative financial instruments above include those designated as hedging instruments by the Group.

V NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)

16 Derivative financial instruments and hedge accounting (Continued)

16.2 Hedge accounting

(1) *Fair value hedges*

The Group uses cross-currency interest rate swaps and interest rate swaps to hedge against changes in fair value of "Financial investments", "Due to central banks" and "Bonds issued" arising from changes in foreign currency exchange rates and interest rates. Foreign currency exchange rate risk and interest rate risk are usually the primary risks which affect the change in fair value.

(i) The following table contains details of the derivative hedging instruments used in the Group's fair value hedging strategies:

	Derivatives designated as hedging instruments in fair value hedges			
	Contractual/ Notional amount	Fair value Assets	Fair value Liabilities	Line item in the statement of financial position
As at 31 December 2021				
Interest rate risk				
Interest rate swaps	**107,597**	**685**	**(2,154)**	**Derivative financial assets/liabilities**
Foreign exchange and interest rate risk				
Cross-currency interest rate swaps	**625**	**–**	**(24)**	**Derivative liabilities**
Total	**108,222**	**685**	**(2,178)**	
As at 31 December 2020				
Interest rate risk				
Interest rate swaps	100,936	240	(5,216)	Derivative financial assets/liabilities
Foreign exchange and interest rate risk				
Cross-currency interest rate swaps	1,852	–	(206)	Derivative liabilities
Total	102,788	240	(5,422)	

(Amount in millions of Renminbi, unless otherwise stated)

V NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)

16 Derivative financial instruments and hedge accounting (Continued)

16.2 Hedge accounting (Continued)

(1) Fair value hedges (Continued)

(i) The following table contains details of the derivative hedging instruments used in the Group's fair value hedging strategies (Continued):

The following table sets out the maturity and average exchange rate/interest rate information of the hedging instruments mentioned above:

	Fair value hedges					
	Less than 1 month	Between 1 and 3 months	Between 3 and 12 months	Between 1 and 5 years	Over 5 years	Total
As at 31 December 2021						
Interest rate risk						
Interest rate swaps						
Notional amount	**1,237**	**5,493**	**9,438**	**56,999**	**34,430**	**107,597**
Average fixed interest rate	**3.23%**	**2.99%**	**3.33%**	**3.04%**	**2.87%**	**N/A**
Foreign exchange and interest rate risk						
Cross-currency interest rate swaps						
Notional amount	**–**	**–**	**308**	**317**	**–**	**625**
Average fixed interest rate	**–**	**–**	**4.70%**	**5.50%**	**–**	**N/A**
Average exchange rate of USD/CNY	**–**	**–**	**6.2110**	**6.0350**	**–**	**N/A**
As at 31 December 2020						
Interest rate risk						
Interest rate swaps						
Notional amount	1,578	1,693	7,054	59,013	31,598	100,936
Average fixed interest rate	2.87%	2.12%	2.37%	2.90%	2.99%	N/A
Foreign exchange and interest rate risk						
Cross-currency interest rate swaps						
Notional amount	–	1,212	–	640	–	1,852
Average fixed interest rate	–	5.38%	–	5.11%	–	N/A
Average exchange rate of USD/CNY	–	–	–	6.1217	–	N/A
Average exchange rate of AUD/USD	–	0.9294	–	–	–	N/A

V NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)

16 Derivative financial instruments and hedge accounting (Continued)

16.2 Hedge accounting (Continued)

(1) Fair value hedges (Continued)

(ii) The following table sets out the details of the hedged items covered by the Group's fair value hedging strategies:

	Fair value hedges				
	Carrying amount of hedged items		Accumulated amount of fair value adjustments on the hedged items		Line item in the statement of financial position
	Assets	Liabilities	Assets	Liabilities	
As at 31 December 2021					
Interest rate risk					
Financial investments	**103,502**	**–**	**2,561**	**–**	**Financial investments**
Due to central banks	**–**	**(2,523)**	**–**	**14**	**Due to central banks**
Bonds issued	**–**	**(4,458)**	**–**	**116**	**Bonds issued**
Foreign exchange and interest rate risk					
Bonds issued	**–**	**(600)**	**–**	**24**	**Bonds issued**
Total	**103,502**	**(7,581)**	**2,561**	**154**	
As at 31 December 2020					
Interest rate risk					
Financial investments	100,228	–	5,503	–	Financial investments
Due to central banks	–	(2,735)	–	3	Due to central banks
Bonds issued	–	(4,711)	–	(113)	Bonds issued
Foreign exchange and interest rate risk					
Bonds issued	–	(1,647)	–	206	Bonds issued
Total	100,228	(9,093)	5,503	96	

(iii) The Group's net gains or losses on fair value hedges are as follows:

	Year ended 31 December	
	2021	2020
Net gains/(losses) on		
— hedging instruments	**3,136**	(2,843)
— hedged items	**(3,250)**	3,036
Ineffectiveness recognised in net trading gains	**(114)**	193

(Amount in millions of Renminbi, unless otherwise stated)

V NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)

16 Derivative financial instruments and hedge accounting (Continued)

16.2 Hedge accounting (Continued)

(2) Net investment hedges

The Group's consolidated statement of financial position is affected by exchange differences between the functional currencies of the Group and functional currencies of its branches and subsidiaries. The Group hedges such exchange exposures only in limited circumstances. Hedging is undertaken using due to customers, due to central banks and foreign exchange forward and swap contracts in the same or exchange-rate pegged currencies as the functional currencies of the related branches and subsidiaries which are accounted for as hedges of certain net investments in foreign operations. Under the hedging relationships of designating due to customers, due to central banks and foreign exchange forward and swap contracts as hedging instruments, the Group separates the forward element and the spot element of a forward contract and designates as the hedging instrument only the change in the value of the spot element of the forward contract. There was no ineffectiveness for the year ended 31 December 2021 (2020: Nil).

(i) Details of due to customers and due to central banks used in the Group's net investment hedging strategies:

As at 31 December 2021, the carrying value of such due to customers amounted to RMB50,273 million (31 December 2020: RMB53,087 million) and due to central banks amounted to RMB762 million (31 December 2020: RMB1,060 million).

(ii) The following table contains details of the derivative hedging instruments used in the Group's net investment hedging strategies:

	Derivatives designated as net investment hedging instruments			
	Contractual/ Notional amount	Fair value		Line item in the statement of financial position
		Assets	Liabilities	
As at 31 December 2021				
Foreign exchange forward and swap contracts	**6,946**	**292**	**(26)**	**Derivative financial assets/liabilities**
Total	**6,946**	**292**	**(26)**	
As at 31 December 2020				
Foreign exchange forward and swap contracts	3,966	12	(360)	Derivative financial assets/liabilities
Total	3,966	12	(360)	

V NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)

16 Derivative financial instruments and hedge accounting (Continued)

16.2 Hedge accounting (Continued)

(2) *Net investment hedges (Continued)*

(ii) The following table contains details of the derivative hedging instruments used in the Group's net investment hedging strategies (Continued):

The following table sets out the maturity and average exchange rate of the hedging instruments mentioned above:

	Net investment hedges					
	Less than 1 month	Between 1 and 3 months	Between 3 and 12 months	Between 1 and 5 years	Over 5 years	Total
As at 31 December 2021						
Foreign exchange risk						
Foreign exchange forward and swap contracts						
Notional amount	**–**	**–**	**6,946**	**–**	**–**	**6,946**
Average exchange rate of USD/BRL	**–**	**–**	**5.5165**	**–**	**–**	**N/A**
Average exchange rate of USD/ZAR	**–**	**–**	**15.3221**	**–**	**–**	**N/A**
Average exchange rate of USD/INR	**–**	**–**	**77.6566**	**–**	**–**	**N/A**
Average exchange rate of USD/MXN	**–**	**–**	**21.4996**	**–**	**–**	**N/A**
Average exchange rate of USD/CLP	**–**	**–**	**845.0014**	**–**	**–**	**N/A**
Average exchange rate of USD/PEN	**–**	**–**	**3.7309**	**–**	**–**	**N/A**
Average exchange rate of USD/HUF	**–**	**–**	**298.2472**	**–**	**–**	**N/A**
Average exchange rate of USD/TWD	**–**	**–**	**26.9425**	**–**	**–**	**N/A**
Average exchange rate of USD/RUB	**–**	**–**	**78.2517**	**–**	**–**	**N/A**
As at 31 December 2020						
Foreign exchange risk						
Foreign exchange forward and swap contracts						
Notional amount	–	1,956	2,010	–	–	3,966
Average exchange rate of USD/BRL	–	5.2086	–	–	–	N/A
Average exchange rate of USD/ZAR	–	17.5600	16.9743	–	–	N/A
Average exchange rate of USD/INR	–	–	79.2094	–	–	N/A
Average exchange rate of USD/MXN	–	–	21.9108	–	–	N/A
Average exchange rate of NZD/USD	–	0.5928	–	–	–	N/A
Average exchange rate of USD/CLP	–	–	778.3973	–	–	N/A
Average exchange rate of USD/PEN	–	3.5505	3.5110	–	–	N/A

(Amount in millions of Renminbi, unless otherwise stated)

V NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)

16 Derivative financial instruments and hedge accounting (Continued)

16.2 Hedge accounting (Continued)

(2) Net investment hedges (Continued)

(iii) The Group's gains from the hedging instruments recognised in "Other comprehensive income" on net investment hedges are as follows:

	Year ended 31 December	
	2021	2020
Amounts of fair value changes on hedging instruments recognised in "Other comprehensive income"	**6,740**	3,841
Amounts of forward element reclassified from "Other comprehensive income" to profit or loss	**98**	154
Net amounts of fair value changes on hedging instruments recognised in "Other comprehensive income"	**6,838**	3,995

V NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)

17 Loans and advances to customers

17.1 Analysis of loans and advances to customers by measurement category

	As at 31 December	
	2021	2020
Measured at amortised cost		
— Corporate loans and advances	**9,224,184**	8,234,541
— Personal loans	**6,093,750**	5,583,295
— Discounted bills	**1,460**	1,912
Measured at fair value through other comprehensive income(1)		
— Corporate loans and advances	**2,254**	979
— Discounted bills	**349,541**	358,997
Subtotal	**15,671,189**	14,179,724
Measured at fair value through profit or loss(2)		
— Corporate loans and advances	**3,805**	3,661
Total	**15,674,994**	14,183,385
Accrued interest	**37,580**	33,092
Total loans and advances	**15,712,574**	14,216,477
Less: allowance for loans at amortised cost	**(390,090)**	(368,173)
Loans and advances to customers, net	**15,322,484**	13,848,304

(1) As at 31 December 2021,the allowance for impairment losses of loans and advances to customers at fair value through other comprehensive income of the Group amounted to RMB451 million (31 December 2020: RMB446 million) and was credited to other comprehensive income.

(2) During the years ended 31 December 2021 and 2020, there were no significant movements in the fair value and accumulated fair value changes of corporate loans and advances measured at fair value through profit or loss that are attributable to changes in credit risk of these loans.

17.2 Analysis of loans and advances to customers (accrued interest excluded) by geographical area, customer type, industry, collateral type and analysis of impaired and overdue loans and advances to customers are presented in Note VI.2.5.

(Amount in millions of Renminbi, unless otherwise stated)

V NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)

17 Loans and advances to customers (Continued)

17.3 Reconciliation of allowance for impairment losses on loans and advances to customers

(1) Allowance for loans at amortised cost

	Year ended 31 December 2021			
	12-month ECL	Lifetime ECL		
	Stage 1	Stage 2	Stage 3	Total
As at 1 January	**134,566**	**70,712**	**162,895**	**368,173**
Transfers to Stage 1	**6,186**	**(5,205)**	**(981)**	**–**
Transfers to Stage 2	**(989)**	**1,786**	**(797)**	**–**
Transfers to Stage 3	**(687)**	**(14,244)**	**14,931**	**–**
Impairment (reversal)/losses of loans with stage transfers	**(5,245)**	**10,226**	**32,586**	**37,567**
Charge for the year[i]	**84,479**	**15,132**	**58,502**	**158,113**
Reversal for the year[ii]	**(51,399)**	**(24,087)**	**(21,905)**	**(97,391)**
Write-off and transfer out	**(195)**	**–**	**(85,401)**	**(85,596)**
Recovery of loans and advances written off	**–**	**–**	**11,921**	**11,921**
Exchange differences and other	**(358)**	**(488)**	**(1,851)**	**(2,697)**
As at 31 December	**166,358**	**53,832**	**169,900**	**390,090**

	Year ended 31 December 2020			
	12-month ECL	Lifetime ECL		
	Stage 1	Stage 2	Stage 3	Total
As at 1 January	109,765	79,051	136,544	325,360
Transfers to Stage 1	3,769	(3,232)	(537)	–
Transfers to Stage 2	(1,274)	13,913	(12,639)	–
Transfers to Stage 3	(407)	(30,546)	30,953	–
Impairment (reversal)/losses of loans with stage transfers	(3,507)	9,357	35,203	41,053
Charge for the year[i]	70,933	24,190	42,114	137,237
Reversal for the year[ii]	(43,164)	(21,257)	(10,126)	(74,547)
Write-off and transfer out	(66)	–	(64,255)	(64,321)
Recovery of loans and advances written off	–	–	8,405	8,405
Exchange differences and other	(1,483)	(764)	(2,767)	(5,014)
As at 31 December	134,566	70,712	162,895	368,173

V NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)

17 Loans and advances to customers (Continued)

17.3 Reconciliation of allowance for impairment losses on loans and advances to customers (Continued)

(2) Allowance for loans at fair value through other comprehensive income

	Year ended 31 December 2021			
	12-month ECL	**Lifetime ECL**		
	Stage 1	**Stage 2**	**Stage 3**	**Total**
As at 1 January	**441**	**5**	**–**	**446**
Transfers to Stage 1	**–**	**–**	**–**	**–**
Transfers to Stage 2	**–**	**–**	**–**	**–**
Transfers to Stage 3	**–**	**–**	**–**	**–**
Impairment (reversal)/losses of loans with stage transfers	**–**	**–**	**–**	**–**
Charge for the year(i)	**276**	**77**	**–**	**353**
Reversal for the year(ii)	**(339)**	**(5)**	**–**	**(344)**
Exchange differences and other	**(4)**	**–**	**–**	**(4)**
As at 31 December	**374**	**77**	**–**	**451**

	Year ended 31 December 2020			
	12-month ECL	Lifetime ECL		
	Stage 1	Stage 2	Stage 3	Total
As at 1 January	547	16	–	563
Transfers to Stage 1	–	–	–	–
Transfers to Stage 2	–	–	–	–
Transfers to Stage 3	–	–	–	–
Impairment (reversal)/losses of loans with stage transfers	–	–	–	–
Charge for the year(i)	563	5	–	568
Reversal for the year(ii)	(665)	(16)	–	(681)
Exchange differences and other	(4)	–	–	(4)
As at 31 December	441	5	–	446

(i) Charge for the year comprises impairment losses attributable to new loans granted during the year, brought forward loans without stage transfers, as well as changes to model and risk parameters.

(ii) Reversal for the year comprises impairment losses attributable to loan repaid during the year, brought forward loans without stage transfers, as well as changes to model and risk parameters.

V NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)

17 Loans and advances to customers (Continued)

17.3 Reconciliation of allowance for impairment losses on loans and advances to customers (Continued)

The Group enhanced its ECL models in 2021, which has no significant impact to the financial statements.

In 2021, the changes in gross carrying amounts of loans and advances to customers that have a significant impact on the Group's impairment allowance were mainly derived from the credit business in the Chinese mainland, including:

- The domestic branches performed regular reviews of the five-category loan classification grading and internal credit ratings on their loans and advances to customers. Loans with a gross carrying amount of RMB71,309 million (2020: RMB69,946 million) were transferred from Stage 1 to Stage 2 and Stage 3, and the impairment allowance increased correspondingly by RMB23,296 million (2020: RMB22,008 million). The gross carrying amount of loans transferred from Stage 2 to Stage 3 was RMB38,376 million (2020: RMB67,364 million), with a corresponding increase in impairment allowance of RMB13,814 million (2020: RMB20,900 million). The gross carrying amount of the loans transferred from Stage 2 to Stage 1 was RMB22,435 million (2020: RMB16,132 million), and the impairment allowance decreased correspondingly by RMB3,729 million (2020: RMB2,677 million). The gross carrying amount of loans transferred from Stage 3 to Stage 2 and Stage 1 was RMB2,463 million (2020: RMB16,720 million), and the impairment allowance decreased correspondingly by RMB1,438 million (2020: RMB6,656 million).

- During the year, the disposal of non-performing loans by domestic branches via write-off, transfer of creditor's rights and loans to equity conversion amounted to RMB75,152 million (2020: RMB64,269 million), resulting in a corresponding reduction of RMB72,016 million (2020: RMB58,172 million) in impairment allowance for Stage 3 loans.

- Through personal loan securitisation, the domestic branches transferred out loans of RMB53,258 million (2020: RMB18,323 million), resulting in a decrease of RMB195 million (2020: RMB66 million) and RMB6,976 million (2020: RMB1,702 million) in the impairment allowance for Stage 1 and Stage 3 loans respectively.

V NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)

18 Financial investments

	As at 31 December	
	2021	2020
Financial assets at fair value through profit or loss		
Financial assets held for trading and other financial assets at fair value through profit or loss		
Debt securities		
Issuers in Chinese mainland		
— Government	**18,837**	20,176
— Public sectors and quasi-governments	**30**	302
— Policy banks	**26,127**	31,755
— Financial institutions	**204,624**	188,092
— Corporate	**52,415**	42,122
Issuers in Hong Kong (China), Macao (China), Taiwan (China) and other countries and regions		
— Governments	**13,535**	18,919
— Public sectors and quasi-governments	**367**	45
— Financial institutions	**12,982**	10,106
— Corporate	**9,808**	9,603
	338,725	321,120
Equity instruments	**102,268**	88,025
Fund investments and other	**90,733**	69,183
Total financial assets held for trading and other financial assets at fair value through profit or loss	**531,726**	478,328
Financial assets at fair value through profit or loss (designated)		
Debt securities[1]		
Issuers in Chinese mainland		
— Government	**3,164**	3,073
— Policy banks	**516**	509
— Financial institutions	**4,811**	6,640
— Corporate	**396**	1,846
Issuers in Hong Kong (China), Macao (China), Taiwan (China) and other countries and regions		
— Governments	**594**	1,295
— Public sectors and quasi-governments	**1,164**	721
— Financial institutions	**2,322**	5,525
— Corporate	**4,770**	6,514
	17,737	26,123
Other	**12,179**	98
Total financial assets at fair value through profit or loss (designated)	**29,916**	26,221
Total financial assets at fair value through profit or loss	**561,642**	504,549

(Amount in millions of Renminbi, unless otherwise stated)

V NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)

18 Financial investments (Continued)

	As at 31 December	
	2021	2020
Financial assets at fair value through other comprehensive income		
Debt securities		
Issuers in Chinese mainland		
— Government	**752,899**	691,638
— Public sectors and quasi-governments	**101,562**	88,092
— Policy banks	**358,807**	328,713
— Financial institutions	**223,510**	174,517
— Corporate	**171,294**	135,590
Issuers in Hong Kong (China), Macao (China), Taiwan (China) and other countries and regions		
— Governments	**532,338**	434,344
— Public sectors and quasi-governments	**28,529**	27,340
— Financial institutions	**79,214**	98,545
— Corporate	**114,925**	107,583
	2,363,078	2,086,362
Equity instruments and other	**26,752**	21,428
Total financial assets at fair value through other comprehensive income(2)	**2,389,830**	2,107,790
Financial assets at amortised cost		
Debt securities		
Issuers in Chinese mainland		
— Government(3)(4)	**2,417,293**	2,327,382
— Public sectors and quasi-governments	**64,724**	43,679
— Policy banks	**155,338**	93,376
— Financial institutions	**76,280**	59,250
— Corporate	**48,959**	39,529
— China Orient(5)	**152,433**	152,433
Issuers in Hong Kong (China), Macao (China), Taiwan (China) and other countries and regions		
— Governments	**101,974**	103,432
— Public sectors and quasi-governments	**70,107**	37,950
— Financial institutions	**65,885**	59,762
— Corporate	**19,058**	19,166
	3,172,051	2,935,959
Investment trusts, asset management plans and other	**12,010**	14,447
Accrued interest	**38,865**	37,295
Less: allowance for impairment losses	**(9,727)**	(8,923)
Total financial assets at amortised cost	**3,213,199**	2,978,778
Total financial investments(6)(7)(8)	**6,164,671**	5,591,117

V NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)

18 Financial investments (Continued)

	As at 31 December	
	2021	2020
Analysed as follows:		
Financial assets at fair value through profit or loss		
— Listed in Hong Kong, China	**33,127**	48,718
— Listed outside Hong Kong, China[9]	**332,549**	283,523
— Unlisted	**195,966**	172,308
Financial assets at fair value through other comprehensive income		
Debt securities		
— Listed in Hong Kong, China	**154,931**	233,244
— Listed outside Hong Kong, China[9]	**1,633,446**	1,210,734
— Unlisted	**574,701**	642,384
Equity instruments and other		
— Listed in Hong Kong, China	**5,980**	6,031
— Listed outside Hong Kong, China[9]	**11,762**	3,141
— Unlisted	**9,010**	12,256
Financial assets at amortised cost		
— Listed in Hong Kong, China	**38,898**	34,217
— Listed outside Hong Kong, China[9]	**2,886,030**	2,618,215
— Unlisted	**288,271**	326,346
Total	**6,164,671**	5,591,117
Listed in Hong Kong, China	**232,936**	322,210
Listed outside Hong Kong, China[9]	**4,863,787**	4,115,613
Unlisted	**1,067,948**	1,153,294
Total	**6,164,671**	5,591,117

	As at 31 December			
	2021		2020	
	Carrying value	**Market value**	Carrying value	Market value
Debt securities at amortised cost				
— Listed in Hong Kong, China	**38,898**	**39,594**	34,217	35,960
— Listed outside Hong Kong, China[9]	**2,886,030**	**2,937,103**	2,618,215	2,637,926

(Amount in millions of Renminbi, unless otherwise stated)

V NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)

18 Financial investments (Continued)

(1) In order to eliminate or significantly reduce accounting mismatches, certain debt securities are designated as financial assets at fair value through profit or loss.

(2) The Group's accumulated impairment allowance for the debt securities at fair value through other comprehensive income as at 31 December 2021 amounted to RMB6,230 million (31 December 2020: RMB5,479 million).

(3) On 18 August 1998, a Special Purpose Treasury Bond was issued by the Ministry of Finance ("MOF") with a par value of RMB42,500 million maturing on 18 August 2028. This bond was originally issued with an annual coupon rate of 7.20% and its coupon rate was restructured to 2.25% per annum from 1 December 2004.

(4) The Bank underwrites certain Treasury bonds issued by the MOF and undertakes the role of a distributor of these Treasury bonds through its branch network earning commission income on bonds sold. The investors of these bonds have a right to redeem the bonds at any time prior to maturity and the Bank is committed to redeem these Treasury bonds. The balance of these bonds held by the Bank as at 31 December 2021 amounted to RMB2,083 million (31 December 2020: RMB2,337 million).

(5) The Bank transferred certain non-performing assets to China Orient Asset Management Corporation ("China Orient") in 1999 and 2000 and China Orient issued a bond ("Orient Bond") with a par value of RMB160,000 million to the Bank as consideration. Based on the latest agreement, the Orient Bond will mature on 30 June 2025. The MOF shall continue to provide funding support for the principal and interest of the Orient Bond. The Bank received a notice from the MOF in January 2020, confirming that from 1 January 2020, the interest rate on the unpaid amounts will be verified year by year based on the rate of return of the five-year treasury bond of the previous year. As at 31 December 2021, the Bank had received early repayments of principal amounting to RMB7,567 million cumulatively.

(6) As at 31 December 2021, the Group held bonds issued by the MOF and bills issued by the PBOC included in financial investments. The carrying value (accrued interest excluded) and the related coupon rate range on such bonds and bills are as follows:

	As at 31 December	
	2021	2020
Carrying value (accrued interest excluded)	**942,440**	979,089
Coupon rate range	**0.00%–5.31%**	0.00%–5.31%

(7) Included in the Group's financial investments were certificates of deposit held amounting to RMB149,530 million as at 31 December 2021 (31 December 2020: RMB130,698 million).

(8) As at 31 December 2021, RMB2,338 million of debt securities measured at fair value through other comprehensive income and at amortised cost of the Group was determined to be impaired and was included under Stage 3 (31 December 2020: RMB1,467 million), with the impairment allowance fully accrued (31 December 2020: fully accrued); RMB816 million of debt securities was included under Stage 2 (31 December 2020: RMB404 million), with an impairment allowance of RMB5 million (31 December 2020: RMB1 million); and the remaining debt securities were included under Stage 1, with impairment allowance measured based on 12-month expected credit losses.

(9) Debt securities traded in the Chinese mainland interbank bond market are included in "Listed outside Hong Kong, China".

V NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)

18 Financial investments (Continued)

Reconciliation of allowance for impairment losses on financial investments at amortised cost:

	Year ended 31 December 2021			
	12-month ECL	**Lifetime ECL**		
	Stage 1	**Stage 2**	**Stage 3**	**Total**
As at 1 January	**1,907**	**1**	**7,015**	**8,923**
Impairment losses during the year	**159**	**3**	**559**	**721**
Write-off and transfer out	**–**	**–**	**–**	**–**
Exchange differences and other	**107**	**–**	**(24)**	**83**
As at 31 December	**2,173**	**4**	**7,550**	**9,727**

	Year ended 31 December 2020			
	12-month ECL	Lifetime ECL		
	Stage 1	Stage 2	Stage 3	Total
As at 1 January	383	1	6,402	6,786
Impairment losses during the year	1,165	–	707	1,872
Write-off and transfer out	–	–	(24)	(24)
Exchange differences and other	359	–	(70)	289
As at 31 December	1,907	1	7,015	8,923

Reconciliation of allowance for impairment losses on financial investments at fair value through other comprehensive income:

	Year ended 31 December 2021			
	12-month ECL	**Lifetime ECL**		
	Stage 1	**Stage 2**	**Stage 3**	**Total**
As at 1 January	**4,979**	**–**	**500**	**5,479**
Transfers to Stage 2	**–**	**–**	**–**	**–**
Transfers to Stage 3	**–**	**–**	**–**	**–**
Impairment losses during the year	**762**	**1**	**–**	**763**
Exchange differences and other	**(12)**	**–**	**–**	**(12)**
As at 31 December	**5,729**	**1**	**500**	**6,230**

	Year ended 31 December 2020			
	12-month ECL	Lifetime ECL		
	Stage 1	Stage 2	Stage 3	Total
As at 1 January	1,250	4	–	1,254
Transfers to Stage 2	(1)	1	–	–
Transfers to Stage 3	(2)	(4)	6	–
Impairment losses during the year	3,751	–	–	3,751
Impairment (gains)/losses due to stage transfer	–	(1)	494	493
Exchange differences and other	(19)	–	–	(19)
As at 31 December	4,979	–	500	5,479

(Amount in millions of Renminbi, unless otherwise stated)

V NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)

19 Investment in associates and joint ventures

	Year ended 31 December	
	2021	2020
As at 1 January	**33,508**	23,210
Additions	**2,240**	12,655
Disposals and transfer out	**(628)**	(1,157)
Share of results, net of tax	**1,478**	158
Dividends received	**(625)**	(402)
Exchange differences and other	**(204)**	(956)
As at 31 December	**35,769**	33,508

The carrying amounts of major investments in associates and joint ventures of the Group are as follows. Further details are disclosed in Note V.42.4.

	As at 31 December	
	2021	2020
China Insurance Investment Fund Co., Ltd.	**11,849**	11,563
BOC International (China) Co., Ltd.	**5,254**	5,022
Ying Kou Port Group CORP.	**4,311**	4,261
CGN Phase I Private Equity Fund Company Limited	**1,679**	1,622
Sichuan Lutianhua Co., Ltd.	**1,415**	1,306
Graceful Field Worldwide Limited	**1,414**	1,386
Shanghai Chenggang Real Estate Co., Ltd.	**1,308**	N/A
Wkland Investments II Limited	**835**	855
National Green Development Fund	**800**	N/A
Wuhu Yinsheng Special Steel Investment Management Limited Partnership	**780**	755
Other	**6,124**	6,738
Total	**35,769**	33,508

As at 31 December 2021, there were no restrictions on associates and joint ventures to transfer funds to the Group.

V NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)

20 Property and equipment

	Year ended 31 December 2021				
	Buildings	Equipment and motor vehicles	Construction in progress	Aircraft	Total
Cost					
As at 1 January	122,464	73,337	31,281	141,025	368,107
Additions	1,413	5,550	6,247	11,187	24,397
Transfer from investment properties (Note V.21)	960	–	–	–	960
Construction in progress transfer in/(out)	2,806	607	(8,046)	4,633	–
Deductions	(1,736)	(5,748)	(1,788)	(6,737)	(16,009)
Exchange differences	(918)	(249)	(502)	(3,207)	(4,876)
As at 31 December	124,989	73,497	27,192	146,901	372,579
Accumulated depreciation					
As at 1 January	(42,814)	(57,839)	–	(17,302)	(117,955)
Additions	(4,098)	(6,274)	–	(4,911)	(15,283)
Deductions	1,145	5,563	–	1,747	8,455
Transfer to investment properties (Note V.21)	10	–	–	–	10
Exchange differences	239	186	–	444	869
As at 31 December	(45,518)	(58,364)	–	(20,022)	(123,904)
Allowance for impairment losses					
As at 1 January	(746)	–	(227)	(590)	(1,563)
Additions	(3)	–	–	(1,060)	(1,063)
Deductions	8	–	–	10	18
Exchange differences	1	–	–	23	24
As at 31 December	(740)	–	(227)	(1,617)	(2,584)
Net book value					
As at 1 January	78,904	15,498	31,054	123,133	248,589
As at 31 December	78,731	15,133	26,965	125,262	246,091

(Amount in millions of Renminbi, unless otherwise stated)

V NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)

20 Property and equipment (Continued)

	Year ended 31 December 2020				
	Buildings	Equipment and motor vehicles	Construction in progress	Aircraft	Total
Cost					
As at 1 January	119,077	77,656	32,905	131,821	361,459
Additions	708	5,998	11,658	17,778	36,142
Transfer from/(to) investment properties (Note V.21)	485	–	(242)	–	243
Construction in progress transfer in/(out)	5,375	862	(9,230)	2,993	–
Deductions	(1,728)	(10,726)	(2,373)	(2,948)	(17,775)
Exchange differences	(1,453)	(453)	(1,437)	(8,619)	(11,962)
As at 31 December	122,464	73,337	31,281	141,025	368,107
Accumulated depreciation					
As at 1 January	(40,401)	(60,758)	–	(14,762)	(115,921)
Additions	(3,967)	(6,623)	–	(4,635)	(15,225)
Deductions	1,143	9,178	–	883	11,204
Transfer to investment properties (Note V.21)	18	–	–	–	18
Exchange differences	393	364	–	1,212	1,969
As at 31 December	(42,814)	(57,839)	–	(17,302)	(117,955)
Allowance for impairment losses					
As at 1 January	(767)	–	(227)	(4)	(998)
Additions	(1)	–	–	(623)	(624)
Deductions	16	–	–	4	20
Exchange differences	6	–	–	33	39
As at 31 December	(746)	–	(227)	(590)	(1,563)
Net book value					
As at 1 January	77,909	16,898	32,678	117,055	244,540
As at 31 December	78,904	15,498	31,054	123,133	248,589

As at 31 December 2021, the net book amount of aircraft leased out by BOC Aviation Limited, a subsidiary of the Group, under operating leases was RMB125,262 million (31 December 2020: RMB123,133 million).

As at 31 December 2021, the net book amount of aircraft owned by BOC Aviation Limited, a subsidiary of the Group, that has been pledged for loan facilities was RMB9,989 million (31 December 2020: RMB14,893 million) (Note V.31).

According to the relevant PRC laws and regulations, after conversion into a joint stock limited liability company, the Bank is required to re-register its property and equipment under the name of Bank of China Limited. As at 31 December 2021, the process of re-registration has not been completed. However, this registration process does not affect the rights of Bank of China Limited to these assets.

V NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)

20 Property and equipment (Continued)

The carrying value of buildings is analysed based on the remaining terms of the leases as follows:

	As at 31 December	
	2021	2020
Held in Hong Kong, China		
on long-term lease (over 50 years)	**3,919**	3,749
on medium-term lease (10–50 years)	**8,074**	7,884
on short-term lease (less than 10 years)	**1**	8
Subtotal	**11,994**	11,641
Held outside Hong Kong, China		
on long-term lease (over 50 years)	**3,834**	4,507
on medium-term lease (10–50 years)	**56,051**	55,846
on short-term lease (less than 10 years)	**6,852**	6,910
Subtotal	**66,737**	67,263
Total	**78,731**	78,904

21 Investment properties

	Year ended 31 December	
	2021	2020
As at 1 January	**22,065**	23,108
Additions	**720**	1,626
Transfer to property and equipment, net (Note V.20)	**(970)**	(261)
Deductions	**(1,324)**	(15)
Fair value changes (Note V.5)	**(427)**	(1,505)
Exchange differences	**(510)**	(888)
As at 31 December	**19,554**	22,065

The Group's investment properties are located in active real estate markets, and external appraisers make reasonable estimation of fair value using market prices of the same or similar properties and other related information from the real estate markets.

Investment properties are mainly held by Bank of China Hong Kong (Holdings) Limited ("BOCHK (Holdings)") and Bank of China Group Investment Limited ("BOCG Investment"), subsidiaries of the Group. The carrying values of investment properties held by BOCHK (Holdings) and BOCG Investment as at 31 December 2021 amounted to RMB10,708 million and RMB6,827 million, respectively (31 December 2020: RMB12,009 million and RMB7,835 million). The valuations of these investment properties as at 31 December 2021 were principally performed by Knight Frank Petty Limited based on the open market price and other related information.

(Amount in millions of Renminbi, unless otherwise stated)

V NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)

21 Investment properties (Continued)

The carrying value of investment properties is analysed based on the remaining terms of the leases as follows:

	As at 31 December	
	2021	2020
Held in Hong Kong, China		
on long-term lease (over 50 years)	**2,856**	1,976
on medium-term lease (10–50 years)	**7,622**	9,836
Subtotal	**10,478**	11,812
Held outside Hong Kong, China		
on long-term lease (over 50 years)	**3,842**	4,288
on medium-term lease (10–50 years)	**4,793**	5,782
on short-term lease (less than 10 years)	**441**	183
Subtotal	**9,076**	10,253
Total	**19,554**	22,065

22 Other assets

	As at 31 December	
	2021	2020
Accounts receivable and prepayments(1)	**123,590**	141,286
Right-of-use assets(2)	**20,321**	22,855
Intangible assets(3)	**16,930**	15,614
Land use rights(4)	**6,122**	6,526
Long-term deferred expense	**3,329**	3,215
Repossessed assets(5)	**2,043**	2,120
Goodwill(6)	**2,481**	2,525
Interest receivable	**284**	1,299
Other	**28,840**	21,756
Total	**203,940**	217,196

(1) Accounts receivable and prepayments

	As at 31 December	
	2021	2020
Accounts receivable and prepayments	**128,561**	146,144
Impairment allowance	**(4,971)**	(4,858)
Net value	**123,590**	141,286

Accounts receivable and prepayments mainly include items in the process of clearing and settlement. The analysis of the ageing of accounts receivable and prepayments is as follows:

	As at 31 December			
	2021		2020	
	Balance	**Impairment allowance**	Balance	Impairment allowance
Within 1 year	**114,233**	**(575)**	135,647	(944)
From 1 year to 3 years	**6,549**	**(1,305)**	4,038	(892)
Over 3 years	**7,779**	**(3,091)**	6,459	(3,022)
Total	**128,561**	**(4,971)**	146,144	(4,858)

V NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)

22 Other assets (Continued)

(2) Right-of-use assets

	As at 31 December					
	2021			2020		
	Buildings	Motor vehicles and other	Total	Buildings	Motor vehicles and other	Total
Cost						
As at 1 January	**35,251**	**176**	**35,427**	29,500	156	29,656
Additions	**5,243**	**119**	**5,362**	7,413	44	7,457
Deductions	**(3,734)**	**(61)**	**(3,795)**	(1,242)	(21)	(1,263)
Exchange differences	**(313)**	**(2)**	**(315)**	(420)	(3)	(423)
As at 31 December	**36,447**	**232**	**36,679**	35,251	176	35,427
Accumulated depreciation						
As at 1 January	**(12,477)**	**(95)**	**(12,572)**	(6,781)	(53)	(6,834)
Additions	**(7,087)**	**(58)**	**(7,145)**	(6,841)	(63)	(6,904)
Deductions	**3,166**	**58**	**3,224**	1,030	20	1,050
Exchange differences	**133**	**2**	**135**	115	1	116
As at 31 December	**(16,265)**	**(93)**	**(16,358)**	(12,477)	(95)	(12,572)
Net book value						
As at 1 January	**22,774**	**81**	**22,855**	22,719	103	22,822
As at 31 December	**20,182**	**139**	**20,321**	22,774	81	22,855

(3) Intangible assets

	Year ended 31 December	
	2021	2020
Cost		
As at 1 January	**34,709**	26,573
Additions	**6,120**	8,712
Deductions	**(252)**	(226)
Exchange differences	**(200)**	(350)
As at 31 December	**40,377**	34,709
Accumulated amortisation		
As at 1 January	**(19,095)**	(13,221)
Additions	**(4,665)**	(6,323)
Deductions	**177**	208
Exchange differences	**136**	241
As at 31 December	**(23,447)**	(19,095)
Net book value		
As at 1 January	**15,614**	13,352
As at 31 December	**16,930**	15,614

(Amount in millions of Renminbi, unless otherwise stated)

V NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)

22 Other assets (Continued)

(4) Land use rights

The carrying value of land use rights is analysed based on the remaining terms of the leases as follows:

	Year ended 31 December	
	2021	2020
Held outside Hong Kong, China		
on long-term lease (over 50 years)	**58**	60
on medium-term lease (10–50 years)	**5,384**	5,809
on short-term lease (less than 10 years)	**680**	657
Total	**6,122**	6,526

(5) Repossessed assets

As at 31 December 2021, the net book amount of repossessed assets was RMB2,043 million (31 December 2020: RMB2,120 million), mainly comprised properties. Related allowance for impairment was RMB882 million (31 December 2020: RMB902 million).

The total book value of repossessed assets disposed of during the year ended 31 December 2021 amounted to RMB353 million (2020: RMB602 million). The Group plans to dispose of the repossessed assets held at 31 December 2021 by auction, bidding or transfer.

(6) Goodwill

	Year ended 31 December	
	2021	2020
As at 1 January	**2,525**	2,686
Addition through acquisition of subsidiaries	**–**	–
Decrease resulting from disposal of subsidiaries	**–**	(25)
Exchange differences	**(44)**	(136)
As at 31 December	**2,481**	2,525

The goodwill mainly arose from the acquisition of BOC Aviation Limited in 2006 amounting to USD241 million (equivalent to RMB1,535 million).

V NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)

23 Impairment allowance

	As at 1 January 2021	Additions/ (reversal), net	Write-off and transfer out	Exchange differences and other	As at 31 December 2021
Loans and advances to customers					
— at amortised cost	**368,173**	**98,289**	**(74,403)**	**(1,969)**	**390,090**
— at fair value through other comprehensive income	**446**	**9**	**–**	**(4)**	**451**
Subtotal	**368,619**	**98,298**	**(74,403)**	**(1,973)**	**390,541**
Financial investments					
— at amortised cost	**8,923**	**721**	**–**	**83**	**9,727**
— at fair value through other comprehensive income	**5,479**	**763**	**–**	**(12)**	**6,230**
Subtotal	**14,402**	**1,484**	**–**	**71**	**15,957**
Other	**40,358**	**4,438**	**(500)**	**(405)**	**43,891**
Total	**423,379**	**104,220**	**(74,903)**	**(2,307)**	**450,389**

	As at 1 January 2020	Additions/ (reversal), net	Write-off and transfer out	Exchange differences and other	As at 31 December 2020
Loans and advances to customers					
— at amortised cost	325,360	103,743	(57,152)	(3,778)	368,173
— at fair value through other comprehensive income	563	(113)	–	(4)	446
Subtotal	325,923	103,630	(57,152)	(3,782)	368,619
Financial investments					
— at amortised cost	6,786	1,872	(24)	289	8,923
— at fair value through other comprehensive income	1,254	4,244	–	(19)	5,479
Subtotal	8,040	6,116	(24)	270	14,402
Other	32,099	9,270	(662)	(349)	40,358
Total	366,062	119,016	(57,838)	(3,861)	423,379

24 Due to banks and other financial institutions

	As at 31 December	
	2021	2020
Due to:		
Banks in Chinese mainland	**581,078**	515,162
Other financial institutions in Chinese mainland	**1,827,138**	1,077,841
Banks in Hong Kong (China), Macao (China), Taiwan (China) and other countries and regions	**145,363**	177,717
Other financial institutions in Hong Kong (China), Macao (China), Taiwan (China) and other countries and regions	**121,640**	142,379
Subtotal	**2,675,219**	1,913,099
Accrued interest	**7,520**	3,904
Total	**2,682,739**	1,917,003

(Amount in millions of Renminbi, unless otherwise stated)

V NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)

25 Due to central banks

	As at 31 December	
	2021	2020
Foreign exchange deposits	**107**	251,533
Other	**948,758**	630,092
Subtotal	**948,865**	881,625
Accrued interest	**6,692**	6,186
Total	**955,557**	887,811

26 Government certificates of indebtedness for bank notes issued and bank notes in circulation

Bank of China (Hong Kong) Limited ("BOCHK") and Bank of China Macau Branch are note issuing banks for Hong Kong Dollar and Macao Pataca notes in Hong Kong (China) and Macao (China), respectively. Under local regulations, these two entities are required to place deposits with the Hong Kong (China) and Macao (China) governments, respectively, to secure the currency notes in circulation.

Bank notes in circulation represent the liabilities in respect of Hong Kong Dollar notes and Macao Pataca notes in circulation, issued respectively by BOCHK and Bank of China Macau Branch.

27 Placements from banks and other financial institutions

	As at 31 December	
	2021	2020
Placements from:		
Banks in Chinese mainland	**279,480**	258,240
Other financial institutions in Chinese mainland	**3,688**	27,933
Banks in Hong Kong (China), Macao (China), Taiwan (China) and other countries and regions	**120,396**	115,308
Other financial institutions in Hong Kong (China), Macao (China), Taiwan (China) and other countries and regions	**3,408**	9,497
Subtotal	**406,972**	410,978
Accrued interest	**795**	971
Total(1)(2)	**407,767**	411,949

(1) According to the Group's risk management policy, the Group enters into derivatives to hedge market risks arising from its placements from banks and other financial institutions. The Group designates certain placements from banks and other financial institutions as financial liabilities at fair value through profit or loss, to eliminate or significantly reduce accounting mismatch. As at 31 December 2021, the carrying amount of the above-mentioned financial liabilities by the Group was RMB162 million (31 December 2020: RMB3,831 million). The differences between the fair value and the amount that the Group would be contractually required to pay to the holders as at 31 December 2021 and 2020 were not significant. In the years of 2021 and 2020, there was no significant change in the Group's credit risk nor changes in the fair value of these financial liabilities as a result.

(2) Included in "Placements from banks and other financial institutions" are amounts received from counterparties under repurchase agreements and collateral agreements as follows:

	As at 31 December	
	2021	2020
Repurchase debt securities(i)	**97,372**	127,202

(i) Debt securities used as collateral under repurchase agreements were principally government bonds and were included in the amount disclosed under Note V.40.2.

V NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)

28 Financial liabilities held for trading

As at 31 December 2021 and 2020, financial liabilities held for trading mainly included short position in debt securities.

29 Due to customers

	As at 31 December	
	2021	2020
Demand deposits		
— Corporate deposits	**5,275,514**	4,956,751
— Personal deposits	**3,487,433**	3,355,893
Subtotal	**8,762,947**	8,312,644
Time deposits		
— Corporate deposits	**3,968,527**	3,621,775
— Personal deposits	**4,299,050**	3,854,531
Subtotal	**8,267,577**	7,476,306
Structured deposits(1)		
— Corporate deposits	**351,445**	254,553
— Personal deposits	**300,628**	379,680
Subtotal	**652,073**	634,233
Certificates of deposit	**160,419**	206,146
Other deposits(2)	**77,152**	64,042
Subtotal due to customers	**17,920,168**	16,693,371
Accrued interest	**222,719**	185,800
Total due to customers(3)	**18,142,887**	16,879,171

(1) According to the Group's risk management policy, the Group enters into derivatives to hedge market risks arising from its structured deposits. The Group designates certain structured deposits as financial liabilities at fair value through profit or loss, to eliminate or significantly reduce accounting mismatch. As at 31 December 2021, the carrying amount of these financial liabilities was RMB31,311 million (31 December 2020: RMB25,742 million). The differences between the fair value and the amount that the Group would be contractually required to pay to the holders as at 31 December 2021 and 2020 were not significant. For the years ended 31 December 2021 and 2020, there was no significant change in the Group's credit risk nor changes in the fair value of these financial liabilities as a result.

(2) Included in other deposits is special purpose funding, which represents long-term funding provided in multiple currencies by foreign governments and/or entities in the form of export credit, foreign government and other subsidised credit. The special purpose funding is normally used to finance projects with a special commercial purpose in the PRC as determined by the foreign governments or entities and the Group is obliged to repay the funding when it falls due.

As at 31 December 2021, the remaining maturity of special purpose funding ranges from 15 days to 32 years. The interest-bearing special purpose funding bears interest at floating and fixed rates ranging from 0.15% to 7.92% (31 December 2020: 0.15% to 7.92%). These terms are consistent with the related development loans granted to customers.

(3) Due to customers included margin deposits received by the Group as at 31 December 2021 of RMB330,494 million (31 December 2020: RMB304,314 million).

(Amount in millions of Renminbi, unless otherwise stated)

V NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)

30 Bonds issued

	Issue date	Maturity date	Annual interest rate	As at 31 December 2021	2020
Bonds issued at amortised cost					
Subordinated bonds issued					
2011 RMB Debt Securities[1]	17 May 2011	19 May 2026	5.30%	–	32,000
2012 RMB Debt Securities Second Tranche[2]	27 November 2012	29 November 2027	4.99%	**18,000**	18,000
Subtotal[17]				**18,000**	50,000
Tier 2 capital bonds issued					
2014 US Dollar Debt Securities[3]	13 November 2014	13 November 2024	5.00%	**19,084**	19,518
2017 RMB Debt Securities First Tranche[4]	26 September 2017	28 September 2027	4.45%	**29,973**	29,970
2017 RMB Debt Securities Second Tranche[5]	31 October 2017	2 November 2027	4.45%	**29,974**	29,972
2018 RMB Debt Securities First Tranche[6]	3 September 2018	5 September 2028	4.86%	**39,984**	39,983
2018 RMB Debt Securities Second Tranche[7]	9 October 2018	11 October 2028	4.84%	**39,986**	39,985
2019 RMB Debt Securities First Tranche 01[8]	20 September 2019	24 September 2029	3.98%	**29,989**	29,988
2019 RMB Debt Securities First Tranche 02[9]	20 September 2019	24 September 2034	4.34%	**9,996**	9,996
2019 RMB Debt Securities Second Tranche[10]	20 November 2019	22 November 2029	4.01%	**29,991**	29,991
2020 RMB Debt Securities First Tranche 01[11]	17 September 2020	21 September 2030	4.20%	**59,976**	59,976
2020 RMB Debt Securities First Tranche 02[12]	17 September 2020	21 September 2035	4.47%	**14,994**	14,994
2021 RMB Debt Securities First Tranche 01[13]	17 March 2021	19 March 2031	4.15%	**14,995**	–
2021 RMB Debt Securities First Tranche 02[14]	17 March 2021	19 March 2036	4.38%	**9,996**	–
2021 RMB Debt Securities Second Tranche 01[15]	12 November 2021	16 November 2031	3.60%	**39,989**	–
2021 RMB Debt Securities Second Tranche 02[16]	12 November 2021	16 November 2036	3.80%	**9,997**	–
Subtotal[17]				**378,924**	304,373
Other bonds issued[18]					
US Dollar Debt Securities				**185,618**	198,317
RMB Debt Securities				**90,604**	73,165
Other				**49,403**	51,555
Subtotal				**325,625**	323,037
Negotiable certificates of deposit				**659,306**	554,801
Subtotal bonds issued at amortised cost				**1,381,855**	1,232,211
Bonds issued at fair value[19]				**317**	6,162
Subtotal bonds issued				**1,382,172**	1,238,373
Accrued interest				**6,506**	6,030
Total bonds issued[20]				**1,388,678**	1,244,403

V NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)

30 Bonds issued (Continued)

(1) The subordinated bonds issued on 17 May 2011, have a maturity of 15 years, with a fixed coupon rate of 5.30%, paid annually. The Bank was entitled to early redeem all the subordinated bonds at the end of the tenth year. The Bank has redeemed all the bonds in advance at face value on 19 May 2021.

(2) The second subordinated bonds issued on 27 November 2012 have a maturity of 15 years, with a fixed coupon rate of 4.99%, paid annually. The Bank was entitled to early redeem all these bonds at the end of the tenth year. If the Bank does not exercise this option, the coupon rate of the bonds for the remaining 5-year period shall remain fixed at 4.99%.

(3) The Bank issued tier 2 capital bonds in an amount of USD3 billion on 13 November 2014. The bonds have a maturity of 10 years, with a fixed coupon rate of 5.00%.

(4) The Bank issued tier 2 capital bonds in an amount of RMB30 billion on 26 September 2017. The bonds have a maturity of 10 years, with a fixed coupon rate of 4.45%. The Bank was entitled to redeem the bonds at the end of the fifth year.

(5) The Bank issued tier 2 capital bonds in an amount of RMB30 billion on 31 October 2017. The bonds have a maturity of 10 years, with a fixed coupon rate of 4.45%. The Bank was entitled to redeem the bonds at the end of the fifth year.

(6) The Bank issued tier 2 capital bonds in an amount of RMB40 billion on 3 September 2018. The bonds have a maturity of 10 years, with a fixed coupon rate of 4.86%. The Bank was entitled to redeem the bonds at the end of the fifth year.

(7) The Bank issued tier 2 capital bonds in an amount of RMB40 billion on 9 October 2018. The bonds have a maturity of 10 years, with a fixed coupon rate of 4.84%. The Bank was entitled to redeem the bonds at the end of the fifth year.

(8) The Bank issued tier 2 capital bonds in an amount of RMB30 billion on 20 September 2019. The bonds have a maturity of 10 years, with a fixed coupon rate of 3.98%. The Bank was entitled to redeem the bonds at the end of the fifth year.

(9) The Bank issued tier 2 capital bonds in an amount of RMB10 billion on 20 September 2019. The bonds have a maturity of 15 years, with a fixed coupon rate of 4.34%. The Bank was entitled to redeem the bonds at the end of the tenth year.

(10) The Bank issued tier 2 capital bonds in an amount of RMB30 billion on 20 November 2019. The bonds have a maturity of 10 years, with a fixed coupon rate of 4.01%. The Bank was entitled to redeem the bonds at the end of the fifth year.

(11) The Bank issued tier 2 capital bonds in an amount of RMB60 billion on 17 September 2020. The bonds have a maturity of 10 years, with a fixed coupon rate of 4.20%. The Bank was entitled to redeem the bonds at the end of the fifth year.

(12) The Bank issued tier 2 capital bonds in an amount of RMB15 billion on 17 September 2020. The bonds have a maturity of 15 years, with a fixed coupon rate of 4.47%. The Bank was entitled to redeem the bonds at the end of the tenth year.

(13) The Bank issued tier 2 capital bonds in an amount of RMB15 billion on 17 March 2021. The bonds have a maturity of 10 years with a fixed coupon rate of 4.15%. The Bank was entitled to redeem the bonds at the end of the fifth year.

(14) The Bank issued tier 2 capital bonds in an amount of RMB10 billion on 17 March 2021. The bonds have a maturity of 15 years, with a fixed coupon rate of 4.38%. The Bank was entitled to redeem the bonds at the end of the tenth year.

(15) The Bank issued tier 2 capital bonds in an amount of RMB40 billion on 12 November 2021. The bonds have a maturity of 10 years, with a fixed coupon rate of 3.60%. The Bank was entitled to redeem the bonds at the end of the fifth year.

(16) The Bank issued tier 2 capital bonds in an amount of RMB10 billion on 12 November 2021. The bonds have a maturity of 15 years, with a fixed coupon rate of 3.80%. The Bank was entitled to redeem the bonds at the end of the tenth year.

(Amount in millions of Renminbi, unless otherwise stated)

V NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)

30 Bonds issued (Continued)

(17) The claims of the holders of subordinated bonds and tier 2 capital bonds will be subordinated to the claims of depositors and general creditors.

(18) US Dollar Debt Securities, RMB Debt Securities and other Debt Securities were issued in Chinese mainland, Hong Kong (China), Macao (China), Taiwan (China) and other countries and regions between 2013 and 2021 by the Group, with dates of maturity ranging from 2022 to 2030.

(19) According to the Group's risk management policy, the Group enters into derivatives to hedge market risks arising from its bonds issued. The Group designates certain bonds issued as financial liabilities at fair value through profit or loss, to eliminate or significantly reduce accounting mismatch. As at 31 December 2021, the carrying amount of the above-mentioned bonds issued by the Group was RMB317 million (31 December 2020: RMB6,162 million). The differences between the fair value and the amount that the Group would be contractually required to pay to the holders as at 31 December 2021 and 2020 were not significant. In the years of 2021 and 2020, there was no significant change in the Group's credit risk nor changes in the fair value of these financial liabilities as a result.

(20) During the years ended 31 December 2021 and 2020, the Group did not default on any principal, interest or redemption amounts with respect to its bonds issued.

31 Other borrowings

These other borrowings relate to the financing of the aircraft leasing business of BOC Aviation Limited, a subsidiary of the Group. These other borrowings are secured by its aircraft (Note V.20).

As at 31 December 2021, these other borrowings had a maturity ranging from 7 days to 7 years and bore floating and fixed interest rates ranging from 0.36% to 1.62% (31 December 2020: 0.45% to 1.55%).

During the years ended 31 December 2021 and 2020, the Group did not default on any principal, interest or redemption amounts with respect to its other borrowings.

32 Current tax liabilities

	As at 31 December	
	2021	2020
Corporate income tax	**35,891**	47,337
Value-added tax	**7,459**	6,742
City construction and maintenance tax	**539**	492
Education surcharges	**345**	326
Other	**772**	768
Total	**45,006**	55,665

33 Retirement benefit obligations

As at 31 December 2021, the actuarial liabilities existing in relation to the retirement benefit obligations for employees who retired prior to 31 December 2003 and the early retirement obligations for employees who early-retired were RMB1,881 million (31 December 2020: RMB1,896 million) and RMB214 million (31 December 2020: RMB303 million), respectively, using the projected unit credit method.

The movements of the net liabilities recognised are as follows:

	Year ended 31 December	
	2021	2020
As at 1 January	**2,199**	2,533
Interest cost	**66**	74
Net actuarial losses/(gains) recognised	**84**	(125)
Benefits paid	**(254)**	(283)
As at 31 December	**2,095**	2,199

V NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)

33 Retirement benefit obligations (Continued)

Primary assumptions used:

	As at 31 December	
	2021	2020
Discount rate		
— Normal retiree	**2.75%**	3.25%
— Early retiree	**2.50%**	2.75%
Pension benefit inflation rate		
— Normal retiree	**3.0%**	3.0%
— Early retiree	**3.0%**	3.0%
Medical benefit inflation rate	**8.0%**	8.0%
Retiring age		
— Male	**60**	60
— Female	**50/55**	50/55

Assumptions regarding future mortality experience are based on the China Life Insurance Mortality Table (published historical statistics in China).

As at 31 December 2021 and 2020, there was no significant change in employee retirement benefit obligations that was attributable to changes in actuarial assumptions.

34 Share appreciation rights plan

In November 2005, the Bank's Board of Directors and equity holders approved and adopted a Share Appreciation Rights Plan under which eligible participants, including directors, supervisors, management and other personnel designated by the Board, will be granted share appreciation rights, up to 25% of which will be exercisable each year beginning on the third anniversary date from the date of grant. The share appreciation rights will be valid for seven years from the date of grant. Eligible participants will be entitled to receive an amount equal to the difference, if any, between the average closing market price of the Bank's H shares in the ten days prior to the date of grant and the average closing market price of the Bank's H shares in the 12 months prior to the date of exercise as adjusted for any change in the Bank's equity. The plan provides cash-settled share-based payment only and accordingly, no shares will be issued under the share appreciation rights plan.

No share appreciation rights were granted since the inception of the plan.

35 Deferred income taxes

35.1 The table below includes the deferred income tax assets and liabilities of the Group after offsetting qualifying amounts and the related temporary differences.

	As at 31 December			
	2021		2020	
	Temporary differences	**Deferred tax assets/ (liabilities)**	Temporary differences	Deferred tax assets/ (liabilities)
Deferred income tax assets	**197,710**	**51,172**	234,905	58,916
Deferred income tax liabilities	**(40,818)**	**(7,003)**	(45,934)	(6,499)
Net	**156,892**	**44,169**	188,971	52,417

(Amount in millions of Renminbi, unless otherwise stated)

V NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)

35 Deferred income taxes (Continued)

35.2 Deferred income tax assets/liabilities and related temporary differences, before offsetting qualifying amounts, are attributable to the following items:

	As at 31 December			
	2021		2020	
	Temporary differences	**Deferred tax assets/ (liabilities)**	Temporary differences	Deferred tax assets/ (liabilities)
Deferred income tax assets				
Asset impairment allowances	**274,503**	**68,376**	253,785	63,242
Pension, retirement benefits and salary payables	**24,929**	**6,238**	17,952	4,470
Financial instruments at fair value through profit or loss and derivative financial instruments	**65,287**	**16,237**	174,011	43,224
Financial assets at fair value through other comprehensive income	**1,224**	**304**	809	202
Other temporary differences	**37,898**	**8,849**	41,355	9,599
Subtotal	**403,841**	**100,004**	487,912	120,737
Deferred income tax liabilities				
Financial instruments at fair value through profit or loss and derivative financial instruments	**(108,696)**	**(26,774)**	(174,976)	(42,853)
Financial assets at fair value through other comprehensive income	**(37,265)**	**(9,205)**	(30,836)	(7,445)
Depreciation and amortisation	**(25,978)**	**(4,530)**	(24,104)	(4,193)
Revaluation of property and investment properties	**(8,040)**	**(1,536)**	(8,845)	(1,722)
Other temporary differences	**(66,970)**	**(13,790)**	(60,180)	(12,107)
Subtotal	**(246,949)**	**(55,835)**	(298,941)	(68,320)
Net	**156,892**	**44,169**	188,971	52,417

As at 31 December 2021, deferred tax liabilities relating to temporary differences of RMB174,351 million associated with the Group's investments in subsidiaries have not been recognised (31 December 2020: RMB164,299 million). Refer to Note II.20.2.

V NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)

35 Deferred income taxes (Continued)

35.3 Movements of the deferred income tax are as follows:

	Year ended 31 December	
	2021	2020
As at 1 January	**52,417**	38,577
(Charged)/credited to the income statement (Note V.10)	**(6,702)**	14,268
Charged to other comprehensive income	**(1,557)**	(62)
Other	**11**	(366)
As at 31 December	**44,169**	52,417

35.4 Breakdowns of deferred income tax credit/(charge) in the income statement are as follows:

	Year ended 31 December	
	2021	2020
Asset impairment allowances	**5,134**	12,190
Financial instruments at fair value through profit or loss and derivative financial instruments	**(10,908)**	1,196
Pension, retirement benefits and salary payables	**1,768**	(40)
Other temporary differences	**(2,696)**	922
Total	**(6,702)**	14,268

36 Other liabilities

	As at 31 December	
	2021	2020
Insurance liabilities		
— Life insurance contracts	**153,677**	132,431
— Non-life insurance contracts	**9,932**	9,670
Items in the process of clearance and settlement	**68,229**	78,940
Salary and welfare payables(1)	**39,685**	34,179
Lease liabilities(2)	**19,619**	21,893
Provision(3)	**26,343**	29,492
Deferred income	**6,362**	11,532
Other	**112,708**	92,236
Total	**436,555**	410,373

(Amount in millions of Renminbi, unless otherwise stated)

V NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)

36 Other liabilities (Continued)

(1) Salary and welfare payables

	As at 1 January 2021	Accrual	Payment	As at 31 December 2021
Salary, bonus and subsidy	**23,909**	**68,798**	**(61,656)**	**31,051**
Staff welfare	**–**	**4,664**	**(4,664)**	**–**
Social insurance				
— Medical	**1,476**	**3,932**	**(3,883)**	**1,525**
— Pension	**204**	**6,205**	**(6,179)**	**230**
— Annuity	**2,086**	**3,527**	**(5,603)**	**10**
— Unemployment	**5**	**213**	**(212)**	**6**
— Injury at work	**1**	**81**	**(80)**	**2**
— Maternity insurance	**3**	**135**	**(135)**	**3**
Housing funds	**36**	**4,940**	**(4,946)**	**30**
Labour union fee and staff education fee	**5,782**	**2,052**	**(1,708)**	**6,126**
Reimbursement for cancellation of labour contract	**24**	**29**	**(30)**	**23**
Other	**653**	**4,674**	**(4,648)**	**679**
Total(i)	**34,179**	**99,250**	**(93,744)**	**39,685**

	As at 1 January 2020	Accrual	Payment	As at 31 December 2020
Salary, bonus and subsidy	23,665	62,377	(62,133)	23,909
Staff welfare	–	4,218	(4,218)	–
Social insurance				
— Medical	1,595	3,109	(3,228)	1,476
— Pension	159	4,607	(4,562)	204
— Annuity	2,141	3,440	(3,495)	2,086
— Unemployment	6	150	(151)	5
— Injury at work	2	59	(60)	1
— Maternity insurance	3	136	(136)	3
Housing funds	39	4,774	(4,777)	36
Labour union fee and staff education fee	5,136	2,082	(1,436)	5,782
Reimbursement for cancellation of labour contract	19	28	(23)	24
Other	608	4,304	(4,259)	653
Total(i)	33,373	89,284	(88,478)	34,179

(i) There was no overdue payment for staff salary and welfare payables as at 31 December 2021 and 2020.

(2) Lease liabilities

The Group's lease liabilities are analysed by the maturity date — undiscounted analysis

	As at 31 December	
	2021	2020
Less than 1 year	**5,927**	6,369
Between 1 to 5 years	**11,082**	12,487
Over 5 years	**8,361**	9,161
Undiscounted lease liabilities	**25,370**	28,017
Lease liabilities	**19,619**	21,893

V NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)

36 Other liabilities (Continued)

(3) Provision

	As at 31 December	
	2021	2020
Allowance for credit commitments[(i)]	**25,456**	28,767
Allowance for litigation losses (Note V.40.1)	**887**	725
Total	**26,343**	29,492

Movements of the provision are as follows:

	Year ended 31 December	
	2021	2020
As at 1 January	**29,492**	24,469
(Reversal)/losses for the year	**(2,623)**	5,589
Utilised during the year	**(251)**	(281)
Exchange differences and other	**(275)**	(285)
As at 31 December	**26,343**	29,492

(i) Allowance for credit commitments is measured using the ECL model. Credit commitments were mainly under Stage 1, and the transfers in balance between stages were not significant during the years ended 31 December 2021 and 2020.

37 Share capital, capital reserve and other equity instruments

37.1 Share capital

The Bank's share capital is as follows:

Unit: Share

	As at 31 December	
	2021	2020
Domestic listed A shares, par value of RMB1.00 per share	**210,765,514,846**	210,765,514,846
Overseas listed H shares, par value of RMB1.00 per share	**83,622,276,395**	83,622,276,395
Total	**294,387,791,241**	294,387,791,241

All A and H shares rank pari passu with the same rights and benefits.

37.2 Capital reserve

	As at 31 December	
	2021	2020
Share premium	**133,648**	133,679
Other capital reserve	**2,069**	2,294
Total	**135,717**	135,973

(Amount in millions of Renminbi, unless otherwise stated)

V NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)

37 Share capital, capital reserve and other equity instruments (Continued)

37.3 Other equity instruments

For the year ended 31 December 2021, the movements in the Bank's other equity instruments were as follows:

	As at 1 January 2021		Increase/(decrease)		As at 31 December 2021	
	Quantity (million shares)	Carrying amount	Quantity (million shares)	Carrying amount	Quantity (million shares)	Carrying amount
Preference Shares						
Domestic Preference Shares (Second Tranche)[1]	280.0	27,969	(280.0)	(27,969)	–	–
Domestic Preference Shares (Third Tranche)[2]	730.0	72,979	–	–	730.0	72,979
Domestic Preference Shares (Fourth Tranche)[3]	270.0	26,990	–	–	270.0	26,990
Offshore Preference Shares (Second Tranche)[4]	197.9	19,581	–	–	197.9	19,581
Subtotal	1,477.9	147,519	(280.0)	(27,969)	1,197.9	119,550
Perpetual Bonds						
2019 Undated Capital Bonds (Series 1)[5]		39,992		–		39,992
2020 Undated Capital Bonds (Series 1)[6]		39,990		–		39,990
2020 Undated Capital Bonds (Series 2)[7]		29,994		–		29,994
2020 Undated Capital Bonds (Series 3)[8]		19,995		–		19,995
2021 Undated Capital Bonds (Series 1)[9]		–		49,989		49,989
2021 Undated Capital Bonds (Series 2)[10]		–		19,995		19,995
Subtotal		129,971		69,984		199,955
Total		277,490		42,015		319,505

(1) With the approvals by the relevant regulatory authorities in China, the Bank fully redeemed 280 million Domestic Preference Shares (Second Tranche) on 15 March 2021. The Bank fully paid the nominal value of the Domestic Preference Shares and the dividends declared, totalling RMB29,540 million.

V NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)

37 Share capital, capital reserve and other equity instruments (Continued)

37.3 Other equity instruments (Continued)

(2) With the approvals by the relevant regulatory authorities in China, the Bank issued non-cumulative Domestic Preference Shares on 24 June 2019, in the aggregate par value of RMB73 billion. Each Domestic Preference Share has a par value of RMB100 and 730 million Domestic Preference Shares were issued in total. The dividend rate of the shares for the first five years is 4.50% (pre-tax), which is reset every 5 years.

The Domestic Preference Shares have no maturity date. However, subject to the satisfaction of the redemption conditions and the prior approval of the CBIRC, the Bank may at its discretion redeem all or part of the Domestic Preference Shares after 27 June 2024 at the redemption price representing the sum of the par value of the Domestic Preference Share and the dividends declared but not yet distributed.

(3) With the approvals by the relevant regulatory authorities in China, the Bank issued non-cumulative Domestic Preference Shares on 26 August 2019, in the aggregate par value of RMB27 billion. Each Domestic Preference Share has a par value of RMB100 and 270 million Domestic Preference Shares were issued in total. The dividend rate of the shares for the first five years is 4.35% (pre-tax), which is reset every 5 years.

The Domestic Preference Shares have no maturity date. However, subject to the satisfaction of the redemption conditions and the prior approval of the CBIRC, the Bank may at its discretion redeem all or part of the Domestic Preference Shares after 29 August 2024 at the redemption price representing the sum of the par value of the Domestic Preference Share and the dividends declared but not yet distributed.

(4) With the approvals by the relevant regulatory authorities in China, the Bank issued the US Dollar settled non-cumulative Offshore Preference Shares on 4 March 2020. Each Offshore Preference Share has a par value of RMB100 and 197,865,300 Offshore Preference Shares were issued in total. The aggregate par value of the Offshore Preference Shares is USD2.820 billion as converted into USD using the fixed exchange rate (USD1.00 to RMB7.0168). The initial annual dividend rate is 3.60% (after tax) and is subject to reset per agreement, but in no case shall exceed 12.15%. The dividends are calculated and paid in US Dollars.

The Offshore Preference Shares have no maturity date. However, subject to the satisfaction of the redemption conditions and the prior approval of the CBIRC, the Bank may at its discretion redeem all or part of the Offshore Preference Shares on 4 March 2025 or any dividend payment date thereafter at the redemption price representing the sum of the par value of the Offshore Preference Shares and the dividends declared but not yet distributed, as calculated and paid in US Dollars.

Save for such dividend at the agreed dividend payout ratio, the holders of the above preference shares shall not be entitled to share in the distribution of the remaining profits of the Bank together with the holders of the ordinary shares. The above preference shares bear non-cumulative dividends. The Bank shall be entitled to cancel any dividend on the preference shares, and such cancellation shall not constitute a default. However, the Bank shall not distribute profits to ordinary shareholders until resumption of full payment of dividends on the preference shares. Upon the occurrence of a triggering event for the compulsory conversion of preference shares into ordinary shares in accordance with the agreement, the Bank shall convert the preference shares into ordinary shares in whole or in part after reporting to the CBIRC for its examination and approval decision.

Capital raised from the issuance of the above preference shares, after deduction of transaction costs, was fully used to replenish the Bank's additional tier 1 capital and to increase its capital adequacy ratio.

V NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)

37 Share capital, capital reserve and other equity instruments (Continued)

37.3 Other equity instruments (Continued)

(5) With the approvals by the relevant regulatory authorities in China, the Bank issued RMB40,000 million write-down undated capital bonds in the Chinese mainland interbank bond market on 25 January 2019 and completed the issuance on 29 January 2019. The denomination of the bonds is RMB100 each, and the annual interest rate of the bonds for the first five years is 4.50%, which is reset every 5 years.

(6) With the approvals by the relevant regulatory authorities in China, the Bank issued RMB40,000 million write-down undated capital bonds in the Chinese mainland interbank bond market on 28 April 2020 and completed the issuance on 30 April 2020. The denomination of the bonds is RMB100 each, and the annual interest rate of the bonds for the first five years is 3.40%, which is reset every 5 years.

(7) With the approvals by the relevant regulatory authorities in China, the Bank issued RMB30,000 million write-down undated capital bonds in the Chinese mainland interbank bond market on 13 November 2020 and completed the issuance on 17 November 2020. The denomination of the bonds is RMB100 each, and the annual interest rate of the bonds for the first five years is 4.55%, which is reset every 5 years.

(8) With the approvals by the relevant regulatory authorities in China, the Bank issued RMB20,000 million write-down undated capital bonds in the Chinese mainland interbank bond market on 10 December 2020 and completed the issuance on 14 December 2020. The denomination of the bonds is RMB100 each, and the annual interest rate of the bonds for the first five years is 4.70%, which is reset every 5 years.

(9) With the approvals by the relevant regulatory authorities in China, the Bank issued RMB50,000 million write-down undated capital bonds in the Chinese mainland interbank bond market on 17 May 2021 and completed the issuance on 19 May 2021. The denomination of the bonds is RMB100 each, and the annual interest rate of the bonds for the first five years is 4.08%, which is reset every 5 years.

(10) With the approvals by the relevant regulatory authorities in China, the Bank issued RMB20,000 million write-down undated capital bonds in the Chinese mainland interbank bond market on 25 November 2021 and completed the issuance on 29 November 2021. The denomination of the bonds is RMB100 each, and the annual interest rate of the bonds for the first five years is 3.64%, which is reset every 5 years.

The duration of the above bonds is the same as the period of continuing operation of the Bank. Subject to the satisfaction of the redemption conditions and having obtained the prior approval of the CBIRC, the Bank may redeem the above bonds in whole or in part on each distribution payment date 5 years after the issuance date of the above bonds. Upon the occurrence of a triggering event for the write-downs, with the consent of the CBIRC and without the consent of the bondholders, the Bank has the right to write down all or part of the above bonds issued and existing at that time in accordance with the total par value. The claims of the holders of the above bonds will be subordinated to the claims of depositors, general creditors and subordinated creditors; and shall rank in priority to the claims of all types of shareholders and will rank pari passu with the claims under any other additional tier 1 capital instruments of the Bank that rank pari passu with the above bonds.

V NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)

37 Share capital, capital reserve and other equity instruments (Continued)

37.3 Other equity instruments (Continued)

The perpetual bonds bear non-cumulative interest and the Bank shall have the right to cancel distributions on the perpetual bonds in whole or in part and such cancellation shall not constitute a default. The Bank may at its discretion utilise the proceeds from the cancelled distributions to meet other obligations of maturing debts. The Bank shall not distribute profits to ordinary shareholders until the resumption of full interest payment to the holders of the perpetual bonds.

Capital raised from the issuance of the perpetual bonds, after deduction of transaction costs, was fully used to replenish the Bank's additional tier 1 capital and to increase its capital adequacy ratio.

38 Statutory reserves, general and regulatory reserves and undistributed profits

38.1 Statutory reserves

Under relevant PRC laws, the Bank is required to appropriate 10% of its net profit to non-distributable statutory surplus reserves. The appropriation to the statutory surplus reserves may cease when such reserves has reached 50% of the share capital. Subject to the approval of the Annual General Meeting, the statutory surplus reserves can be used for replenishing the accumulated losses or increasing the Bank's share capital. The statutory surplus reserves amount used to increase the share capital is limited to a level where the statutory surplus reserves after such capitalisation is not less than 25% of the share capital.

In accordance with a resolution of the Board of Directors dated 29 March 2022, the Bank appropriated 10% of the net profit for the year ended 31 December 2021 to the statutory surplus reserves, amounting to RMB19,396 million (2020: RMB17,720 million).

In addition, some operations in Hong Kong (China), Macao (China), Taiwan (China) and other countries and regions are required to appropriate certain percentages of their net profits to the statutory surplus reserves as stipulated by local banking authorities.

38.2 General and regulatory reserves

According to Caijin [2012] No. 20 *Requirements on Impairment Allowance for Financial Institutions* (the "Requirement"), issued by the MOF, in addition to the impairment allowance, the Bank establishes a general reserve to address unidentified potential impairment losses. The general reserve as a distribution of profits, being part of the equity, should not be less than 1.5% of the aggregate amount of risk assets as defined by the Requirement, and the minimum threshold can be accumulated over a period of no more than five years.

In accordance with a resolution dated 29 March 2022, the Board of Directors of the Bank approved the appropriation of RMB31,439 million to the general reserve for the year ended 31 December 2021 (2020: RMB20,822 million).

The regulatory reserve mainly refers to the reserve amount set aside by BOC Hong Kong (Group) Limited ("BOCHK Group"), a subsidiary of the Group, for general banking risks, including future losses or other unforeseeable risks. As at 31 December 2021 and 2020, the reserve amounts set aside by BOCHK Group were RMB3,866 million and RMB3,105 million, respectively.

V NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)

38 Statutory reserves, general and regulatory reserves and undistributed profits (Continued)

38.3 Dividends

Dividends for Ordinary Shares

Ordinary share cash dividend of RMB57,994 million (pre-tax) in respect of the profit for the year ended 31 December 2020 was approved by the shareholders of the Bank at the Annual General Meeting held on 20 May 2021 and was distributed during the year.

Ordinary share cash dividend of RMB2.21 per ten shares (pre-tax) in respect of the profit for the year ended 31 December 2021 (2020: RMB1.97 per ten shares), amounting to a total dividend of RMB65,060 million (pre-tax), based on the number of shares issued as at 31 December 2021 will be proposed for approval at the forthcoming 2021 Annual General Meeting and the dividend payable is not reflected in the liabilities of the financial statements.

Dividends for Preference Shares

Dividend distributions of Domestic Preference Shares (Third Tranche and Fourth Tranche) were approved by the Board of Directors of the Bank at the Board Meeting held on 29 April 2021. Dividend of Domestic Preference Shares (Third Tranche) amounting to RMB3,285 million (pre-tax) was distributed on 28 June 2021. Dividend of Domestic Preference Shares (Fourth Tranche) amounting to RMB1,174.5 million (pre-tax) was distributed on 30 August 2021.

Dividend distribution of Offshore Preference Shares (Second Tranche) was approved by the Board of Directors of the Bank at the Board Meeting held on 29 October 2021. Dividend of Offshore Preference Shares (Second Tranche) amounting to USD101.5 million (after tax) was distributed on 4 March 2022 and was recorded in other liabilities as at 31 December 2021.

Interest on Perpetual Bonds

The Bank distributed interest on the 2019 Undated Capital Bonds (Series 1) amounting to RMB1,800 million on 29 January 2021.

The Bank distributed interest on the 2020 Undated Capital Bonds (Series 1) amounting to RMB1,360 million on 30 April 2021.

The Bank distributed interest on the 2020 Undated Capital Bonds (Series 2) amounting to RMB1,365 million on 17 November 2021.

The Bank distributed interest on the 2020 Undated Capital Bonds (Series 3) amounting to RMB940 million on 14 December 2021.

V NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)

39 Non-controlling interests

Non-controlling interests of the subsidiaries of the Group are as follows:

	As at 31 December	
	2021	2020
BOC Hong Kong (Group) Limited	**93,924**	94,489
Bank of China Group Investment Limited	**11,847**	11,069
Tai Fung Bank Limited	**10,234**	9,878
Other	**9,395**	8,982
Total	**125,400**	124,418

40 Contingent liabilities and commitments

40.1 Legal proceedings and arbitration

As at 31 December 2021, the Group was involved in certain litigation and arbitration cases in the regular course of its business. In the Group's regular business operations in different countries and regions across the world, give the range and scale of its international presence, the Group may be involved in a variety of litigation, arbitration and judicial proceedings within different jurisdictions, and the ultimate outcomes of these proceedings involve various levels of uncertainty. The management makes provisions for potential losses that may arise from these uncertainties based on assessments of potential liabilities, courts' judgements or the opinions of legal counsel, and as at 31 December 2021, the balance of the provisions was RMB887 million (31 December 2020: RMB725 million), as discussed in Note V.36. Based upon the opinions of internal and external legal counsels, the senior management of the Group believes that, at the current stage, these matters will not have a material impact on the financial position or operating results of the Group. Should the ultimate outcomes of these matters differ from the initially estimated amounts, such differences will impact the profit or loss in the period during which such a determination is made.

40.2 Assets pledged

Assets pledged by the Group as collateral mainly for placement, repurchase, short positions, derivative transactions with other banks and financial institutions and for local statutory requirements are set forth in the table below. These transactions are conducted under standard and normal business terms.

	As at 31 December	
	2021	2020
Debt securities	**1,050,527**	666,236
Bills	**1,778**	2,127
Total	**1,052,305**	668,363

(Amount in millions of Renminbi, unless otherwise stated)

V NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)

40 Contingent liabilities and commitments (Continued)

40.3 Collateral accepted

The Group accepts securities as collateral that are permitted to be sold or re-pledged in connection with reverse repurchase and derivative agreements with banks and other financial institutions. As at 31 December 2021, the fair value of collateral received from banks and other financial institutions accepted by the Group amounted to RMB299,137 million (31 December 2020: RMB151,204 million). As at 31 December 2021, the fair value of the collateral that the Group had sold or re-pledged, but was obligated to return, was RMB2,384 million (31 December 2020: RMB797 million). These transactions are conducted under standard terms in the normal course of business.

40.4 Capital commitments

	As at 31 December	
	2021	2020
Property and equipment		
— Contracted but not provided for	**34,371**	46,723
— Authorised but not contracted for	**1,992**	3,468
Intangible assets		
— Contracted but not provided for	**1,442**	1,242
— Authorised but not contracted for	**155**	199
Investment properties and others		
— Contracted but not provided for	**686**	1,252
Total	**38,646**	52,884

40.5 Operating leases

The Group acts as lessor in operating leases principally through aircraft leasing undertaken by its subsidiary BOC Aviation Limited. Under irrevocable operating lease contracts, the minimum lease payments which will be received by the Group under the operating leases for existing aircraft and aircraft yet to be delivered amounted to:

	As at 31 December	
	2021	2020
Less than 1 year	**11,870**	13,132
Between 1 to 2 years	**13,153**	14,611
Between 2 to 3 years	**12,748**	14,009
Between 3 to 4 years	**11,765**	13,473
Between 4 to 5 years	**11,080**	12,529
Over 5 years	**49,901**	55,771
Total	**110,517**	123,525

V NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)

40 Contingent liabilities and commitments (Continued)

40.6 Treasury bonds redemption commitments

The Bank is entrusted by the MOF to underwrite certain Treasury bonds. The investors of these Treasury bonds have a right to redeem the bonds at any time prior to maturity and the Bank is committed to redeem these Treasury bonds. The MOF will not provide funding for the early redemption of these Treasury bonds on a back-to-back basis but will pay interest and repay the principal at maturity. The redemption price is the principal value of the bonds plus unpaid interest in accordance with the early redemption arrangement.

As at 31 December 2021, the outstanding principal value of the Treasury bonds sold by the Bank under obligation to redeem prior to maturity amounted to RMB54,053 million (31 December 2020: RMB55,597 million). The original maturities of these Treasury bonds vary from 3 to 5 years and management expects the amount of redemption through the Bank prior to the maturity dates of these bonds will not be material.

40.7 Credit commitments

	As at 31 December	
	2021	2020
Loan commitments(1)		
— with an original maturity of less than 1 year	**318,393**	262,001
— with an original maturity of 1 year or above	**1,898,072**	1,417,031
Undrawn credit card limits	**1,044,469**	1,060,580
Letters of guarantee issued(2)	**1,086,152**	1,035,517
Bank bill acceptance	**378,118**	301,602
Letters of credit issued	**171,018**	154,181
Accepted bills of exchange under letters of credit	**80,958**	81,817
Other	**243,974**	178,944
Total(3)	**5,221,154**	4,491,673

(1) Loan commitments mainly represent undrawn loan facilities agreed and granted to customers. Unconditionally revocable loan commitments are not included in loan commitments. As at 31 December 2021, the unconditionally revocable loan commitments of the Group amounted to RMB338,647 million (31 December 2020: RMB334,384 million).

(2) Letters of guarantee issued mainly include financial guarantees and performance guarantees. The obligations on the Group to make payments are dependent on the outcome of a future event.

(3) Risk-weighted assets for credit risk of credit commitments

The risk-weighted assets for credit risk of the Group are calculated in accordance with the *Capital Rules for Commercial Banks (Provisional)* and other relevant regulations under the advanced capital measurement approaches. The amounts are determined by the creditworthiness of the counterparties, the maturity characteristics of each type of contract and other factors.

	As at 31 December	
	2021	2020
Credit commitments	**1,266,950**	1,186,895

(Amount in millions of Renminbi, unless otherwise stated)

V NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)

40 Contingent liabilities and commitments (Continued)

40.8 Underwriting obligations

As at 31 December 2021, the firm commitment in underwriting securities of the Group amounted to RMB600 million (31 December 2020: Nil).

41 Note to the consolidated statement of cash flows

For the purpose of the consolidated statement of cash flows, cash and cash equivalents comprise the following balances with an original maturity of less than three months:

	As at 31 December	
	2021	2020
Cash and due from banks and other financial institutions	**400,769**	453,505
Balances with central banks	**740,092**	587,113
Placements with and loans to banks and other financial institutions	**689,909**	361,872
Financial investments	**144,861**	92,378
Total	**1,975,631**	1,494,868

42 Related party transactions

42.1 CIC was established on 29 September 2007 with registered capital of RMB1,550 billion. CIC is a wholly state-owned company engaging in foreign currency investment management. The Group is subject to the control of the State Council of the PRC Government through CIC and its wholly owned subsidiary, Huijin.

The Group entered into banking transactions with CIC in the normal course of its business on commercial terms.

42.2 Transactions with Huijin and companies under Huijin

(1) General information of Huijin

Central Huijin Investment Ltd.

Legal representative	PENG Chun
Registered capital	RMB828,209 million
Location of registration	Beijing
Capital shares in the Bank	64.02%
Voting rights in the Bank	64.02%
Nature	Wholly State-owned company
Principal activities	Investment in major State-owned financial institutions on behalf of the State Council; other related businesses approved by the State Council
Unified social credit code	911000007109329615

V NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)

42 Related party transactions (Continued)

42.2 Transactions with Huijin and companies under Huijin (Continued)

(2) Transactions with Huijin

The Group enters into banking transactions with Huijin in the normal course of its business on commercial terms. Purchase of the bonds issued by Huijin was in the normal course of business and in compliance with the requirements of the related regulations and corporate governance.

Transaction balances

	As at 31 December	
	2021	2020
Investment in debt securities	**37,842**	43,659
Due to Huijin	**(40,617)**	(18,047)

Transaction amounts

	Year ended 31 December	
	2021	2020
Interest income	**1,170**	1,028
Interest expense	**(652)**	(229)

(3) Transactions with companies under Huijin

Companies under Huijin include its equity interests in subsidiaries, associates and joint ventures in certain other bank and non-bank entities in the PRC. The Group enters into banking transactions with these companies in the normal course of business on commercial terms which include mainly purchase and sale of debt securities, money market transactions and derivative transactions.

In the normal course of business, main transactions that the Group entered into with the affiliates of Huijin are as follows:

Transaction balances

	As at 31 December	
	2021	2020
Due from banks and other financial institutions	**101,654**	126,104
Placements with and loans to banks and other financial institutions	**210,826**	144,640
Financial investments	**498,044**	390,508
Derivative financial assets	**7,407**	18,863
Loans and advances to customers	**64,341**	85,650
Due to customers, banks and other financial institutions	**(259,277)**	(256,582)
Placements from banks and other financial institutions	**(135,319)**	(137,131)
Derivative financial liabilities	**(8,561)**	(21,294)
Credit commitments	**47,175**	32,177

Transaction amounts

	Year ended 31 December	
	2021	2020
Interest income	**14,657**	12,561
Interest expense	**(7,042)**	(4,313)

(Amount in millions of Renminbi, unless otherwise stated)

V NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)

42 Related party transactions (Continued)

42.2 Transactions with Huijin and companies under Huijin (Continued)

(3) Transactions with companies under Huijin (Continued)

Interest rate ranges

	Year ended 31 December	
	2021	2020
Due from banks and other financial institutions	**0.00%–5.50%**	0.00%–5.20%
Placements with and loans to banks and other financial institutions	**-0.48%–6.50%**	-0.21%–27.00%
Financial investments	**-0.58%–5.98%**	-0.05%–5.98%
Loans and advances to customers	**0.15%–4.75%**	0.18%–9.91%
Due to customers, banks and other financial institutions	**-0.60%–5.22%**	-0.50%–6.00%
Placements from banks and other financial institutions	**-0.53%–5.50%**	-0.50%–4.80%

42.3 Transactions with government authorities, agencies, affiliates and other State-controlled entities

The State Council of the PRC government directly and indirectly controls a significant number of entities through its government authorities, agencies, affiliates and other State-controlled entities. The Group enters into extensive banking transactions with these entities in the normal course of business on commercial terms.

Transactions conducted with government authorities, agencies, affiliates and other State-controlled entities include the purchase and redemption of investment securities issued by government agencies, underwriting and distribution of treasury bonds issued by government agencies through the Group's branch network, foreign exchange transactions and derivative transactions, lending, provision of credit and guarantees and deposit placing and taking.

42.4 Transactions with associates and joint ventures

The Group enters into banking transactions with associates and joint ventures in the normal course of business on commercial terms. These include loans and advances, deposit taking and other normal banking businesses. The main transactions that the Group entered into with associates and joint ventures are as follows:

Transaction balances

	As at 31 December	
	2021	2020
Loans and advances to customers	**18,935**	18,502
Due to customers, banks and other financial institutions	**(16,285)**	(10,641)
Credit commitments	**27,408**	23,144

Transaction amounts

	Year ended 31 December	
	2021	2020
Interest income	**674**	772
Interest expense	**(374)**	(316)

V NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)

42 Related party transactions (Continued)

42.4 Transactions with associates and joint ventures (Continued)

The general information of principal associates and joint ventures is as follows:

Name	Place of incorporation/ establishment	Unified Social Credit Code	Effective equity held (%)	Voting right (%)	Paid-in capital (in millions)	Principal business
China Insurance Investment Fund CO., Ltd.	PRC	91110102MA01W7X36U	25.70	25.70	RMB45,000	Investment in non-securities business; equity investment; investment management and consulting
BOC International (China) Co., Ltd.	PRC	91310000736650364G	33.42	33.42	RMB2,778	Securities brokerage; securities investment consulting; financial advisory services related to securities trading and securities investment activities; securities underwriting and sponsorship; securities proprietary business; securities assets management; securities investment fund sales agency; margin financing and securities lending; distribution of financial products; management of publicly offered securities investment funds
Ying Kou Port Group CORP.	PRC	91210800121119657C	8.86	Note (1)	RMB20,000	Terminals and other port facilities services; cargo handling; warehousing services; ship and port services; leasing and maintenance services of port facilities and equipment and port machinery, etc.
CGN Phase I Private Equity Fund Company Limited	PRC	91110000717827478Q	20.00	20.00	RMB100	Investment in nuclear power projects and related industries; assets management; investment consulting
Sichuan Lutianhua Co., Ltd.	PRC	91510500711880825C	16.44	Note (1)	RMB1,568	Chemical industry, mainly produces and sells all kinds of fertilizers and chemical products
Graceful Field Worldwide Limited	BVI	N/A	80.00	Note (1)	USD0.0025	Investment
Shanghai Chenggang Real Estate Co., Ltd.	PRC	91310000MA1H3FM95L	75.00	Note (1)	RMB2,400	Real estate development and operations; property management; non-residential real estate leasing; parking services
Wkland Investments II Limited	BVI	N/A	50.00	50.00	USD0.00002	Investment holding
National Green Development Fund	PRC	91310000MA1FL7AXXR	9.00	Note (1)	RMB88,500	Equity investment; project investment; investment management; investment consulting
Wuhu Yinsheng Special Steel Investment Management Limited Partnership	PRC	91340202MA2RENJEX9	21.20	28.57	N/A	Equity investment; industrial investment

(1) In accordance with the respective articles of association, the Group has significant influence or joint control over these companies.

42.5 Transactions with the Annuity Fund

Apart from the obligations for defined contributions to the Annuity Fund and normal banking transactions, no other transactions were conducted between the Group and the Annuity Fund for the years ended 31 December 2021 and 2020.

(Amount in millions of Renminbi, unless otherwise stated)

V NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)

42 Related party transactions (Continued)

42.6 Transactions with key management personnel

Key management personnel are those persons having authority and responsibility for planning, directing and controlling the activities of the Group, directly or indirectly, including Directors and Executive Officers.

The Group enters into banking transactions with key management personnel in the normal course of business. During the years ended 31 December 2021 and 2020, there were no material transactions and balances with key management personnel on an individual basis.

The key management compensation for the years ended 31 December 2021 and 2020 comprises:

	Year ended 31 December	
	2021	2020
Compensation for short-term employment benefits[1]	**11**	15
Compensation for post-employment benefits	**1**	1
Total	**12**	16

(1) The total compensation packages for the key management personnel for the year ended 31 December 2021 have not yet been finalised in accordance with the relevant regulations of the PRC authorities. The amount of the compensation not provided for is not expected to have any significant impact on the Group's 2021 financial statements. The final compensation for the year ended 31 December 2021 will be disclosed in a separate announcement when determined.

42.7 Transactions with Connected Natural Persons

As at 31 December 2021, the Bank's balance of loans to the connected natural persons as defined in the *Administration of Connected Transactions between Commercial Banks and Their Insiders and Shareholders* issued by the former China Banking Regulatory Commission and the *Administrative Measures for the Disclosure of Information of Listed Companies* issued by China Securities Regulatory Commission totalled RMB352 million (31 December 2020: RMB365 million) and RMB14 million (31 December 2020: RMB20 million), respectively.

42.8 Transactions with subsidiaries

The main transactions with subsidiaries are as follows:

Transaction balances

	As at 31 December	
	2021	2020
Due from banks and other financial institutions	**98,768**	31,487
Placements with and loans to banks and other financial institutions	**273,438**	184,792
Due to banks and other financial institutions	**(200,982)**	(190,167)
Placements from banks and other financial institutions	**(40,061)**	(28,057)

Transaction amounts

	Year ended 31 December	
	2021	2020
Interest income	**2,747**	2,304
Interest expense	**(2,111)**	(1,209)

V NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)

42 Related party transactions (Continued)

42.8 Transactions with subsidiaries (Continued)

The general information of the principal subsidiaries is as follows:

Name	Place of incorporation and operation	Date of incorporation/ establishment	Paid-in capital (in millions)	Effective equity held (%)	Voting right (%)	Principal business
Directly held[1]						
BOC Hong Kong (Group) Limited	Hong Kong, China	12 September 2001	HKD34,806	100.00	100.00	Holding company
BOC International Holdings Limited[3]	Hong Kong, China	10 July 1998	HKD3,539	100.00	100.00	Investment banking
Bank of China Group Insurance Company Limited	Hong Kong, China	23 July 1992	HKD3,749	100.00	100.00	Insurance services
Bank of China Group Investment Limited	Hong Kong, China	18 May 1993	HKD34,052	100.00	100.00	Investment holding
Tai Fung Bank Limited	Macao, China	1942	MOP1,000	50.31	50.31	Commercial banking
Bank of China (UK) Limited	United Kingdom	24 September 2007	GBP250	100.00	100.00	Commercial banking
BOC Insurance Company Limited	Beijing, China	5 January 2005	RMB4,535	100.00	100.00	Insurance services
BOC Financial Asset Investment Company Limited	Beijing, China	16 November 2017	RMB14,500	100.00	100.00	Debt-to-equity swaps and other supporting businesses
BOC Wealth Management Co., Ltd.	Beijing, China	1 July 2019	RMB10,000	100.00	100.00	Issuance of wealth management products, investment and management of entrusted assets for investors
BOC Financial Leasing Co., Ltd.	Chongqing, China	18 June 2020	RMB10,800	92.59	92.59	Financial leasing
Indirectly held						
Bank of China Hong Kong (Holdings) Limited[2]	Hong Kong, China	12 September 2001	HKD52,864	66.06	66.06	Holding company
Bank of China (Hong Kong) Limited[3]	Hong Kong, China	16 October 1964	HKD43,043	66.06	100.00	Commercial banking
BOC Credit Card (International) Limited	Hong Kong, China	9 September 1980	HKD565	66.06	100.00	Credit card services
BOC Group Trustee Company Limited[3]	Hong Kong, China	1 December 1997	HKD200	77.60	100.00	Investment holding
BOC Aviation Limited[2]	Singapore	25 November 1993	USD1,158	70.00	70.00	Aircraft leasing

(1) These directly held principal subsidiaries are unlisted companies. All holdings are in the ordinary share capital of the undertaking concerned, and the ability of the subsidiaries to transfer funds to the Group and the Bank is not restricted.

(2) BOCHK (Holdings) and BOC Aviation Limited are listed on the Stock Exchange of Hong Kong Limited.

(3) BOCHK and BOC International Holdings Limited ("BOCI"), in which the Group holds 66.06% and 100% of their equity interests, respectively, hold 66% and 34% equity interests of BOC Group Trustee Company Limited, respectively.

For certain subsidiaries listed above, the discrepancy between the percentage of voting rights and the percentage of effective equity holding is mainly due to the impact of indirect holdings.

V NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)

43 Segment reporting

The Group manages the business from both geographic and business perspectives. From the geographic perspective, the Group operates in three principal regions: Chinese mainland; Hong Kong (China), Macao (China) and Taiwan (China); and other countries and regions. From the business perspective, the Group provides services through six main business segments: corporate banking, personal banking, treasury operations, investment banking, insurance and other operations.

Measurement of segment assets, liabilities, income, expenses, results and capital expenditure is based on the Group's accounting policies. The segment information presented includes items directly attributable to a segment as well as those that can be allocated on a reasonable basis. Funding is provided to and from individual business segments through treasury operations as part of the asset and liability management process. The pricing of these transactions is based on market rates. The transfer price takes into account the specific features and maturities of the products. Internal transactions are eliminated on consolidation. The Group regularly examines the transfer price and adjusts the price to reflect the current situation.

Geographical segments

Chinese mainland — Corporate banking, personal banking, treasury operations and insurance services, etc. are performed in Chinese mainland.

Hong Kong (China), Macao (China) and Taiwan (China) — Corporate banking, personal banking, treasury operations, investment banking and insurance services are performed in Hong Kong (China), Macao (China) and Taiwan (China). The business of this segment is centralised in BOCHK Group.

Other countries and regions — Corporate and personal banking services are provided in other countries and regions. Significant locations include New York, London, Singapore and Tokyo.

Business segments

Corporate banking — Services to corporate customers, government authorities and financial institutions including current accounts, deposits, overdrafts, loans, payments and settlements, trade-related products and other credit facilities, foreign currency, derivative products and wealth management products.

Personal banking — Services to retail customers including savings deposits, personal loans, credit cards and debit cards, payments and settlements, wealth management products and funds and insurance agency services.

Treasury operations — Consisting of foreign exchange transactions, customer-based interest rate and foreign exchange derivative transactions, money market transactions, proprietary trading and asset and liability management. The results of this segment include the inter-segment funding income and expenses, results from interest-bearing assets and liabilities; and foreign currency translation gains and losses.

Investment banking — Consisting of debt and equity underwriting and financial advisory, sales and trading of securities, stock brokerage, investment research and asset management services, and private equity investment services.

Insurance — Underwriting of general and life insurance business and insurance agency services.

Other — Other operations of the Group comprise investment holding business, leasing business and other miscellaneous activities, none of which constitutes a separately reportable segment.

V NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)

43 Segment reporting (Continued)

As at and for the year ended 31 December 2021

	Chinese mainland	Hong Kong (China), Macao (China), Taiwan (China) BOCHK Group	Other	Subtotal	Other countries and regions	Elimination	Total
Interest income	722,469	34,203	23,009	57,212	22,050	(12,243)	789,488
Interest expense	(346,563)	(6,893)	(16,266)	(23,159)	(6,867)	12,243	(364,346)
Net interest income	375,906	27,310	6,743	34,053	15,183	–	425,142
Fee and commission income	76,927	11,754	7,672	19,426	6,183	(8,083)	94,453
Fee and commission expense	(12,587)	(2,492)	(2,454)	(4,946)	(2,224)	6,730	(13,027)
Net fee and commission income	64,340	9,262	5,218	14,480	3,959	(1,353)	81,426
Net trading gains	19,996	2,261	5,320	7,581	717	(3)	28,291
Net gains on transfers of financial asset	1,742	924	314	1,238	217	–	3,197
Other operating income[1]	19,061	14,204	35,352	49,556	236	(1,192)	67,661
Operating income	481,045	53,961	52,947	106,908	20,312	(2,548)	605,717
Operating expenses[1]	(163,673)	(26,698)	(30,747)	(57,445)	(7,843)	2,606	(226,355)
Impairment losses on assets	(99,622)	(1,778)	(2,539)	(4,317)	(281)	–	(104,220)
Operating profit	217,750	25,485	19,661	45,146	12,188	58	275,142
Share of results of associates and joint ventures	779	(241)	940	699	–	–	1,478
Profit before income tax	218,529	25,244	20,601	45,845	12,188	58	276,620
Income tax expense							(49,281)
Profit for the year							227,339
Segment assets	21,471,302	2,951,526	1,659,173	4,610,699	2,292,838	(1,688,200)	26,686,639
Investments in associates and joint ventures	20,544	598	14,627	15,225	–	–	35,769
Total assets	21,491,846	2,952,124	1,673,800	4,625,924	2,292,838	(1,688,200)	26,722,408
Include: non-current assets[2]	117,571	26,383	169,999	196,382	9,021	(4,275)	318,699
Segment liabilities	19,607,634	2,709,070	1,521,145	4,230,215	2,222,113	(1,688,107)	24,371,855
Other segment items:							
Inter-segment net interest (expense)/income	(3,667)	541	4,376	4,917	(1,250)	–	–
Inter-segment net fee and commission income	232	370	601	971	150	(1,353)	–
Capital expenditure	13,400	1,423	15,070	16,493	269	–	30,162
Depreciation and amortisation	20,355	1,833	6,406	8,239	880	(682)	28,792
Credit commitments	4,433,323	293,314	171,201	464,515	535,677	(212,361)	5,221,154

(Amount in millions of Renminbi, unless otherwise stated)

V NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)

43 Segment reporting (Continued)

As at and for the year ended 31 December 2020

	Chinese mainland	Hong Kong (China), Macao (China), Taiwan (China)			Other countries and regions	Elimination	Total
		BOCHK Group	Other	Subtotal			
Interest income	673,082	44,499	29,847	74,346	32,125	(19,483)	760,070
Interest expense	(310,089)	(13,312)	(23,474)	(36,786)	(16,760)	19,483	(344,152)
Net interest income	362,993	31,187	6,373	37,560	15,365	–	415,918
Fee and commission income	67,187	11,355	7,846	19,201	6,085	(3,833)	88,640
Fee and commission expense	(9,030)	(2,413)	(2,126)	(4,539)	(1,950)	2,401	(13,118)
Net fee and commission income	58,157	8,942	5,720	14,662	4,135	(1,432)	75,522
Net trading (losses)/gains	(4,208)	5,793	5,293	11,086	1,177	–	8,055
Net gains on transfers of financial asset	4,965	4,063	142	4,205	377	–	9,547
Other operating income[1]	14,727	16,999	26,855	43,854	948	(924)	58,605
Operating income	436,634	66,984	44,383	111,367	22,002	(2,356)	567,647
Operating expenses[1]	(140,087)	(33,468)	(23,011)	(56,479)	(8,201)	2,356	(202,411)
Impairment losses on assets	(107,622)	(2,407)	(2,574)	(4,981)	(6,413)	–	(119,016)
Operating profit	188,925	31,109	18,798	49,907	7,388	–	246,220
Share of results of associates and joint ventures	(185)	(164)	507	343	–	–	158
Profit before income tax	188,740	30,945	19,305	50,250	7,388	–	246,378
Income tax expense							(41,282)
Profit for the year							205,096
Segment assets	19,434,557	2,762,985	1,529,898	4,292,883	2,090,165	(1,448,454)	24,369,151
Investments in associates and joint ventures	19,712	858	12,938	13,796	–	–	33,508
Total assets	19,454,269	2,763,843	1,542,836	4,306,679	2,090,165	(1,448,454)	24,402,659
Include: non-current assets[2]	119,001	27,626	170,894	198,520	9,939	(2,980)	324,480
Segment liabilities	17,753,122	2,520,219	1,396,881	3,917,100	2,017,915	(1,448,315)	22,239,822
Other segment items:							
Inter-segment net interest (expense)/income	(4,886)	775	6,771	7,546	(2,660)	–	–
Inter-segment net fee and commission income/(expense)	487	395	692	1,087	(142)	(1,432)	–
Capital expenditure	12,133	1,593	26,472	28,065	309	–	40,507
Depreciation and amortisation	19,056	1,972	6,097	8,069	838	(457)	27,506
Credit commitments	3,753,654	310,620	145,806	456,426	507,083	(225,490)	4,491,673

(1) Other operating income includes insurance premium income earned, and operating expenses include insurance benefits and claims.

(2) Non-current assets include property and equipment, investment properties, right-of-use assets, intangible assets and other long-term assets.

V NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)

43 Segment reporting (Continued)

As at and for the year ended 31 December 2021

	Corporate banking	Personal banking	Treasury operations	Investment banking	Insurance	Other	Elimination	Total
Interest income	346,214	311,480	188,432	1,220	3,914	4,414	(66,186)	789,488
Interest expense	(176,401)	(137,540)	(109,822)	(139)	(84)	(6,549)	66,189	(364,346)
Net interest income/(expense)	169,813	173,940	78,610	1,081	3,830	(2,135)	3	425,142
Fee and commission income	31,212	39,163	15,240	9,819	–	2,087	(3,068)	94,453
Fee and commission expense	(1,382)	(6,998)	(914)	(2,640)	(3,585)	(143)	2,635	(13,027)
Net fee and commission income/(expense)	29,830	32,165	14,326	7,179	(3,585)	1,944	(433)	81,426
Net trading gains/(losses)	1,972	(347)	13,255	500	(41)	12,874	78	28,291
Net gains on transfers of financial asset	1,458	206	1,262	21	237	13	–	3,197
Other operating income	581	10,486	484	320	35,580	23,429	(3,219)	67,661
Operating income	203,654	216,450	107,937	9,101	36,021	36,125	(3,571)	605,717
Operating expenses	(71,074)	(88,676)	(21,784)	(2,984)	(34,357)	(11,229)	3,749	(226,355)
Impairment losses on assets	(68,087)	(24,778)	(7,341)	(270)	(30)	(3,513)	(201)	(104,220)
Operating profit	64,493	102,996	78,812	5,847	1,634	21,383	(23)	275,142
Share of results of associates and joint ventures	–	–	–	339	–	1,273	(134)	1,478
Profit before income tax	64,493	102,996	78,812	6,186	1,634	22,656	(157)	276,620
Income tax expense								(49,281)
Profit for the year								227,339
Segment assets	10,117,500	6,179,877	9,521,320	92,943	231,683	637,470	(94,154)	26,686,639
Investments in associates and joint ventures	–	–	–	5,779	–	30,130	(140)	35,769
Total assets	10,117,500	6,179,877	9,521,320	98,722	231,683	667,600	(94,294)	26,722,408
Segment liabilities	12,303,472	8,427,530	3,131,945	62,915	211,832	328,198	(94,037)	24,371,855
Other segment items:								
Inter-segment net interest income/(expense)	16,438	48,690	(64,964)	260	9	(436)	3	–
Inter-segment net fee and commission income/(expense)	472	1,791	59	(637)	(1,612)	360	(433)	–
Capital expenditure	3,998	4,615	212	212	158	20,967	–	30,162
Depreciation and amortisation	9,225	11,027	2,698	411	280	6,082	(931)	28,792
Credit commitments	3,956,835	1,264,319	–	–	–	–	–	5,221,154

(Amount in millions of Renminbi, unless otherwise stated)

V NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)

43 Segment reporting (Continued)

As at and for the year ended 31 December 2020

	Corporate banking	Personal banking	Treasury operations	Investment banking	Insurance	Other	Elimination	Total
Interest income	340,794	294,134	190,422	1,888	3,525	4,053	(74,746)	760,070
Interest expense	(156,596)	(111,965)	(142,905)	(403)	(105)	(7,116)	74,938	(344,152)
Net interest income/(expense)	184,198	182,169	47,517	1,485	3,420	(3,063)	192	415,918
Fee and commission income	30,304	37,241	15,935	5,871	1	2,340	(3,052)	88,640
Fee and commission expense	(1,284)	(6,259)	(2,631)	(1,800)	(3,514)	(131)	2,501	(13,118)
Net fee and commission income/(expense)	29,020	30,982	13,304	4,071	(3,513)	2,209	(551)	75,522
Net trading gains/(losses)	2,326	1,097	(1,954)	268	2,793	3,571	(46)	8,055
Net gains on transfers of financial asset	1,215	102	7,980	1	243	6	–	9,547
Other operating income	831	7,284	1,039	287	31,962	20,402	(3,200)	58,605
Operating income	217,590	221,634	67,886	6,112	34,905	23,125	(3,605)	567,647
Operating expenses	(63,314)	(78,897)	(17,445)	(2,996)	(33,270)	(10,157)	3,668	(202,411)
Impairment losses on assets	(79,872)	(29,136)	(8,223)	(12)	(49)	(1,789)	65	(119,016)
Operating profit	74,404	113,601	42,218	3,104	1,586	11,179	128	246,220
Share of results of associates and joint ventures	–	–	–	342	–	(119)	(65)	158
Profit before income tax	74,404	113,601	42,218	3,446	1,586	11,060	63	246,378
Income tax expense								(41,282)
Profit for the year								205,096
Segment assets	9,251,427	5,641,051	8,684,296	99,425	204,290	593,454	(104,792)	24,369,151
Investments in associates and joint ventures	–	–	–	5,585	–	27,989	(66)	33,508
Total assets	9,251,427	5,641,051	8,684,296	105,010	204,290	621,443	(104,858)	24,402,659
Segment liabilities	10,376,544	7,461,553	3,915,554	72,597	185,310	332,963	(104,699)	22,239,822
Other segment items:								
Inter-segment net interest income/(expense)	20,712	52,337	(72,651)	310	14	(914)	192	–
Inter-segment net fee and commission income/(expense)	627	1,759	114	(598)	(1,769)	417	(550)	–
Capital expenditure	3,620	4,137	192	179	116	32,263	–	40,507
Depreciation and amortisation	8,665	10,630	2,532	404	277	5,712	(714)	27,506
Credit commitments	3,242,275	1,249,398	–	–	–	–	–	4,491,673

V NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)

44 Transfers of financial assets

The Group enters into transactions in the normal course of business by which it transfers recognised financial assets to third parties or to special purpose entities. In some cases where these transferred financial assets qualify for derecognition, the transfers may give rise to full or partial derecognition of the financial assets concerned. In other cases where the transferred assets do not qualify for derecognition as the Group has retained substantially all the risks and rewards of these assets, the Group continues to recognise the transferred assets.

Repurchase agreements

Transferred financial assets that do not qualify for derecognition mainly include debt securities held by counterparties as collateral under repurchase agreements. The counterparties are allowed to sell or re-pledge those securities in the absence of default by the Group, but have an obligation to return the securities upon maturity of the contract. If the value of securities increases or decreases, the Group may in certain circumstances, require counterparties or be required by counterparties to pay additional cash collateral. The Group has determined that the Group retains substantially all the risks and rewards of these securities and therefore has not derecognised them. In addition, the Group recognises a financial liability for cash received.

The following table analyses the carrying amount of the above-mentioned financial assets transferred to third parties that did not qualify for derecognition and their associated financial liabilities:

	As at 31 December 2021		As at 31 December 2020	
	Carrying amount of transferred assets	**Carrying amount of associated liabilities**	Carrying amount of transferred assets	Carrying amount of associated liabilities
Repurchase agreements	**6,655**	**6,398**	13,248	13,550

Credit assets transfers

The Group enters into credit asset transfers in the normal course of business during which it transfers credit assets to special purpose entities which in turn issue asset-backed securities or fund shares to investors. The Group may acquire some asset-backed securities and fund shares at the subordinated tranche level, and accordingly, may retain parts of the risks and rewards of the transferred credit assets. The Group would determine whether or not to derecognise the associated credit assets by evaluating the extent to which it retains the risks and rewards of the assets.

With respect to the credit assets that were securitised and qualified for derecognition, the Group derecognises the transferred credit assets in their entirety. The corresponding total carrying amount of asset-backed securities held by the Group in the securitisation transactions was RMB680 million as at 31 December 2021 (31 December 2020: RMB760 million), which also approximates the Group's maximum exposure to loss.

For those in which the Group has neither transferred nor retained substantially all the risks and rewards of the transferred credit assets, and retained control of the credit assets, the transferred credit assets are recognised in the statement of financial position to the extent of the Group's continuing involvement. The carrying amount at the time of transfer of the original credit assets, which the Group determined that it has continuing involvement through acquiring some tranches, was RMB46,442 million for this year (2020: RMB15,365 million) and the carrying amount of assets that the Group continues to recognise in the statement of financial position was RMB21,579 million as at 31 December 2021 (31 December 2020: RMB15,244 million).

V NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)

45 Interests in structured entities

The Group is principally involved with structured entities through financial investments, asset management and credit assets transfers. These structured entities generally finance the purchase of assets by issuing securities or by other means. The Group determines whether or not to consolidate these structured entities depending on whether the Group has control over them.

45.1 Interests in unconsolidated structured entities

The interests held by the Group in unconsolidated structured entities are mainly as follows:

Structured entities sponsored by the Group

In conducting the asset management business in Chinese mainland, the Group established various structured entities to provide customers specialised investment opportunities within well-defined objectives, including wealth management products, publicly offered funds and asset management plans. The Group earned management fee, commission and custodian fee in return.

As at 31 December 2021, the balance of unconsolidated wealth management products sponsored by the Group amounted to RMB1,710,750 million (31 December 2020: RMB1,388,904 million). The balance of unconsolidated publicly offered funds and asset management plans sponsored by the Group amounted to RMB487,438 million (31 December 2020: RMB486,880 million).

For the year ended 31 December 2021, the above-mentioned management fees, commission and custodian fees amounted to RMB11,435 million (2020: RMB8,499 million).

As at 31 December 2021, the balance of interest and commission receivable held by the Group in the above-mentioned structured entities is not material. For the purpose of asset-liability management, wealth management products may require short-term financing from the Group and other banks. The Group is not contractually obliged to provide financing. After internal risk assessment, the Group may enter into repurchase and placement transactions with these wealth management products in accordance with market principles. For the year ended 31 December 2021, the maximum balance of such financing provided by the Group to the unconsolidated wealth management products was RMB62,120 million (2020: RMB132,205 million). Such financing provided by the Group was included in "Placements with and loans to banks and other financial institutions". As at 31 December 2021, the balance of the above transactions was RMB2,600 million (31 December 2020: RMB18,580 million). The maximum exposure to loss of those placements approximated to their carrying amount.

In July 2020, the regulatory authorities made a decision on extending the transition period for the *Guiding Opinions on Regulating Asset Management Business of Financial Institutions* to the end of 2021 and encouraged orderly disposal of legacy investments in a variety of ways. As at 31 December 2021, the Group had completed the rectification of wealth management products as scheduled.

In addition, the total carrying amount as at the transfer date of credit assets transferred by the Group into the unconsolidated structured entities was RMB3,476 million for the year ended 31 December 2021 (2020: RMB1,230 million). For the description of the portion of asset-backed securities issued by the above structured entities and held by the Group, refer to Note V.44.

V NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)

45 Interests in structured entities (Continued)

45.1 Interests in unconsolidated structured entities (Continued)

Structured entities sponsored by other financial institutions

The interests held by the Group in the structured entities sponsored by other financial institutions through direct investments are set out as below:

Structured entity type	Financial assets at fair value through profit or loss	Financial assets at fair value through other comprehensive income	Financial assets at amortised cost	Total	Maximum exposure to loss
As at 31 December 2021					
Fund investments	**68,914**	**–**	**–**	**68,914**	**68,914**
Investment trusts and asset management plans	**2,745**	**3,220**	**6,303**	**12,268**	**12,268**
Asset-backed securitisations	**11,357**	**45,880**	**67,844**	**125,081**	**125,081**
As at 31 December 2020					
Fund investments	57,099	–	–	57,099	57,099
Investment trusts and asset management plans	2,914	–	8,407	11,321	11,321
Asset-backed securitisations	5,538	40,633	58,195	104,366	104,366

45.2 Consolidated structured entities

The Group's consolidated structured entities mainly consist of open-end funds, private equity funds, trusts for asset-backed securities, and special-purpose companies. The Group controls these entities because the Group has power over, is exposed to, or has rights to variable returns from its involvement with these entities and has the ability to use its power over these entities to affect the amount of the Group's returns. Except for providing financial guarantees for the companies established solely for financing purposes, the Group does not provide financial or other support to the other consolidated structured entities.

(Amount in millions of Renminbi, unless otherwise stated)

V NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)

46 Offsetting financial assets and financial liabilities

Financial assets subject to offsetting, enforceable master netting arrangements and similar agreements are analysed as below:

	Gross amounts of recognised financial assets	Gross amounts offset in the statement of financial position	Amounts presented in the statement of financial position	Amounts not set off in the statement of financial position		Net amount
				Financial instruments*	Cash collateral received	
As at 31 December 2021						
Derivatives	**29,313**	**–**	**29,313**	**(20,332)**	**(3,262)**	**5,719**
Reverse repo agreements	**16,568**	**–**	**16,568**	**(16,568)**	**–**	**–**
Other assets	**9,357**	**(7,284)**	**2,073**	**–**	**–**	**2,073**
Total	**55,238**	**(7,284)**	**47,954**	**(36,900)**	**(3,262)**	**7,792**
As at 31 December 2020						
Derivatives	52,457	–	52,457	(37,206)	(2,843)	12,408
Reverse repo agreements	3,858	–	3,858	(3,858)	–	–
Other assets	16,611	(12,035)	4,576	–	–	4,576
Total	72,926	(12,035)	60,891	(41,064)	(2,843)	16,984

Financial liabilities subject to offsetting, enforceable master netting arrangements and similar agreements are analysed as below:

	Gross amounts of recognised financial liabilities	Gross amounts offset in the statement of financial position	Amounts presented in the statement of financial position	Amounts not set off in the statement of financial position		Net amount
				Financial instruments*	Cash collateral pledged	
As at 31 December 2021						
Derivatives	**29,845**	**–**	**29,845**	**(20,526)**	**(4,701)**	**4,618**
Repurchase agreements	**55,816**	**–**	**55,816**	**(55,816)**	**–**	**–**
Other liabilities	**7,799**	**(7,284)**	**515**	**–**	**–**	**515**
Total	**93,460**	**(7,284)**	**86,176**	**(76,342)**	**(4,701)**	**5,133**
As at 31 December 2020						
Derivatives	62,412	–	62,412	(37,220)	(14,196)	10,996
Repurchase agreements	176	–	176	(176)	–	–
Other liabilities	13,006	(12,035)	971	–	–	971
Total	75,594	(12,035)	63,559	(37,396)	(14,196)	11,967

* Including non-cash collateral.

V NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)

46 Offsetting financial assets and financial liabilities (Continued)

Financial assets and financial liabilities are offset and the net amount is reported in the statement of financial position when there is 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 offset criteria").

Derivatives and reverse repo/repurchase agreements included in the amounts are not set off in the statement of financial position where:

- the counterparty has an offsetting exposure with the Group and a master netting or similar arrangement (including ISDA master agreement and Global Master Netting Agreement) is in place with a right of setting off only in the event of default, insolvency or bankruptcy, or the offset criteria are otherwise not satisfied; and

- cash and non-cash collateral have been received/pledged in respect of the transactions described above.

47 The Bank's statement of financial position and changes in equity

47.1 The Bank's statement of financial position

	As at 31 December	
	2021	2020
ASSETS		
Cash and due from banks and other financial institutions	**684,360**	735,856
Balances with central banks	**2,066,094**	1,895,772
Placements with and loans to banks and other financial institutions	**1,441,375**	1,065,541
Government certificates of indebtedness for bank notes issued	**9,080**	9,083
Precious metals	**267,913**	214,310
Derivative financial assets	**70,379**	132,878
Loans and advances to customers, net	**13,652,081**	12,286,706
Financial investments	**4,768,450**	4,422,013
— financial assets at fair value through profit or loss	**287,927**	264,746
— financial assets at fair value through other comprehensive income	**1,486,942**	1,315,891
— financial assets at amortised cost	**2,993,581**	2,841,376
Investments in subsidiaries	**140,451**	135,553
Investments in associates and joint ventures	**8,379**	7,731
Consolidated structured entities	**202,265**	202,275
Property and equipment	**79,534**	81,661
Investment properties	**1,984**	2,185
Deferred income tax assets	**51,892**	59,767
Other assets	**102,586**	112,152
Total assets	**23,546,823**	21,363,483

(Amount in millions of Renminbi, unless otherwise stated)

V NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)

47 The Bank's statement of financial position and changes in equity (Continued)

47.1 The Bank's statement of financial position (Continued)

	As at 31 December	
	2021	2020
LIABILITIES		
Due to banks and other financial institutions	**2,751,227**	1,960,349
Due to central banks	**883,097**	838,054
Bank notes in circulation	**8,970**	9,226
Placements from banks and other financial institutions	**356,765**	393,521
Financial liabilities held for trading	**1,945**	571
Derivative financial liabilities	**65,892**	164,604
Due to customers	**15,956,260**	14,787,841
Bonds issued	**1,283,648**	1,140,777
Current tax liabilities	**40,325**	50,980
Retirement benefit obligations	**2,095**	2,199
Deferred income tax liabilities	**596**	567
Other liabilities	**187,732**	176,000
Total liabilities	**21,538,552**	19,524,689
EQUITY		
Share capital	**294,388**	294,388
Other equity instruments	**319,505**	277,490
Capital reserve	**132,331**	132,590
Other comprehensive income	**20,116**	17,712
Statutory reserves	**208,319**	188,832
General and regulatory reserves	**292,549**	261,170
Undistributed profits	**741,063**	666,612
Total equity	**2,008,271**	1,838,794
Total equity and liabilities	**23,546,823**	21,363,483

Approved and authorised for issue by the Board of Directors on 29 March 2022.

LIU Liange	**LIU Jin**
Director	*Director*

V NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)

47 The Bank's statement of financial position and changes in equity (Continued)

47.2 The Bank's statement of changes in equity

	Share capital	**Other equity instruments**	**Capital reserve**	**Other comprehensive income**	**Statutory reserves**	**General and regulatory reserves**	**Undistributed profits**	**Total**
As at 1 January 2021	**294,388**	**277,490**	**132,590**	**17,712**	**188,832**	**261,170**	**666,612**	**1,838,794**
Total comprehensive income	**–**	**–**	**–**	**2,404**	**–**	**–**	**193,962**	**196,366**
Appropriation to statutory reserves	**–**	**–**	**–**	**–**	**19,487**	**–**	**(19,487)**	**–**
Appropriation to general and regulatory reserves	**–**	**–**	**–**	**–**	**–**	**31,379**	**(31,379)**	**–**
Dividends	**–**	**–**	**–**	**–**	**–**	**–**	**(68,645)**	**(68,645)**
Capital contribution and reduction by other equity instruments holders	**–**	**42,015**	**(31)**	**–**	**–**	**–**	**–**	**41,984**
Other	**–**	**–**	**(228)**	**–**	**–**	**–**	**–**	**(228)**
As at 31 December 2021	**294,388**	**319,505**	**132,331**	**20,116**	**208,319**	**292,549**	**741,063**	**2,008,271**

	Share capital	Other equity instruments	Capital reserve	Other comprehensive income	Statutory reserves	General and regulatory reserves	Undistributed profits	Total
As at 1 January 2020	294,388	199,893	132,627	19,292	171,003	240,279	596,399	1,653,881
Total comprehensive income	–	–	–	(1,590)	–	–	177,200	175,610
Appropriation to statutory reserves	–	–	–	–	17,829	–	(17,829)	–
Appropriation to general and regulatory reserves	–	–	–	–	–	20,891	(20,891)	–
Dividends	–	–	–	–	–	–	(68,257)	(68,257)
Capital contribution and reduction by other equity instruments holders	–	77,597	(37)	–	–	–	–	77,560
Other comprehensive income transferred to retained earnings	–	–	–	10	–	–	(10)	–
As at 31 December 2020	294,388	277,490	132,590	17,712	188,832	261,170	666,612	1,838,794

(Amount in millions of Renminbi, unless otherwise stated)

V NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)

48 IBOR Reform

The Group monitors the risks related to IBOR Reform, continuously monitors the risk exposure and converts existing contracts.

48.1 The Group exposed to different interbank offered rates ("IBORs"), predominantly US dollar Libor. The following table contains details of financial instruments that Group's commercial banking business holds at 31 December 2021 which reference USD LIBOR and have not yet transitioned to an alternative interest rate benchmark:

As at 31 December 2021	Financial instruments yet to transition to an alternative benchmark
Non-derivative assets	**481,816**
Non-derivative liabilities	**2,997**
Contractual/Notional amount of derivatives	**579,043**

48.2 The Group has hedge accounting relationships that are exposed to different IBORs, predominantly US dollar Libor, etc. External progress on the transition to RFRs is being monitored, with the objective of ensuring a smooth transition for the Group's hedge accounting relationships. The specific issues arising will vary with the details of each hedging relationship, but may arise due to the transition of existing products included in the designation, a change in expected volumes of products to be issued, a change in contractual terms of new products issued, or a combination of these factors. Some hedges may need to be de-designated and new relationships entered into, while others may survive IBOR Reform.

The hedge items that are affected by the adoption of applicable temporary reliefs in hedge accounting relationships are presented in the statement of financial position as "Financial investments", "Due to central banks" and "Bonds issued".

As at 31 December 2021, the notional amount of interest rate derivatives designated in fair value hedged accounting relationships was RMB65,260 million (2020: RMB93,964 million), which represented the extent of the risk exposure around fair value hedging relationships managed by the Group that was directly affected by IBOR Reform and impacted by applicable temporary reliefs.

49 Events after the financial reporting date

Issuance of Tier 2 Capital Bonds

The Bank issued tier 2 capital bonds in an amount of RMB30 billion on 20 January 2022. The bonds have a maturity of date of 24 January 2032 with a fixed coupon rate of 3.25%, payable annually. The Bank is entitled to redeem the bonds at the end of the fifth year.

VI FINANCIAL RISK MANAGEMENT

1 Overview

The Group analyses, identifies, monitors and reports risks by formulating risk management policies, setting appropriate risk limits and control procedures, and using relevant information systems. It also regularly reviews its risk management policies and related systems to reflect new changes in markets, products and the industry's best practices.

The financial risks the Group is exposed to mainly include credit risk, market risk and liquidity risk. Among them, market risk includes exchange rate risk, interest rate risk and other price risks.

The Board of Directors of the Group assumes the ultimate responsibility for comprehensive risk management. The Board of Directors authorises its subordinate Risk Policy Committee, Audit Committee and US Risk and Management Committee to perform part of the responsibilities of comprehensive risk management. The Board of Supervisors undertakes the supervision responsibility for comprehensive risk management, and is responsible for supervising and inspecting the duty performance of the Board of Directors and senior management in respect of risk management and supervising relevant rectification. The senior management is responsible for conducting comprehensive risk management and implementing resolutions of the Board of Directors. The Risk Management Department, Credit Approval Department, Credit Management Department, Internal Control and Legal & Compliance Department and other relevant functional departments are responsible for managing financial risks.

Branches and sub-branches are responsible for the comprehensive risk management of business departments at the same level and institutions at lower levels, and shall report their risk position to the Risk Management Department of the Head Office. The subsidiaries shall establish and improve their respective comprehensive risk management systems and carry out comprehensive risk management-related work in accordance with relevant regulatory guidelines and the requirements of this Policy.

2 Credit risk

The Group takes on exposure to credit risk, which is the risk that a borrower or counterparty will cause a financial loss to the Group by failing to discharge its obligation. Credit risk is one of the most significant risks for the Group's business.

Credit risk exposures arise principally in lending activities and debt securities investment activities. There is also credit risk in off-balance sheet financial instruments, such as loan commitments, bill acceptance, letters of guarantee and letters of credit.

2.1 Credit risk management

(1) Loans and advances to customers and off-balance sheet commitments

The Group identifies and monitors credit risk collectively based on industry, geography and customer type. Management periodically reviews various elements of the Group's credit risk management, in the context of loan portfolio growth, the changing mix and concentration of assets, and the evolving risk profile of the credit portfolio. From time to time, in this regard, refinements are made to the Group's credit risk management processes to most effectively manage the effects of these changes on the Group's credit risk. These refinements include, among other things, adjustments to portfolio level controls, such as revisions to lists of approved borrowers, industry limits and underwriting criteria. Where circumstances related to specific loans or a group of loans increase the Bank's credit risk, actions are taken, to the extent possible, to strengthen the security of the Group's position. The actions may include obtaining additional guarantors or collateral.

VI FINANCIAL RISK MANAGEMENT (Continued)

2 Credit risk (Continued)

2.1 Credit risk management (Continued)

(1) Loans and advances to customers and off-balance sheet commitments (Continued)

The Group measures and manages the credit quality of loans and advances to corporate and personal customers based on the *Guideline for Loan Credit Risk Classification* (the "Guideline") issued by the former China Banking Regulatory Commission, which requires commercial banks to classify their corporate and personal loans into five categories: pass, special-mention, substandard, doubtful and loss, among which loans classified in the substandard, doubtful and loss categories are regarded as non-performing loans. Off-balance sheet commitments with credit exposure are also assessed and categorised with reference to the Guideline. For operations in Hong Kong (China), Macao (China), Taiwan (China) and other countries and regions, where local regulations and requirements are different from the Guideline, credit assets are classified with prudently not lower than the Group's management requirements in consideration of local regulations and requirements.

The five categories are defined as follows:

Pass: loans for which borrowers can honour the terms of the contracts, and there is no reason to doubt their ability to repay the principal and interest of loans in full and on a timely basis.

Special-mention: loans for which borrowers are still able to service the loans currently, although the repayment of loans might be adversely affected by some factors.

Substandard: loans for which borrowers' ability to service loans is apparently in question and borrowers cannot depend on their normal business revenues to pay back the principal and interest of loans. Certain losses might be incurred by the Group even when guarantees are executed.

Doubtful: loans for which borrowers cannot pay back the principal and interest of loans in full and significant losses will be incurred by the Group even when guarantees are executed.

Loss: principal and interest of loans cannot be recovered or only a small portion can be recovered after taking all possible measures and resorting to necessary legal procedures.

The Group strictly follows the regulatory requirements in five-category loan classifications management, and makes adjustments to these classifications as necessary according to customers' operational and financial position, together with other factors that may affect the repayment of the loans.

In accordance with the New Basel Capital Accord, the Group implemented a domestic corporate customer credit rating system based on the probability default ("PD") model. The domestic corporate customer PD model uses the principle of logistic regression to predict the PD for customers in the next 12 months. The risk rating of the customer is obtained through the relevant mapping relationship table according to the calculated PD value. The corporate customer credit ratings are classified into fifteen grades as AAA, AA, A, BBB+, BBB, BBB-, BB+, BB, BB-, B+, B-, CCC, CC, C, and D. Credit grade D equates to defaulted customers while the others are assigned to non-defaulted customers. The Group performs centralised review on customer credit ratings on an annual basis in addition to making adjustments as necessary according to the customers' operational and financial condition. The Group conducts back-testing of the rating model for domestic corporate customers, according to the customers' actual defaults each year, so that the model calculation results are closer to the objective facts.

VI FINANCIAL RISK MANAGEMENT (Continued)

2 Credit risk (Continued)

2.1 Credit risk management (Continued)

(2) Due from, placements with and loans to banks and other financial institutions

The Group manages the credit quality of due from, placements with and loans to banks and other financial institutions considering the size, financial position and the internal and external credit rating of banks and financial institutions. During the business lifetime, the Group conducts comprehensive analysis, monitors and manages internal and external factors that may affect customers' ability to operate on on-going basis and capacity to bear risk, and takes corresponding control measures.

(3) Debt securities and derivatives

Credit risk within debt securities arises from exposure to movements in credit spreads, default rates and loss given default, as well as changes in the credit of underlying assets.

The Group manages the credit risk within debt securities by monitoring the external credit rating, such as Standard & Poor's ratings or their equivalents, of the securities, the internal credit rating of the issuers of debt securities, and the credit quality of underlying assets of securitisation products (including review of default rates, prepayment rates), industry and sector performance, loss coverage ratios and counterparty risk, to identify exposure to credit risk.

The Group has established policies to manage the net open derivative positions by amounts and by maturity dates. At any time, the current credit exposure equals to the fair value of those derivatives where the fair value changes are favorable to the Group (i.e. positive mark-to-market amounts). Credit risk exposures for derivatives are included as part of the aggregated credit risk limit management for financial institutions and customers. Collaterals or other pledges of assets are not typically sought for these exposures.

2.2 Credit risk limit control and mitigation policies

The Group manages limits and controls concentrations of credit risk in particular, to individual customers and to industries.

(1) Credit risk limits and controls

(i) Loans and advances and off-balance sheet commitments

In order to manage the exposure to credit risk, the Group has adopted credit policies and procedures that are reviewed and updated by the Credit Management Department and the Credit Approval Department at the Head Office. The credit approval processes for both corporate loans and personal loans can be broadly divided into three stages: (1) credit origination and assessment; (2) credit review and approval; and (3) fund disbursement and post-disbursement management.

Credit applications for corporate customers in the Chinese mainland must be approved by the authorised credit application approvers at the Head Office and tier 1 branch level in the Chinese mainland, except for certain Credit Factory customers applications and low risk loans and advances approved by the authorised credit application approvers at tier 2 branch level. The exposure to any one borrower, including banks, is restricted by approved total credit limits covering on and off-balance sheet exposures.

VI FINANCIAL RISK MANAGEMENT (Continued)

2 Credit risk (Continued)

2.2 Credit risk limit control and mitigation policies (Continued)

(1) Credit risk limits and controls (Continued)

(i) Loans and advances and off-balance sheet commitments (Continued)

Personal loans in the Chinese mainland must be approved by authorised approvers at tier 1 branch level in the Chinese mainland, except for individual pledged loans and government-sponsored student loans, which may be approved by authorised approvers at sub-branches below tier 1 level.

The Head Office also oversees the risk management of the branches in Hong Kong (China), Macao (China), Taiwan (China) and other countries and regions. In particular, any credit application at these branches exceeding the authorisation limits is required to be submitted to the Head Office for approval.

Exposure to credit risk is also managed through regular analysis of the ability of borrowers and potential borrowers to meet interest and capital repayment obligations and by changing aforementioned credit limit where appropriate.

(ii) Debt securities and derivatives

The Group is also exposed to credit risk through investment activities and trading activities. Credit limits are established based on type of instruments and the credit quality of counterparties, securities issuers and the securities, and set limits are actively monitored.

(2) Credit risk mitigation policies

(i) Collateral and guarantees

The Group has a range of policies and practices intended to mitigate credit risk. The most prevalent of these is the taking of security for funds advances, collateral and guarantees. The Group implements guidelines on the acceptability of specific classes of collateral and coverage rate upper limits. The amount of acceptable collateral at the time of loan origination is determined by the Credit Management Department and is subject to coverage rate upper limits based on type. Value of collateral is monitored on an ongoing basis.

Mortgages to retail customers are generally collateralised by mortgages over residential properties. Whether or not other loans require collateral is dependent on the nature of the loan and the Group's credit management requirements.

For loans guaranteed by a third party guarantor, the Group will assess the guarantor's credit rating, financial condition, credit history and ability to meet its obligations.

Collateral held as security for financial assets other than loans and advances is determined by the nature of the instrument. Debt securities, treasury and other eligible bills are generally unsecured, with the exception of certain asset-backed securities and similar instruments, which are secured by portfolios of financial instruments.

Collateral is also held as part of reverse repurchase agreements. Under such agreements, the Group is permitted to sell or repledge collateral in the absence of default by the owner of the collateral. Details of collateral accepted and which the Group is obligated to return are disclosed in Note V.40.3.

VI FINANCIAL RISK MANAGEMENT (Continued)

2 Credit risk (Continued)

2.2 Credit risk limit control and mitigation policies (Continued)

(2) Credit risk mitigation policies (Continued)

(ii) Master netting arrangements

The Group further restricts its exposure to credit losses by entering into master netting arrangements with counterparties. Master netting arrangements do not generally result in the offsetting of assets and liabilities in the statement of financial position, as transactions are usually settled on a gross basis. However, the credit risk associated with favourable contracts is reduced by a master netting arrangement to the extent that if a default or other termination event occurs, all amounts with the customer under the master netting arrangement are terminated and settled on a net basis. The Group's overall exposure to credit risk on derivative instruments subject to master netting arrangements can change within a short period, as it is affected by each transaction subject to the arrangement.

2.3 Measurement of ECL

The Group conducts assessments of ECL with reference to forward-looking information and uses a number of models and assumptions in its measurement of expected credit losses. These models and assumptions relate to the future macroeconomic conditions and borrowers' creditworthiness (e.g., the likelihood of default by customers and the corresponding losses). The Group uses judgements, assumptions and estimation techniques in order to measure ECL according to the requirements of accounting standards which include:

- Segmentation of financial instruments based on credit risk characteristics for losses
- Criteria for determining significant increases in credit risk
- Definition of default and credit-impaired financial assets
- Parameters for measuring ECL
- Forward-looking information

(1) Segmentation of financial instruments based on credit risk characteristics for losses

Expected credit loss allowances involve segmentation of exposures on the basis of shared risk characteristics, such that risk exposures within a group are homogeneous. In performing this segmentation, there must be sufficient information for the segmentation to be statistically credible. In particular, the Group uses credit ratings, product types, client types, etc., for grouping personal loans and advances to calculate the losses measured on a collective basis.

(2) Criteria for determining significant increases in credit risk

The Group assesses whether or not the credit risk of the relevant financial instruments has increased significantly since the initial recognition at each financial reporting date. While determining whether the credit risk has significantly increased since initial recognition or not, the Group takes into account the reasonable and supportable information that is available without undue cost or effort, including qualitative and quantitative analysis based on the historical data, external credit risk rating, and forward-looking information. Based on an individual financial instrument or a group of financial instruments shared credit risk characteristics, the Group compares the risk of default of financial instruments at the financial reporting date with that at the date of initial recognition in order to determine the changes of default risk in the expected lifetime of financial instruments.

VI FINANCIAL RISK MANAGEMENT (Continued)

2 Credit risk (Continued)

2.3 Measurement of ECL (Continued)

(2) Criteria for determining significant increases in credit risk (Continued)

The Group considers a financial instrument to have experienced a significant increase in credit risk when one or more of the following quantitative, qualitative or backstop criteria have been met:

Quantitative criteria

At the financial reporting date, the credit risk is deemed to increase significantly when the remaining lifetime PD is above a certain level and had risen by more than a certain range from initial recognition, reflected as a drop in credit rating by corresponding level according to the different PD at initial recognition as well as different products. For instance, an exposure of a corporate customer would in most cases be determined to have a significant increase in credit risk if its PD as of initial recognition was in excess of 1% and the credit rating of such customer has dropped by 4 notches as of the financial reporting date.

Qualitative criteria

- Significant adverse changes in debtor's operations or financial status
- Migrated into the Special Mention category within the five-category loan classification
- Being included in the watch-list of the Group

Backstop criteria

- Borrowers' contractual payments (including principal or interest) are more than 30 days past due

The Group has provided credit facilities for temporary deferral of principal repayments and interest payments to some of the borrowers affected by the Covid-19 pandemic in accordance with the regulatory requirements of respective countries/regions. For those loans with deferred principal repayments and interest payments, the Group classified the credit risk based on the actual situation of the borrower and the judgement of the substantive risk of the business. However, the temporary deferral of principal or interest payment was not considered as an automatic trigger of a significant increase of credit risk.

(3) Definition of default and credit-impaired financial asset

The Group considers a financial instrument as defaulted when it is credit-impaired. The standard adopted by the Group in determining whether a financial asset is credit-impaired is consistent with the internal credit risk management objectives, taking into account quantitative and qualitative criteria. When the Group assesses whether a credit impairment occurred, the following key factors are considered:

- Significant financial difficulty of the issuer or borrower
- A breach of contract, such as a default or delinquency in interest or principal payments

VI FINANCIAL RISK MANAGEMENT (Continued)

2 Credit risk (Continued)

2.3 Measurement of ECL (Continued)

(3) Definition of default and credit-impaired financial asset (Continued)

- The Group granting to the borrower, for economic or legal reasons relating to the borrower's financial difficulty, a concession that the Group would not otherwise consider

- It is becoming probable that the borrower will enter into bankruptcy or other financial re-organisation

- The disappearance of an active market for that financial asset because of financial difficulties

- The purchase or origination of a financial asset at a deep discount that reflects the incurred credit losses

- The borrower is more than 90 days overdue for any of the principal, advances, interest or investments in corporate bonds of the Group

A financial asset becoming credit-impaired may be caused by the combined effect of several events, but not a single discrete event.

(4) Parameters for measuring ECL

According to whether the credit risk has significantly increased and whether the asset is credit-impaired, the Group measures the impairment allowance for different assets with ECL of the next 12 months or throughout the entire lifetime. The key parameters in ECL measurement include probability of default ("PD"), loss given default ("LGD") and exposure at default ("EAD"). Based on the current New Basel Capital Accord used in risk management and the requirements of IFRS 9, the Group takes into account the quantitative analysis of historical statistics (such as ratings of counterparties, manners of guarantees and types of collateral) and forward-looking information in order to establish the models for estimating PD, LGD and EAD in accordance with the requirement of IFRS 9.

Relevant definitions are listed as follows:

- PD refers to the possibility that the debtor will not be able to fulfil its obligations of repayment over the next 12 months or over the remaining lifetime;

- LGD refers to the Group's expectation of the extent of the loss resulting from the defaulted exposure. The LGD varies depending on the type of counterparty, the method and priority of the recourse, and the type of collateral;

- EAD is based on the amount that the Group expects to be owed at the time of default, over the next 12 months or over the remaining lifetime.

(Amount in millions of Renminbi, unless otherwise stated)

VI FINANCIAL RISK MANAGEMENT (Continued)

2 Credit risk (Continued)

2.3 Measurement of ECL (Continued)

(4) Parameters for measuring ECL (Continued)

For credit-impaired financial assets with individual amount that are relatively significant, the Group mainly evaluates future cash flows (including the recoverable value of the collateral held) in different circumstances on an individual basis. Expected credit losses are measured as the differences between the present value of estimated cash flows discounted at the original effective interest rate (credit adjusted effective interest rate for purchased or originated credit-impaired financial assets) and the asset's gross carrying amount. Any adjustment is recognised in profit or loss as an impairment loss or reversal. The estimation of future cash flows is critical for a credit-impaired loan for which expected credit losses are measured on an individual basis. Factors affecting this estimate include, among other things, the financial condition of individual borrowers, risk mitigation methods, industry trends and the future performance of individual borrowers and cash flows from the sale of collateral.

(5) Forward-looking information

The assessment of a significant increase in credit risk and the computation of ECL both involve forward-looking information. In assessing the ECL as at 31 December 2021, the Group has taken into account the impact of changes in current economic environment to the ECL model, including: individual borrower's operating and financial conditions and degree of impact from the Covid-19 pandemic, environmental and climate change impact, and industry-specific risks impacted by Covid-19 pandemic.

The Group identifies key macroeconomic indicators that affect the credit risk and ECL of various business types, such as country or region local GDP, Investment in fixed assets, Producer Price Index, Home price index, Consumer Price Index etc. based on the statistical analysis of historical data.

The impact of these economic indicators on the PD and the LGD varies according to different types of business. The Group applies experts' judgement in this analysis, and according to the result, the Group predicts these economic indicators regularly for respective regions and determines the impact of these economic indicators on the PD and the LGD by conducting regression analysis.

The specific values of the core macroeconomic indicator used in the baseline scenario to evaluate expected credit losses on 31 December 2021 by Chinese Mainland are as follows:

Indicator	Applicable range for respective future periods
Quarterly Growth Rate of China's GDP	5.4%–6.9%

The Group conducts statistical analysis using experts' judgement to determine multiple economic scenarios and their respective weightings. In addition to the baseline scenario, optimistic scenario and pessimistic scenario, the Group also considers situation under stress. As at 31 December 2021, the baseline scenario has the highest weighting with the remaining individual scenarios having a weighting of lower than 30%. The Group measures its credit loss allowance based on probability weighted ECL under different scenarios.

VI FINANCIAL RISK MANAGEMENT (Continued)

2 Credit risk (Continued)

2.3 Measurement of ECL (Continued)

(5) Forward-looking information (Continued)

The Group conducts sensitivity analysis on the core economic indicators used in forward-looking measurement. As at 31 December 2021, when the predicted value of the core economic indicators in the main scenarios increase or decrease by 10%, the respective decrease or increase in loan loss allowance will not exceed 5%.

2.4 Maximum exposure to credit risk before collateral held or other credit enhancements

	As at 31 December	
	2021	2020
Credit risk exposures relating to on-balance sheet financial assets are as follows:		
Due from banks and other financial institutions	**585,298**	724,320
Balances with central banks	**2,228,726**	2,076,840
Placements with and loans to banks and other financial institutions	**1,257,413**	939,320
Government certificates of indebtedness for bank notes issued	**175,715**	168,608
Derivative financial assets	**95,799**	171,738
Loans and advances to customers, net	**15,322,484**	13,848,304
Financial investments		
— financial assets at fair value through profit or loss	**383,313**	353,064
— financial assets at fair value through other comprehensive income	**2,366,297**	2,086,362
— financial assets at amortised cost	**3,213,199**	2,978,778
Other assets	**133,453**	134,116
Subtotal	**25,761,697**	23,481,450
Credit risk exposures relating to off-balance sheet items are as follows:		
Letters of guarantee issued	**1,086,152**	1,035,517
Loan commitments and other credit commitments	**4,135,002**	3,456,156
Subtotal	**5,221,154**	4,491,673
Total	**30,982,851**	27,973,123

The table above represents a worst case scenario of credit risk exposure of the Group as at 31 December 2021 and 2020, without taking into account any collateral held, master netting agreements or other credit enhancements attached. For on-balance sheet assets, the exposures set out above are based on net carrying amounts as reported in the statement of financial position.

As at 31 December 2021, 49.45% of the Group's total maximum credit exposure is derived from loans and advances to customers (31 December 2020: 49.51%) and 19.13% represents investments in debt securities (31 December 2020: 19.32%).

(Amount in millions of Renminbi, unless otherwise stated)

VI FINANCIAL RISK MANAGEMENT (Continued)

2 Credit risk (Continued)

2.5 Loans and advances

Analysis of loans and advances to customers (accrued interest excluded) by geographical area, customer type, industry, collateral type and analysis of impaired and overdue loans and advances to customers are presented below:

(1) Concentrations of risk for loans and advances to customers

(i) Analysis of loans and advances to customers by geographical area

Group

	As at 31 December			
	2021		2020	
	Amount	**% of total**	Amount	% of total
Chinese mainland	**12,953,259**	**82.64%**	11,501,791	81.09%
Hong Kong (China), Macao (China), Taiwan (China)	**1,752,527**	**11.18%**	1,697,934	11.97%
Other countries and regions	**969,208**	**6.18%**	983,660	6.94%
Total	**15,674,994**	**100.00%**	14,183,385	100.00%

Chinese mainland

	As at 31 December			
	2021		2020	
	Amount	**% of total**	Amount	% of total
Northern China	**1,811,146**	**13.99%**	1,695,932	14.74%
Northeastern China	**548,436**	**4.23%**	502,186	4.37%
Eastern China	**5,158,395**	**39.82%**	4,505,204	39.17%
Central and Southern China	**3,708,815**	**28.63%**	3,266,619	28.40%
Western China	**1,726,467**	**13.33%**	1,531,850	13.32%
Total	**12,953,259**	**100.00%**	11,501,791	100.00%

(ii) Analysis of loans and advances to customers by customer type

	Chinese mainland	**Hong Kong (China), Macao (China), Taiwan (China)**	**Other countries and regions**	**Total**
As at 31 December 2021				
Corporate loans and advances				
— Trade bills	**1,021,482**	**94,900**	**139,539**	**1,255,921**
— Other	**6,469,397**	**1,087,192**	**768,734**	**8,325,323**
Personal loans	**5,462,380**	**570,435**	**60,935**	**6,093,750**
Total	**12,953,259**	**1,752,527**	**969,208**	**15,674,994**
As at 31 December 2020				
Corporate loans and advances				
— Trade bills	970,413	83,276	101,869	1,155,558
— Other	5,551,519	1,071,321	821,692	7,444,532
Personal loans	4,979,859	543,337	60,099	5,583,295
Total	11,501,791	1,697,934	983,660	14,183,385

VI FINANCIAL RISK MANAGEMENT (Continued)

2 Credit risk (Continued)

2.5 Loans and advances (Continued)

(1) Concentrations of risk for loans and advances to customers (Continued)

(iii) Analysis of loans and advances to customers by industry

Group

	As at 31 December			
	2021		2020	
	Amount	**% of total**	Amount	% of total
Corporate loans and advances				
Commerce and services	**2,043,199**	**13.04%**	1,764,213	12.44%
Manufacturing	**1,888,582**	**12.05%**	1,692,261	11.93%
Transportation, storage and postal services	**1,729,701**	**11.03%**	1,493,828	10.53%
Real estate	**1,212,336**	**7.73%**	1,137,469	8.02%
Production and supply of electricity, heating, gas and water	**836,651**	**5.34%**	726,824	5.13%
Financial services	**704,486**	**4.49%**	646,979	4.56%
Water, environment and public utility management	**302,591**	**1.93%**	250,551	1.77%
Construction	**296,668**	**1.89%**	268,676	1.89%
Mining	**268,158**	**1.71%**	282,394	1.99%
Public utilities	**170,548**	**1.09%**	161,402	1.14%
Other	**128,324**	**0.82%**	175,493	1.24%
Subtotal	**9,581,244**	**61.12%**	8,600,090	60.64%
Personal loans				
Mortgages	**4,826,412**	**30.79%**	4,418,761	31.15%
Credit cards	**507,107**	**3.24%**	498,435	3.51%
Other	**760,231**	**4.85%**	666,099	4.70%
Subtotal	**6,093,750**	**38.88%**	5,583,295	39.36%
Total	**15,674,994**	**100.00%**	14,183,385	100.00%

(Amount in millions of Renminbi, unless otherwise stated)

VI FINANCIAL RISK MANAGEMENT (Continued)

2 Credit risk (Continued)

2.5 Loans and advances (Continued)

(1) Concentrations of risk for loans and advances to customers (Continued)

(iii) Analysis of loans and advances to customers by industry (Continued)

Chinese mainland

	As at 31 December			
	2021		2020	
	Amount	**% of total**	Amount	% of total
Corporate loans and advances				
Commerce and services	**1,589,119**	**12.27%**	1,395,690	12.13%
Manufacturing	**1,549,639**	**11.96%**	1,329,778	11.56%
Transportation, storage and postal services	**1,578,645**	**12.19%**	1,313,457	11.42%
Real estate	**687,186**	**5.30%**	639,777	5.56%
Production and supply of electricity, heating, gas and water	**657,020**	**5.07%**	554,626	4.82%
Financial services	**500,380**	**3.86%**	487,488	4.24%
Water, environment and public utility management	**295,183**	**2.28%**	243,268	2.12%
Construction	**266,775**	**2.06%**	218,541	1.90%
Mining	**161,473**	**1.25%**	163,193	1.42%
Public utilities	**159,284**	**1.23%**	136,444	1.19%
Other	**46,175**	**0.36%**	39,670	0.34%
Subtotal	**7,490,879**	**57.83%**	6,521,932	56.70%
Personal loans				
Mortgages	**4,316,325**	**33.32%**	3,991,540	34.71%
Credit cards	**496,299**	**3.83%**	488,086	4.24%
Other	**649,756**	**5.02%**	500,233	4.35%
Subtotal	**5,462,380**	**42.17%**	4,979,859	43.30%
Total	**12,953,259**	**100.00%**	11,501,791	100.00%

VI FINANCIAL RISK MANAGEMENT (Continued)

2 Credit risk (Continued)

2.5 Loans and advances (Continued)

(1) Concentrations of risk for loans and advances to customers (Continued)

(iv) Analysis of loans and advances to customers by collateral type

Group

	As at 31 December			
	2021		2020	
	Amount	**% of total**	Amount	% of total
Unsecured loans	**5,008,610**	**31.95%**	4,533,495	31.96%
Guaranteed loans	**1,863,868**	**11.89%**	1,737,379	12.25%
Collateralised and other secured loans	**8,802,516**	**56.16%**	7,912,511	55.79%
Total	**15,674,994**	**100.00%**	14,183,385	100.00%

Chinese mainland

	As at 31 December			
	2021		2020	
	Amount	**% of total**	Amount	% of total
Unsecured loans	**3,801,150**	**29.35%**	3,311,387	28.79%
Guaranteed loans	**1,487,175**	**11.48%**	1,379,925	12.00%
Collateralised and other secured loans	**7,664,934**	**59.17%**	6,810,479	59.21%
Total	**12,953,259**	**100.00%**	11,501,791	100.00%

(Amount in millions of Renminbi, unless otherwise stated)

VI FINANCIAL RISK MANAGEMENT (Continued)

2 Credit risk (Continued)

2.5 Loans and advances (Continued)

(2) Analysis of loans and advances to customers by impairment status

(i) Impaired loans and advances by geographical area

Group

	As at 31 December					
	2021			2020		
	Amount	% of total	Impaired loan ratio	Amount	% of total	Impaired loan ratio
Chinese mainland	**193,030**	**92.45%**	**1.49%**	189,985	91.66%	1.65%
Hong Kong (China), Macao (China), Taiwan (China)	**6,084**	**2.91%**	**0.35%**	4,674	2.25%	0.28%
Other countries and regions	**9,678**	**4.64%**	**1.00%**	12,614	6.09%	1.28%
Total	**208,792**	**100.00%**	**1.33%**	207,273	100.00%	1.46%

Chinese mainland

	As at 31 December					
	2021			2020		
	Amount	% of total	Impaired loan ratio	Amount	% of total	Impaired loan ratio
Northern China	**38,825**	**20.11%**	**2.14%**	27,699	14.58%	1.63%
Northeastern China	**13,939**	**7.22%**	**2.54%**	15,229	8.02%	3.03%
Eastern China	**51,633**	**26.75%**	**1.00%**	52,199	27.47%	1.16%
Central and Southern China	**73,624**	**38.14%**	**1.99%**	81,201	42.74%	2.49%
Western China	**15,009**	**7.78%**	**0.87%**	13,657	7.19%	0.89%
Total	**193,030**	**100.00%**	**1.49%**	189,985	100.00%	1.65%

(ii) Impaired loans and advances by customer type

Group

	As at 31 December					
	2021			2020		
	Amount	% of total	Impaired loan ratio	Amount	% of total	Impaired loan ratio
Corporate loans and advances	**179,526**	**85.98%**	**1.87%**	174,012	83.95%	2.02%
Personal loans	**29,266**	**14.02%**	**0.48%**	33,261	16.05%	0.60%
Total	**208,792**	**100.00%**	**1.33%**	207,273	100.00%	1.46%

Chinese mainland

	As at 31 December					
	2021			2020		
	Amount	% of total	Impaired loan ratio	Amount	% of total	Impaired loan ratio
Corporate loans and advances	**164,796**	**85.37%**	**2.20%**	157,767	83.04%	2.42%
Personal loans	**28,234**	**14.63%**	**0.52%**	32,218	16.96%	0.65%
Total	**193,030**	**100.00%**	**1.49%**	189,985	100.00%	1.65%

VI FINANCIAL RISK MANAGEMENT (Continued)

2 Credit risk (Continued)

2.5 Loans and advances (Continued)

(2) Analysis of loans and advances to customers by impairment status (Continued)

(iii) Impaired loans and advances by geographical area and industry

	As at 31 December					
	2021			2020		
	Amount	**% of total**	**Impaired loan ratio**	Amount	% of total	Impaired loan ratio
Chinese mainland						
Corporate loans and advances						
Commerce and services	**30,111**	**14.42%**	**1.89%**	42,010	20.27%	3.01%
Manufacturing	**55,341**	**26.50%**	**3.57%**	56,696	27.35%	4.26%
Transportation, storage and postal services	**18,073**	**8.66%**	**1.14%**	14,276	6.89%	1.09%
Real estate	**34,694**	**16.62%**	**5.05%**	29,952	14.45%	4.68%
Production and supply of electricity, heating, gas and water	**13,173**	**6.31%**	**2.00%**	2,374	1.14%	0.43%
Financial services	**201**	**0.10%**	**0.04%**	42	0.02%	0.01%
Water, environment and public utility management	**2,257**	**1.08%**	**0.76%**	2,319	1.12%	0.95%
Construction	**3,406**	**1.63%**	**1.28%**	3,806	1.84%	1.74%
Mining	**4,717**	**2.26%**	**2.92%**	4,537	2.19%	2.78%
Public utilities	**2,215**	**1.06%**	**1.39%**	894	0.43%	0.66%
Other	**608**	**0.29%**	**1.32%**	861	0.42%	2.17%
Subtotal	**164,796**	**78.93%**	**2.20%**	157,767	76.12%	2.42%
Personal loans						
Mortgages	**11,628**	**5.57%**	**0.27%**	12,680	6.12%	0.32%
Credit cards	**10,163**	**4.87%**	**2.05%**	12,199	5.88%	2.50%
Other	**6,443**	**3.08%**	**0.99%**	7,339	3.54%	1.47%
Subtotal	**28,234**	**13.52%**	**0.52%**	32,218	15.54%	0.65%
Total for Chinese mainland	**193,030**	**92.45%**	**1.49%**	189,985	91.66%	1.65%
Hong Kong (China), Macao (China), Taiwan (China) and other countries and regions	**15,762**	**7.55%**	**0.58%**	17,288	8.34%	0.64%
Total	**208,792**	**100.00%**	**1.33%**	207,273	100.00%	1.46%

(Amount in millions of Renminbi, unless otherwise stated)

VI FINANCIAL RISK MANAGEMENT (Continued)

2 Credit risk (Continued)

2.5 Loans and advances (Continued)

(2) Analysis of loans and advances to customers by impairment status (Continued)

(iv) Impaired loans and advances and related allowance by geographical area

	Impaired loans	Allowance for impairment losses	Net
As at 31 December 2021			
Chinese mainland	**193,030**	**(162,182)**	**30,848**
Hong Kong (China), Macao (China), Taiwan (China)	**6,084**	**(3,708)**	**2,376**
Other countries and regions	**9,678**	**(4,010)**	**5,668**
Total	**208,792**	**(169,900)**	**38,892**
As at 31 December 2020			
Chinese mainland	189,985	(151,489)	38,496
Hong Kong (China), Macao (China), Taiwan (China)	4,674	(2,463)	2,211
Other countries and regions	12,614	(8,943)	3,671
Total	207,273	(162,895)	44,378

(v) Within the impaired corporate loans and advances, the portions covered and not covered by collateral held are as follows:

	Group		Chinese mainland	
	As at 31 December 2021	As at 31 December 2020	**As at 31 December 2021**	As at 31 December 2020
Portion covered	**104,680**	95,896	**96,423**	89,692
Portion not covered	**74,846**	78,116	**68,373**	68,075
Total	**179,526**	174,012	**164,796**	157,767
Fair value of collateral held	**33,975**	33,859	**30,157**	31,483

Collateral of impaired corporate loans and advances includes land, buildings, equipment and others. The fair value of collateral was estimated by the Group with reference to the latest available external valuations adjusted for recent experience in disposal of collateral as well as the market conditions.

VI FINANCIAL RISK MANAGEMENT (Continued)

2 Credit risk (Continued)

2.5 Loans and advances (Continued)

(3) Loans and advances rescheduled

Rescheduled loans refer to loans in which the Group has adjusted the repayment terms of the loan contract for which the borrower is in financial difficulty or unable to repay. The Group reschedules a non-performing loan only if the borrower has good prospects.

Rescheduled loans are subject to a surveillance period of six months. During the surveillance period, rescheduled loans remain as non-performing loans and the Group monitors the borrower's business operations and loan repayment patterns. After the surveillance period, rescheduled loans may be upgraded to "Special-mention" upon review if certain criteria are met. If the rescheduled loans fall due or if the borrowers are unable to demonstrate their repayment ability, these loans will be reclassified to "Doubtful" or below. All rescheduled loans within the surveillance period were determined to be impaired as at 31 December 2021 and 2020.

As at 31 December 2021 and 2020, within impaired loans and advances, rescheduled loans and advances that were overdue for 90 days or less were insignificant.

(4) Overdue loans and advances to customers

(i) Analysis of overdue loans and advances to customers by collateral type and overdue days

Group

	Past due up to 90 days	Past due 91 to 360 days	Past due 361 Days to 3 years	Past due over 3 years	Total
As at 31 December 2021					
Unsecured loans	**10,607**	**12,893**	**2,939**	**1,181**	**27,620**
Guaranteed loans	**2,532**	**32,096**	**5,105**	**833**	**40,566**
Collateralised and other secured loans	**30,875**	**26,302**	**38,614**	**3,760**	**99,551**
Total	**44,014**	**71,291**	**46,658**	**5,774**	**167,737**
As at 31 December 2020					
Unsecured loans	8,040	15,841	7,122	2,314	33,317
Guaranteed loans	5,160	11,622	9,952	1,507	28,241
Collateralised and other secured loans	41,142	43,635	27,192	5,857	117,826
Total	54,342	71,098	44,266	9,678	179,384

(Amount in millions of Renminbi, unless otherwise stated)

VI FINANCIAL RISK MANAGEMENT (Continued)

2 Credit risk (Continued)

2.5 Loans and advances (Continued)

(4) Overdue loans and advances to customers (Continued)

(i) Analysis of overdue loans and advances to customers by collateral type and overdue days (Continued)

Chinese mainland

	Past due up to 90 days	Past due 91 to 360 days	Past due 361 Days to 3 years	Past due over 3 years	Total
As at 31 December 2021					
Unsecured loans	**8,585**	**11,541**	**1,936**	**1,024**	**23,086**
Guaranteed loans	**2,321**	**31,540**	**4,319**	**741**	**38,921**
Collateralised and other secured loans	**27,379**	**25,027**	**37,013**	**3,589**	**93,008**
Total	**38,285**	**68,108**	**43,268**	**5,354**	**155,015**
As at 31 December 2020					
Unsecured loans	6,626	11,785	5,262	2,284	25,957
Guaranteed loans	4,740	9,299	9,670	1,239	24,948
Collateralised and other secured loans	37,284	39,780	26,692	5,604	109,360
Total	48,650	60,864	41,624	9,127	160,265

(ii) Analysis of overdue loans and advances by geographical area

	As at 31 December	
	2021	2020
Chinese mainland	**155,015**	160,265
Hong Kong (China), Macao (China), Taiwan (China)	**7,851**	6,850
Other countries and regions	**4,871**	12,269
Subtotal	**167,737**	179,384
Percentage	**1.07%**	1.26%
Less: total loans and advances to customers which have been overdue for less than 3 months	**(44,014)**	(54,342)
Total loans and advances to customers which have been overdue for more than 3 months	**123,723**	125,042

VI FINANCIAL RISK MANAGEMENT (Continued)

2 Credit risk (Continued)

2.5 Loans and advances (Continued)

(5) Loans and advances three-staging classification

Loans and advances to customers by five-category loan classification and three-staging classification are analysed as follows:

	As at 31 December 2021			
	12-month ECL	**Lifetime ECL**		
	Stage 1	**Stage 2**	**Stage 3**	**Total**
Pass	**15,207,789**	**44,401**	**–**	**15,252,190**
Special-mention	**–**	**210,813**	**–**	**210,813**
Substandard	**–**	**–**	**61,184**	**61,184**
Doubtful	**–**	**–**	**60,718**	**60,718**
Loss	**–**	**–**	**86,284**	**86,284**
Total	**15,207,789**	**255,214**	**208,186**	**15,671,189**

	As at 31 December 2020			
	12-month ECL	Lifetime ECL		
	Stage 1	Stage 2	Stage 3	Total
Pass	13,642,318	66,181	–	13,708,499
Special-mention	–	263,952	–	263,952
Substandard	–	–	125,118	125,118
Doubtful	–	–	33,823	33,823
Loss	–	–	48,332	48,332
Total	13,642,318	330,133	207,273	14,179,724

As at 31 December 2021 and 2020, loans and advances by five-category loan classification and stage classification did not include loans and advances to customers measured at fair value through profit or loss.

(6) Credit commitments

As at 31 December 2021 and 2020, credit risk exposures of credit commitments were mainly classified under Stage 1 and categorised as "Pass" in the five-category classifications.

2.6 Due from and placements with and loans to banks and other financial institutions

Banks and other financial institutions comprise those institutions in the Chinese mainland, Hong Kong (China), Macao (China), Taiwan (China) and other countries and regions.

The Group monitors the credit risk of counterparties by collecting and analysing counterparty information and establishing credit limits taking into account the nature, size and credit rating of counterparties.

As at 31 December 2021, the majority of the balances of due from and placements with and loans to banks and other financial institutions were banks and other financial institutions in the Chinese mainland (Note V.13 and Note V.15), the majority of the internal credit ratings of these banks and other financial institutions were above A.

(Amount in millions of Renminbi, unless otherwise stated)

VI FINANCIAL RISK MANAGEMENT (Continued)

2 Credit risk (Continued)

2.7 Debt securities

The Group adopted a credit rating approach to manage the credit risk of the debt securities by referring to both internal and external credit rating. The carrying amounts (accrued interest excluded) of the debt investments analysed by external credit ratings at the financial reporting dates are as follows:

	Unrated	A to AAA	Lower than A	Total
As at 31 December 2021				
Issuers in Chinese mainland				
— Government	**5,677**	**3,177,655**	**–**	**3,183,332**
— Public sectors and quasi-governments	**162,546**	**2,195**	**–**	**164,741**
— Policy banks	**–**	**532,783**	**–**	**532,783**
— Financial institutions	**100,964**	**230,803**	**173,810**	**505,577**
— Corporate	**113,771**	**108,844**	**46,730**	**269,345**
— China Orient	**152,433**	**–**	**–**	**152,433**
Subtotal	**535,391**	**4,052,280**	**220,540**	**4,808,211**
Issuers in Hong Kong (China), Macao (China), Taiwan (China) and other countries and regions				
— Governments	**69,390**	**562,376**	**14,455**	**646,221**
— Public sectors and quasi-governments	**47,621**	**52,336**	**115**	**100,072**
— Financial institutions	**13,744**	**97,887**	**47,109**	**158,740**
— Corporate	**17,275**	**90,712**	**39,222**	**147,209**
Subtotal	**148,030**	**803,311**	**100,901**	**1,052,242**
Total	**683,421**	**4,855,591**	**321,441**	**5,860,453**
As at 31 December 2020				
Issuers in Chinese mainland				
— Government	6,461	3,026,650	–	3,033,111
— Public sectors and quasi-governments	130,695	–	–	130,695
— Policy banks	149	446,888	–	447,037
— Financial institutions	31,229	269,487	123,956	424,672
— Corporate	67,834	109,443	39,474	216,751
— China Orient	152,433	–	–	152,433
Subtotal	388,801	3,852,468	163,430	4,404,699
Issuers in Hong Kong (China), Macao (China), Taiwan (China) and other countries and regions				
— Governments	36,393	503,881	16,338	556,612
— Public sectors and quasi-governments	34,077	31,748	–	65,825
— Financial institutions	10,015	127,643	34,449	172,107
— Corporate	13,453	89,307	38,716	141,476
Subtotal	93,938	752,579	89,503	936,020
Total	482,739	4,605,047	252,933	5,340,719

VI FINANCIAL RISK MANAGEMENT (Continued)

2 Credit risk (Continued)

2.7 Debt securities (Continued)

The carrying amounts (accrued interest excluded) of debt investments analysed by external credit ratings and expected credit losses are as follows:

	As at 31 December 2021			
	12-month ECL	**Lifetime ECL**		
	Stage 1	**Stage 2**	**Stage 3**	**Total**
Unrated	**641,510**	**41**	**500**	**642,051**
A to AAA	**4,641,482**	**–**	**–**	**4,641,482**
Lower than A	**223,072**	**775**	**–**	**223,847**
Total	**5,506,064**	**816**	**500**	**5,507,380**

	As at 31 December 2020			
	12-month ECL	Lifetime ECL		
	Stage 1	Stage 2	Stage 3	Total
Unrated	452,851	281	392	453,524
A to AAA	4,360,353	–	–	4,360,353
Lower than A	182,704	123	–	182,827
Total	4,995,908	404	392	4,996,704

2.8 Derivatives

The risk-weighted assets for counterparty credit risk ("CCR") of derivatives of the Group are calculated in accordance with the *Capital Rules for Commercial Banks (Provisional)* and other relevant regulations under the advanced capital measurement approaches. For derivative transactions, risk-weighted assets for CCR include the risk-weighted assets for default risk, the risk-weighted assets for credit valuation adjustment ("CVA") and the risk-weighted assets for central counterparties ("CCPs").

The risk-weighted assets for default risk of derivatives of the Group are calculated in accordance with the *Assets Measurement Rules for Counterparty Default Risks of Derivatives* since 1 January 2019.

The risk-weighted assets for the CCR of derivatives are as follows:

	As at 31 December	
	2021	2020
Risk-weighted assets for default risk		
Currency derivatives	**63,151**	76,313
Interest rate derivatives	**8,683**	16,082
Equity derivatives	**553**	844
Commodity derivatives and other	**13,657**	18,487
	86,044	111,726
Risk-weighted assets for CVA	**62,415**	110,319
Risk-weighted assets for CCPs	**2,335**	6,330
Total	**150,794**	228,375

VI FINANCIAL RISK MANAGEMENT (Continued)

2 Credit risk (Continued)

2.9 Repossessed assets

The Group obtained assets by taking possession of collateral held as security. Detailed information of such repossessed assets of the Group is disclosed in Note V.22.

3 Market risk

3.1 Overview

The Group is exposed to market risks from on-balance and off-balance businesses, that may cause losses to the Group as a result of adverse changes in market prices of interest rate, exchange rate, equities and commodities. Market risk arises from open positions in the trading and banking books. The trading book consists of positions in financial instruments and commodities that are held with trading intent or in order to hedge other elements of the trading book. The banking book consists of financial instruments not included in the trading book.

The Board of Directors of the Group takes the ultimate responsibility for the oversight of market risk management, including the approval of market risk management policies and procedures and the determination of market risk tolerance. Senior management is responsible for the execution of such policies and ensuring that the level of market risk is within the risk appetite determined by the Board, while meeting the Group's business objectives.

Market risk management departments are responsible for the identification, measurement, monitoring, control and reporting of market risks on a Group basis. Business units are responsible for the monitoring and reporting of market risk within their respective business lines.

3.2 Market risk measurement techniques and limits

(1) Trading book

For the purpose of market risk management in the trading book, the Group monitors trading book Value at Risk (VaR) limits, stress testing results and exposure limits and tracks each trading desk and dealer's observance of each limit on a daily basis.

VaR is used to estimate the largest potential loss arising from adverse market movements in a specific holding period and within a certain confidence level.

VaR is performed separately by the Bank and its major subsidiaries that are exposed to market risk, BOCHK (Holdings) and BOCI. The Bank, BOCHK (Holdings) and BOCI used a 99% level of confidence (therefore, statistical probability of 1% that actual losses could be greater than the VaR estimate) and a historical simulation model to calculate the VaR estimate. The holding period of the VaR calculations is one day. To enhance the Group's market risk management, the Group has established the market risk data mart, which enabled a group level trading book VaR calculation on a daily basis.

The accuracy and reliability of the VaR model is verified by daily back-testing of the VaR results in the trading book. The back-testing results are regularly reported to senior management.

VI FINANCIAL RISK MANAGEMENT (Continued)

3 Market risk (Continued)

3.2 Market risk measurement techniques and limits (Continued)

(1) Trading book (Continued)

The Group utilises stress testing as an effective supplement to the trading book VaR analysis. Stress testing scenarios are performed based on the characteristics of trading transactions to simulate and estimate losses in adverse and exceptional market conditions. To address changes in the financial markets, the Group enhances its market risk identification capabilities by continuously modifying and improving the trading book stress testing scenarios and measurement methodologies in order to capture the potential impact to transaction market prices stemming from changes in market prices and volatility.

The table below shows the VaR of the trading book by type of risk during the years ended 31 December 2021 and 2020:

Unit: USD million

	Year ended 31 December					
	2021			2020		
	Average	**High**	**Low**	Average	High	Low
The Bank's trading VaR						
Interest rate risk	**17.84**	**24.53**	**11.24**	13.45	17.87	9.17
Foreign exchange risk	**32.99**	**42.56**	**9.75**	26.61	39.35	11.83
Volatility risk	**3.02**	**11.41**	**0.30**	2.18	6.45	0.18
Commodity risk	**3.66**	**10.77**	**0.57**	6.35	13.76	3.04
Total of the Bank's trading VaR	**42.22**	**52.57**	**19.49**	29.56	38.72	16.18

The reporting of risk in relation to bullion is included in foreign exchange risk above.

Unit: USD million

	Year ended 31 December					
	2021			2020		
	Average	**High**	**Low**	Average	High	Low
BOCHK (Holdings)'s trading VaR						
Interest rate risk	**2.12**	**7.42**	**0.80**	2.38	4.58	0.75
Foreign exchange risk	**3.24**	**6.51**	**1.70**	2.72	3.98	0.84
Equity risk	**0.15**	**0.44**	**0.03**	0.13	0.38	0.03
Commodity risk	**0.90**	**4.52**	**0.00**	0.23	1.44	0.00
Total BOCHK (Holdings)'s trading VaR	**3.95**	**7.07**	**2.44**	4.01	6.47	2.25
BOCI's trading VaR[(i)]						
Equity derivatives unit	**0.57**	**2.19**	**0.09**	0.94	2.28	0.23
Fixed income unit	**0.72**	**1.33**	**0.47**	1.10	2.15	0.41
Global commodity unit	**0.21**	**0.50**	**0.17**	0.20	0.30	0.15
Total BOCI's trading VaR	**1.51**	**3.58**	**0.90**	2.24	4.30	1.37

(i) BOCI monitors its trading VaR for equity derivatives unit, fixed income unit and global commodity unit separately, which include equity risk, interest rate risk, foreign exchange risk and commodity risk.

(Amount in millions of Renminbi, unless otherwise stated)

VI FINANCIAL RISK MANAGEMENT (Continued)

3 Market risk (Continued)

3.2 Market risk measurement techniques and limits (Continued)

(1) Trading book (Continued)

VaR for each risk factor is the independently derived largest potential loss in a specific holding period and within a certain confidence level due to fluctuations solely in that risk factor. The individual VaRs was not added up to the total VaR as there was a diversification effect due to correlation amongst the risk factors.

(2) Banking book

Interest rate risk in the banking book ("IRRBB") refers to the risk of losses to a bank's economic value and to its overall earnings of banking book, arising from adverse movements in interest rates level or term structure. IRRBB mainly comes from repricing gaps between assets and liabilities in the banking book, and differences in changes in benchmarking interest rates for assets and liabilities. The Group is exposed to interest rate risk and fluctuations in market interest rates that will impact the Group's financial position.

The Group assesses IRRBB primarily through an interest rate repricing gap analysis. Interest rate repricing gap analysis measures the difference between the amount of interest-earning assets and interest-bearing liabilities that must be repriced within certain periods. The Group employs the interest rate repricing gap analysis and takes the impact of the off-balance sheet business into consideration when calculating the indications of sensitivity of earnings to changing interest rates. The interest rate gap analysis is set out in Note VI.3.3 and also covers the trading book.

Sensitivity analysis on net interest income

Sensitivity analysis on net interest income assumes that yield curves change in parallel while the structure of assets and liabilities remains unchanged, and does not take into consideration changes in customer behaviour, basis risk, etc. The Group made timely adjustments to the structure of its assets and liabilities, optimised the internal and external pricing strategy or implemented risk hedging based on changes in the market situation, and controlled the fluctuation of net interest income within an acceptable level.

The table below illustrates the potential impact of a 25 basis points interest rate move on the net interest income of the Group. The actual situation may be different from the assumptions used and it is possible that actual outcomes could differ from the estimated impact on net interest income of the Group.

	(Decrease)/increase in net interest income	
	As at 31 December	
	2021	2020
+ 25 basis points	**(4,351)**	(4,107)
– 25 basis points	**4,351**	4,107

Given the nature of demand deposits, their interest rate fluctuations are less volatile than those of other products. Had the impact of yield curves movement on interest expenses related to demand deposits been excluded, the net interest income for the next twelve months from the reporting date would have increased or decreased by RMB17,877 million (2020: RMB16,716 million) for 25 basis points upward or downward parallel movements, respectively.

VI FINANCIAL RISK MANAGEMENT (Continued)

3 Market risk (Continued)

3.3 GAP analysis

The tables below summarise the Group's exposure to interest rate risk. It includes the Group's assets and liabilities at carrying amounts, categorised by the earlier of contractual repricing or maturity dates.

	As at 31 December 2021						
	Less than 1 month	Between 1 and 3 months	Between 3 and 12 months	Between 1 and 5 years	Over 5 years	Non-interest bearing	Total
Assets							
Cash and due from banks and other financial institutions	370,446	66,997	141,347	4,187	–	61,839	644,816
Balances with central banks	1,994,874	5,249	582	630	–	227,391	2,228,726
Placements with and loans to banks and other financial institutions	758,329	164,425	283,939	47,392	–	3,328	1,257,413
Derivative financial assets	–	–	–	–	–	95,799	95,799
Loans and advances to customers, net	4,036,896	2,760,256	7,587,288	516,235	254,856	166,953	15,322,484
Financial investments							
— financial assets at fair value through profit or loss	26,362	28,697	93,136	50,591	167,964	194,892	561,642
— financial assets at fair value through other comprehensive income	161,329	308,986	351,443	1,023,935	510,635	33,502	2,389,830
— financial assets at amortised cost	203,421	42,429	380,675	1,313,316	1,270,988	2,370	3,213,199
Other	2,244	–	–	–	–	1,006,255	1,008,499
Total assets	7,553,901	3,377,039	8,838,410	2,956,286	2,204,443	1,792,329	26,722,408
Liabilities							
Due to banks and other financial institutions	1,767,330	256,822	570,038	14,176	258	74,115	2,682,739
Due to central banks	181,247	246,985	509,817	10,833	–	6,675	955,557
Placements from banks and other financial institutions	279,785	55,441	71,048	–	–	1,493	407,767
Derivative financial liabilities	–	–	–	–	–	89,151	89,151
Due to customers	10,253,710	1,451,583	2,941,491	2,978,127	32,521	485,455	18,142,887
Bonds issued	44,526	264,056	548,592	455,746	69,250	6,508	1,388,678
Other	6,067	4,728	8,187	34,226	5,838	646,030	705,076
Total liabilities	12,532,665	2,279,615	4,649,173	3,493,108	107,867	1,309,427	24,371,855
Total interest repricing gap	(4,978,764)	1,097,424	4,189,237	(536,822)	2,096,576	482,902	2,350,553

(Amount in millions of Renminbi, unless otherwise stated)

VI FINANCIAL RISK MANAGEMENT (Continued)

3 Market risk (Continued)

3.3 GAP analysis (Continued)

	As at 31 December 2020						
	Less than 1 month	Between 1 and 3 months	Between 3 and 12 months	Between 1 and 5 years	Over 5 years	Non-interest bearing	Total
Assets							
Cash and due from banks and other financial institutions	470,557	92,375	152,489	3,117	–	84,607	803,145
Balances with central banks	1,883,236	2,990	489	651	–	189,474	2,076,840
Placements with and loans to banks and other financial institutions	405,802	167,138	278,759	82,515	–	5,106	939,320
Derivative financial assets	–	–	–	–	–	171,738	171,738
Loans and advances to customers, net	3,696,907	2,476,327	6,603,223	297,793	268,035	506,019	13,848,304
Financial investments							
— financial assets at fair value through profit or loss	10,968	48,105	76,626	42,983	169,896	155,971	504,549
— financial assets at fair value through other comprehensive income	176,317	249,957	253,926	925,422	461,527	40,641	2,107,790
— financial assets at amortised cost	229,352	71,072	336,105	1,283,662	1,019,905	38,682	2,978,778
Other	2,698	–	–	–	14,328	955,169	972,195
Total assets	6,875,837	3,107,964	7,701,617	2,636,143	1,933,691	2,147,407	24,402,659
Liabilities							
Due to banks and other financial institutions	1,150,797	250,707	192,966	5,518	–	317,015	1,917,003
Due to central banks	309,560	114,713	428,370	28,230	–	6,938	887,811
Placements from banks and other financial institutions	247,076	102,269	61,627	6	–	971	411,949
Derivative financial liabilities	–	–	–	–	–	212,052	212,052
Due to customers	9,697,626	1,333,837	2,582,012	2,817,528	1,698	446,470	16,879,171
Bonds issued	75,317	201,662	450,653	461,129	49,612	6,030	1,244,403
Other	28,026	17,655	5,385	8,566	22,808	604,993	687,433
Total liabilities	11,508,402	2,020,843	3,721,013	3,320,977	74,118	1,594,469	22,239,822
Total interest repricing gap	(4,632,565)	1,087,121	3,980,604	(684,834)	1,859,573	552,938	2,162,837

VI FINANCIAL RISK MANAGEMENT (Continued)

3 Market risk (Continued)

3.4 Foreign currency risk

The Group conducts a substantial portion of its business in RMB, with certain transactions denominated in USD, HKD and, to a much lesser extent, other currencies. The major subsidiary, BOCHK Group, conducts the majority of its business in HKD, RMB and USD. The Group endeavours to manage its sources and uses of foreign currencies to minimise potential mismatches in accordance with management directives.

The Group manages its exposure to currency exchange risk through the management of its net foreign currency position and monitors its foreign currency risk on trading books using VaR (Note VI.3.2). Meanwhile, the Group performs currency risk sensitivity analysis to estimate the effect of potential exchange rate changes of foreign currencies against RMB on profit before income tax and equity.

The tables below indicate a sensitivity analysis of exchange rate changes of the currencies to which the Group had significant exposure. The analysis calculates the effect of a reasonably possible movement in the currency rates against RMB, with all other variables held constant, on profit before income tax and equity. A negative amount in the table reflects a potential net reduction in profit before income tax or equity, while a positive amount reflects a potential net increase. Such analysis does not take into account the correlation effect of changes in different foreign currencies, any further actions that may have been or could be taken by management after the financial reporting date to mitigate the effect of exchange differences, nor any consequential changes in the foreign currency positions.

		Effect on profit before income tax		Effect on equity*	
Currency	Change in currency rate	**As at 31 December 2021**	As at 31 December 2020	**As at 31 December 2021**	As at 31 December 2020
USD	+1%	**424**	450	**726**	620
HKD	+1%	**(89)**	(181)	**2,289**	2,340

* Effect on other comprehensive income (irrespective of income tax effect).

While the table above indicates the effect on profit before income tax and equity of the 1% appreciation of USD and HKD, there will be an opposite effect with the same amounts if the currencies depreciate by the same percentage.

(Amount in millions of Renminbi, unless otherwise stated)

VI FINANCIAL RISK MANAGEMENT (Continued)

3 Market risk (Continued)

3.4 Foreign currency risk (Continued)

The tables below summarise the Group's exposure to foreign currency exchange rate risk as at 31 December 2021 and 2020. The Group's exposure to RMB is provided in the tables below for comparison purposes. Included in the table are the carrying amounts of the assets and liabilities of the Group along with off-balance sheet positions and credit commitments in RMB equivalent, categorised by the original currencies. Derivative financial instruments are included in the net off-balance sheet position using notional amounts.

	As at 31 December 2021							
	RMB	USD	HKD	EURO	JPY	GBP	Other	Total
Assets								
Cash and due from banks and other financial institutions	329,908	206,607	25,262	35,395	8,371	12,453	26,820	644,816
Balances with central banks	1,495,927	441,169	37,244	99,077	26,565	83,179	45,565	2,228,726
Placements with and loans to banks and other financial institutions	691,140	475,833	24,126	16,139	341	910	48,924	1,257,413
Derivative financial assets	46,853	23,782	2,533	2,594	3,017	6,908	10,112	95,799
Loans and advances to customers, net	12,418,293	1,219,684	1,060,054	213,634	9,455	69,951	331,413	15,322,484
Financial investments								
— financial assets at fair value through profit or loss	431,627	61,017	64,443	3,405	874	31	245	561,642
— financial assets at fair value through other comprehensive income	1,451,346	492,925	183,066	29,173	140,349	3,842	89,129	2,389,830
— financial assets at amortised cost	2,893,923	247,294	12,571	9,631	5,291	3,406	41,083	3,213,199
Other	311,401	174,209	220,831	2,728	1,091	2,188	296,051	1,008,499
Total assets	20,070,418	3,342,520	1,630,130	411,776	195,354	182,868	889,342	26,722,408
Liabilities								
Due to banks and other financial institutions	1,614,433	649,129	48,540	34,472	12,083	27,625	296,457	2,682,739
Due to central banks	880,695	36,232	19,606	13,329	–	86	5,609	955,557
Placements from banks and other financial institutions	151,620	220,939	11,267	14,686	4,987	2,066	2,202	407,767
Derivative financial liabilities	48,915	20,620	2,054	2,433	344	7,286	7,499	89,151
Due to customers	14,148,220	1,765,005	1,311,343	304,900	49,367	77,964	486,088	18,142,887
Bonds issued	1,135,020	205,952	3,833	28,889	–	3,486	11,498	1,388,678
Other	297,041	111,860	265,626	2,191	345	588	27,425	705,076
Total liabilities	18,275,944	3,009,737	1,662,269	400,900	67,126	119,101	836,778	24,371,855
Net on-balance sheet position	1,794,474	332,783	(32,139)	10,876	128,228	63,767	52,564	2,350,553
Net off-balance sheet position	161,015	(214,771)	264,127	1,674	(124,423)	(61,853)	(10,169)	15,600
Credit commitments	3,835,534	820,586	244,161	148,553	8,275	54,606	109,439	5,221,154

VI FINANCIAL RISK MANAGEMENT (Continued)

3 Market risk (Continued)

3.4 Foreign currency risk (Continued)

	As at 31 December 2020							
	RMB	USD	HKD	EURO	JPY	GBP	Other	Total
Assets								
Cash and due from banks and other financial institutions	548,932	132,751	20,782	61,642	7,101	4,215	27,722	803,145
Balances with central banks	1,500,346	316,938	61,418	81,789	30,084	44,252	42,013	2,076,840
Placements with and loans to banks and other financial institutions	555,349	298,944	22,861	18,663	478	940	42,085	939,320
Derivative financial assets	97,475	44,134	3,479	738	987	9,344	15,581	171,738
Loans and advances to customers, net	11,024,110	1,106,377	1,010,120	258,468	11,076	62,829	375,324	13,848,304
Financial investments								
— financial assets at fair value through profit or loss	363,018	51,870	82,795	6,476	316	23	51	504,549
— financial assets at fair value through other comprehensive income	1,280,223	449,963	127,357	31,950	130,392	2,851	85,054	2,107,790
— financial assets at amortised cost	2,723,069	199,575	2,370	9,628	6,065	3,993	34,078	2,978,778
Other	317,767	183,732	219,734	2,466	1,417	2,346	244,733	972,195
Total assets	18,410,289	2,784,284	1,550,916	471,820	187,916	130,793	866,641	24,402,659
Liabilities								
Due to banks and other financial institutions	1,035,286	539,174	43,097	43,770	14,301	10,988	230,387	1,917,003
Due to central banks	576,601	277,062	12,918	13,487	–	341	7,402	887,811
Placements from banks and other financial institutions	137,784	215,247	13,729	28,757	12,204	2,247	1,981	411,949
Derivative financial liabilities	139,398	46,493	4,474	947	874	9,720	10,146	212,052
Due to customers	13,003,027	1,651,454	1,318,279	306,229	50,656	72,230	477,296	16,879,171
Bonds issued	968,665	218,950	8,617	31,980	1,896	311	13,984	1,244,403
Other	293,844	105,317	267,904	3,207	300	1,109	15,752	687,433
Total liabilities	16,154,605	3,053,697	1,669,018	428,377	80,231	96,946	756,948	22,239,822
Net on-balance sheet position	2,255,684	(269,413)	(118,102)	43,443	107,685	33,847	109,693	2,162,837
Net off-balance sheet position	(541,681)	392,537	347,658	(31,366)	(107,293)	(32,709)	(50,662)	(23,516)
Credit commitments	3,160,861	761,848	255,166	142,505	10,679	52,715	107,899	4,491,673

VI FINANCIAL RISK MANAGEMENT (Continued)

4 Liquidity risk

The liquidity risk refers to the risk that a commercial bank fails to acquire adequate funds in a timely manner and at a reasonable cost to deal with repayment of debts at maturity, perform other payment obligations and meet other fund needs for normal business operation.

4.1 Liquidity risk management policy and process

The Bank continues to develop and improve its liquidity risk management system with the aim of effectively identifying, measuring, monitoring and controlling liquidity risk at the institution and group level, including that of branches, subsidiaries and business lines, thus ensuring that liquidity demand is met in a timely manner and at a reasonable cost.

The Group considers liquidity risk management a significant component of asset-liability management, and determines the size, structure and duration of assets and liabilities consistent with the principle of overall balance between assets and liabilities. The Group establishes its liquidity portfolio to mitigate liquidity risk, and to minimise the gaps in the amount and duration between the funding sources and the uses of funds. The Group refines its financing strategy, taking into consideration various factors including customer risk sensitivity, financing cost and concentration of funding sources. In addition, the Group prioritises the development of customer deposits, dynamically adjusts the structure of funding sources by market-oriented financing modes, including due to banks and other financial institutions, inter-bank borrowings and bond issuance, and improves the diversity and stability of financing sources.

Assets available to meet all of the liabilities and to cover outstanding loan commitments include "Cash and due from banks and other financial institutions", "Balances with central banks", "Placements with and loans to banks and other financial institutions", "Loans and advances to customers, net", etc. In the normal course of business, a proportion of short-term loans contractually repayable will be extended and a portion of short-term customer deposits will not be withdrawn upon maturity. The Group would also be able to meet unexpected net cash outflows by entering into repurchase transactions, and by selling securities and accessing additional funding sources.

VI FINANCIAL RISK MANAGEMENT (Continued)

4 Liquidity risk (Continued)

4.2 Maturity analysis

The tables below analyse the Group's assets and liabilities into relevant maturity groupings based on the remaining period at the financial reporting date to the contractual maturity date. For purposes of the tables set forth, "Loans and advances to customers, net" are considered overdue only if principal payments are overdue. In addition, for loans and advances to customers that are repayable by instalments, only the portion of the loan that is actually overdue is reported as overdue. Any part of the loan that is not due is reported according to residual maturity.

	As at 31 December 2021							
	Overdue/ Undated	On demand	Less than 1 month	Between 1 and 3 months	Between 3 and 12 months	Between 1 and 5 years	Over 5 years	Total
Assets								
Cash and due from banks and other financial institutions	–	269,794	162,489	66,998	141,348	4,187	–	644,816
Balances with central banks	1,488,390	717,908	15,952	5,258	273	945	–	2,228,726
Placements with and loans to banks and other financial institutions	863	–	721,152	159,065	309,098	67,235	–	1,257,413
Derivative financial assets	–	9,765	12,558	15,998	27,189	24,500	5,789	95,799
Loans and advances to customers, net	36,911	236,595	648,963	968,575	3,176,279	4,236,421	6,018,740	15,322,484
Financial investments								
— financial assets at fair value through profit or loss	195,025	–	26,323	27,647	90,475	52,874	169,298	561,642
— financial assets at fair value through other comprehensive income	24,515	–	118,945	288,848	369,793	1,057,866	529,863	2,389,830
— financial assets at amortised cost	2,794	–	32,492	44,163	382,282	1,466,314	1,285,154	3,213,199
Other	362,964	479,476	24,765	10,745	19,233	78,603	32,713	1,008,499
Total assets	2,111,462	1,713,538	1,763,639	1,587,297	4,515,970	6,988,945	8,041,557	26,722,408
Liabilities								
Due to banks and other financial institutions	–	1,755,054	86,387	256,824	570,040	14,176	258	2,682,739
Due to central banks	–	60,448	110,267	247,523	515,964	21,355	–	955,557
Placements from banks and other financial institutions	–	–	274,022	58,425	72,598	2,566	156	407,767
Derivative financial liabilities	–	6,235	10,648	13,846	27,073	25,003	6,346	89,151
Due to customers	–	9,147,933	1,575,342	1,446,767	2,946,788	2,993,520	32,537	18,142,887
Bonds issued	–	–	26,122	237,121	572,062	483,716	69,657	1,388,678
Other	–	330,167	45,234	12,783	111,628	117,853	87,411	705,076
Total liabilities	–	11,299,837	2,128,022	2,273,289	4,816,153	3,658,189	196,365	24,371,855
Net liquidity gap	2,111,462	(9,586,299)	(364,383)	(685,992)	(300,183)	3,330,756	7,845,192	2,350,553

(Amount in millions of Renminbi, unless otherwise stated)

VI FINANCIAL RISK MANAGEMENT (Continued)

4 Liquidity risk (Continued)

4.2 Maturity analysis (Continued)

	As at 31 December 2020							
	Overdue/ Undated	On demand	Less than 1 month	Between 1 and 3 months	Between 3 and 12 months	Between 1 and 5 years	Over 5 years	Total
Assets								
Cash and due from banks and other financial institutions	21	286,447	265,996	93,556	154,008	3,117	–	803,145
Balances with central banks	1,452,254	549,551	39,355	5,709	28,669	1,302	–	2,076,840
Placements with and loans to banks and other financial institutions	377	–	397,698	154,029	286,481	100,735	–	939,320
Derivative financial assets	–	13,312	22,621	31,423	62,752	31,551	10,079	171,738
Loans and advances to customers, net	46,580	191,481	435,364	1,288,350	2,778,252	3,744,008	5,364,269	13,848,304
Financial investments								
— financial assets at fair value through profit or loss	154,836	–	10,521	47,105	77,423	44,679	169,985	504,549
— financial assets at fair value through other comprehensive income	23,481	–	137,987	217,198	284,963	973,389	470,772	2,107,790
— financial assets at amortised cost	2,805	–	50,431	80,052	358,189	1,443,948	1,043,353	2,978,778
Other	356,200	454,701	19,792	17,044	19,930	75,503	29,025	972,195
Total assets	2,036,554	1,495,492	1,379,765	1,934,466	4,050,667	6,418,232	7,087,483	24,402,659
Liabilities								
Due to banks and other financial institutions	–	1,351,541	70,855	271,019	217,441	6,056	91	1,917,003
Due to central banks	–	216,844	79,518	117,114	434,833	39,502	–	887,811
Placements from banks and other financial institutions	–	–	244,199	100,330	62,324	4,940	156	411,949
Derivative financial liabilities	–	9,479	24,395	34,122	95,255	35,127	13,674	212,052
Due to customers	–	8,521,036	1,528,697	1,354,270	2,596,276	2,871,178	7,714	16,879,171
Bonds issued	–	–	67,004	186,305	461,388	470,415	59,291	1,244,403
Other	–	329,254	58,677	15,215	112,493	95,681	76,113	687,433
Total liabilities	–	10,428,154	2,073,345	2,078,375	3,980,010	3,522,899	157,039	22,239,822
Net liquidity gap	2,036,554	(8,932,662)	(693,580)	(143,909)	70,657	2,895,333	6,930,444	2,162,837

VI FINANCIAL RISK MANAGEMENT (Continued)

4 Liquidity risk (Continued)

4.3 Undiscounted cash flows by contractual maturities

The tables below present the cash flows of the Group of non-derivative financial assets and financial liabilities and derivative financial instruments that will be settled on a net basis and on a gross basis by the remaining contractual maturities at the financial reporting date. The amounts disclosed in the tables are the contractual undiscounted cash flows, except for certain derivatives which are disclosed at fair value (i.e. discounted cash flows basis). The Group also manages its inherent short-term liquidity risk based on expected undiscounted cash flows.

	As at 31 December 2021							
	Overdue/ Undated	On demand	Less than 1 month	Between 1 and 3 months	Between 3 and 12 months	Between 1 and 5 years	Over 5 years	Total
Non-derivative cash flow								
Cash and due from banks and other financial institutions	–	269,794	163,262	67,535	143,290	4,814	–	648,695
Balances with central banks	1,488,390	717,908	15,954	5,266	314	1,075	–	2,228,907
Placements with and loans to banks and other financial institutions	863	–	728,832	160,886	309,219	67,470	–	1,267,270
Loans and advances to customers, net	37,022	249,018	685,412	1,067,915	3,574,376	5,738,229	8,802,462	20,154,434
Financial investments								
— financial assets at fair value through profit or loss	195,072	–	26,549	28,825	98,009	81,079	201,142	630,676
— financial assets at fair value through other comprehensive income	24,516	–	121,764	295,793	409,798	1,182,096	599,007	2,632,974
— financial assets at amortised cost	2,803	–	37,819	59,141	453,319	1,719,551	1,557,672	3,830,305
Other financial assets	10,572	189,707	18,298	2,545	5,473	4,461	20,076	251,132
Total financial assets	1,759,238	1,426,427	1,797,890	1,687,906	4,993,798	8,798,775	11,180,359	31,644,393
Due to banks and other financial institutions	–	1,755,054	87,253	261,047	583,450	14,696	270	2,701,770
Due to central banks	–	60,448	112,678	254,341	530,432	22,088	–	979,987
Placements from banks and other financial institutions	–	–	274,120	58,791	73,199	2,581	210	408,901
Due to customers	–	9,148,053	1,594,013	1,484,679	3,085,322	3,332,459	39,180	18,683,706
Bonds issued	–	–	26,607	238,108	590,211	532,098	79,913	1,466,937
Other financial liabilities	–	265,184	26,363	5,686	6,511	31,728	20,892	356,364
Total financial liabilities	–	11,228,739	2,121,034	2,302,652	4,869,125	3,935,650	140,465	24,597,665
Derivative cash flow								
Derivative financial instruments settled on a net basis	–	3,564	(161)	(1,006)	(1,913)	(1,959)	176	(1,299)
Derivative financial instruments settled on a gross basis								
Total inflow	–	159,680	2,441,453	1,426,255	2,339,707	375,388	28,969	6,771,452
Total outflow	–	(159,592)	(2,439,349)	(1,421,922)	(2,337,871)	(373,166)	(28,726)	(6,760,626)

(Amount in millions of Renminbi, unless otherwise stated)

VI FINANCIAL RISK MANAGEMENT (Continued)

4 Liquidity risk (Continued)

4.3 Undiscounted cash flows by contractual maturities (Continued)

	As at 31 December 2020							
	Overdue/ Undated	On demand	Less than 1 month	Between 1 and 3 months	Between 3 and 12 months	Between 1 and 5 years	Over 5 years	Total
Non-derivative cash flow								
Cash and due from banks and other financial institutions	21	286,457	266,397	93,837	154,977	3,288	–	804,977
Balances with central banks	1,452,254	549,550	39,359	5,717	28,717	1,501	–	2,077,098
Placements with and loans to banks and other financial institutions	377	–	397,904	157,799	292,606	103,768	–	952,454
Loans and advances to customers, net	48,824	191,668	460,253	1,366,761	3,268,668	4,948,258	7,546,587	17,831,019
Financial investments								
— financial assets at fair value through profit or loss	154,788	–	11,227	48,200	82,092	72,271	186,921	555,499
— financial assets at fair value through other comprehensive income	23,454	–	140,321	221,633	310,952	1,055,733	496,895	2,248,988
— financial assets at amortised cost	2,848	–	54,838	95,601	431,641	1,686,591	1,254,753	3,526,272
Other financial assets	478	209,038	16,621	3,870	7,694	1,304	15,546	254,551
Total financial assets	1,683,044	1,236,713	1,386,920	1,993,418	4,577,347	7,872,714	9,500,702	28,250,858
Due to banks and other financial institutions	–	1,351,587	70,933	271,618	218,500	6,297	92	1,919,027
Due to central banks	–	216,855	79,668	117,556	439,242	42,181	–	895,502
Placements from banks and other financial institutions	–	–	244,338	100,902	62,781	5,020	217	413,258
Due to customers	–	8,521,187	1,531,786	1,363,503	2,622,000	3,055,634	8,337	17,102,447
Bonds issued	–	–	67,194	187,282	466,814	515,009	61,165	1,297,464
Other financial liabilities	–	258,397	43,428	11,667	13,519	45,160	26,416	398,587
Total financial liabilities	–	10,348,026	2,037,347	2,052,528	3,822,856	3,669,301	96,227	22,026,285
Derivative cash flow								
Derivative financial instruments settled on a net basis	–	3,588	(468)	93	(2,122)	(7,056)	(992)	(6,957)
Derivative financial instruments settled on a gross basis								
Total inflow	–	67,900	1,980,710	1,476,508	3,001,639	399,425	16,953	6,943,135
Total outflow	–	(67,840)	(1,980,277)	(1,478,891)	(3,032,559)	(395,345)	(16,949)	(6,971,861)

VI FINANCIAL RISK MANAGEMENT (Continued)

4 Liquidity risk (Continued)

4.4 Off-balance sheet items

The Group's off-balance sheet items are summarised in the table below at the remaining period to the contractual maturity date. Financial guarantees are also included below at notional amounts and based on the earliest contractual maturity date.

	Less than 1 year	Between 1 and 5 years	Over 5 years	Total
As at 31 December 2021				
Loan commitments[1]	**2,141,055**	**791,299**	**328,580**	**3,260,934**
Guarantees, acceptances and other financial facilities	**1,343,107**	**382,853**	**234,260**	**1,960,220**
Subtotal	**3,484,162**	**1,174,152**	**562,840**	**5,221,154**
Capital commitments	**18,041**	**20,597**	**8**	**38,646**
Total	**3,502,203**	**1,194,749**	**562,848**	**5,259,800**
As at 31 December 2020				
Loan commitments[1]	1,874,449	623,766	241,397	2,739,612
Guarantees, acceptances and other financial facilities	1,183,873	307,349	260,839	1,752,061
Subtotal	3,058,322	931,115	502,236	4,491,673
Capital commitments	25,717	27,162	5	52,884
Total	3,084,039	958,277	502,241	4,544,557

(1) Included within "Loan commitments" are amounts relating to loan commitments and undrawn credit card limits. Refer to Note V.40.7.

VI FINANCIAL RISK MANAGEMENT (Continued)

5 Fair value

5.1 Assets and liabilities measured at fair value

Assets and liabilities measured at fair value are classified into the following three levels:

- Level 1: Quoted prices (unadjusted) in active markets for identical assets or liabilities, including equity securities listed on exchanges or debt instruments issued by certain governments and certain exchange-traded derivative contracts.

- Level 2: Valuation technique for which all inputs that have a significant effect on the recorded fair value other than quoted prices included within Level 1 are observable for the asset or liability, either directly or indirectly. This level includes the majority of the over-the-counter ("OTC") derivative contracts, debt securities for which quotations are available from pricing service providers, discounted bills, etc.

- Level 3: Valuation technique using inputs which have a significant effect on the recorded fair value for the asset or liability are not based on observable market data (unobservable inputs). This level includes equity investments and debt instruments with significant unobservable components.

The Group's policy is to recognise transfers between levels of the fair value hierarchy as at the end of the reporting period in which they occur.

The Group uses valuation techniques or counterparty quotations to determine the fair value when it is unable to obtain open market quotation in active markets.

The main parameters used in valuation techniques include bond prices, interest rates, foreign exchange rates, equity and stock prices, volatilities, correlations, early repayment rates, counterparty credit spreads and others, which are all observable and obtainable from the open market.

For certain illiquid debt securities (mainly asset-backed securities), unlisted equity (private equity) and unlisted funds held by the Group, management obtains valuation quotations from counterparties or uses valuation techniques to determine the fair value, including the discounted cash flow analysis, net asset value and market comparison approach, etc. The fair value of these financial instruments may be based on unobservable inputs which may have a significant impact on the valuation of these financial instruments, and therefore, these assets and liabilities have been classified by the Group as Level 3. The main unobservable inputs and ratio ranges include liquidity discounts 4.00%–45.64%, discount rates 2.55%–13.87% and expected dividend RMB0.06 per share–RMB0.84 per share. Management determines whether to make necessary adjustments to the fair value for the Group's Level 3 financial instruments by assessing the impact of changes in macro-economic factors, valuations by external valuation agencies and other inputs, including loss coverage ratios. The Group has established internal control procedures to control the Group's exposure to such financial instruments.

VI FINANCIAL RISK MANAGEMENT (Continued)

5 Fair value (Continued)

5.1 Assets and liabilities measured at fair value (Continued)

	As at 31 December 2021			
	Level 1	**Level 2**	**Level 3**	**Total**
Assets measured at fair value				
Derivative financial assets	**2,373**	**93,426**	**–**	**95,799**
Loans and advances to customers at fair value	**–**	**355,600**	**–**	**355,600**
Financial assets at fair value through profit or loss				
— Debt securities	**8,904**	**321,437**	**26,121**	**356,462**
— Equity instruments	**25,618**	**2,350**	**74,300**	**102,268**
— Fund investments and other	**29,208**	**27,573**	**46,131**	**102,912**
Financial assets at fair value through other comprehensive income				
— Debt securities	**385,049**	**1,977,034**	**995**	**2,363,078**
— Equity instruments and other	**7,774**	**10,323**	**8,655**	**26,752**
Investment properties	**–**	**1,240**	**18,314**	**19,554**
Liabilities measured at fair value				
Due to and placements from banks and other financial institutions at fair value	**–**	**(162)**	**–**	**(162)**
Due to customers at fair value	**–**	**(31,311)**	**–**	**(31,311)**
Bonds issued at fair value	**–**	**(315)**	**(2)**	**(317)**
Short position in debt securities	**(1,945)**	**(10,513)**	**–**	**(12,458)**
Derivative financial liabilities	**(1,961)**	**(87,190)**	**–**	**(89,151)**

	As at 31 December 2020			
	Level 1	Level 2	Level 3	Total
Assets measured at fair value				
Derivative financial assets	3,083	168,655	–	171,738
Loans and advances to customers at fair value	–	363,637	–	363,637
Financial assets at fair value through profit or loss				
— Debt securities	2,960	323,402	20,881	347,243
— Equity instruments	7,570	12,901	67,554	88,025
— Fund investments and other	20,961	5,362	42,958	69,281
Financial assets at fair value through other comprehensive income				
— Debt securities	296,234	1,788,755	1,373	2,086,362
— Equity instruments and other	7,005	9,692	4,731	21,428
Investment properties	–	1,441	20,624	22,065
Liabilities measured at fair value				
Due to and placements from banks and other financial institutions at fair value	–	(3,831)	–	(3,831)
Due to customers at fair value	–	(25,742)	–	(25,742)
Bonds issued at fair value	–	(6,162)	–	(6,162)
Short position in debt securities	(576)	(17,336)	–	(17,912)
Derivative financial liabilities	(3,539)	(208,513)	–	(212,052)

(Amount in millions of Renminbi, unless otherwise stated)

VI FINANCIAL RISK MANAGEMENT (Continued)

5 Fair value (Continued)

5.1 Assets and liabilities measured at fair value (Continued)

Reconciliation of Level 3 items

		Financial assets at fair value through profit or loss			Financial assets at fair value through other comprehensive income			
	Derivative financial assets	Debt securities	Equity instruments	Fund investments and other	Debt securities	Equity instruments and other	Investment properties	Bonds issued at fair value
As at 1 January 2021	**–**	**20,881**	**67,554**	**42,958**	**1,373**	**4,731**	**20,624**	**–**
Total gains and losses								
— profit/(loss)	**–**	**413**	**493**	**2,954**	**–**	**–**	**(200)**	**–**
— other comprehensive income	**–**	**–**	**–**	**–**	**(57)**	**37**	**–**	**–**
Sales	**–**	**(355)**	**(4,576)**	**(7,489)**	**(283)**	**–**	**(1,324)**	**–**
Purchases	**–**	**5,202**	**15,029**	**7,920**	**–**	**3,944**	**479**	**–**
Settlements	**–**	**–**	**–**	**–**	**–**	**–**	**–**	**–**
Issues	**–**	**–**	**–**	**–**	**–**	**–**	**–**	**(2)**
Transfers (out)/in of Level 3, net	**–**	**–**	**(4,200)**	**–**	**–**	**–**	**296**	**–**
Other changes	**–**	**(20)**	**–**	**(212)**	**(38)**	**(57)**	**(1,561)**	**–**
As at 31 December 2021	**–**	**26,121**	**74,300**	**46,131**	**995**	**8,655**	**18,314**	**(2)**
Total gains/(losses) for the period included in the income statement for assets/liabilities held as at 31 December 2021	**–**	**413**	**330**	**2,686**	**–**	**–**	**(159)**	**–**

		Financial assets at fair value through profit or loss			Financial assets at fair value through other comprehensive income		
	Derivative financial assets	Debt securities	Equity instruments	Fund investments and other	Debt securities	Equity instruments and other	Investment properties
As at 1 January 2020	10	15,948	71,716	38,936	1,676	5,275	20,778
Total gains and losses							
— profit/(loss)	122	(698)	754	(1,598)	–	–	(1,426)
— other comprehensive income	–	–	–	–	161	289	–
Sales	–	(1,534)	(6,515)	(3,301)	(359)	–	(15)
Purchases	–	6,074	14,292	9,043	–	750	1,398
Settlements	–	(1)	–	–	–	–	–
Transfers (out)/in of Level 3, net	(132)	–	(12,693)	–	–	(1,467)	674
Other changes	–	1,092	–	(122)	(105)	(116)	(785)
As at 31 December 2020	–	20,881	67,554	42,958	1,373	4,731	20,624
Total (loss)/gains for the period included in the income statement for assets/liabilities held as at 31 December 2020	–	(844)	756	(1,676)	–	–	(1,427)

VI FINANCIAL RISK MANAGEMENT (Continued)

5 Fair value (Continued)

5.1 Assets and liabilities measured at fair value (Continued)

Total gains or losses for the years ended 31 December 2021 and 2020 included in the income statement as well as total gains or losses included in the income statement relating to financial instruments held as at 31 December 2021 and 2020 are presented in "Net trading gains", "Net gains on transfers of financial asset" or "Impairment losses on assets" depending on the nature or category of the related financial instruments.

Gains or losses on Level 3 assets and liabilities included in the income statement for the year comprise:

	Year ended 31 December					
	2021			2020		
	Realised	Unrealised	Total	Realised	Unrealised	Total
Total gains for the year	390	3,270	3,660	223	(3,069)	(2,846)

There were no significant transfers for the financial instruments measured at fair value between Level 1 and Level 2 during the year ended 31 December 2021 and the year ended 31 December 2020.

A 10% increase in all significant unobservable inputs applied in the valuation technique would result in an increase in fair value of RMB1,909 million for expected dividend; and a decrease in fair value of RMB2,667 million for liquidity discounts and discount rates.

5.2 Financial assets and liabilities not measured at fair value

Financial assets and liabilities not presented at fair value in the statement of financial position mainly represent "Balances with central banks", "Due from banks and other financial institutions", "Placements with and loans to banks and other financial institutions", "Due to central banks", "Due to banks and other financial institutions", "Loans and advances to customers measured at amortised cost", "Financial investments measured at amortised cost", "Placements from banks and other financial institutions at amortised cost", "Due to customers at amortised cost" and "Bonds issued at amortised cost".

The tables below summarise the carrying amounts and fair values of "Debt securities at amortised cost" and "Bonds issued" not presented at fair value at the financial reporting date.

	As at 31 December			
	2021		2020	
	Carrying value	Fair value	Carrying value	Fair value
Financial assets				
Debt securities at amortised cost(1)	3,206,895	3,262,525	2,970,277	2,989,266
Financial liabilities				
Bonds issued(2)	1,388,361	1,395,242	1,238,241	1,144,440

(Amount in millions of Renminbi, unless otherwise stated)

VI FINANCIAL RISK MANAGEMENT (Continued)

5 Fair value (Continued)

5.2 Financial assets and liabilities not measured at fair value (Continued)

(1) Debt securities at amortised cost

The China Orient Bond and Special Purpose Treasury Bond held by the Bank are non-transferable. As there are no observable market prices or yields reflecting arm's length transactions of a comparable size and tenor, the fair value is determined based on the stated interest rate of the instruments.

Fair values of other debt securities are based on market prices or broker/dealer price quotations. Where this information is not available, the Bank will perform valuation by referring to prices from valuation service providers or on the basis of discounted cash flow models. Valuation parameters include market interest rates, expected future default rates, prepayment rates and market liquidity. The fair values of RMB bonds are mainly determined based on the valuation results provided by China Central Depository & Clearing Co., Ltd.

(2) Bonds issued

The aggregate fair values are calculated based on quoted market prices. For those bonds where quoted market prices are not available, a discounted cash flow model is used based on a current yield curve appropriate for the remaining term to maturity.

The tables below summarise the fair values of three levels of "Debt securities at amortised cost" (excluding the China Orient Asset Management Corporation Bond and Special Purpose Treasury Bond), and "Bonds issued" not presented at fair value on the statement of financial reporting date.

	As at 31 December 2021			
	Level 1	**Level 2**	**Level 3**	**Total**
Financial assets				
Debt securities at amortised cost	**99,809**	**2,963,747**	**3,557**	**3,067,113**
Financial liabilities				
Bonds issued	**–**	**1,395,242**	**–**	**1,395,242**

	As at 31 December 2020			
	Level 1	Level 2	Level 3	Total
Financial assets				
Debt securities at amortised cost	96,766	2,694,018	3,055	2,793,839
Financial liabilities				
Bonds issued	–	1,144,440	–	1,144,440

Other than the above, the difference between the carrying amounts and fair values of those financial assets and liabilities not presented at their fair value in the statement of financial position as at 31 December 2021 and 2020 was insignificant. Fair value is measured using a discounted cash flow model.

VI FINANCIAL RISK MANAGEMENT (Continued)

6 Capital management

The Group follows the principles below with regard to capital management:

- Adequate capital and sustainable development. Follow the lead of the strategic planning of the Group development; and maintain the high quality and adequacy of capital so as to meet regulatory requirements, support business growth, and advance the sustainable development of the scale, quality and performance of the business in the Group.

- Allocation optimisation and benefit augmentation. Allocate capital properly by prioritising the asset businesses with low capital occupancy and high comprehensive income, and steadily improve the efficiency and return of capital, to achieve the reciprocal matchup and dynamic equilibrium among risks, assets and returns.

- Refined management and capital level improvement. Optimise the capital management system by sufficiently identifying, calculating, monitoring, mitigating, and controlling various types of risks; incorporate capital restraints into the whole process of product pricing, resource allocation, structural adjustments, performance evaluation, etc., ensuring that the capital employed is commensurate with the related risks and the level of risk management.

Capital adequacy and regulatory capital are monitored by the Group's management, employing techniques based on the guidelines developed by the Basel Committee, as implemented by the CBIRC, for supervisory purposes. The required information is filed with the CBIRC on a quarterly basis.

The Group's capital adequacy ratios are calculated in accordance with the *Capital Rules for Commercial Banks (Provisional)* and other relevant regulations. With the approval of the CBIRC, the Group adopts the advanced capital measurement approaches, which include Foundation Internal Ratings-based Approach for corporate exposures, Internal Ratings-based Approach for retail exposures, Internal Models Approach for market risk and Standardised Approach for operational risk. For risk exposures not covered by the advanced approaches, the corresponding portion shall be calculated adopting non-advanced approaches.

As a Systemically Important Bank, the Group's capital adequacy ratios are required to meet the lowest requirements of the CBIRC, that is, the common equity tier 1 capital adequacy ratio, tier 1 capital adequacy ratio and capital adequacy ratio should be no less than 9.00%, 10.00% and 12.00%, respectively.

The Group's regulatory capital is managed by its capital management related departments and consists of the following:

- Common equity tier 1 capital, including common shares, capital reserve, surplus reserve, general reserve, undistributed profits, eligible portion of minority interests and others;

- Additional tier 1 capital, including additional tier 1 capital instruments issued and related premium and eligible portion of minority interests;

- Tier 2 capital, including tier 2 capital instruments issued and related premium, excess loan loss allowances and eligible portion of minority interests.

Goodwill, other intangible assets (excluding land use rights), investments in common equity tier 1 capital of financial institutions with controlling interests but outside of the scope of regulatory consolidation and other deductible items are deducted from common equity tier 1 capital to derive at the regulatory capital.

(Amount in millions of Renminbi, unless otherwise stated)

VI FINANCIAL RISK MANAGEMENT (Continued)

6 Capital management (Continued)

The table below summarises the Group's common equity tier 1 capital adequacy ratio, tier 1 capital adequacy ratio and capital adequacy ratio[1] calculated in accordance with the *Capital Rules for Commercial Banks (Provisional)* and other relevant regulations:

	As at 31 December	
	2021	2020
Common equity tier 1 capital adequacy ratio	**11.30%**	11.28%
Tier 1 capital adequacy ratio	**13.32%**	13.19%
Capital adequacy ratio	**16.53%**	16.22%
Composition of the Group's capital base		
Common equity tier 1 capital	**1,870,301**	1,730,401
Common shares	**294,388**	294,388
Capital reserve	**133,951**	134,221
Surplus reserve	**212,602**	192,251
General reserve	**303,084**	267,856
Undistributed profits	**888,419**	803,823
Eligible portion of minority interests	**33,669**	32,567
Other[2]	**4,188**	5,295
Regulatory deductions	**(26,415)**	(25,623)
Of which:		
Goodwill	**(182)**	(182)
Other intangible assets (excluding land use rights)	**(16,393)**	(15,140)
Direct or indirect investments in own shares	**–**	(8)
Investments in common equity tier 1 capital of financial institutions with controlling interests but outside the scope of regulatory consolidation	**(9,785)**	(9,838)
Net common equity tier 1 capital	**1,843,886**	1,704,778
Additional tier 1 capital	**329,845**	287,843
Preference shares and related premium	**119,550**	147,519
Additional capital instruments and related premium	**199,955**	129,971
Eligible portion of minority interests	**10,340**	10,353
Net tier 1 capital	**2,173,731**	1,992,621
Tier 2 capital	**525,108**	458,434
Tier 2 capital instruments issued and related premium	**387,746**	333,381
Excess loan loss provisions	**128,114**	115,627
Eligible portion of minority interests	**9,248**	9,426
Net capital	**2,698,839**	2,451,055
Risk-weighted assets	**16,323,713**	15,109,085

(1) When calculating the capital adequacy ratios, Bank of China Group Investment Limited ("BOCG Investment"), Bank of China Insurance Company Limited ("BOC Insurance"), Bank of China Group Insurance Company Limited ("BOCG Insurance") and Bank of China Group Life Assurance Company Limited ("BOCG Life") were excluded from the scope of consolidation in accordance with the requirements of the CBIRC.

(2) This mainly represented exchange differences from the translation of foreign operations and changes in fair value on financial assets at fair value through other comprehensive income.

VI FINANCIAL RISK MANAGEMENT (Continued)

7 Insurance risk

Insurance contracts are mainly sold in the Chinese mainland and Hong Kong (China) denominated in RMB and HKD. The risk under any one insurance contract is the possibility that the insured event occurs and the uncertainty of the amount of the resulting claim. This risk is inherently random and, therefore, unpredictable. The Group manages its portfolio of insurance risks through its underwriting strategy and policies, portfolio management techniques, adequate reinsurance arrangements and proactive claims handling and processing. The underwriting strategy attempts to ensure that the underwritten risks are well diversified in terms of type and amount of risk and industry.

For a portfolio of insurance contracts where the theory of probability is applied to pricing and provisioning, the principal risk that the Group faces under its insurance contracts is that the actual claims and benefit payments exceed the carrying amount of the insurance liabilities. This could occur because the frequency or severity of the claims and benefits are greater than those estimated. Insurance events are random and the actual number and amount of claims and benefits will vary from year to year from the level established using statistical techniques.

Uncertainty in the estimation of future benefit payments and premium receipts for long-term life insurance contracts arises from the unpredictability of long-term changes in overall levels of mortality. In order to assess the uncertainty due to the mortality assumption and lapse assumption, the Group conducted mortality rate studies and policy lapse studies in order to determine the appropriate assumptions.