

Notes to the Consolidated Financial Statements

(Amount in millions of Renminbi, unless otherwise stated)

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. Following the founding of the People’s Republic of China (the “PRC”) in 1949, the Bank was designated as a specialised foreign exchange 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, Macao, Taiwan and other major international financial centres.

The Bank’s principal regulator is the CBIRC. The operations in Hong Kong, Macao, Taiwan 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”), which owned 64.02% of the ordinary shares of the Bank as at 31 December 2019 (31 December 2018: 64.02%).

These consolidated financial statements have been approved by the Board of Directors on 27 March 2020.

II SUMMARY OF PRINCIPAL ACCOUNTING POLICIES

1 Basis of preparation

The consolidated financial statements of the Group have been prepared in accordance with 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 statement. Other accounting items are measured at their historical costs. Impairment allowance is recognised and measured as 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.

II SUMMARY OF PRINCIPAL ACCOUNTING POLICIES (Continued)

1 Basis of preparation (Continued)

1.1 Standards, amendments and interpretations effective and have been early adopted by the Group in 2019

On 1 January 2019, the Group adopted the following new standards, amendments and interpretations.

IFRS 16	<i>Leases</i>
IFRIC Interpretation 23	<i>Uncertainty over Income Tax Treatments</i>
IAS 19 Amendments	<i>Plan amendment, Curtailment or Settlement</i>
IAS 28 Amendments	<i>Long-term Interests in Associates and Joint Ventures</i>
Annual Improvements to IFRSs 2015–2017 Cycle (issued in December 2017)	

In January 2016, the IASB issued IFRS 16 *Leases*, which replaced IAS 17 and IFRIC 4. Under IFRS 16, the classifications of finance lease and operating lease for lessees are removed, and lessees recognise right-of-use assets and lease liabilities for all leases (except short-term leases and leases of low-value assets elected to be accounted for using a practical expedient) and recognise depreciation and interest expense respectively. The Group has adopted IFRS 16 since 1 January 2019 (refer to the 2018 annual report for the accounting policies related to leases of the Group in 2018) and applied the modified retrospective approach without restating comparative figures. The Group has not reassessed the existing contracts before 1 January 2019 (date of initial application) and has used practical expedients. As a lessee, the Group has elected to exercise the recognition exemption not to recognise the right-of-use assets and lease liabilities for leases of which the underlying assets are of low value or for which the contract would end within 12 months from the date of initial application, and has recognised the profit or loss on a straight-line basis over the lease term. Therefore, the financial information for the year ended 31 December 2019 related to leasing presented on the financial statements is not comparable with the comparative financial information presented in the 2018 financial statements in accordance with the former lease standards.

II SUMMARY OF PRINCIPAL ACCOUNTING POLICIES (Continued)

1 Basis of preparation (Continued)

1.1 Standards, amendments and interpretations effective and have been early adopted by the Group in 2019 (Continued)

For the outstanding minimum lease payment for operating leases disclosed in the financial statements of 2018, the Group used its incremental borrowing interest rate as at 1 January 2019 to discount the lease payment, and the reconciliation to the opening balance for the lease liabilities in the statement of financial position as at 1 January 2019 is as follows:

	Amount
Minimum lease payment for operating leases as at 31 December 2018	28,093
Less: minimum lease payment with recognition exemption — short-term leases	(938)
Less: minimum lease payment with recognition exemption — leases of low-value assets	(53)
Less: the impact of lease payment discounted at incremental borrowing interest rate as at 1 January 2019	(6,564)
Add: other adjustments	544
Lease liabilities as at 1 January 2019	21,082
Right-of-use assets as at 1 January 2019	22,563

IFRIC Interpretation 23 clarifies how to apply the recognition and measurement requirements in IAS 12 *Income Taxes* when there is uncertainty over income tax treatments. The interpretation mainly addresses the following four areas: whether an entity separately considers the uncertainty of tax treatments; assumptions adopted by an entity to address the examination of tax treatments by taxation authorities; how an entity determines taxable profit/(tax loss), tax bases, unused tax losses, unused tax credits and tax rates; and how an entity considers changes in facts and circumstances.

IAS 19 Amendments describe the accounting when a defined benefit plan amendment, curtailment or settlement occurs during a reporting period. The amendments require entities to use the updated actuarial assumptions to determine current service cost and net interest for the remainder of the annual reporting period after such an event. The amendments also clarify how the requirements for accounting for a plan amendment, curtailment or settlement affect the asset ceiling requirements. The amendments do not address the accounting for “significant market fluctuations” in the absence of a plan amendment, curtailment or settlement.

IAS 28 Amendments clarify that an entity applies IFRS 9 *Financial Instruments* (“IFRS 9”) to long-term interests in an associate or joint venture to which the equity method is not applied but that, in substance, form part of the net investment in the associate or joint venture (long-term interests). Entities must apply the amendments retrospectively, with certain exceptions.

II SUMMARY OF PRINCIPAL ACCOUNTING POLICIES (Continued)

1 Basis of preparation (Continued)

1.1 Standards, amendments and interpretations effective and have been early adopted by the Group in 2019 (Continued)

Annual Improvements to IFRSs 2015–2017 Cycle was issued in December 2017. Those amendments affect IFRS 3 *Business Combinations*, IFRS 11 *Joint Arrangements*, IAS 12 *Income Taxes* and IAS 23 *Borrowing Costs*.

The adoption of the above standards, amendments and interpretations does not have any significant impact on the operating results, financial position and comprehensive income of the Group.

1.2 Standards, amendments and interpretations that are not yet effective and have not been early adopted by the Group in 2019

		Effective for annual periods beginning on or after
IFRS 3 Amendments	<i>Definition of a Business</i>	1 January 2020
IAS 1 and IAS 8 Amendments	<i>Definition of Material</i>	1 January 2020
IFRS 9, IAS 39 and IFRS 7 Amendments	<i>Interest Rate Benchmark Reform</i>	1 January 2020
IFRS 17	<i>Insurance Contracts</i>	1 January 2021
IFRS 10 and IAS 28 Amendments	<i>Sale or Contribution of Assets between an Investor and its Associate or Joint Venture</i>	Effective date has been deferred indefinitely

IFRS 3 Amendments clarify and provide additional guidance on the definition of a business. The amendments clarify that for an integrated set of activities and assets to be considered a business, it must include, at a minimum, an input and a substantive process that together significantly contribute to the ability to create output. A business can exist without including all the inputs and processes needed to create outputs. The amendments remove the assessment of whether market participants are capable of acquiring the business and continue to produce outputs. Instead, the focus is on whether acquired inputs and substantive processes together significantly contribute to the ability to create outputs. The amendments have also narrowed the definition of outputs to focus on goods or services provided to customers, investment income or other income from ordinary activities. Furthermore, the amendments provide guidance to assess whether an acquired process is substantive and introduce an optional fair value concentration test to permit a simplified assessment of whether an acquired set of activities and assets is not a business.

II SUMMARY OF PRINCIPAL ACCOUNTING POLICIES (Continued)

1 Basis of preparation (Continued)

1.2 *Standards, amendments and interpretations that are not yet effective and have not been early adopted by the Group in 2019 (Continued)*

Amendments to IAS 1 and IAS 8 provide a new definition of materiality. The new definition states that information is material if omitting, misstating or obscuring it could reasonably be expected to influence decisions made by the primary users of general purpose financial statements based on those financial statements. The amendments clarify that materiality depends on the nature or magnitude of information. A misstatement of information is material if it could reasonably be expected to influence decisions made by the primary users.

The amendments to IFRS 9, IAS 39 and IFRS 7 modify some specific hedge accounting requirements. During the period of uncertainty arising from phasing-out of interest-rate benchmarks with an alternative nearly risk-free interest rate ("RFR"), the entities that apply these hedge accounting requirements can assume that the interest-rate benchmarks on which the hedged cash flows and cash flows of the hedging instrument are based are not altered as a result of interest-rate benchmark reform. The amendments must be applied retrospectively.

IFRS 17 *Insurance Contracts* 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 covers the recognition, measurement, presentation and disclosure of insurance contracts and applies to all types of insurance contracts.

The amendments to IFRS 10 and IAS 28 address an inconsistency between the requirements in IFRS 10 and in IAS 28 in dealing with the sale or contribution of assets between an investor and its associate or joint venture. 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 on the consolidated financial statements. Except for IFRS 17, the adoption of the above standards, amendments and interpretations will have no material impact on the financial statements.

II SUMMARY OF PRINCIPAL ACCOUNTING POLICIES (Continued)

2 Consolidation

2.1 Subsidiaries

Subsidiaries are all entities (including corporates, divided parts of associates and joint ventures, and structured entities controlled by corporates) over which the Group has control. That is the Group controls an entity when it is exposed, or has rights, to variable returns from its involvement with the entity and has the ability to affect those returns through its power over 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 the definition of control involved in the changes of relevant elements, the Group will re-evaluate whether subsidiaries are controlled.

The Group uses the acquisition method of accounting to account for business combinations. The consideration transferred for the acquisition of a subsidiary is the fair values of the assets transferred, the liabilities incurred and the equity interests issued by the Group. The 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 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 identifiable net assets acquired is recorded as goodwill. If this is less than the fair value of the identifiable net assets of the subsidiary acquired in the case of a bargain purchase, the difference is recognised directly in the income statement. Goodwill is tested annually for 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. The dividends or profits declared to distribute by the invested entity shall be recognised by the Bank as the current investment income of subsidiaries. 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. The 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 are 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 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 have 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 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 operations in the Chinese mainland is the Renminbi (“RMB”). Items included in the financial statements of each of the Group’s operations in Hong Kong, Macao, Taiwan 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 the 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.

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 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.

II SUMMARY OF PRINCIPAL ACCOUNTING POLICIES (Continued)

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.

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 business model of the financial assets is "other". 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.

II SUMMARY OF PRINCIPAL ACCOUNTING POLICIES (Continued)

4 Financial instruments (Continued)

4.2 Classification and Subsequent measurement (Continued)

4.2.1 Financial assets (Continued)

(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.

(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 gains or losses 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 gains or losses are recognised in profit or loss, and not reduce the carrying amount of such financial assets in the statement of financial position.

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 (Continued)

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 gains or losses 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.

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.

II SUMMARY OF PRINCIPAL ACCOUNTING POLICIES (Continued)

4 Financial instruments (Continued)

4.2 Classification and Subsequent measurement (Continued)

4.2.2 Financial liabilities (Continued)

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).

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.

II SUMMARY OF PRINCIPAL ACCOUNTING POLICIES (Continued)

4 Financial instruments (Continued)

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 Group's liabilities under such guarantees are measured at the higher of the initial measurement less amortisation calculated and the impairment allowance determined by the expected credit loss ("ECL") model, and any increase in the liability relating to guarantees is taken to the income statement.

Loan commitments are commitments provided by the Group to the 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 current bid prices and ask 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.

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.

II SUMMARY OF PRINCIPAL ACCOUNTING POLICIES (Continued)

4 Financial instruments (Continued)

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

The 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, i.e. the present value of all cash shortfalls.

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

- Stage 1: The financial instruments without significant increases in credit risk since initial recognition are included in 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 in 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 in Stage 3, with their impairment allowance measured at an amount equivalent to the ECL over the lifetime of the financial instruments.

For the previous accounting period, the impairment allowance has been measured at the amount equivalent to the ECL over the entire lifetime of the financial instrument. However, at the financial reporting date, if the financial instrument no longer belongs to the situation of there being a significant increase in credit risk since initial recognition, the Group will measure the impairment allowance of the financial instruments on the financial reporting date according to the ECL in the next 12 months.

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

II SUMMARY OF PRINCIPAL ACCOUNTING POLICIES (Continued)

4 Financial instruments (Continued)

4.6 Impairment measurement for losses on assets (Continued)

Measurement of ECL (Continued)

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

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 Group conducted an assessment of ECL according to forward-looking information and used a number of models and assumptions in its measurement of expected credit losses. These models and assumptions relate to the future macroeconomic conditions and borrower's 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 such as:

- Criteria for determining significant increases in credit risk
- Definition of credit-impaired financial assets
- Parameters for measuring ECL
- Forward-looking information
- Modification of contractual cash flows

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 of the Group, 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 figure out the changes of default risk in the expected lifetime of financial instruments.

II SUMMARY OF PRINCIPAL ACCOUNTING POLICIES (Continued)

4 Financial instruments (Continued)

4.6 Impairment measurement for losses on assets (Continued)

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 reporting date, the increase in remaining lifetime probability of default is considered significant, comparing with the one at initial recognition

Qualitative criteria

- Significant adverse change in debtor's operation or financial status
- Be classified into Special Mention category within five-category loan classification
- Be listed on the watch-list

Backstop criteria

- The debtor's contractual payments (including principal and interest) are more than 30 days past due

Definition of credit-impaired financial assets

The standard adopted by the Group to determine whether a financial asset is credit-impaired under IFRS 9 is consistent with the internal credit risk management objectives, taking into account quantitative and qualitative criteria. When the Group assesses whether the credit impairment occurred, the following factors are mainly considered:

- Significant financial difficulty of the issuer or obligor;
- A breach of contract, such as a default or delinquency in interest or principal payments;
- The Group granting to the borrower, for economic or legal reasons relating to the borrower's financial difficulty, a concession that the lender would not otherwise consider;
- It 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 debtor is more than 90 days overdue for any of the principal, advances, interest or investments in corporate bonds of the Group.

II SUMMARY OF PRINCIPAL ACCOUNTING POLICIES (Continued)

4 Financial instruments (Continued)

4.6 Impairment measurement for losses on assets (Continued)

Definition of credit-impaired financial assets (Continued)

A financial asset becoming credit-impaired may be caused by the combined effect of several events, but not a single discrete event. For credit-impaired financial assets, the Group mainly evaluate the future cash flow (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 and the asset's gross carrying amount. Any adjustment is recognised in profit or loss as an impairment gain or loss.

Parameters of ECL measurement

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 12 months or the entire lifetime respectively. 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 collaterals, repayments, etc.) and forward-looking information in order to establish the models for estimating PD, LGD and EAD.

Relative 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 throughout the entire remaining lifetime. The Group adjusts PD based on the results of the Internal Rating-Based Approach under the New Basel Capital Accord, taking into account the forward-looking information and removing the prudential adjustment to reflect the debtor's point-in-time (PIT) PD under the current macroeconomic environment;
- LGD refers to the Group's expectation of the extent of the loss resulting from the default exposure. Depending on the type of counterparty, the method and priority of the recourse, and the type of collaterals, the LGD varies;
- EAD is the amount that the Group should be reimbursed at the time of the default in the next 12 months or throughout the entire remaining lifetime.

Forward-looking information

The assessment of a significant increase in credit risk and the calculation of ECL both involve forward-looking information. Based on the analysis of historical data, the Group identifies the key macroeconomic indicators that affect the credit risk and ECL of various business types, such as GDP, PPI, CPI, Investment in fixed assets, Home price index, Aggregate financing to the real economy.

The impact of these economic indicators on the PD and the LGD varies according to different types of business. The Group applied experts' judgement in this analysis, according to the result of experts' judgement, the Group predicts these economic indicators on a quarterly basis and determines the impact of these economic indicators on the PD and the LGD by conducting regression analysis.

II SUMMARY OF PRINCIPAL ACCOUNTING POLICIES (Continued)

4 Financial instruments (Continued)

4.6 Impairment measurement for losses on assets (Continued)

Forward-looking information (Continued)

In addition to a base economic scenario, the Group conducts statistical analysis with experts' judgement to determine other possible scenarios and their weights. The Group measures the weighted average ECL of 12 months (Stage 1) or life time (Stage 2 and Stage 3). The weighted average credit loss above is calculated by multiplying the ECL for each scenario by the weight of the corresponding scenario.

Modification of contractual cash flows

A modification or re-negotiation of a contract between the Group and a counterparty may result in a change to the contractual cash flows without resulting in the derecognition of the financial assets. Such restructuring activities include extended payment term arrangements, repayment schedule modifications and changes to the interest settlement method. The risk of default of such assets after modification is assessed at the reporting date and compared with the risk under the original terms at initial recognition, when the modification is not substantial and so does not result in derecognition of the original asset. The gross carrying amount of the financial asset is recalculated and the related gain or loss is recognised in profit and loss. The gross carrying amount of the financial asset is determined based on the present value of the renegotiated or modified contractual cash flows discounted at the financial asset's original effective interest rate.

The Group monitors the ongoing performance of assets with modified contractual cash flows. Based on the Group's judgment, the Group determined that the credit risk of these assets had significantly improved after modification of contractual cash flows. Accordingly, these assets were transferred from either Stage 3 or Stage 2 to Stage 1, and the related impairment allowance was measured at an amount equal to the 12-month ECL instead of the lifetime ECL.

4.7 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 method 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.

II SUMMARY OF PRINCIPAL ACCOUNTING POLICIES (Continued)

4 Financial instruments (Continued)

4.7 *Derivative financial instruments and hedge accounting (Continued)*

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.

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:

- Increase or decrease in the amounts of hedged items or 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)

4.7 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)

4.7 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. If the hedged items are transaction related, the amount accumulated in other comprehensive income shall be accounted for similarly to cash flow hedges. If the hedged items are time-period related, that amount is amortised on a systematic and rational basis over the period during which the hedged items could affect profit or loss, and the amortisation amount is reclassified from other comprehensive income to profit or loss as a reclassification adjustment.

4.8 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.

4.9 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 and precious metals swaps

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 as precious metal deposits, 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.

Consistent with the substance of the transaction, if the precious metals swaps are for financing purposes, they are accounted for as precious metals subject to collateral agreements. Precious metals collateralised are not derecognised and the related counterparty liability is recorded in "Placements from banks and other financial institutions". If precious metals swaps are for trading purposes, they are accounted for as derivative transactions.

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".

The 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.

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 it is 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 institution 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 lease payments receivable and derecognises the assets under finance leases at the commencement date. In the initial measurement of the lease payments receivable, the Group recognises the net investment in the lease as the book value. The net investment in the lease is the present value of the sum of the unguaranteed residual value and the unreceived lease payments receivable 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. 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 still 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. 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 assets not retained plus related costs when they are obtained as the compensation for the loans' principal and interest. When there are indicators that the recoverable amount is lower than carrying amount, the carrying amount is written down immediately 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, Macao, Taiwan 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. The actuarial gains or losses are recognised in "Other comprehensive income" immediately when they occur, the 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.

The liability 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. The present value of the liability is 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. The actuarial gains or losses of supplemental retirement benefit are recognised in "Other comprehensive income" immediately when they occur. The actuarial gains or losses of early retirement benefit obligations and the 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*

The 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. The 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. The 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 equity.

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 issues 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 Treasury shares, preference shares and perpetual bonds

Where the Bank or other members of the Group purchase the Bank's ordinary shares, "Treasury shares" are recorded at the amount of consideration paid and deducted from total equity holders' equity until they are cancelled, sold or reissued. Where such shares are subsequently sold or reissued, any consideration received is included in capital and reserves attributable to equity holders of the Bank.

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; and 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. The 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. And perpetual bonds issued includes 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. The interests on perpetual bonds are 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 schedule. 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

The “Interest income” and “Interest expense” in the Group’s income statement are the interest income and expense calculated by 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, etc.

The 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. The 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 the 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. The 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 cases, 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 of property and equipment, 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/(tax 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/(tax 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.

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 Group makes estimates and judgements that affect the reported amounts of assets and liabilities within 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 Impairment loss on loans and advances to customers

The models and assumptions used by the Group in assessing the expected credit losses on loans and advances to customers are highly dependent on management's judgement.

When determining whether the credit risk of a loan has significantly increased since initial recognition, the Group needs to consider internal and external historical information, current conditions and future economic forecasts. The criteria for a significant increase in credit risk will be used to determine whether impairment allowance for a loan should be measured as equal to lifetime expected credit losses, rather than 12 months expected credit losses.

The parameters used by the Group to measure the ECL model, including PD, LGD and EAD, each involve numerous judgements and assumptions. The Group made adjustments based on the results of the internal rating model of the New Basel Capital Accord and considered macroeconomic forecasts information to determine the debtor's PIT PD. When estimating the LGD, the Group also needs to make judgements by considering the type of counterparty, recourse arrangements, compensation seniority, the type and value of the collateral and historical loss data. For off-balance credit commitments and revolving credit facilities, judgements are also needed to determine the time period applicable for the EAD.

The Group applies expert judgements to predict macroeconomic indicators, analyses the correlations with modelled parameters such as PD, and makes forward-looking adjustments on parameters. At the same time, the Group also needs to estimate the probability of occurrence of multiple different macroeconomic scenarios and calculate probability-weighted expected credit losses.

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 granularity of financial information related to specific borrowers, the availability of meaningful information related to industry competitors and the relevance of sector trends to the future performance of individual borrowers and cash flows from the sale of collateral.

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

2 Fair value of derivatives and other 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. There are certain transactions and activities for which the ultimate tax determination is uncertain during the ordinary course of business. The Group has made estimates for application of new tax legislation and items of uncertainty taking into account existing tax legislation and past practice, in particular, the treatment of supplementary PRC tax applied to results of overseas operations.

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. The 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 link between power and returns.

The 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		
Hong Kong profits tax	Assessable profits	16.5%

V NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

1 Net interest income

	Year ended 31 December	
	2019	2018
Interest income		
Loans and advances to customers	517,565	469,098
Financial investments ⁽¹⁾	155,126	144,326
Due from and placements with and loans to banks and other financial institutions and central banks	69,516	74,476
Subtotal	742,207	687,900
Interest expense		
Due to customers	(269,324)	(229,998)
Due to and placements from banks and other financial institutions	(66,103)	(75,707)
Bonds issued and other ⁽²⁾	(32,530)	(22,489)
Subtotal	(367,957)	(328,194)
Net interest income	374,250	359,706
Interest income accrued on impaired financial assets (included within interest income)	1,497	1,652

(1) Interest income on “Financial investments” is principally derived from debt securities listed in the domestic interbank bond market and unlisted debt securities in Hong Kong, Macao, Taiwan and other countries and regions.

(2) The Group’s interest expense related to lease liabilities amounted to RMB876 million for the year ended 31 December 2019.

2 Net fee and commission income

	Year ended 31 December	
	2019	2018
Bank card fees	32,831	29,943
Agency commissions	20,320	20,212
Settlement and clearing fees	14,713	13,670
Credit commitment fees	12,746	13,181
Spread income from foreign exchange business	7,154	7,740
Consultancy and advisory fees	4,446	3,534
Custodian and other fiduciary service fees	4,120	3,597
Other	8,587	8,120
Fee and commission income	104,917	99,997
Fee and commission expense	(15,305)	(12,789)
Net fee and commission income	89,612	87,208

V NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)**3 Net trading gains**

	Year ended 31 December	
	2019	2018
Net gains from interest rate products	15,303	9,910
Net gains/(losses) from foreign exchange and foreign exchange products	8,974	(4,574)
Net gains from fund investments and equity products	2,378	423
Net gains from commodity products	1,908	960
Total ⁽¹⁾	28,563	6,719

(1) Included in "Net trading gains" above for the year ended 31 December 2019 are gains of RMB3,426 million in relation to financial assets and financial liabilities designated as at fair value through profit or loss (2018: losses of RMB1,355 million).

4 Net gains on transfers of financial asset

	Year ended 31 December	
	2019	2018
Net gains on derecognition of financial assets at fair value through other comprehensive income	2,900	1,700
Net gains on derecognition of financial assets at amortised cost ⁽¹⁾	577	1,117
Total	3,477	2,817

(1) All the net gains on the derecognition of financial assets at amortised cost result from disposals during the year ended 31 December 2019 and 2018.

5 Other operating income

	Year ended 31 December	
	2019	2018
Insurance premiums ⁽¹⁾	26,819	20,965
Aircraft leasing income	11,753	10,233
Revenue from sale of precious metals products	6,484	7,658
Dividend income ⁽²⁾	3,370	1,918
Gains on disposal of property and equipment, intangible assets and other assets	1,251	949
Changes in fair value of investment properties (Note V.21)	496	919
Gains on disposal of subsidiaries, associates and joint ventures	91	148
Other ⁽³⁾	3,844	4,566
Total	54,108	47,356

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

	Year ended 31 December	
	2019	2018
Life insurance contracts		
Gross earned premiums	28,073	21,037
Less: gross written premiums ceded to reinsurers	(7,591)	(6,259)
Net insurance premium income	20,482	14,778
Non-life insurance contracts		
Gross earned premiums	7,587	7,365
Less: gross written premiums ceded to reinsurers	(1,250)	(1,178)
Net insurance premium income	6,337	6,187
Total	26,819	20,965

(2) For equity instruments classified as financial assets at fair value through other comprehensive income, RMB388 million of dividend income is recognised for the year ended 31 December 2019 (2018: RMB265 million).

(3) For the year ended 31 December 2019, the government subsidy income from operating activities, as part of other operating income, is RMB283 million (2018: RMB620 million).

V NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)**6 Operating expenses**

	Year ended 31 December	
	2019	2018
Staff costs (Note V.7)	90,762	85,391
General operating and administrative expenses ⁽¹⁾⁽²⁾	41,845	42,768
Insurance benefits and claims		
— Life insurance contracts	21,829	13,093
— Non-life insurance contracts	4,208	3,915
Depreciation and amortisation	21,175	13,451
Cost of sales of precious metal products	5,372	7,185
Taxes and surcharges	4,984	4,744
Other	8,094	6,432
Total⁽³⁾	198,269	176,979

(1) Included in the “General operating and administrative expenses” is principal auditors’ remuneration of RMB229 million for the year ended 31 December 2019 (2018: RMB232 million), of which RMB72 million is for Hong Kong, Macao, Taiwan and other countries and regions of the Group (2018: RMB71 million).

(2) Included in the “General operating and administrative expenses” are lease expenses related to short-term leases and leases of low-value assets of RMB1,405 million for the year ended 31 December 2019.

(3) Included in the “Operating expenses” are premises and equipment-related expenses (mainly comprised of property management and building maintenance expenses and taxes) of RMB13,644 million (2018: RMB12,262 million).

7 Staff costs

	Year ended 31 December	
	2019	2018
Salary, bonus and subsidy	61,104	58,242
Staff welfare	3,896	3,583
Retirement benefits	60	85
Social insurance		
— Medical	4,085	3,644
— Pension	6,249	6,835
— Annuity	4,178	2,372
— Unemployment	207	206
— Injury at work	76	87
— Maternity insurance	256	243
Housing funds	4,595	4,628
Labour union fee and staff education fee	2,032	1,941
Reimbursement for cancellation of labour contract	15	13
Other	4,009	3,512
Total	90,762	85,391

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 2019

	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⁾	579	65	82	726
LIN Jingzhen ⁽⁴⁾⁽⁵⁾	— ⁽²⁾	521	63	82	666
CHEN Siqing ⁽⁴⁾⁽⁶⁾	— ⁽²⁾	193	24	26	243
WU Fulin ⁽⁴⁾⁽⁵⁾⁽⁶⁾	— ⁽²⁾	521	63	82	666
Non-executive directors					
ZHAO Jie ⁽¹⁾	—	—	—	—	—
XIAO Lihong ⁽¹⁾	—	—	—	—	—
WANG Xiaoya ⁽¹⁾	—	—	—	—	—
ZHANG Jiangang ⁽¹⁾⁽⁵⁾	—	—	—	—	—
LI Jucan ⁽¹⁾⁽⁶⁾	—	—	—	—	—
LIAO Qiang ⁽¹⁾⁽⁶⁾	—	—	—	—	—
Independent directors					
WANG Changyun	621	—	—	—	621
Angela CHAO	450	—	—	—	450
JIANG Guohua	455	—	—	—	455
Martin Cheung Kong LIAO ⁽⁵⁾	146	—	—	—	146
LU Zhengfei ⁽⁶⁾	321	—	—	—	321
LEUNG Cheuk Yan ⁽⁶⁾	270	—	—	—	270
Supervisors					
WANG Xiquan ⁽⁴⁾	—	579	65	82	726
WANG Zhiheng	50 ⁽³⁾	—	—	—	50
LI Changlin	50 ⁽³⁾	—	—	—	50
LENG Jie	50 ⁽³⁾	—	—	—	50
JIA Xiangsen ⁽⁵⁾	145	—	—	—	145
ZHENG Zhiguang ⁽⁵⁾	145	—	—	—	145
LIU Wanming ⁽⁴⁾⁽⁶⁾	—	341	35	46	422
CHEN Yuhua ⁽⁶⁾	98	—	—	—	98
	2,801	2,734	315	400	6,250

V NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)**8 Directors', supervisors' and senior management's emoluments (Continued)**

For the year ended 31 December 2018

	Fees	Remuneration paid	Contributions to pension schemes	Benefits in kind	Total
	RMB'000	RMB'000	RMB'000	RMB'000	RMB'000
Executive directors					
CHEN Siqing ⁽⁴⁾⁽⁶⁾	— ⁽²⁾	745	69	75	889
LIU Liange ⁽⁴⁾	— ⁽²⁾	248	24	26	298
GAO Yingxin ⁽⁴⁾	— ⁽²⁾	56	5	6	67
REN Deqi ⁽⁴⁾	— ⁽²⁾	335	32	36	403
ZHANG Qingsong ⁽⁴⁾	— ⁽²⁾	502	50	56	608
Non-executive directors					
ZHAO Jie ⁽¹⁾	—	—	—	—	—
LI Jucan ⁽¹⁾⁽⁶⁾	—	—	—	—	—
XIAO Lihong ⁽¹⁾	—	—	—	—	—
WANG Xiaoya ⁽¹⁾	—	—	—	—	—
LIAO Qiang ⁽¹⁾⁽⁶⁾	—	—	—	—	—
ZHANG Xiangdong ⁽¹⁾	—	—	—	—	—
Independent directors					
LU Zhengfei ⁽⁶⁾	550	—	—	—	550
LEUNG Cheuk Yan ⁽⁶⁾	400	—	—	—	400
WANG Changyun	493	—	—	—	493
Angela CHAO	425	—	—	—	425
JIANG Guohua	17	—	—	—	17
Nout WELLINK	297	—	—	—	297
Supervisors					
WANG Xiquan ⁽⁴⁾	—	745	69	75	889
LIU Wanming ⁽⁴⁾⁽⁶⁾	—	1,363	83	186	1,632
WANG Zhiheng	—	—	—	—	—
LI Changlin	—	—	—	—	—
LENG Jie	—	—	—	—	—
CHEN Yuhua ⁽⁶⁾	260	—	—	—	260
WANG Xueqiang ⁽⁴⁾	—	503	20	61	584
DENG Zhiying	50 ⁽³⁾	—	—	—	50
GAO Zhaogang	50 ⁽³⁾	—	—	—	50
XIANG Xi	50 ⁽³⁾	—	—	—	50
	2,592	4,497	352	521	7,962

V NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)

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

- (1) For the years ended 31 December 2019 and 2018, these non-executive directors of the Bank were not remunerated by the Bank.
- (2) For the years ended 31 December 2019 and 2018, these executive directors of the Bank did not receive any fees.
- (3) Employee supervisors' above compensation is paid for serving as the supervisors of the Bank.
- (4) The total compensation packages for executive directors and supervisors for the year ended 31 December 2019 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 2019 financial statements. The final compensation for the year ended 31 December 2019 will be disclosed in a separate announcement when determined.

The compensation amounts for these directors and supervisors for the year ended 31 December 2018 were restated based on the finalised amounts as disclosed in the Bank's announcement dated 30 August 2019.

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.

- (5) WU Fulin and LIN Jingzhen began to serve as Executive Director of the Bank as of 3 February 2019. ZHANG Jiangang began to serve as Non-executive Director of the Bank as of 29 July 2019. Martin Cheung Kong LIAO began to serve as Independent Director of the Bank as of 4 September 2019. JIA Xiangsen and ZHENG Zhiguang began to serve as External Supervisor of the Bank as of 17 May 2019.
- (6) CHEN Siqing ceased to serve as Chairman of the Board of Directors and Executive Director of the Bank as of 28 April 2019. WU Fulin ceased to serve as Executive Director of the Bank as of 27 January 2020. LI Jucai ceased to serve as Non-executive Director of the Bank as of 25 June 2019. LIAO Qiang ceased to serve as Non-executive Director of the Bank as of 5 March 2020. LU Zhengfei ceased to serve as Independent Director of the Bank as of 1 August 2019. LEUNG Cheuk Yan ceased to serve as Independent Director of the Bank as of 4 September 2019. LIU Wanming ceased to serve as Shareholder Supervisor of the Bank as of 18 May 2019. CHEN Yuhua ceased to serve as External Supervisor of the Bank as of 17 May 2019.

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 2019 and 2018 respectively are as follows:

	Year ended 31 December	
	2019	2018
Basic salaries and allowances	24	23
Discretionary bonuses	124	105
Contributions to pension schemes and other	4	4
	152	132

Emoluments of the individuals were within the following bands:

Amounts in RMB	Year ended 31 December	
	2019	2018
16,000,001–20,000,000	–	1
20,000,001–50,000,000	4	4
50,000,001–70,000,000	1	–

V NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)**8 Directors', supervisors' and senior management's emoluments (Continued)*****Five highest paid individuals (Continued)***

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 2019 and 2018, 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	
	2019	2018
Loans and advances		
— Loans and advances at amortised cost	98,483	108,669
— Loans and advances at fair value through other comprehensive income	288	(764)
Subtotal	98,771	107,905
Financial investments		
— Financial assets at amortised cost	(187)	1,132
— Financial assets at fair value through other comprehensive income	387	(46)
Subtotal	200	1,086
Credit commitments	2,117	(10,194)
Other	883	346
Subtotal of impairment losses on credit	101,971	99,143
Other impairment losses on assets	182	151
Total	102,153	99,294

V NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)**10 Income tax expense**

	Year ended 31 December	
	2019	2018
Current income tax		
— Chinese mainland income tax	43,643	20,726
— Hong Kong profits tax	5,297	5,036
— Macao, Taiwan and other countries and regions taxation	4,768	5,917
Adjustments in respect of current income tax of prior years	3,870	(9,255)
Subtotal	57,578	22,424
Deferred income tax (Note V.35.3)	(8,824)	14,784
Total	48,754	37,208

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

The 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 (Note III.5).

Taxation on profits of Hong Kong, Macao, Taiwan 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 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	
	2019	2018
Profit before income tax	250,645	229,643
Tax calculated at the applicable statutory tax rate	62,661	57,411
Effect of different tax rates for Hong Kong, Macao, Taiwan and other countries and regions	(5,282)	(4,712)
Supplementary PRC tax on overseas income	2,251	1,347
Income not subject to tax ⁽¹⁾	(27,846)	(23,934)
Items not deductible for tax purposes ⁽²⁾	13,442	10,977
Other	3,528	(3,881)
Income tax expense	48,754	37,208

(1) Income not subject to tax is mainly comprised of interest income from PRC Treasury bonds and local government bonds, and the tax-free income recognised by the overseas entities in accordance with the 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 reporting period.

Diluted earnings per share was computed by dividing the adjusted profit attributable to the ordinary shareholders of the Bank based on assuming the conversion of all potentially dilutive shares for the reporting 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 2019 and 2018.

	Year ended 31 December	
	2019	2018
Profit attributable to equity holders of the Bank	187,405	180,086
Less: dividends on preference shares declared	(6,826)	(6,791)
Profit attributable to ordinary shareholders of the Bank	180,579	173,295
Weighted average number of ordinary shares in issue (in million shares)	294,378	294,373
Basic and diluted earnings per share (in RMB)	0.61	0.59

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

	Year ended 31 December	
	2019	2018
Issued ordinary shares as at 1 January	294,388	294,388
Less: weighted average number of treasury shares	(10)	(15)
Weighted average number of ordinary shares in issue	294,378	294,373

V NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)**12 Other comprehensive income**

Accrual amount of other comprehensive income:

	Year ended 31 December	
	2019	2018
Items that will not be reclassified to profit or loss		
Actuarial gains/(losses) on defined benefit plans	13	(103)
Changes in fair value on investments in equity instruments designated at fair value through other comprehensive income	2,790	(1,391)
Less: related income tax impact	(644)	175
Other	(69)	(52)
Subtotal	2,090	(1,371)
Items that may be reclassified subsequently to profit or loss		
Changes in fair value on investments in debt instruments measured at fair value through other comprehensive income	17,694	28,821
Less: related income tax impact	(3,795)	(5,684)
Amount transferred to the income statement	(2,535)	(1,410)
Less: related income tax impact	555	345
	11,919	22,072
Allowance for credit losses on investments in debt instruments measured at fair value through other comprehensive income	682	(804)
Less: related income tax impact	(167)	204
	515	(600)
Share of other comprehensive income of associates and joint ventures accounted for using the equity method	(587)	127
Less: related income tax impact	147	(68)
	(440)	59
Exchange differences on translation of foreign operations	7,764	12,381
Less: net amount transferred to the income statement from other comprehensive income	(675)	394
	7,089	12,775
Other	602	197
Subtotal	19,685	34,503
Total	21,775	33,132

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:

	(Losses)/gains on financial assets at fair value through other comprehensive income	Exchange differences on translation of foreign operations	Other	Total
As at 1 January 2018	(11,692)	(19,684)	2,922	(28,454)
Changes in amount for the previous year	21,087	8,725	59	29,871
As at 1 January 2019	9,395	(10,959)	2,981	1,417
Changes in amount for the year	13,139	4,787	270	18,196
As at 31 December 2019	22,534	(6,172)	3,251	19,613

13 Cash and due from banks and other financial institutions

	As at 31 December	
	2019	2018
Cash	64,907	76,755
Due from banks in Chinese mainland	361,232	270,861
Due from other financial institutions in Chinese mainland	8,043	13,767
Due from banks in Hong Kong, Macao, Taiwan and other countries and regions	128,312	75,998
Due from other financial institutions in Hong Kong, Macao, Taiwan and other countries and regions	461	278
Subtotal ⁽¹⁾	498,048	360,904
Accrued interest	3,060	2,698
Less: allowance for impairment losses ⁽¹⁾	(548)	(426)
Subtotal due from banks and other financial institutions	500,560	363,176
Total	565,467	439,931

- (1) As at 31 December 2019 and 2018, the Group included all due from banks and other financial institutions in Stage 1, and measured the impairment losses based on expected credit losses in the next 12 months (12-month ECL).

V NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)**14 Balances with central banks**

	As at 31 December	
	2019	2018
Mandatory reserves ⁽¹⁾	1,498,666	1,575,873
Surplus reserves ⁽²⁾	132,247	82,598
Other ⁽³⁾	447,048	671,249
Subtotal	2,077,961	2,329,720
Accrued interest	848	1,333
Total	2,078,809	2,331,053

- (1) The Group places mandatory reserve funds with the People's Bank of China (the "PBOC") and the central banks of Hong Kong, Macao, Taiwan and other countries and regions where it has operations. As at 31 December 2019, mandatory reserve funds placed with the PBOC were calculated at 12.5% (31 December 2018: 14.0%) and 5.0% (31 December 2018: 5.0%) of qualified RMB deposits and foreign currency deposits from customers of branches 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) This primarily represented the surplus reserve funds placed with the PBOC by branches in Chinese mainland and other funds.
- (3) This mainly represented balances other than mandatory reserves and surplus reserves placed with the PBOC and the central banks in Hong Kong, Macao, Taiwan and other countries and regions.

15 Placements with and loans to banks and other financial institutions

	As at 31 December	
	2019	2018
Placements with and loans to:		
Banks in Chinese mainland	134,671	172,366
Other financial institutions in Chinese mainland	601,525	771,007
Banks in Hong Kong, Macao, Taiwan and other countries and regions	139,744	83,223
Other financial institutions in Hong Kong, Macao, Taiwan and other countries and regions	19,667	11,723
Subtotal ⁽¹⁾⁽²⁾	895,607	1,038,319
Accrued interest	4,090	4,404
Less: allowance for impairment losses ⁽²⁾	(738)	(365)
Total	898,959	1,042,358

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

	As at 31 December	
	2019	2018
Debt securities		
— Governments	37,435	52,716
— Policy banks	93,364	190,646
— Financial institutions	23,588	16,498
— Corporates	—	737
Subtotal	154,387	260,597
Less: allowance for impairment losses	—	—
Total	154,387	260,597

- (2) As at 31 December 2019 and 2018, the Group included the predominant majority of its placements with and loans to banks and other financial institutions in Stage 1, and measured the impairment losses based on expected credit losses in the next 12 months (12-month ECL).

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 on behalf of customers.

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 2019			As at 31 December 2018		
	Contractual/ Notional amount	Fair value		Contractual/ Notional amount	Fair value	
		Assets	Liabilities		Assets	Liabilities
Exchange rate derivatives						
Currency forwards and swaps, and cross-currency interest rate swaps ⁽¹⁾	6,469,750	65,477	(52,598)	8,245,972	97,603	(73,652)
Currency options	333,559	1,835	(2,019)	220,694	2,210	(1,829)
Currency futures	1,894	10	(6)	1,718	4	(11)
Subtotal	6,805,203	67,322	(54,623)	8,468,384	99,817	(75,492)
Interest rate derivatives						
Interest rate swaps	3,454,898	18,252	(23,188)	2,443,952	19,637	(18,012)
Interest rate options	17,729	31	(29)	24,342	42	(44)
Interest rate futures	2,400	3	(27)	17,970	1	(39)
Subtotal	3,475,027	18,286	(23,244)	2,486,264	19,680	(18,095)
Equity derivatives	9,219	137	(184)	7,276	237	(208)
Commodity derivatives and other	347,655	7,590	(12,009)	247,867	4,392	(5,459)
Total ⁽²⁾	10,637,104	93,335	(90,060)	11,209,791	124,126	(99,254)

(1) These exchange rate derivatives primarily include foreign exchange transactions with customers; foreign exchange transactions to manage foreign currency exchange risks arising from customers; and foreign currency exchange transactions entered into as part of the asset and liability management and funding requirements.

(2) 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 bonds issued and financial investments 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			Line item in the statement of financial position
	Contractual/ Notional amount	Fair value		
		Assets	Liabilities	
As at 31 December 2019				
Interest rate risk				Derivative financial assets/liabilities
Interest rate swaps	113,883	372	(2,366)	
Foreign exchange and interest rate risk				Derivative financial liabilities
Cross-currency interest rate swaps	4,351	–	(711)	
Total	118,234	372	(3,077)	
As at 31 December 2018				
Interest rate risk				Derivative financial assets/liabilities
Interest rate swaps	117,618	1,788	(624)	
Foreign exchange and interest rate risk				Derivative financial liabilities
Cross-currency interest rate swaps	4,280	–	(660)	
Total	121,898	1,788	(1,284)	

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 2019						
Interest rate risk						
Interest rate swaps						
Notional amount	760	2,806	11,014	63,807	35,496	113,883
Average fixed interest rate	2.89%	3.12%	2.29%	3.05%	3.17%	N/A
Foreign exchange and interest rate risk						
Cross-currency interest rate swaps						
Notional amount	1,309	–	1,062	1,980	–	4,351
Average fixed interest rate	5.38%	–	4.50%	5.28%	–	N/A
Average exchange rate of USD/CNY	–	–	6.5717	6.1217	–	N/A
Average exchange rate of AUD/USD	0.9381	–	–	0.9294	–	N/A
As at 31 December 2018						
Interest rate risk						
Interest rate swaps						
Notional amount	206	2,127	11,529	71,852	31,904	117,618
Average fixed interest rate	2.95%	2.10%	3.34%	2.86%	3.23%	N/A
Foreign exchange and interest rate risk						
Cross-currency interest rate swaps						
Notional amount	–	–	–	3,939	341	4,280
Average fixed interest rate	–	–	–	5.09%	5.50%	N/A
Average exchange rate of USD/CNY	–	–	–	6.4848	6.0350	N/A
Average exchange rate of AUD/USD	–	–	–	0.9337	–	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				Line item in the statement of financial position
	Carrying amount of hedged items		Accumulated amount of fair value adjustments on the hedged items		
	Assets	Liabilities	Assets	Liabilities	
As at 31 December 2019					
Interest rate risk					
Bonds issued	–	(11,962)	–	(75)	Bonds issued
Financial investments	105,905	–	2,520	–	Financial investments
Foreign exchange and interest rate risk					
Bonds issued	–	(3,640)	–	711	Bonds issued
Total	105,905	(15,602)	2,520	636	
As at 31 December 2018					
Interest rate risk					
Bonds issued	–	(15,638)	–	174	Bonds issued
Financial investments	101,287	–	(1,956)	–	Financial investments
Foreign exchange and interest rate risk					
Bonds issued	–	(3,621)	–	660	Bonds issued
Total	101,287	(19,259)	(1,956)	834	

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

	Year ended 31 December	
	2019	2018
Net gains on		
— hedging instruments	(3,097)	192
— hedged items	3,291	115
Ineffectiveness recognised in net trading gains	194	307

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 in the year ended 31 December 2019 (2018: 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 2019, the carrying value of such due to customers amounted to RMB104,419 million (31 December 2018: RMB55,034 million) and due to central banks amounted to RMB1,407 million (31 December 2018: Nil).

- (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			Line item in the statement of financial position
	Contractual/ Notional amount	Fair value		
		Assets	Liabilities	
As at 31 December 2019				
Foreign exchange forward and swap contracts	41,128	29	(308)	Derivative financial assets/liabilities
Total	41,128	29	(308)	
As at 31 December 2018				
Foreign exchange forward and swap contracts	2,157	–	(68)	Derivative financial liabilities
Total	2,157	–	(68)	

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					Total
	Less than 1 month	Between 1 and 3 months	Between 3 and 12 months	Between 1 and 5 years	Over 5 years	
As at 31 December 2019						
Foreign exchange risk						
Foreign exchange forward and swap contracts						
Notional amount	–	1,246	39,882	–	–	41,128
Average exchange rate of USD/HKD	–	–	7.8355	–	–	N/A
Average exchange rate of USD/ZAR	–	15.0995	15.2113	–	–	N/A
Average exchange rate of USD/INR	–	–	73.2963	–	–	N/A
Average exchange rate of USD/MXN	–	–	20.1698	–	–	N/A
Average exchange rate of NZD/USD	–	0.6909	–	–	–	N/A
Average exchange rate of USD/CLP	–	–	723.0169	–	–	N/A
Average exchange rate of USD/SGD	–	–	1.3597	–	–	N/A
As at 31 December 2018						
Foreign exchange risk						
Foreign exchange forward and swap contracts						
Notional amount	–	–	2,157	–	–	2,157
Average exchange rate of USD/ZAR	–	–	15.8892	–	–	N/A
Average exchange rate of USD/TRY	–	–	5.9104	–	–	N/A

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 or losses from the hedging instruments recognised in "Other comprehensive income" on net investment hedges are as follows:

	Year ended 31 December	
	2019	2018
Amounts of fair value changes on hedging instruments recognised in "Other comprehensive income"	(849)	(475)
Amounts of forward element reclassified from "Other comprehensive income" to profit or loss	172	16
Net amounts of fair value changes on hedging instruments recognised in "Other comprehensive income"	(677)	(459)

17 Loans and advances to customers**17.1 Analysis of loans and advances to customers by general condition**

	As at 31 December	
	2019	2018
Measured at amortised cost		
— Corporate loans and advances	7,644,359	7,117,954
— Personal loans	5,047,809	4,440,085
— Discounted bills	2,334	2,001
Measured at fair value through other comprehensive income ⁽¹⁾		
— Discounted bills	335,583	224,113
Subtotal	13,030,085	11,784,153
Measured at fair value through profit or loss ⁽²⁾		
— Corporate loans and advances	4,104	3,530
Total	13,034,189	11,787,683
Accrued interest	34,596	31,589
Total loans and advances	13,068,785	11,819,272
Less: allowance for loans at amortised cost	(325,360)	(303,508)
Loans and advances to customers, net	12,743,425	11,515,764

(1) As at 31 December 2019, loans at fair value through other comprehensive income of the Group were discounted bills. The allowance for impairment losses amounted to RMB563 million (31 December 2018: RMB273 million) and was credited to other comprehensive income.

(2) There was no significant change during the years ended 31 December 2019 and 2018, or cumulatively, in the fair value of the loans that was attributable to changes in the credit risk of the loans.

V NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)**17 Loans and advances to customers (Continued)**

17.2 Analysis of loans and advances to customers (accrued interest excluded) by geographical area, industry, collateral type and analysis of impaired and overdue loans and advances to customers is presented in Note VI.3.5.

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 2019			
	12-month ECL	Lifetime ECL		Total
	Stage 1	Stage 2	Stage 3	
As at 1 January	95,789	76,603	131,116	303,508
Transfers to Stage 1	5,590	(5,037)	(553)	–
Transfers to Stage 2	(717)	4,411	(3,694)	–
Transfers to Stage 3	(989)	(21,029)	22,018	–
Charge for the year ⁽ⁱ⁾	52,623	40,603	38,420	131,646
Reversal	(37,580)	(25,687)	(14,631)	(77,898)
Impairment (reversal)/losses due to stage transformation	(4,917)	8,664	40,988	44,735
Write-off and transfer out	(269)	–	(84,735)	(85,004)
Recovery of loans and advances written off	–	–	8,407	8,407
Unwinding of discount on allowance	–	–	(1,497)	(1,497)
Exchange differences and other	235	523	705	1,463
As at 31 December	109,765	79,051	136,544	325,360

	Year ended 31 December 2018			
	12-month ECL	Lifetime ECL		Total
	Stage 1	Stage 2	Stage 3	
As at 1 January	87,094	76,050	117,419	280,563
Transfers to Stage 1	10,301	(9,636)	(665)	–
Transfers to Stage 2	(1,481)	1,929	(448)	–
Transfers to Stage 3	(350)	(25,985)	26,335	–
Charge for the year ⁽ⁱ⁾	48,437	38,720	45,365	132,522
Reversal	(39,519)	(20,181)	(13,102)	(72,802)
Impairment (reversal)/losses due to stage transformation	(9,674)	17,487	41,136	48,949
Write-off and transfer out	(192)	(1,969)	(89,497)	(91,658)
Recovery of loans and advances written off	–	–	5,413	5,413
Unwinding of discount on allowance	–	–	(1,652)	(1,652)
Acquisition of subsidiaries	359	29	296	684
Exchange differences and other	814	159	516	1,489
As at 31 December	95,789	76,603	131,116	303,508

(i) Charge for the year comprises the impairment losses from new loans, remaining loans without stage transformation, model/risk parameters adjustment, etc.

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 2019			
	12-month ECL	Lifetime ECL		Total
	Stage 1	Stage 2	Stage 3	
As at 1 January	234	39	–	273
Charge for the year	503	16	–	519
Reversal	(192)	(39)	–	(231)
Exchange differences and other	2	–	–	2
As at 31 December	547	16	–	563

	Year ended 31 December 2018			
	12-month ECL	Lifetime ECL		Total
	Stage 1	Stage 2	Stage 3	
As at 1 January	829	204	–	1,033
Charge for the year	255	39	–	294
Reversal	(854)	(204)	–	(1,058)
Exchange differences and other	4	–	–	4
As at 31 December	234	39	–	273

In 2019, the changes in gross carrying amounts of loans and advances to customers that have a significant impact on the Group's impairment allowance 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 gross carrying amount of RMB69,820 million (2018: RMB139,844 million) was transferred from Stage 1 to Stage 2 and Stage 3, and the impairment allowance increased correspondingly by RMB21,963 million (2018: RMB32,041 million). The gross carrying amount of loans transferred from Stage 2 to Stage 3 was RMB59,760 million (2018: RMB65,455 million), with a corresponding increase in impairment allowance of RMB22,340 million (2018: RMB21,567 million). The gross carrying amount of the loans transferred from Stage 2 to Stage 1 was RMB45,059 million (2018: RMB47,963 million), and the impairment allowance decreased correspondingly by RMB3,273 million (2018: RMB8,803 million). The gross carrying amount of loans transferred from Stage 3 to Stage 2 and Stage 1 was RMB5,857 million, and the impairment allowance decreased correspondingly by RMB1,677 million (2018: not significant).
- The write-off and disposal of the non-performing loans by the domestic branches amounted to RMB78,404 million (2018: RMB92,527 million), resulting in a corresponding reduction of RMB69,468 million (2018: RMB79,258 million) in impairment allowance for Stage 3 loans.
- The domestic branches converted RMB12,813 million (2018: RMB17,239 million) of loans into equity through debt-to-equity swaps and other instruments, resulting in a decrease of RMB10,193 million in impairment allowance for Stage 3 loans (2018: the impairment allowance for Stage 2 and Stage 3 decreased by RMB1,969 million and RMB4,927 million respectively).
- Through personal housing loan securitization, the domestic branches transferred out RMB50,871 million (2018: RMB37,949 million) of loans, resulting in a decrease of RMB269 million (2018: RMB192 million) and RMB354 million (2018: Nil) 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	
	2019	2018
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	16,807	10,495
— Public sectors and quasi-governments	595	647
— Policy banks	40,005	33,708
— Financial institutions	169,477	113,103
— Corporate	44,629	50,646
Issuers in Hong Kong, Macao, Taiwan and other countries and regions		
— Governments	23,416	20,595
— Public sectors and quasi-governments	177	23
— Financial institutions	16,617	14,575
— Corporate	10,721	5,085
	322,444	248,877
Equity instruments	79,456	47,061
Fund investments and other	67,562	49,983
Total financial assets held for trading and other financial assets at fair value through profit or loss	469,462	345,921
Financial assets at fair value through profit or loss (designated)		
Debt securities ⁽¹⁾		
Issuers in Chinese mainland		
— Government	8,797	1,756
— Policy banks	2,418	1,083
— Financial institutions	9,592	3,472
— Corporate	1,329	966
Issuers in Hong Kong, Macao, Taiwan and other countries and regions		
— Governments	9,712	2,916
— Public sectors and quasi-governments	1,603	1,494
— Financial institutions	7,159	7,977
— Corporate	8,178	4,906
Total financial assets at fair value through profit or loss (designated)	48,788	24,570
Total financial assets at fair value through profit or loss	518,250	370,491

V NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)**18 Financial investments (Continued)**

	As at 31 December	
	2019	2018
Financial assets at fair value through other comprehensive income		
Debt securities		
Issuers in Chinese mainland		
— Government	676,685	570,820
— Public sectors and quasi-governments	71,172	41,294
— Policy banks	299,599	262,597
— Financial institutions	315,779	348,300
— Corporate	153,617	120,344
Issuers in Hong Kong, Macao, Taiwan and other countries and regions		
— Governments	412,194	265,923
— Public sectors and quasi-governments	51,252	37,737
— Financial institutions	106,951	120,185
— Corporate	109,103	95,032
	2,196,352	1,862,232
Equity instruments and other	21,777	17,527
Total financial assets at fair value through other comprehensive income ⁽²⁾	2,218,129	1,879,759
Financial assets at amortised cost		
Debt securities		
Issuers in Chinese mainland		
— Government ⁽³⁾⁽⁴⁾	2,168,725	2,079,661
— Public sectors and quasi-governments	39,425	43,610
— Policy banks	100,638	194,255
— Financial institutions	30,637	34,781
— Corporate	15,677	22,539
— China Orient ⁽⁵⁾	152,433	153,627
Issuers in Hong Kong, Macao, Taiwan and other countries and regions		
— Governments	80,472	78,075
— Public sectors and quasi-governments	66,356	69,650
— Financial institutions	31,937	33,991
— Corporate	47,588	49,299
	2,733,888	2,759,488
Investment trusts, asset management plans and other	13,544	14,757
Accrued interest	37,037	37,810
Less: allowance for impairment losses	(6,786)	(7,754)
Total financial assets at amortised cost	2,777,683	2,804,301
Total financial investments⁽⁶⁾⁽⁷⁾⁽⁸⁾⁽⁹⁾	5,514,062	5,054,551

V NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)**18 Financial investments (Continued)**

	As at 31 December	
	2019	2018
Analysed as follows:		
Financial assets at fair value through profit or loss		
— Listed in Hong Kong	46,731	35,821
— Listed outside Hong Kong ⁽¹⁰⁾	255,171	209,996
— Unlisted	216,348	124,674
Financial assets at fair value through other comprehensive income		
Debt securities		
— Listed in Hong Kong	130,743	129,653
— Listed outside Hong Kong ⁽¹⁰⁾	1,365,202	1,363,984
— Unlisted	700,407	368,595
Equity instruments and other		
— Listed in Hong Kong	7,083	6,233
— Listed outside Hong Kong ⁽¹⁰⁾	3,215	2,018
— Unlisted	11,479	9,276
Financial assets at amortised cost		
— Listed in Hong Kong	31,896	38,550
— Listed outside Hong Kong ⁽¹⁰⁾	2,308,222	2,304,434
— Unlisted	437,565	461,317
Total	5,514,062	5,054,551
Listed in Hong Kong	216,453	210,257
Listed outside Hong Kong ⁽¹⁰⁾	3,931,810	3,880,432
Unlisted	1,365,799	963,862
Total	5,514,062	5,054,551

	As at 31 December			
	2019		2018	
	Carrying value	Market value	Carrying value	Market value
Debt securities at amortised cost				
— Listed in Hong Kong	31,896	32,847	38,550	38,155
— Listed outside Hong Kong ⁽¹⁰⁾	2,308,222	2,670,795	2,304,434	2,318,733

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 exercised its option irrevocably on certain unlisted equity investments, which were classified as financial assets at fair value through other comprehensive income.

The Group's accumulated impairment allowance for the debt securities at fair value through other comprehensive income as at 31 December 2019 amounted to RMB1,254 million (31 December 2018: RMB862 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 2019 amounted to RMB2,477 million (31 December 2018: RMB2,358 million).
- (5) The Bank transferred certain non-performing assets to China Orient Asset Management Corporation ("China Orient") in 1999 and 2000. On 1 July 2000, China Orient issued a ten-year bond ("Orient Bond") with a par value of RMB160,000 million and interest rate of 2.25% to the Bank as consideration. During the year ended 31 December 2010, the maturity of this bond was extended to 30 June 2020. The MOF shall continue to provide funding support for the principal and interest of the Orient Bond held by the Bank pursuant to Caijin [2004] No. 87 *Notice of the MOF Regarding Relevant Issues Relating to the Principal and Interest of Debt Securities of Financial Asset Management Companies Held by Bank of China and China Construction Bank*. As at 31 December 2019, the Bank had received early repayments amounting to RMB7,567 million cumulatively. Pursuant to the requirements of the MOF, as of 1 January 2020, the annual yield of this bond will be determined based on the average yield of the five-year Government Bond calculated for the previous year.
- (6) In 2019 and 2018, the Group did not reclassify any of its debt securities subsequent to their initial recognition.
- (7) As at 31 December 2019, 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	
	2019	2018
Carrying value (accrued interest excluded)	981,662	981,414
Coupon rate range	0.00%–5.31%	0.00%–5.31%

- (8) Included in the Group's financial investments were certificates of deposit held amounting to RMB243,816 million as at 31 December 2019 (31 December 2018: RMB280,924 million).
- (9) As at 31 December 2019, RMB1,140 million of debt securities of the Group was determined to be impaired and was included in Stage 3 (31 December 2018: RMB1,123 million), with an impairment allowance of RMB1,140 million (31 December 2018: RMB1,123 million); RMB479 million of debt securities was included in Stage 2 (31 December 2018: RMB1,755 million), with an impairment allowance of RMB5 million (31 December 2018: RMB4 million); and the remaining debt securities at fair value through other comprehensive income and debt securities at amortised cost were included in Stage 1, with impairment allowance measured based on 12-month expected credit losses.
- (10) Debt securities traded in the domestic interbank bond market are included in "Listed outside Hong Kong".

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 2019			
	12-month ECL	Lifetime ECL		Total
	Stage 1	Stage 2	Stage 3	
As at 1 January	328	3	7,423	7,754
Impairment losses/(reversal) during the year	53	(2)	(238)	(187)
Write-off and transfer out	–	–	(800)	(800)
Exchange differences and other	2	–	17	19
As at 31 December	383	1	6,402	6,786

	Year ended 31 December 2018			
	12-month ECL	Lifetime ECL		Total
	Stage 1	Stage 2	Stage 3	
As at 1 January	428	4	6,127	6,559
Impairment (reversal)/losses during the year	(150)	(2)	1,284	1,132
Write-off and transfer out	–	–	(41)	(41)
Exchange differences and other	50	1	53	104
As at 31 December	328	3	7,423	7,754

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

	Year ended 31 December 2019			
	12-month ECL	Lifetime ECL		Total
	Stage 1	Stage 2	Stage 3	
As at 1 January	861	1	–	862
Impairment losses during the year	384	3	–	387
Exchange differences and other	5	–	–	5
As at 31 December	1,250	4	–	1,254

	Year ended 31 December 2018			
	12-month ECL	Lifetime ECL		Total
	Stage 1	Stage 2	Stage 3	
As at 1 January	906	–	–	906
Impairment (reversal)/losses during the year	(47)	1	–	(46)
Exchange differences and other	2	–	–	2
As at 31 December	861	1	–	862

V NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)**19 Investment in associates and joint ventures**

	Year ended 31 December	
	2019	2018
As at 1 January	23,369	17,180
Additions	2,011	8,820
Disposals	(1,368)	(5,152)
Share of results, net of tax	1,057	2,110
Dividends received	(1,302)	(227)
Exchange differences and other	(557)	638
As at 31 December	23,210	23,369

The carrying amounts of major investments in associates and joint ventures of the Group are as follows. Further details are disclosed in Note V.43.4.

	As at 31 December	
	2019	2018
BOC International (China) Co., Ltd.	4,733	4,553
Ying Kou Port Group CORP.	4,479	4,549
CGN Phase I Private Equity Fund Company Limited	1,569	1,504
Graceful Field Worldwide Limited	1,438	1,374
Sichuan Lutianhua Co., Ltd.	1,264	1,227
Zhongxinboda (Wuhu) Investment Limited Partnership	1,100	1,710
Wkland Investments II Limited	923	876
Livi VB Limited	907	N/A
Wuhu Yuanzhong Jiaying Investment Limited Partnership	819	697
Guangdong Small and Medium Enterprises Equity Investment Fund Company Limited	745	768
Other	5,233	6,111
Total	23,210	23,369

As at 31 December 2019, the ability of associates and joint ventures to transfer funds to the Group is not restricted.

V NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)**20 Property and equipment**

	Year ended 31 December 2019				
	Buildings	Equipment and motor vehicles	Construction in progress	Aircraft	Total
Cost					
As at 31 December of prior year	117,948	74,319	30,233	115,153	337,653
Additions	340	6,921	15,977	15,177	38,415
Transfer from/(to) investment properties (Note V.21)	356	–	(11)	–	345
Construction in progress transfer in/(out)	2,238	816	(11,208)	8,154	–
Deductions	(2,388)	(4,639)	(2,467)	(8,746)	(18,240)
Exchange differences	583	239	381	2,083	3,286
As at 31 December	119,077	77,656	32,905	131,821	361,459
Accumulated depreciation					
As at 31 December of prior year	(38,041)	(58,752)	–	(12,437)	(109,230)
Additions	(3,999)	(6,272)	–	(4,180)	(14,451)
Deductions	1,755	4,443	–	2,131	8,329
Transfer to investment properties (Note V.21)	9	–	–	–	9
Exchange differences	(125)	(177)	–	(276)	(578)
As at 31 December	(40,401)	(60,758)	–	(14,762)	(115,921)
Allowance for impairment losses					
As at 31 December of prior year	(770)	–	(217)	(42)	(1,029)
Additions	(7)	–	(10)	–	(17)
Deductions	14	–	–	39	53
Exchange differences	(4)	–	–	(1)	(5)
As at 31 December	(767)	–	(227)	(4)	(998)
Net book value					
As at 31 December of prior year	79,137	15,567	30,016	102,674	227,394
As at 31 December	77,909	16,898	32,678	117,055	244,540

V NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)**20 Property and equipment (Continued)**

	Year ended 31 December 2018				
	Buildings	Equipment and motor vehicles	Construction in progress	Aircraft	Total
Cost					
As at 1 January	113,913	72,096	22,522	100,551	309,082
Additions	321	5,715	19,850	11,662	37,548
Transfer from investment properties (Note V.21)	1,665	–	–	–	1,665
Construction in progress transfer in/(out)	1,928	807	(11,960)	9,225	–
Deductions	(834)	(4,712)	(816)	(11,181)	(17,543)
Exchange differences	955	413	637	4,896	6,901
As at 31 December	117,948	74,319	30,233	115,153	337,653
Accumulated depreciation					
As at 1 January	(34,732)	(56,683)	–	(10,954)	(102,369)
Additions	(3,626)	(6,185)	–	(3,592)	(13,403)
Deductions	567	4,409	–	2,763	7,739
Transfer to investment properties (Note V.21)	47	–	–	–	47
Exchange differences	(297)	(293)	–	(654)	(1,244)
As at 31 December	(38,041)	(58,752)	–	(12,437)	(109,230)
Allowance for impairment losses					
As at 1 January	(789)	–	(217)	(93)	(1,099)
Additions	–	–	–	–	–
Deductions	15	–	–	56	71
Exchange differences	4	–	–	(5)	(1)
As at 31 December	(770)	–	(217)	(42)	(1,029)
Net book value					
As at 1 January	78,392	15,413	22,305	89,504	205,614
As at 31 December	79,137	15,567	30,016	102,674	227,394

As at 31 December 2019, there were no aircraft owned by BOC Aviation Limited, a subsidiary of the Group, which was acquired under finance lease arrangements (31 December 2018: Nil).

As at 31 December 2019, the net book amount of aircraft leased out by BOC Aviation Limited, a subsidiary of the Group, under operating leases was RMB114,659 million (31 December 2018: RMB102,657 million).

V NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)**20 Property and equipment (Continued)**

As at 31 December 2019, the net book amount of aircraft owned by BOC Aviation Limited, a subsidiary of the Group, that has been pledged for loan facilities was RMB20,338 million (31 December 2018: RMB22,364 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 2019, 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.

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

	As at 31 December	
	2019	2018
Held in Hong Kong		
on long-term lease (over 50 years)	3,694	3,464
on medium-term lease (10–50 years)	8,521	8,525
on short-term lease (less than 10 years)	10	–
Subtotal	12,225	11,989
Held outside Hong Kong		
on long-term lease (over 50 years)	4,353	4,198
on medium-term lease (10–50 years)	54,641	57,087
on short-term lease (less than 10 years)	6,690	5,863
Subtotal	65,684	67,148
Total	77,909	79,137

21 Investment properties

	Year ended 31 December	
	2019	2018
As at 1 January	22,086	21,026
Additions	468	1,094
Transfer to property and equipment, net (Note V.20)	(354)	(1,712)
Deductions	(11)	(61)
Fair value changes (Note V.5)	496	919
Exchange differences	423	820
As at 31 December	23,108	22,086

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.

V NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)**21 Investment properties (Continued)**

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 2019 amounted to RMB14,059 million and RMB6,666 million, respectively (31 December 2018: RMB13,371 million and RMB6,668 million). The valuations of these investment properties as at 31 December 2019 were principally performed by Knight Frank Petty Limited based on the open market price and other related information.

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

	As at 31 December	
	2019	2018
Held in Hong Kong		
on long-term lease (over 50 years)	3,273	2,966
on medium-term lease (10–50 years)	10,556	10,185
Subtotal	13,829	13,151
Held outside Hong Kong		
on long-term lease (over 50 years)	4,002	4,136
on medium-term lease (10–50 years)	5,002	4,467
on short-term lease (less than 10 years)	275	332
Subtotal	9,279	8,935
Total	23,108	22,086

22 Other assets

	As at 31 December	
	2019	2018
Accounts receivable and prepayments ⁽¹⁾	107,124	82,521
Right-of-use assets ⁽²⁾	22,822	N/A
Intangible assets ⁽³⁾	13,352	12,467
Land use rights ⁽⁴⁾	6,903	6,985
Long-term deferred expense	3,222	3,306
Reposessed assets ⁽⁵⁾	2,400	2,318
Goodwill ⁽⁶⁾	2,686	2,620
Interest receivable	1,878	1,422
Other	18,737	10,587
Total	179,124	122,226

V NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)**22 Other assets (Continued)**

(1) Accounts receivable and prepayments

	As at 31 December	
	2019	2018
Accounts receivable and prepayments	111,395	86,627
Impairment allowance	(4,271)	(4,106)
Net value	107,124	82,521

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			
	2019		2018	
	Balance	Impairment allowance	Balance	Impairment allowance
Within 1 year	101,442	(491)	78,494	(371)
From 1 year to 3 years	5,895	(900)	3,358	(1,029)
Over 3 years	4,058	(2,880)	4,775	(2,706)
Total	111,395	(4,271)	86,627	(4,106)

(2) Right-of-use assets

	Year ended 31 December 2019		
	Buildings	Motor vehicles and other	Total
Cost			
As at 1 January	22,652	120	22,772
Additions	7,341	38	7,379
Deductions	(624)	(3)	(627)
Exchange differences	131	1	132
As at 31 December	29,500	156	29,656
Accumulated depreciation			
As at 1 January	(209)	–	(209)
Additions	(6,632)	(53)	(6,685)
Deductions	81	–	81
Exchange differences	(21)	–	(21)
As at 31 December	(6,781)	(53)	(6,834)
Net book value			
As at 1 January	22,443	120	22,563
As at 31 December	22,719	103	22,822

V NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)**22 Other assets (Continued)**

(3) Intangible assets

	Year ended 31 December	
	2019	2018
Cost		
As at 1 January	22,946	19,995
Additions	3,712	2,992
Deductions	(120)	(97)
Exchange differences	35	56
As at 31 December	26,573	22,946
Accumulated amortisation		
As at 1 January	(10,479)	(8,390)
Additions	(2,775)	(2,078)
Deductions	60	34
Exchange differences	(27)	(45)
As at 31 December	(13,221)	(10,479)
Net book value		
As at 1 January	12,467	11,605
As at 31 December	13,352	12,467

(4) Land use rights

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

	As at 31 December	
	2019	2018
Held outside Hong Kong		
on long-term lease (over 50 years)	83	94
on medium-term lease (10–50 years)	6,093	6,058
on short-term lease (less than 10 years)	727	833
Total	6,903	6,985

V NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)

22 Other assets (Continued)

(5) Repossessed assets

The Group obtained repossessed assets by taking possession of collateral held as security due to default. Such repossessed assets are as follows:

	As at 31 December	
	2019	2018
Commercial properties	2,596	2,391
Residential properties	615	606
Other	159	158
Subtotal	3,370	3,155
Less: allowance for impairment losses	(970)	(837)
Repossessed assets, net	2,400	2,318

The total book value of repossessed assets disposed of during the year ended 31 December 2019 amounted to RMB276 million (2018: RMB348 million). The Group plans to dispose of the repossessed assets held at 31 December 2019 by auction, bidding or transfer.

(6) Goodwill

	Year ended 31 December	
	2019	2018
As at 1 January	2,620	2,481
Addition through acquisition of subsidiaries	27	44
Exchange differences	39	95
As at 31 December	2,686	2,620

The goodwill mainly arose from the acquisition of BOC Aviation Limited in 2006 amounting to USD241 million (equivalent to RMB1,681 million).

V NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)**23 Impairment allowance**

	As at 1 January 2019	Additions/ (reversal), net	Write-off and transfer out	Exchange differences and other	As at 31 December 2019
Impairment allowance					
Loans and advances to customers					
— at amortised cost	303,508	98,483	(78,094)	1,463	325,360
— at fair value through other comprehensive income	273	288	—	2	563
Financial investments					
— at amortised cost	7,754	(187)	(800)	19	6,786
— at fair value through other comprehensive income	862	387	—	5	1,254
Credit commitments	21,354	2,117	—	126	23,597
Property and equipment	1,029	17	(53)	5	998
Land use rights	10	—	—	—	10
Reposessed assets	837	152	(23)	4	970
Other	5,935	896	(300)	(7)	6,524
Total	341,562	102,153	(79,270)	1,617	366,062

	As at 1 January 2018	Additions/ (reversal), net	Write-off and transfer out	Exchange differences and other	As at 31 December 2018
Impairment allowance					
Loans and advances to customers					
— at amortised cost	280,563	108,669	(87,897)	2,173	303,508
— at fair value through other comprehensive income	1,033	(764)	—	4	273
Financial investments					
— at amortised cost	6,559	1,132	(41)	104	7,754
— at fair value through other comprehensive income	906	(46)	—	2	862
Credit commitments	31,182	(10,194)	—	366	21,354
Property and equipment	1,099	—	(71)	1	1,029
Land use rights	15	—	(5)	—	10
Reposessed assets	657	145	(32)	67	837
Other	6,629	352	(907)	(139)	5,935
Total	328,643	99,294	(88,953)	2,578	341,562

24 Due to banks and other financial institutions

	As at 31 December	
	2019	2018
Due to:		
Banks in Chinese mainland	372,692	434,504
Other financial institutions in Chinese mainland	1,050,961	1,016,374
Banks in Hong Kong, Macao, Taiwan and other countries and regions	167,352	193,535
Other financial institutions in Hong Kong, Macao, Taiwan and other countries and regions	71,913	79,036
Subtotal	1,662,918	1,723,449
Accrued interest	5,128	7,760
Total	1,668,046	1,731,209

V NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)**25 Due to central banks**

	As at 31 December	
	2019	2018
Foreign exchange deposits	218,364	204,758
Other	619,298	692,494
Subtotal	837,662	897,252
Accrued interest	8,615	10,269
Total	846,277	907,521

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 Macao Branch are note issuing banks for Hong Kong Dollar and Macao Pataca notes in Hong Kong and Macao, respectively. Under local regulations, these two entities are required to place deposits with the Hong Kong and Macao 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 Macao Branch.

27 Placements from banks and other financial institutions

	As at 31 December	
	2019	2018
Placements from:		
Banks in Chinese mainland	339,802	268,435
Other financial institutions in Chinese mainland	52,278	29,495
Banks in Hong Kong, Macao, Taiwan and other countries and regions	229,337	307,531
Other financial institutions in Hong Kong, Macao, Taiwan and other countries and regions	16,434	4,999
Subtotal	637,851	610,460
Accrued interest	1,824	1,807
Total ⁽¹⁾⁽²⁾	639,675	612,267

(1) In order to eliminate or significantly reduce an accounting mismatch, certain placements from banks and other financial institutions were designated as financial liabilities at FVPL by the Group in 2019. The corresponding total carrying amount of the above-mentioned financial liabilities was RMB14,767 million as at 31 December 2019 (31 December 2018: RMB876 million), of which the fair value was approximately the same as the amount that the Group would be contractually required to pay to the holders.

(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	
	2019	2018
Repurchase debt securities ⁽ⁱ⁾	177,410	285,018

(i) Debt securities used as collateral under repurchase agreements were principally government bonds and were included in the amount disclosed under Note V.41.2.

V NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)**28 Financial liabilities held for trading**

As at 31 December 2019 and 2018, financial liabilities held for trading mainly included short position in debt securities.

29 Due to customers

	As at 31 December	
	2019	2018
Demand deposits		
— Corporate deposits	4,434,051	4,178,962
— Personal deposits	3,147,889	2,935,661
Subtotal	7,581,940	7,114,623
Time deposits		
— Corporate deposits	3,619,512	3,507,071
— Personal deposits	3,416,862	3,148,265
Subtotal	7,036,374	6,655,336
Structured deposits ⁽¹⁾		
— Corporate deposits	247,906	246,380
— Personal deposits	424,897	338,544
Subtotal	672,803	584,924
Certificates of deposit	283,193	287,808
Other deposits ⁽²⁾	75,063	73,751
Subtotal due to customers	15,649,373	14,716,442
Accrued interest	168,175	167,154
Total due to customers ⁽³⁾	15,817,548	14,883,596

(1) According to risk management policy, in order to match derivatives and reduce market risk, the Group designates some structured deposits as financial liabilities at fair value through profit or loss in the current period. As at 31 December 2019, the carrying amount of the above-mentioned financial liabilities is RMB17,969 million (31 December 2018: RMB24,141 million). At the financial reporting date, the fair value of the above-mentioned financial liabilities was approximately the same as the amount that the Group would be contractually required to pay to the holders. In the years of 2019 and 2018, there is no significant change in the Group's own credit risk for the above structured deposits, therefore, the amount of change in fair value due to the change in the Group's own credit risk is not significant.

(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 2019, the remaining maturity of special purpose funding ranges from 76 days to 34 years. The interest-bearing special purpose funding bears interest at floating and fixed rates ranging from 0.15% to 7.92% (31 December 2018: 0.15% to 7.92%). These terms are consistent with the related development loans granted to customers.

(3) Due to customers included margin deposits for security received by the Group as at 31 December 2019 of RMB290,076 million (31 December 2018: RMB304,388 million).

V NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)**30 Bonds issued**

	Issue date	Maturity date	Annual interest rate	As at 31 December	
				2019	2018
Bonds issued at amortised cost					
Subordinated bonds issued					
2009 RMB Debt Securities					
First Tranche ⁽¹⁾	6 July 2009	8 July 2024	4.00%	–	24,000
2010 RMB Debt Securities ⁽²⁾	9 March 2010	11 March 2025	4.68%	24,930	24,930
2011 RMB Debt Securities ⁽³⁾	17 May 2011	19 May 2026	5.30%	32,000	32,000
2012 RMB Debt Securities					
Second Tranche ⁽⁴⁾	27 November 2012	29 November 2027	4.99%	18,000	18,000
Subtotal ⁽¹⁴⁾				74,930	98,930
Tier 2 capital bonds issued					
2014 RMB Debt Securities ⁽⁵⁾	8 August 2014	11 August 2024	5.80%	–	29,972
2014 US Dollar Debt Securities ⁽⁶⁾	13 November 2014	13 November 2024	5.00%	20,852	20,502
2017 RMB Debt Securities					
First Tranche ⁽⁷⁾	26 September 2017	28 September 2027	4.45%	29,965	29,962
2017 RMB Debt Securities					
Second Tranche ⁽⁸⁾	31 October 2017	2 November 2027	4.45%	29,966	29,964
2018 RMB Debt Securities					
First Tranche ⁽⁹⁾	3 September 2018	5 September 2028	4.86%	39,983	39,982
2018 RMB Debt Securities					
Second Tranche ⁽¹⁰⁾	9 October 2018	11 October 2028	4.84%	39,985	39,984
2019 RMB Debt Securities					
First Tranche 01 ⁽¹¹⁾	20 September 2019	24 September 2029	3.98%	29,988	–
2019 RMB Debt Securities					
First Tranche 02 ⁽¹²⁾	20 September 2019	24 September 2034	4.34%	9,996	–
2019 RMB Debt Securities					
Second Tranche ⁽¹³⁾	20 November 2019	22 November 2029	4.01%	29,990	–
Subtotal ⁽¹⁴⁾				230,725	190,366
Other bonds issued ⁽¹⁵⁾					
US Dollar Debt Securities					
				223,192	216,750
RMB Debt Securities					
				52,788	22,454
Other					
				58,500	76,090
Subtotal				334,480	315,294
Negotiable certificates of deposit ⁽¹⁶⁾				423,658	150,273
Subtotal bonds issued at amortised cost				1,063,793	754,863
Bonds issued at fair value⁽¹⁷⁾					
				26,113	20,517
Subtotal bonds issued				1,089,906	775,380
Accrued interest					
				6,181	6,747
Total bonds issued ⁽¹⁸⁾				1,096,087	782,127

V NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)**30 Bonds issued (Continued)**

- (1) The fixed rate portion of the first tranche of the subordinated bonds issued on 6 July 2009 has a maturity of 15 years, with a fixed coupon rate of 4.00%, paid annually. The Bank is entitled to early redeem all of the bonds at face value at the end of the tenth year. The Bank has early redeemed all of the bonds at face value on 8 July 2019.
- (2) The subordinated bonds issued on 9 March 2010, have a maturity of 15 years, with a fixed coupon rate of 4.68%, paid annually. The Bank is entitled to early redeem all of the bonds at face value at the end of the tenth year. If the Bank does not exercise this option, the coupon rate of the bonds for the third 5-year period shall be the original coupon rate plus 3.00%, and shall remain fixed until the maturity date.
- (3) 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 is entitled to early redeem all the subordinated 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 5.30%.
- (4) 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 is 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%.
- (5) The Bank issued tier 2 capital bonds in an amount of RMB30 billion on 8 August 2014. The bonds have a maturity of 10 years, with a fixed coupon rate of 5.80%. The Bank is entitled to redeem the bonds at the end of the fifth year. The Bank has early redeemed all of the bonds at face value on 12 August 2019.
- (6) 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%.
- (7) 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 is entitled to redeem the bond at the end of the fifth year.
- (8) 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 is entitled to redeem the bond at the end of the fifth year.
- (9) 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 is entitled to redeem the bond at the end of the fifth year.
- (10) 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 is entitled to redeem the bond at the end of the fifth year.
- (11) 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 is entitled to redeem the bond at the end of the fifth year.
- (12) 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 is entitled to redeem the bond at the end of the tenth year.
- (13) 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 is entitled to redeem the bond at the end of the fifth year.
- (14) The claims of the holders of subordinated bonds and tier 2 capital bonds will be subordinated to the claims of depositors and general creditors.
- (15) US Dollar Debt Securities, RMB Debt Securities and other Debt Securities were issued in Chinese mainland, Hong Kong, Macao, Taiwan and other countries and regions between 2013 and 2019 by the Group, with dates of maturity ranging from 2020 to 2030.

V NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)

30 Bonds issued (Continued)

- (16) The RMB negotiable certificates of deposit issued by the Bank in 2018 matured in 2019. The outstanding balance will mature in 2020.
- (17) According to risk management policy, in order to match derivatives and reduce market risk, the Group designates some bonds issued as financial liabilities at fair value through profit or loss in the current period. As at 31 December 2019, the carrying amount of the above-mentioned bonds issued by the Group is RMB26,113 million (31 December 2018: RMB20,517 million), and the difference between the fair value and the amount that the Group would be contractually required to pay to the holders is not significant (31 December 2018: not significant). In the years of 2019 and 2018, there is no significant change in the Group's credit risk as well as the fair value caused by credit risk of the above financial liabilities.
- (18) During the years ended 31 December 2019 and 2018, 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 2019, these other borrowings had a maturity ranging from 150 days to 6 years and bore floating and fixed interest rates ranging from 2.14% to 3.26% (31 December 2018: 2.65% to 4.26%).

During the years ended 31 December 2019 and 2018, 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	
	2019	2018
Corporate income tax	51,787	20,626
Value-added tax	6,039	5,966
City construction and maintenance tax	427	431
Education surcharges	297	282
Other	552	589
Total	59,102	27,894

33 Retirement benefit obligations

As at 31 December 2019, 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 RMB2,095 million (31 December 2018: RMB2,213 million) and RMB438 million (31 December 2018: RMB612 million), respectively, using the projected unit credit method.

The movements of the net liabilities recognised are as follows:

	Year ended 31 December	
	2019	2018
As at 1 January	2,825	3,027
Interest cost	85	110
Net actuarial (gains)/losses recognised	(38)	78
Benefits paid	(339)	(390)
As at 31 December	2,533	2,825

V NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)**33 Retirement benefit obligations (Continued)**

Primary assumptions used:

	As at 31 December	
	2019	2018
Discount rate		
— Normal retiree	3.25%	3.28%
— Early retiree	2.50%	2.90%
Pension benefit inflation rate		
— Normal retiree	3.0%	3.0%
— Early retiree	4.0%–3.0%	5.0%–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 2019 and 2018, 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 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. 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			
	2019		2018	
	Temporary differences	Deferred tax assets/(liabilities)	Temporary differences	Deferred tax assets/(liabilities)
Deferred income tax assets	166,707	44,029	144,757	38,204
Deferred income tax liabilities	(30,773)	(5,452)	(25,729)	(4,548)
Net	135,934	38,577	119,028	33,656

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			
	2019		2018	
	Temporary differences	Deferred tax assets/(liabilities)	Temporary differences	Deferred tax assets/(liabilities)
Deferred income tax assets				
Asset impairment allowances	205,264	51,052	184,629	45,993
Pension, retirement benefits and salary payables	18,137	4,510	18,371	4,582
Financial instruments at fair value through profit or loss and derivative financial instruments	90,507	22,511	89,473	22,327
Financial assets at fair value through other comprehensive income	835	209	5,386	1,059
Other temporary differences	34,320	7,931	30,132	6,889
Subtotal	349,063	86,213	327,991	80,850
Deferred income tax liabilities				
Financial instruments at fair value through profit or loss and derivative financial instruments	(93,862)	(23,336)	(112,457)	(28,114)
Financial assets at fair value through other comprehensive income	(29,403)	(7,228)	(17,028)	(4,174)
Depreciation of property and equipment	(20,629)	(3,521)	(18,909)	(3,208)
Revaluation of property and investment properties	(8,986)	(1,712)	(8,775)	(1,675)
Other temporary differences	(60,249)	(11,839)	(51,794)	(10,023)
Subtotal	(213,129)	(47,636)	(208,963)	(47,194)
Net	135,934	38,577	119,028	33,656

As at 31 December 2019, deferred tax liabilities relating to temporary differences of RMB156,105 million associated with the Group's investments in subsidiaries had not been recognised (31 December 2018: RMB142,076 million). Refer to Note II.20.2.

V NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)**35 Deferred income taxes (Continued)**

35.3 The movements of the deferred income tax account are as follows:

	Year ended 31 December	
	2019	2018
As at 1 January	33,656	53,565
Credited/(charged) to the income statement (Note V.10)	8,824	(14,784)
Charged to other comprehensive income	(4,180)	(5,028)
Other	277	(97)
As at 31 December	38,577	33,656

35.4 The deferred income tax credit/charge in the income statement comprises the following temporary differences:

	Year ended 31 December	
	2019	2018
Asset impairment allowances	5,059	(219)
Financial instruments at fair value through profit or loss and derivative financial instruments	4,962	(10,337)
Pension, retirement benefits and salary payables	(72)	(91)
Other temporary differences	(1,125)	(4,137)
Total	8,824	(14,784)

36 Other liabilities

	As at 31 December	
	2019	2018
Insurance liabilities		
— Life insurance contracts	113,742	96,719
— Non-life insurance contracts	10,169	9,346
Items in the process of clearance and settlement	66,628	63,647
Salary and welfare payables ⁽¹⁾	33,373	30,997
Lease liabilities ⁽²⁾	21,590	N/A
Provision ⁽³⁾	24,469	22,010
Deferred income	10,476	9,264
Other	84,726	66,379
Total	365,173	298,362

V NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)**36 Other liabilities (Continued)**

(1) Salary and welfare payables

	As at 1 January 2019	Accrual	Payment	As at 31 December 2019
Salary, bonus and subsidy	23,929	61,104	(61,368)	23,665
Staff welfare	–	3,896	(3,896)	–
Social insurance				
— Medical	1,136	4,085	(3,626)	1,595
— Pension	181	6,249	(6,271)	159
— Annuity	310	4,178	(2,347)	2,141
— Unemployment	7	207	(208)	6
— Injury at work	2	76	(76)	2
— Maternity insurance	3	256	(256)	3
Housing funds	56	4,595	(4,612)	39
Labour union fee and staff education fee	4,792	2,032	(1,688)	5,136
Reimbursement for cancellation of labour contract	17	15	(13)	19
Other	564	4,009	(3,965)	608
Total⁽ⁱ⁾	30,997	90,702	(88,326)	33,373

	As at 1 January 2018	Accrual	Payment	As at 31 December 2018
Salary, bonus and subsidy	22,697	58,242	(57,010)	23,929
Staff welfare	–	3,583	(3,583)	–
Social insurance				
— Medical	1,029	3,644	(3,537)	1,136
— Pension	171	6,835	(6,825)	181
— Annuity	23	2,372	(2,085)	310
— Unemployment	7	206	(206)	7
— Injury at work	2	87	(87)	2
— Maternity insurance	3	243	(243)	3
Housing funds	31	4,628	(4,603)	56
Labour union fee and staff education fee	4,368	1,941	(1,517)	4,792
Reimbursement for cancellation of labour contract	16	13	(12)	17
Other	536	3,512	(3,484)	564
Total⁽ⁱ⁾	28,883	85,306	(83,192)	30,997

(i) There was no overdue payment for staff salary and welfare payables as at 31 December 2019 and 2018.

V NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)**36 Other liabilities (Continued)****(2) Lease liabilities**

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

	As at 31 December	
	2019	2018
Less than 1 year	6,307	N/A
Between 1 to 5 years	12,965	N/A
Over 5 years	8,860	N/A
Undiscounted lease liabilities	28,132	N/A
Lease liabilities	21,590	N/A

(3) Provision

	As at 31 December	
	2019	2018
Allowance for credit commitments	23,597	21,354
Allowance for litigation losses (Note V. 41.1)	872	656
Total	24,469	22,010

The movement of the provision was as follows:

	Year ended 31 December	
	2019	2018
As at 1 January	22,010	32,177
Losses/(reversal) for the year	2,423	(10,120)
Utilised during the year	(90)	(413)
Exchange differences and other	126	366
As at 31 December	24,469	22,010

V NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)**37 Share capital, capital reserve, treasury shares and other equity instruments****37.1 Share capital**

The Bank's share capital is as follows:

Unit: Share

	As at 31 December	
	2019	2018
Domestic listed A shares, par value RMB1.00 per share	210,765,514,846	210,765,514,846
Overseas listed H shares, par value 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	
	2019	2018
Share premium	133,716	139,921
Other capital reserve	2,296	2,214
Total	136,012	142,135

37.3 Treasury shares

A wholly-owned subsidiary of the Group holds certain listed shares of the Bank in relation to its derivative business. These shares are treated as treasury shares, a deduction from equity holders' equity. Gains and losses on sale or redemption of the treasury shares are credited or charged to equity. The total number of treasury shares as at 31 December 2019 was approximately 2.34 million (31 December 2018: approximately 22.80 million).

37.4 Other equity instruments

For the year ended 31 December 2019, the movements of the Bank's other equity instruments were as follows:

	As at 1 January 2019		Increase/(Decrease)		As at 31 December 2019	
	Quantity (million shares)	Carrying amount	Quantity (million shares)	Carrying amount	Quantity (million shares)	Carrying amount
Preference Shares						
Offshore Preference Shares ⁽¹⁾	399.4	39,782	(399.4)	(39,782)	–	–
Domestic Preference Shares (First Tranche) ⁽²⁾	320.0	31,963	–	–	320.0	31,963
Domestic Preference Shares (Second Tranche) ⁽³⁾	280.0	27,969	–	–	280.0	27,969
Domestic Preference Shares (Third Tranche) ⁽⁴⁾	–	–	730.0	72,979	730.0	72,979
Domestic Preference Shares (Fourth Tranche) ⁽⁵⁾	–	–	270.0	26,990	270.0	26,990
Subtotal	999.4	99,714	600.6	60,187	1,600.0	159,901
Perpetual Bonds						
Undated Capital Bonds ⁽⁶⁾	–	–	–	39,992	–	39,992
Total		99,714		100,179		199,893

V NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)**37 Share capital, capital reserve, treasury shares and other equity instruments (Continued)****37.4 Other equity instruments (Continued)**

- (1) With the approvals by relevant regulatory authorities in China, the Bank redeemed all Offshore Preference Shares on 23 October 2019, at the USD equivalent amount (being the RMB amount that would be due under the Offshore Preference Shares as converted into USD using the fixed exchange rate of USD1.00 to CNY6.1448) of the redemption price of each Offshore Preference Share (including the dividends declared but remain undistributed on such Offshore Preference Shares for the current dividend period). The USD equivalent amount of the redemption price of all Offshore Preference Shares was USD6.939 billion.

- (2) With the approvals by relevant regulatory authorities in China, the Bank issued 6.0% non-cumulative Domestic Preference Shares on 21 November 2014, in the aggregate par value of RMB32 billion. Each Domestic Preference Share has a par value of RMB100 and a total number of 320 million Domestic Preference Shares were issued.

The Domestic Preference Shares have no maturity date. However, subject to the satisfaction of the redemption conditions and having obtained the prior approval of the CBIRC, the Bank may at its discretion redeem all or part of the Domestic Preference Shares on 21 November 2019 or any dividend payment date thereafter at the redemption price which is the sum of the par value of the Domestic Preference Share and the dividends declared but not yet distributed.

- (3) With the approvals by relevant regulatory authorities in China, the Bank issued 5.5% non-cumulative Domestic Preference Shares on 13 March 2015, in the aggregate par value of RMB28 billion. Each Domestic Preference Share has a par value of RMB100 and a total number of 280 million Domestic Preference Shares were issued.

The Domestic Preference Shares have no maturity date. However, subject to the satisfaction of the redemption conditions and having obtained the prior approval of the CBIRC, the Bank may at its discretion redeem all or part of the Domestic Preference Shares on 13 March 2020 or any dividend payment date thereafter at the redemption price which is the sum of the par value of the Domestic Preference Share and the dividends declared but not yet distributed.

- (4) With the approvals by 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 a total number of 730 million Domestic Preference Shares were issued. The dividend rate of the Preference Shares for the first five years is 4.50%, resetting every 5 years.

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

- (5) With the approvals by 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 a total number of 270 million Domestic Preference Shares were issued. The dividend rate of the Preference Shares for the first five years is 4.35%, resetting every 5 years.

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

V NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)

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

37.4 Other equity instruments (Continued)

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 are paid by non-cumulative dividend. 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 trigger event for the compulsory conversion of preference shares into ordinary shares per agreement, the Bank shall convert the preference shares into ordinary shares in whole or in part after reporting to CBIRC for its examination and approval decision.

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

- (6) With the approvals by relevant regulatory authorities in China, the Bank issued RMB40 billion write-down undated capital bonds (the "Bonds") in the domestic 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 coupon rate of the Bonds for the first five years is 4.50%, resetting every 5 years.

The duration of the Bonds is the same as the 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 Bonds in whole or in part on each distribution payment date 5 years after the issuance date of the Bonds. Upon the occurrence of a trigger event for 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 Bonds will be subordinated to the claims of depositors, general creditors and subordinated creditors; and shall rank in priority to the claims 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 Bonds.

The Bonds are paid by non-cumulative interest. The Bank shall have the right to cancel distributions on the Bonds in whole or in part and such cancellation shall not constitute a default. The Bank may at its discretion utilize the proceeds from the cancelled distribution to meet other obligations of maturing debts. But the Bank shall not distribute profits to ordinary shareholders until the resumption of full interest payment.

Capital raised from the issuance of the Bonds, after deduction of transaction costs, was wholly 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)

38 Statutory reserves, general and regulatory reserves and undistributed profits

38.1 Statutory reserves

Under relevant PRC laws, the Bank is required to transfer 10% of its net profit to non-distributable statutory surplus reserves. The appropriation to the statutory surplus reserves may cease when the balance of such reserves has reached 50% of the share capital. Subject to the approval of the equity holders, 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 balance of 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 27 March 2020, the Bank appropriated 10% of the net profit for the year ended 31 December 2019 to the statutory surplus reserves, amounting to RMB16,576 million (2018: RMB15,946 million).

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

38.2 General and regulatory reserves

Pursuant 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 within the equity holders' equity through the appropriation of profit to address unidentified potential impairment losses. The general reserve as a distribution of profits, being part of the owner's rights and interests, 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 27 March 2020 and on the basis of the Bank's profit for the year ended 31 December 2019, the Board of Directors of the Bank approved the appropriation of RMB17,863 million to the general reserve for the year ended 31 December 2019 (2018: RMB22,352 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 2019 and 2018, the reserve amounts set aside by BOCHK Group were RMB6,773 million and RMB6,448 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

An ordinary share dividend of RMB54,167 million in respect of the profit for the year ended 31 December 2018 was approved by the equity holders of the Bank at the Annual General Meeting held on 17 May 2019 and was distributed during the year.

An ordinary share dividend of RMB0.191 per share in respect of the profit for the year ended 31 December 2019 (2018: RMB0.184 per share), amounting to a total dividend of RMB56,228 million, based on the number of shares issued as at 31 December 2019 will be proposed for approval at the Annual General Meeting to be held on 30 June 2020. The dividend payable is not reflected in liabilities of the financial statements.

Dividends for Preference Shares

The dividend distribution of Domestic Preference Shares (Second Tranche) amounting to RMB1,540 million was approved by the Board of Directors of the Bank at the Board Meeting held on 25 January 2019 and the dividend of Domestic Preference Shares (Second Tranche) was distributed on 13 March 2019.

The dividend distribution of Offshore Preference Shares and Domestic Preference Shares (First Tranche) was approved by the Board of Directors of the Bank at the Board Meeting held on 30 August 2019. The dividend of Offshore Preference Shares amounting to USD487 million before tax was distributed on 23 October 2019. The dividend of Domestic Preference Shares (First Tranche) amounting to RMB1,920 million was distributed on 21 November 2019.

39 Non-controlling interests

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

	As at 31 December	
	2019	2018
BOC Hong Kong (Group) Limited	96,257	87,689
Bank of China Group Investment Limited	10,531	9,440
Tai Fung Bank Limited	10,180	9,034
Other	8,027	6,254
Total	124,995	112,417

V NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)

40 Changes in consolidation

On 1 July 2019, the Bank set up a wholly-owned subsidiary, BOC Wealth Management Co., Ltd. ("BOC Wealth Management"), which mainly engages in the issuance of wealth management products, investment and management of entrusted assets for investors. As at 31 December 2019, the Bank held 100% of the total capital of BOC Wealth Management.

41 Contingent liabilities and commitments

41.1 Legal proceedings and arbitrations

As at 31 December 2019, the Group was involved in certain litigation and arbitration cases in the regular course of its business. In addition, in terms of the range and scale of its international operations, the Group may face a variety of legal proceedings within different jurisdictions. As at 31 December 2019, provisions of RMB872 million (31 December 2018: RMB656 million) were made based on court judgements or the advice of counsel (Note V.36). After consulting legal professionals, the senior management of the Group believes that at the current stage these legal proceedings and arbitrations will not have a material impact on the financial position or operations of the Group.

41.2 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	
	2019	2018
Debt securities	787,929	990,743
Bills	387	1,603
Total	788,316	992,346

41.3 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 2019, the fair value of collateral received from banks and other financial institutions accepted by the Group amounted to RMB22,067 million (31 December 2018: RMB27,218 million). As at 31 December 2019, the fair value of the collateral that the Group had sold or re-pledged, but was obligated to return, was RMB2,271 million (31 December 2018: RMB2,631 million). These transactions are conducted under standard terms in the normal course of business.

V NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)**41 Contingent liabilities and commitments (Continued)****41.4 Capital commitments**

	As at 31 December	
	2019	2018
Property and equipment		
— Contracted but not provided for	53,752	64,650
— Authorised but not contracted for	1,215	1,597
Intangible assets		
— Contracted but not provided for	1,048	934
— Authorised but not contracted for	66	25
Investment properties		
— Contracted but not provided for	1,231	7
Total	57,312	67,213

41.5 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, as at 31 December 2019, 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 RMB12,763 million not later than one year (31 December 2018: RMB11,753 million), RMB51,384 million later than one year and not later than five years (31 December 2018: RMB47,494 million) and RMB50,746 million later than five years (31 December 2018: RMB50,248 million).

41.6 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 2019, the outstanding principal value of the Treasury bonds sold by the Bank under obligation to redeem prior to maturity amounted to RMB59,746 million (31 December 2018: RMB52,635 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.

V NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)**41 Contingent liabilities and commitments (Continued)****41.7 Credit commitments**

	As at 31 December	
	2019	2018
Loan commitments ⁽¹⁾		
— with an original maturity of less than 1 year	244,733	186,425
— with an original maturity of 1 year or over	1,360,065	1,127,891
Undrawn credit card limits	1,010,283	954,394
Letters of guarantee issued ⁽²⁾	1,049,629	1,070,825
Bank bill acceptance	259,373	256,360
Letters of credit issued	133,571	130,625
Accepted bills of exchange under letters of credit	92,440	98,849
Other	192,476	167,642
Total ⁽³⁾	4,342,570	3,993,011

(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 2019, the unconditionally revocable loan commitments of the Group amounted to RMB299,556 million (31 December 2018: RMB254,033 million).

(2) Letters of guarantee issued mainly include financial guarantees and performance guarantees. These obligations on the Group to make payment 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	
	2019	2018
Credit commitments	1,206,469	1,102,554

41.8 Underwriting obligations

As at 31 December 2019, there was no firm commitment in underwriting securities of the Group (31 December 2018: Nil).

V NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)

42 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	
	2019	2018
Cash and due from banks and other financial institutions	347,724	264,526
Balances with central banks	541,837	728,940
Placements with and loans to banks and other financial institutions	393,674	638,472
Financial investments	62,657	56,662
Total	1,345,892	1,688,600

43 Related party transactions

43.1 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 enters into banking transactions with CIC in the normal course of its business on commercial terms.

43.2 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)**43 Related party transactions (Continued)****43.2 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 ordinary course of business and in compliance with the requirements of the related regulations and corporate governance.

Transaction balances

	As at 31 December	
	2019	2018
Debt securities	24,963	18,511
Due to Huijin	(2,913)	(9,254)

Transaction amount

	Year ended 31 December	
	2019	2018
Interest income	987	701
Interest expense	(320)	(259)

(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 the purchase and sale of debt securities, money market transactions and derivative transactions.

In the ordinary course of the business, main transactions that the Group entered into with the affiliates of parent company are as follows:

Transaction balances

	As at 31 December	
	2019	2018
Due from banks and other financial institutions	59,332	19,184
Placements with and loans to banks and other financial institutions	115,781	98,754
Financial investments	395,205	375,075
Derivative financial assets	7,655	10,874
Loans and advances to customers	45,646	32,275
Due to customers, banks and other financial institutions	(185,610)	(164,636)
Placements from banks and other financial institutions	(244,059)	(124,456)
Derivative financial liabilities	(5,459)	(6,434)
Credit commitments	14,502	12,159

Transaction amount

	Year ended 31 December	
	2019	2018
Interest income	17,021	12,709
Interest expense	(9,679)	(6,499)

V NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)

43 Related party transactions (Continued)

43.2 Transactions with Huijin and companies under Huijin (Continued)

(3) Transactions with companies under Huijin (Continued)

Interest rate ranges

	As at 31 December	
	2019	2018
Due from banks and other financial institutions	0.00%–5.00%	0.00%–8.20%
Placements with and loans to banks and other financial institutions	-0.20%–4.50%	-0.10%–8.00%
Financial investments	0.00%–5.98%	0.00%–6.20%
Loans and advances to customers	1.44%–6.05%	1.45%–6.18%
Due to customers, banks and other financial institutions	0.00%–3.58%	0.00%–6.10%
Placements from banks and other financial institutions	-0.55%–9.50%	-0.10%–9.50%

43.3 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 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.

43.4 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. In the ordinary course of the business, the main transactions that the Group entered into with associates and joint ventures are as follows:

Transaction balances

	As at 31 December	
	2019	2018
Loans and advances to customers	1,373	763
Due to customers, banks and other financial institutions	(6,046)	(4,709)
Credit commitments	76	43

Transaction amount

	Year ended 31 December	
	2019	2018
Interest income	41	22
Interest expense	(220)	(204)

V NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)**43 Related party transactions (Continued)****43.4 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
BOC International (China) Co., Ltd.	PRC	91310000736650364G	37.14	37.14	RMB2,500	Securities brokerage; securities investment consulting; financial advisory services related to securities trading and securities investment activities; securities underwriting and sponsorship; securities proprietary business; securities asset management; securities investment fund sales agency; margin financing and securities lending; distribution of financial products; management of publicly raised 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; Asset management; Investment consulting
Graceful Field Worldwide Limited	BVI	N/A	80.00	Note (1)	USD0.0025	Investment
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
Zhongxinboda (Wuhu) Investment Limited Partnership	PRC	91340202MA2N9TTA6R	25.50	25.50	N/A	Asset management; Investment consulting
Wkland Investments II Limited	BVI	N/A	50.00	50.00	USD0.00002	Investment holding
Livi VB Limited	HK	N/A	29.13	44.00	HKD2,500	Internet finance
Wuhu Yuanzhong Jiaying Investment Limited Partnership	PRC	91340202MA2TBMDD6Q	70.00	Note (1)	N/A	Investment consulting; Equity investment
Guangdong Small and Medium Enterprises Equity Investment Fund Company Limited	PRC	91440000564568961E	40.00	40.00	RMB1,578	Investment

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

43.5 Transactions with the Annuity Plan

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 2019 and 2018.

V NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)

43 Related party transactions (Continued)

43.6 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 2019 and 2018, 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 2019 and 2018 comprises:

	Year ended 31 December	
	2019	2018
Compensation for short-term employment benefits ⁽¹⁾	9	13
Compensation for post-employment benefits	1	1
Total	10	14

- (1) The total compensation package for these key management personnel for the year ended 31 December 2019 has not yet been finalised in accordance with the regulations of the PRC relevant authorities. The amount of the compensation not provided for is not expected to have a significant impact on the Group's 2019 financial statements. The final compensation will be disclosed in a separate announcement when determined.

43.7 Transactions with Connected Natural Persons

As at 31 December 2019, 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* and the *Administrative Measures for the Disclosure of Information of Listed Companies* totalled approximately RMB410 million (31 December 2018: RMB168 million) and RMB23 million (31 December 2018: RMB21 million) respectively.

43.8 Transactions with subsidiaries

The main transactions with subsidiaries are as follows:

Transaction balances

	As at 31 December	
	2019	2018
Due from banks and other financial institutions	21,908	44,911
Placements with and loans to banks and other financial institutions	152,839	127,644
Due to banks and other financial institutions	(88,195)	(87,797)
Placements from banks and other financial institutions	(52,285)	(76,215)

Transaction amount

	Year ended 31 December	
	2019	2018
Interest income	1,569	1,465
Interest expense	(2,165)	(2,825)

V NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)

43 Related party transactions (Continued)

43.8 Transactions with subsidiaries (Continued)

The general information of 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	12 September 2001	HKD34,806	100.00	100.00	Holding company
BOC International Holdings Limited ⁽³⁾	Hong Kong	10 July 1998	HKD3,539	100.00	100.00	Investment banking
Bank of China Group Insurance Company Limited	Hong Kong	23 July 1992	HKD3,749	100.00	100.00	Insurance services
Bank of China Group Investment Limited	Hong Kong	18 May 1993	HKD34,052	100.00	100.00	Investment holding
Tai Fung Bank Limited	Macao	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	5 January 2005	RMB4,535	100.00	100.00	Insurance services
BOC Financial Asset Investment Company Limited	Beijing	16 November 2017	RMB10,000	100.00	100.00	Debt-to-equity swaps and other supporting businesses, etc.
BOC Wealth Management Co., Ltd.	Beijing	1 July 2019	RMB10,000	100.00	100.00	Issuance of wealth management products, investment and management of entrusted assets for investors
Indirectly held						
BOC Hong Kong (Holdings) Limited ⁽²⁾	Hong Kong	12 September 2001	HKD52,864	66.06	66.06	Holding company
Bank of China (Hong Kong) Limited ⁽³⁾	Hong Kong	16 October 1964	HKD43,043	66.06	100.00	Commercial banking
BOC Credit Card (International) Limited	Hong Kong	9 September 1980	HKD480	66.06	100.00	Credit card services
BOC Group Trustee Company Limited ⁽³⁾	Hong Kong	1 December 1997	HKD200	77.60	100.00	Provision of trustee services
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 interest of BOC Group Trustee Company Limited, respectively.

For certain subsidiaries listed above, the voting rights ratio is not equal to the effective equity held ratio, mainly due to the impact of the indirect holdings.

V NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)

44 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, Macao and Taiwan; 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.

The 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 product. 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, insurance services, etc. are performed in the Chinese mainland.

Hong Kong, Macao and Taiwan — Corporate banking, personal banking, treasury operations, investment banking and insurance services are performed in Hong Kong, Macao and Taiwan. 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, trade-related products and other credit facilities, foreign exchange, 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 and other miscellaneous activities, none of which constitutes a separately reportable segment.

V NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)**44 Segment reporting (Continued)****As at and for the year ended 31 December 2019**

	Chinese mainland	Hong Kong, Macao and Taiwan			Other countries and regions	Elimination	Total
		BOCHK Group	Other	Subtotal			
Interest income	629,451	57,763	38,874	96,637	50,527	(34,408)	742,207
Interest expense	(310,586)	(23,679)	(33,123)	(56,802)	(35,042)	34,473	(367,957)
Net interest income	318,865	34,084	5,751	39,835	15,485	65	374,250
Fee and commission income	82,062	12,745	7,401	20,146	6,599	(3,890)	104,917
Fee and commission expense	(9,878)	(3,703)	(2,135)	(5,838)	(2,125)	2,536	(15,305)
Net fee and commission income	72,184	9,042	5,266	14,308	4,474	(1,354)	89,612
Net trading gains	13,405	7,564	4,720	12,284	2,874	–	28,563
Net gains on transfers of financial asset	2,541	725	83	808	128	–	3,477
Other operating income ⁽¹⁾	13,274	18,870	22,497	41,367	204	(737)	54,108
Operating income	420,269	70,285	38,317	108,602	23,165	(2,026)	550,010
Operating expenses ⁽¹⁾	(140,920)	(32,586)	(18,802)	(51,388)	(7,686)	1,725	(198,269)
Impairment losses on assets	(101,010)	(1,780)	351	(1,429)	286	–	(102,153)
Operating profit	178,339	35,919	19,866	55,785	15,765	(301)	249,588
Share of results of associates and joint ventures	(1)	(78)	1,136	1,058	–	–	1,057
Profit before income tax	178,338	35,841	21,002	56,843	15,765	(301)	250,645
Income tax expense							(48,754)
Profit for the year							201,891
Segment assets	17,915,544	2,673,071	1,528,724	4,201,795	2,062,659	(1,433,464)	22,746,534
Investment in associates and joint ventures	7,992	1,076	14,142	15,218	–	–	23,210
Total assets	17,923,536	2,674,147	1,542,866	4,217,013	2,062,659	(1,433,464)	22,769,744
Include: non-current assets ⁽²⁾	119,684	30,670	162,255	192,925	9,788	(2,851)	319,546
Segment liabilities	16,413,115	2,428,157	1,397,456	3,825,613	1,987,643	(1,433,323)	20,793,048
Other segment items:							
Intersegment net interest (expense)/income	(6,817)	1,401	11,164	12,565	(5,813)	65	–
Intersegment net fee and commission income/(expense)	592	180	1,106	1,286	(523)	(1,355)	–
Capital expenditure	13,231	2,123	27,977	30,100	613	–	43,944
Depreciation and amortisation	17,295	1,768	5,688	7,456	785	(181)	25,355
Credit commitments	3,675,635	313,084	131,772	444,856	528,004	(305,925)	4,342,570

(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 and other long-term assets.

V NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)**44 Segment reporting (Continued)****As at and for the year ended 31 December 2018**

	Chinese mainland	Hong Kong, Macao and Taiwan			Other countries and regions	Elimination	Total
		BOCHK Group	Other	Subtotal			
Interest income	587,134	50,368	38,798	89,166	48,106	(36,506)	687,900
Interest expense	(283,189)	(18,318)	(32,017)	(50,335)	(31,176)	36,506	(328,194)
Net interest income	303,945	32,050	6,781	38,831	16,930	–	359,706
Fee and commission income	77,836	12,612	6,691	19,303	6,169	(3,311)	99,997
Fee and commission expense	(7,642)	(3,559)	(1,661)	(5,220)	(1,802)	1,875	(12,789)
Net fee and commission income	70,194	9,053	5,030	14,083	4,367	(1,436)	87,208
Net trading (losses)/gains	(83)	2,322	2,444	4,766	2,036	–	6,719
Net gains/(losses) on transfers of financial asset	2,859	17	(69)	(52)	10	–	2,817
Other operating income ⁽¹⁾	16,129	14,600	17,746	32,346	234	(1,353)	47,356
Operating income	393,044	58,042	31,932	89,974	23,577	(2,789)	503,806
Operating expenses ⁽¹⁾	(131,958)	(23,322)	(16,634)	(39,956)	(6,967)	1,902	(176,979)
Impairment losses on assets	(98,872)	(1,048)	(66)	(1,114)	692	–	(99,294)
Operating profit	162,214	33,672	15,232	48,904	17,302	(887)	227,533
Share of results of associates and joint ventures	10	(12)	2,112	2,100	–	–	2,110
Profit before income tax	162,224	33,660	17,344	51,004	17,302	(887)	229,643
Income tax expense							(37,208)
Profit for the year							192,435
Segment assets	16,925,075	2,553,366	1,627,527	4,180,893	2,009,680	(1,871,742)	21,243,906
Investment in associates and joint ventures	7,231	164	15,974	16,138	–	–	23,369
Total assets	16,932,306	2,553,530	1,643,501	4,197,031	2,009,680	(1,871,742)	21,267,275
Include: non-current assets ⁽²⁾	100,098	27,719	143,779	171,498	5,837	(161)	277,272
Segment liabilities	15,625,811	2,332,126	1,512,393	3,844,519	1,943,129	(1,871,581)	19,541,878
Other segment items:							
Intersegment net interest (expense)/income	(10,009)	2,066	13,534	15,600	(5,591)	–	–
Intersegment net fee and commission income/(expense)	48	69	1,555	1,624	(236)	(1,436)	–
Capital expenditure	10,511	1,042	29,798	30,840	513	–	41,864
Depreciation and amortisation	11,175	1,036	4,449	5,485	383	–	17,043
Credit commitments	3,519,912	278,653	102,467	381,120	462,753	(370,774)	3,993,011

(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 and other long-term assets.

V NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)**44 Segment reporting (Continued)****As at and for the year ended 31 December 2019**

	Corporate banking	Personal banking	Treasury operations	Investment banking	Insurance	Other	Elimination	Total
Interest income	357,678	250,045	204,435	2,096	3,009	4,036	(79,092)	742,207
Interest expense	(173,036)	(116,514)	(149,510)	(599)	(65)	(7,427)	79,194	(367,957)
Net interest income/(expense)	184,642	133,531	54,925	1,497	2,944	(3,391)	102	374,250
Fee and commission income	32,753	54,472	14,190	3,997	2	2,085	(2,582)	104,917
Fee and commission expense	(1,307)	(8,765)	(2,068)	(1,086)	(3,988)	(317)	2,226	(15,305)
Net fee and commission income/(expense)	31,446	45,707	12,122	2,911	(3,986)	1,768	(356)	89,612
Net trading gains	3,177	1,048	19,360	231	2,492	2,219	36	28,563
Net gains on transfers of financial asset	1,346	237	1,791	–	101	2	–	3,477
Other operating income	512	6,221	1,359	198	28,838	19,792	(2,812)	54,108
Operating income	221,123	186,744	89,557	4,837	30,389	20,390	(3,030)	550,010
Operating expenses	(64,142)	(76,833)	(19,210)	(2,487)	(29,209)	(9,429)	3,041	(198,269)
Impairment losses on assets	(84,109)	(16,824)	(736)	–	(10)	(474)	–	(102,153)
Operating profit	72,872	93,087	69,611	2,350	1,170	10,487	11	249,588
Share of results of associates and joint ventures	–	–	–	280	(12)	822	(33)	1,057
Profit before income tax	72,872	93,087	69,611	2,630	1,158	11,309	(22)	250,645
Income tax expense								(48,754)
Profit for the year								201,891
Segment assets	8,415,724	5,064,429	8,587,356	83,987	180,054	527,396	(112,412)	22,746,534
Investments in associates and joint ventures	–	–	–	4,870	–	18,406	(66)	23,210
Total assets	8,415,724	5,064,429	8,587,356	88,857	180,054	545,802	(112,478)	22,769,744
Segment liabilities	9,922,845	6,726,766	3,705,818	57,582	162,958	329,341	(112,262)	20,793,048
Other segment items:								
Intersegment net interest income/(expense)	27,877	48,737	(75,339)	419	30	(1,826)	102	–
Intersegment net fee and commission income/(expense)	698	1,521	48	(320)	(1,871)	278	(354)	–
Capital expenditure	4,120	4,631	219	193	122	34,659	–	43,944
Depreciation and amortisation	7,800	9,622	2,394	284	237	5,304	(286)	25,355
Credit commitments	3,157,694	1,184,876	–	–	–	–	–	4,342,570

(Amount in millions of Renminbi, unless otherwise stated)

V NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)

44 Segment reporting (Continued)

As at and for the year ended 31 December 2018

	Corporate banking	Personal banking	Treasury operations	Investment banking	Insurance	Other	Elimination	Total
Interest income	344,483	215,904	203,012	1,700	2,731	3,147	(83,077)	687,900
Interest expense	(166,474)	(93,535)	(145,573)	(520)	(39)	(5,130)	83,077	(328,194)
Net interest income/(expense)	178,009	122,369	57,439	1,180	2,692	(1,983)	–	359,706
Fee and commission income	30,556	48,729	16,691	4,419	2	1,901	(2,301)	99,997
Fee and commission expense	(1,238)	(6,923)	(1,886)	(1,224)	(3,369)	(125)	1,976	(12,789)
Net fee and commission income/(expense)	29,318	41,806	14,805	3,195	(3,367)	1,776	(325)	87,208
Net trading gains/(losses)	2,498	901	2,746	304	(1,586)	1,798	58	6,719
Net gains/(losses) on transfers of financial asset	923	142	1,705	–	48	(1)	–	2,817
Other operating income	617	8,313	764	235	22,823	17,250	(2,646)	47,356
Operating income	211,365	173,531	77,459	4,914	20,610	18,840	(2,913)	503,806
Operating expenses	(58,987)	(71,483)	(17,456)	(2,949)	(19,448)	(9,569)	2,913	(176,979)
Impairment losses on assets	(88,871)	(8,751)	(1,348)	1	(20)	(305)	–	(99,294)
Operating profit	63,507	93,297	58,655	1,966	1,142	8,966	–	227,533
Share of results of associates and joint ventures	–	63	3	375	(157)	1,896	(70)	2,110
Profit before income tax	63,507	93,360	58,658	2,341	985	10,862	(70)	229,643
Income tax expense								(37,208)
Profit for the year								192,435
Segment assets	7,628,839	4,438,581	8,629,971	65,239	149,592	423,944	(92,260)	21,243,906
Investments in associates and joint ventures	–	143	–	4,690	–	18,622	(86)	23,369
Total assets	7,628,839	4,438,724	8,629,971	69,929	149,592	442,566	(92,346)	21,267,275
Segment liabilities	9,435,725	6,218,896	3,574,230	50,915	134,988	219,223	(92,099)	19,541,878
Other segment items:								
Intersegment net interest income/(expense)	36,820	43,889	(79,778)	161	54	(1,146)	–	–
Intersegment net fee and commission income/(expense)	506	1,362	95	(403)	(1,493)	258	(325)	–
Capital expenditure	3,263	3,618	178	130	81	34,594	–	41,864
Depreciation and amortisation	4,765	6,023	1,622	121	91	4,421	–	17,043
Credit commitments	2,859,851	1,133,160	–	–	–	–	–	3,993,011

V NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)

45 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 continued 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 and securities lent to counterparties under securities lending 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 or be required 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 as collateral.

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 2019		As at 31 December 2018	
	Carrying amount of transferred assets	Carrying amount of associated liabilities	Carrying amount of transferred assets	Carrying amount of associated liabilities
Repurchase agreements	528	503	108,146	104,434

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 derecognised 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 RMB956 million as at 31 December 2019 (31 December 2018: RMB1,273 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 RMB49,985 million for this year (2018: RMB43,080 million) and the carrying amount of assets that the Group continues to recognise in the statement of financial position was RMB15,250 million as at 31 December 2019 (31 December 2018: RMB9,639 million).

V NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)

46 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.

46.1 Interests in unconsolidated structured entities

The interests held by the Group in unconsolidated structured entities are set out as below:

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 narrow and well-defined objectives, including non-guaranteed wealth management products, publicly offered funds and asset management plans, and earned management fee, commission and custodian fees in return.

As at 31 December 2019, the balance of the above unconsolidated bank wealth management products sponsored by the Group amounted to RMB1,231,861 million (31 December 2018: RMB1,157,201 million). The balance of unconsolidated publicly offered funds and asset management plans sponsored by the Group amounted to RMB638,865 million (31 December 2018: RMB762,725 million).

For the year ended 31 December 2019, the above-mentioned management fee, commission and custodian fee amounted to RMB6,904 million (2018: RMB9,041 million).

As at 31 December 2019, the balance of interest and commission receivable held by the Group in above-mentioned structured entities are 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 2019, the maximum balance of such financing provided by the Group to the unconsolidated wealth management products was RMB180,050 million (2018: RMB122,322 million). Such financing provided by the Group was included in "Placements with and loans to banks and other financial institutions". As at 31 December 2019, the balance of the above transactions was RMB170,797 million (31 December 2018: RMB107,000 million). The maximum exposure to loss of those placements approximated to their carrying amount.

In addition, the total carrying amount as at the transfer date of credit assets transferred by the Group into the unconsolidated structured entities was RMB570 million for the year ended 31 December 2019 (2018: RMB163 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.45.

V NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)**46 Interests in structured entities (Continued)****46.1 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 2019					
Fund investments	53,349	–	–	53,349	53,349
Investment trusts and asset management plans	2,396	–	8,163	10,559	10,559
Asset-backed securitisations	905	68,192	44,008	113,105	113,105
As at 31 December 2018					
Fund investments	39,237	–	–	39,237	39,237
Investment trusts and asset management plans	2,420	–	8,561	10,981	10,981
Asset-backed securitisations	759	49,195	48,613	98,567	98,567

46.2 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.

V NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)**47 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		
				Financial instruments*	Cash collateral received	Net amount
As at 31 December 2019						
Derivatives	37,020	–	37,020	(27,391)	(2,034)	7,595
Reverse repo agreements	5,408	–	5,408	(5,408)	–	–
Other assets	11,307	(10,344)	963	–	–	963
Total	53,735	(10,344)	43,391	(32,799)	(2,034)	8,558
As at 31 December 2018						
Derivatives	42,257	–	42,257	(25,990)	(2,891)	13,376
Reverse repo agreements	4,350	–	4,350	(4,350)	–	–
Other assets	11,727	(8,072)	3,655	–	–	3,655
Total	58,334	(8,072)	50,262	(30,340)	(2,891)	17,031

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		
				Financial instruments*	Cash collateral pledged	Net amount
As at 31 December 2019						
Derivatives	43,204	–	43,204	(27,904)	(6,433)	8,867
Repurchase agreements	503	–	503	(503)	–	–
Other liabilities	12,028	(10,344)	1,684	–	–	1,684
Total	55,735	(10,344)	45,391	(28,407)	(6,433)	10,551
As at 31 December 2018						
Derivatives	40,691	–	40,691	(25,976)	(2,029)	12,686
Repurchase agreements	22,446	–	22,446	(22,446)	–	–
Other liabilities	8,681	(8,072)	609	–	–	609
Total	71,818	(8,072)	63,746	(48,422)	(2,029)	13,295

* Including non-cash collateral.

V NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)**47 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.

48 The Bank's statement of financial position and changes in equity**48.1 The Bank's statement of financial position**

	As at 31 December	
	2019	2018
ASSETS		
Cash and due from banks and other financial institutions	520,638	413,600
Balances with central banks	1,913,236	1,958,832
Placements with and loans to banks and other financial institutions	961,732	1,099,001
Government certificates of indebtedness for bank notes issued	8,698	8,060
Precious metals	197,914	175,333
Derivative financial assets	68,731	96,497
Loans and advances to customers, net	11,204,197	10,157,694
Financial investments	4,343,595	4,221,661
— financial assets at fair value through profit or loss	281,703	225,230
— financial assets at fair value through other comprehensive income	1,422,035	1,316,998
— financial assets at amortised cost	2,639,857	2,679,433
Investments in subsidiaries	123,658	111,884
Investments in associates and joint ventures	7,998	7,317
Consolidated structured entities	209,092	127,192
Property and equipment	83,403	82,440
Investment properties	2,338	2,002
Deferred income tax assets	45,284	38,208
Other assets	83,331	43,312
Total assets	19,773,845	18,543,033

V NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)**48 The Bank's statement of financial position and changes in equity (Continued)****48.1 The Bank's statement of financial position (Continued)**

	As at 31 December	
	2019	2018
LIABILITIES		
Due to banks and other financial institutions	1,672,571	1,721,071
Due to central banks	791,046	847,493
Bank notes in circulation	8,842	8,237
Placements from banks and other financial institutions	587,735	586,749
Financial liabilities held for trading	2,158	2,642
Derivative financial liabilities	61,919	74,855
Due to customers	13,788,093	12,999,376
Bonds issued	1,004,095	704,886
Current tax liabilities	50,851	23,826
Retirement benefit obligations	2,537	2,825
Deferred income tax liabilities	308	121
Other liabilities	149,809	126,520
Total liabilities	18,119,964	17,098,601
EQUITY		
Share capital	294,388	294,388
Other equity instruments	199,893	99,714
Capital reserve	132,627	138,832
Other comprehensive income	19,292	8,596
Statutory reserves	171,003	154,313
General and regulatory reserves	240,279	222,462
Undistributed profits	596,399	526,127
Total equity	1,653,881	1,444,432
Total equity and liabilities	19,773,845	18,543,033

Approved and authorised for issue by the Board of Directors on 27 March 2020.

LIU Liange
Director

WANG Jiang
Director

V NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)**48 The Bank's statement of financial position and changes in equity (Continued)****48.2 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 2019	294,388	99,714	138,832	8,596	154,313	222,462	526,127	1,444,432
Total comprehensive income	–	–	–	10,704	–	–	165,764	176,468
Appropriation to statutory reserves	–	–	–	–	16,690	–	(16,690)	–
Appropriation to general and regulatory reserves	–	–	–	–	–	17,817	(17,817)	–
Dividends	–	–	–	–	–	–	(60,993)	(60,993)
Capital contribution and reduction by other equity instruments holders	–	100,179	(6,205)	–	–	–	–	93,974
Other comprehensive income transferred to retained earnings	–	–	–	(8)	–	–	8	–
As at 31 December 2019	294,388	199,893	132,627	19,292	171,003	240,279	596,399	1,653,881

	Share capital	Other equity instruments	Capital reserve	Other comprehensive income	Statutory reserves	General and regulatory reserves	Undistributed profits	Total
As at 1 January 2018	294,388	99,714	138,832	(9,902)	138,275	200,022	463,809	1,325,138
Total comprehensive income	–	–	–	18,437	–	–	159,460	177,897
Appropriation to statutory reserves	–	–	–	–	16,038	–	(16,038)	–
Appropriation to general and regulatory reserves	–	–	–	–	–	22,440	(22,440)	–
Dividends	–	–	–	–	–	–	(58,603)	(58,603)
Other comprehensive income transferred to retained earnings	–	–	–	61	–	–	(61)	–
As at 31 December 2018	294,388	99,714	138,832	8,596	154,313	222,462	526,127	1,444,432

V NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)

49 Events after the financial reporting date

Dividend distribution plan of Domestic Preference Shares (Second Tranche)

The dividend distribution of Domestic Preference Shares (Second Tranche) was approved by the Board of Directors of the Bank at the Board meeting held on 13 January 2020. The dividend of RMB1,540 million was paid at a rate of 5.5% on 13 March 2020. The dividend payable was not reflected in liabilities of the financial statements.

Issuance of Offshore Preference Shares

The Bank has received the *Approval Regarding the Offshore Non-public Issuance of Preference Shares by Bank of China Limited* (Zhengjian Approval [2020] No. 254) from the China Securities Regulatory Commission ("CSRC"), which approved the offshore issuance of no more than 200 million preference shares by the Bank, with each share having a par value of RMB100. The Bank has issued Non-cumulative Perpetual Offshore Preference Shares with a total aggregate amount of USD2,820,000,000 and a dividend rate of 3.60% on 26 February 2020. The total number of the Offshore Preference Shares that have been issued is 197,865,300 and the issuance has been completed on 4 March 2020. Capital raised from the issuance of Offshore Preference Shares, after deduction of commissions and expenses relating to the issuances, will be wholly used to replenish the Bank's additional tier 1 capital and to increase its capital adequacy ratio.

Subordinated Bonds Redemption

On 11 March 2020, the Bank redeemed at face value all of the fixed-rate subordinated bonds issued in 2010 with a maturity of 15 years amounting to RMB24.93 billion. The redemption details have been set out in the Bank's announcement dated 12 March 2020.

Evaluation of the impact of COVID-19

The outbreak of the novel coronavirus disease (COVID-19) since early January 2020 has taken a phased toll on the economy, thus likely having impacts, to a certain extent, on the Group's asset quality and returns from certain businesses. The magnitude of the COVID-19 impact depends on the progress of prevention and containment of the epidemic, its duration and the implementation of related control policies. The ECL of the Group at 31 December 2019 was estimated based on a range of forecast economic conditions as at that date. In 2020, the Group will continuously and closely monitor the status of fight against COVID-19, evaluate and proactively address its impact on the Group's financial position and performance, including impairment losses of financial assets. Such evaluation remains in progress as of the date of publishing this report.

VI FINANCIAL RISK MANAGEMENT

1 Overview

The Group's primary risk management objectives are to maximise value for equity holders while maintaining risk within acceptable parameters, optimising capital allocation and satisfying the requirements of the regulatory authorities, the Group's depositors and other stakeholders for the Group's prudent and stable development.

The Group has designed a series of risk management policies and has set up appropriate risk limits and controls to analyse, identify, monitor and report risks by means of relevant and up-to-date information systems. The Group regularly reviews and revises its risk management policies and systems to reflect changes in markets, products and emerging best practice.

The most significant types of risks to the Group are credit risk, market risk and liquidity risk. Market risk includes interest rate risk, currency risk and other price risk.

2 Financial risk management framework

The Board of Directors is responsible for establishing the overall risk appetite of the Group and reviewing and approving the risk management objectives and strategies.

Within this framework, the Group's senior management has the overall responsibility for managing all aspects of risks, including implementing risk management strategies, initiatives and credit policies and approving internal policies, measures and procedures related to risk management. The Risk Management Department, the Credit Management Department, the Financial Management Department and other relevant functional departments are responsible for monitoring financial risks.

The Group manages the risks at the branch level through direct reporting from the branches to the relevant departments responsible for risk management at the Head Office. Business line related risks are monitored through establishing specific risk management teams within the business departments. The Group monitors and controls risk management at subsidiaries by appointing members of their boards of directors and risk management committees as appropriate.

3 Credit risk

The Group takes on exposure to credit risk, which is the risk that a customer or counterparty will cause a financial loss for the Group by failing to discharge an 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 derivatives, loan commitments, bill acceptance, letters of guarantee and letters of credit.

3.1 Credit risk measurement

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

The Credit Management Department is responsible for centrally monitoring and evaluating the credit risk of granting loans and advances to customers and off-balance sheet credit commitments, and reporting to senior management and the Board of Directors on a regular basis.

The Group mainly measures the credit risk of corporate loans and advances based on the PD and financial status of customers' agreed obligations, and considering the current credit exposure and possible future development trends. For individual customers, the Group uses a standard credit approval process to assess the credit risk of individual loans, and uses a scorecard model based on historical LGD to measure the credit risk of credit cards.

VI FINANCIAL RISK MANAGEMENT (Continued)

3 Credit risk (Continued)

3.1 Credit risk measurement (Continued)

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

For credit risk arising from off-balance sheet commitments, the Group manages the risks according to the characteristics of the products. These mainly include loan commitments, guarantees, bill acceptances and letters of credit. Guarantees, bill acceptances and letters of credit carry similar credit risk to loans. Documentary and commercial letters of credit are written undertakings by the Group on behalf of a customer authorising a third party to draw drafts on the Group up to a stipulated amount under specific terms and conditions and are collateralised by the underlying shipment documents of goods to which they relate or deposits and are therefore assessed to have less credit risk than a direct loan. Besides, the Group monitors the term to maturity of off-balance sheet commitments and those with longer-terms are assessed to have greater credit risk than shorter-term commitments.

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”), 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 exposures are also assessed and categorised with reference to the Guideline. For operations in Hong Kong, Macao, Taiwan and other countries and regions, where local regulations and requirements are more prudent than the Guideline, the credit assets are classified according to 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 Bank implemented a customer credit rating system based on the PD model. The PD model uses the principle of logistic regression to predict the PD for customers in the coming year. According to the calculated PD value, the risk rating of the customer is obtained through the relevant mapping relationship table. The Group conducts back-testing of the model according to the customer’s actual default each year, so that the model calculation results are closer to the objective facts.

VI FINANCIAL RISK MANAGEMENT (Continued)

3 Credit risk (Continued)

3.1 Credit risk measurement (Continued)

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

The customer credit ratings in the internal model are based on four categories of A, B, C and D which are further classified into fifteen grades as AAA, AA, A, BBB+, BBB, BBB-, BB+, BB, BB-, B+, B-, CCC, CC, C, and D. Credit grading D equates to defaulted customers while the others are assigned to performing customers.

Five-category loan classifications and customer credit ratings are determined by the Head Office and tier 1 branch management under approved delegated authorities. The Bank performs centralised review on customer credit ratings and five-category loan classifications on an annual basis. Further, five-category loan classifications are re-examined on a quarterly basis. Adjustments are made to these classifications and ratings as necessary according to customers' operational and financial position.

The Group identifies credit risk collectively based on industry, geography and customer type. This information is monitored regularly by management.

Management periodically reviews various elements of the Group's credit risk management process, 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 quotas 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 Group's security position. The actions may include obtaining additional guarantors or collateral.

(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. In response to adverse credit market conditions, various initiatives were implemented since 2008 to better manage and report credit risk, including establishing a special committee which meets periodically and on an ad hoc basis to discuss actions in response to market changes impacting the Group's exposure to credit risk, and formulating a watch list process over counterparty names at risk.

(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 security, 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 policies to maintain strict control limits on net open derivative positions based on the notional amount and term. At any time, the amount subject to credit risk is limited to the current fair value of instruments that are favourable to the Group (i.e. assets for which fair value is positive). The derivative credit risk exposure is managed as part of the overall exposure lending limits set for customers and financial institutions. Collateral or other security is not usually obtained for credit risk exposures on these financial instruments.

VI FINANCIAL RISK MANAGEMENT (Continued)

3 Credit risk (Continued)

3.2 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 process 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 to corporate customers in the Chinese mainland is originated by the Corporate Banking Department at the Head Office and the Corporate Banking Department at branch level and submitted to the Credit Approval Department for due diligence and approval. All credit applications for corporate customers must be approved by the authorised credit application approvers at the Head Office and tier 1 branch level in the Chinese mainland, except for the low risk credit applications which are in accordance with the rules. The exposure to any one borrower, including banks, is restricted by credit limits covering on and off-balance sheet exposures.

Personal loans in the Chinese mainland are originated by the Personal Banking Departments at branch level and 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. High risk personal loans such as personal loans for business purposes in excess of certain limits must also be reviewed by the Risk Management Department.

The Head Office also oversees the risk management of the branches in Hong Kong, Macao, Taiwan 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 these lending limits 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.

VI FINANCIAL RISK MANAGEMENT (Continued)

3 Credit risk (Continued)

3.2 Credit risk limit control and mitigation policies (Continued)

(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, collaterals and guarantees. The Group implements guidelines on the acceptability of specific classes of collateral. The amount of acceptable collateral at the time of loan origination is determined by the Credit Management Department and is subject to loan-to-value ratio limits based on type and is monitored on an ongoing basis by the Credit Management Department. The maximum loan-to-value ratios based on principal collateral types for corporate loans and advances are:

Collateral	Maximum loan-to-value ratio
Deposit receipt	95%
PRC Treasury bonds	90%
PRC financial institution bonds	85%
Publicly traded stocks	50%
Construction land use rights	70%
Real estate	70%
Automobiles	50%

Mortgages to retail customers are generally collateralised by mortgages over residential properties. Other loans are collateralised depending on the nature of the loan.

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 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.41.3.

(ii) Master netting arrangements

The Group further restricts its exposure to credit losses by entering into master netting arrangements with counterparties with which it undertakes a significant volume of transactions. 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 occurs, all amounts with the customer 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 substantially within a short period, as it is affected by each transaction subject to the arrangement.

VI FINANCIAL RISK MANAGEMENT (Continued)**3 Credit risk (Continued)****3.3 Impairment measurement for losses on assets**

Refer to Note II.4.6 for relevant policies.

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

	As at 31 December	
	2019	2018
Credit risk exposures relating to on-balance sheet financial assets are as follows:		
Due from banks and other financial institutions	500,560	363,176
Balances with central banks	2,078,809	2,331,053
Placements with and loans to banks and other financial institutions	898,959	1,042,358
Government certificates of indebtedness for bank notes issued	155,466	145,010
Derivative financial assets	93,335	124,126
Loans and advances to customers, net	12,743,425	11,515,764
Financial investments		
— financial assets at fair value through profit or loss	378,131	279,472
— financial assets at fair value through other comprehensive income	2,196,352	1,862,232
— financial assets at amortised cost	2,777,683	2,804,301
Other assets	115,941	88,012
Subtotal	21,938,661	20,555,504
Credit risk exposures relating to off-balance sheet items are as follows:		
Letters of guarantee issued	1,049,629	1,070,825
Loan commitments and other credit commitments	3,292,941	2,922,186
Subtotal	4,342,570	3,993,011
Total	26,281,231	24,548,515

The table above represents a worst case scenario of credit risk exposure of the Group as at 31 December 2019 and 2018, 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 2019, 48.49% of the Group's total maximum credit exposure is derived from loans and advances to customers (31 December 2018: 46.91%) and 20.31% represents investments in debt securities (31 December 2018: 20.09%).

VI FINANCIAL RISK MANAGEMENT (Continued)

3 Credit risk (Continued)

3.5 Loans and advances

Analysis of loans and advances to customers (accrued interest excluded) by geographical area, industry, collateral type and analysis of impaired and overdue loans and advances to customers is 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			
	2019		2018	
	Amount	% of total	Amount	% of total
Chinese mainland	10,302,408	79.04%	9,273,549	78.67%
Hong Kong, Macao and Taiwan	1,697,434	13.02%	1,515,844	12.86%
Other countries and regions	1,034,347	7.94%	998,290	8.47%
Total	13,034,189	100.00%	11,787,683	100.00%

Chinese mainland

	As at 31 December			
	2019		2018	
	Amount	% of total	Amount	% of total
Northern China	1,573,127	15.27%	1,456,249	15.70%
Northeastern China	494,186	4.80%	501,420	5.41%
Eastern China	4,016,742	38.99%	3,622,159	39.06%
Central and Southern China	2,875,436	27.91%	2,499,434	26.95%
Western China	1,342,917	13.03%	1,194,287	12.88%
Total	10,302,408	100.00%	9,273,549	100.00%

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

	Chinese mainland	Hong Kong, Macao and Taiwan	Other countries and regions	Total
As at 31 December 2019				
Corporate loans and advances				
— Trade bills	996,845	108,177	127,170	1,232,192
— Other	4,853,846	1,051,188	849,154	6,754,188
Personal loans	4,451,717	538,069	58,023	5,047,809
Total	10,302,408	1,697,434	1,034,347	13,034,189
As at 31 December 2018				
Corporate loans and advances				
— Trade bills	778,907	95,793	128,916	1,003,616
— Other	4,559,625	964,102	820,255	6,343,982
Personal loans	3,935,017	455,949	49,119	4,440,085
Total	9,273,549	1,515,844	998,290	11,787,683

VI FINANCIAL RISK MANAGEMENT (Continued)**3 Credit risk (Continued)****3.5 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			
	2019		2018	
	Amount	% of total	Amount	% of total
Corporate loans and advances				
Commerce and services	1,706,650	13.09%	1,516,354	12.86%
Manufacturing	1,679,202	12.88%	1,674,340	14.21%
Transportation, storage and postal services	1,294,922	9.93%	1,182,411	10.03%
Real estate	1,042,664	8.00%	915,793	7.77%
Production and supply of electricity, heating, gas and water	649,289	4.98%	648,849	5.50%
Financial services	565,333	4.34%	398,478	3.38%
Mining	293,375	2.25%	320,369	2.72%
Construction	255,160	1.96%	239,397	2.03%
Water, environment and public utility management	199,376	1.53%	167,811	1.42%
Public utilities	149,855	1.15%	125,917	1.07%
Other	150,554	1.16%	157,879	1.34%
Subtotal	7,986,380	61.27%	7,347,598	62.33%
Personal loans				
Mortgages	3,993,271	30.64%	3,503,563	29.72%
Credit cards	476,743	3.66%	426,338	3.62%
Other	577,795	4.43%	510,184	4.33%
Subtotal	5,047,809	38.73%	4,440,085	37.67%
Total	13,034,189	100.00%	11,787,683	100.00%

VI FINANCIAL RISK MANAGEMENT (Continued)**3 Credit risk (Continued)****3.5 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			
	2019		2018	
	Amount	% of total	Amount	% of total
Corporate loans and advances				
Commerce and services	1,269,121	12.32%	1,130,498	12.19%
Manufacturing	1,285,438	12.48%	1,296,509	13.98%
Transportation, storage and postal services	1,129,091	10.96%	1,009,087	10.88%
Real estate	553,951	5.38%	469,358	5.06%
Production and supply of electricity, heating, gas and water	489,086	4.75%	504,348	5.44%
Financial services	398,095	3.86%	253,212	2.73%
Mining	165,218	1.60%	178,471	1.92%
Construction	214,351	2.08%	200,982	2.17%
Water, environment and public utility management	188,387	1.83%	157,594	1.70%
Public utilities	120,595	1.17%	107,201	1.16%
Other	37,358	0.36%	31,272	0.34%
Subtotal	5,850,691	56.79%	5,338,532	57.57%
Personal loans				
Mortgages	3,582,138	34.77%	3,154,164	34.01%
Credit cards	462,150	4.49%	411,145	4.43%
Other	407,429	3.95%	369,708	3.99%
Subtotal	4,451,717	43.21%	3,935,017	42.43%
Total	10,302,408	100.00%	9,273,549	100.00%

VI FINANCIAL RISK MANAGEMENT (Continued)

3 Credit risk (Continued)

3.5 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			
	2019		2018	
	Amount	% of total	Amount	% of total
Unsecured loans	4,151,941	31.86%	3,636,400	30.84%
Guaranteed loans	1,572,146	12.06%	1,837,442	15.59%
Collateralised and other secured loans	7,310,102	56.08%	6,313,841	53.57%
Total	13,034,189	100.00%	11,787,683	100.00%

Chinese mainland

	As at 31 December			
	2019		2018	
	Amount	% of total	Amount	% of total
Unsecured loans	2,923,150	28.37%	2,585,343	27.88%
Guaranteed loans	1,211,994	11.77%	1,417,321	15.28%
Collateralised and other secured loans	6,167,264	59.86%	5,270,885	56.84%
Total	10,302,408	100.00%	9,273,549	100.00%

VI FINANCIAL RISK MANAGEMENT (Continued)

3 Credit risk (Continued)

3.5 Loans and advances (Continued)

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

(i) Impaired loans and advances by geographical area

Group

	As at 31 December					
	2019			2018		
	Amount	% of total	Impaired loan ratio	Amount	% of total	Impaired loan ratio
Chinese mainland	169,951	95.35%	1.65%	162,778	97.50%	1.76%
Hong Kong, Macao and Taiwan	3,842	2.16%	0.23%	2,720	1.63%	0.18%
Other countries and regions	4,442	2.49%	0.43%	1,454	0.87%	0.15%
Total	178,235	100.00%	1.37%	166,952	100.00%	1.42%

Chinese mainland

	As at 31 December					
	2019			2018		
	Amount	% of total	Impaired loan ratio	Amount	% of total	Impaired loan ratio
Northern China	31,762	18.69%	2.02%	23,053	14.16%	1.58%
Northeastern China	22,123	13.02%	4.48%	40,580	24.93%	8.09%
Eastern China	59,764	35.17%	1.49%	56,423	34.66%	1.56%
Central and Southern China	39,060	22.98%	1.36%	28,114	17.28%	1.12%
Western China	17,242	10.14%	1.28%	14,608	8.97%	1.22%
Total	169,951	100.00%	1.65%	162,778	100.00%	1.76%

(ii) Impaired loans and advances by customer type

Group

	As at 31 December					
	2019			2018		
	Amount	% of total	Impaired loan ratio	Amount	% of total	Impaired loan ratio
Corporate loans and advances	149,427	83.84%	1.87%	139,108	83.32%	1.89%
Personal loans	28,808	16.16%	0.57%	27,844	16.68%	0.63%
Total	178,235	100.00%	1.37%	166,952	100.00%	1.42%

Chinese mainland

	As at 31 December					
	2019			2018		
	Amount	% of total	Impaired loan ratio	Amount	% of total	Impaired loan ratio
Corporate loans and advances	141,978	83.54%	2.43%	135,421	83.19%	2.54%
Personal loans	27,973	16.46%	0.63%	27,357	16.81%	0.70%
Total	169,951	100.00%	1.65%	162,778	100.00%	1.76%

VI FINANCIAL RISK MANAGEMENT (Continued)**3 Credit risk (Continued)****3.5 Loans and advances (Continued)**(2) *Analysis of loans and advances to customers by impaired status (Continued)*

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

	As at 31 December					
	2019			2018		
	Amount	% of total	Impaired loan ratio	Amount	% of total	Impaired loan ratio
Chinese mainland						
Corporate loans and advances						
Commerce and services	45,104	25.31%	3.55%	38,579	23.11%	3.41%
Manufacturing	59,646	33.46%	4.64%	70,092	41.98%	5.41%
Transportation, storage and postal services	8,276	4.64%	0.73%	7,453	4.46%	0.74%
Real estate	2,936	1.65%	0.53%	4,370	2.62%	0.93%
Production and supply of electricity, heating, gas and water	10,954	6.15%	2.24%	1,952	1.17%	0.39%
Financial services	225	0.13%	0.06%	127	0.08%	0.05%
Mining	4,946	2.77%	2.99%	5,494	3.29%	3.08%
Construction	3,561	2.00%	1.66%	2,423	1.45%	1.21%
Water, environment and public utility management	1,594	0.89%	0.85%	1,223	0.73%	0.78%
Public utilities	877	0.49%	0.73%	159	0.10%	0.15%
Other	3,859	2.17%	10.33%	3,549	2.13%	11.35%
Subtotal	141,978	79.66%	2.43%	135,421	81.12%	2.54%
Personal loans						
Mortgages	10,463	5.87%	0.29%	10,225	6.12%	0.32%
Credit cards	10,269	5.76%	2.22%	9,636	5.77%	2.34%
Other	7,241	4.06%	1.78%	7,496	4.49%	2.03%
Subtotal	27,973	15.69%	0.63%	27,357	16.38%	0.70%
Total for Chinese mainland	169,951	95.35%	1.65%	162,778	97.50%	1.76%
Hong Kong, Macao, Taiwan and other countries and regions	8,284	4.65%	0.30%	4,174	2.50%	0.17%
Total	178,235	100.00%	1.37%	166,952	100.00%	1.42%

VI FINANCIAL RISK MANAGEMENT (Continued)

3 Credit risk (Continued)

3.5 Loans and advances (Continued)

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

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

	Impaired loans	Allowance for impairment losses	Net
As at 31 December 2019			
Chinese mainland	169,951	(131,307)	38,644
Hong Kong, Macao and Taiwan	3,842	(2,462)	1,380
Other countries and regions	4,442	(2,775)	1,667
Total	178,235	(136,544)	41,691
As at 31 December 2018			
Chinese mainland	162,778	(128,714)	34,064
Hong Kong, Macao and Taiwan	2,720	(1,407)	1,313
Other countries and regions	1,454	(995)	459
Total	166,952	(131,116)	35,836

(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 2019	As at 31 December 2018	As at 31 December 2019	As at 31 December 2018
Portion covered	94,007	88,150	92,737	86,343
Portion not covered	55,420	50,958	49,241	49,078
Total	149,427	139,108	141,978	135,421
Fair value of collateral held	49,054	48,353	46,939	45,404

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)

3 Credit risk (Continued)

3.5 Loans and advances (Continued)

(3) Loans and advances rescheduled

Rescheduling is a voluntary or, to a limited extent, court-supervised procedure, through which the Group and a borrower and/or its guarantor, if any, rescheduled credit terms as a result of deterioration in the borrower's financial condition or of the borrower's inability to make payments when due. The Group reschedules a non-performing loan only if the borrower has good prospects. In addition, prior to approving the rescheduling of loans, the Group typically requires additional guarantees, pledges and/or collateral, or the assumption of the loan by a borrower with better repayment ability.

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 overdue or if the borrower is unable to demonstrate its 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 2019 and 2018.

As at 31 December 2019 and 2018, 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 91-360 days	Past due 361 days-3 years	Past due over 3 years	Total
As at 31 December 2019					
Unsecured loans	8,937	12,236	7,591	2,086	30,850
Guaranteed loans	8,956	11,150	12,747	1,949	34,802
Collateralised and other secured loans	44,945	22,056	23,917	6,059	96,977
Total	62,838	45,442	44,255	10,094	162,629
As at 31 December 2018					
Unsecured loans	11,682	16,415	7,353	2,016	37,466
Guaranteed loans	18,927	30,269	25,358	5,098	79,652
Collateralised and other secured loans	54,145	23,805	19,692	5,191	102,833
Total	84,754	70,489	52,403	12,305	219,951

VI FINANCIAL RISK MANAGEMENT (Continued)**3 Credit risk (Continued)****3.5 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 91–360 days	Past due 361 days–3 years	Past due over 3 years	Total
As at 31 December 2019					
Unsecured loans	7,141	10,611	6,835	2,071	26,658
Guaranteed loans	8,650	10,927	12,673	1,661	33,911
Collateralised and other secured loans	40,651	19,291	23,650	5,817	89,409
Total	56,442	40,829	43,158	9,549	149,978
As at 31 December 2018					
Unsecured loans	8,867	15,652	6,875	1,994	33,388
Guaranteed loans	15,425	30,202	25,072	5,062	75,761
Collateralised and other secured loans	43,837	23,539	18,998	5,116	91,490
Total	68,129	69,393	50,945	12,172	200,639

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

	As at 31 December	
	2019	2018
Chinese mainland	149,978	200,639
Hong Kong, Macao and Taiwan	7,171	7,972
Other countries and regions	5,480	11,340
Subtotal	162,629	219,951
Percentage	1.25%	1.87%
Less: total loans and advances to customers which have been overdue for less than 3 months	(62,838)	(84,754)
Total loans and advances to customers which have been overdue for more than 3 months	99,791	135,197

VI FINANCIAL RISK MANAGEMENT (Continued)

3 Credit risk (Continued)

3.5 Loans and advances (Continued)

(5) Loans and advances three-staging exposure

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

	As at 31 December 2019			
	12-month ECL	Lifetime ECL		Total
	Stage 1	Stage 2	Stage 3	
Pass	12,514,948	47,588	–	12,562,536
Special-mention	–	289,314	–	289,314
Substandard	–	–	77,459	77,459
Doubtful	–	–	51,804	51,804
Loss	–	–	48,972	48,972
Total	12,514,948	336,902	178,235	13,030,085

	As at 31 December 2018			
	12-month ECL	Lifetime ECL		Total
	Stage 1	Stage 2	Stage 3	
Pass	11,183,826	91,017	6	11,274,849
Special-mention	–	342,358	5	342,363
Substandard	–	–	49,788	49,788
Doubtful	–	–	49,341	49,341
Loss	–	–	67,812	67,812
Total	11,183,826	433,375	166,952	11,784,153

As at 31 December 2019 and 2018, loans and advances by five-category loan classification and three-staging did not include loans and advances to customers measured at fair value through profit or loss.

3.6 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, Macao, Taiwan 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 2019, 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.

VI FINANCIAL RISK MANAGEMENT (Continued)

3 Credit risk (Continued)

3.7 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 2019				
Issuers in Chinese mainland				
— Government	12,997	2,848,409	350	2,861,756
— Public sectors and quasi-governments	109,923	—	—	109,923
— Policy banks	—	435,212	—	435,212
— Financial institutions	86,765	219,640	214,672	521,077
— Corporate	64,457	121,200	26,852	212,509
— China Orient	152,433	—	—	152,433
Subtotal	426,575	3,624,461	241,874	4,292,910
Issuers in Hong Kong, Macao, Taiwan and other countries and regions				
— Governments	2,364	506,421	16,089	524,874
— Public sectors and quasi-governments	60,332	58,889	—	119,221
— Financial institutions	5,675	123,249	31,916	160,840
— Corporate	11,957	127,515	34,663	174,135
Subtotal	80,328	816,074	82,668	979,070
Total	506,903	4,440,535	324,542	5,271,980
As at 31 December 2018				
Issuers in Chinese mainland				
— Government	3,965	2,650,164	—	2,654,129
— Public sectors and quasi-governments	84,364	—	—	84,364
— Policy banks	—	484,992	—	484,992
— Financial institutions	88,468	179,041	229,166	496,675
— Corporate	64,555	102,771	24,364	191,690
— China Orient	153,627	—	—	153,627
Subtotal	394,979	3,416,968	253,530	4,065,477
Issuers in Hong Kong, Macao, Taiwan and other countries and regions				
— Governments	59	355,291	11,252	366,602
— Public sectors and quasi-governments	51,915	56,824	—	108,739
— Financial institutions	3,022	129,934	41,763	174,719
— Corporate	10,824	117,569	24,663	153,056
Subtotal	65,820	659,618	77,678	803,116
Total	460,799	4,076,586	331,208	4,868,593

VI FINANCIAL RISK MANAGEMENT (Continued)

3 Credit risk (Continued)

3.7 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 2019			
	12-month ECL	Lifetime ECL		Total
	Stage 1	Stage 2	Stage 3	
Unrated	467,979	239	–	468,218
A to AAA	4,199,036	59	–	4,199,095
Lower than A	236,749	180	–	236,929
Total	4,903,764	478	–	4,904,242

	As at 31 December 2018			
	12-month ECL	Lifetime ECL		Total
	Stage 1	Stage 2	Stage 3	
Unrated	420,982	414	–	421,396
A to AAA	3,905,218	158	–	3,905,376
Lower than A	269,793	1,180	–	270,973
Total	4,595,993	1,752	–	4,597,745

3.8 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 CCR of derivatives of the Group are calculated in accordance with the *Assets Measurement Rules for Counterparty Default Risk of Derivatives* since 1 January 2019.

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

	As at 31 December	
	2019	2018
Risk-weighted assets for default risk		
Currency derivatives	62,076	54,280
Interest rate derivatives	10,442	2,888
Equity derivatives	338	233
Commodity derivatives and other	12,135	3,334
	84,991	60,735
Risk-weighted assets for CVA	79,954	51,107
Risk-weighted assets for CCPs	6,095	10,220
Total	171,040	122,062

VI FINANCIAL RISK MANAGEMENT (Continued)

3 Credit risk (Continued)

3.9 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.

4 Market risk

4.1 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. Both the Group's trading book and banking book face market risks. 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 (including those financial instruments purchased with surplus funds and managed in the investment 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 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.

4.2 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)

4 Market risk (Continued)

4.2 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 2019 and 2018:

Unit: USD million

	Year ended 31 December					
	2019			2018		
	Average	High	Low	Average	High	Low
The Bank's trading VaR						
Interest rate risk	18.70	23.50	13.24	17.26	23.85	12.24
Foreign exchange risk	18.00	26.69	9.80	10.19	17.66	4.99
Volatility risk	0.44	2.27	0.17	0.38	0.71	0.11
Commodity risk	1.77	6.26	0.75	1.14	5.55	0.13
Total of the Bank's trading VaR	23.03	29.56	17.11	19.87	26.28	13.92

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

Unit: USD million

	Year ended 31 December					
	2019			2018		
	Average	High	Low	Average	High	Low
BOCHK (Holdings)'s trading VaR						
Interest rate risk	2.72	5.30	1.26	3.37	5.50	1.65
Foreign exchange risk	1.63	2.69	0.93	2.30	3.45	1.37
Equity risk	0.10	0.32	0.03	0.20	0.90	0.03
Commodity risk	2.06	5.59	0.03	0.40	1.24	0.11
Total BOCHK (Holdings)'s trading VaR	3.95	6.70	2.24	4.21	5.84	3.07
BOCI's trading VaR⁽ⁱ⁾						
Equity derivatives unit	0.76	1.96	0.34	0.64	2.04	0.16
Fixed income unit	0.66	0.97	0.51	1.25	1.86	0.65
Global commodity unit	0.20	0.36	0.10	0.29	0.52	0.17
Total BOCI's trading VaR	1.61	2.95	1.17	2.18	3.85	1.24

- (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.

VI FINANCIAL RISK MANAGEMENT (Continued)

4 Market risk (Continued)

4.2 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

The banking book is exposed to interest rate risk arising from mismatches in repricing periods and inconsistent adjustments between the benchmark interest rates of assets and liabilities. The Group takes on exposure to interest rate risk and fluctuations in market interest rates that will impact the Group's financial position.

The Group assesses interest rate risk in the banking book 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 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.4.3 and also covers the trading book.

Sensitivity analysis on Net interest income

The Group performs sensitivity analysis by measuring the impact of a change in interest rates on "Net interest income". This analysis 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 makes timely adjustment to the structure of assets and liabilities based on changes in the market situation, and controls 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	
	2019	2018
+ 25 basis points parallel move in all yield curves	(4,534)	(4,136)
– 25 basis points parallel move in all yield curves	4,534	4,136

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 increase or decrease by RMB14,591 million (2018: RMB13,733 million) for every 25 basis points upwards or downwards parallel shift, respectively.

VI FINANCIAL RISK MANAGEMENT (Continued)

4 Market risk (Continued)

4.3 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 2019						Total
	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	
Assets							
Cash and due from banks and other financial institutions	326,312	52,603	116,321	2,845	129	67,257	565,467
Balances with central banks	1,848,825	2,289	594	–	–	227,101	2,078,809
Placements with and loans to banks and other financial institutions	427,786	195,628	230,922	40,489	–	4,134	898,959
Derivative financial assets	–	–	–	–	–	93,335	93,335
Loans and advances to customers, net	3,317,026	2,369,401	6,291,477	207,511	82,221	475,789	12,743,425
Financial investments							
— financial assets at fair value through profit or loss	17,516	53,982	97,306	54,269	148,855	146,322	518,250
— financial assets at fair value through other comprehensive income	188,302	287,412	366,595	837,429	492,120	46,271	2,218,129
— financial assets at amortised cost	33,368	45,578	487,744	1,331,541	841,101	38,351	2,777,683
Other	4,897	–	–	–	12,737	858,053	875,687
Total assets	6,164,032	3,006,893	7,590,959	2,474,084	1,577,163	1,956,613	22,769,744
Liabilities							
Due to banks and other financial institutions	988,433	371,241	130,006	3,617	–	174,749	1,668,046
Due to central banks	251,446	72,048	510,594	3,570	–	8,619	846,277
Placements from banks and other financial institutions	495,927	71,468	69,079	1,363	14	1,824	639,675
Derivative financial liabilities	–	–	–	–	–	90,060	90,060
Due to customers	9,117,294	1,540,251	2,488,155	2,296,955	339	374,554	15,817,548
Bonds issued	57,441	192,462	404,780	402,772	32,451	6,181	1,096,087
Other	23,693	19,255	10,006	10,847	20,832	550,722	635,355
Total liabilities	10,934,234	2,266,725	3,612,620	2,719,124	53,636	1,206,709	20,793,048
Total interest repricing gap	(4,770,202)	740,168	3,978,339	(245,040)	1,523,527	749,904	1,976,696

VI FINANCIAL RISK MANAGEMENT (Continued)**4 Market risk (Continued)****4.3 GAP analysis (Continued)**

	As at 31 December 2018						Total
	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	
Assets							
Cash and due from banks and other financial institutions	211,195	29,873	115,397	3,356	–	80,110	439,931
Balances with central banks	2,113,231	2,085	619	–	–	215,118	2,331,053
Placements with and loans to banks and other financial institutions	668,153	98,129	225,933	45,694	–	4,449	1,042,358
Derivative financial assets	–	–	–	–	–	124,126	124,126
Loans and advances to customers, net	3,146,270	2,145,073	5,613,781	119,794	53,241	437,605	11,515,764
Financial investments							
— financial assets at fair value through profit or loss	19,425	37,327	75,423	44,898	96,195	97,223	370,491
— financial assets at fair value through other comprehensive income	112,091	172,122	406,442	789,385	360,876	38,843	1,879,759
— financial assets at amortised cost	14,863	83,459	283,575	1,605,967	777,123	39,314	2,804,301
Other	5,188	–	–	–	3,661	750,643	759,492
Total assets	6,290,416	2,568,068	6,721,170	2,609,094	1,291,096	1,787,431	21,267,275
Liabilities							
Due to banks and other financial institutions	1,011,125	313,145	181,766	49,045	–	176,128	1,731,209
Due to central banks	275,905	156,600	456,671	8,071	–	10,274	907,521
Placements from banks and other financial institutions	428,797	122,663	57,583	1,417	–	1,807	612,267
Derivative financial liabilities	–	–	–	–	–	99,254	99,254
Due to customers	8,515,651	1,354,989	2,668,074	1,960,185	105	384,592	14,883,596
Bonds issued	91,311	157,934	179,233	311,777	35,125	6,747	782,127
Other	17,849	24,535	1,560	2,515	5,246	474,199	525,904
Total liabilities	10,340,638	2,129,866	3,544,887	2,333,010	40,476	1,153,001	19,541,878
Total interest repricing gap	(4,050,222)	438,202	3,176,283	276,084	1,250,620	634,430	1,725,397

VI FINANCIAL RISK MANAGEMENT (Continued)

4 Market risk (Continued)

4.4 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.4.2). 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 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 tax and equity. A negative amount in the table reflects a potential net reduction in profit before 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.

Currency	Change in currency rate	Effect on profit before tax		Effect on equity*	
		As at	As at	As at	As at
		31 December 2019	31 December 2018	31 December 2019	31 December 2018
USD	+1%	354	521	522	527
HKD	+1%	(262)	(338)	2,079	2,199

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

While the table above indicates the effect on profit before 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.

VI FINANCIAL RISK MANAGEMENT (Continued)

4 Market risk (Continued)

4.4 Foreign currency risk (Continued)

The tables below summarise the Group's exposure to foreign currency exchange rate risk as at 31 December 2019 and 2018. 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 2019							Total
	RMB	USD	HKD	EURO	JPY	GBP	Other	
Assets								
Cash and due from banks and other financial institutions	370,569	140,513	18,368	10,977	7,833	1,691	15,516	565,467
Balances with central banks	1,583,469	265,682	57,599	59,456	49,422	34,133	29,048	2,078,809
Placements with and loans to banks and other financial institutions	652,817	149,463	33,441	6,050	141	2,435	54,612	898,959
Derivative financial assets	42,558	13,694	26,586	446	20	6,348	3,683	93,335
Loans and advances to customers, net	9,870,244	1,170,630	1,027,104	250,730	11,194	69,423	344,100	12,743,425
Financial investments								
— financial assets at fair value through profit or loss	346,644	78,848	83,199	2,540	6,925	16	78	518,250
— financial assets at fair value through other comprehensive income	1,354,391	489,432	150,486	32,292	103,797	2,610	85,121	2,218,129
— financial assets at amortised cost	2,525,349	219,495	3,319	4,802	770	954	22,994	2,777,683
Other	268,436	162,203	198,398	1,357	1,465	2,691	241,137	875,687
Total assets	17,014,477	2,689,960	1,598,500	368,650	181,567	120,301	796,289	22,769,744
Liabilities								
Due to banks and other financial institutions	1,009,086	391,869	27,167	43,826	21,193	7,374	167,531	1,668,046
Due to central banks	570,675	247,096	19,979	5,920	—	258	2,349	846,277
Placements from banks and other financial institutions	298,497	213,662	76,294	17,161	25,330	3,745	4,986	639,675
Derivative financial liabilities	36,135	19,811	22,813	707	52	6,112	4,430	90,060
Due to customers	11,925,923	1,836,997	1,255,663	254,485	56,683	55,672	432,125	15,817,548
Bonds issued	766,816	258,893	11,868	38,794	1,920	2,744	15,052	1,096,087
Other	254,949	91,825	267,607	3,131	351	1,863	15,629	635,355
Total liabilities	14,862,081	3,060,153	1,681,391	364,024	105,529	77,768	642,102	20,793,048
Net on-balance sheet position	2,152,396	(370,193)	(82,891)	4,626	76,038	42,533	154,187	1,976,696
Net off-balance sheet position	(463,297)	378,515	283,483	5,828	(75,754)	(40,620)	(74,643)	13,512
Credit commitments	2,959,323	836,835	257,229	124,696	9,841	49,401	105,245	4,342,570

(Amount in millions of Renminbi, unless otherwise stated)

VI FINANCIAL RISK MANAGEMENT (Continued)

4 Market risk (Continued)

4.4 Foreign currency risk (Continued)

	As at 31 December 2018							
	RMB	USD	HKD	EURO	JPY	GBP	Other	Total
Assets								
Cash and due from banks and other financial institutions	308,697	79,058	17,818	6,442	5,694	1,575	20,647	439,931
Balances with central banks	1,855,438	280,029	40,625	39,770	36,838	47,950	30,403	2,331,053
Placements with and loans to banks and other financial institutions	878,861	93,903	30,994	7,636	3,094	283	27,587	1,042,358
Derivative financial assets	67,601	17,913	29,945	621	37	5,237	2,772	124,126
Loans and advances to customers, net	8,830,692	1,146,207	923,070	201,731	12,637	65,563	335,864	11,515,764
Financial investments								
— financial assets at fair value through profit or loss	238,495	56,988	72,981	2,011	—	16	—	370,491
— financial assets at fair value through other comprehensive income	1,191,739	453,918	116,376	30,629	8,573	3,023	75,501	1,879,759
— financial assets at amortised cost	2,548,402	229,300	3,496	3,450	746	1,456	17,451	2,804,301
Other	213,438	148,481	185,113	568	1,244	2,097	208,551	759,492
Total assets	16,133,363	2,505,797	1,420,418	292,858	68,863	127,200	718,776	21,267,275
Liabilities								
Due to banks and other financial institutions	1,060,308	404,757	34,551	40,090	14,270	7,049	170,184	1,731,209
Due to central banks	628,327	246,540	26,758	5,461	—	434	1	907,521
Placements from banks and other financial institutions	266,692	271,303	39,642	12,669	11,242	5,411	5,308	612,267
Derivative financial liabilities	50,554	14,104	26,366	678	46	5,059	2,447	99,254
Due to customers	11,256,454	1,716,821	1,202,357	194,439	58,478	46,334	408,713	14,883,596
Bonds issued	447,679	252,059	6,682	48,465	1,852	9,793	15,597	782,127
Other	191,501	84,330	230,918	2,327	480	1,323	15,025	525,904
Total liabilities	13,901,515	2,989,914	1,567,274	304,129	86,368	75,403	617,275	19,541,878
Net on-balance sheet position	2,231,848	(484,117)	(146,856)	(11,271)	(17,505)	51,797	101,501	1,725,397
Net off-balance sheet position	(795,575)	520,806	355,983	21,144	19,415	(49,526)	(40,626)	31,621
Credit commitments	2,715,693	794,823	223,494	111,092	10,425	44,054	93,430	3,993,011

VI FINANCIAL RISK MANAGEMENT (Continued)

5 Liquidity risk

The liquidity risk means 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.

5.1 *Liquidity risk management policy and process*

The Bank continued 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 fund sources by market-oriented financing modes, including due to banks and other financial institutions, inter-bank borrowings 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)

5 Liquidity risk (Continued)

5.2 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 2019							Total
	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	
Assets								
Cash and due from banks and other financial institutions	21	204,121	183,170	55,805	119,376	2,845	129	565,467
Balances with central banks	1,513,473	527,657	16,242	8,293	12,441	703	–	2,078,809
Placements with and loans to banks and other financial institutions	44	–	417,352	185,843	241,024	54,696	–	898,959
Derivative financial assets	–	10,697	14,983	20,855	24,869	16,610	5,321	93,335
Loans and advances to customers, net	51,073	188,916	458,233	1,216,882	2,716,777	3,221,650	4,889,894	12,743,425
Financial investments								
— financial assets at fair value through profit or loss	143,255	–	16,394	49,949	98,245	58,537	151,870	518,250
— financial assets at fair value through other comprehensive income	22,067	–	142,122	234,297	396,998	912,932	509,713	2,218,129
— financial assets at amortised cost	1,767	–	35,141	53,375	506,346	1,337,456	843,598	2,777,683
Other	345,309	381,978	24,301	12,827	23,308	60,436	27,528	875,687
Total assets	2,077,009	1,313,369	1,307,938	1,838,126	4,139,384	5,665,865	6,428,053	22,769,744
Liabilities								
Due to banks and other financial institutions	–	1,036,810	125,011	324,062	175,301	6,779	83	1,668,046
Due to central banks	–	180,113	70,832	72,898	518,864	3,570	–	846,277
Placements from banks and other financial institutions	–	–	492,657	70,924	69,694	6,386	14	639,675
Derivative financial liabilities	–	8,780	11,165	15,936	26,652	20,482	7,045	90,060
Due to customers	–	7,843,084	1,541,342	1,540,159	2,541,528	2,343,527	7,908	15,817,548
Bonds issued	–	–	23,985	150,073	416,192	470,942	34,895	1,096,087
Other	–	280,526	53,662	12,895	121,693	92,907	73,672	635,355
Total liabilities	–	9,349,313	2,318,654	2,186,947	3,869,924	2,944,593	123,617	20,793,048
Net liquidity gap	2,077,009	(8,035,944)	(1,010,716)	(348,821)	269,460	2,721,272	6,304,436	1,976,696

VI FINANCIAL RISK MANAGEMENT (Continued)**5 Liquidity risk (Continued)****5.2 Maturity analysis (Continued)**

	As at 31 December 2018							
	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	178,645	110,908	30,365	116,636	3,356	–	439,931
Balances with central banks	1,588,770	511,244	216,281	2,087	12,329	342	–	2,331,053
Placements with and loans to banks and other financial institutions	44	–	659,399	92,855	231,633	58,427	–	1,042,358
Derivative financial assets	–	10,055	22,259	30,528	38,686	18,634	3,964	124,126
Loans and advances to customers, net	69,539	154,707	397,574	1,086,838	2,478,055	3,036,778	4,292,273	11,515,764
Financial investments								
— financial assets at fair value through profit or loss	93,524	–	16,772	32,788	71,133	52,863	103,411	370,491
— financial assets at fair value through other comprehensive income	16,456	–	71,630	120,021	428,041	870,105	373,506	1,879,759
— financial assets at amortised cost	2,001	–	15,328	78,810	306,782	1,623,516	777,864	2,804,301
Other	301,633	338,223	22,683	7,554	18,968	50,792	19,639	759,492
Total assets	2,071,988	1,192,874	1,532,834	1,481,846	3,702,263	5,714,813	5,570,657	21,267,275
Liabilities								
Due to banks and other financial institutions	–	1,038,168	143,392	314,126	186,252	49,271	–	1,731,209
Due to central banks	–	172,280	104,114	157,466	465,590	8,071	–	907,521
Placements from banks and other financial institutions	–	–	429,492	123,223	58,135	1,417	–	612,267
Derivative financial liabilities	–	7,314	19,861	18,267	33,305	17,434	3,073	99,254
Due to customers	–	7,368,721	1,405,144	1,349,078	2,740,128	2,010,860	9,665	14,883,596
Bonds issued	–	–	45,983	99,061	196,535	323,057	117,491	782,127
Other	–	276,288	36,307	12,145	76,623	66,329	58,212	525,904
Total liabilities	–	8,862,771	2,184,293	2,073,366	3,756,568	2,476,439	188,441	19,541,878
Net liquidity gap	2,071,988	(7,669,897)	(651,459)	(591,520)	(54,305)	3,238,374	5,382,216	1,725,397

VI FINANCIAL RISK MANAGEMENT (Continued)

5 Liquidity risk (Continued)

5.3 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 2019							Total
	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	
Non-derivative cash flow								
Cash and due from banks and other financial institutions	21	204,130	183,615	56,074	120,765	3,096	133	567,834
Balances with central banks	1,513,473	527,657	16,249	8,302	12,450	722	–	2,078,853
Placements with and loans to banks and other financial institutions	44	–	417,635	189,233	244,950	56,154	–	908,016
Loans and advances to customers, net	52,895	195,546	484,426	1,298,683	3,086,083	4,534,837	7,151,130	16,803,600
Financial investments								
— financial assets at fair value through profit or loss	143,237	–	16,420	50,340	103,259	84,649	186,039	583,944
— financial assets at fair value through other comprehensive income	22,067	–	142,329	235,681	427,288	1,030,193	561,203	2,418,761
— financial assets at amortised cost	1,798	–	35,530	56,946	554,364	1,543,565	974,147	3,166,350
Other financial assets	1,026	167,792	20,967	1,935	4,506	1,424	14,091	211,741
Total financial assets	1,734,561	1,095,125	1,317,171	1,897,194	4,553,665	7,254,640	8,886,743	26,739,099
Due to banks and other financial institutions	–	1,036,859	125,501	325,279	176,849	7,047	84	1,671,619
Due to central banks	–	180,123	71,548	74,724	526,257	3,787	–	856,439
Placements from banks and other financial institutions	–	–	492,804	71,641	70,322	6,616	14	641,397
Due to customers	–	7,843,233	1,544,280	1,547,409	2,570,184	2,527,791	8,124	16,041,021
Bonds issued	–	–	24,056	150,929	423,073	521,722	36,162	1,155,942
Other financial liabilities	–	220,323	38,040	9,993	20,569	48,656	24,912	362,493
Total financial liabilities	–	9,280,538	2,296,229	2,179,975	3,787,254	3,115,619	69,296	20,728,911
Derivative cash flow								
Derivative financial instruments settled on a net basis	–	1,873	2,324	5,086	(993)	(3,966)	(791)	3,533
Derivative financial instruments settled on a gross basis								
Total inflow	–	104,485	1,790,517	1,514,328	2,672,728	409,405	18,919	6,510,382
Total outflow	–	(103,878)	(1,787,934)	(1,510,528)	(2,673,807)	(409,542)	(18,915)	(6,504,604)

VI FINANCIAL RISK MANAGEMENT (Continued)**5 Liquidity risk (Continued)****5.3 Undiscounted cash flows by contractual maturities (Continued)**

	As at 31 December 2018							
	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	178,651	111,218	30,532	118,297	3,696	–	442,415
Balances with central banks	1,588,770	511,244	216,643	2,099	12,329	342	–	2,331,427
Placements with and loans to banks and other financial institutions	48	–	660,424	95,839	238,102	60,246	–	1,054,659
Loans and advances to customers, net	71,503	154,728	420,408	1,162,609	2,787,330	4,105,071	6,109,473	14,811,122
Financial investments								
— financial assets at fair value through profit or loss	93,562	–	16,818	33,180	76,304	75,588	139,717	435,169
— financial assets at fair value through other comprehensive income	16,496	–	72,228	121,707	459,033	986,895	433,630	2,089,989
— financial assets at amortised cost	2,032	–	15,587	82,033	356,737	1,853,204	897,790	3,207,383
Other financial assets	763	148,184	13,867	926	3,930	210	4,740	172,620
Total financial assets	1,773,195	992,807	1,527,193	1,528,925	4,052,062	7,085,252	7,585,350	24,544,784
Due to banks and other financial institutions	–	1,038,230	143,665	315,386	187,753	52,826	–	1,737,860
Due to central banks	–	172,289	104,338	158,161	470,743	8,716	–	914,247
Placements from banks and other financial institutions	–	–	429,704	124,123	59,521	1,509	–	614,857
Due to customers	–	7,368,831	1,407,351	1,354,994	2,770,079	2,159,790	9,959	15,071,004
Bonds issued	–	–	46,457	99,898	210,560	362,609	139,539	859,063
Other financial liabilities	–	222,147	23,038	7,037	7,936	30,083	9,715	299,956
Total financial liabilities	–	8,801,497	2,154,553	2,059,599	3,706,592	2,615,533	159,213	19,496,987
Derivative cash flow								
Derivative financial instruments settled on a net basis	–	2,659	2,135	7,101	5,020	(120)	516	17,311
Derivative financial instruments settled on a gross basis								
Total inflow	–	79,242	2,831,895	1,618,108	3,116,519	368,456	7,805	8,022,025
Total outflow	–	(79,178)	(2,830,917)	(1,612,726)	(3,112,216)	(367,680)	(7,784)	(8,010,501)

VI FINANCIAL RISK MANAGEMENT (Continued)

5 Liquidity risk (Continued)

5.4 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 2019				
Loan commitments ⁽¹⁾	1,859,147	587,973	167,961	2,615,081
Guarantees, acceptances and other financial facilities	1,146,111	297,015	284,363	1,727,489
Subtotal	3,005,258	884,988	452,324	4,342,570
Capital commitments	38,814	18,498	–	57,312
Total	3,044,072	903,486	452,324	4,399,882
As at 31 December 2018				
Loan commitments ⁽¹⁾	1,603,299	527,815	137,596	2,268,710
Guarantees, acceptances and other financial facilities	1,125,754	283,767	314,780	1,724,301
Subtotal	2,729,053	811,582	452,376	3,993,011
Operating lease commitments	6,698	12,931	8,464	28,093
Capital commitments	26,828	40,385	–	67,213
Total	2,762,579	864,898	460,840	4,088,317

(1) Included within "Loan commitments" are amounts relating to loan commitments and undrawn credit card limits. Refer to Note V.41.7.

VI FINANCIAL RISK MANAGEMENT (Continued)

6 Fair value

6.1 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 using inputs other than quoted prices included within Level 1 that 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 for the asset or liability that is 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 financial reporting date.

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), OTC structured derivative transactions 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. 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)**6 Fair value (Continued)****6.1 Assets and liabilities measured at fair value (Continued)**

	As at 31 December 2019			
	Level 1	Level 2	Level 3	Total
Financial assets measured at fair value				
Derivative financial assets	11,635	81,690	10	93,335
Loans and advances to customers at fair value	–	339,687	–	339,687
Financial assets at fair value through profit or loss				
— Debt securities	9,988	345,296	15,948	371,232
— Equity instruments	6,586	1,154	71,716	79,456
— Fund investments and other	21,747	6,879	38,936	67,562
Financial assets at fair value through other comprehensive income				
— Debt securities	230,606	1,964,070	1,676	2,196,352
— Equity instruments and other	7,425	9,077	5,275	21,777
Investment properties	–	2,330	20,778	23,108
Financial liabilities measured at fair value				
Due to and placements from banks and other financial institutions at fair value	–	(14,767)	–	(14,767)
Due to customers at fair value	–	(17,969)	–	(17,969)
Bonds issued at fair value	–	(26,113)	–	(26,113)
Short position in debt securities	(2,158)	(17,317)	–	(19,475)
Derivative financial liabilities	(9,762)	(80,298)	–	(90,060)

	As at 31 December 2018			
	Level 1	Level 2	Level 3	Total
Financial assets measured at fair value				
Derivative financial assets	11,655	112,465	6	124,126
Loans and advances to customers at fair value	–	227,643	–	227,643
Financial assets at fair value through profit or loss				
— Debt securities	3,448	261,582	8,417	273,447
— Equity instruments	3,868	104	43,089	47,061
— Fund investments and other	10,730	4,741	34,512	49,983
Financial assets at fair value through other comprehensive income				
— Debt securities	121,859	1,738,951	1,422	1,862,232
— Equity instruments and other	6,592	5,571	5,364	17,527
Investment properties	–	2,248	19,838	22,086
Financial liabilities measured at fair value				
Due to and placements from banks and other financial institutions at fair value	–	(876)	–	(876)
Due to customers at fair value	–	(24,141)	–	(24,141)
Bonds issued at fair value	–	(20,517)	–	(20,517)
Short position in debt securities	(2,642)	(11,685)	–	(14,327)
Derivative financial liabilities	(8,928)	(90,326)	–	(99,254)

VI FINANCIAL RISK MANAGEMENT (Continued)

6 Fair value (Continued)

6.1 Assets and liabilities measured at fair value (Continued)

Reconciliation of Level 3 items

	Derivative financial assets	Financial assets at fair value through profit or loss			Financial assets at fair value through other comprehensive income		
		Debt Securities	Equity instruments	Fund investments and other	Debt securities	Equity instruments and other	Investment properties
As at 1 January 2019	6	8,417	43,089	34,512	1,422	5,364	19,838
Total gains and losses							
— profit/(loss)	10	1,510	(689)	3,245	—	—	355
— other comprehensive income	—	—	—	—	223	(849)	—
Sales	—	(175)	(1,002)	(3,649)	(2)	(2)	(14)
Purchases	—	6,159	30,318	4,708	—	762	2
Settlements	—	—	—	—	—	—	—
Transfers (out)/in of Level 3, net	(6)	—	—	60	—	—	(120)
Other changes	—	37	—	60	33	—	717
As at 31 December 2019	10	15,948	71,716	38,936	1,676	5,275	20,778
Total gains/(losses) for the period included in the income statement for assets/liabilities held as at 31 December 2019	10	1,510	(630)	3,235	—	—	345

	Derivative financial assets	Financial assets at fair value through profit or loss			Financial assets at fair value through other comprehensive income		
		Debt Securities	Equity instruments	Fund investments and other	Debt securities	Equity instruments and other	Investment properties
As at 1 January 2018	—	3,034	23,205	27,899	1,405	4,695	18,597
Total gains and losses							
— profit/(loss)	6	(273)	98	2,678	—	—	556
— other comprehensive income	—	—	—	—	(50)	(911)	—
Sales	—	(5)	(538)	(1,767)	(1)	(3)	(61)
Purchases	—	5,582	20,324	5,681	—	1,588	711
Settlements	—	(1)	—	—	—	—	—
Transfers out of Level 3, net	—	—	—	—	—	—	—
Other changes	—	80	—	21	68	(5)	35
As at 31 December 2018	6	8,417	43,089	34,512	1,422	5,364	19,838
Total gains/(losses) for the period included in the income statement for assets/liabilities held as at 31 December 2018	6	(273)	98	2,677	—	—	535

VI FINANCIAL RISK MANAGEMENT (Continued)

6 Fair value (Continued)

6.1 Assets and liabilities measured at fair value (Continued)

Total gains or losses for the years ended 31 December 2019 and 2018 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 2019 and 2018 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					
	2019			2018		
	Realised	Unrealised	Total	Realised	Unrealised	Total
Total gains for the year	(39)	4,470	4,431	22	3,043	3,065

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 2019.

6.2 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", "Bonds issued at amortised cost" and "Lease liability".

The tables below summarise the carrying amounts and fair values of "Debt securities at amortised cost" and "Bonds issued" not presented at fair value on the statement of financial reporting date.

	As at 31 December			
	2019		2018	
	Carrying value	Fair value	Carrying value	Fair value
Financial assets				
Debt securities at amortised cost ⁽¹⁾	2,769,400	2,774,641	2,795,740	2,806,772
Financial liabilities				
Bonds issued ⁽²⁾	1,069,974	1,069,309	761,610	766,005

VI FINANCIAL RISK MANAGEMENT (Continued)

6 Fair value (Continued)

6.2 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-negotiable. 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 2019			
	Level 1	Level 2	Level 3	Total
Financial assets				
Debt securities at amortised cost	71,966	2,505,680	2,062	2,579,708
Financial liabilities				
Bonds issued	–	1,069,309	–	1,069,309

	As at 31 December 2018			
	Level 1	Level 2	Level 3	Total
Financial assets				
Debt securities at amortised cost	73,055	2,534,891	2,237	2,610,183
Financial liabilities				
Bonds issued	–	758,805	7,200	766,005

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 is insignificant. Fair value is measured using a discounted cash flow model.

VI FINANCIAL RISK MANAGEMENT (Continued)

7 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 as to meet regulation 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 8.50%, 9.50% and 11.50%, 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 provisions and eligible portion of minority interests.

Goodwill, other intangible assets (except land use rights), investments in common equity tier 1 capital of financial institutions with controlling interests but outside of the scope of regulatory consolidation, significant minority capital investment in tier 2 capital of financial institutions that are outside of the scope of regulatory consolidation and other deductible items are deducted from common equity tier 1 and tier 2 capital to derive at the regulatory capital.

VI FINANCIAL RISK MANAGEMENT (Continued)**7 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	
	2019	2018
Common equity tier 1 capital adequacy ratio	11.30%	11.41%
Tier 1 capital adequacy ratio	12.79%	12.27%
Capital adequacy ratio	15.59%	14.97%
Composition of the Group's capital base		
Common equity tier 1 capital	1,620,563	1,488,010
Common shares	294,388	294,388
Capital reserve	134,269	140,422
Surplus reserve	173,832	156,711
General reserve	249,983	231,416
Undistributed profits	721,731	637,609
Eligible portion of minority interests	30,528	28,229
Other ⁽²⁾	15,832	(765)
Regulatory deductions	(24,185)	(22,241)
Of which:		
Goodwill	(182)	(182)
Other intangible assets (except land use rights)	(12,936)	(12,078)
Direct or indirect investments in own shares	(7)	(68)
Investments in common equity tier 1 capital of financial institutions with controlling interests but outside the scope of regulatory consolidation	(9,955)	(9,913)
Net common equity tier 1 capital	1,596,378	1,465,769
Additional tier 1 capital	210,057	109,524
Preference shares and related premium	159,901	99,714
Additional capital instruments and related premium	39,992	–
Eligible portion of minority interests	10,164	9,810
Net tier 1 capital	1,806,435	1,575,293
Tier 2 capital	394,843	347,473
Tier 2 capital instruments issued and related premium	280,092	256,189
Excess loan loss provisions	105,127	82,093
Eligible portion of minority interests	9,624	9,191
Regulatory deductions	–	(416)
Significant minority capital investment in tier 2 capital of financial institutions that are outside of the scope of regulatory consolidation	–	(416)
Net capital	2,201,278	1,922,350
Risk-weighted assets	14,123,915	12,841,526

VI FINANCIAL RISK MANAGEMENT (Continued)

7 Capital management (Continued)

- (1) When calculating the capital adequacy ratios, 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 gains/(losses) on financial assets at fair value through other comprehensive income.

8 Insurance risk

Insurance contracts are mainly sold in the Chinese mainland and Hong Kong 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 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.