Notes to the Financial Statements

1. Principal activities

The Company is an investment holding company and its subsidiaries are principally engaged in the provision of banking and related financial services.

The Company is a limited liability company incorporated and listed in Hong Kong. The address of its registered office is 24/F, Bank of China Tower, 1 Garden Road, Hong Kong.

2. Significant accounting policies

The principal accounting policies applied in the preparation of these consolidated financial statements are set out below.

These policies have been consistently applied to all the years presented, unless otherwise stated.

2.1 Basis of preparation

The consolidated financial statements of the Group have been prepared in accordance with Hong Kong Financial Reporting Standards (HKFRSs is a collective term which includes all applicable individual Hong Kong Financial Reporting Standards, HKASs and Interpretations) issued by the HKICPA and the Hong Kong Companies Ordinance.

The consolidated financial statements have been prepared under the historical cost convention, as modified by the revaluation of available-for-sale securities, financial assets and financial liabilities (including derivative financial instruments) at fair value through profit or loss, precious metals at fair value, investment properties which are carried at fair value and premises which are carried at fair value or revalued amount less accumulated depreciation and accumulated impairment losses. Disposal group and repossessed assets held for sale are stated at the lower of their carrying amounts and fair values less costs to sell as further explained in Notes 2.2 and 2.24 respectively.

The preparation of financial statements in conformity with HKFRSs requires the use of certain critical accounting estimates. It also requires the Management to exercise 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 3.

2. Significant accounting policies (continued)

2.1 Basis of preparation (continued)

(a) Standards and amendments issued that are already mandatorily effective for accounting periods beginning on 1 January 2017

Standards/ Amendments	Content	Applicable for financial years beginning on/after	Currently relevant to the Group
HKAS 7 (Amendment)	Statement of Cash Flows: Disclosure Initiative	1 January 2017	Yes
HKAS 12 (Amendment)	Income Taxes: Recognition of Deferred Tax Assets for Unrealised Losses	1 January 2017	No

- HKAS 7 (Amendment), "Statement of Cash Flows: Disclosure Initiative". The amendments are part of the Disclosure Initiative project and require entities to provide disclosures that enable users of financial statements to evaluate changes in liabilities arising from financing activities, including both changes arising from cash flows and non-cash changes. No comparative information is required for first time application of these amendments. The amendments will result in additional disclosure to be provided in the financial statements.

2. Significant accounting policies (continued)

2.1 Basis of preparation (continued)

(b) Standards, amendments and interpretations issued that are not yet mandatorily effective and have not been early adopted by the Group in 2017

Standards/ Amendments/ Interpretations	Content	Applicable for financial years beginning on/after	Currently relevant to the Group
HKAS 28 (2011) and HKFRS 10 (Amendments)	Sale or Contribution of Assets between an Investor and its Associate or Joint Venture	To be determined	Yes
HKAS 28 (2011) (Amendment)	Long-term Interests in Associates and Joint Ventures	1 January 2019	Yes
HKAS 40 (Amendments)	Transfer of Investment Property	1 January 2018	Yes
HKFRS 2 (Amendment)	Share-Based Payment: Classification and Measurement of Share-Based Payment Transactions	1 January 2018	No
HKFRS 4 (Amendments)	Applying HKFRS 9 Financial Instruments with HKFRS 4 Insurance Contracts	1 January 2018	No
HKFRS 9	Financial Instruments	1 January 2018	Yes
HKFRS 9 (Amendments)	Financial Instruments: Prepayment Features with Negative Compensation	1 January 2019	Yes
HKFRS 15	Revenue from Contracts with Customers	1 January 2018	Yes
HKFRS 16	Leases	1 January 2019	Yes
HKFRS 17	Insurance contracts	1 January 2021	Yes
HK(IFRIC) – Int 22	Foreign Currency Transactions and Advance Consideration	1 January 2018	Yes
HK(IFRIC) – Int 23	Uncertainty over Income Tax Treatments	1 January 2019	Yes

Further information about those HKFRSs that are expected to be applicable to the Group is as follows:

- HKAS 28 (2011) and HKFRS 10 (Amendments), "Sale or Contribution of Assets between an Investor and its Associate or Joint Venture". The amendments address an acknowledged inconsistency between the requirements in HKFRS 10 and those in HKAS 28 (2011), in dealing with the sale or contribution of assets between an investor and its associate or joint venture. The main consequence of the amendments is that a full gain or loss is recognised when a transaction involves a business (whether it is housed in a subsidiary or not). A partial gain or loss is recognised when a transaction involves assets that do not constitute a business, even if these assets are housed in a subsidiary. The amendments are to be applied prospectively, early application is permitted. The application of these amendments will not have a material impact on the Group's financial statements.

2. Significant accounting policies (continued)

2.1 Basis of preparation (continued)

(b) Standards, amendments and interpretations issued that are not yet mandatorily effective and have not been early adopted by the Group in 2017 (continued)

- HKAS 28 (2011) (Amendment), "Long-term Interests in Associates and Joint Ventures". The amendment clarifies that long-term interests such as preference shares or shareholder's loans, to which the equity method shall not be applied, are in the scope of both HKFRS 9 and HKAS 28 and explains that HKFRS 9 is applied independently before the allocation of losses under equity method. The amendments are to be applied retrospectively, early application is permitted. The application of this amendment will not have a material impact on the Group's financial statements.

- HKAS 40 (Amendments), "Transfer of Investment Property". The amendments clarify that there must be a change in use when a property is transferred to or from investment properties. A change in use would involve an assessment of whether a property meets, or has ceased to meet, the definition of investment property; and supporting evidence that a change in use has occurred. The amendments are to be applied retrospectively or prospectively, early application is permitted. The requirements of these amendments are consistent with the Group's current practice and will not have a material impact on the Group's financial statements.

- HKFRS 4 (Amendments), "Applying HKFRS 9 Financial Instruments with HKFRS 4 Insurance Contracts". The amendments address concerns arising from the different effective dates of HKFRS 9 and the forthcoming insurance contracts standard, early application is permitted. The amendments introduce the following two approaches:

  - **Deferral approach – Temporary exemption from HKFRS 9**

    Entities whose activities are predominantly connected with insurance may choose to defer the application of HKFRS 9 until 2021. Entities that defer the application of HKFRS 9 will continue to apply HKAS 39.

  - **Overlay approach**

    All entities that issue insurance contracts may choose to recognise in other comprehensive income, rather than income statement, the volatility that could arise when HKFRS 9 is applied before the new insurance contracts standard is issued.

  The Group assessed the financial impact and decided to apply HKFRS 9 consistently to all entities in the Group.

2. Significant accounting policies (continued)

2.1 Basis of preparation (continued)

(b) Standards, amendments and interpretations issued that are not yet mandatorily effective and have not been early adopted by the Group in 2017 (continued)

- HKFRS 9, "Financial Instruments". The issuance of IFRS 9 "Financial Instruments" completes the International Accounting Standards Board's comprehensive response to the financial crisis. HKFRS 9, the equivalent standard of IFRS 9 under HKFRS, includes a logical model for classification and measurement, a single, forward-looking "expected loss" impairment model and a tighter linkage of risk management to hedge accounting. Except for hedging accounting, which is generally applied prospectively, retrospective application is required but with no compulsory requirement to provide comparative information.

  The Group adopts the new standard from 1 January 2018 onward and will not restate comparative information. The Group also early adopts the amendments related to "Prepayment Features with Negative Compensation", together with the Group's first time application of the core part of HKFRS 9 as a whole, which is mandatorily effective for reporting periods beginning on or after 1 January 2019 with earlier application permitted. The amendments specify that a financial asset containing prepayment features with negative compensation can be measured at amortised cost or at fair value through other comprehensive income if they meet the other relevant requirements of HKFRS 9. Moreover, the amendments clarify, for financial liabilities that are modified or exchanged that do not lead to derecognition, the accounting treatment is consistent with that required for modifications of financial assets.

  Steering Committee has been established to oversee the implementation of the standard. Groupwide project team has also been formed to assess the impact, formulate the work plan, and implement the below all three aspects of the standard. The development of expected credit losses (ECL) models has been completed and parallel run was performed during the second half of 2017 to enable the Group a better understanding of the potential effect of HKFRS 9 and to be familiar with the new governance and operational processes. The adoption of HKFRS 9 is expected to reduce net assets at 1 January 2018 by HK$2.5 billion, with changes in classification and measurement requirements reducing net assets by HK$1.5 billion and changes in impairment requirements reducing net assets by HK$1.0 billion, all net of tax. After applying regulatory transitional arrangement, the Group's total capital ratio is expected to decrease by around 10 basis points. The above overall financial impact is subject to change of assumptions, judgement and estimates to be finalised in the accounts of 2018. The changes introduced in HKFRS 9 for each of the aspects are highlighted as follows:

(i) Classification and Measurement

Financial assets are required to be classified into one of the following measurement categories: (1) measured subsequently at amortised cost, (2) measured subsequently at fair value through other comprehensive income or (3) measured subsequently at fair value through profit or loss. Classification is to be made on transition, and subsequently on initial recognition. The classification depends on the entity's business model for managing its financial instruments and the contractual cash flow characteristics of the instruments, or the election of fair value option.

2. Significant accounting policies (continued)

2.1 Basis of preparation (continued)

(b) Standards, amendments and interpretations issued that are not yet mandatorily effective and have not been early adopted by the Group in 2017 (continued)

(i) Classification and Measurement (continued)

The classification and measurement requirements of financial liabilities have been basically carried forward with minimal amendments from HKAS 39.

The accounting for fair value option of financial liabilities were changed to address own credit risk. The amount of change in fair value attributable to change in credit risk of financial liabilities will be presented in other comprehensive income while the remaining amount of change in fair value will be included in the income statement. The amount recognised in other comprehensive income will not be subsequently reclassified to the income statement but may be transferred within equity.

There is no change in HKFRS 9 to allow designation of financial instruments at fair value through profit or loss to eliminate or significantly reduce measurement or recognition inconsistencies upon initial application.

The Group has performed a detailed analysis on financial assets and financial liabilities. As a result, the Group has reclassified its financial assets based on its business model and the contractual cash flow characteristics of financial assets. The Group has also decided to apply the fair value option to reclassify the subordinated notes issued from measured at amortised cost to measured at fair value through profit or loss. The related fair value hedge will be ceased accordingly. The difference arising from the initial application of new classification and measurement requirements will be recognised in retained earnings.

(ii) Impairment

The standard introduces a new, expected-loss impairment model that will require more timely recognition of expected credit losses. The impairment for financial instruments that are subsequently measured at amortised cost, fair value through other comprehensive income (debt instruments), irrevocable loan commitments and financial guarantee contracts will be governed by this standard. Specifically, it requires entities to assess credit risk and estimate ECL with an unbiased and probability-weighted approach. Not only information about past events, but all available information including current conditions and forecast of future economic conditions should be considered with discounting for time value of money. The Group will account for expected credit losses within the next 12 months as Stage 1 when those financial instruments are first recognised; and to recognise full lifetime expected credit losses as Stage 2 on a more timely basis when there have been significant increases in credit risk since initial recognition. Full lifetime expected credit losses will also be recognised as Stage 3 if objective evidence of impairment occurred and interest accrual will then be net of the impairment amount of associated Stage 3 financial assets. The resulting impairment under HKFRS 9 would be more forward-looking than that under HKAS 39.

2. Significant accounting policies (continued)

2.1 Basis of preparation (continued)

(b) Standards, amendments and interpretations issued that are not yet mandatorily effective and have not been early adopted by the Group in 2017 (continued)

(iii) Hedge accounting

The requirements related to hedge accounting would better align the accounting treatments with risk management activities and enable entities to better reflect these activities in their financial statements. It relaxes the requirements for assessing hedge effectiveness which more risk management strategies may be eligible for hedge accounting. It also relaxes the rules on using non-derivative financial instruments as hedging instruments and allows greater flexibility on hedged items. Users of the financial statements will be provided with more relevant information about risk management and the effect of hedge accounting on the financial statements.

The Group has chosen to prospectively apply HKFRS 9 on transition. As HKFRS 9 does not change the general principles of accounting for effective hedges, applying the hedging accounting requirements of HKFRS 9 will not have a significant impact on the Group's financial statements.

- HKFRS 15, "Revenue from Contracts with Customers". HKFRS 15 applies a single model and specifies the accounting treatment for all revenue arising from contracts with customers. The new standard is based on the core principle that revenue is recognised to reflect the consideration expected to be entitled when control of promised good or service transfers to customer. It is also applicable to the recognition and measurement of gains or losses on the sale of some non-financial assets such as properties or equipment that are not an output of ordinary activities. HKFRS 15 also includes a set of disclosure requirements about revenue from customer contracts.

  The new standard will replace the separate models for goods, services and construction contracts stipulated in different standards under the current HKFRS. The application of this new standard from 1 January 2018 onward will not have a material impact on the Group's financial statements.

- HKFRS 16, "Leases". HKFRS 16 supersedes the existing standard and interpretations related to leases. It applies a single control model to identify leases and distinguish between leases and service contracts. Significant changes to lessee accounting are introduced, with the distinction between operating and finance leases removed and the right-of-use assets and lease liabilities recognised except under short term and low value leases. There are no significant changes to the lessor accounting requirements. The standard is applied retrospectively. Early application is permitted for entities that have also adopted HKFRS 15 "Revenue from Contracts with Customers". The Group is assessing the financial impact of the standard.

2. Significant accounting policies (continued)

2.1 Basis of preparation (continued)

(b) Standards, amendments and interpretations issued that are not yet mandatorily effective and have not been early adopted by the Group in 2017 (continued)

- HKFRS 17, "Insurance contracts". HKFRS 17 aims at replacing the current insurance contracts standard HKFRS 4, an interim standard that leads to highly divergent accounting practices that exist in the insurers' local jurisdictions. The new standard establishes the principles for the recognition, measurement, presentation and disclosure of insurance contracts, with an objective to ensure that an entity provides relevant information that faithfully represents insurance contracts. Early application of the standard is permitted but only if the entity also applies HKFRS 9 and HKFRS 15. The Group is considering the financial impact of the standard and the timing of its application.

- HK(IFRIC) – Int 22, "Foreign Currency Transactions and Advance Consideration". The interpretation specifies that the exchange rate on the date of cash payment or receipt is used for transactions that involve advance consideration paid or received in a foreign currency. The interpretation can either be applied retrospectively or prospectively to all assets, expenses and income. Earlier application is permitted. The application of this interpretation will not have a material impact on the Group's financial statements.

- HK(IFRIC) – Int 23, "Uncertainty over Income Tax Treatments". The interpretation specifies how an entity should reflect and measure the effects of uncertainty in accounting for income taxes by determining how probable that a taxation authority will accept an uncertain tax treatment. The interpretation can either be applied on a fully retrospective basis or on a modified retrospective basis. Earlier application is permitted. The application of this interpretation will not have a material impact on the Group's financial statements.

(c) Improvements to HKFRSs

- "Improvements to HKFRSs" contains numerous amendments to HKFRSs which the HKICPA considers not urgent but necessary. It comprises amendments that result in accounting changes for presentation, recognition or measurement purpose as well as terminology or editorial amendments related to a variety of individual HKFRSs. These improvements do not have a material impact on the Group's financial statements.

2. Significant accounting policies (continued)

2.2 Consolidation

The consolidated financial statements include the financial statements of the Company and all of its subsidiaries for the year ended 31 December.

(1) Subsidiaries

Subsidiaries are entities (including structured entities), directly or indirectly, controlled by the Group. Control is achieved when the Group is exposed, or has rights, to variable returns from its involvement with the investee and has the ability to affect those returns through its power over the investee (i.e. existing rights that give the Group the current ability to direct the relevant activities of the investee). When the Company has, directly or indirectly, less than a majority of the voting or similar rights of an investee, the Group considers all relevant facts and circumstances in assessing whether it has power over an investee, including: (a) the contractual arrangement with the other vote holders of the investee; (b) rights arising from other contractual arrangements; and (c) the Group's voting rights and potential voting rights. 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 Group loses control over a subsidiary, it derecognises (i) the assets (including goodwill) and liabilities of the subsidiary, (ii) the carrying amount of any non-controlling interest; and recognises (i) the fair value of the consideration received, (ii) the fair value of any investment in that former subsidiary retained; reclassifies the amounts previously recognised in other comprehensive income to the income statement or retained earnings, as appropriate, on the same basis as directly disposed of the related assets or liabilities; recognises any resulting differences as gain or loss in income statement.

If the Group is committed by the Board to a sale plan involving loss of control of a subsidiary (a disposal group) that is unlikely to be withdrawn or changed significantly, the Group shall classify all the assets and liabilities of that subsidiary as held for sale only when the following criteria are met on or before the end of the reporting period: (i) the carrying amount will be recovered principally through a sale transaction rather than through continuing use; (ii) the subsidiary is available for immediate sale in its present condition subject only to terms that are usual and customary for the sale of its kind and its sale must be highly probable, including a high probability of shareholders' approval, if needed; (iii) an active programme to locate a buyer at a reasonable price has been initiated and to complete the sale within one year, regardless of whether the Group will or will not retain a non-controlling interest after the sale. Disposal group (other than investment properties and financial instruments) is initially recognised and subsequently remeasured at the lower of its carrying amount and fair value less costs to sell. Property, plant and equipment classified as held for sale are not depreciated.

(i) Business combinations not under common control

Acquisitions of businesses not under common control are accounted for using the acquisition method. The consideration transferred in a business combination is the fair values at the acquisition date of the assets transferred, the liabilities incurred (including contingent consideration arrangement) and the equity interests issued by the Group in exchange for control of the acquiree. Acquisition-related costs are expensed in the income statement as incurred.

2. Significant accounting policies (continued)

2.2 Consolidation (continued)

(1) Subsidiaries (continued)

(i) Business combinations not under common control (continued)

Goodwill is measured as the excess of the sum of the consideration transferred, the amount of any non-controlling interests in the acquiree, and the fair value of the Group's previously held equity interest in the acquiree (if any) over the net of the acquisition-date amounts of the identifiable assets acquired and the liabilities assumed. If after assessment, the fair value of the acquiree's identifiable net assets exceeds the sum of the consideration transferred, the amount of any non-controlling interests in the acquiree and the fair value of the Group's previously held interest in the acquiree (if any), the excess is recognised immediately in the income statement as a bargain purchase gain. Subsequently, goodwill is subject to impairment testing at least annually.

Where the consideration transferred by the Group in a business combination includes assets or liabilities resulting from a contingent consideration arrangement, the contingent consideration is measured at fair value at the acquisition date and considered as part of the consideration transferred in a business combination. Changes in the fair value of the contingent consideration that qualify as measurement period adjustments are adjusted retrospectively, with the corresponding adjustments being made against goodwill or gain on bargain purchase. Measurement period adjustments are adjustments that arise from additional information obtained during the measurement period about facts and circumstances that existed as of the acquisition date. Measurement period does not exceed one year from the acquisition date.

On an acquisition-by-acquisition basis, the Group recognises any non-controlling interests in the acquiree either at fair value or at the non-controlling interests' proportionate share of the fair value of the acquiree's identifiable net assets.

(ii) Business combinations under common control

For a combination with a company under common control, the merger accounting method will be applied. The principle of merger accounting is a way to combine companies under common control as though the business of the acquiree had always been carried out by the acquirer. The Group's consolidated financial statements represent the consolidated results, consolidated cash flows and consolidated financial position of the Group as if any such combination had occurred from the date when the Company and the acquiree first came under common control (i.e. no fair value adjustment on the date of combination is required). The difference between the consideration and carrying amount at the time of combination is recognised in equity. The effects of all transactions between the Group and the acquiree, whether occurring before or after the combination, are eliminated in preparing the consolidated financial statements of the Group. Comparative amounts are presented as if the acquiree had been combined at the end of the previous reporting period. The transaction costs for the combination will be expensed in the income statement.

2. Significant accounting policies (continued)

2.2 Consolidation (continued)

(1) Subsidiaries (continued)

Inter-company transactions, balances and unrealised gains on transactions between Group companies are eliminated; unrealised losses are also eliminated unless the transaction provides evidence of impairment of the assets transferred. Where necessary, accounting policies of subsidiaries have been changed to ensure consistency with the policies adopted by the Group.

In the Company's balance sheet, the investments in subsidiaries are stated at cost less allowance for impairment losses. The results of subsidiaries are accounted for by the Company on the basis of dividends received and receivable. Dividend income from subsidiaries is recognised in the income statement when the right to receive payment is established.

(2) Transactions with non-controlling interests

The Group treats transactions with non-controlling interests without change of control as transactions with equity owners of the Group. For purchases from non-controlling interests, the difference between any consideration paid and the relevant share acquired of the carrying value of net assets of the subsidiary is recognised in equity. Gains or losses on disposals to non-controlling interests are also recognised 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 subsequent accounting for the retained interest as an associate, joint venture or financial asset. In addition, any amounts previously recognised in other comprehensive income in respect of that entity are accounted for as if the Group had directly disposed of the related assets or liabilities. Amounts previously recognised in other comprehensive income are reclassified to the income statement or retained earnings, as appropriate.

(3) Associates and joint ventures

Associate is the entity over which the Group has significant influence but not control or joint control, generally accompanying a shareholding of between 20% and 50% of the voting rights.

A joint venture is a type of joint arrangement whereby the parties that have joint control of the arrangement have rights to the net assets of the joint venture. Joint control is the contractually agreed sharing of control of an arrangement, which exists only when decisions about the relevant activities require unanimous consent of the parties sharing control.

Investments in associates and joint ventures are accounted for using the equity method of accounting and are initially recognised at cost, unless it is classified as held for sale (or included in a disposal group that is classified as held for sale). The Group's investments in associates and joint ventures include goodwill, net of accumulated impairment loss and any related accumulated foreign currency translation difference.

2. Significant accounting policies (continued)

2.2 Consolidation (continued)

(3) Associates and joint ventures (continued)

The Group's share of the post-acquisition profits or losses of associates or joint ventures is recognised in the income statement, and its share of post-acquisition movements in reserves is recognised in reserves. The accumulated post-acquisition movements are adjusted against the cost of the investment. When the Group's share of losses in an associate or a joint venture equals or exceeds its interest in the associate or joint venture, the Group does not recognise further losses unless the Group has incurred obligations or made payments on behalf of the associates or joint ventures.

Unrealised gains on transactions between the Group and its associates or joint ventures are eliminated to the extent of the Group's interest in the associates or joint ventures. Unrealised losses are also eliminated unless the transaction provides evidence of impairment of the asset transferred.

If the ownership interest in an associate or a joint venture is reduced but significant influence is retained, only a proportionate share of the amounts previously recognised in other comprehensive income are reclassified to the income statement where appropriate.

2.3 Segmental reporting

The operating result of segments are reported in a manner consistent with the internal reporting provided to the Management Committee, which is the chief operating decision maker of the Group, that allocates resources and assesses the performance of operating segments. Income and expenses directly associated with each segment are included in determining operating segment performance.

2.4 Foreign currency translation

Items included in the financial statements of each of the Group's entities are measured using the currency of the primary economic environment in which the entity operates (the "functional currency"). The consolidated financial statements are presented in Hong Kong dollars, which is the Company's functional and presentation currency.

Foreign currency transactions are translated into the functional currency using the exchange rates prevailing at the dates of the transactions or exchange rates at the end of the reporting period for items that are re-measured. Foreign exchange gains and losses resulting from the settlement of foreign currency transactions using the exchange rates prevailing at the dates of the transactions and monetary assets and liabilities denominated in foreign currencies translated at the exchange rate at the end of the reporting period are recognised directly in the income statement, except when deferred in other comprehensive income as qualifying cash flow hedges or qualifying net investment hedges.

Translation differences on monetary securities held at fair value through profit or loss are reported as part of the fair value gain or loss. Changes in the fair value of monetary securities denominated in foreign currency classified as available-for-sale are analysed between translation differences resulting from changes in the amortised cost of the securities and other changes in the carrying amount of the securities. 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.

2. Significant accounting policies (continued)

2.4 Foreign currency translation (continued)

Translation differences on non-monetary items, such as equities held at fair value through profit or loss, are reported as part of the fair value gain or loss. Translation differences on non-monetary financial assets such as equities classified as available-for-sale are included in other comprehensive income.

The results and financial position of all the Group entities that have a functional currency different from Hong Kong dollars are translated into Hong Kong dollars as follows:

- assets and liabilities are translated at the closing rate at the end of the reporting period;
- income and expenses are translated at average exchange rates; and
- all resulting exchange differences are recognised in the currency translation reserve in equity through other comprehensive income.

On consolidation, exchange differences arising from the translation of the net investment in foreign entities, borrowings and other currency instruments designated as hedges of such investments are taken to other comprehensive income and are accumulated separately in equity in the translation reserve. When a foreign entity is disposed, such exchange differences are reclassified from equity to the income statement, as part of the gain or loss on sale.

2.5 Derivative financial instruments and hedge accounting

Derivatives are initially recognised at fair value on the date the derivative contract is entered into and are subsequently re-measured at fair value. Fair values are obtained from quoted market prices in active markets, including recent market transactions, and through the use of valuation techniques, including discounted cash flow models and option pricing models, as appropriate. All derivatives are carried as assets when fair value is positive and as liabilities when fair value is negative.

Certain derivatives embedded in other financial instruments are treated as separate derivatives when their economic characteristics and risks are not closely related to those of the host contract and the host contract is not carried at fair value through profit or loss. These embedded derivatives are measured at fair value with changes in fair value recognised in the income statement.

Derivatives are categorised as held for trading and changes in their fair value are recognised immediately in the income statement unless they are designated as hedges and are effective hedging instruments, then they are subject to measurement under the hedge accounting requirements.

For derivative instruments designated as hedging instrument and are effectively hedged, the method of recognising the resulting fair value gain or loss depends on the nature of the item being hedged. The Group designates certain derivatives as either:

(a) hedges of the fair value of recognised assets or liabilities or firm commitments (fair value hedge); or

(b) hedges of a particular risk associated with a highly probable future cash flow attributable to a recognised asset or liability, or a highly probable forecasted transaction (cash flow hedge).

2. Significant accounting policies (continued)

2.5 Derivative financial instruments and hedge accounting (continued)

Hedge accounting is used for derivatives designated in this way.

The Group documents at inception the relationship between hedging instruments and hedged items, as well as its risk management objective and strategy for undertaking various hedge transactions. The Group also documents its assessment, both at the hedge inception and on an ongoing basis, of whether the derivatives that are used in hedging transactions are highly effective in offsetting changes in fair values or cash flows of hedged items. These criteria should be met before a hedge can be qualified to be accounted for under hedge accounting.

(a) Fair value hedge

Changes in the fair value of derivatives that are designated and qualified as effective fair value hedges are recorded in the income statement, together with any changes in the fair value of the hedged asset or liability that are attributable to the hedged risk.

When fair value hedge accounting is applied to fixed rate financial liabilities, the carrying values of the financial liabilities are adjusted for changes in fair value that are attributable to the interest rate risk being hedged with the derivative instruments rather than carried at amortised cost, such carrying value adjustment is recognised in the income statement together with the changes in fair value of the hedging derivatives.

If the hedge relationship no longer meets the criteria for hedge accounting or is terminated for reasons other than derecognition, e.g. due to repayment of the hedged item, the unamortised carrying value adjustment (the difference between the carrying value of the hedged item at the time of termination and the value at which it would have been carried had the hedge never existed) to the hedged item is amortised to the income statement over the remaining life of the hedged item by the effective interest method. If the hedged item is derecognised, the unamortised carrying value adjustment is recognised immediately in the income statement.

(b) Cash flow hedge

The effective portion of changes in the fair value of derivatives that are designated and qualified as cash flow hedges are recognised in other comprehensive income and accumulated in equity. The gain or loss relating to the ineffective portion is recognised immediately in the income statement. Amounts accumulated in equity are reclassified to the income statement in the periods when the hedged item affects profit or loss.

When a hedging instrument expires or is sold, or when a hedge no longer meets the criteria for hedge accounting, any accumulated gain or loss existing in equity at that time remains in equity and is recognised in the income statement when the forecast transaction is ultimately recognised in the income statement. When a forecast transaction is no longer expected to occur, the accumulated gain or loss that was reported in equity is immediately reclassified to the income statement.

2. Significant accounting policies (continued)

2.5 Derivative financial instruments and hedge accounting (continued)

(c) Net investment hedge

Hedges of net investments in foreign operations are accounted for in a similar way to cash flow hedges. A gain or loss on the effective portion of the hedging instrument is recognised in other comprehensive income and accumulated in equity; a gain or loss on the ineffective portion is recognised immediately in the income statement. Accumulated gains and losses previously recognised in other comprehensive income are reclassified to the income statement upon disposal of the foreign operation as part of the gain or loss on disposal.

2.6 Offsetting financial instruments

Financial assets and liabilities are offset and the net amount reported in the balance sheet 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.

2.7 Interest income and expense and fee and commission income and expense

Interest income and expense are recognised in the income statement for all financial assets and financial liabilities using the effective interest method.

The effective interest method is a method of calculating the amortised cost of a financial asset or a financial liability and of allocating the interest income or interest expense over the relevant period. The effective interest rate is the rate that exactly discounts estimated future cash payments or receipts through the expected life of the financial instrument or, when appropriate, a shorter period to the net carrying amount of the financial asset or financial liability. When calculating the effective interest rate, the Group estimates future cash flows considering all contractual terms of the financial instrument (e.g. prepayment options or incentives relating to residential mortgage loans) but does not consider future credit losses. The calculation includes fees, premiums or discounts and basis points paid or received between parties to the contract, and directly attributable origination fees and costs which represent an integral part of the effective yield.

For all hedge transactions where interest rate is the hedged risk, interest income or interest expense from hedged instruments such as fixed rate debt securities or fixed rate subordinated notes are disclosed on a net basis together with net interest income/expense arising from the hedging instrument such as interest rate swap.

Once a financial asset or a group of similar financial assets has been written down as a result of an impairment loss, interest income is recognised on the written down value using the rate of interest used to discount the future cash flows for the purpose of measuring the impairment loss. Subsequent unwinding of the discount allowance is recognised as interest income.

Fee and commission income and expenses that are not an integral part of the effective yield are recognised on an accrual basis ratably over the period when the related service is provided, such as administrative fee, asset management fee and custody services fee. Loan syndication fees are recognised as revenue when the related syndication arrangement has been completed and the Group has retained no part of the loan package for itself or has retained a part at the same effective interest rate as applicable to the other participants.

2. Significant accounting policies (continued)

2.8 Financial assets

The Group classifies its financial assets into the following four categories: financial assets at fair value through profit or loss, loans and receivables, held-to-maturity securities and available-for-sale financial assets. The Management determines the classification of investments at initial recognition. The classification depends on the purpose for which the financial assets are held. All financial assets are recognised initially at fair value. Except for financial assets carried at fair value through profit or loss, all transaction costs of financial assets are included in their initial carrying amounts.

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

This category has two sub-categories: financial assets held for trading, and those designated at fair value through profit or loss at inception.

A financial asset which has been acquired or incurred principally for the purpose of selling in the short term or 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 is classified as held for trading. Derivatives are also classified as held for trading unless they are designated as effective hedges.

A financial asset, other than one held for trading, will be designated as a financial asset at fair value through profit or loss, if it meets one of the criteria set out below, and is so designated by the Management:

- eliminates or significantly reduces a measurement or recognition inconsistency (sometimes referred to as "an accounting mismatch") that would otherwise arise from measuring the financial assets or recognising the gains and losses on them on different bases; or

- applies to a group of financial assets, financial liabilities or both that 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 group is provided internally on that basis to the key management; or

- relates to financial assets containing one or more embedded derivative that significantly modifies the cash flow resulting from those financial assets.

These assets are recognised initially at fair value, with transaction costs taken directly to the income statement, and are subsequently re-measured at fair value.

Gains and losses from changes in the fair value of such assets (excluding the interest component) are reported in net trading gain/loss or net gain/loss on financial instruments designated at fair value through profit or loss. The interest component is reported as part of interest income. Dividends on equity instruments of this category are also recognised in net trading gain/loss or net gain/loss on financial instruments designated at fair value through profit or loss when the Group's right to receive payment is established.

2. Significant accounting policies (continued)

2.8 Financial assets (continued)

(2) Loans and receivables

Loans and receivables are non-derivative financial assets with fixed or determinable payments that are not quoted in an active market, including placements with and advances to banks and other financial institutions, investment debt securities without an active market and loans and advances to customers. They arise when the Group provides money, goods or services directly to a debtor with no intention of trading the receivable. They are initially recorded at fair value plus any directly attributable transaction costs and are subsequently measured at amortised cost using the effective interest method less allowances for impairment losses.

(3) Held-to-maturity

Financial assets classified as held-to-maturity are those traded in active markets, with fixed or determinable payments and fixed maturities that the Group's Management has both the positive intention and the ability to hold to maturity. Where the Group sold held-to-maturity assets (i) other than due to an isolated event beyond the Group's control, non-recurring and could not have been reasonably anticipated by the Group, such as a significant deterioration in the issuer's creditworthiness, significant change in statutory or regulatory requirement; or (ii) other than an insignificant amount of held-to-maturity assets, the entire category would be tainted and reclassified as available-for-sale. They are initially recorded at fair value plus any directly attributable transaction costs, and are subsequently measured at amortised cost using the effective interest method less allowances for impairment losses.

(4) Available-for-sale

Financial assets classified as available-for-sale are those that are either designated as such or are not classified in any of the other categories. They are intended to be held for an indefinite period of time but may be sold in response to needs for liquidity or changes in interest rates, exchange rates or equity prices.

Available-for-sale financial assets are initially recorded at fair value plus any directly attributable transaction costs, and are subsequently measured at fair value. Unrealised gains and losses arising from changes in the fair value of investments are recognised directly in other comprehensive income, until the financial asset is derecognised or impaired at which time the accumulated gain or loss previously recognised in equity should be transferred to the income statement. However, interest income which includes the amortisation of premium and discount is calculated using the effective interest method and is recognised in the income statement. Dividends on equity instruments classified as available-for-sale are recognised in other operating income when the Group's right to receive payment is established.

For a financial asset reclassified from the available-for-sale category, the fair value carrying amount at the date of reclassification becomes its new amortised cost and any previous gain or loss on that asset that has been recognised in other comprehensive income is amortised to profit or loss over the remaining life of the investment using the effective interest method. Any difference between the new amortised cost and the maturity amount is also amortised over the remaining life of the financial asset using the effective interest method. If the financial asset is subsequently determined to be impaired, the amount recorded in other comprehensive income is reclassified to profit or loss immediately.

The treatment of translation differences on available-for-sale securities is dealt with in Note 2.4.

2. Significant accounting policies (continued)

2.9 Financial liabilities

The Group classifies its financial liabilities under the following categories: trading liabilities, financial liabilities designated at fair value through profit or loss, deposits, debt securities and certificates of deposit in issue, subordinated liabilities, and other liabilities. All financial liabilities are classified at inception and recognised initially at fair value.

(1) Trading liabilities

A financial liability is classified as held for trading if it is incurred principally for the purpose of repurchasing in the short term. Derivatives are also classified as held for trading unless they are designated as effective hedges. It is measured at fair value and any gains and losses from changes in fair value are recognised in the income statement.

(2) Financial liabilities designated at fair value through profit or loss

A financial liability can be designated at fair value through profit or loss if it is so designated at inception. Financial liabilities so designated include certain certificates of deposit in issue and certain deposits received from customers that are embedded with derivatives. A financial liability is so designated if it meets one of the following criteria:

- eliminates or significantly reduces a measurement or recognition inconsistency (sometimes referred to as "an accounting mismatch") that would otherwise arise from measuring the financial liabilities or recognising the gains and losses on them on different bases; or

- applies to a group of financial assets, financial liabilities or both that 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 group is provided internally on that basis to the key management; or

- relates to financial liabilities containing one or more embedded derivative that significantly modifies the cash flow resulting from those financial liabilities.

Financial liabilities designated at fair value through profit or loss are measured at fair value and any gains and losses from changes in fair value are recognised in the income statement.

(3) Deposits, debt securities and certificates of deposit in issue, subordinated liabilities and other liabilities

Deposits and debt securities and certificates of deposit in issue, together with subordinated liabilities and other liabilities, other than those classified as trading liabilities or designated at fair value through profit or loss are carried at amortised cost. Any difference (if available) between proceeds net of transaction costs and the redemption value is recognised in the income statement over the period using the effective interest method.

2. Significant accounting policies (continued)

2.10 Financial guarantee contracts

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 contract between the holder and the debtor.

Financial guarantee contracts are initially recognised as financial liabilities and reported under "Other accounts and provisions" in the financial statements 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 (i) the amount determined in accordance with HKAS 37 "Provisions, Contingent Liabilities and Contingent Assets" and (ii) the amount initially recognised less, where appropriate, accumulated amortisation recognised over the life of the guarantee on a straight-line basis. Any changes in the liability relating to financial guarantee contracts are taken to the income statement.

2.11 Recognition and derecognition of financial instruments

Purchases and sales of financial assets at fair value through profit or loss, available-for-sale and held-to-maturity securities are recognised on the trade date, the date on which the Group purchases or sells the assets. Loans and receivables (except investment securities without an active market) are recognised when cash is advanced to the borrowers. Financial assets are derecognised when the rights to receive cash flows from the financial assets have expired or where the Group has transferred substantially all risks and rewards of ownership. When the Group neither transfers nor retains substantially all the risks and rewards of ownership of the financial asset, the Group either continues to recognise the transferred financial asset to the extent of its continuing involvement if control remains or derecognise it if there is no retained control.

Trading liabilities, financial liabilities designated at fair value through profit or loss and debt securities and certificates of deposit in issue are recognised on the trade date. Deposits that are not trading liabilities are recognised when money is received from customers, other liabilities are recognised when such obligations arise. Financial liabilities are derecognised from the balance sheet when and only when the obligation specified in the contract is discharged, cancelled or expires. If the Group purchases its own debt, it is removed from the balance sheet, and the difference between the carrying amount of a liability and the consideration paid is included in net trading gain/loss.

Securities and bills sold to a counterparty with an obligation to repurchase at a pre-determined price on a specified future date under a repurchase agreement are referred to as repos. Securities and bills purchased from a counterparty with an obligation to re-sell to the counterparty at a pre-determined price on a specified future date under a resale agreement are referred to as reverse repos.

Repos or securities lending are initially recorded as due to banks, placements from banks and other financial institutions, as appropriate, at the actual amount of cash received from the counterparty. Financial assets given as collateral for repurchase agreements are not derecognised and are recorded as investment in securities or financial assets at fair value through profit or loss. Reverse repos or securities borrowing are initially recorded in the balance sheet as cash and due from banks or placements with banks and other financial institutions, as appropriate, at the actual amount of cash paid to the counterparty. Financial assets received as collateral under reverse repurchase agreements are not recognised on the balance sheet. The difference between sale and repurchase price is recognised as interest income or interest expense over the life of the agreements using the effective interest method.

2. Significant accounting policies (continued)

2.12 Fair value measurement

The Group measures its premises and investment properties, precious metals and certain financial instruments at fair value at the end of each reporting period. 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 in its principal market or the most advantageous market accessible by the Group at the measurement date.

The fair value of an asset or a liability is measured using the assumptions that market participants would use when pricing the asset or liability, assuming that market participants act in their economic best interest.

The Group uses the price within the bid-offer spread that is most representative of the fair value of financial instruments, where appropriate, includes using on the residual of the net offsetting risk position of portfolios of financial assets and financial liabilities in cases the Group manages such groups of financial assets and liabilities according to their net market risk exposures. Despite the Group measures the fair value of these groups of financial instruments on a net basis, the underlying financial assets and financial liabilities are separately presented in the financial statements unless the offsetting criteria stated in Note 2.6 are fulfilled.

A fair value measurement of a non-financial asset takes into account a market participant's ability to generate economic benefits by using the asset in its highest and best use or by selling it to another market participant that would use the asset in its highest and best use.

If the market for assets or liabilities is not active, the Group uses valuation techniques, including the use of recent arm's length transactions, discounted cash flow analysis, option pricing models and other valuation techniques commonly used by market participants, that are appropriate in the circumstances and for which sufficient data are available to measure fair value, maximising the use of relevant observable inputs and minimising the use of unobservable inputs.

2.13 Precious metals

Precious metals comprise gold, silver and other precious metals. Precious metals are initially recognised and subsequently re-measured at fair value. Mark-to-market gains or losses on precious metals are included in net trading gain/loss.

2.14 Impairment of financial assets

The Group assesses as at the end of each reporting period whether there is objective evidence that a financial asset or group of financial assets is impaired. A financial asset or a group of financial assets is impaired and impairment losses are incurred if, and only if, there is objective evidence of impairment as a result of one or more events that occurred after the initial recognition of the asset (a "loss event") and that loss event (or events) has an impact on the reliably estimated future cash flows of the financial asset or group of financial assets. Objective evidence that a financial asset or group of financial assets may be impaired includes observable data that comes to the attention of the Group about the following probable loss events:

(i) significant financial difficulty of the issuer or obligor;

(ii) a breach of contract, such as a default or delinquency in interest or principal payment;

2. Significant accounting policies (continued)

2.14 Impairment of financial assets (continued)

(iii) 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;

(iv) it becoming probable that the borrower will enter into bankruptcy or other financial reorganisation;

(v) the disappearance of an active market or downgrading below investment grade level for that financial asset because of financial difficulties; or

(vi) observable data indicating that there is a measurable decrease in the estimated future cash flows from a group of financial assets since the initial recognition of those assets, although the decrease cannot yet be identified with the individual financial assets in the group, including:

- adverse changes in the payment status of borrowers in the group; or

- national or local economic conditions that correlate with defaults on the assets in the group.

(1) Assets carried at amortised cost

The Group first assesses whether objective evidence of impairment exists individually for financial assets. If the Group determines that no individually assessed impairment is provided, it includes the asset in a group of financial assets with similar credit risk characteristics and collectively assesses them for impairment. Assets that are individually assessed for impairment and for which an impairment loss is or continues to be recognised are not included in a collective assessment of impairment.

If there is objective evidence that an impairment loss on loans and receivables or held-to-maturity securities has been incurred, the amount of the loss is measured as the difference between the asset's carrying amount and the present value of estimated future cash flows (excluding future credit losses that have not been incurred), discounted at the financial asset's original effective interest rate. The carrying amount of the asset is reduced through the use of an allowance account and the amount of the loss is recognised in the income statement. If a loan or held-to-maturity security has a variable interest rate, the discount rate for measuring any impairment loss is the current effective interest rate determined under the contract. As a practical expedient, the Group may measure impairment on the basis of an instrument's fair value using an observable market price.

The calculation of the present value of the estimated future cash flows of a collateralised financial asset reflects the cash flows that may result from foreclosure less costs for obtaining and selling the collateral.

For the purposes of a collective assessment of impairment, financial assets are grouped on the basis of similar and relevant credit risk characteristics. Those characteristics are relevant to the estimation of future cash flows for groups of such assets by being indicative of the debtors' ability to pay all amounts due according to the contractual terms of the assets being evaluated.

2. Significant accounting policies (continued)

2.14 Impairment of financial assets (continued)

(1) Assets carried at amortised cost (continued)

Future cash flows in a group of financial assets that are collectively evaluated for impairment are estimated on the basis of the contractual cash flows of the assets in the group and historical loss experience for assets with credit risk characteristics similar to those in the group. Historical loss experience is adjusted on the basis of current observable data to reflect the effects of current conditions that did not affect the period on which the historical loss experience is based and to remove the effects of conditions in the historical period that do not exist currently.

When a loan is uncollectible, it is written off against the related allowance for impairment losses. Such loans are written off after all the necessary procedures have been completed and the amount of the loss has been determined. Subsequent recoveries of amounts previously written off decrease the amount of impairment losses in the income statement.

If, in a subsequent period, the amount of allowance for impairment losses decreases and the decrease can be related objectively to an event occurring after the impairment loss was recognised (such as an improvement in the debtor's credit rating), the previously recognised impairment loss to the extent of its decrease is reversed by adjusting the allowance account. The amount of the reversal is recognised in the income statement.

Loans whose terms have been renegotiated with substantial difference in the terms are no longer considered to be past due but are treated as new loans.

(2) Assets classified as available-for-sale

If evidence of impairment exists for available-for-sale financial assets, the accumulated losses, measured as the difference between the acquisition cost or amortised cost and the current fair value, less any impairment loss on that financial asset previously recognised in the income statement, is removed from equity and recognised in the income statement. In the case of equity investments classified as available-for-sale, a significant or prolonged decline in the fair value of the security below its cost is considered in determining whether the assets are impaired. If, in a subsequent period, the fair value of a debt instrument classified as available-for-sale increases and the increase can be objectively related to an event occurring after the impairment loss was recognised in the income statement, the impairment loss to the extent of its decrease is reversed through the income statement. With respect to equity instruments, further fair value changes are recognised in the reserve for fair value change of available-for-sale securities through other comprehensive income, impairment losses are not reversed through the income statement.

2.15 Impairment of investment in subsidiaries, associates, joint ventures and non-financial assets

Assets are reviewed for impairment whenever events or changes in circumstances indicate that the carrying amount may not be recoverable. Potential indications of impairment may include significant adverse changes in the technological, market, economic or legal environment in which the assets operate or whether there has been a significant or prolonged decline in value below their cost. "Significant" is evaluated against the original cost of the investment and "prolonged" against the period in which the fair value has been below its original cost.

2. Significant accounting policies (continued)

2.15 Impairment of investment in subsidiaries, associates, joint ventures and non-financial assets (continued)

An impairment loss is recognised for the amount by which the asset's carrying amount exceeds its recoverable amount. The recoverable amount is the higher of an asset's fair value less costs to sell and value in use. For the purposes of assessing impairment, assets are grouped at the lowest levels for which there are separately identifiable cash flows (cash generating units). Assets that suffered impairment are reviewed for possible reversal of the impairment at each reporting date.

In the Company's balance sheet, impairment testing of the investment in a subsidiary, associate or joint venture is also required upon receiving dividend from that entity if the dividend exceeds the total comprehensive income of that entity concerned in the period the dividend is declared or if the carrying amount of that entity in the Company's balance sheet exceeds the carrying amount of that entity's net assets including goodwill in its consolidated balance sheet.

2.16 Investment properties

Properties that are held for long-term rental yields or for capital appreciation or both, and that are not occupied by the companies in the Group, are classified as investment properties. Properties leased out within Group companies are classified as investment properties in individual companies' financial statements and as premises in consolidated financial statements. Land held under operating lease is classified and accounted for as investment property when the rest of the definition of investment property is met. The operating lease is accounted for as if it is a finance lease.

Investment properties are recognised initially at cost, including related transaction costs. After initial recognition, investment properties are measured at fair value.

Subsequent expenditure is charged to the 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. The item is stated at cost less impairment and is included in the carrying amount of investment properties. Once the item begins to generate economic benefits, it is then measured at fair value. All other repairs and maintenance costs are expensed in the income statement during the financial period in which they are incurred.

Any changes in fair value are recognised directly in the income statement.

If an investment property becomes owner-occupied, it is reclassified as premises, and its fair value at the date of reclassification becomes its cost for accounting purposes. If an item of premises becomes an investment property because its use has changed, any difference resulting between the carrying amount and the fair value of this item at the date of transfer is recognised in other comprehensive income as a revaluation of premises under HKAS 16 "Property, Plant and Equipment". However, if a fair value gain reverses a previous revaluation loss or impairment loss, the gain is recognised in the income statement up to the amount previously debited.

2. Significant accounting policies (continued)

2.17 Properties, plant and equipment

Properties are mainly branches and office premises. Premises are stated at fair value based on periodic, at least annually, valuations by external independent valuers less any subsequent accumulated depreciation and impairment losses. Any accumulated depreciation at the date of revaluation is eliminated against the gross carrying amount of the asset and the net amount is restated to the revalued amount of the asset. In the intervening periods, the directors review the carrying amount of premises, by reference to the open market value of similar properties, and adjustments are made when there has been a material change.

Increases in the carrying amount arising on revaluation of premises are credited to the premises revaluation reserve through other comprehensive income. Decreases that offset previous increases of the same individual asset are charged against premises revaluation reserve through other comprehensive income; all other decreases are expensed in the income statement. Any subsequent increases are credited to the income statement up to the amount previously debited, and then to the premises revaluation reserve. Upon disposal of premises, the relevant portion of the premises revaluation reserve realised in respect of previous valuations is released and transferred from the premises revaluation reserve to retained earnings.

All plant and equipment are stated at historical cost less accumulated depreciation and impairment losses. Historical cost includes expenditures that are directly attributable to the acquisition and installation of the items.

Subsequent costs are included in an asset's carrying amount or are recognised as a separate asset, as appropriate, only when it is probable that future economic benefits associated with the item will flow to the Group and the cost of the item can be measured reliably. The item is stated at cost less impairment until it begins to generate economic benefits, then the item is subsequently measured according to the measurement basis of its respective assets class. All other repairs and maintenance costs are charged to the income statement during the financial period in which they are incurred.

Depreciation is calculated on the straight-line method to write down the cost or revalued amount of such assets over their estimated useful lives as follows:

- Properties — Over the life of government land leases
- Plant and equipment — 3 to 15 years

The useful lives of assets are reviewed, and adjusted if appropriate, as at the end of each reporting period.

At the end of each reporting period, both internal and external sources of information are considered to determine whether there is any indication that properties, plant and equipment, are impaired. If any such indication exists, the recoverable amount of the asset is estimated and where relevant, an impairment loss is recognised to reduce the asset to its recoverable amount. Such an impairment loss is recognised in the income statement except where the asset is carried at valuation and the impairment loss does not exceed the revaluation surplus for that same asset, in which case it is treated as a revaluation decrease. The recoverable amount is the higher of the asset's fair value less costs to sell and value in use. Impairment loss is reversed through the premises revaluation reserve or the income statement as appropriate.

2. Significant accounting policies (continued)

2.17 Properties, plant and equipment (continued)

Gains or losses on disposals are determined as the difference between the net disposal proceeds and the carrying amount, relevant taxes and expenses. These are recognised in the income statement on the date of disposal. Any related revaluation surplus is transferred from the revaluation reserve to retained earnings and is not reclassified to the income statement.

2.18 Leases

(1) Operating leases

Leases in which a significant portion of the risks and rewards of ownership are retained by the lessor are classified as operating leases. The total payments made under operating leases (net of any incentives received from the lessor) are charged to the income statement on a straight-line basis over the period of the lease. Contingent rental payable is recognised as expense in the accounting period in which they are incurred.

When an operating lease is terminated before the lease period has expired, any payment required to be made to the lessor by way of penalty is recognised as an expense in the period in which termination takes place. Rental income from operating leases is recognised on a straight-line basis over the lease term.

(2) Finance leases

Leases of assets where lessee have obtained substantially all the risks and rewards of ownership are classified as finance leases. Government land leases in Hong Kong are classified as finance leases as the present value of the minimum lease payments (i.e. transaction price) of the land amounted to substantially all of the fair value of the land as if it were freehold.

Finance leases are capitalised at the lease's commencement at the lower of the fair value of the leased asset and the present value of the minimum lease payments. Each lease payment is allocated between the liability and finance charges so as to achieve a constant rate on the finance balance outstanding. The corresponding rental obligations, net of finance charges, are included in other liabilities. Investment properties acquired under finance leases are carried at their fair value.

When assets are leased out under a finance lease, the present value of the lease payments is recognised as a receivable. Lease income is recognised over the term of the lease using net investment method, which reflects a constant periodic rate of return.

2.19 Insurance and investment contracts

(1) Insurance and investment contract classification, recognition and measurement

The Group follows the local regulatory requirements to measure the liabilities of its insurance contracts and investment contracts with discretionary participation feature ("DPF").

2. Significant accounting policies (continued)

2.19 Insurance and investment contracts (continued)

(1) Insurance and investment contract classification, recognition and measurement (continued)

The Group issues insurance contracts, which are contracts that transfer significant insurance risk and may also transfer financial risk. As a general guideline, the Group defines significant insurance risk as the possibility of having to pay benefits on the occurrence of an insured event that are at least 10% more than the benefit payable if the insured event did not occur. The Group issues long term business insurance contracts, which insure events covered by life policies (for example death, survival, or total permanent disability) over a long duration. A liability for contractual benefits that are expected to be incurred in the future is recorded when premiums are recognised. In addition, the Group issues investment contracts. Investment contracts transfer financial risk with no significant insurance risk. They contain a DPF which entitles the holders to receive additional benefits (supplement to guaranteed benefits) that are likely to be significant based on the performance and return of a specified pool or type of contracts.

Linked long term insurance contracts with embedded derivatives (which are closely related to the host insurance contracts) linking payments on the contract to units of the investment funds which the Group has invested 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.

Retirement scheme management category I contracts are classified as investment contracts. They also include an investment guarantee element in the determination of the credit rate to policyholders' accounts. The liability for these contracts is determined using a retrospective calculation method which represents an account balance based on the premiums received to date plus interest or bonus credited to the policyholders less policy charges.

Retirement scheme management category III insurance contracts, as defined in the Insurance Ordinance, insure events associated with the cessation of employment due to death. A liability for contractual benefits that are expected to be incurred in the future is recorded when premiums are recognised. The portion of the premium received on in-force contracts that relates to unexpired risks at the end of the reporting period is reported as the unearned premium liability, which is included in insurance liabilities.

Premiums are recognised as revenue when they become payable by the contract holders before the deduction of commissions and are gross of any taxes or duties levied on the premium. Benefits and claims are recorded as an expense when they are incurred.

The Group does not separately measure embedded derivatives that 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).

Contracts entered into by the Group with reinsurers under which the Group is compensated for losses on one or more contracts issued by the Group and that meet the classification requirement for insurance contracts as noted above are classified as reinsurance contracts held.

2. Significant accounting policies (continued)

2.19 Insurance and investment contracts (continued)

(1) Insurance and investment contract classification, recognition and measurement (continued)

The benefits to which the Group is entitled under its reinsurance contracts held are recognised as reinsurance assets. These reinsurance assets consist of short-term amounts due from reinsurers as well as longer term receivables that are dependent on the expected claims and benefits arising from the related reinsured insurance contracts. Amounts recoverable from or due to reinsurers are measured consistently with the amounts associated with the underlying insurance contracts and in accordance with the terms of each reinsurance contract. Reinsurance liabilities are primarily premiums payable for reinsurance contracts and are recognised as an expense when due.

(2) Liability adequacy test

At the end of each reporting period, liability adequacy tests are performed to ensure the adequacy of the insurance contract liabilities. 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 consolidated income statement, with a provision established for losses arising from the liability adequacy tests.

2.20 Cash and cash equivalents

For the purposes of the consolidated cash flow statement, cash and cash equivalents comprise balances with original maturity less than three months from the date of acquisition, including cash, balances with banks and other financial institutions, short-term bills and notes classified as investment securities and certificates of deposit.

2.21 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.

2.22 Employee benefits

(1) Retirement benefit costs

The Group contributes to defined contribution retirement schemes under either recognised ORSO schemes or MPF schemes that are available to the Group's employees. Contributions to the schemes by the Group and employees are calculated as a percentage of employees' basic salaries for the ORSO schemes and in accordance with the MPF rules for MPF schemes. The retirement benefit scheme costs are charged to the income statement as incurred and represent contributions payable by the Group to the schemes. Contributions made by the Group that are forfeited by those employees who leave the ORSO scheme prior to the full vesting of their entitlement to the contributions are used by the Group to reduce the existing level of contributions or to meet its expenses under the trust deed of the ORSO schemes.

The assets of the schemes are held in independently-administered funds separate from those of the Group.

2. Significant accounting policies (continued)

2.22 Employee benefits (continued)

(2) Leave entitlements

Employee entitlements to annual leave and sick leave are recognised when they accrue to employees. A provision is made for the estimated liability for unused annual leave and the amount of sick leave expected to be paid as a result of services rendered by employees up to the end of the reporting period.

Compensated absences other than sick leave and special approved annual leaves are non-accumulating; they lapse if the current period's entitlement is not used in full. Except for unexpired annual leaves, they do not entitle employees to a cash payment for unused entitlement on leaving the Group.

(3) Bonus plans

The expected cost of bonus payments are recognised as a liability when the Group has a present legal or constructive obligation as a result of services rendered by employees and a reliable estimate of the obligation can be made. Liabilities for bonus plans that are expected to be settled longer than twelve months will be discounted if the amounts are significant.

2.23 Current and deferred income taxes

Tax expenses for the period comprises current and deferred tax. Tax is recognised in the income statement, except to the extent that it relates to items recognised directly in other comprehensive income. In this case, the tax is also recognised in other comprehensive income.

Income tax payable on profits, based on the applicable tax law enacted or substantially enacted at the end of the reporting period in each jurisdiction where the Company and the subsidiaries, associates and joint ventures operate and generate taxable income, is recognised as a current income tax expense in the period in which profits arise.

Deferred income tax is provided in full, using the balance sheet 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 end of the reporting period and are expected to apply when the related deferred income tax asset is realised or the deferred income tax liability is settled.

The principal temporary differences arise from asset impairment provisions, depreciation of premises and equipment, and revaluation of certain assets including available-for-sale securities and premises. However, the deferred income tax is not recognised if it arises from initial recognition of an asset or liability in a transaction other than a business combination that at the time of the transaction affects neither accounting nor taxable profit or loss.

Deferred income tax liabilities are provided in full on all taxable temporary differences. Deferred income tax assets are recognised on deductible temporary differences, the carry forward of any unused tax credits and unused tax losses to the extent that it is probable that future taxable profit will be available against which the deductible temporary differences, the carry forward of unused tax credits and unused tax losses can be utilised.

2. Significant accounting policies (continued)

2.23 Current and deferred income taxes (continued)

Deferred income tax is charged or credited in the income statement except for deferred income tax relating to fair value re-measurement of available-for-sale securities and revaluation of premises which are charged or credited to other comprehensive income, in which case the deferred income tax is also credited or charged to other comprehensive income and is subsequently recognised in the income statement together with the realisation of the deferred gain and loss.

Deferred tax liability or deferred tax asset arising from investment property is determined based on the presumption that the revaluation amount of such investment property will be recovered through sale with the relevant tax rate applied.

2.24 Repossessed assets

Repossessed assets are initially recognised at the lower of their fair value less costs to sell and the amortised cost of the related outstanding loans on the date of repossession, and the related loans and advances together with the related impairment allowances are derecognised from the balance sheet. Subsequently, repossessed assets are measured at the lower of their cost and fair values less costs to sell and are reported as "non-current assets held for sale" included in "Other assets".

2.25 Fiduciary activities

The Group commonly acts as a trustee, or in other fiduciary capacities, that result in its holding or managing assets on behalf of individuals, trusts and other institutions. These assets and any gains or losses arising thereon are excluded from these financial statements, as they are not assets of the Group.

2.26 Contingent liabilities and contingent assets

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.

A contingent liability is not recognised as a provision but is disclosed in the notes to the financial statements. When a change in the probability of an outflow occurs so that outflow is probable, it will then be recognised as a provision.

A contingent asset is a possible asset 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.

Contingent assets are not recognised but are disclosed in the notes to the financial statements when an inflow of economic benefits is probable. When the inflow is virtually certain, it will be recognised as an asset.

2. Significant accounting policies (continued)

2.27 Related parties

For the purposes of these financial statements, a party is considered to be related to the Group if that party (i) controls, jointly controls or has significant influence over the Group; (ii) is a member of the same financial reporting group, such as parents, subsidiaries and fellow subsidiaries; (iii) is an associate or a joint venture of the Group or parent reporting group; (iv) is a key management personnel of the Group or parents; (v) is subject to common control with the Group; (vi) is an entity in which a person identified in (iv) controls; and (vii) provides key management personnel services to the Group or its parent. Related parties may be individuals or entities.

3. Critical accounting estimates and judgements in applying accounting policies

The Group makes estimates and assumptions that affect the carrying amounts of assets and liabilities within the next reporting period. 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. Areas susceptible to changes in essential estimates and judgements, which affect the carrying amount of assets and liabilities, are set out below. The effect of changes to either the key assumptions or other estimation uncertainties will be presented below if it is practicable to determine. It is possible that actual results may require material adjustments to the estimates referred to below.

3.1 Impairment allowances on loans and advances

The Group reviews its loan portfolios to assess impairment at least on a quarterly basis. In determining whether an impairment loss should be recorded in the income statement, the Group makes judgements as to whether there is any observable data indicating that there is a measurable decrease in the estimated future cash flows from a portfolio of loans and advances before the decrease can be identified with an individual loan in that portfolio. This evidence may include observable data indicating that there has been an adverse change in the payment status of borrowers in a group (e.g. payment delinquency or default), or economic conditions that correlate with defaults on assets in the group. The Management uses estimates based on historical loss experience for assets with credit risk characteristics and objective evidence of impairment similar to those in the portfolio when estimating expected future cash flows. The methodology and assumptions used for estimating both the amount and timing of future cash flows are reviewed regularly.

Carrying amounts of loans and advances as at 31 December 2017 are shown in Note 25.

3.2 Impairment of held-to-maturity and available-for-sale securities

The Group reviews its held-to-maturity and available-for-sale investment portfolios to assess impairment at least on a quarterly basis. In determining whether any of these investments is impaired, risk characteristics and performance such as external credit rating and market price, will be assessed. The Group makes estimates on the default rate and loss severity of each investment with reference to market performance of the portfolios, current payment status of the issuers or performance of the underlying assets, or economic conditions that correlate with defaults on the collateralised assets. The methodology and assumptions used for impairment assessments are reviewed regularly.

Carrying amounts of investment in securities as at 31 December 2017 are shown in Note 27.

3. Critical accounting estimates and judgements in applying accounting policies (continued)

3.3 Fair values of derivative financial instruments

The fair values of derivative financial instruments that are not quoted in active markets are determined by using valuation techniques. Valuation techniques used include discounted cash flows analysis and models with built-in functions available in externally acquired financial analysis or risk management systems widely used by the industry such as option pricing models. To the extent practical, the models use observable data. In addition, valuation adjustments may be adopted if factors such as credit risk are not considered in the valuation models. Management judgement and estimates are required for the selection of appropriate valuation parameters, assumptions and modeling techniques. Further details will be discussed in Note 5.

Carrying amounts of derivative financial instruments as at 31 December 2017 are shown in Note 24.

3.4 Held-to-maturity securities

The Group follows the guidance of HKAS 39 in classifying certain non-derivative financial assets with fixed or determinable payments and fixed maturity as held-to-maturity securities. This classification requires significant management judgement to evaluate the Group's intention and ability to hold such investments to maturity. If the Group fails to hold these investments to maturity other than for specific circumstances defined in HKAS 39, such as selling an insignificant amount, selling close to maturity or due to significant credit deterioration of such investments, it will be required to reclassify the entire portfolio of financial assets as available-for-sale securities. The investments would then be measured at fair value and not amortised cost.

Carrying amounts of held-to-maturity securities as at 31 December 2017 are shown in Note 27.

3.5 Estimate of future benefit payments and premiums arising from long term insurance contracts

In determining the Group's long term business fund liabilities (a component of insurance contract liabilities), the Group follows the Insurance (Determination of Long Term Liabilities) Rules and makes prudent assumptions which include appropriate margins for adverse deviation of the relevant factors. Estimates are made as to the expected number of deaths for each of the years in which the Group is exposed to risk. The Group bases these estimates on population statistics or reinsurance information, adjusted where appropriate to reflect the Group's own experience and relevant reinsurance arrangements. For contracts that insure the risk of longevity, appropriate prudent allowances are made for expected mortality improvements. The estimated number of deaths determines the value of the benefit payments and the value of the valuation premiums. The main source of uncertainty is that epidemics such as AIDS, SARS, avian flu and wide-ranging lifestyle changes, such as in eating, smoking and exercise habits, could result in future mortality being significantly worse than in the past for the age groups in which the Group has significant exposure to mortality risk. However, continuing improvements in medical care and social conditions could result in improvements in longevity in excess of those allowed for in the estimates used to determine the liability for contracts where the Group is exposed to longevity risk.

3. Critical accounting estimates and judgements in applying accounting policies (continued)

3.5 Estimate of future benefit payments and premiums arising from long term insurance contracts (continued)

Were the number of deaths and morbidity in future years to differ by 10% (2016: 10%) from the Management's estimate, the long term business fund liability would increase by approximately HK$193 million (2016: approximately HK$131 million), which accounts for 0.29% (2016: 0.22%) of the liability. In this case, it is assumed there is no relief arising from reinsurance contracts held.

For linked long term insurance contracts with a life cover component, it is assumed that the Group will be able to increase mortality risk charges in future years in line with emerging mortality experience.

Estimates are also made as to future investment income arising from the assets backing long term insurance contracts. These estimates are based on current market returns as well as expectations about future economic and financial developments. Were the average future investment returns to decrease by 50 basis points (2016: 50 basis points) from the Management's estimates, the long term business fund liability would increase by approximately HK$1,660 million (2016: approximately HK$1,225 million). In this case, it is assumed there is no relief arising from reinsurance contracts held.

The Group has also assessed whether a provision for expense is necessary in accordance with the Insurance Ordinance. A provision for expense is the amount required to meet the total net cost that would likely be incurred in fulfilling contracts if the Group were to cease to transact new business 12 months after the valuation date. As of 31 December 2017, no provision for maintenance expenses was provided (2016: Nil).

A resilience reserve was set up and included in long term business fund liabilities in accordance with the Insurance (Determination of Long Term Liabilities) Rules to provide a prudent provision against the effects of possible future changes to the value of the assets to meet the liabilities. The resilience reserve was set up based on the appointed actuary's advice of a 30 basis points (2016: 30 basis points) change in market yield of the underlying assets and valuation interest rates. The amount of resilience reserve set up depends on the degree of change in interest rate assumed.

3.6 Deferred tax assets

Deferred tax assets on unused tax losses are recognised to the extent that it is probable that taxable profit will be available against which the losses can be utilised. Significant management judgement is required to determine the amount of deferred tax assets that can be recognised, based upon the likely timing and level of future taxable profits.

Deferred tax assets on unused tax credits are recognised. Significant management judgement is required to determine the amount of deferred tax assets that can be recognised, based upon the estimation of available tax credits and the possibility to recover such deferred tax assets recognised.

4. Financial risk management

The Group is exposed to financial risks as a result of engaging in a variety of business activities. The principal financial risks are credit risk, market risk (including currency risk and interest rate risk) and liquidity risk. This note summarises the Group's exposures to these risks, as well as its objectives, risk management governance structure, policies and processes for managing and the methods used to measure these risks.

Financial risk management framework

The Group's risk management governance structure is designed to cover all business processes and ensures various risks are properly managed and controlled in the course of conducting business. The Group has a robust risk management organisational structure with a comprehensive set of policies and procedures to identify, measure, monitor and control various risks that may arise. These risk management policies and procedures are regularly reviewed and updated to reflect changes in markets and business strategies. Various groups of risk takers assume their respective responsibilities for risk management.

The Board of Directors, representing the interests of shareholders, is the highest decision-making authority of the Group and has the ultimate responsibility for risk management. The Board, with the assistance of its committees, has the primary responsibility for the formulation of risk management strategies and ensuring that the Group has an effective risk management system to implement these strategies.

The RMC, a standing committee established by the Board of Directors, is responsible for overseeing the Group's various types of risks, approving Level I risk management policies and monitoring their implementation, reviewing significant or high risk exposures or transactions and exercising its power of veto if it considers that any transaction should not proceed. The Audit Committee assists the Board in fulfilling its role in overseeing the internal control system.

The Chief Executive ("CE") is responsible for managing the Group's various types of risks, and approving material risk exposures or transactions within his authority delegated by the Board of Directors. The Deputy Chief Executives ("DCEs") assist the CE in fulfilling his responsibilities on the day-to-day management of various types of risk, and are responsible for approving material risk exposures or transactions within their authorities delegated by the CE. The Chief Risk Officer ("CRO") assists the CE in fulfilling his responsibilities for the day-to-day management of risks. The CRO is responsible for initiating new risk management strategies, projects and measures in response to regulatory changes that will enable the Group to better monitor and manage any risks that may arise from time to time from new businesses, products and changes in the operating environment. The CRO is also responsible for reviewing material risk exposures or transactions within his delegated authority. In accordance with the principle of setting the hierarchy of risk management policies approved by the Board, senior management are also responsible for approving the detailed risk management policies of their responsible areas.

Various units of the Group have their respective risk management responsibilities. Business units act as the first line of defence while risk management units, which are independent from the business units, are responsible for the day-to-day management of different kinds of risks. Risk management units have the primary responsibilities for drafting, reviewing and updating various risk management policies and procedures.

The Group's principal banking subsidiaries are subject to risk management policies that are consistent with those of the Group. Moreover, the Group's non-banking subsidiaries, such as BOC Life, are subject to the Group's risk management requirements. These subsidiaries are required to formulate their respective risk management policies based on the characteristics of their own industries, perform daily risk management responsibilities and report to BOCHK on a regular basis. Risk management units of BOCHK monitor the risk management status of these subsidiaries.

4. Financial risk management (continued)

Financial risk management framework (continued)

The Group has put in place appropriate internal control systems, including establishment of an organisation structure that sets clear lines of authority and responsibility for monitoring compliance with policies, procedures and limits. Proper reporting lines also provide sufficient independence of the control functions from the business areas, as well as adequate segregation of duties throughout the organisation which helps to promote an appropriate internal control environment.

Product development and risk monitoring

To ensure the effectiveness of risk assessment and monitoring, the Group has a comprehensive product development and risk monitoring system where roles and responsibilities of all related units are clearly defined and proper due diligence processes on product development are in place.

In accordance with the strategic objectives set by the Board and the Management, respective product management units are responsible for formulating business and product development plans, and proceeding to specific product development activities. The department of strategic development shall ensure the plans are aligned with the Group's overall strategies. Departments that are responsible for risk management, legal, compliance and finance, etc. are accountable for risk assessment and review.

Apart from product development, respective product management units shall work closely with relevant risk evaluating departments to identify and assess the risks of new products. Risk evaluating departments shall conduct independent review on the risk assessment results and the corresponding risk management measures. Products can only be launched upon completion of the product due diligence process to the satisfaction of all risk evaluating departments.

A prudent approach is adopted in offering treasury products to our clients. All new treasury products require approval from a special committee before launching.

4.1 Credit risk

Credit risk is the risk of loss that a customer or counterparty is unable to or unwilling to meet its contractual obligations. Credit risk exists in the trading book and banking book, as well as from on- and off-balance sheet transactions of the Group. It arises principally from lending, trade finance and treasury businesses.

Credit risk management framework

The Group has formulated a comprehensive set of credit risk management policies and procedures, and appropriate credit risk limits to manage and control credit risk that may arise. These policies, procedures and credit risk limits are regularly reviewed and updated to cope with changes in market conditions and business strategies.

The Group's organisation structure establishes a clear set of authority and responsibility for monitoring compliance with policies, procedures and limits.

4. Financial risk management (continued)

4.1 Credit risk (continued)

Credit risk management framework (continued)

The Chief Credit Officer, who reports directly to the CRO, takes charge of credit risk management and is also responsible for the control of credit risk exposures of subsidiaries in line with the credit risk management principles and requirements set by the Group. Various units of the Group have their respective credit risk management responsibilities. Business units act as the first line of defence. The Risk Management Department ("RMD"), which is independent from the business units, is responsible for the day-to-day management of credit risks and has the primary responsibility for providing an independent due diligence through identifying, measuring, monitoring and controlling credit risk to ensure an effective checks and balances, as well as drafting, reviewing and updating credit risk management policies and procedures. It is also responsible for the design, development and maintenance of the Group's internal rating system and ensures the system complies with the relevant regulatory requirements. Back offices are responsible for credit administration, providing operations support and supervision on the implementation of prerequisite terms and conditions of credit facilities.

In accordance with the Group's operating principle, the Group's principal subsidiaries have to formulate their own credit risk policies that are consistent with those of the Group's core principles. These subsidiaries are required to submit their risk management reports to the Group's Management on a regular basis.

The Board of Directors delegates credit approval authority to the CE. The CE can further delegate to the subordinates within his limit authorised by the Board of Directors. The Group sets the limits of credit approval authority according to the credit business nature, rating, the level of transaction risk, and the extent of the credit exposure.

Credit risk measurement and control

In view of the rapidly changing market conditions, the Group has been continuously revisiting its credit strategies and conducting rigorous reviews on the concerned portfolios.

Advances

Different credit approval and control procedures are adopted according to the level of risk associated with the customer, counterparty or transaction. The Credit Risk Assessment Committee, comprising experts from credit and other functions, is responsible for making an independent assessment of material credit applications which require the approval of DCEs or above. Credit applications for non-retail exposures are independently reviewed and objectively assessed by risk management units. Obligor ratings (in terms of probability of default) and facility ratings (in terms of loss given default) are assigned to these portfolios to support credit approval. Retail internal rating systems are deployed in the risk assessment of retail credit transactions, including small business retail exposures, residential mortgage loans, personal loans and credit cards. Loan grades, obligor and facility ratings as well as loss estimates (if applicable) are used to support credit approval.

The Group also uses loan grades, obligor ratings and loss estimates (if applicable) to support credit monitoring, reporting and analysis of credit risk information. For non-retail exposures, more frequent rating review and closer monitoring are required for higher-risk customers. For retail exposures, monthly updated internal ratings and loss estimates are used for credit monitoring on a portfolio basis. More comprehensive review is required for obligors being identified under high-risk pools.

4. Financial risk management (continued)

4.1 Credit risk (continued)

Credit risk measurement and control (continued)

Advances (continued)

The Group employs an internal master rating scale that can be mapped to Standard & Poor's external credit ratings. The structure of internal master rating scale is in compliance with the requirement of the Banking (Capital) Rules under the Hong Kong Banking Ordinance.

RMD provides regular credit management information reports and ad hoc reports to the MC, RMC and Board of Directors to facilitate their continuous monitoring of credit risk.

In addition, the Group identifies credit concentration risk by industry, geography, customer and counterparty. The Group monitors changes to counterparty credit risk, quality of the credit portfolio and credit risk concentrations, and reports regularly to the Group's Management.

The Group adopts loan grading criteria which divides credit assets into five categories with reference to the HKMA's guidelines, as below:

"Pass" represents loans where the borrower is current in meeting its repayment obligations and full repayment of interest and principal is not in doubt.

"Special Mention" represents loans where the borrower is experiencing difficulties which may threaten the Group's position. Ultimate loss is not expected at this stage but could occur if adverse conditions persist.

"Substandard" represents loans where the borrower displays a definable weakness that is likely to jeopardise repayment.

"Doubtful" represents loans where collection in full is improbable and the Group expects to sustain a loss of principal and/or interest, taking into account the net realisable value of the collateral.

"Loss" represents loans which are considered uncollectible after all collection options (such as the realisation of collateral or the institution of legal proceedings) have been exhausted.

4. Financial risk management (continued)

4.1 Credit risk (continued)

Credit risk measurement and control (continued)

Debt securities and derivatives

For investments in debt securities and securitisation assets, the obligor ratings or external credit ratings, assessment of the underlying assets and credit limits setting on customer/security issuer basis are used for managing credit risk associated with the investment. For derivatives, the Group sets customer limits to manage the credit risk involved and follows the same approval and control processes as applied for advances. On-going monitoring and stop-loss procedures are established.

The methodology and assumptions used for impairment assessments are reviewed regularly. In evaluating impairment of asset backed securities ("ABS") and mortgage backed securities ("MBS"), the Group continues to use a significant decline in market price and credit deterioration of the underlying assets to be the key indicators of impairment. The Group also considers other objective evidence of impairment, taking into account the impact of liquidity on market prices and the movement in loss coverage ratios of individual ABS and MBS held by the Group.

Settlement risk arises mainly from foreign exchange transactions with counterparties and also from derivatives transactions in any situation where a payment in cash, securities or equities is made in the expectation of a corresponding receipt in cash, securities or equities. Daily settlement limits are established for each counterparty or customer to cover all settlement risk arising from the Group's market transactions on any single day.

Collateral held as security and other credit enhancements

The valuation and management of collateral have been documented in the credit risk management policies and procedures which cover acceptance criteria, validity of collateral, loan-to-value ratio, haircut ratio, valuation and insurance, etc. The collateral is revalued on a regular basis, though the frequency and the method used varies with the type of collateral involved and the nature and the risk of the underlying credit. The Group has established a mechanism to update the value of its main type of collateral, property collateral including the use of public indices on a portfolio basis. Collateral is insured with the Group as the beneficiary. In the personal sector, the main types of collateral are real estate, cash deposits and securities. In the commercial and industrial sector, the types of collateral include real estate, securities, cash deposits, vessels, etc.

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

As at 31 December 2017, the fair value of collateral held by the Group that was permitted to sell or re-pledge in the absence of default by the borrower amounted to HK$11,826 million (2016: HK$7,013 million). The Group had not sold or re-pledged such collateral (2016: Nil). These transactions are conducted under terms that are usual and customary to reverse repurchase and securities borrowing agreements.

4. Financial risk management (continued)

4.1 Credit risk (continued)

(A) Credit exposures

The maximum credit exposure is the worst case scenario of exposure to the Group without taking into account any collateral held or other credit enhancements. For on-balance sheet assets, the maximum exposure to credit risk equals their carrying amount. For letters of guarantee issued, the maximum exposure to credit risk is the maximum amount that the Group could be required to pay if the guarantees are called upon. For loan commitment and other credit related liabilities, the maximum exposure to credit risk is the full amount of the committed facilities.

The nature of the collateral held and other credit enhancements and their financial effect to the different classes of the Group's financial assets are as follows.

Balances and placements with banks and other financial institutions

These exposures are generally considered to be low risk due to the nature of the counterparties. Collateral is generally not sought on these assets.

Financial assets at fair value through profit or loss and investment in securities

Collateral is generally not sought on debt securities.

Derivative financial instruments

The Master Agreement published by the International Swaps and Derivatives Association, Inc. ("ISDA Master Agreement") is the preferred agreement for documenting derivatives activities of the Group. It provides the contractual framework under which dealing activities of over-the-counter ("OTC") transactions are conducted, and sets out close-out netting provisions upon termination following the occurrence of an event of default or a termination event. In addition, if deemed necessary, Credit Support Annex ("CSA") will be included to form part of the Schedule to the ISDA Master Agreement. Under a CSA, collateral is passed from one counterparty to another, as appropriate, to mitigate the credit exposures.

Advances and other accounts, contingent liabilities and commitments

The general types of collateral are disclosed on page 170. Advances and other accounts, contingent liabilities and commitments are collateralised to the extent considered appropriate by the Group taking account of the risk assessment of individual exposures. The collateral coverage of advances to customers is analysed on pages 179 to 180. The components and nature of contingent liabilities and commitments are disclosed in Note 43. Regarding the commitments that are unconditionally cancellable without prior notice, the Group would assess the necessity to withdraw the credit line in case where the credit quality of a borrower deteriorates. For contingent liabilities and commitments, 12.77% (2016: 10.91%) was covered by collateral as at 31 December 2017.

4. Financial risk management (continued)

4.1 Credit risk (continued)

(B) Gross advances and other accounts

Gross advances and other accounts before impairment allowances are summarised by product type as follows:

	2017 HK$'m	2016 HK$'m
Advances to customers		
Personal		
– Mortgages	**245,908**	228,266
– Credit cards	**14,648**	13,849
– Others	**67,227**	50,595
Corporate		
– Commercial loans	**738,494**	623,273
– Trade finance	**78,182**	72,210
	1,144,459	988,193
Trade bills	**42,975**	17,245
Advances to banks and other financial institutions	**6,259**	6,016
	1,193,693	1,011,454

Advances with a specific repayment date are classified as overdue when the principal or interest is past due and remains unpaid. Advances repayable by regular instalments are classified as overdue when an instalment payment is past due and remains unpaid. Advances repayable on demand are classified as overdue either when a demand for repayment has been served on the borrower but repayment has not been made in accordance with the instruction or when the advances have remained continuously exceeded the approved limit that was advised to the borrower.

Advances are impaired and impairment losses are incurred if, and only if, there is objective evidence of impairment as a result of one or more events that occurred and that loss event(s) has an impact on the estimated future cash flows of the advances that can be reliably estimated.

If there is objective evidence that an impairment loss on advances has been incurred, the amount of loss is measured as the difference between the carrying amount and the present value of estimated future cash flows generated by the advances. Objective evidence that advances are impaired includes observable data that comes to the attention of the Group about the loss events.

4. Financial risk management (continued)

4.1 Credit risk (continued)

(B) Gross advances and other accounts (continued)

The criteria that the Group uses to determine that there is objective evidence of an impairment loss include:

– Significant financial difficulty incurred by the borrower;

– A breach of contract, such as a default or delinquency in principal or interest payment;

– For economic or legal reasons related to the borrower's financial difficulty, the Group has granted to the borrower a concession that it would not otherwise consider;

– Probable that the borrower will become bankrupt or undergo other financial reorganisation; or

– Other observable data indicating that there is a measurable decrease in the estimated future cash flows from such advances.

(a) Advances neither overdue nor impaired

Advances that were neither overdue nor impaired are analysed by internal credit grade as follows:

	2017			
	Pass HK$'m	Special mention HK$'m	Substandard or below HK$'m	Total HK$'m
Advances to customers				
Personal				
– Mortgages	**243,575**	**223**	**62**	**243,860**
– Credit cards	**14,286**	**–**	**–**	**14,286**
– Others	**66,181**	**688**	**10**	**66,879**
Corporate				
– Commercial loans	**735,126**	**1,044**	**597**	**736,767**
– Trade finance	**78,077**	**49**	**–**	**78,126**
	1,137,245	**2,004**	**669**	**1,139,918**
Trade bills	**42,975**	**–**	**–**	**42,975**
Advances to banks and other financial institutions	**6,259**	**–**	**–**	**6,259**
	1,186,479	**2,004**	**669**	**1,189,152**

4. Financial risk management (continued)

4.1 Credit risk (continued)

(B) Gross advances and other accounts (continued)

(a) Advances neither overdue nor impaired (continued)

	2016			
	Pass HK$'m	Special mention HK$'m	Substandard or below HK$'m	Total HK$'m
Advances to customers				
Personal				
– Mortgages	226,039	181	41	226,261
– Credit cards	13,496	–	–	13,496
– Others	50,185	78	5	50,268
Corporate				
– Commercial loans	619,542	740	650	620,932
– Trade finance	72,070	51	10	72,131
	981,332	1,050	706	983,088
Trade bills	17,245	–	–	17,245
Advances to banks and other financial institutions	6,016	–	–	6,016
	1,004,593	1,050	706	1,006,349

The occurrence of loss event(s) may not necessarily result in impairment loss where the advances are fully collateralised. While such advances are of "substandard" or lower grades, they are regarded as not being impaired and have been included in the above tables.

4. Financial risk management (continued)

4.1 Credit risk (continued)

(B) Gross advances and other accounts (continued)

(b) Advances overdue but not impaired

The gross amount of advances overdue but not impaired is analysed as follows:

	2017				
	Overdue for three months or less HK$'m	Overdue for six months or less but over three months HK$'m	Overdue for one year or less but over six months HK$'m	Overdue for over one year HK$'m	Total HK$'m
Advances to customers					
Personal					
– Mortgages	**2,016**	**3**	**3**	**9**	**2,031**
– Credit cards	**321**	**–**	**–**	**–**	**321**
– Others	**301**	**2**	**–**	**–**	**303**
Corporate					
– Commercial loans	**500**	**10**	**–**	**4**	**514**
– Trade finance	**1**	**–**	**–**	**–**	**1**
	3,139	**15**	**3**	**13**	**3,170**

	2016				
	Overdue for three months or less HK$'m	Overdue for six months or less but over three months HK$'m	Overdue for one year or less but over six months HK$'m	Overdue for over one year HK$'m	Total HK$'m
Advances to customers					
Personal					
– Mortgages	1,957	18	17	7	1,999
– Credit cards	310	–	–	–	310
– Others	284	2	3	3	292
Corporate					
– Commercial loans	1,001	–	–	5	1,006
– Trade finance	3	–	–	2	5
	3,555	20	20	17	3,612

4. Financial risk management (continued)

4.1 Credit risk (continued)

(B) Gross advances and other accounts (continued)

(c) Impaired advances

Advances individually identified to be impaired are analysed by product type as follows:

	2017		2016	
	Gross advances HK$'m	**Market value of collateral HK$'m**	Gross advances HK$'m	Market value of collateral HK$'m
Advances to customers				
Personal				
– Mortgages	**17**	**22**	6	9
– Credit cards	**41**	**–**	43	–
– Others	**45**	**6**	35	25
Corporate				
– Commercial loans	**1,213**	**1,426**	1,335	1,050
– Trade finance	**55**	**69**	74	14
	1,371	**1,523**	1,493	1,098
Impairment allowances made in respect of such advances	**538**		703	

	2017 HK$'m	2016 HK$'m
Current market value of collateral held against the covered portion of such advances to customers	**1,523**	1,098
Covered portion of such advances to customers	**1,083**	921
Uncovered portion of such advances to customers	**288**	572

The impairment allowances were made after taking into account the value of collateral in respect of such advances.

As at 31 December 2017, there were no impaired trade bills and advances to banks and other financial institutions (2016: Nil).

4. Financial risk management (continued)

4.1 Credit risk (continued)

(B) Gross advances and other accounts (continued)

(c) Impaired advances (continued)

Classified or impaired advances to customers are analysed as follows:

	2017 HK$'m	2016 HK$'m
Gross classified or impaired advances to customers	**2,079**	2,282
Gross classified or impaired advances to customers as a percentage of gross advances to customers	**0.18%**	0.23%
Individually assessed impairment allowances made in respect of such advances	**491**	650

Classified or impaired advances to customers represent advances which are either classified as "substandard", "doubtful" or "loss" under the Group's classification of loan quality, or individually assessed to be impaired.

(d) Advances overdue for more than three months

The gross amount of advances overdue for more than three months is analysed as follows:

	2017		2016	
	Amount HK$'m	**% of gross advances to customers**	Amount HK$'m	% of gross advances to customers
Gross advances to customers which have been overdue for:				
– six months or less but over three months	**117**	**0.01%**	94	0.01%
– one year or less but over six months	**123**	**0.01%**	81	0.01%
– over one year	**313**	**0.03%**	328	0.03%
Advances overdue for over three months	**553**	**0.05%**	503	0.05%
Individually assessed impairment allowances made in respect of such advances	**309**		250	

4. Financial risk management (continued)

4.1 Credit risk (continued)

(B) Gross advances and other accounts (continued)

(d) Advances overdue for more than three months (continued)

	2017 HK$'m	2016 HK$'m
Current market value of collateral held against the covered portion of such advances to customers	**520**	428
Covered portion of such advances to customers	**289**	224
Uncovered portion of such advances to customers	**264**	279

Collateral held against overdue or impaired loans is principally represented by charges over business assets such as commercial, residential premises and vessels for corporate loans and mortgages over residential properties for personal loans.

As at 31 December 2017, there were no trade bills and advances to banks and other financial institutions overdue for more than three months (2016: Nil).

(e) Rescheduled advances

	2017		2016	
	Amount HK$'m	% of gross advances to customers	Amount HK$'m	% of gross advances to customers
Rescheduled advances to customers net of amounts included in "Advances overdue for more than three months"	**238**	**0.02%**	–	–

Rescheduled advances are those advances that have been restructured or renegotiated because of deterioration in the financial position of the borrower or of the inability of the borrower to meet the original repayment schedule. Rescheduled advances, which have been overdue for more than three months under the revised repayment terms, are included in "Advances overdue for more than three months".

4. Financial risk management (continued)

4.1 Credit risk (continued)

(B) Gross advances and other accounts (continued)

(f) Concentration of advances to customers

(i) Sectoral analysis of gross advances to customers

The following analysis of the gross advances to customers by industry sector is based on the categories with reference to the completion instructions for the HKMA return of loans and advances.

	2017					
	Gross advances to customers HK$'m	% covered by collateral or other security	Classified or impaired HK$'m	Overdue HK$'m	Individually assessed impairment allowances HK$'m	Collectively assessed impairment allowances HK$'m
Loans for use in Hong Kong						
Industrial, commercial and financial						
– Property development	99,987	24.22%	–	5	–	336
– Property investment	53,581	78.47%	19	68	–	180
– Financial concerns	13,461	2.42%	–	–	–	68
– Stockbrokers	1,027	89.86%	–	1	–	3
– Wholesale and retail trade	34,931	38.23%	26	160	20	131
– Manufacturing	45,075	13.93%	32	25	4	159
– Transport and transport equipment	61,786	28.44%	1,062	27	44	213
– Recreational activities	2,040	1.47%	–	–	–	6
– Information technology	23,900	1.07%	–	–	–	79
– Others	100,966	41.99%	18	132	5	336
Individuals						
– Loans for the purchase of flats in Home Ownership Scheme, Private Sector Participation Scheme and Tenants Purchase Scheme	9,874	99.75%	12	147	–	6
– Loans for purchase of other residential properties	234,434	99.93%	75	1,520	1	128
– Credit card advances	14,620	–	39	549	–	124
– Others	63,356	80.57%	53	508	20	429
Total loans for use in Hong Kong	759,038	58.31%	1,336	3,142	94	2,198
Trade finance	78,182	14.13%	55	25	32	287
Loans for use outside Hong Kong	307,239	9.23%	688	1,003	365	1,108
Gross advances to customers	1,144,459	42.11%	2,079	4,170	491	3,593

4. Financial risk management (continued)

4.1 Credit risk (continued)

(B) Gross advances and other accounts (continued)

(f) Concentration of advances to customers (continued)

(i) Sectoral analysis of gross advances to customers (continued)

	2016					
	Gross advances to customers HK$'m	% covered by collateral or other security	Classified or impaired HK$'m	Overdue HK$'m	Individually assessed impairment allowances HK$'m	Collectively assessed impairment allowances HK$'m
Loans for use in Hong Kong						
Industrial, commercial and financial						
– Property development	73,637	22.82%	–	1	–	248
– Property investment	53,908	81.58%	27	133	–	180
– Financial concerns	5,438	3.53%	–	–	–	45
– Stockbrokers	2,647	95.17%	–	–	–	9
– Wholesale and retail trade	35,091	37.14%	42	186	29	127
– Manufacturing	26,136	17.49%	49	51	7	100
– Transport and transport equipment	53,074	31.31%	1,239	17	289	186
– Recreational activities	2,510	1.59%	–	–	–	8
– Information technology	17,938	1.30%	–	–	–	58
– Others	105,127	24.95%	15	89	10	341
Individuals						
– Loans for the purchase of flats in Home Ownership Scheme, Private Sector Participation Scheme and Tenants Purchase Scheme	8,562	99.84%	10	170	–	5
– Loans for purchase of other residential properties	218,426	99.93%	89	1,812	2	101
– Credit card advances	13,819	–	41	524	–	123
– Others	47,717	71.08%	36	495	3	68
Total loans for use in Hong Kong	664,030	57.97%	1,548	3,478	340	1,599
Trade finance	72,210	13.99%	87	52	28	256
Loans for use outside Hong Kong	251,953	13.22%	647	1,021	282	924
Gross advances to customers	988,193	43.35%	2,282	4,551	650	2,779

4. Financial risk management (continued)

4.1 Credit risk (continued)

(B) Gross advances and other accounts (continued)

(f) Concentration of advances to customers (continued)

(i) Sectoral analysis of gross advances to customers (continued)

The amounts of new impairment allowances charged to the income statement, and classified or impaired loans written off during the year are shown below:

	2017		2016	
	New impairment allowances HK$'m	Classified or impaired loans written off HK$'m	New impairment allowances HK$'m	Classified or impaired loans written off HK$'m
Loans for use in Hong Kong				
Industrial, commercial and financial				
– Property development	80	–	25	–
– Property investment	4	–	–	–
– Financial concerns	20	–	–	–
– Stockbrokers	–	–	2	–
– Wholesale and retail trade	9	13	50	18
– Manufacturing	55	3	19	2
– Transport and transport equipment	25	1	50	1
– Recreational activities	–	–	5	–
– Information technology	18	–	11	–
– Others	8	8	125	8
Individuals				
– Loans for the purchase of flats in Home Ownership Scheme, Private Sector Participation Scheme and Tenants Purchase Scheme	1	–	–	–
– Loans for purchase of other residential properties	26	–	6	–
– Credit card advances	223	220	248	228
– Others	544	171	190	182
Total loans for use in Hong Kong	1,013	416	731	439
Trade finance	31	10	21	62
Loans for use outside Hong Kong	463	141	204	–
Gross advances to customers	1,507	567	956	501

4. Financial risk management (continued)

4.1 Credit risk (continued)

(B) Gross advances and other accounts (continued)

(f) Concentration of advances to customers (continued)

(ii) Geographical analysis of gross advances to customers

The following geographical analysis of advances to customers is based on the locations of the counterparties, after taking into account the transfer of risk. For an advance to customer guaranteed by a party situated in a location different from the customer, the risk will be transferred to the location of the guarantor.

Gross advances to customers

	2017 HK$'m	2016 HK$'m
Hong Kong	**911,691**	781,395
Mainland of China	**135,825**	123,517
Others	**96,943**	83,281
	1,144,459	988,193
Collectively assessed impairment allowances in respect of the gross advances to customers		
Hong Kong	**2,741**	2,022
Mainland of China	**450**	399
Others	**402**	358
	3,593	2,779

4. Financial risk management (continued)

4.1 Credit risk (continued)

(B) Gross advances and other accounts (continued)

(f) Concentration of advances to customers (continued)

(ii) Geographical analysis of gross advances to customers (continued)

Overdue advances

	2017 HK$'m	2016 HK$'m
Hong Kong	**3,061**	3,418
Mainland of China	**181**	162
Others	**928**	971
	4,170	4,551
Individually assessed impairment allowances in respect of the overdue advances		
Hong Kong	**65**	112
Mainland of China	**53**	8
Others	**220**	189
	338	309
Collectively assessed impairment allowances in respect of the overdue advances		
Hong Kong	**95**	96
Mainland of China	**2**	2
Others	**5**	15
	102	113

4. Financial risk management (continued)

4.1 Credit risk (continued)

(B) Gross advances and other accounts (continued)

(f) Concentration of advances to customers (continued)

(ii) Geographical analysis of gross advances to customers (continued)

Classified or impaired advances

	2017 HK$'m	2016 HK$'m
Hong Kong	**1,379**	1,716
Mainland of China	**111**	75
Others	**589**	491
	2,079	2,282
Individually assessed impairment allowances in respect of the classified or impaired advances		
Hong Kong	**113**	411
Mainland of China	**70**	11
Others	**308**	228
	491	650
Collectively assessed impairment allowances in respect of the classified or impaired advances		
Hong Kong	**46**	52
Mainland of China	**1**	1
Others	**2**	7
	49	60

(C) Repossessed assets

During the year, the Group obtained assets by taking possession of collateral held as security. The nature and carrying value of these assets held as at 31 December are summarised as follows:

	2017 HK$'m	2016 HK$'m
Commercial properties	**8**	–
Industrial properties	**1**	–
Residential properties	**21**	38
	30	38

4. Financial risk management (continued)

4.1 Credit risk (continued)

(C) Repossessed assets (continued)

The estimated market value of repossessed assets held by the Group as at 31 December 2017 amounted to HK$77 million (2016: HK$72 million). The repossessed assets comprise properties in respect of which the Group has acquired access or control (e.g. through court proceedings or voluntary actions by the proprietors concerned) for release in full or in part of the obligations of the borrowers.

When the repossessed assets are not readily convertible into cash, the Group may consider the following alternatives:

- adjusting the selling prices
- selling the loans together with the assets
- arranging loan restructuring

(D) Balances and placements with banks and other financial institutions

The following tables present an analysis of balances and placements with banks and other financial institutions that are neither overdue nor impaired as at 31 December by rating agency designation.

	2017			
	Aaa to A3 HK$'m	**Lower than A3 HK$'m**	**Unrated HK$'m**	**Total HK$'m**
Central banks	**84,559**	**6,217**	**8,547**	**99,323**
Other banks and other financial institutions	**265,886**	**40,599**	**3,219**	**309,704**
	350,445	**46,816**	**11,766**	**409,027**

	2016			
	Aaa to A3 HK$'m	Lower than A3 HK$'m	Unrated HK$'m	Total HK$'m
Central banks	68,724	6,918	6,715	82,357
Other banks and other financial institutions	186,584	26,327	759	213,670
	255,308	33,245	7,474	296,027

As at 31 December 2017, there were no overdue or impaired balances and placements with banks and other financial institutions (2016: Nil).

4. Financial risk management (continued)

4.1 Credit risk (continued)

(E) Debt securities and certificates of deposit

The following tables present an analysis of the carrying value of debt securities and certificates of deposit by issue rating. In the absence of such issue ratings, the ratings designated for the issuers are reported.

	2017					
	Aaa HK$'m	Aa1 to Aa3 HK$'m	A1 to A3 HK$'m	Lower than A3 HK$'m	Unrated HK$'m	Total HK$'m
Available-for-sale securities	**169,826**	**135,479**	**205,403**	**35,848**	**15,145**	**561,701**
Held-to-maturity securities	**16,909**	**1,581**	**20,933**	**6,174**	**4,962**	**50,559**
Loans and receivables	**–**	**–**	**499**	**–**	**–**	**499**
Financial assets at fair value through profit or loss	**18,003**	**13,639**	**29,692**	**9,662**	**2,593**	**73,589**
	204,738	**150,699**	**256,527**	**51,684**	**22,700**	**686,348**

	2016					
	Aaa HK$'m	Aa1 to Aa3 HK$'m	A1 to A3 HK$'m	Lower than A3 HK$'m	Unrated HK$'m	Total HK$'m
Available-for-sale securities	106,276	171,851	186,790	41,867	20,654	527,438
Held-to-maturity securities	19,805	21,671	12,365	5,108	1,919	60,868
Loans and receivables	–	149	786	–	–	935
Financial assets at fair value through profit or loss	14,927	16,615	14,817	6,501	3,456	56,316
	141,008	210,286	214,758	53,476	26,029	645,557

4. Financial risk management (continued)

4.1 Credit risk (continued)

(E) Debt securities and certificates of deposit (continued)

The following tables present an analysis of debt securities and certificates of deposit neither overdue nor impaired as at 31 December by issue rating. In the absence of such issue ratings, the ratings designated for the issuers are reported.

	2017					
	Aaa HK$'m	Aa1 to Aa3 HK$'m	A1 to A3 HK$'m	Lower than A3 HK$'m	Unrated HK$'m	Total HK$'m
Available-for-sale securities	**169,826**	**135,479**	**205,403**	**35,848**	**15,145**	**561,701**
Held-to-maturity securities	**16,909**	**1,581**	**20,933**	**6,174**	**4,962**	**50,559**
Loans and receivables	**–**	**–**	**499**	**–**	**–**	**499**
Financial assets at fair value through profit or loss	**18,003**	**13,639**	**29,692**	**9,662**	**2,593**	**73,589**
	204,738	**150,699**	**256,527**	**51,684**	**22,700**	**686,348**

	2016					
	Aaa HK$'m	Aa1 to Aa3 HK$'m	A1 to A3 HK$'m	Lower than A3 HK$'m	Unrated HK$'m	Total HK$'m
Available-for-sale securities	106,276	171,851	186,790	41,867	20,654	527,438
Held-to-maturity securities	19,804	21,671	12,365	5,108	1,919	60,867
Loans and receivables	–	149	786	–	–	935
Financial assets at fair value through profit or loss	14,927	16,615	14,817	6,501	3,456	56,316
	141,007	210,286	214,758	53,476	26,029	645,556

The impaired debt securities are analysed as follows:

	2017 HK$'m	2016 HK$'m
Held-to-maturity securities	**–**	1

As at 31 December 2017, there were no impaired certificates of deposit and no overdue debt securities and certificates of deposit (2016: Nil).

4. Financial risk management (continued)

4.2 Market risk

Market risk refers to the risk of loss arising from movements in the value of foreign exchange, interest rate, equity and commodity positions held by the Group due to the volatility of financial market price (foreign exchange rate, interest rate, equity price, commodity price). The Group adopts a moderate market risk appetite to achieve a balance between risk and return. The Group's objective in managing market risk is to secure healthy growth of the treasury business, by effective management of potential market risk in the Group's business, according to the Group's overall risk appetite and strategy of treasury business on the basis of a well-established risk management regime and related management measures.

In accordance with the Group's corporate governance principles in respect of risk management, the Board and RMC, senior management and functional departments/units perform their duties and responsibilities to manage the Group's market risk. The RMD is mainly responsible for managing market risk, assisting senior management to perform their day-to-day duties, independently monitoring the market risk profile and compliance of management policies and limits of the Group and BOCHK, and ensuring that the aggregate and individual market risks are within acceptable levels.

The Group's market risk management covers BOCHK and its subsidiaries. The Group establishes market risk management policies to regulate BOCHK's and subsidiaries' market risk management; meanwhile, the Group sets up the Group VAR and stress test limits, which are allocated and monitored across the Group according to the business requirements and risk tolerance levels. In line with the requirements set in the Group policy, the subsidiaries formulate the detailed policies and procedures and are responsible for managing their daily market risk.

The Group sets up market risk indicators and limits to identify, measure, monitor and control market risk. Major risk indicators and limits include but are not limited to VAR, Stop Loss, Open Position, Stress Testing and Sensitivity Analysis (Basis Point Value, Greeks), etc. To meet management requirements, major risk indicators and limits are classified into four levels, and are approved by the RMC, MC, CRO and the DCE in charge of the treasury business or the head of the respective business unit respectively. Treasury business units of BOCHK and subsidiaries (as for Group Limit) are required to conduct their business within approved market risk indicators and limits.

(A) VAR

The Group uses the VAR to measure and report general market risks to the RMC and senior management on a periodic basis. The Group adopts a uniformed VAR calculation model, using a historical simulation approach and two years of historical market data, to calculate the VAR of the Group and subsidiaries over a one-day holding period with a 99% confidence level, and sets up the VAR limit of the Group and subsidiaries.

4. Financial risk management (continued)

4.2 Market risk (continued)

(A) VAR (continued)

The following table sets out the VAR for all general market risk exposure[1] of the Group.

	Year	At 31 December HK$'m	Minimum for the year HK$'m	Maximum for the year HK$'m	Average for the year HK$'m
VAR for all market risk	**2017**	**28.3**	**27.1**	**80.9**	**49.7**
	2016	61.2	29.4	70.5	45.9
VAR for foreign exchange risk	**2017**	**13.1**	**12.5**	**54.1**	**31.2**
	2016	57.1	24.3	62.4	35.8
VAR for interest rate risk	**2017**	**25.1**	**19.3**	**82.4**	**44.4**
	2016	44.9	15.3	57.4	28.8
VAR for equity risk	**2017**	**2.1**	**0.7**	**5.9**	**2.6**
	2016	3.2	0.0	5.7	2.1
VAR for commodity risk	**2017**	**1.1**	**0.5**	**2.0**	**1.3**
	2016	1.2	0.0	1.4	0.3

Note:
1. Structural FX positions have been excluded.

Although a valuable guide to market risk, VAR should always be viewed in the context of its limitations. For example:

– the use of historical market data as a proxy for estimating future events may not encompass all potential events, particularly those which are extreme in nature;

– the use of a one-day holding period assumes that all positions can be liquidated or hedged in one day. This may not fully reflect the market risk arising at times of severe illiquidity, when a one-day holding period may be insufficient to liquidate or hedge all positions fully;

– the use of a 99% confidence level, by definition, does not take into account losses that might occur beyond this level of confidence; and

– VAR is calculated on the basis of exposures outstanding at the close of business and therefore does not necessarily reflect intra-day exposures.

The Group recognises these limitations by formulating stress test indicators and limits to assess and manage the market risk uncovered by VAR. The stress testing programme of the market risk includes sensitivity testing on changes in risk factors with various degrees of severity, as well as scenario analysis on historical events including the 1987 Equity Market Crash, 1994 Bond Market Crash, 1997 Asian Financial Crisis, 2001 9-11 event and 2008 Financial Tsunami, etc.

4. Financial risk management (continued)

4.2 Market risk (continued)

(B) Currency risk

The Group's assets and liabilities are denominated in major currencies, particularly HK Dollar, US Dollar and Renminbi. To ensure the currency risk exposure of the Group is kept to an acceptable level, risk limits (e.g. Position and VAR limit) are used to serve as a monitoring tool. Moreover, the Group seeks to minimise the gap between assets and liabilities in the same currency. Foreign exchange contracts (e.g. FX swaps) are usually used to manage FX risk associated with foreign currency-denominated assets and liabilities.

The following is a summary of the Group's major foreign currency exposures arising from trading, non-trading and structural positions and is prepared with reference to the completion instructions for the HKMA return of foreign currency position. The net options position is calculated based on the basis of delta-weighted positions of all foreign exchange options contracts.

	2017							
	Equivalent in million of HK$							
	US Dollars	Pound Sterling	Japanese Yen	Euro	Renminbi	Australian Dollars	Other foreign currencies	Total foreign currencies
Spot assets	850,639	23,799	90,147	52,557	365,422	42,746	47,941	1,473,251
Spot liabilities	(742,593)	(15,363)	(11,352)	(25,620)	(288,947)	(19,414)	(50,633)	(1,153,922)
Forward purchases	909,676	16,490	30,145	61,278	356,964	21,391	86,722	1,482,666
Forward sales	(1,014,314)	(25,073)	(108,992)	(88,054)	(433,565)	(44,640)	(83,140)	(1,797,778)
Net options position	(684)	6	(6)	(48)	44	(14)	10	(692)
Net long/(short) position	2,724	(141)	(58)	113	(82)	69	900	3,525

	2016							
	Equivalent in million of HK$							
	US Dollars	Pound Sterling	Japanese Yen	Euro	Renminbi	Australian Dollars	Other foreign currencies	Total foreign currencies
Spot assets	729,472	20,711	128,359	40,591	260,636	22,537	28,637	1,230,943
Spot liabilities	(617,520)	(14,351)	(9,056)	(28,397)	(250,559)	(19,823)	(32,101)	(971,807)
Forward purchases	1,095,599	26,200	58,711	56,669	579,902	28,125	55,743	1,900,949
Forward sales	(1,196,764)	(32,618)	(178,070)	(68,865)	(588,688)	(30,925)	(52,907)	(2,148,837)
Net options position	1,123	2	1	1	(733)	(3)	1	392
Net long/(short) position	11,910	(56)	(55)	(1)	558	(89)	(627)	11,640

4. Financial risk management (continued)

4.2 Market risk (continued)

(B) Currency risk (continued)

	2017					
	Equivalent in million of HK$					
	US Dollars	Renminbi	Malaysian Ringgit	Baht	Other foreign currencies	Total foreign currencies
Net structural position	**3,531**	**–**	**2,651**	**2,350**	**1,015**	**9,547**

	2016					
	Equivalent in million of HK$					
	US Dollars	Renminbi	Malaysian Ringgit	Baht	Other foreign currencies	Total foreign currencies
Net structural position	–	791	2,175	–	160	3,126

(C) Interest rate risk

Interest rate risk means the risks to a bank's earnings and economic value arising from movements in interest rate and term structures of the bank's asset and liability positions. The Group's interest rate risk exposures are mainly structural. The major types of interest rate risk from structural positions are:

– Repricing risk: mismatches in the maturity or repricing periods of assets and liabilities that may affect net interest income;

– Basis risk: different pricing basis for different transactions resulting that the yield on assets and cost of liabilities may change by different amounts within the same repricing period;

– Yield curve risk: non-parallel shifts in the yield curve that may have an adverse impact on net interest income or economic value; and

– Option risk: exercise of the options embedded in assets, liabilities or off-balance sheet items that can cause a change in the cash flows of assets and liabilities.

4. Financial risk management (continued)

4.2 Market risk (continued)

(C) Interest rate risk (continued)

The Group's risk management framework applies also to interest rate risk management. The ALCO exercises its oversight of interest rate risk in accordance with the "BOCHK Group Banking Book Interest Rate Risk Management Policy" approved by the RMC. RMD (Interest Rate and Liquidity Risk Management) is responsible for interest rate risk management. With the cooperation of the Asset and Liability Management Division of Financial Management Department, Treasury, and Investment Management, RMD assists the ALCO to perform day-to-day interest rate risk management. Its roles include, but are not limited to, the formulation of management policies, selection of methodologies, setting of risk indicators and limits, assessment of target balance sheet, monitoring of the compliance with policies and limits, and submission of interest rate risk management reports to the senior management and RMC, etc.

The Group sets out interest rate risk indicators and limits to identify, measure, monitor and control interest rate risk. The indicators and limits include, but are not limited to, repricing gap limits, basis risk, duration, price value of a basis point ("PVBP"), Greeks, net interest income sensitivity ratio ("NII"), economic value sensitivity ratio ("EV"), etc. The indicators and limits are classified into different levels, which are approved by the CFO and CRO, ALCO, RMC accordingly. Risk-taking business units are required to conduct their business within the boundary of the interest rate risk limits. Before launching a new product or business in the banking book, the relevant departments are required to go through a risk assessment process, which includes the assessment of underlying interest rate risk and consideration of the adequacy of current risk monitoring mechanism. Any material impact on interest rate risk noted during the risk assessment process will be submitted to the RMC for approval.

NII and EV assess the impact of interest rate movement on the Group's net interest income and capital base. They are the Group's key interest rate risk indicators. The former assesses the impact of interest rate movement on net interest income as a percentage to the projected net interest income for the year. The latter assesses the impact of interest rate movement on economic value (i.e. the net present value of cash flows of assets, liabilities and off-balance sheet items discounted using market interest rate) as a percentage to the latest capital base. Limits are set by the RMC on these two indicators to monitor and control the Group's banking book interest rate risk.

The Group uses scenario analyses and stress tests to assess the banking book interest rate risk that the Group would face under adverse circumstances. Scenario analyses and stress tests are also used to assess the impact on net interest income and economic value arising from the optionality of savings deposits, the prepayment of mortgage loans and the prepayment of debt securities with embedded options.

4. Financial risk management (continued)

4.2 Market risk (continued)

(C) Interest rate risk (continued)

The Group is principally exposed to HK Dollar, US Dollar and Renminbi in terms of interest rate risk. As at 31 December 2017, if market interest rates had a 100 basis point parallel upward shift of the yield curve with other variables held constant, the sensitivities on net interest income over a twelve-month period and on reserves for the Group would have been as follows:

	Impact on net interest income over the next twelve months at 31 December		Impact on reserves at 31 December	
	2017 HK$'m	2016 HK$'m	**2017 HK$'m**	2016 HK$'m
Total	**961**	185	**(6,750)**	(5,365)
Of which:				
HK Dollar	**2,326**	1,572	**(388)**	(522)
US Dollar	**(947)**	(525)	**(4,787)**	(3,866)
Renminbi	**(241)**	(583)	**(836)**	(747)

Note: The comparative information of impact on reserve for the year 2016 has been restated due to the assumption change of hedge relationship for available-for-sale portfolio.

The overall impact on net interest income of the above currencies is positive in 2017, which is mainly because of the increase in HKD non-interest bearing funding. Reserves would have been reduced because of the expected reduction in valuation of available-for-sale portfolio (available-for-sale portfolio includes available-for-sale securities and relevant interest rate derivatives under hedge accounting) due to a parallel shift up of 100 basis points in the yield curve. The reduction of reserves is increased compared with 2016 because the size of available-for-sale portfolio in capital market is increased.

The sensitivities above are for illustration only and are based on several assumptions, including, but not limited to, the change in the correlation between interest rates of relevant currencies, parallel movement of interest rates, the absence of actions that would be taken to mitigate the impact of interest rate risk, the effectiveness of hedge accounting, all positions being assumed to run to maturity, behavioural assumptions of products in which actual repricing date differs from contractual repricing date or products without contractual maturity. The above exposures form only a part of the Group's overall interest rate risk exposures.

4. Financial risk management (continued)

4.2 Market risk (continued)

(C) Interest rate risk (continued)

The tables below summarise the Group's on-balance sheet exposure to interest rate risk as at 31 December. Included in the tables are the assets and liabilities at carrying amounts, categorised by the earlier of contractual repricing date and maturity date.

	2017						
	Up to 1 month HK$'m	1 to 3 months HK$'m	3 to 12 months HK$'m	1 to 5 years HK$'m	Over 5 years HK$'m	Non-interest bearing HK$'m	Total HK$'m
Assets							
Cash and balances with banks and other financial institutions	341,939	–	–	–	–	22,266	364,205
Placements with banks and other financial institutions maturing between one and twelve months	–	37,210	21,846	–	–	–	59,056
Financial assets at fair value through profit or loss	10,940	9,239	17,242	13,824	29,203	12,746	93,194
Derivative financial instruments	–	–	–	–	–	33,541	33,541
Hong Kong SAR Government certificates of indebtedness	–	–	–	–	–	146,200	146,200
Advances and other accounts	954,188	137,995	54,737	28,502	6,374	7,813	1,189,609
Investment in securities							
– Available-for-sale securities	73,072	102,698	116,481	164,179	105,271	5,413	567,114
– Held-to-maturity securities	1,231	2,467	7,989	24,074	14,798	–	50,559
– Loans and receivables	–	499	–	–	–	–	499
Interests in associates and joint ventures	–	–	–	–	–	417	417
Investment properties	–	–	–	–	–	19,669	19,669
Properties, plant and equipment	–	–	–	–	–	47,261	47,261
Other assets (including deferred tax assets)	4,338	–	–	–	–	70,091	74,429
Total assets	1,385,708	290,108	218,295	230,579	155,646	365,417	2,645,753
Liabilities							
Hong Kong SAR currency notes in circulation	–	–	–	–	–	146,200	146,200
Deposits and balances from banks and other financial institutions	184,518	7,163	362	825	–	30,206	223,074
Financial liabilities at fair value through profit or loss	7,102	4,116	7,068	955	479	–	19,720
Derivative financial instruments	–	–	–	–	–	31,044	31,044
Deposits from customers	1,333,365	160,565	140,233	1,254	–	136,096	1,771,513
Debt securities and certificates of deposit in issue	7,091	1,971	12,579	–	–	–	21,641
Other accounts and provisions (including current and deferred tax liabilities)	13,697	–	–	–	–	49,311	63,008
Insurance contract liabilities	–	–	–	–	–	103,229	103,229
Subordinated liabilities	–	–	63	18,917	–	–	18,980
Total liabilities	1,545,773	173,815	160,305	21,951	479	496,086	2,398,409
Interest sensitivity gap	(160,065)	116,293	57,990	208,628	155,167	(130,669)	247,344

4. Financial risk management (continued)

4.2 Market risk (continued)

(C) Interest rate risk (continued)

	2016						
	Up to 1 month HK$'m	1 to 3 months HK$'m	3 to 12 months HK$'m	1 to 5 years HK$'m	Over 5 years HK$'m	Non-interest bearing HK$'m	Total HK$'m
Assets							
Cash and balances with banks and other financial institutions	214,279	–	–	–	–	22,027	236,306
Placements with banks and other financial institutions maturing between one and twelve months	–	30,211	42,399	–	–	–	72,610
Financial assets at fair value through profit or loss	5,510	8,217	13,224	15,326	19,816	5,265	67,358
Derivative financial instruments	–	–	–	–	–	64,332	64,332
Hong Kong SAR Government certificates of indebtedness	–	–	–	–	–	123,390	123,390
Advances and other accounts	784,676	110,128	57,107	41,013	7,662	7,439	1,008,025
Investment in securities							
– Available-for-sale securities	54,940	119,259	106,325	142,154	104,760	4,409	531,847
– Held-to-maturity securities	779	3,979	17,073	24,584	14,453	–	60,868
– Loans and receivables	–	–	935	–	–	–	935
Interests in associates and joint ventures	–	–	–	–	–	319	319
Investment properties	–	–	–	–	–	18,227	18,227
Properties, plant and equipment	–	–	–	–	–	45,812	45,812
Other assets (including deferred tax assets)	3,383	–	–	–	–	68,035	71,418
Assets held for sale	32,358	6,837	6,394	5,197	4	2,503	53,293
Total assets	1,095,925	278,631	243,457	228,274	146,695	361,758	2,354,740
Liabilities							
Hong Kong SAR currency notes in circulation	–	–	–	–	–	123,390	123,390
Deposits and balances from banks and other financial institutions	152,209	15,236	9,574	632	184	21,098	198,933
Financial liabilities at fair value through profit or loss	3,705	5,578	2,161	1,335	592	–	13,371
Derivative financial instruments	–	–	–	–	–	49,304	49,304
Deposits from customers	1,142,641	185,224	80,793	398	–	110,811	1,519,867
Debt securities and certificates of deposit in issue	–	–	–	1,121	–	–	1,121
Other accounts and provisions (including current and deferred tax liabilities)	15,803	–	–	–	–	45,757	61,560
Insurance contract liabilities	–	–	–	–	–	86,534	86,534
Subordinated liabilities	–	–	79	19,014	–	–	19,093
Liabilities associated with assets held for sale	28,917	7,428	7,145	67	–	3,456	47,013
Total liabilities	1,343,275	213,466	99,752	22,567	776	440,350	2,120,186
Interest sensitivity gap	(247,350)	65,165	143,705	205,707	145,919	(78,592)	234,554

4. Financial risk management (continued)

4.3 Liquidity risk

Liquidity risk is the risk that banks may not be able to obtain sufficient and timely funding at reasonable cost to meet their obligations as they fall due. The Group maintains sound liquidity risk appetite to provide stable, reliable and adequate sources of cash to meet liquidity needs under normal circumstances or stressed scenarios; and to survive with net positive cumulative cash flow in extreme scenarios, without requesting the HKMA to act as the lender of last resort.

The Group's liquidity risk management objective is to effectively manage the liquidity of on- and off-balance sheet items with reasonable cost based on the liquidity risk appetite to achieve sound operation and sustainable profitability. Deposits from customers are the Group's primary source of funds. To ensure stable and sufficient source of funds are in place, the Group actively attracts new deposits, keeps the core deposit and obtains supplementary funding from the interbank market and by issuing bills in the capital market. According to different term maturities and the results of funding needs estimated from stressed scenarios, the Group adjusts its asset structure (including loans, bonds investment, interbank placement, etc.) to maintain sufficient liquid assets which provides adequate funds in support of normal business needs and ensure its ability to raise funds at a reasonable cost to serve external claims in case of emergency. The Group is committed to diversify the source of funds and the use of funds to avoid excessive concentration of assets and liabilities and prevent triggering liquidity risk due to the break of funding strand when problem occurred in one concentrated funding source. The Group has established intra-group liquidity risk management guideline to manage the liquidity funding among different entities within the Group, and to restrict their reliance of funding on each other. The Group also pays attention to manage liquidity risk created by off-balance sheet activities, such as loan commitments, derivatives, options and other complex structured products. The Group has an overall liquidity risk management strategy to cover the liquidity management of foreign currency assets and liabilities, collateral, intra-day liquidity, intra-group liquidity, the liquidity risk arising from other risks, etc., and has formulated corresponding contingency plan.

The RMC is the decision-making authority of liquidity risk management, and assumes the ultimate responsibility of liquidity risk management. As authorised by the RMC, ALCO exercises its oversight of liquidity risk and ensures the daily operations of the Group are in accordance with risk appetite and policies as set by the RMC. RMD (Interest Rate and Liquidity Risk Management) is responsible for overseeing the Group's liquidity risk. It cooperates with the Asset and Liability Management Division of Financial Management Department, Treasury, and Investment Management, etc. to assist the ALCO to perform liquidity management functions according to their specific responsibilities.

The Group established liquidity risk management indicators and limits to identify, measure, monitor and control liquidity risk on daily basis. These indicators and limits include, but are not limited to liquidity coverage ratio ("LCR"), loan-to-deposit ratio, Maximum Cumulative Cash Outflow ("MCO") and liquidity cushion. The Group applies cash flow analysis to assess the Group's liquidity condition under normal conditions and also performs a liquidity stress test (including institution specific, general market crisis and combined crisis) and other methods at least on monthly basis to assess the Group's capability to withstand various severe liquidity crises. Also, relevant management information systems such as Assets and Liabilities Management System and Basel Liquidity Ratio Management System are developed to provide data and the preparation for regular management reports to facilitate liquidity risk management duties.

4. Financial risk management (continued)

4.3 Liquidity risk (continued)

In accordance with the requirements of Supervisory Policy Manual LM-2 "Sound Systems and controls for Liquidity Risk Management" issued by the HKMA, the Group has implemented behaviour model and assumptions of cash flow analysis and stress test to enhance the Group's cash flow analysis under both normal and stressed conditions. In cash flow analysis under normal circumstances, assumptions have been made relating to on-balance sheet items (such as deposits from customers) and off-balance sheet items (such as loan commitments). According to various characteristics of the assets, liabilities and off-balance sheet items, the Group forecasts the future cash flow based on contractual maturity date and the assumptions of customer behaviour and balance sheet changes. The Group establishes MCO indicator which predicts the future 30 days maximum cumulative net cash outflow in normal situations based on the above assumptions, to assess if the Group has sufficient financing capacity to meet the cash flow gap in order to achieve the objective of continuing operation. As at 31 December 2017, before taking the cash inflow through the sale of outstanding marketable securities into consideration, BOCHK's 30 day cumulative cash flow was a net cash inflow, amounting to HK$85,602 million (2016: HK$64,212 million) and was in compliance with the internal limit requirements.

In the liquidity stress test, institution specific, general market crisis and combined crisis scenarios have been set up, combined crisis scenario is a combination of institution specific and general market crisis to assess the Group's capability to withstand a more severe liquidity crisis, with a more stringent set of assumptions being adopted. Stress test assumptions include the run-off rate of retail, wholesale and interbank deposits; drawdown rate of loan commitments and trade-related contingent liabilities; delinquency ratio and rollover rate of customer loans; and haircut of interbank placement and marketable securities. As at 31 December 2017, the Group was able to maintain a net cash inflow under the three stressed scenarios, indicating the Group has the ability to meet financing needs under stressed conditions. In addition, the Group has a policy in place to maintain a liquidity cushion which includes high quality or comparable quality marketable securities issued or guaranteed by sovereigns, central banks, public sector entities or multilateral development banks with 0% or 20% risk weight or marketable securities issued by non-financial corporate with a corresponding external credit rating of A- or above to ensure funding needs even under stressed scenarios. As at 31 December 2017, the liquidity cushion (before haircut) of BOCHK was HK$420,770 million (2016: HK$353,048 million). A contingency plan is being established which details the conditions to trigger the plan based on stress test results and early warning indicators, the action plans and relevant procedures and responsibility of relevant departments.

The LCR is calculated in accordance with the Banking (Liquidity) Rules effective from 1 January 2015, the Group, being classified as category 1 authorised institution by the HKMA, is required to calculate LCR on consolidated basis. During the year of 2017, the Group is required to maintain a LCR not less than 80%.

In certain derivative contracts, the counterparties have right to request from the Group additional collateral if they have concerns about the Group's creditworthiness.

The Group's liquidity risk management also covers new products or business developments. Before launching a new product or business, the relevant departments are required to go through a risk assessment process, which includes the assessment of underlying liquidity risk and consideration of the adequacy of the current risk management mechanism. Any material impact on liquidity risk noted during the risk assessment process will be reported to the RMC for approval.

4. Financial risk management (continued)

4.3 Liquidity risk (continued)

The Group has established a set of uniform liquidity risk management policies which serve as standards and guidance to all the Group's members for liquidity risk management. On the basis of the Group's uniform policy, each of the subsidiaries develops its own liquidity management policies according to its own characteristics, and assumes its own liquidity risk management responsibility. Subsidiaries are required to report their respective liquidity positions on a regular basis to RMD (Interest Rate and Liquidity Risk Management) of BOCHK, which consolidates this information and evaluates group-wide liquidity risk.

(A) Liquidity coverage ratio

	2017	2016
Average value of liquidity coverage ratio		
– First quarter	**121.41%**	112.92%
– Second quarter	**123.88%**	109.70%
– Third quarter	**121.12%**	118.69%
– Fourth quarter	**135.64%**	107.02%

The average value of liquidity coverage ratio is calculated based on the arithmetic mean of the liquidity coverage ratio as at the end of each working day in the quarter and the calculation methodology and instructions set out in the HKMA return of liquidity position.

The liquidity coverage ratio is computed on the consolidated basis which comprises the positions of BOCHK and certain subsidiaries specified by the HKMA in accordance with the Banking (Liquidity) Rules.

The additional information of liquidity coverage ratio disclosures is available under section "Regulatory Disclosures" on BOCHK's website at www.bochk.com.

4. Financial risk management (continued)

4.3 Liquidity risk (continued)

(B) Maturity analysis

The tables below analyse the Group's assets and liabilities as at 31 December into relevant maturity groupings based on the remaining period at balance sheet date to the contractual maturity date.

	2017							
	On demand HK$'m	Up to 1 month HK$'m	1 to 3 months HK$'m	3 to 12 months HK$'m	1 to 5 years HK$'m	Over 5 years HK$'m	Indefinite HK$'m	Total HK$'m
Assets								
Cash and balances with banks and other financial institutions	248,168	108,624	–	–	–	–	7,413	364,205
Placements with banks and other financial institutions maturing between one and twelve months	–	–	37,210	21,846	–	–	–	59,056
Financial assets at fair value through profit or loss								
– Held for trading								
– Debt securities	–	5,726	6,909	15,328	9,753	4,726	–	42,442
– Certificates of deposit	–	488	566	289	138	2	–	1,483
– Designated at fair value through profit or loss								
– Debt securities	–	547	91	205	4,317	24,184	161	29,505
– Certificates of deposit	–	–	–	3	156	–	–	159
– Equity securities and fund	–	–	–	–	–	–	12,746	12,746
– Other debt instruments	–	3,861	995	2,003	–	–	–	6,859
Derivative financial instruments	10,492	4,134	4,097	6,697	5,521	2,600	–	33,541
Hong Kong SAR Government certificates of indebtedness	146,200	–	–	–	–	–	–	146,200
Advances and other accounts								
– Advances to customers	131,093	27,852	50,152	163,762	521,048	244,342	2,126	1,140,375
– Trade bills	20	6,813	16,782	19,360	–	–	–	42,975
– Advances to banks and other financial institutions	–	8	862	809	4,580	–	–	6,259
Investment in securities								
– Available-for-sale								
– Debt securities	–	59,390	64,221	111,790	192,123	107,211	204	534,939
– Certificates of deposit	–	1,716	8,222	9,723	6,884	217	–	26,762
– Held-to-maturity								
– Debt securities	–	1,312	2,615	8,162	23,795	14,657	–	50,541
– Certificates of deposit	–	–	–	–	18	–	–	18
– Loans and receivables								
– Debt securities	–	–	499	–	–	–	–	499
– Equity securities and fund	–	–	–	–	–	–	5,413	5,413
Interests in associates and joint ventures	–	–	–	–	–	–	417	417
Investment properties	–	–	–	–	–	–	19,669	19,669
Properties, plant and equipment	–	–	–	–	–	–	47,261	47,261
Other assets (including deferred tax assets)	28,492	18,168	777	1,183	9,472	16,300	37	74,429
Total assets	564,465	238,639	193,998	361,160	777,805	414,239	95,447	2,645,753
Liabilities								
Hong Kong SAR currency notes in circulation	146,200	–	–	–	–	–	–	146,200
Deposits and balances from banks and other financial institutions	172,832	40,956	8,099	362	825	–	–	223,074
Financial liabilities at fair value through profit or loss	–	7,102	4,118	7,070	954	476	–	19,720
Derivative financial instruments	6,668	5,600	5,033	6,800	4,634	2,309	–	31,044
Deposits from customers	1,114,239	355,222	160,565	140,233	1,254	–	–	1,771,513
Debt securities and certificates of deposit in issue								
– Debt securities	–	7,091	1,971	12,579	–	–	–	21,641
Other accounts and provisions (including current and deferred tax liabilities)	35,835	15,223	2,103	3,008	6,831	8	–	63,008
Insurance contract liabilities	35,707	418	890	3,781	14,214	48,219	–	103,229
Subordinated liabilities	–	–	422	16	18,542	–	–	18,980
Total liabilities	1,511,481	431,612	183,201	173,849	47,254	51,012	–	2,398,409
Net liquidity gap	(947,016)	(192,973)	10,797	187,311	730,551	363,227	95,447	247,344

4. Financial risk management (continued)

4.3 Liquidity risk (continued)

(B) Maturity analysis (continued)

	2016							
	On demand HK$'m	Up to 1 month HK$'m	1 to 3 months HK$'m	3 to 12 months HK$'m	1 to 5 years HK$'m	Over 5 years HK$'m	Indefinite HK$'m	Total HK$'m
Assets								
Cash and balances with banks and other financial institutions	115,448	108,175	–	–	–	–	12,683	236,306
Placements with banks and other financial institutions maturing between one and twelve months	–	–	30,211	42,399	–	–	–	72,610
Financial assets at fair value through profit or loss								
– Held for trading								
– Debt securities	–	1,415	3,723	9,430	13,083	3,417	–	31,068
– Certificates of deposit	–	–	1,140	412	591	–	–	2,143
– Designated at fair value through profit or loss								
– Debt securities	–	109	281	3,339	3,054	16,174	–	22,957
– Certificates of deposit	–	2	–	2	144	–	–	148
– Equity securities and fund	–	–	–	–	–	–	5,265	5,265
– Other debt instruments	–	4,097	1,680	–	–	–	–	5,777
Derivative financial instruments	14,662	8,965	10,119	21,369	6,533	2,684	–	64,332
Hong Kong SAR Government certificates of indebtedness	123,390	–	–	–	–	–	–	123,390
Advances and other accounts								
– Advances to customers	93,552	23,458	62,492	134,763	443,501	224,874	2,124	984,764
– Trade bills	6	5,094	4,229	7,916	–	–	–	17,245
– Advances to banks and other financial institutions	–	3	1	577	5,435	–	–	6,016
Investment in securities								
– Available-for-sale								
– Debt securities	–	37,531	80,722	79,913	167,355	105,014	–	470,535
– Certificates of deposit	–	2,985	16,078	30,274	7,357	209	–	56,903
– Held-to-maturity								
– Debt securities	–	870	3,965	17,402	24,301	14,311	1	60,850
– Certificates of deposit	–	–	–	–	–	18	–	18
– Loans and receivables								
– Debt securities	–	–	–	935	–	–	–	935
– Equity securities and fund	–	–	–	–	–	–	4,409	4,409
Interests in associates and joint ventures	–	–	–	–	–	–	319	319
Investment properties	–	–	–	–	–	–	18,227	18,227
Properties, plant and equipment	–	–	–	–	–	–	45,812	45,812
Other assets (including deferred tax assets)	30,971	15,449	585	942	7,620	15,806	45	71,418
Assets held for sale	6,097	6,304	4,791	9,851	18,486	5,684	2,080	53,293
Total assets	384,126	214,457	220,017	359,524	697,460	388,191	90,965	2,354,740
Liabilities								
Hong Kong SAR currency notes in circulation	123,390	–	–	–	–	–	–	123,390
Deposits and balances from banks and other financial institutions	152,559	19,576	15,136	9,574	1,904	184	–	198,933
Financial liabilities at fair value through profit or loss	–	3,705	5,582	2,238	1,257	589	–	13,371
Derivative financial instruments	10,511	3,394	7,375	20,140	5,218	2,666	–	49,304
Deposits from customers	980,039	273,413	185,224	80,793	398	–	–	1,519,867
Debt securities and certificates of deposit in issue								
– Debt securities	–	–	–	10	1,111	–	–	1,121
Other accounts and provisions (including current and deferred tax liabilities)	36,350	14,271	1,763	2,532	6,644	–	–	61,560
Insurance contract liabilities	26,730	284	476	1,146	13,969	43,929	–	86,534
Subordinated liabilities	–	–	418	16	18,659	–	–	19,093
Liabilities associated with assets held for sale	24,404	7,694	7,467	7,186	262	–	–	47,013
Total liabilities	1,353,983	322,337	223,441	123,635	49,422	47,368	–	2,120,186
Net liquidity gap	(969,857)	(107,880)	(3,424)	235,889	648,038	340,823	90,965	234,554

4. Financial risk management (continued)

4.3 Liquidity risk (continued)

(B) Maturity analysis (continued)

The above maturity classifications have been prepared in accordance with relevant provisions under the Banking (Disclosure) Rules. The Group has reported assets such as advances and debt securities which have been overdue for not more than one month as "On demand". In the case of an asset that is repayable by different payments or instalments, only that portion of the asset that is actually overdue is reported as overdue. Any part of the asset that is not due is reported according to the residual maturity unless the repayment of the asset is in doubt in which case the amount is reported as "Indefinite". The above assets are stated after deduction of provisions, if any.

The analysis of debt securities by remaining period to maturity is disclosed in order to comply with relevant provisions under the Banking (Disclosure) Rules. The disclosure does not imply that the securities will be held to maturity.

The above analysis in respect of insurance contract liabilities represents the estimated timing of net cash outflows resulting from recognised insurance contract liabilities on the balance sheet as at 31 December.

4. Financial risk management (continued)

4.3 Liquidity risk (continued)

(C) Analysis of undiscounted cash flows by contractual maturities

(a) Non-derivative cash flows

The tables below summarise the cash flows of the Group as at 31 December for non-derivative financial liabilities by remaining contractual maturity.

	2017					
	Up to 1 month HK$'m	1 to 3 months HK$'m	3 to 12 months HK$'m	1 to 5 years HK$'m	Over 5 years HK$'m	Total HK$'m
Financial liabilities						
Hong Kong SAR currency notes in circulation	146,200	–	–	–	–	146,200
Deposits and balances from banks and other financial institutions	213,821	8,132	393	900	–	223,246
Financial liabilities at fair value through profit or loss	7,107	4,132	7,121	1,020	500	19,880
Deposits from customers	1,469,664	161,052	142,016	1,296	–	1,774,028
Debt securities and certificates of deposit in issue	7,096	1,976	12,962	–	–	22,034
Subordinated liabilities	–	542	558	21,209	–	22,309
Other financial liabilities	40,769	486	834	–	–	42,089
Total financial liabilities	1,884,657	176,320	163,884	24,425	500	2,249,786

	2016					
	Up to 1 month HK$'m	1 to 3 months HK$'m	3 to 12 months HK$'m	1 to 5 years HK$'m	Over 5 years HK$'m	Total HK$'m
Financial liabilities						
Hong Kong SAR currency notes in circulation	123,390	–	–	–	–	123,390
Deposits and balances from banks and other financial institutions	172,143	15,185	9,665	1,945	187	199,125
Financial liabilities at fair value through profit or loss	3,707	5,600	2,272	1,322	625	13,526
Deposits from customers	1,253,530	185,650	81,625	409	–	1,521,214
Debt securities and certificates of deposit in issue	–	–	39	1,151	–	1,190
Subordinated liabilities	–	538	555	22,140	–	23,233
Other financial liabilities	40,678	397	459	5	–	41,539
Financial liabilities associated with assets held for sale	32,086	7,446	7,241	69	–	46,842
Total financial liabilities	1,625,534	214,816	101,856	27,041	812	1,970,059

4. Financial risk management (continued)

4.3 Liquidity risk (continued)

(C) Analysis of undiscounted cash flows by contractual maturities (continued)

(b) Derivative cash flows

The tables below summarise the cash flows (including assets held for sale and liabilities associated with assets held for sale) of the Group by remaining contractual maturity as at 31 December for derivative financial liabilities that will be settled on a net basis, together with all derivative financial instruments that will be settled on a gross basis regardless of whether the contract is in an asset or liability position. The amounts disclosed in the tables are the contractual undiscounted cash flows, except for certain derivatives which are disclosed at fair value.

The Group's derivative financial instruments that will be settled on a net basis mainly include interest rate swaps whereas derivative financial instruments that will be settled on a gross basis mainly include currency forwards and currency swaps.

	2017					
	Up to 1 month HK$'m	1 to 3 months HK$'m	3 to 12 months HK$'m	1 to 5 years HK$'m	Over 5 years HK$'m	Total HK$'m
Derivative financial liabilities settled on a net basis	**(7,463)**	**(720)**	**(1,126)**	**(3,577)**	**(856)**	**(13,742)**
Derivative financial instruments settled on a gross basis						
Total inflow	**635,704**	**462,071**	**492,297**	**125,606**	**5,181**	**1,720,859**
Total outflow	**(636,212)**	**(462,229)**	**(491,628)**	**(125,756)**	**(5,192)**	**(1,721,017)**

	2016					
	Up to 1 month HK$'m	1 to 3 months HK$'m	3 to 12 months HK$'m	1 to 5 years HK$'m	Over 5 years HK$'m	Total HK$'m
Derivative financial liabilities settled on a net basis	(10,810)	(423)	(574)	(2,631)	(1,213)	(15,651)
Derivative financial instruments settled on a gross basis						
Total inflow	659,303	483,596	845,015	100,984	2,005	2,090,903
Total outflow	(651,702)	(480,745)	(844,041)	(100,928)	(2,021)	(2,079,437)

4. Financial risk management (continued)

4.3 Liquidity risk (continued)

(C) Analysis of undiscounted cash flows by contractual maturities (continued)

(c) Off-balance sheet items

Loan commitments

The contractual amounts of the Group's off-balance sheet financial instruments as at 31 December 2017 that the Group commits to extend credit to customers and other facilities amounted to HK$569,658 million (2016: HK$533,322 million). Those loan commitments can be drawn within one year.

Financial guarantees and other financial facilities

Financial guarantees and other financial facilities of the Group as at 31 December 2017 amounting to HK$66,800 million (2016: HK$51,165 million) are maturing no later than one year.

4.4 Insurance risk

The Group is in the business of insuring against the risk of mortality, morbidity, disability, critical illness, accidents and related risks. The Group manages these risks through the application of its underwriting policies and reinsurance arrangements.

The underwriting strategy is intended to set premium pricing at an appropriate level that corresponds with the underlying exposure of the risks underwritten. Screening processes, such as the review of health condition and family medical history, are also included in the Group's underwriting procedures.

Within the insurance process, concentrations of risk may arise where a particular event or series of events could impact heavily on the Group's liabilities. Such concentrations may arise from a single insurance contract or through a small number of related contracts, and relate to circumstances where significant liabilities could arise.

For the in-force insurance contracts, most of the underlying insurance liabilities are related to endowment, universal life, annuity, whole life and unit-linked insurance products. For most of the insurance policies issued, the Group has a retention limit on any single life insured. The Group cedes the excess of the insured benefit over the limit to reinsurer under an excess of loss reinsurance arrangement. For some of the insurance liabilities, the Group has entered into reinsurance arrangements that reinsure most of insurance risk.

Uncertainty in the estimation of future benefit payments and premium receipts for long-term insurance contracts arises from the unpredictability of long-term changes in overall levels of mortality, morbidity and persistency. In this regard, the Group has conducted relevant experience studies. The results of such studies are considered in determining the assumptions of insurance liability which include appropriate level of prudential margins.

4. Financial risk management (continued)

4.4 Insurance risk (continued)

(A) Process used to decide on assumptions

In determining the long term business fund liabilities, the Group follows the Insurance (Determination of Long Term Liabilities) Rules and makes prudent assumptions which include appropriate margins for adverse deviation of the relevant factors. It takes account of all prospective liabilities as determined by the policy terms and conditions for each existing contract, taking credit for premiums payable after the valuation date. The determination of liability is based on current assumptions made as at the valuation date as to mortality rates, and takes into account of various appropriate discount rates, and with due regard to the reasonable expectation of policyholders. A prudent margin for adverse deviations is included in the assumptions.

The assumptions adopted for the insurance liabilities disclosed in this note are summarised as follows:

Mortality and Morbidity
The amount of liability in respect of any category of contract shall, where relevant, be determined on the basis of prudent rates of mortality and morbidity, plus a margin for adverse deviation. The assumptions used for determination of future liabilities are based on population statistics or reinsurance information, adjusted where appropriate to reflect the Group's own experience and relevant reinsurance arrangements.

Interest rates adopted for valuation purpose
Homogeneous life insurance policies are grouped into segments and are matched by specific assets. The duration of liabilities under each segment is calculated for valuation purpose.

Investment guarantee of investment contract with discretionary participating feature
The amount of the liability in respect of the investment guarantee provided by the investment contract with discretionary participation feature is determined by stochastic analysis based on historical economic data to reflect the value-at-risk at 99% confidence level.

Acquisition expense
The acquisition expense assumptions used for determination of future liabilities are based on the Group's own experience. The Group has changed the acquisition expense assumptions for new business written based on updated expense experience of the Group.

(B) Change in assumptions

The Group has changed the interest rates adopted for valuation purposes to reflect the changes in the market interest rates and the yields of investment portfolio backing the policy liabilities. The valuation interest rate assumptions used for the year end valuation purpose were in the range of 0% to 3.57% in 2017 (2016: 0% to 3.51%).

4. Financial risk management (continued)

4.4 Insurance risk (continued)

(C) Sensitivity analysis

The following table presents the sensitivity of the long-term business fund liabilities to movements in the key assumptions used in the estimation of insurance liabilities:

Sensitivity analysis – life and annuity insurance contracts:

Scenario	Change in variable	Decrease in profit after tax due to changes in insurance liabilities 2017 HK$'m	2016 HK$'m
Worsening of mortality & morbidity	10%	**(129)**	(84)
Lowering of interest rate	50 basis points	**(1,158)**	(800)

The above analyses are based on a change in an assumption while holding all other assumptions constant. In practice, this is unlikely to occur, and changes in some of the assumptions may be correlated – for example, changes in interest rate and in market values; and changes in lapses and in future mortality and morbidity.

Sensitivity analysis – Linked long term insurance contracts, Retirement scheme management category III insurance contracts, and Retirement scheme management category I investment contracts with "DPF":

The reserves on Retirement scheme management category III insurance contracts, Retirement scheme management category I investment contracts with "DPF" and non-unitised reserve on Linked long term insurance contracts are insignificant to the whole portfolio, and no sensitivity analysis has been performed. The insurance liabilities for these three components contributed to less than 0.08% of the total insurance liabilities at the balance sheet date.

For unit-linked fund liabilities (unitised reserve), the liabilities are backed by the unit-linked fund asset values.

Among linked long term insurance contracts, there are contracts with minimum guaranteed death benefits that expose the Group to the risk arising from declines in the value of underlying investments. This may increase the Group's net exposure to mortality risk.

4.5 Capital management

The major objective of the Group's capital management is to maximise total shareholders' return while maintaining a capital adequacy position in relation to the Group's overall risk profile. The ALCO periodically reviews the Group's capital structure and adjusts the capital mix where appropriate to maintain an optimal balance among risk, return and capital adequacy.

4. Financial risk management (continued)

4.5 Capital management (continued)

The Group has developed and maintained a sound framework of policies and controls on capital management to support the development of the Group's business and to meet the statutory capital adequacy ratio. The ALCO monitors the Group's capital adequacy. The Group has complied with all the statutory capital requirements of the HKMA for the reported periods in respect of banking operation as further elaborated below.

The Group has adopted the foundation internal ratings-based ("FIRB") approach to calculate the credit risk capital charge for the majority of its non-securitisation exposures and the internal ratings-based (securitisation) approach to calculate the credit risk capital charge for its securitisation exposures. A small residual credit exposures which includes the credit exposures of oversea subsidiaries or branches are remained under the standardised (credit risk) ("STC") approach. The Group has adopted the standardised credit valuation adjustment ("CVA") method to calculate the capital charge for the CVA risk of the counterparty.

The Group continues to adopt the internal models ("IMM") approach to calculate the general market risk capital charge for foreign exchange and interest rate exposures and, with the approval from the HKMA, exclude its structural FX positions in the calculation of the market risk capital charge. The Group continues to adopt the standardised (market risk) ("STM") approach to calculate the market risk capital charge for the remaining exposures.

The Group continues to adopt standardised (operational risk) ("STO") approach to calculate the operational risk capital charge.

The Group has continued to adopt an internal capital adequacy assessment process ("ICAAP") to comply with the HKMA's requirements in the Supervisory Policy Manual "Supervisory Review Process" in 2017. Based on the HKMA's guidelines on Pillar II, ICAAP has been initiated to assess the extra capital needed to cover the material risks not captured or not adequately captured under Pillar I, and therefore minimum Common Equity Tier 1 capital ratio, minimum Tier 1 capital ratio and minimum Total capital ratio are determined. Meanwhile, operating ranges for the aforementioned capital ratios have also been established which enable the flexibility for future business growth and efficiency of capital utilisation. The Group considers this ICAAP as an on-going process for capital management and periodically reviews and adjusts its capital structure where appropriate in relation to the overall risk profile.

In addition, the capital plan of the Group is drawn up annually and then submitted to the Board for approval after endorsement of the ALCO. The plan is built up by assessing the implications of various factors upon capital adequacy such as the business strategies, return on equity, risk appetite, credit rating, as well as regulatory requirements. Hence, the future capital requirement is determined and capital sources are identified also. The plan is to ensure the Group maintains adequate capital and appropriate capital structure which align with its business development needs, thereby achieving an optimal balance among risk, return and capital adequacy.

(A) Basis of regulatory consolidation

The consolidation basis for regulatory purposes comprises the positions of BOCHK and certain subsidiaries specified by the HKMA in accordance with the Banking (Capital) Rules. For accounting purposes, subsidiaries are consolidated in accordance with HKFRSs and the list of subsidiaries is set out in "Appendix – Subsidiaries of the Company".

The Company, its subsidiaries of BOC Group Life Assurance Company Limited, BOCHK Asset Management (Cayman) Limited and BOC Insurance (International) Holdings Company Limited (including their subsidiaries), and certain subsidiaries of BOCHK are included within the accounting scope of consolidation but not included within the regulatory scope of consolidation.

4. Financial risk management (continued)

4.5 Capital management (continued)

(A) Basis of regulatory consolidation (continued)

The particulars of the above-mentioned subsidiaries of BOCHK are as follows:

Name	2017		2016	
	Total assets HK$'m	**Total equity HK$'m**	Total assets HK$'m	Total equity HK$'m
BOC Group Trustee Company Limited	**200**	**200**	200	200
BOCI-Prudential Trustee Limited	**506**	**464**	457	429
China Bridge (Malaysia) Sdn. Bhd.	**37**	**31**	27	23
Bank of China (Hong Kong) Nominees Limited	**–**	**–**	–	–
Bank of China (Hong Kong) Trustees Limited	**15**	**15**	10	10
BOCHK Information Technology (Shenzhen) Co., Ltd.	**355**	**238**	309	204
BOCHK Information Technology Services (Shenzhen) Co., Ltd.	**366**	**312**	313	269
Che Hsing (Nominees) Limited	**1**	**1**	1	1
Po Sang Financial Investment Services Company Limited	**363**	**346**	365	346
Po Sang Securities and Futures Limited	**990**	**511**	603	466
Sin Chiao Enterprises Corporation, Limited	**7**	**7**	6	6
Sin Hua Trustee Limited	**4**	**4**	4	4
Billion Express Development Inc.[1]	**–**	**–**	–	–
Billion Orient Holdings Ltd.[1]	**–**	**–**	–	–
Elite Bond Investments Ltd.[1]	**–**	**–**	–	–
Express Capital Enterprise Inc.[1]	**–**	**–**	–	–
Express Charm Holdings Corp.[1]	**–**	**–**	–	–
Express Shine Assets Holdings Corp.[1]	**–**	**–**	–	–
Express Talent Investment Ltd.[1]	**–**	**–**	–	–
Gold Medal Capital Inc.[1]	**–**	**–**	–	–
Gold Tap Enterprises Inc.[1]	**–**	**–**	–	–
Maxi Success Holdings Ltd.[1]	**–**	**–**	–	–
Smart Linkage Holdings Inc.[1]	**–**	**–**	–	–
Smart Union Capital Investments Ltd.[1]	**–**	**–**	–	–
Success Trend Development Ltd.[1]	**–**	**–**	–	–
Wise Key Enterprises Corp.[1]	**–**	**–**	–	–
Sino Information Services Company Limited[2]	**–**	**–**	–	–
Chiyu Banking Corporation (Nominees) Limited[3]	**–**	**–**	139	139
Grace Charter Limited[3]	**–**	**–**	–	(11)
Seng Sun Development Company, Limited[3]	**–**	**–**	41	41

4. Financial risk management (continued)

4.5 Capital management (continued)

(A) Basis of regulatory consolidation (continued)

Notes:
1. The acquisition of the 14 special purpose vehicle companies was completed on 9 January 2017.
2. Sino Information Services Company Limited was dissolved on 14 February 2017.
3. The disposal of Chiyu Banking Corporation (Nominees) Limited, Grace Charter Limited and Seng Sun Development Company, Limited was completed on 27 March 2017.

The principal activities of the above subsidiaries are set out in "Appendix – Subsidiaries of the Company".

There were no subsidiaries which are included within the regulatory scope of consolidation but not included within the accounting scope of consolidation as at 31 December 2017 (2016: Nil).

There were also no subsidiaries which are included within both the accounting scope of consolidation and the regulatory scope of consolidation where the methods of consolidation differ as at 31 December 2017 (2016: Nil).

(B) Capital ratio

The capital ratios are analysed as follows:

	2017	2016
CET1 capital ratio	**16.52%**	17.64%
Tier 1 capital ratio	**16.52%**	17.69%
Total capital ratio	**20.39%**	22.35%

4. Financial risk management (continued)

4.5 Capital management (continued)

(B) Capital ratio (continued)

The consolidated capital base after deductions used in the calculation of the above capital ratios is analysed as follows:

	2017 HK$'m	2016 HK$'m
CET1 capital: instruments and reserves		
Directly issued qualifying CET1 capital instruments	**43,043**	43,043
Retained earnings	**142,208**	129,644
Disclosed reserves	**43,673**	41,446
Minority interests arising from CET1 capital instruments issued by consolidated bank subsidiaries and held by third parties (amount allowed in CET1 capital of the consolidation group)	**–**	722
CET1 capital before regulatory deductions	**228,924**	214,855
CET1 capital: regulatory deductions		
Valuation adjustments	**(12)**	(78)
Deferred tax assets net of deferred tax liabilities	**(51)**	(77)
Gains and losses due to changes in own credit risk on fair valued liabilities	**(69)**	(202)
Cumulative fair value gains arising from the revaluation of land and buildings (own-use and investment properties)	**(48,556)**	(46,443)
Regulatory reserve for general banking risks	**(10,224)**	(9,227)
Total regulatory deductions to CET1 capital	**(58,912)**	(56,027)
CET1 capital	**170,012**	158,828
AT1 capital: instruments		
AT1 capital instruments issued by consolidated bank subsidiaries and held by third parties (amount allowed in AT1 capital of the consolidation group)	**–**	458
AT1 capital	**–**	458
Tier 1 capital	**170,012**	159,286

4. Financial risk management (continued)

4.5 Capital management (continued)

(B) Capital ratio (continued)

	2017 HK$'m	2016 HK$'m
Tier 2 capital: instruments and provisions		
Capital instruments subject to phase out arrangements from Tier 2 capital	**11,576**	15,435
Tier 2 capital instruments issued by consolidated bank subsidiaries and held by third parties (amount allowed in Tier 2 capital of the consolidation group)	**–**	221
Collective impairment allowances and regulatory reserve for general banking risks eligible for inclusion in Tier 2 capital	**6,390**	5,371
Tier 2 capital before regulatory deductions	**17,966**	21,027
Tier 2 capital: regulatory deductions		
Add back of cumulative fair value gains arising from the revaluation of land and buildings (own-use and investment properties) eligible for inclusion in Tier 2 capital	**21,850**	20,899
Total regulatory deductions to Tier 2 capital	**21,850**	20,899
Tier 2 capital	**39,816**	41,926
Total capital	**209,828**	201,212

The capital buffer ratios are analysed as follows:

	2017	2016
Capital conservation buffer ratio	**1.250%**	0.625%
Higher loss absorbency ratio	**0.750%**	0.375%
Countercyclical capital buffer ratio	**0.934%**	0.484%

The additional information of capital disclosures and countercyclical capital buffer ratio disclosures is available under section "Regulatory Disclosures" on BOCHK's website at www.bochk.com.

(C) Leverage ratio

The leverage ratio is analysed as follows:

	2017 HK$'m	2016 HK$'m
Tier 1 capital	**170,012**	159,286
Leverage ratio exposure	**2,461,068**	2,155,889
Leverage ratio	**6.91%**	7.39%

The additional information of leverage ratio disclosures is available under section "Regulatory Disclosures" on BOCHK's website at www.bochk.com.

5. Fair values of assets and liabilities

All assets and liabilities for which fair value is measured or disclosed in the financial statements are categorised within the fair value hierarchy as defined in HKFRS 13, "Fair value measurement". The categorisation are determined with reference to the observability and significance of the inputs used in the valuation methods and based on the lowest level input that is significant to the fair value measurement as a whole:

– Level 1: based on quoted prices (unadjusted) in active markets for identical assets or liabilities. This category includes equity securities listed on exchange, debt instruments issued by certain governments, certain exchange-traded derivative contracts and precious metals.

– Level 2: based on valuation techniques for which the lowest level input that is significant to the fair value measurement is observable, either directly or indirectly. This category includes majority of the OTC derivative contracts, debt securities and certificates of deposit with quote from pricing services vendors, issued structured deposits and other debt instruments. It also includes precious metals and properties with insignificant adjustments made to observable market inputs.

– Level 3: based on valuation techniques for which the lowest level input that is significant to the fair value measurement is unobservable. This category includes equity investment, debt instruments and certain OTC derivative contracts with significant unobservable components. It also includes properties with significant adjustments made to observable market inputs.

For assets and liabilities that are recognised in the financial statements on a recurring basis, the Group determines whether transfers have occurred between levels in the hierarchy by reassessing categorisation (based on the lowest level input that is significant to the fair value measurement as a whole) at the end of each reporting period.

5.1 Financial instruments measured at fair value

The Group has an established governance structure and controls framework to ensure that fair values are either determined or validated by control units independent of the front offices. Control units have overall responsibility for independent verification of valuation results from front line businesses and all other significant fair value measurements. Specific controls include verification of observable pricing inputs; review and approval for new models and changes to models; calibration and back-testing of models against observed market transactions; analysis and investigation of significant daily valuation movements; review of significant unobservable inputs and valuation adjustments. Significant valuation issues are reported to senior management, Risk Committee and Audit Committee.

Generally, the unit of account for a financial instrument is the individual instrument. HKFRS 13 permits a portfolio exception, through an accounting policy election, to measure the fair value of a portfolio of financial assets and financial liabilities on the basis of the net open risk position when certain criteria are met. The Group applies valuation adjustments at an individual instrument level, consistent with that unit of account. According to its risk management policies and systems to manage derivative financial instruments, the fair value of certain derivative portfolios that meet those criteria is measured on the basis of the price to be received or paid for net open risk. Those portfolio-level adjustments are allocated to the individual assets and liabilities on the basis of the relative size of each of the individual instruments in the portfolio.

The Group uses valuation techniques or broker/dealer quotations to determine the fair value of financial instruments when unable to obtain the open market quotation in active markets.

5. Fair values of assets and liabilities (continued)

5.1 Financial instruments measured at fair value (continued)

The main parameters used in valuation techniques for financial instruments held by the Group include bond prices, interest rates, foreign exchange rates, equity and stock prices, commodity prices, volatilities and correlations, counterparty credit spreads and others, which are mostly observable and obtainable from open market.

The technique used to calculate the fair value of the following financial instruments is as below:

Debt securities and certificates of deposit and other debt instruments

The fair value of these instruments is determined by obtaining quoted market prices from exchange, dealer or independent pricing service vendors or using discounted cash flow technique. Discounted cash flow model is a valuation technique that measures present value using estimated expected future cash flows from the instruments and then discounts these flows using a discount rate or discount margin that reflects the credit spreads required by the market for instruments with similar risk. These inputs are observable or can be corroborated by observable or unobservable market data.

Asset backed securities

For this class of instruments, external prices are obtained from independent third parties. The valuation of these securities, depending on the nature of transaction, is estimated from market standard cash flow models with input parameter which include spreads to discount rates, default and recovery rates and prepayment rates that may be observable or compiled through matrix pricing for similar issues.

Derivatives

OTC derivative contracts include forward, swap and option contracts on foreign exchange, interest rate, equity, commodity or credit. The fair values of these contracts are mainly measured using valuation techniques such as discounted cash flow models and option pricing models. The inputs can be observable or unobservable market data. Observable inputs include interest rate, foreign exchange rates, equity and stock prices, commodity prices, credit default swap spreads, volatilities and correlations. Unobservable inputs may be used for less commonly traded option products which are embedded in structured deposits. For certain complex derivative contracts, the fair values are determined based on broker/dealer price quotations.

Credit valuation adjustments ("CVAs") and debit valuation adjustments ("DVAs") are applied to the Group's OTC derivatives. These adjustments reflect market factors movement, expectations of counterparty creditworthiness and the Group's own credit spread respectively. They are mainly determined for each counterparty and are dependent on expected future values of exposures, default probabilities and recovery rates.

Financial liabilities designated at fair value through profit or loss

This class of instruments includes certain deposits received from customers that are embedded with derivatives. The plain vanilla contracts are valued in the similar way described in previous debt securities section. The fair value of structured deposits is derived from the fair value of the underlying deposit by using discounted cash flow analysis taking the Group's own credit risk into account, and the fair value of the embedded derivatives determined as described in the paragraph above on derivatives.

5. Fair values of assets and liabilities (continued)

5.1 Financial instruments measured at fair value (continued)

(A) Fair value hierarchy

	2017			
	Level 1 HK$'m	Level 2 HK$'m	Level 3 HK$'m	Total HK$'m
Financial assets				
Financial assets at fair value through profit or loss (Note 23)				
– Trading assets				
– Debt securities and certificates of deposit	1,947	41,978	–	43,925
– Equity securities	203	–	–	203
– Other debt instruments	–	6,859	–	6,859
– Financial assets designated at fair value through profit or loss				
– Debt securities and certificates of deposit	–	26,552	3,112	29,664
– Equity securities	3,481	–	–	3,481
– Fund	6,969	1,580	513	9,062
Derivative financial instruments (Note 24)	10,510	23,031	–	33,541
Available-for-sale securities (Note 27)				
– Debt securities and certificates of deposit	111,552	449,139	1,010	561,701
– Equity securities	4,468	134	811	5,413
– Fund	–	–	–	–
Financial liabilities				
Financial liabilities at fair value through profit or loss (Note 33)				
– Trading liabilities	–	16,936	–	16,936
– Financial liabilities designated at fair value through profit or loss	–	2,784	–	2,784
Derivative financial instruments (Note 24)	6,703	24,341	–	31,044

5. Fair values of assets and liabilities (continued)

5.1 Financial instruments measured at fair value (continued)

(A) Fair value hierarchy (continued)

	2016			
	Level 1 HK$'m	Level 2 HK$'m	Level 3 HK$'m	Total HK$'m
Financial assets				
Financial assets at fair value through profit or loss (Note 23)				
– Trading assets				
– Debt securities and certificates of deposit	587	32,462	162	33,211
– Equity securities	76	–	–	76
– Other debt instruments	–	5,777	–	5,777
– Financial assets designated at fair value through profit or loss				
– Debt securities and certificates of deposit	–	20,227	2,878	23,105
– Equity securities	2,008	–	–	2,008
– Fund	3,181	–	–	3,181
Derivative financial instruments (Note 24)	14,658	49,674	–	64,332
Available-for-sale securities (Note 27)				
– Debt securities and certificates of deposit	122,789	402,914	1,735	527,438
– Equity securities	3,304	237	718	4,259
– Fund	150	–	–	150
Financial liabilities				
Financial liabilities at fair value through profit or loss (Note 33)				
– Trading liabilities	–	9,946	–	9,946
– Financial liabilities designated at fair value through profit or loss	–	3,425	–	3,425
Derivative financial instruments (Note 24)	10,775	38,529	–	49,304

There were no financial asset and liability transfers between level 1 and level 2 for the Group during the year (2016: Nil).

5. Fair values of assets and liabilities (continued)

5.1 Financial instruments measured at fair value (continued)

(B) Reconciliation of level 3 items

	2017				
	Financial assets				
	Trading assets	Financial assets designated at fair value through profit or loss		Available-for-sale securities	
	Debt securities and certificates of deposit HK$'m	Debt securities and certificates of deposit HK$'m	Fund HK$'m	Debt securities and certificates of deposit HK$'m	Equity securities HK$'m
At 1 January 2017	162	2,878	–	1,735	718
Gains					
– Income statement					
– Net trading gain	–	–	–	–	–
– Net gain on financial instruments designated at fair value through profit or loss	–	234	43	–	–
– Other comprehensive income					
– Change in fair value of available-for-sale securities	–	–	–	157	88
Additions	–	–	470	–	5
Disposals, redemptions and maturity	(157)	–	–	(287)	–
Transfer out of level 3	(5)	–	–	(238)	–
Reclassification	–	–	–	(357)	–
At 31 December 2017	–	3,112	513	1,010	811
Total unrealised gains for the year included in income statement for financial assets held as at 31 December 2017					
– Net trading gain	–	–	–	–	–
– Net gain on financial instruments designated at fair value through profit or loss	–	234	43	–	–
	–	234	43	–	–

5. Fair values of assets and liabilities (continued)

5.1 Financial instruments measured at fair value (continued)

(B) Reconciliation of level 3 items (continued)

	2016				
	Financial assets				
	Trading assets	Financial assets designated at fair value through profit or loss		Available-for-sale securities	
	Debt securities and certificates of deposit HK$'m	Debt securities and certificates of deposit HK$'m	Fund HK$'m	Debt securities and certificates of deposit HK$'m	Equity securities HK$'m
At 1 January 2016	–	1,829	–	1,095	287
(Losses)/gains					
– Income statement					
– Net trading loss	(8)	–	–	–	–
– Net gain on financial instruments designated at fair value through profit or loss	–	20	–	–	–
– Other comprehensive income					
– Change in fair value of available-for-sale securities	–	–	–	(40)	17
Additions	170	1,029	–	1,265	419
Disposals, redemptions and maturity	–	–	–	–	–
Transfer out of level 3	–	–	–	–	–
Reclassification	–	–	–	–	–
Classified as assets held for sale	–	–	–	(585)	(5)
At 31 December 2016	162	2,878	–	1,735	718
Total unrealised (losses)/gains for the year included in income statement for financial assets held as at 31 December 2016					
– Net trading loss	(8)	–	–	–	–
– Net gain on financial instruments designated at fair value through profit or loss	–	20	–	–	–
	(8)	20	–	–	–

5. Fair values of assets and liabilities (continued)

5.1 Financial instruments measured at fair value (continued)

(B) Reconciliation of level 3 items (continued)

As at 31 December 2017 and 2016, financial instruments categorised as level 3 are mainly comprised of debt securities and certificates of deposit, fund and unlisted equity shares.

Certain debt securities and certificates of deposit were transferred out of level 3 during 2017 due to change of valuation observability. For certain illiquid debt securities and certificates of deposit and fund, the Group obtains valuation quotations from counterparties which may be based on unobservable inputs with significant impact on the valuation. Therefore, these instruments have been classified by the Group as level 3. The Group has established internal control procedures to control the Group's exposure to such financial instruments.

The fair values of unlisted available-for-sale equity shares are determined with reference to multiples of comparable listed companies, such as average of the price/earning ratios of comparables, or net asset value, if appropriate comparables are not available. The fair value is positively correlated to the price/earning ratios of appropriate comparables or net asset values. Had the net asset value of the underlying equity investments increased/decreased by 5%, the Group's other comprehensive income would have increased/decreased by HK$41 million (2016: HK$36 million).

5.2 Financial instruments not measured at fair value

Fair value estimates are made at a specific point in time based on relevant market information and information about various financial instruments. The following methods and assumptions have been used to estimate the fair value of each class of financial instrument as far as practicable.

Balances with/from banks and other financial institutions and trade bills

Substantially all the financial assets and liabilities mature within one year from the balance sheet date and their carrying value approximates fair value.

Advances to customers and banks and other financial institutions

Substantially all the advances to customers and banks and other financial institutions are on floating rate terms, bear interest at prevailing market interest rates and their carrying value approximates fair value.

Held-to-maturity securities

The fair value of held-to-maturity securities is determined by using the same approach as those debt securities and certificates of deposit and asset backed securities measured at fair value as described in Note 5.1.

5. Fair values of assets and liabilities (continued)

5.2 Financial instruments not measured at fair value (continued)

Loans and receivables

A discounted cash flow model is used based on a current yield curve appropriate for the remaining term to maturity.

Deposits from customers

Substantially all the deposits from customers mature within one year from the balance sheet date and their carrying value approximates fair value.

Debt securities and certificates of deposit in issue

The fair value of these instruments is determined by using the same approach as those debt securities and certificates of deposit measured at fair value as described in Note 5.1.

Subordinated liabilities

Fair value for subordinated notes is based on market prices or broker/dealer price quotations. The subordinated loan is on floating rate terms, bears interest at prevailing market interest rates and its carrying value approximates fair value.

The following tables set out the carrying values and fair values of the financial instruments not measured at fair value, except for the above with their carrying values being approximation of fair values.

	2017		2016	
	Carrying value HK$'m	**Fair value HK$'m**	Carrying value HK$'m	Fair value HK$'m
Financial assets				
Held-to-maturity securities (Note 27)	**50,559**	**50,979**	60,868	61,358
Loans and receivables (Note 27)	**499**	**498**	935	935
Financial liabilities				
Debt securities and certificates of deposit in issue (Note 35)	**21,641**	**21,578**	1,121	1,126
Subordinated liabilities (Note 39) – Subordinated notes	**18,917**	**20,985**	19,014	21,143

5. Fair values of assets and liabilities (continued)

5.2 Financial instruments not measured at fair value (continued)

The following tables show the fair value hierarchy for financial instruments with fair values disclosed.

	2017			
	Level 1 HK$'m	Level 2 HK$'m	Level 3 HK$'m	Total HK$'m
Financial assets				
Held-to-maturity securities	**972**	**49,653**	**354**	**50,979**
Loans and receivables	**–**	**498**	**–**	**498**
Financial liabilities				
Debt securities and certificates of deposit in issue	**–**	**21,578**	**–**	**21,578**
Subordinated liabilities – Subordinated notes	**–**	**20,985**	**–**	**20,985**

	2016			
	Level 1 HK$'m	Level 2 HK$'m	Level 3 HK$'m	Total HK$'m
Financial assets				
Held-to-maturity securities	1,233	60,125	–	61,358
Loans and receivables	–	935	–	935
Financial liabilities				
Debt securities and certificates of deposit in issue	–	1,126	–	1,126
Subordinated liabilities – Subordinated notes	–	21,143	–	21,143

5. Fair values of assets and liabilities (continued)

5.3 Non-financial instruments measured at fair value

The Group uses valuation techniques or quoted market prices in active market to determine the fair value of non-financial instruments.

Investment properties and premises

The Group's properties can be divided into investment properties and premises. All of the Group's investment properties and premises were revalued as at year end. This year, the valuations were carried out by an independent firm of chartered surveyors, Knight Frank Petty Limited, who have among their staff Fellow and Members of The Hong Kong Institute of Surveyors with recent experience in the locations and categories of properties being valued. The Group's Management had discussions with the surveyors on the valuation methods, valuation assumptions and valuation results when the valuation is performed at each interim and annual reporting date. There has been no change in valuation methods during the year and the methods used are consistent with last year.

(i) Valuation methods and inputs used in Level 2 fair value measurements

The fair value of properties classified as Level 2 is determined using either the market comparison approach by reference to recent sales price of comparable properties or the income capitalisation approach by reference to market rent and capitalisation rate, with appropriate adjustments to reflect the differences between the comparable properties and the subject properties. These adjustments are considered as insignificant to the entire measurement.

The Group's properties are located in Hong Kong, certain major cities in the PRC, Thailand and Malaysia where the property markets are considered active and transparent. Sales price, market rent and capitalisation rate of comparable properties are generally observable either directly or indirectly in these markets.

(ii) Information about Level 3 fair value measurements

The fair value of all of the Group's properties classified as Level 3, except for the bank vault, is determined using either the market comparison approach or the income capitalisation approach, adjusted for a premium or a discount specific to the features of the Group's properties compared to the comparable properties.

The fair value of the bank vault is determined using the depreciated replacement cost approach as no direct comparable is available given the specialised nature of the property. The major inputs are the market value of the existing land, the current cost of replacing the property and the depreciation rate. Appropriate adjustments are made to reflect the specialised nature of the property.

5. Fair values of assets and liabilities (continued)

5.3 Non-financial instruments measured at fair value (continued)

Investment properties and premises (continued)

(ii) Information about Level 3 fair value measurements (continued)

The valuation methods and significant unobservable inputs used in the fair value measurement of the Group's properties classified as Level 3 are as follows:

	Valuation method	Significant unobservable inputs	Weighted average	Relationship of unobservable inputs to fair value
Bank vault	Depreciated replacement cost approach	Depreciation rate	2% (2016: 2%) per year	The higher the depreciation rate, the lower the fair value.
		Premium on specialised nature of the property	+15% (2016: +15%) to building cost	The higher the premium, the higher the fair value.
Other properties	Market comparison approach or income capitalisation approach	Premium/(discount) on features of the property compared to comparable properties	-11% (2016: -6%)	The higher the premium, the higher the fair value. The higher the discount, the lower the fair value.

Premium/(discount) on features of a property is determined after taken into account various factors, such as time for market movement, location, accessibility, building age/condition, floor level, size, layout, etc., with reference to the differences in features with comparable properties.

Precious metals

The fair values of precious metals are determined by obtaining quoted market prices in active market or market quote with certain adjustments.

5. Fair values of assets and liabilities (continued)

5.3 Non-financial instruments measured at fair value (continued)

(A) Fair value hierarchy

	2017			
	Level 1 HK$'m	Level 2 HK$'m	Level 3 HK$'m	Total HK$'m
Non-financial assets				
Investment properties (Note 29)	**–**	**359**	**19,310**	**19,669**
Properties, plant and equipment (Note 30)				
– Premises	**–**	**1,215**	**43,114**	**44,329**
Other assets (Note 31)				
– Precious metals	**5,501**	**790**	**–**	**6,291**

	2016			
	Level 1 HK$'m	Level 2 HK$'m	Level 3 HK$'m	Total HK$'m
Non-financial assets				
Investment properties (Note 29)	–	862	17,365	18,227
Properties, plant and equipment (Note 30)				
– Premises	–	1,659	41,698	43,357
Other assets (Note 31)				
– Precious metals	4,511	1,122	–	5,633

There were no non-financial asset transfers between level 1 and level 2 for the Group during the year (2016: Nil).

5. Fair values of assets and liabilities (continued)

5.3 Non-financial instruments measured at fair value (continued)

(B) Reconciliation of level 3 items

	2017	
	Non-financial assets	
		Properties, plant and equipment
	Investment properties HK$'m	Premises HK$'m
At 1 January 2017	17,365	41,698
Gains		
– Income statement		
– Net gain from fair value adjustments on investment properties	1,133	–
– Net gain from revaluation of premises	–	4
– Other comprehensive income		
– Revaluation of premises	–	1,999
Depreciation	–	(999)
Additions	10	102
Disposals	–	(1)
Transfer into level 3	500	857
Transfer out of level 3	–	(251)
Reclassification	302	(302)
Exchange difference	–	7
At 31 December 2017	19,310	43,114
Total unrealised gains for the year included in income statement for non-financial assets held as at 31 December 2017		
– Net gain from fair value adjustments on investment properties	1,133	–
– Net gain from revaluation of premises	–	4
	1,133	4

5. Fair values of assets and liabilities (continued)

5.3 Non-financial instruments measured at fair value (continued)

(B) Reconciliation of level 3 items (continued)

	2016	
	Non-financial assets	
		Properties, plant and equipment
	Investment properties HK$'m	Premises HK$'m
At 1 January 2016	14,635	45,906
Gains/(losses)		
– Income statement		
– Net gain from fair value adjustments on investment properties	427	–
– Net loss from revaluation of premises	–	(9)
– Other comprehensive income		
– Revaluation of premises	–	(70)
Depreciation	–	(1,021)
Additions	6	483
Disposals	–	–
Transfer into level 3	–	778
Transfer out of level 3	(215)	(167)
Reclassification	2,709	(2,709)
Exchange difference	–	(3)
Classified as assets held for sale	(197)	(1,490)
At 31 December 2016	17,365	41,698
Total unrealised gains/(losses) for the year included in income statement for non-financial assets held as at 31 December 2016		
– Net gain from fair value adjustments on investment properties	441	–
– Net loss from revaluation of premises	–	(7)
	441	(7)

The transfer of properties into and out of level 3 is due to change in the premium/(discount) on features applied between the subject and comparable properties during the year. Premium/(discount) on features is determined with reference to differences in features between the subject properties and the comparable properties recently transacted in the market. As comparable properties that come from recent market transactions may be different in each year, the premium/(discount) on features applied between the subject and comparable properties would change from year to year accordingly. As a result, the significance of adjustments made to observable market inputs may vary and lead to the transfer of properties into and out of level 3.

6. Net interest income

	2017 HK$'m	2016 HK$'m
CONTINUING OPERATIONS		
Interest income		
Due from banks and other financial institutions	**9,540**	4,551
Advances to customers	**25,927**	21,710
Investment in securities and financial assets at fair value through profit or loss	**13,269**	10,319
Others	**215**	196
	48,951	36,776
Interest expense		
Due to banks and other financial institutions	**(2,077)**	(1,841)
Deposits from customers	**(10,560)**	(7,773)
Debt securities and certificates of deposit in issue	**(289)**	(318)
Subordinated liabilities	**(932)**	(594)
Others	**(385)**	(226)
	(14,243)	(10,752)
Net interest income	**34,708**	26,024

Included within interest income is HK$3 million (2016: HK$5 million) of interest with respect to income accrued on advances classified as impaired for the year ended 31 December 2017. There was no interest income accrued on impaired investment in securities for the year ended 31 December 2017 (2016: HK$1 million).

Included within interest income and interest expense are HK$47,159 million (2016: HK$36,495 million) and HK$14,570 million (2016: HK$11,235 million), before hedging effect, for financial assets and financial liabilities that are not recognised at fair value through profit or loss respectively.

7. Net fee and commission income

	2017 HK$'m	2016 HK$'m
CONTINUING OPERATIONS		
Fee and commission income		
Loan commissions	**3,559**	3,522
Credit card business	**3,202**	3,703
Securities brokerage	**2,624**	1,954
Insurance	**1,326**	1,630
Funds distribution	**985**	735
Bills commissions	**802**	724
Payment services	**629**	631
Trust and custody services	**555**	470
Currency exchange	**433**	336
Safe deposit box	**291**	277
Others	**999**	950
	15,405	14,932
Fee and commission expense		
Credit card business	**(2,327)**	(2,842)
Securities brokerage	**(312)**	(244)
Insurance	**(311)**	(292)
Others	**(939)**	(870)
	(3,889)	(4,248)
Net fee and commission income	**11,516**	10,684
Of which arise from:		
Financial assets or financial liabilities not at fair value through profit or loss		
– Fee and commission income	**3,850**	3,887
– Fee and commission expense	**(50)**	(34)
	3,800	3,853
Trust and other fiduciary activities		
– Fee and commission income	**739**	654
– Fee and commission expense	**(23)**	(22)
	716	632

8. Net trading gain

	2017 HK$'m	2016 HK$'m
CONTINUING OPERATIONS		
Net gain from:		
Foreign exchange and foreign exchange products	**157**	3,719
Interest rate instruments and items under fair value hedge	**739**	867
Commodities	**205**	32
Equity and credit derivative instruments	**225**	88
	1,326	4,706

9. Net gain on other financial assets

	2017 HK$'m	2016 HK$'m
CONTINUING OPERATIONS		
Net gain on available-for-sale securities	**1,107**	999
Net gain on held-to-maturity securities	**26**	12
Others	**30**	(5)
	1,163	1,006

10. Other operating income

	2017 HK$'m	2016 HK$'m
CONTINUING OPERATIONS		
Dividend income from investment in securities		
– Listed investments	**129**	87
– Unlisted investments	**48**	45
Gross rental income from investment properties	**594**	494
Less: Outgoings in respect of investment properties	**(100)**	(72)
Others	**260**	261
	931	815

Included in the "Outgoings in respect of investment properties" is HK$1 million (2016: HK$6 million) of direct operating expenses related to investment properties that were not let during the year.

11. Net insurance benefits and claims and movement in liabilities

	2017 HK$'m	2016 HK$'m
CONTINUING OPERATIONS		
Gross insurance benefits and claims and movement in liabilities		
Claims, benefits and surrenders paid	**(11,624)**	(15,561)
Movement in liabilities	**(14,257)**	(5,579)
	(25,881)	(21,140)
Reinsurers' share of benefits and claims and movement in liabilities		
Reinsurers' share of claims, benefits and surrenders paid	**5,392**	10,925
Reinsurers' share of movement in liabilities	**2,768**	(1,160)
	8,160	9,765
Net insurance benefits and claims and movement in liabilities	**(17,721)**	(11,375)

12. Net charge of impairment allowances

	2017 HK$'m	2016 HK$'m
CONTINUING OPERATIONS		
Advances to customers		
Individually assessed		
– New allowances	**(303)**	(249)
– Releases	**301**	165
– Recoveries	**73**	91
Net reversal of individually assessed loan impairment allowances	**71**	7
Collectively assessed		
– New allowances	**(1,204)**	(707)
– Releases	**8**	40
– Recoveries	**58**	46
Net charge of collectively assessed loan impairment allowances	**(1,138)**	(621)
Net charge of loan impairment allowances	**(1,067)**	(614)
Others	**(9)**	13
Net charge of impairment allowances	**(1,076)**	(601)

13. Operating expenses

	2017 HK$'m	2016 HK$'m
CONTINUING OPERATIONS		
Staff costs (including directors' emoluments)		
– Salaries and other costs	**7,371**	6,521
– Pension cost	**442**	418
	7,813	6,939
Premises and equipment expenses (excluding depreciation)		
– Rental of premises	**698**	664
– Information technology	**549**	519
– Others	**457**	408
	1,704	1,591
Depreciation	**1,949**	1,805
Auditor's remuneration		
– Audit services	**28**	26
– Non-audit services	**9**	13
Other operating expenses	**2,200**	2,138
	13,703	12,512

Contingent rent included in the "Rental of premises" amounted to HK$16 million during the year (2016: HK$16 million).

14. Net gain from disposal of/fair value adjustments on investment properties

	2017 HK$'m	2016 HK$'m
CONTINUING OPERATIONS		
Net gain from fair value adjustments on investment properties	**1,197**	429

15. Net loss from disposal/revaluation of properties, plant and equipment

	2017 HK$'m	2016 HK$'m
CONTINUING OPERATIONS		
Net loss from disposal of equipment, fixtures and fittings	**(15)**	(7)
Net loss from revaluation of premises	**(10)**	(7)
	(25)	(14)

16. Taxation

Taxation in the income statement represents:

	2017 HK$'m	2016 HK$'m
CONTINUING OPERATIONS		
Current tax		
Hong Kong profits tax		
– Current year taxation	**5,507**	4,586
– Over-provision in prior years	**(82)**	(60)
	5,425	4,526
Overseas taxation		
– Current year taxation	**869**	532
	6,294	5,058
Deferred tax		
Origination and reversal of temporary differences and unused tax credits	**(246)**	(290)
	6,048	4,768

Hong Kong profits tax has been provided at the rate of 16.5% (2016: 16.5%) on the estimated assessable profits arising in Hong Kong during the year. Taxation on overseas profits has been calculated on the estimated assessable profits for the year at the rates of taxation prevailing in the countries/regions in which the Group operates.

The taxation on the Group's profit before taxation that differs from the theoretical amount that would arise using the taxation rate of Hong Kong is as follows:

	2017 HK$'m	2016 HK$'m
CONTINUING OPERATIONS		
Profit before taxation	**35,262**	29,971
Calculated at a taxation rate of 16.5% (2016: 16.5%)	**5,818**	4,945
Effect of different taxation rates in other countries/regions	**84**	93
Income not subject to taxation	**(448)**	(261)
Expenses not deductible for taxation purposes	**258**	44
Tax losses not recognised	**2**	1
Over-provision in prior years	**(82)**	(60)
Foreign withholding tax	**416**	6
Taxation charge	**6,048**	4,768
Effective tax rate	**17.2%**	15.9%

17. Dividends

	2017		2016	
	Per share HK$	**Total HK$'m**	Per share HK$	Total HK$'m
Interim dividend paid	**0.545**	**5,762**	0.545	5,762
Special dividend paid	**0.095**	**1,005**	0.710	7,507
Proposed final dividend	**0.758**	**8,014**	0.625	6,608
	1.398	**14,781**	1.880	19,877

At a meeting held on 30 August 2017, the Board declared an interim dividend of HK$0.545 per ordinary share for the first half of 2017 amounting to approximately HK$5,762 million and a special dividend of HK$0.095 per ordinary share amounting to approximately HK$1,005 million.

At a meeting held on 29 March 2018, the Board proposed to recommend to the Annual General Meeting on 27 June 2018 a final dividend of HK$0.758 per ordinary share for the year ended 31 December 2017 amounting to approximately HK$8,014 million. This proposed final dividend is not reflected as a dividend payable in these financial statements, but will be reflected as an appropriation of retained earnings for the year ending 31 December 2018.

18. Earnings per share for profit attributable to equity holders of the Company

The calculation of basic earnings per share for the year ended 31 December 2017 is based on the consolidated profit for the year and profit from continuing operations attributable to equity holders of the Company of approximately HK$31,070 million and HK$28,481 million (2016: HK$55,876 million and HK$24,574 million) respectively and on the ordinary shares in issue of 10,572,780,266 shares (2016: 10,572,780,266 ordinary shares).

There was no dilution of earnings per share as no potential ordinary shares were in issue for the year ended 31 December 2017 (2016: Nil).

19. Retirement benefit costs

Retirement benefits are provided to eligible employees of the Group. In Hong Kong, defined contribution schemes for the Group's employees are ORSO schemes exempted under the MPF Schemes Ordinance and the BOC-Prudential Easy Choice MPF Scheme.

Under the ORSO schemes, employees make monthly contributions to the ORSO schemes equal to 5% of their basic salaries, while the employer makes monthly contributions equal to 5% to 15% of the employees' monthly basic salaries, depending on years of service. The employees are entitled to receive 100% of the employer's contributions upon retirement, early retirement or termination of employment after completing 10 years of service. Employees with 3 to 9 years of service are entitled to receive the employer's contributions at a scale ranging from 30% to 90% upon termination of employment for other reasons other than summary dismissal. All employer's contributions received by employee are subject to MPF Schemes Ordinance.

With the implementation of the MPF Schemes Ordinance on 1 December 2000, the Group also participates in the BOC-Prudential Easy Choice MPF Scheme, of which the trustee is BOCI-Prudential Trustee and the investment manager is BOCI-Prudential Manager, which are related parties of the Company.

19. Retirement benefit costs (continued)

The Group's total contributions made to the ORSO schemes for the year ended 31 December 2017 amounted to approximately HK$337 million (2016: approximately HK$354 million), after a deduction of forfeited contributions of approximately HK$10 million (2016: approximately HK$9 million). For the MPF Scheme, the Group contributed approximately HK$83 million (2016: approximately HK$85 million) for the year ended 31 December 2017.

20. Directors', senior management's and key personnel's emoluments

(a) Directors' and senior management's emoluments

(i) Directors' emoluments

Details of the emoluments paid to or receivable by the directors of the Company in respect of their services rendered for the Company and managing the subsidiaries within the Group during the year are as follows:

	2017			
	Directors' fee HK$'000	Basic salaries, allowances and benefits in kind HK$'000	Bonus HK$'000	Total HK$'000
Executive Directors				
YUE Yi (Chief Executive)	–	7,140	4,166	11,306
LI Jiuzhong	–	4,664	2,394	7,058
	–	11,804	6,560	18,364
Non-executive Directors				
CHEN Siqing	–	–	–	–
TIAN Guoli Note 1	–	–	–	–
GAO Yingxin	–	–	–	–
REN Deqi	–	–	–	–
CHENG Eva*	500	–	–	500
CHOI Koon Shum*	588	–	–	588
KOH Beng Seng*	650	–	–	650
TUNG Savio Wai-Hok*	712	–	–	712
XU Luode Note 1	–	–	–	–
	2,450	–	–	2,450
	2,450	11,804	6,560	20,814

Note 1: Resigned during the year.

Mr GAO Yingxin has been re-designated from the Non-executive Director to the Executive Director and appointed as the Vice Chairman and Chief Executive effective from 1 January 2018. Mr YUE Yi resigned as Vice Chairman, Executive Director and Chief Executive effective from 1 January 2018.

20. Directors', senior management's and key personnel's emoluments (continued)

(a) Directors' and senior management's emoluments (continued)

(i) Directors' emoluments (continued)

	2016			
	Directors' fee HK$'000	Basic salaries, allowances and benefits in kind HK$'000	Bonus HK$'000	Total HK$'000
Executive Directors				
YUE Yi (Chief Executive)	–	6,750	3,953	10,703
LI Jiuzhong	–	4,480	2,311	6,791
	–	11,230	6,264	17,494
Non-executive Directors				
CHEN Siqing	–	–	–	–
TIAN Guoli	–	–	–	–
GAO Yingxin	–	–	–	–
REN Deqi	–	–	–	–
CHENG Eva*	300	–	–	300
CHOI Koon Shum*	199	–	–	199
KOH Beng Seng*	450	–	–	450
TUNG Savio Wai-Hok*	528	–	–	528
XU Luode	–	–	–	–
SHAN Weijian*	173	–	–	173
	1,650	–	–	1,650
	1,650	11,230	6,264	19,144

* Independent Non-executive Directors

There were no directors waived emoluments for the year ended 31 December 2017 (2016: Nil).

20. Directors', senior management's and key personnel's emoluments (continued)

(a) Directors' and senior management's emoluments (continued)

(ii) Five highest paid individuals

The five individuals whose emoluments were the highest in the Group for the year include two (2016: two) directors whose emoluments are reflected in the analysis presented above. The emoluments payable to the remaining three (2016: three) individuals during the year are as follows:

	2017 HK$'m	2016 HK$'m
Basic salaries and allowances	**11**	11
Bonus	**9**	8
Contributions to pension schemes	**1**	1
	21	20

Emoluments paid to or receivable by individuals during the year with reference to their tenure are within the following bands:

	Number of individuals	
	2017	2016
HK$6,000,001 to HK$6,500,000	**–**	1
HK$6,500,001 to HK$7,000,000	**2**	2
HK$7,000,001 to HK$7,500,000	**1**	–

(iii) Senior management's emoluments

Emoluments paid to or receivable by individuals during the year with reference to their tenure as senior management are within the following bands:

	Number of individuals	
	2017	2016
HK$4,500,001 to HK$5,000,000	**1**	1
HK$5,000,001 to HK$5,500,000	**2**	2
HK$5,500,001 to HK$6,000,000	**1**	1
HK$6,500,001 to HK$7,000,000	**1**	2
HK$7,000,001 to HK$7,500,000	**1**	–
HK$10,500,001 to HK$11,000,000	**–**	1
HK$11,000,001 to HK$11,500,000	**1**	–

20. Directors', senior management's and key personnel's emoluments (continued)

(b) Remuneration for Senior Management and Key Personnel under CG-5

Pursuant to CG-5 Guideline on a Sound Remuneration System issued by the HKMA, details of the remuneration for Senior Management and Key Personnel of the Group during the year are as follows:

(i) Remuneration awarded during the year

	2017					
	Senior Management			Key Personnel		
	Non-deferred HK$'m	Deferred HK$'m	Total HK$'m	Non-deferred HK$'m	Deferred HK$'m	Total HK$'m
Fixed remuneration						
Cash	**38**	**–**	**38**	**64**	**–**	**64**
Variable remuneration						
Cash	**12**	**5**	**17**	**31**	**14**	**45**
	50	**5**	**55**	**95**	**14**	**109**

	2016					
	Senior Management			Key Personnel		
	Non-deferred HK$'m	Deferred HK$'m	Total HK$'m	Non-deferred HK$'m	Deferred HK$'m	Total HK$'m
Fixed remuneration						
Cash	36	–	36	60	–	60
Variable remuneration						
Cash	13	5	18	29	9	38
	49	5	54	89	9	98

The remuneration above includes 9 (2016: 10) members of Senior Management and 25 (2016: 26) members of Key Personnel.

20. Directors', senior management's and key personnel's emoluments (continued)

(b) Remuneration for Senior Management and Key Personnel under CG-5 (continued)

(ii) Deferred remuneration

	2017		2016	
	Senior Management HK$'m	**Key Personnel HK$'m**	Senior Management HK$'m	Key Personnel HK$'m
Deferred remuneration				
Vested	**4**	**8**	4	9
Unvested	**10**	**24**	9	18
	14	**32**	13	27
At 1 January	**9**	**18**	8	18
Awarded	**5**	**14**	5	9
Paid out	**(4)**	**(8)**	(4)	(9)
Reduced through performance adjustments	**–**	**–**	–	–
At 31 December	**10**	**24**	9	18

For the purpose of disclosure, Senior Management and Key Personnel are defined as follows:

– Senior Management: The senior executives designated by the Board who are responsible for oversight of the firm-wide strategy or material business lines, including the Chief Executive, Deputy Chief Executives, Chief Financial Officer, Chief Risk Officer, Chief Operating Officer, Board Secretary and General Manager of Group Audit.

– Key Personnel: The employees whose individual business activities involve the assumption of material risk which may have significant impact on risk exposure, or whose individual responsibilities are directly and materially linked to the risk management, or those who have direct influence to the profit, including heads of material business lines, heads of major subsidiaries and overseas institutions of the Group, head of trading, as well as heads of risk control functions.

21. Cash and balances with banks and other financial institutions

	2017 HK$'m	2016 HK$'m
Cash	**14,234**	12,889
Balances with central banks	**88,554**	72,022
Balances with other banks and other financial institutions	**152,793**	43,220
Placements with central banks maturing within one month	**9,283**	8,371
Placements with other banks and other financial institutions maturing within one month	**99,341**	99,804
	364,205	236,306

22. Placements with banks and other financial institutions maturing between one and twelve months

	2017 HK$'m	2016 HK$'m
Placements with central banks maturing between one and twelve months	**1,486**	1,964
Placements with other banks and other financial institutions maturing between one and twelve months	**57,570**	70,646
	59,056	72,610

23. Financial assets at fair value through profit or loss

	Trading assets		Financial assets designated at fair value through profit or loss		Total	
	2017 HK$'m	2016 HK$'m	2017 HK$'m	2016 HK$'m	2017 HK$'m	2016 HK$'m
At fair value						
Treasury bills	**17,780**	10,448	**–**	–	**17,780**	10,448
Other debt securities	**24,662**	20,620	**29,505**	22,957	**54,167**	43,577
	42,442	31,068	**29,505**	22,957	**71,947**	54,025
Certificates of deposit	**1,483**	2,143	**159**	148	**1,642**	2,291
Total debt securities and certificates of deposit	**43,925**	33,211	**29,664**	23,105	**73,589**	56,316
Equity securities	**203**	76	**3,481**	2,008	**3,684**	2,084
Fund	**–**	–	**9,062**	3,181	**9,062**	3,181
Total securities	**44,128**	33,287	**42,207**	28,294	**86,335**	61,581
Other debt instruments	**6,859**	5,777	**–**	–	**6,859**	5,777
	50,987	39,064	**42,207**	28,294	**93,194**	67,358

23. Financial assets at fair value through profit or loss (continued)

Total securities are analysed by place of listing as follows:

	Trading assets		Financial assets designated at fair value through profit or loss	
	2017 HK$'m	2016 HK$'m	**2017 HK$'m**	2016 HK$'m
Debt securities and certificates of deposit				
– Listed in Hong Kong	**9,339**	10,913	**8,864**	5,861
– Listed outside Hong Kong	**4,818**	4,096	**13,052**	9,953
	14,157	15,009	**21,916**	15,814
– Unlisted	**29,768**	18,202	**7,748**	7,291
	43,925	33,211	**29,664**	23,105
Equity securities				
– Listed in Hong Kong	**203**	76	**2,375**	1,624
– Listed outside Hong Kong	**–**	–	**1,106**	384
	203	76	**3,481**	2,008
Fund				
– Unlisted	**–**	–	**9,062**	3,181
Total securities	**44,128**	33,287	**42,207**	28,294

Total securities are analysed by type of issuer as follows:

	Trading assets		Financial assets designated at fair value through profit or loss	
	2017 HK$'m	2016 HK$'m	**2017 HK$'m**	2016 HK$'m
Sovereigns	**28,714**	21,473	**215**	1,247
Public sector entities	**703**	660	**–**	–
Banks and other financial institutions	**12,051**	7,720	**27,793**	18,421
Corporate entities	**2,660**	3,434	**14,199**	8,626
Total securities	**44,128**	33,287	**42,207**	28,294

24. Derivative financial instruments and hedge accounting

The Group enters into exchange rate, interest rate, commodity, equity and credit related derivative financial instrument contracts for trading and risk management purposes.

Currency forwards represent commitments to purchase and sell foreign currency on a future date. Interest rate futures are contractual obligations to receive or pay a net amount based on changes in interest rates or buy or sell interest rate financial instruments on a future date at an agreed price in the financial market under the administration of the stock exchange. Forward rate agreements are individually negotiated interest rate futures that call for a cash settlement at a future date for the difference between a contract rate of interest and the current market rate, based on a notional principal amount.

Currency, interest rate and commodity swaps are commitments to exchange one set of cash flows or commodity for another. Swaps result in an exchange of currencies, interest rates (for example, fixed rate for floating rate), or precious metals (for example, silver swaps) or a combination of all these (for example, cross-currency interest rate swaps). Except for certain currency swap contracts, no exchange of principal takes place.

Foreign currency, interest rate, precious metal and equity options are contractual agreements under which the seller (writer) grants the purchaser (holder) the right, but not the obligation, either to buy (a call option) or sell (a put option) at or by a set date or during a set period, a specific amount of the financial instrument at a predetermined price. In consideration for the assumption of foreign exchange and interest rate risk, the seller receives a premium from the purchaser. Options are negotiated over-the-counter between the Group and its counterparty or traded through the stock exchange (for example, exchange-traded stock option).

The contract/notional amounts and fair values of derivative financial instruments held by the Group are set out in the following tables. The contract/notional amounts of these instruments indicate the volume of transactions outstanding at the balance sheet dates and certain of them provide a basis for comparison with the fair values of instruments recognised on the balance sheet. However, they do not necessarily indicate the amounts of future cash flows involved or the current fair values of the instruments and, therefore, do not indicate the Group's exposure to credit or market risks. The derivative financial instruments become favourable (assets) or unfavourable (liabilities) as a result of fluctuations in foreign exchange rates, market interest rates, commodity prices or equity prices relative to their terms. The aggregate fair values of derivative financial instruments can fluctuate significantly from time to time.

(a) Derivative financial instruments

The Group trades derivative products (both exchange-traded or OTC) mainly for customer business. The Group strictly follows risk management policies and requirement in providing derivative products to our customers and in trading of derivative products in the interbank market.

Derivatives are also used to manage the interest rate risk of the banking book. A derivative instrument must be included in the approved product list before any transactions for that instrument can be made. There are limits to control the notional amount of exposure arising from derivative transactions, and the maximum tenor of the deal is set. Every derivative transaction must be input into the relevant system for settlement, mark-to-market revaluation, reporting and control.

24. Derivative financial instruments and hedge accounting (continued)

(a) Derivative financial instruments (continued)

The following tables summarise the contract/notional amounts and fair values of each class of derivative financial instrument as at 31 December:

	2017		
	Contract/ notional amounts HK$'m	Fair values Assets HK$'m	Fair values Liabilities HK$'m
Exchange rate contracts			
Spot, forwards and futures	**354,350**	**12,043**	**(9,238)**
Swaps	**1,460,316**	**13,923**	**(15,641)**
Options	**59,734**	**138**	**(107)**
	1,874,400	**26,104**	**(24,986)**
Interest rate contracts			
Futures	**17,306**	**8**	**(1)**
Swaps	**931,923**	**6,786**	**(5,403)**
	949,229	**6,794**	**(5,404)**
Commodity contracts	**28,001**	**559**	**(570)**
Equity contracts	**6,655**	**78**	**(81)**
Credit derivative contracts	**586**	**6**	**(3)**
	2,858,871	**33,541**	**(31,044)**

	2016		
	Contract/ notional amounts HK$'m	Fair values Assets HK$'m	Fair values Liabilities HK$'m
Exchange rate contracts			
Spot, forwards and futures	326,303	17,619	(11,509)
Swaps	1,840,736	38,487	(31,320)
Options	42,029	349	(391)
	2,209,068	56,455	(43,220)
Interest rate contracts			
Futures	2,543	1	(8)
Swaps	875,810	6,555	(5,320)
	878,353	6,556	(5,328)
Commodity contracts	26,091	1,240	(675)
Equity contracts	4,628	78	(81)
Credit derivative contracts	388	3	–
	3,118,528	64,332	(49,304)

24. Derivative financial instruments and hedge accounting (continued)

(b) Hedge accounting

The fair values of derivative financial instruments designated as hedging instruments as at 31 December are as follows:

	2017		2016	
	Assets HK$'m	Liabilities HK$'m	Assets HK$'m	Liabilities HK$'m
Fair value hedges	**2,339**	**(555)**	2,797	(1,065)

The Group uses interest rate swaps to hedge against change in fair value of financial assets and liabilities arising from movements in market interest rates.

Gains or losses on fair value hedges reflected in net trading gain for the year are as follows:

	2017		2016	
	Hedged assets HK$'m	Hedged liabilities HK$'m	Hedged assets HK$'m	Hedged liabilities HK$'m
Net gain/(loss)				
– Hedging instruments	**591**	**(464)**	1,962	(487)
– Hedged items	**(271)**	**563**	(1,372)	483
	320	**99**	590	(4)

25. Advances and other accounts

	2017 HK$'m	2016 HK$'m
Personal loans and advances	**327,783**	292,710
Corporate loans and advances	**816,676**	695,483
Advances to customers	**1,144,459**	988,193
Loan impairment allowances (Note 26)		
– Individually assessed	**(491)**	(650)
– Collectively assessed	**(3,593)**	(2,779)
	1,140,375	984,764
Trade bills	**42,975**	17,245
Advances to banks and other financial institutions	**6,259**	6,016
	1,189,609	1,008,025

As at 31 December 2017, advances to customers included accrued interest of HK$1,717 million (2016: HK$1,388 million).

As at 31 December 2017, no impairment allowance was made in respect of trade bills and advances to banks and other financial institutions (2016: Nil).

26. Loan impairment allowances

	2017		
	Individually assessed		
	Personal HK$'m	Corporate HK$'m	Total HK$'m
At 1 January 2017, as previously reported	9	440	449
Effect of merger of entities under common control	1	200	201
At 1 January 2017, as restated	10	640	650
Charged/(credited) to income statement (Note 12)	14	(85)	(71)
Loans written off during the year as uncollectible	(1)	(167)	(168)
Recoveries	5	68	73
Unwind of discount on impairment allowances	–	(3)	(3)
Exchange difference	–	10	10
At 31 December 2017	28	463	491

	2017		
	Collectively assessed		
	Personal HK$'m	Corporate HK$'m	Total HK$'m
At 1 January 2017, as previously reported	304	2,371	2,675
Effect of merger of entities under common control	14	90	104
At 1 January 2017, as restated	318	2,461	2,779
Charged to income statement (Note 12)	715	423	1,138
Loans written off during the year as uncollectible	(394)	(5)	(399)
Recoveries	58	–	58
Exchange difference	5	12	17
At 31 December 2017	702	2,891	3,593

26. Loan impairment allowances (continued)

	2016		
	Individually assessed		
	Personal HK$'m	Corporate HK$'m	Total HK$'m
At 1 January 2016, as previously reported	9	569	578
Effect of merger of entities under common control	–	144	144
At 1 January 2016, as restated	9	713	722
(Credited)/charged to income statement	(3)	33	30
Loans written off during the year as uncollectible	(3)	(107)	(110)
Recoveries	7	91	98
Unwind of discount on impairment allowances	–	(6)	(6)
Exchange difference	–	(1)	(1)
Classified as assets held for sale	–	(83)	(83)
At 31 December 2016	10	640	650

	2016		
	Collectively assessed		
	Personal HK$'m	Corporate HK$'m	Total HK$'m
At 1 January 2016, as previously reported	278	2,227	2,505
Effect of merger of entities under common control	6	128	134
At 1 January 2016, as restated	284	2,355	2,639
Charged to income statement	402	246	648
Loans written off during the year as uncollectible	(408)	(5)	(413)
Recoveries	46	–	46
Exchange difference	(1)	(1)	(2)
Classified as assets held for sale	(5)	(134)	(139)
At 31 December 2016	318	2,461	2,779

27. Investment in securities

	2017			
	At fair value	At amortised cost		
	Available-for-sale securities HK$'m	Held-to-maturity securities HK$'m	Loans and receivables HK$'m	Total HK$'m
Treasury bills	**180,160**	**–**	**–**	**180,160**
Other debt securities	**354,779**	**50,541**	**499**	**405,819**
	534,939	**50,541**	**499**	**585,979**
Certificates of deposit	**26,762**	**18**	**–**	**26,780**
Total debt securities and certificates of deposit	**561,701**	**50,559**	**499**	**612,759**
Equity securities	**5,413**	**–**	**–**	**5,413**
Fund	**–**	**–**	**–**	**–**
	567,114	**50,559**	**499**	**618,172**

	2016			
	At fair value	At amortised cost		
	Available-for-sale securities HK$'m	Held-to-maturity securities HK$'m	Loans and receivables HK$'m	Total HK$'m
Treasury bills	142,263	–	–	142,263
Other debt securities	328,272	60,850	935	390,057
	470,535	60,850	935	532,320
Certificates of deposit	56,903	18	–	56,921
Total debt securities and certificates of deposit	527,438	60,868	935	589,241
Equity securities	4,259	–	–	4,259
Fund	150	–	–	150
	531,847	60,868	935	593,650

27. Investment in securities (continued)

Investment in securities is analysed by place of listing as follows:

	2017		
	Available-for-sale securities HK$'m	Held-to-maturity securities HK$'m	Loans and receivables HK$'m
Debt securities and certificates of deposit			
– Listed in Hong Kong	**70,453**	**10,355**	**–**
– Listed outside Hong Kong	**191,158**	**19,646**	**–**
	261,611	**30,001**	**–**
– Unlisted	**300,090**	**20,558**	**499**
	561,701	**50,559**	**499**
Equity securities			
– Listed in Hong Kong	**4,468**	**–**	**–**
– Listed outside Hong Kong	**134**	**–**	**–**
– Unlisted	**811**	**–**	**–**
	5,413	**–**	**–**
Fund			
– Unlisted	**–**	**–**	**–**
	567,114	**50,559**	**499**
Market value of listed held-to-maturity securities		**30,443**	

	2016		
	Available-for-sale securities HK$'m	Held-to-maturity securities HK$'m	Loans and receivables HK$'m
Debt securities and certificates of deposit			
– Listed in Hong Kong	55,218	8,214	–
– Listed outside Hong Kong	169,052	24,714	–
	224,270	32,928	–
– Unlisted	303,168	27,940	935
	527,438	60,868	935
Equity securities			
– Listed in Hong Kong	2,906	–	–
– Listed outside Hong Kong	635	–	–
– Unlisted	718	–	–
	4,259	–	–
Fund			
– Unlisted	150	–	–
	531,847	60,868	935
Market value of listed held-to-maturity securities		33,218	

27. Investment in securities (continued)

Investment in securities is analysed by type of issuer as follows:

	2017		
	Available-for-sale securities HK$'m	**Held-to-maturity securities HK$'m**	**Loans and receivables HK$'m**
Sovereigns	**233,050**	**964**	**–**
Public sector entities	**35,849**	**9,525**	**–**
Banks and other financial institutions	**192,778**	**20,548**	**499**
Corporate entities	**105,437**	**19,522**	**–**
	567,114	**50,559**	**499**

	2016		
	Available-for-sale securities HK$'m	Held-to-maturity securities HK$'m	Loans and receivables HK$'m
Sovereigns	187,870	1,172	–
Public sector entities	29,819	11,608	–
Banks and other financial institutions	214,576	27,248	935
Corporate entities	99,582	20,840	–
	531,847	60,868	935

27. Investment in securities (continued)

The movements in investment in securities are summarised as follows:

	2017		
	Available-for-sale securities HK$'m	**Held-to-maturity securities HK$'m**	**Loans and receivables HK$'m**
At 1 January 2017, as previously reported	**531,036**	**60,194**	**935**
Effect of merger of entities under common control	**811**	**674**	**–**
At 1 January 2017, as restated	**531,847**	**60,868**	**935**
Additions	**541,193**	**4,915**	**3,864**
Disposals, redemptions and maturity	**(511,733)**	**(22,838)**	**(4,320)**
Amortisation	**65**	**(76)**	**20**
Change in fair value	**1,663**	**–**	**–**
Reclassification	**(6,097)**	**6,097**	**–**
Exchange difference	**10,176**	**1,593**	**–**
At 31 December 2017	**567,114**	**50,559**	**499**

	2016		
	Available-for-sale securities HK$'m	Held-to-maturity securities HK$'m	Loans and receivables HK$'m
At 1 January 2016, as previously reported	432,929	81,843	3,166
Effect of merger of entities under common control	671	844	–
At 1 January 2016, as restated	433,600	82,687	3,166
Additions	759,501	9,804	2,230
Disposals, redemptions and maturity	(641,517)	(29,292)	(4,080)
Amortisation	(264)	(191)	21
Change in fair value	(1,473)	–	–
Reclassification	1,437	(1,437)	–
Exchange difference	(6,581)	(703)	129
Classified as assets held for sale	(12,856)	–	(531)
At 31 December 2016	531,847	60,868	935

27. Investment in securities (continued)

The Group reclassified certain debt securities with fair value of HK$6,097 million (2016: HK$1,828 million) out of available-for-sale category into held-to-maturity category during the year. The Group had the intention and ability to hold these reclassified debt securities until maturity at the date of reclassification.

There were no debt securities reclassified out of held-to-maturity category into available-for-sale category during the year (2016: HK$3,265 million).

28. Interests in associates and joint ventures

	2017 HK$'m	2016 HK$'m
At 1 January	**319**	376
Share of results	**132**	96
Share of tax	**(32)**	(22)
Dividend received	**(2)**	(2)
Derecognition	**–**	(129)
At 31 December	**417**	319

The particulars of the Group's associates and joint ventures, all of which are unlisted, are as follows:

Name	**Place of incorporation and operation**	**Issued share capital/ registered capital**	**Interest held**	**Principal activities**
Associates:				
BOC Services Company Limited	PRC	Registered capital RMB50,000,000	45%	Credit card back-end service support
Joint ventures:				
Joint Electronic Teller Services Limited	Hong Kong	Ordinary shares HK$10,026,000	19.96%	Operation of a private inter-bank message switching network in respect of ATM services
Golden Harvest (Cayman) Limited	Cayman Islands	Ordinary shares US$100	49%	Investment holding

Golden Harvest (Cayman) Limited was incorporated on 23 May 2017.

28. Interests in associates and joint ventures (continued)

	Associates		Joint ventures	
	2017 HK$'m	2016 HK$'m	**2017 HK$'m**	2016 HK$'m
Interests in associates/joint ventures	**350**	256	**67**	63
Share of profit/total comprehensive income for the year of associates/joint ventures	**94**	69	**6**	5

29. Investment properties

	2017 HK$'m	2016 HK$'m
At 1 January	**18,227**	15,262
Additions	**13**	6
Disposals	**(2)**	–
Fair value gains	**1,197**	415
Reclassification from properties, plant and equipment (Note 30)	**234**	2,748
Classified as assets held for sale	**–**	(204)
At 31 December	**19,669**	18,227

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

	2017 HK$'m	2016 HK$'m
Held in Hong Kong		
On long-term lease (over 50 years)	**4,526**	4,153
On medium-term lease (10 to 50 years)	**14,835**	13,799
Held outside Hong Kong		
On long-term lease (over 50 years)	**77**	59
On medium-term lease (10 to 50 years)	**203**	194
On short-term lease (less than 10 years)	**28**	22
	19,669	18,227

As at 31 December 2017, investment properties were included in the balance sheet at valuation carried out at 31 December 2017 on the basis of their fair value by an independent firm of chartered surveyors, Knight Frank Petty Limited. The fair value represents the price that would be received to sell each investment property in an orderly transaction with market participants at the measurement date.

30. Properties, plant and equipment

	Premises HK$'m	Equipment, fixtures and fittings HK$'m	Total HK$'m
Net book value at 1 January 2017, as previously reported	**43,357**	**2,375**	**45,732**
Effect of merger of entities under common control	**–**	**80**	**80**
Net book value at 1 January 2017, as restated	**43,357**	**2,455**	**45,812**
Additions	**112**	**1,408**	**1,520**
Disposals	**(8)**	**(20)**	**(28)**
Revaluation	**2,119**	**–**	**2,119**
Depreciation for the year (Note 13)	**(1,024)**	**(925)**	**(1,949)**
Reclassification to investment properties (Note 29)	**(234)**	**–**	**(234)**
Exchange difference	**7**	**14**	**21**
Net book value at 31 December 2017	**44,329**	**2,932**	**47,261**
At 31 December 2017			
Cost or valuation	**44,329**	**9,595**	**53,924**
Accumulated depreciation and impairment	**–**	**(6,663)**	**(6,663)**
Net book value at 31 December 2017	**44,329**	**2,932**	**47,261**
The analysis of cost or valuation of the above assets is as follows:			
At 31 December 2017			
At cost	**–**	**9,595**	**9,595**
At valuation	**44,329**	**–**	**44,329**
	44,329	**9,595**	**53,924**
Net book value at 1 January 2016, as previously reported	48,244	2,273	50,517
Effect of merger of entities under common control	–	53	53
Net book value at 1 January 2016, as restated	48,244	2,326	50,570
Additions	560	958	1,518
Disposals	(1)	(8)	(9)
Revaluation	(144)	–	(144)
Depreciation for the year	(1,060)	(771)	(1,831)
Reclassification to investment properties (Note 29)	(2,748)	–	(2,748)
Exchange difference	(4)	(6)	(10)
Classified as assets held for sale	(1,490)	(44)	(1,534)
Net book value at 31 December 2016	43,357	2,455	45,812
At 31 December 2016			
Cost or valuation	43,357	8,356	51,713
Accumulated depreciation and impairment	–	(5,901)	(5,901)
Net book value at 31 December 2016	43,357	2,455	45,812
The analysis of cost or valuation of the above assets is as follows:			
At 31 December 2016			
At cost	–	8,356	8,356
At valuation	43,357	–	43,357
	43,357	8,356	51,713

30. Properties, plant and equipment (continued)

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

	2017 HK$'m	2016 HK$'m
Held in Hong Kong		
On long-term lease (over 50 years)	**13,734**	13,821
On medium-term lease (10 to 50 years)	**30,221**	29,212
Held outside Hong Kong		
On long-term lease (over 50 years)	**5**	4
On medium-term lease (10 to 50 years)	**290**	256
On short-term lease (less than 10 years)	**79**	64
	44,329	43,357

As at 31 December 2017, premises were included in the balance sheet at valuation carried out at 31 December 2017 on the basis of their fair value by an independent firm of chartered surveyors, Knight Frank Petty Limited. The fair value represents the price that would be received to sell each premises in an orderly transaction with market participants at the measurement date.

As a result of the above-mentioned revaluations, changes in value of the premises were recognised as follows:

	2017 HK$'m	2016 HK$'m
Decrease in valuation charged to income statement	**(10)**	(9)
Increase/(decrease) in valuation credited/(charged) to other comprehensive income	**2,129**	(135)
	2,119	(144)

As at 31 December 2017, the net book value of premises that would have been included in the Group's balance sheet had the premises been carried at cost less accumulated depreciation and impairment losses was HK$7,295 million (2016: HK$7,117 million).

31. Other assets

	2017 HK$'m	2016 HK$'m
Repossessed assets	**30**	38
Precious metals	**6,291**	5,633
Reinsurance assets	**43,717**	38,605
Accounts receivable and prepayments	**24,333**	27,057
	74,371	71,333

32. Hong Kong SAR currency notes in circulation

The Hong Kong SAR currency notes in circulation are secured by deposit of funds in respect of which the Hong Kong SAR Government certificates of indebtedness are held.

33. Financial liabilities at fair value through profit or loss

	2017 HK$'m	2016 HK$'m
Trading liabilities		
– Short positions in Exchange Fund Bills and Notes	**16,936**	9,946
Financial liabilities designated at fair value through profit or loss		
– Structured deposits (Note 34)	**2,784**	3,425
	19,720	13,371

The carrying amount of financial liabilities designated at fair value through profit or loss as at 31 December 2017 was less than the amount that the Group would be contractually required to pay at maturity to the holders by HK$3 million (2016: HK$9 million). The amount of change in the fair values of financial liabilities at fair value through profit or loss, during the year and cumulatively, attributable to changes in own credit risk was insignificant.

34. Deposits from customers

	2017 HK$'m	2016 HK$'m
Current, savings and other deposit accounts (per balance sheet)	**1,771,513**	1,519,867
Structured deposits reported as financial liabilities at fair value through profit or loss (Note 33)	**2,784**	3,425
	1,774,297	1,523,292
Analysed by:		
Demand deposits and current accounts		
– Corporate	**145,025**	128,178
– Personal	**58,806**	45,810
	203,831	173,988
Savings deposits		
– Corporate	**370,256**	326,866
– Personal	**539,928**	478,965
	910,184	805,831
Time, call and notice deposits		
– Corporate	**408,944**	363,424
– Personal	**251,338**	180,049
	660,282	543,473
	1,774,297	1,523,292

35. Debt securities and certificates of deposit in issue

	2017 HK$'m	2016 HK$'m
Debt securities, at amortised cost	**21,641**	1,121

36. Other accounts and provisions

	2017 HK$'m	2016 HK$'m
Other accounts payable	**52,950**	52,625
Provisions	**17**	242
	52,967	52,867

37. Deferred taxation

Deferred tax is recognised in respect of the temporary differences arising between the tax bases of assets and liabilities and their carrying amounts in the financial statements and unused tax credits in accordance with HKAS 12 "Income Taxes".

The major components of deferred tax (assets)/liabilities recorded in the balance sheet, and the movements during the year are as follows:

	2017					
	Accelerated tax depreciation HK$'m	Property revaluation HK$'m	Losses HK$'m	Impairment allowances HK$'m	Others HK$'m	Total HK$'m
At 1 January 2017, as previously reported	**612**	**6,467**	**–**	**(430)**	**(1,132)**	**5,517**
Effect of merger of entities under common control	**(1)**	**–**	**–**	**4**	**(7)**	**(4)**
At 1 January 2017, as restated	**611**	**6,467**	**–**	**(426)**	**(1,139)**	**5,513**
Charged/(credited) to income statement (Note 16)	**82**	**(116)**	**–**	**(123)**	**(89)**	**(246)**
Charged to other comprehensive income	**–**	**298**	**–**	**–**	**81**	**379**
Exchange difference	**–**	**–**	**–**	**–**	**–**	**–**
At 31 December 2017	**693**	**6,649**	**–**	**(549)**	**(1,147)**	**5,646**

	2016					
	Accelerated tax depreciation HK$'m	Property revaluation HK$'m	Losses HK$'m	Impairment allowances HK$'m	Others HK$'m	Total HK$'m
At 1 January 2016, as previously reported	597	7,192	–	(459)	(936)	6,394
Effect of merger of entities under common control	(1)	–	(2)	(2)	(3)	(8)
At 1 January 2016, as restated	596	7,192	(2)	(461)	(939)	6,386
Charged/(credited) to income statement	29	(206)	2	(57)	(69)	(301)
Credited to other comprehensive income	–	(311)	–	–	(164)	(475)
Exchange difference	–	–	–	2	–	2
Classified as assets held for sale and liabilities associated with assets held for sale	(14)	(208)	–	90	33	(99)
At 31 December 2016	611	6,467	–	(426)	(1,139)	5,513

37. Deferred taxation (continued)

Deferred tax assets and liabilities are offset on an individual entity basis when there is a legal right to set off current tax assets against current tax liabilities and when the deferred taxation relates to the same authority. The following amounts, determined after appropriate offsetting, are shown in the balance sheet:

	2017 HK$'m	2016 HK$'m
Deferred tax assets	**(58)**	(85)
Deferred tax liabilities	**5,704**	5,598
	5,646	5,513

	2017 HK$'m	2016 HK$'m
Deferred tax assets to be recovered after more than twelve months	**(38)**	(16)
Deferred tax liabilities to be settled after more than twelve months	**6,794**	6,605
	6,756	6,589

As at 31 December 2017, the Group has not recognised deferred tax assets in respect of tax losses amounting to HK$25 million (2016: HK$13 million). Of the amount, HK$9 million (2016: HK$9 million) for the Group has no expiry date and HK$16 million (2016: HK$4 million) for the Group is scheduled to expire within six years under the current tax legislation in different countries/regions.

38. Insurance contract liabilities

	2017 HK$'m	2016 HK$'m
At 1 January	**86,534**	82,645
Benefits paid	**(10,815)**	(14,935)
Claims incurred and movement in liabilities	**27,510**	18,824
At 31 December	**103,229**	86,534

The insurance contract liabilities that are covered by reinsurance arrangements amounted to HK$38,074 million (2016: HK$33,471 million) and the associated reinsurance assets of HK$43,717 million (2016: HK$38,605 million) are included in "Other assets" (Note 31).

39. Subordinated liabilities

	2017 HK$'m	2016 HK$'m
Subordinated notes, at amortised cost with fair value hedge adjustment	**18,917**	19,014
Subordinated loan, at amortised cost	**63**	79
	18,980	19,093

In 2010, BOCHK issued listed subordinated notes with an aggregate amount of USD2,500 million, interest rate at 5.55% per annum payable semi-annually, due February 2020. Amounts qualified as Tier 2 capital instruments for regulatory purposes are shown in Note 4.5(B).

The subordinated loan is from BOC, the intermediate holding company, with interest rate at 12-month LIBOR plus 1.50% per annum payable annually. The subordinated loan is repayable on five equal annual installments starting September 2017 and matures on September 2021.

40. Discontinued operations and assets held for sale

(a) Disposal of NCB

On 18 December 2015, BOCHK (as seller) entered into a sale and purchase agreement with Cinda Financial Holdings Co., Limited (as buyer) and China Cinda (HK) Holdings Company Limited (as buyer's guarantor) in relation to the disposal of all the issued shares of NCB. The completion of the disposal was conditional upon the satisfaction of the conditions precedent set out in the sale and purchase agreement.

All the conditions precedent set out in the sale and purchase agreement were satisfied, and completion of the disposal took place on 30 May 2016 in accordance with the terms and conditions of the sale and purchase agreement. Upon completion, NCB ceased to be a subsidiary of BOCHK.

(b) Disposal of Chiyu

On 22 December 2016, BOCHK (as seller) entered into a sale and purchase agreement with Xiamen International Investment Limited and the Committee of Jimei Schools (each as a buyer) in relation to the disposal of a total of 2,114,773 ordinary shares of Chiyu. The completion of the disposal was conditional upon the satisfaction of all the conditions precedent set out in the sale and purchase agreement.

All the conditions precedent set out in the sale and purchase agreement were satisfied, and completion of the disposal took place on 27 March 2017 in accordance with the terms and conditions of the sale and purchase agreement. Upon completion, Chiyu ceased to be a subsidiary of BOCHK.

40. Discontinued operations and assets held for sale (continued)

The results of discontinued operations for the year are as follows:

DISCONTINUED OPERATIONS	2017 HK$'m	2016 HK$'m
Interest income	**268**	4,030
Interest expense	**(75)**	(1,398)
Net interest income	**193**	2,632
Fee and commission income	**39**	769
Fee and commission expense	**–**	(13)
Net fee and commission income	**39**	756
Net trading gain	**2**	40
Net gain/(loss) on financial instruments designated at fair value through profit or loss	**1**	(8)
Net gain on other financial assets	**–**	108
Other operating income	**–**	9
Net operating income before impairment allowances	**235**	3,537
Net charge of impairment allowances	**(7)**	(420)
Net operating income	**228**	3,117
Operating expenses	**(87)**	(1,275)
Operating profit	**141**	1,842
Net loss from disposal of/fair value adjustments on investment properties	**–**	(14)
Net loss from disposal/revaluation of properties, plant and equipment	**–**	(2)
Profit before taxation	**141**	1,826
Taxation	**(22)**	(289)
Profit after taxation	**119**	1,537
Gain on disposal of discontinued operations	**2,504**	29,956
Profit from discontinued operations	**2,623**	31,493
Profit attributable to:		
Equity holders of the Company	**2,589**	31,302
Non-controlling interests	**34**	191
	2,623	31,493
	HK$	HK$
Earnings per share for profit attributable to equity holders of the Company		
Basic and diluted		
– profit from discontinued operations	**0.2449**	2.9606

40. Discontinued operations and assets held for sale (continued)

The net cash flows incurred by discontinued operations are as follows:

	2017 HK$'m	2016 HK$'m
Operating activities	**2,000**	(17,543)
Investing activities	**(3)**	(67)
Financing activities	**–**	–
Net cash inflow/(outflow) incurred by discontinued operations	**1,997**	(17,610)

The gain on disposal of discontinued operations is analysed as follows:

	2017 HK$'m	2016 HK$'m
Total consideration	**7,685**	68,000
Net assets disposed	**(7,044)**	(38,048)
Non-controlling interests	**2,078**	–
Cumulative translation reserve and reserve for fair value changes of available-for-sale securities reclassified to income statement	**(48)**	370
Transaction costs incurred in connection with the disposal	**(167)**	(366)
Gain on disposal of discontinued operations	**2,504**	29,956

40. Discontinued operations and assets held for sale (continued)

The net assets of discontinued operations at the dates of disposal are as follows:

	Chiyu HK$'m	NCB HK$'m
Cash and balances with banks and other financial institutions	7,029	45,126
Placements with banks and other financial institutions maturing between one and twelve months	1,215	6,394
Financial assets at fair value through profit or loss	351	5,560
Derivative financial instruments	95	517
Advances and other accounts	31,411	168,185
Investment in securities	14,541	56,934
Investment properties	204	354
Properties, plant and equipment	1,537	7,049
Current tax assets	–	64
Deferred tax assets	63	71
Other assets	582	2,745
Deposits and balances from banks and other financial institutions	(2,765)	(18,495)
Financial liabilities at fair value through profit or loss	–	(4,579)
Derivative financial instruments	(8)	(229)
Deposits from customers	(46,277)	(215,253)
Other accounts and provisions	(725)	(15,346)
Current tax liabilities	(45)	(236)
Deferred tax liabilities	(164)	(813)
Net assets disposed	7,044	38,048

The net cash inflow from disposal of discontinued operations is analysed as follows:

	2017 HK$'m	2016 HK$'m
Total consideration received, satisfied by cash	**7,685**	68,000
Transaction costs incurred in connection with the disposal	**(167)**	(366)
Cash and cash equivalents disposed	**(6,708)**	(40,642)
Net cash inflow from disposal of discontinued operations	**810**	26,992

40. Discontinued operations and assets held for sale (continued)

The major classes of assets held for sale and liabilities associated with assets held for sale are as follows:

	2017 HK$'m	2016 HK$'m
ASSETS HELD FOR SALE		
Cash and balances with banks and other financial institutions	–	5,233
Placements with banks and other financial institutions maturing between one and twelve months	–	1,038
Financial assets at fair value through profit or loss	–	654
Derivative financial instruments	–	98
Advances and other accounts	–	30,844
Investment in securities	–	13,387
Investment properties	–	204
Properties, plant and equipment	–	1,534
Deferred tax assets	–	61
Other assets	–	240
Total assets held for sale	–	53,293
LIABILITIES ASSOCIATED WITH ASSETS HELD FOR SALE		
Deposits and balances from banks and other financial institutions	–	977
Derivative financial instruments	–	12
Deposits from customers	–	45,370
Other accounts and provisions	–	438
Current tax liabilities	–	56
Deferred tax liabilities	–	160
Total liabilities associated with assets held for sale	–	47,013
	–	6,280

The cumulative income recognised in other comprehensive income relating to assets held for sale is as follows:

	2017 HK$'m	2016 HK$'m
Cumulative income recognised in other comprehensive income	–	1,014

41. Share capital

	2017 HK$'m	2016 HK$'m
Issued and fully paid:		
10,572,780,266 ordinary shares	**52,864**	52,864

42. Notes to consolidated cash flow statement

(a) Reconciliation of operating profit to operating cash inflow/(outflow) before taxation

	2017 HK$'m	2016 HK$'m
Operating profit		
– from continuing operations	**33,990**	29,482
– from discontinued operations	**141**	1,842
	34,131	31,324
Depreciation	**1,949**	1,831
Net charge of impairment allowances	**1,083**	1,021
Unwind of discount on impairment allowances	**(3)**	(9)
Advances written off net of recoveries	**(436)**	(456)
Change in subordinated liabilities	**498**	71
Change in balances with banks and other financial institutions with original maturity over three months	**(264)**	(16,567)
Change in placements with banks and other financial institutions with original maturity over three months	**22,026**	(20,609)
Change in financial assets at fair value through profit or loss	**(24,597)**	(9,294)
Change in derivative financial instruments	**12,530**	(11,891)
Change in advances and other accounts	**(182,812)**	(90,255)
Change in investment in securities	**(28,691)**	(80,954)
Change in other assets	**(3,389)**	(7,441)
Change in deposits and balances from banks and other financial institutions	**25,929**	(20,417)
Change in financial liabilities at fair value through profit or loss	**6,349**	2,432
Change in deposits from customers	**252,553**	134,458
Change in debt securities and certificates of deposit in issue	**20,520**	(5,855)
Change in other accounts and provisions	**387**	21,140
Change in insurance contract liabilities	**16,695**	3,889
Effect of changes in exchange rates	**(15,936)**	(1,335)
Operating cash inflow/(outflow) before taxation	**138,522**	(68,917)
Cash flows from operating activities included		
– interest received	**48,305**	41,563
– interest paid	**12,599**	11,578
– dividend received	**177**	135

42. Notes to consolidated cash flow statement (continued)

(b) Reconciliation of liabilities arising from financing activities

	2017 HK$'m	2016 HK$'m
Subordinated liabilities		
At 1 January, as previously reported	**19,014**	19,422
Effect of merger of entities under common control	**79**	78
At 1 January, as restated	**19,093**	19,500
Cash flows:		
Repayment of subordinated liabilities	**(16)**	–
Interest paid for subordinated liabilities	**(595)**	(478)
	(611)	(478)
Non-cash changes:		
Exchange difference	**145**	10
Other changes	**353**	61
At 31 December	**18,980**	19,093

(c) Analysis of the balances of cash and cash equivalents

	2017 HK$'m	2016 HK$'m
Cash and balances with banks and other financial institutions with original maturity within three months	**346,547**	223,747
Placements with banks and other financial institutions with original maturity within three months	**17,140**	8,568
Treasury bills and certificates of deposit with original maturity within three months		
– financial assets at fair value through profit or loss	**1,000**	64
– investment in securities	**13,257**	17,195
	377,944	249,574

43. Contingent liabilities and commitments

The following is a summary of the contractual amounts of each significant class of contingent liability and commitment and the aggregate credit risk-weighted amount and is prepared with reference to the completion instructions for the HKMA return of capital adequacy ratio.

	2017 HK$'m	2016 HK$'m
Direct credit substitutes	**8,414**	6,247
Transaction-related contingencies	**30,092**	12,649
Trade-related contingencies	**28,294**	32,269
Commitments that are unconditionally cancellable without prior notice	**397,100**	388,739
Other commitments with an original maturity of		
– up to one year	**17,976**	12,095
– over one year	**154,582**	132,488
	636,458	584,487
Credit risk-weighted amount	**74,844**	60,730

The credit risk-weighted amount is calculated in accordance with the Banking (Capital) Rules. The amount is dependent upon the status of the counterparty and the maturity characteristics of each type of contract.

44. Capital commitments

The Group has the following outstanding capital commitments not provided for in the financial statements:

	2017 HK$'m	2016 HK$'m
Authorised and contracted for but not provided for	**146**	404
Authorised but not contracted for	**3**	11
	149	415

The above capital commitments mainly relate to commitments to purchase computer equipment and software, and to renovate the Group's premises.

45. Operating lease commitments

(a) As lessee

The Group has commitments to make the following future minimum lease payments under non-cancellable operating leases:

	2017 HK$'m	2016 HK$'m
Land and buildings		
– Not later than one year	**607**	630
– Later than one year but not later than five years	**634**	750
– Later than five years	**14**	4
	1,255	1,384

Certain non-cancellable operating leases included in the table above were subject to renegotiation and rent adjustment with reference to market rates prevailing at specified agreed dates or according to the special conditions as stipulated in the leases.

(b) As lessor

The Group has contracted with tenants for the following future minimum lease receivables under non-cancellable operating leases:

	2017 HK$'m	2016 HK$'m
Land and buildings		
– Not later than one year	**543**	396
– Later than one year but not later than five years	**502**	392
	1,045	788

The Group leases its investment properties under operating lease arrangements, with leases typically for a period from one to three years. The terms of the leases generally require the tenants to pay security deposits and provide for rent adjustments according to the prevailing market conditions at the expiration of the lease.

46. Litigation

The Group has been served a number of claims and counterclaims by various independent parties. These claims and counterclaims are in relation to the normal commercial activities of the Group.

No material provision was made against these claims and counterclaims because the directors believe that the Group has meritorious defences against the claimants or the amounts involved in these claims are not expected to be material.

47. Segmental reporting

The Group manages the business mainly from a business segment perspective and over 90% of the Group's revenues, profits before tax and assets are derived from Hong Kong. Currently, four operating segments are identified: Personal Banking, Corporate Banking, Treasury and Insurance. The classification of the Group's operating segments is based on customer segment and product type, which is aligned with the RPC (relationship, product and channel) management model of the Group.

Both Personal Banking and Corporate Banking provide general banking services including various deposit products, overdrafts, loans, credit cards, trade related products and other credit facilities, investment and insurance products, and foreign currency and derivative products. Personal Banking mainly serves retail customers and small enterprises, while Corporate Banking mainly deals with corporate customers. Treasury manages the funding and liquidity, and the interest rate and foreign exchange positions of the Group in addition to proprietary trades. The Insurance segment represents business mainly relating to life insurance products, including individual life insurance and group life insurance products. "Others" mainly represents the Group's holdings of premises, investment properties, equity investments and interests in associates and joint ventures.

Measurement of segment assets, liabilities, income, expenses, results and capital expenditure is based on the Group's accounting policies. The segment information includes items directly attributable to a segment as well as those that can be allocated on a reasonable basis. Inter-segment funding is charged according to the internal funds transfer pricing mechanism of the Group, which is primarily based on market rates with the consideration of specific features of the product.

As the Group derives a majority of revenue from interest and the senior management relies primarily on net interest income in managing the business, interest income and expense for all reportable segments are presented on a net basis. Under the same consideration, insurance premium income and insurance benefits and claims are also presented on a net basis.

47. Segmental reporting (continued)

	Personal Banking HK$'m	Corporate Banking HK$'m	Treasury HK$'m	Insurance HK$'m	Others HK$'m	Subtotal HK$'m	Eliminations HK$'m	Consolidated HK$'m
Year ended 31 December 2017								
CONTINUING OPERATIONS								
Net interest income/(expense)								
– External	3,194	13,488	15,381	2,687	(42)	34,708	–	34,708
– Inter-segment	6,467	(635)	(4,906)	(31)	(895)	–	–	–
	9,661	12,853	10,475	2,656	(937)	34,708	–	34,708
Net fee and commission income/(expense)	6,265	5,176	324	(658)	766	11,873	(357)	11,516
Net insurance premium income	–	–	–	14,683	–	14,683	(18)	14,665
Net trading gain/(loss)	876	208	63	100	(2)	1,245	81	1,326
Net gain/(loss) on financial instruments designated at fair value through profit or loss	9	–	(3)	2,168	–	2,174	7	2,181
Net gain on other financial assets	–	30	698	435	–	1,163	–	1,163
Other operating income	81	10	37	165	2,016	2,309	(1,378)	931
Total operating income	16,892	18,277	11,594	19,549	1,843	68,155	(1,665)	66,490
Net insurance benefits and claims and movement in liabilities	–	–	–	(17,721)	–	(17,721)	–	(17,721)
Net operating income before impairment allowances	16,892	18,277	11,594	1,828	1,843	50,434	(1,665)	48,769
Net charge of impairment allowances	(753)	(323)	–	–	–	(1,076)	–	(1,076)
Net operating income	16,139	17,954	11,594	1,828	1,843	49,358	(1,665)	47,693
Operating expenses	(8,077)	(3,136)	(1,366)	(427)	(2,362)	(15,368)	1,665	(13,703)
Operating profit/(loss)	8,062	14,818	10,228	1,401	(519)	33,990	–	33,990
Net gain from disposal of/fair value adjustments on investment properties	–	–	–	–	1,197	1,197	–	1,197
Net loss from disposal/revaluation of properties, plant and equipment	(7)	(5)	(1)	–	(12)	(25)	–	(25)
Share of profits less losses after tax of associates and joint ventures	–	–	–	–	100	100	–	100
Profit before taxation	8,055	14,813	10,227	1,401	766	35,262	–	35,262
At 31 December 2017								
ASSETS								
Segment assets	357,707	868,696	1,234,936	130,597	65,675	2,657,611	(12,275)	2,645,336
Interests in associates and joint ventures	–	–	–	–	417	417	–	417
	357,707	868,696	1,234,936	130,597	66,092	2,658,028	(12,275)	2,645,753
LIABILITIES								
Segment liabilities	964,859	838,426	471,564	121,752	14,083	2,410,684	(12,275)	2,398,409
Year ended 31 December 2017								
CONTINUING OPERATIONS								
Other information								
Capital expenditure	27	4	–	32	1,470	1,533	–	1,533
Depreciation	529	158	104	18	1,140	1,949	–	1,949
Amortisation of securities	–	–	29	(20)	–	9	–	9

47. Segmental reporting (continued)

	Personal Banking HK$'m	Corporate Banking HK$'m	Treasury HK$'m	Insurance HK$'m	Others HK$'m	Subtotal HK$'m	Eliminations HK$'m	Consolidated HK$'m
Year ended 31 December 2016								
CONTINUING OPERATIONS								
Net interest income/(expense)								
– External	3,472	11,156	9,013	2,379	4	26,024	–	26,024
– Inter-segment	4,984	(49)	(4,241)	(12)	(682)	–	–	–
	8,456	11,107	4,772	2,367	(678)	26,024	–	26,024
Net fee and commission income/(expense)	5,598	4,985	107	(415)	690	10,965	(281)	10,684
Net insurance premium income	–	–	–	10,651	–	10,651	(17)	10,634
Net trading gain/(loss)	668	153	4,186	(332)	3	4,678	28	4,706
Net (loss)/gain on financial instruments designated at fair value through profit or loss	–	–	(1)	97	–	96	5	101
Net (loss)/gain on other financial assets	–	(5)	623	388	–	1,006	–	1,006
Other operating income	29	3	8	216	1,818	2,074	(1,259)	815
Total operating income	14,751	16,243	9,695	12,972	1,833	55,494	(1,524)	53,970
Net insurance benefits and claims and movement in liabilities	–	–	–	(11,375)	–	(11,375)	–	(11,375)
Net operating income before impairment allowances	14,751	16,243	9,695	1,597	1,833	44,119	(1,524)	42,595
Net (charge)/reversal of impairment allowances	(424)	(201)	24	–	–	(601)	–	(601)
Net operating income	14,327	16,042	9,719	1,597	1,833	43,518	(1,524)	41,994
Operating expenses	(6,836)	(2,798)	(1,094)	(367)	(2,941)	(14,036)	1,524	(12,512)
Operating profit/(loss)	7,491	13,244	8,625	1,230	(1,108)	29,482	–	29,482
Net gain from disposal of/fair value adjustments on investment properties	–	–	–	–	429	429	–	429
Net loss from disposal/revaluation of properties, plant and equipment	(5)	(6)	–	–	(3)	(14)	–	(14)
Share of profits less losses after tax of associates and joint ventures	–	–	–	–	74	74	–	74
Profit/(loss) before taxation	7,486	13,238	8,625	1,230	(608)	29,971	–	29,971
At 31 December 2016								
ASSETS								
Segment assets	318,935	713,562	1,101,385	111,186	67,990	2,313,058	(11,930)	2,301,128
Interests in associates and joint ventures	–	–	–	–	319	319	–	319
Assets held for sale	9,299	23,999	19,142	–	1,660	54,100	(807)	53,293
	328,234	737,561	1,120,527	111,186	69,969	2,367,477	(12,737)	2,354,740
LIABILITIES								
Segment liabilities	796,943	749,843	421,728	103,783	13,406	2,085,703	(12,530)	2,073,173
Liabilities associated with assets held for sale	35,820	10,823	288	–	289	47,220	(207)	47,013
	832,763	760,666	422,016	103,783	13,695	2,132,923	(12,737)	2,120,186
Year ended 31 December 2016								
CONTINUING OPERATIONS								
Other information								
Capital expenditure	26	3	–	18	1,437	1,484	–	1,484
Depreciation	384	152	75	13	1,181	1,805	–	1,805
Amortisation of securities	–	–	(430)	(8)	–	(438)	–	(438)

48. Assets pledged as security

As at 31 December 2017, the liabilities of the Group amounting to HK$11,111 million (2016: HK$10,686 million) were secured by assets deposited with central depositories to facilitate settlement operations. In addition, the liabilities of the Group amounting to HK$14,477 million (2016: HK$19,260 million) were secured by debt securities related to sale and repurchase arrangements. The amount of assets pledged by the Group to secure these liabilities was HK$26,002 million (2016: HK$30,903 million) mainly included in "Trading assets" and "Investment in securities".

49. Offsetting financial instruments

The following tables present details of the Group's financial instruments subject to offsetting, enforceable master netting arrangements and similar agreements.

	2017					
				Related amounts not set off in the balance sheet		
	Gross amounts of recognised financial assets HK$'m	Gross amounts of recognised financial liabilities set off in the balance sheet HK$'m	Net amounts of financial assets presented in the balance sheet HK$'m	Financial instruments HK$'m	Cash collateral received HK$'m	Net amount HK$'m
Assets						
Derivative financial instruments	33,458	–	33,458	(23,094)	(4,427)	5,937
Reverse repurchase agreements	9,012	–	9,012	(9,012)	–	–
Securities borrowing agreements	2,503	–	2,503	(2,503)	–	–
Other assets	17,432	(10,545)	6,887	–	–	6,887
	62,405	(10,545)	51,860	(34,609)	(4,427)	12,824

	2017					
				Related amounts not set off in the balance sheet		
	Gross amounts of recognised financial liabilities HK$'m	Gross amounts of recognised financial assets set off in the balance sheet HK$'m	Net amounts of financial liabilities presented in the balance sheet HK$'m	Financial instruments HK$'m	Cash collateral pledged HK$'m	Net amount HK$'m
Liabilities						
Derivative financial instruments	30,963	–	30,963	(23,094)	(676)	7,193
Repurchase agreements	14,477	–	14,477	(14,477)	–	–
Other liabilities	11,265	(10,545)	720	–	–	720
	56,705	(10,545)	46,160	(37,571)	(676)	7,913

49. Offsetting financial instruments (continued)

	2016					
				Related amounts not set off in the balance sheet		
	Gross amounts of recognised financial assets HK$'m	Gross amounts of recognised financial liabilities set off in the balance sheet HK$'m	Net amounts of financial assets presented in the balance sheet HK$'m	Financial instruments HK$'m	Cash collateral received HK$'m	Net amount HK$'m
Assets						
Derivative financial instruments	63,869	–	63,869	(36,951)	(6,795)	20,123
Reverse repurchase agreements	5,949	–	5,949	(5,949)	–	–
Securities borrowing agreements	1,000	–	1,000	(1,000)	–	–
Other assets	15,931	(9,044)	6,887	–	–	6,887
	86,749	(9,044)	77,705	(43,900)	(6,795)	27,010

	2016					
				Related amounts not set off in the balance sheet		
	Gross amounts of recognised financial liabilities HK$'m	Gross amounts of recognised financial assets set off in the balance sheet HK$'m	Net amounts of financial liabilities presented in the balance sheet HK$'m	Financial instruments HK$'m	Cash collateral pledged HK$'m	Net amount HK$'m
Liabilities						
Derivative financial instruments	48,972	–	48,972	(36,951)	(4,446)	7,575
Repurchase agreements	19,260	–	19,260	(19,260)	–	–
Other liabilities	9,693	(9,044)	649	–	–	649
	77,925	(9,044)	68,881	(56,211)	(4,446)	8,224

For master netting agreements of OTC derivative, sale and repurchase and securities lending and borrowing transactions entered into by the Group, related amounts with the same counterparty can be offset if an event of default or other predetermined events occur.

50. Transfers of financial assets

The transferred financial assets of the Group below that do not qualify for derecognition are debt securities held by counterparties as collateral under sale and repurchase agreements.

	2017		2016	
	Carrying amount of transferred assets HK$'m	**Carrying amount of associated liabilities HK$'m**	Carrying amount of transferred assets HK$'m	Carrying amount of associated liabilities HK$'m
Repurchase agreements	**14,767**	**14,477**	20,080	19,260

51. Loans to directors

Particulars of loans made to directors of the Company pursuant to section 383 of the Hong Kong Companies Ordinance and Part 3 of the Companies (Disclosure of Information about Benefits of Directors) Regulation are as follows:

	2017 HK$'m	2016 HK$'m
Aggregate amount of relevant transactions outstanding at year end	**5**	874
Maximum aggregate amount of relevant transactions outstanding during the year	**877**	2,243

52. Significant related party transactions

The Group is subject to the control of the State Council of the PRC Government through China Investment Corporation ("CIC"), its wholly-owned subsidiary Central Huijin Investment Ltd. ("Central Huijin"), and BOC in which Central Huijin has controlling equity interests.

52. Significant related party transactions (continued)

(a) Transactions with the parent companies and the other companies controlled by the parent companies

General information of the parent companies:

The Group is controlled by BOC. Central Huijin is the controlling entity of BOC, and it is a wholly-owned subsidiary of CIC which is a wholly state-owned company engaging in foreign currency investment management.

Central Huijin has controlling equity interests in certain other entities in the PRC.

The Group enters into banking and other transactions with these entities in the normal course of business which include loans, investment securities, money market and reinsurance transactions.

The majority of transactions with BOC arise from money market activities. As at 31 December 2017, the related aggregate amounts due from and to BOC of the Group were HK$186,565 million (2016: HK$106,281 million) and HK$60,385 million (2016: HK$58,654 million) respectively. The aggregate amounts of income and expenses of the Group arising from these transactions with BOC for the year ended 31 December 2017 were HK$2,320 million (2016: HK$1,436 million) and HK$459 million (2016: HK$306 million) respectively. The related party transactions above constitute connected transactions as defined in Chapter 14A of the Listing Rules but under exemption from its disclosure requirement.

The transactions with BOC disclosed in Note 57 also constitute connected transactions as defined in Chapter 14A of the Listing Rules and announcements had been made by the Group on 30 June 2016, 6 January 2017, 28 February 2017, 6 July 2017 and 3 November 2017.

Transactions with other companies controlled by BOC are not considered material.

(b) Transactions with government authorities, agencies, affiliates and other state controlled entities

The Group is subject to the control of the State Council of the PRC Government through CIC and Central Huijin, which also directly or indirectly controls a significant number of entities through its government authorities, agencies, affiliates and other state controlled entities. The Group enters into banking transactions with government authorities, agencies, affiliates and other state controlled entities in the normal course of business at commercial terms.

These transactions include, but are not limited to, the following:

- lending, provision of credits and guarantees, and deposit taking;
- inter-bank balance taking and placing;
- sales, purchases, underwriting and redemption of bonds issued by other state controlled entities;
- rendering of foreign exchange, remittance and investment related services;
- provision of fiduciary activities; and
- purchase of utilities, transport, telecommunication and postage services.

52. Significant related party transactions (continued)

(c) Summary of transactions entered into during the ordinary course of business with associates, joint ventures and other related parties

The aggregate income/expenses and balances arising from related party transactions with associates, joint ventures and other related parties of the Group are summarised as follows:

	2017 HK$'m	2016 HK$'m
Income statement items		
Associates		
– Fee and commission expenses	**36**	–
– Other operating expenses	**72**	70
Other related parties		
– Fee and commission income	**10**	9
Balance sheet item		
Associates		
– Other accounts and provisions	**4**	3

The related party transactions in respect of the fee and commission expenses and other operating expenses arising from associates above constitute connected transactions as defined in Chapter 14A of the Listing Rules and the required disclosures are provided in "Connected transactions" on pages 282 to 283.

(d) 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 senior management. The Group accepts deposits from and grants loans and credit facilities to key management personnel in the ordinary course of business. During both the current and prior years, no material transaction was conducted with key management personnel of the Company and its holding companies, as well as parties related to them.

The compensation of key management personnel for the year ended 31 December is detailed as follows:

	2017 HK$'m	2016 HK$'m
Salaries and other short-term employee benefits	**48**	46

53. International claims

The below analysis is prepared with reference to the completion instructions for the HKMA return of international banking statistics. International claims are exposures to counterparties on which the ultimate risk lies based on the locations of the counterparties after taking into account the transfer of risk, and represent the sum of cross-border claims in all currencies and local claims in foreign currencies. For a claim guaranteed by a party situated in a location different from the counterparty, the risk will be transferred to the location of the guarantor. For a claim on an overseas branch of a bank whose head office is located in another location, the risk will be transferred to the location where its head office is located.

Claims on individual countries/regions, after risk transfer, amounting to 10% or more of the aggregate international claims of the Group are shown as follows:

	2017				
			Non-bank private sector		
	Banks HK$'m	**Official sector HK$'m**	**Non-bank financial institutions HK$'m**	**Non-financial private sector HK$'m**	**Total HK$'m**
Mainland of China	**401,249**	**95,744**	**25,940**	**142,557**	**665,490**
Hong Kong	**11,186**	**–**	**19,529**	**311,584**	**342,299**

	2016				
			Non-bank private sector		
	Banks HK$'m	Official sector HK$'m	Non-bank financial institutions HK$'m	Non-financial private sector HK$'m	Total HK$'m
Mainland of China	317,073	83,649	19,218	130,223	550,163
Hong Kong	4,557	3,516	16,287	271,107	295,467

54. Non-bank Mainland exposures

The analysis of non-bank Mainland exposures is based on the categories of non-bank counterparties and the types of direct exposures with reference to the completion instructions for the HKMA return of Mainland activities, which includes the Mainland exposures extended by BOCHK and its local banking subsidiaries.

		2017		
	Items in the HKMA return	On-balance sheet exposure HK$'m	Off-balance sheet exposure HK$'m	Total exposure HK$'m
Central government, central government-owned entities and their subsidiaries and joint ventures	1	277,878	46,003	323,881
Local governments, local government-owned entities and their subsidiaries and joint ventures	2	67,154	11,268	78,422
PRC nationals residing in Mainland or other entities incorporated in Mainland and their subsidiaries and joint ventures	3	53,490	11,078	64,568
Other entities of central government not reported in item 1 above	4	29,972	1,029	31,001
Other entities of local governments not reported in item 2 above	5	–	–	–
PRC nationals residing outside Mainland or entities incorporated outside Mainland where the credit is granted for use in Mainland	6	75,825	21,261	97,086
Other counterparties where the exposures are considered to be non-bank Mainland exposures	7	2,624	828	3,452
Total	8	506,943	91,467	598,410
Total assets after provision	9	2,445,769		
On-balance sheet exposures as percentage of total assets	10	20.73%		

54. Non-bank Mainland exposures (continued)

	Items in the HKMA return	2016 On-balance sheet exposure HK$'m	2016 Off-balance sheet exposure HK$'m	2016 Total exposure HK$'m
Central government, central government-owned entities and their subsidiaries and joint ventures	1	247,107	47,259	294,366
Local governments, local government-owned entities and their subsidiaries and joint ventures	2	65,980	10,126	76,106
PRC nationals residing in Mainland or other entities incorporated in Mainland and their subsidiaries and joint ventures	3	51,955	11,584	63,539
Other entities of central government not reported in item 1 above	4	26,874	1,812	28,686
Other entities of local governments not reported in item 2 above	5	–	–	–
PRC nationals residing outside Mainland or entities incorporated outside Mainland where the credit is granted for use in Mainland	6	60,043	11,796	71,839
Other counterparties where the exposures are considered to be non-bank Mainland exposures	7	4,144	199	4,343
Total	8	456,103	82,776	538,879
Total assets after provision	9	2,176,247		
On-balance sheet exposures as percentage of total assets	10	20.96%		

55. Balance sheet and statement of changes in equity

(a) Balance sheet

As at 31 December	2017 HK$'m	2016 HK$'m
ASSETS		
Bank balances with a subsidiary	**1,798**	62
Investment in securities	**2,886**	2,532
Investment in subsidiaries	**55,322**	55,089
Amounts due from a subsidiary	**3,831**	3,659
Other assets	**1**	–
Total assets	**63,838**	61,342
LIABILITIES		
Amounts due to a subsidiary	**3**	1
Total liabilities	**3**	1
EQUITY		
Share capital	**52,864**	52,864
Reserves	**10,971**	8,477
Total equity	**63,835**	61,341
Total liabilities and equity	**63,838**	61,342

Approved by the Board of Directors on 29 March 2018 and signed on behalf of the Board by:

CHEN Siqing
Director

GAO Yingxin
Director

55. Balance sheet and statement of changes in equity (continued)

(b) Statement of changes in equity

		Reserves		
	Share capital HK$'m	Reserve for fair value changes of available-for-sale securities HK$'m	Retained earnings HK$'m	Total equity HK$'m
At 1 January 2016	52,864	1,203	7,245	61,312
Profit for the year	–	–	20,404	20,404
Other comprehensive income:				
Available-for-sale securities	–	73	–	73
Total comprehensive income	–	73	20,404	20,477
Dividends	–	–	(20,448)	(20,448)
At 31 December 2016	52,864	1,276	7,201	61,341
At 1 January 2017	**52,864**	**1,276**	**7,201**	**61,341**
Profit for the year	**–**	**–**	**15,515**	**15,515**
Other comprehensive income:				
Available-for-sale securities	**–**	**354**	**–**	**354**
Total comprehensive income	**–**	**354**	**15,515**	**15,869**
Dividends	**–**	**–**	**(13,375)**	**(13,375)**
At 31 December 2017	**52,864**	**1,630**	**9,341**	**63,835**

56. Principal subsidiaries

The particulars of all direct and indirect subsidiaries of the Company are set out in "Appendix – Subsidiaries of the Company". The following is a list of principal subsidiaries as at 31 December 2017:

Name	Place of incorporation and operation	Issued share capital	Interest held	Principal activities
Bank of China (Hong Kong) Limited	Hong Kong	Ordinary shares HK$43,042,840,858	*100%	Banking business
BOC Group Life Assurance Company Limited	Hong Kong	Ordinary shares HK$3,538,000,000	*51%	Life insurance business
BOC Credit Card (International) Limited	Hong Kong	Ordinary shares HK$480,000,000	100%	Credit card services
Bank of China (Malaysia) Berhad	Malaysia	Ordinary shares RM760,518,480	100%	Banking business
Bank of China (Thai) Public Company Limited	Thailand	Ordinary shares Baht10,000,000,000	100%	Banking business
Po Sang Securities and Futures Limited	Hong Kong	Ordinary shares HK$335,000,000	100%	Securities and futures brokerage

* Shares held directly by the Company

The particulars of a subsidiary with significant non-controlling interests are as follows:

BOC Group Life Assurance Company Limited

	2017	2016
Proportion of ownership interests and voting rights held by non-controlling interests	**49%**	49%

	2017 HK$'m	2016 HK$'m
Profit attributable to non-controlling interests	**586**	510
Accumulated non-controlling interests	**4,334**	3,627
Summarised financial information:		
– total assets	**130,597**	111,186
– total liabilities	**121,752**	103,783
– profit for the year	**1,196**	1,041
– total comprehensive income for the year	**1,492**	754

57. Application of merger accounting

On 9 January 2017, BOCHK acquired the entire issued share capital of BOC Thailand from BOC (0.01% of which was owned through the acquisition of the 14 special purpose vehicle companies incorporated in the British Virgin Islands) for a total consideration of HK$2,996 million in cash. On 10 July 2017 and 6 November 2017, BOCHK acquired the Indonesia Business and Cambodia Business from BOC for a total consideration of HK$2,053 million and HK$1,569 million in cash respectively. BOC Thailand, Indonesia Business, Cambodia Business and BOCHK are all under the common control of BOC before and after the combination. The Group has applied the merger accounting method in accordance with the Accounting Guideline 5 "Merger Accounting for Common Control Combinations" issued by the HKICPA in the preparation of financial statements. The comparative amounts have been restated accordingly as if the business of BOC Thailand, Indonesia Business and Cambodia Business had always been carried out by the Group.

The statements of the adjustments to the consolidated equity as at 31 December are as follows:

	2017			
	Before combination HK$'m	Entities under common control HK$'m	Adjustment HK$'m	After combination HK$'m
Share capital	**52,864**	**3,455**	**(3,455)**	**52,864**
Merger reserve	**–**	**–**	**(3,163)**	**(3,163)**
Retained earnings and other reserves	**191,921**	**1,117**	**–**	**193,038**
	244,785	**4,572**	**(6,618)**	**242,739**
Non-controlling interests	**4,605**	**–**	**–**	**4,605**
	249,390	**4,572**	**(6,618)**	**247,344**

	2016			
	Before combination HK$'m	Entities under common control HK$'m	Adjustment HK$'m	After combination HK$'m
Share capital	52,864	3,455	(3,455)	52,864
Merger reserve	–	–	3,455	3,455
Retained earnings and other reserves	171,789	539	–	172,328
	224,653	3,994	–	228,647
Non-controlling interests	5,907	–	–	5,907
	230,560	3,994	–	234,554

58. Ultimate holding company

The Group is subject to the control of the State Council of the PRC Government through China Investment Corporation, its wholly-owned subsidiary Central Huijin Investment Ltd. ("Central Huijin"), and BOC in which Central Huijin has controlling equity interests.

59. Comparative amounts

In respect of the acquisition of BOC Thailand, Indonesia Business and Cambodia Business from BOC on 9 January 2017, 10 July 2017 and 6 November 2017 respectively as explained in Note 57, the Group has applied merger accounting method for the business combination under common control. Comparative amounts in the financial statements have been restated as if the business of BOC Thailand, Indonesia Business and Cambodia Business had always been carried out by the Group.

60. Events after the balance sheet date

As stated in the Company's announcement dated 29 December 2017, all of the conditions precedent respectively set out in the Philippines Agreement and the Vietnam Agreement entered into between BOCHK and BOC were satisfied or, as appropriate, waived and completion of the transfers of the Philippines Business and the Vietnam Business took place on 29 January 2018 pursuant to the respective terms and conditions of the Philippines Agreement and the Vietnam Agreement. Upon completion, each of Bank of China Limited – Manila Branch and Bank of China – Hochiminh City Branch became a branch owned by BOCHK, and all the assets and liabilities arising in connection with the Philippines Business and the Vietnam Business were transferred to and assumed by BOCHK pursuant to the respective terms and conditions of the Philippines Agreement and the Vietnam Agreement.

61. Approval of financial statements

The financial statements were approved and authorised for issue by the Board of Directors on 29 March 2018.