

# Independent Auditor's Report

## To the Members of Hang Seng Bank Limited

(incorporated in Hong Kong with limited liability)

### Opinion

#### What we have audited

The consolidated financial statements of Hang Seng Bank Limited (the "Bank") and its subsidiaries (together, the "Group") set out on pages 150 to 237, which comprise:

- the consolidated balance sheet as at 31 December 2018;
- the consolidated income statement for the year then ended;
- the consolidated statement of comprehensive income for the year then ended;
- the consolidated statement of changes in equity for the year then ended;
- the consolidated statement of cash flows for the year then ended; and
- the notes<sup>1</sup> to the consolidated financial statements, which include a summary of significant accounting policies.

<sup>1</sup> Certain required disclosures as described in Note 1(b) have been presented elsewhere in the Annual Report 2018, rather than in the notes to the consolidated financial statements. These are cross-referenced from the consolidated financial statements and are identified as audited.

### Our opinion

In our opinion, the consolidated financial statements give a true and fair view of the consolidated financial position of the Group as at 31 December 2018, and of its consolidated financial performance and its consolidated cash flows for the year then ended in accordance with Hong Kong Financial Reporting Standards ("HKFRSs") issued by the Hong Kong Institute of Certified Public Accountants ("HKICPA") and have been properly prepared in compliance with the Hong Kong Companies Ordinance.

### Basis for Opinion

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

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

### Independence

We are independent of the Group in accordance with the HKICPA's Code of Ethics for Professional Accountants ("the Code"), and we have fulfilled our other ethical responsibilities in accordance with the Code.

### Key Audit Matters

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

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

- Impairment of loans and advances to customers
- Information Technology access management
- The present value of in-force long-term insurance business and liabilities under non-linked life insurance contracts

## Key Audit Matters continued

### Impairment of loans and advances to customers

#### Nature of the Key Audit Matter

As this is the first year of adoption of HKFRS 9, there is limited experience available to back-test the expected credit loss ("ECL") charge and allowance against actual results.

There has been a significant increase in the number of data points required for the impairment calculation. The data are sourced from a number of systems that have not been used previously for the preparation of the accounting records. This increases the risk around completeness and accuracy of certain data used to create assumptions and operate the model.

The global credit environment has remained relatively benign for an extended period of time, in part due to the low interest rate environment, and the relative strength of the global economy. However, there are a number of headwinds to the global economy as well as certain specific risks. As a result, whilst the current levels of delinquencies and defaults remains low, the risk of impairment remains significant.

#### How our audit addressed the Key Audit Matter

We performed the following audit procedures over the ECL allowances which included:

- We tested the controls over the model performance monitoring and validation, including periodic policy and independent model reviews, back testing of performance and approval of model changes. We also performed risk based substantive testing of models, including independently re-building certain assumptions;
- We tested the review and challenge of multiple economic scenarios by an expert panel and internal governance committee, and assessed the reasonableness of the multiple economic scenarios and variables using our economic experts;
- We tested the controls over the inputs of critical data, into source systems, and the flow and transformation of data between source systems to the impairment calculation system. We also performed substantive testing over a sample of the critical data used in the year end ECL calculation;
- We assessed management's user acceptance testing over the automated calculation of ECL to ensure it is performed in line with business requirements, as well as independently reviewing the underlying system script to validate that the calculation operated as we would have expected;
- We observed management's challenge forums to assess the ECL output and approval of post model adjustments; and
- We tested the approval of the key inputs, assumptions and discounted cash-flows that supported the impairment provisions for a sample of significant individually assessed loans.

#### Relevant references in the Annual Report 2018

- Management Discussion and Analysis – Risk Management, (a) Credit Risk, pages 46-65
- Note 1: Basis of preparation, pages 157-158
- Note 2: Significant accounting policies, (j) Impairment of amortised cost and FVOCI financial assets, pages 163-169
- Note 12: Change in expected credit losses and other credit impairment charges/ Loan impairment charges and other credit risk provisions, page 184
- Note 28: Loans and advances to customers, pages 196-198

#### Matters discussed with the Audit Committee

At each Audit Committee meeting, there was a discussion on changes to risk factors and other inputs within the models, geopolitical risks, such as escalating China-US trade tensions, as well as individually significant loan impairments.

The more judgemental interpretations of HKFRS 9 made by management were also discussed, in particular the application of forward economic guidance, including the severity and magnitude of modelled downside scenarios; and associated considerations of post model adjustments.

As the control environment for the calculation of ECL under HKFRS 9 continued to be strengthened following initial adoption, we provided updates on the changes being made and the results of our testing procedures.

## Independent Auditor's Report

### Key Audit Matters continued

#### Information Technology ("IT") access management

##### Nature of the Key Audit Matter

The audit approach relies extensively on automated controls and therefore on the effectiveness of controls over IT systems.

In previous years, we identified and reported that controls over access to applications, operating systems and data in the financial reporting process required improvements. Access management controls are critical to ensure that changes to applications and underlying data are made in an appropriate manner. Appropriate access controls contribute to mitigating the risk of potential fraud or errors as a result of changes to applications and data.

Management has implemented remediation activities that have contributed to reducing the risk over access management in the financial reporting process.

However, issues related to privileged access and business user access remained unresolved on parts of the technology infrastructure, requiring our audit approach to respond to the risks presented.

##### How our audit addressed the Key Audit Matter

We tested access rights to applications, operating systems and databases relied upon for financial reporting. Specifically, we tested that:

- New access requests for joiners were properly reviewed and authorised;
- User access rights were removed on a timely basis when an individual left or moved role;
- Access rights to applications, operating systems and databases were periodically monitored for appropriateness; and
- Highly privileged access was restricted to appropriate personnel.

Other areas that were independently assessed included password policies, security configurations, controls over changes to applications and databases; and that business users, developers and production support did not have access to change applications, the operating system or databases in the production environment.

As a consequence of the deficiencies identified, we performed a range of other procedures which included:

- Where inappropriate access was identified, we understood the nature of the access, and obtained additional evidence on the appropriateness of the activities performed;
- We performed additional substantive testing on specific year-end reconciliations (i.e. custodian, bank account and suspense account reconciliations) and confirmations with external counterparties;
- We performed testing on other compensating controls such as business performance reviews;
- We also tested controls that prevent inappropriate combinations of access; and
- We obtained a list of users' access permissions and manually compared to other access lists where segregation of duties was deemed to be of higher risk, for example users having access to both core banking and payments systems.

##### Relevant references in the Annual Report 2018

- Management Discussion and Analysis – Risk Management, (e) Operational Risk, pages 89-90

## Key Audit Matters continued

### The present value of in-force long-term insurance business ("PVIF") and liabilities under non-linked life insurance contracts

#### Nature of the Key Audit Matter

The Group has recorded an asset for PVIF of HK\$15,910 million and liabilities under non-linked life insurance contracts of HK\$120,134 million as at 31 December 2018.

The determination of these balances requires the use of appropriate actuarial methodologies and also highly judgemental assumptions. Such assumptions include the long term economic returns of insurance contracts issued, assumptions over policyholder behaviour such as longevity, mortality and persistency, and management assumptions over the future costs of obtaining and maintaining the Group's insurance business.

Small movement in these assumptions can have a material impact on the PVIF asset and the liabilities under non-linked life insurance contracts.

#### How our audit addressed the Key Audit Matter

We understood and tested the controls that management had established over the valuation of the PVIF asset and the liabilities under non-linked life insurance contracts which included those controls over:

- policy data reconciliations from the policyholder administration system to the actuarial valuation system;
- assumptions setting;
- review and determination of valuation methodologies;
- restriction of user access to the actuarial models; and
- production and approval of the actuarial results.

With the assistance of our actuarial experts, we independently assessed the appropriateness of the models, methodologies and assumptions used for reasonableness which included those assumptions in respect of:

- long term economic returns of insurance contracts issued;
- policyholder behaviour such as longevity, mortality and persistency; and
- future costs of obtaining and maintaining the insurance business.

We evaluated and challenged management's key judgements and assumptions. Our challenge and evaluation included whether these were supported by relevant experience, market information and formed a reasonable basis for setting the assumptions.

#### Relevant references in the Annual Report 2018

- Management Discussion and Analysis – Risk management, (d) Insurance risk, page 82
- Note 2: Significant accounting policies, (t) Insurance contracts, pages 172-173
- Note 34: Intangible assets, page 206
- Note 41: Liabilities under insurance contracts, page 210

#### Matters discussed with the Audit Committee

We discussed with the Audit Committee the results of our testing procedures over key assumptions used in the valuation of the PVIF asset and the liabilities under non-linked life insurance contracts including testing of changes made during the reporting period to the models and to the basis of the determination of key assumptions.

## **Independent Auditor's Report**

### **Other Information**

The directors of the Bank are responsible for the other information. The other information comprises all of the information included in the Annual Report other than the consolidated financial statements and our auditor's report thereon, which we obtained prior to the date of this auditor's report, and the Banking Disclosure Statement for the year ended 31 December 2018, which is expected to be made available to us after the date of this auditor's report.

Our opinion on the consolidated financial statements does not cover the other information and we do not and will not express any form of assurance conclusion thereon.

In connection with our audit of the consolidated financial statements, our responsibility is to read the other information identified above and, in doing so, consider whether the other information is materially inconsistent with the consolidated financial statements or our knowledge obtained in the audit, or otherwise appears to be materially misstated.

If, based on the work we have performed on the other information that we obtained prior to the date of this auditor's report, we conclude that there is a material misstatement of this other information, we are required to report that fact. We have nothing to report in this regard.

When we read the Banking Disclosure Statement for the year ended 31 December 2018, if we conclude that there is a material misstatement therein, we are required to communicate the matter to the Audit Committee and take appropriate action considering our legal rights and obligations.

### **Responsibilities of Directors and the Audit Committee for the Consolidated Financial Statements**

The directors of the Bank are responsible for the preparation of the consolidated financial statements that give a true and fair view in accordance with HKFRSs issued by the HKICPA and the Hong Kong Companies Ordinance, and for such internal control as the directors determine is necessary to enable the preparation of consolidated financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the consolidated financial statements, the directors are responsible for assessing the Group's ability to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless the directors either intend to liquidate the Group or to cease operations, or have no realistic alternative but to do so.

The Audit Committee is responsible for overseeing the Group's financial reporting process.

### **Auditor's Responsibilities for the Audit of the Consolidated Financial Statements**

Our objectives are to obtain reasonable assurance about whether the consolidated financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. We report our opinion solely to you, as a body, in accordance with Section 405 of the Hong Kong Companies Ordinance and for no other purpose. We do not assume responsibility towards or accept liability to any other person for the contents of this report.

Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with HKSA's will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these consolidated financial statements.

## Auditor's Responsibilities for the Audit of the Consolidated Financial Statements continued

As part of an audit in accordance with HKSAAs, we exercise professional judgment and maintain professional scepticism throughout the audit. We also:

- Identify and assess the risks of material misstatement of the consolidated financial statements, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.
- Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Group's internal control.
- Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by the directors.
- Conclude on the appropriateness of the directors' use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Group's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditor's report to the related disclosures in the consolidated financial statements or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditor's report. However, future events or conditions may cause the Group to cease to continue as a going concern.
- Evaluate the overall presentation, structure and content of the consolidated financial statements, including the disclosures, and whether the consolidated financial statements represent the underlying transactions and events in a manner that achieves fair presentation.
- Obtain sufficient appropriate audit evidence regarding the financial information of the entities or business activities within the Group to express an opinion on the consolidated financial statements. We are responsible for the direction, supervision and performance of the Group audit. We remain solely responsible for our audit opinion.

We communicate with the Audit Committee regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.

We also provide the Audit Committee with a statement that we have complied with relevant ethical requirements regarding independence, and to communicate with them all relationships and other matters that may reasonably be thought to bear on our independence, and where applicable, related safeguards.

From the matters communicated with the Audit Committee, we determine those matters that were of most significance in the audit of the consolidated financial statements of the current period and are therefore the key audit matters. We describe these matters in our auditor's report unless law or regulation precludes public disclosure about the matter or when, in extremely rare circumstances, we determine that a matter should not be communicated in our report because the adverse consequences of doing so would reasonably be expected to outweigh the public interest benefits of such communication.

The engagement partner on the audit resulting in this independent auditor's report is Mr. Tam Man Kit, James.

**PricewaterhouseCoopers**

Certified Public Accountants

Hong Kong, 19 February 2019