Resilient through change, transforming for the future

Hong Kong Banking Report 2022

kpmg.com/cn

Contents

Introduction

Paul McSheaffrey
Partner, Financial Services
KPMG China

In this year's annual Banking Report, we review the financial results of banks in Hong Kong in 2021 and provide our outlook for the industry.

2021 was a year in which COVID-19 still weighed heavily on the overall economic performance of Hong Kong. While daily life returned to some level of normality during the second half of the year, travel restrictions in particular continued to have an impact on the Hong Kong economy. That has been reflected in the results of banks, which have experienced lower loan growth due to reduced economic activity and continued uncertainty.

As predicted last year, the low interest rates have caused continued pressure on revenue as net income margins were squeezed. Banks have also been affected by higher cost-to-income ratios as they look to invest in transformation, but also face higher costs in a number of areas – in particular staff costs. With inflation and interest rate increases expected through 2022, we can expect to see net income margins improving over the remainder of the year and likely into 2023, which should feed into revenue growth for banks and ease some of this pressure – although higher inflation will likely impact operating expenses and possibly credit costs.

In last year's edition of this report, we featured analysis on the performance of virtual banks for the first time. 2021 was the first full year of operation for the eight virtual banks that have launched in Hong Kong. As we look further into their results, we provide our outlook on what the future might hold for these banks.

With 2022 marking the 25th anniversary of the handover of Hong Kong, we also reflect on the increasing importance of mainland Chinese banks that have set up operations in Hong Kong. We take this opportunity to examine what their impact has been over the last few years and look forward to how they will continue to play a key role in the banking sector over the next 25 years.

A major issue in the banking sector is talent, with companies having difficulties in attracting and retaining staff. We take a specific look at Hong Kong's talent market crunch, and also how this trend is impacting some of the key trends facing Hong Kong banks. As banks look to build capabilities in areas such as ESG, operational resilience and transformation, having people with the right skills is a key part of enabling banks to be successful in implementing these strategies.

ESG also remains a key theme that we expect to continue to be important for Hong Kong and for the banking sector. Much of the current focus has been on risk management and climate resilience, but in this report we also look at what the opportunities are for the banking sector in ESG, in particular areas such as transitional and sustainable finance.

Lastly, banks are continuing to focus on transformation as a means to reduce costs, enhance the customer experience, improve risk management and compliance. In this report, we discuss how banks are looking at this area from a regulatory perspective, with Regtech being used to achieve better risk management and compliance outcomes. We also examine the rationale for operational transformation and the use of managed service providers.

I hope you enjoy our perspective on the sector in 2022, and would welcome the opportunity to discuss the banking results and the current industry landscape.

Overview

Paul McSheaffrey
Partner, Financial Services
KPMG China

Terence Fong
Partner, Head of Chinese Banks in Hong Kong
KPMG China

Hong Kong's banking sector showed its resilience in 2021 when the global economy gradually recovered from the recession in previous year. During the year, the global economy benefitted from sustained policy support and a better pandemic situation. Against this backdrop, there was an improvement in Hong Kong's economy, which expanded by 6.4 percent from 2020[1] (compared to a 6.1 percent contraction in 2020).

Hong Kong's banking sector continued to see growth in its overall balance sheet in 2021. Deposits grew and the total assets of all licensed banks expanded by 4.9 percent to HK$24 trillion, with growth of 6.6 percent in loans and advances. Nevertheless, the trends were not all positive. In line with our prediction in our 2021 Hong Kong Banking Report, the combined effect of the prevailing lower interest rate environment and economic uncertainty continued to impact the profitability of the banking sector. Operating profit before impairment charges for all licensed banks decreased by 15.4 percent from HK$232 billion in 2020 to HK$196 billion in 2021. The low interest rate environment throughout 2021 also weakened the average net interest margin (NIM) for all licensed banks, which decreased by 9 basis points in 2021 from 1.40 percent to 1.31 percent.

The US Federal Reserve (the Fed) announced a raise of the Federal Funds Rate by 25 basis points in March 2022 and it further increased by 50 basis points to 1 percent in May. The Fed also indicated that the market should expect future increases in rates through the rest of 2022. Meanwhile, the Hong Kong Monetary Authority (HKMA) raised the base rate to 0.75 percent in March and to 1.25 percent in May. We observed a notable increase in the Hong Kong Interbank Offered Rate (HIBOR) from January to May 2022, with the three-month HIBOR rising from 0.26 percent to 0.83 percent.[2] Increases in interest rates improve a bank's NIM, but this does take time to flow through. We anticipate that the rising interest rate may not be fully reflected in the financial performance of banks until

[1] 2021 Economic Background and 2022 Prospects, Hong Kong SAR Government, February 2022, p.2, https://www.hkeconomy.gov.hk/en/pdf/er_21q4.pdf

[2] The Hong Kong Association of Banks - HKD Interest Settlement Rates Highlights, accessed in May 2022, https://www.hkab.org.hk/DisplayInterestSettlementRatesAction.do

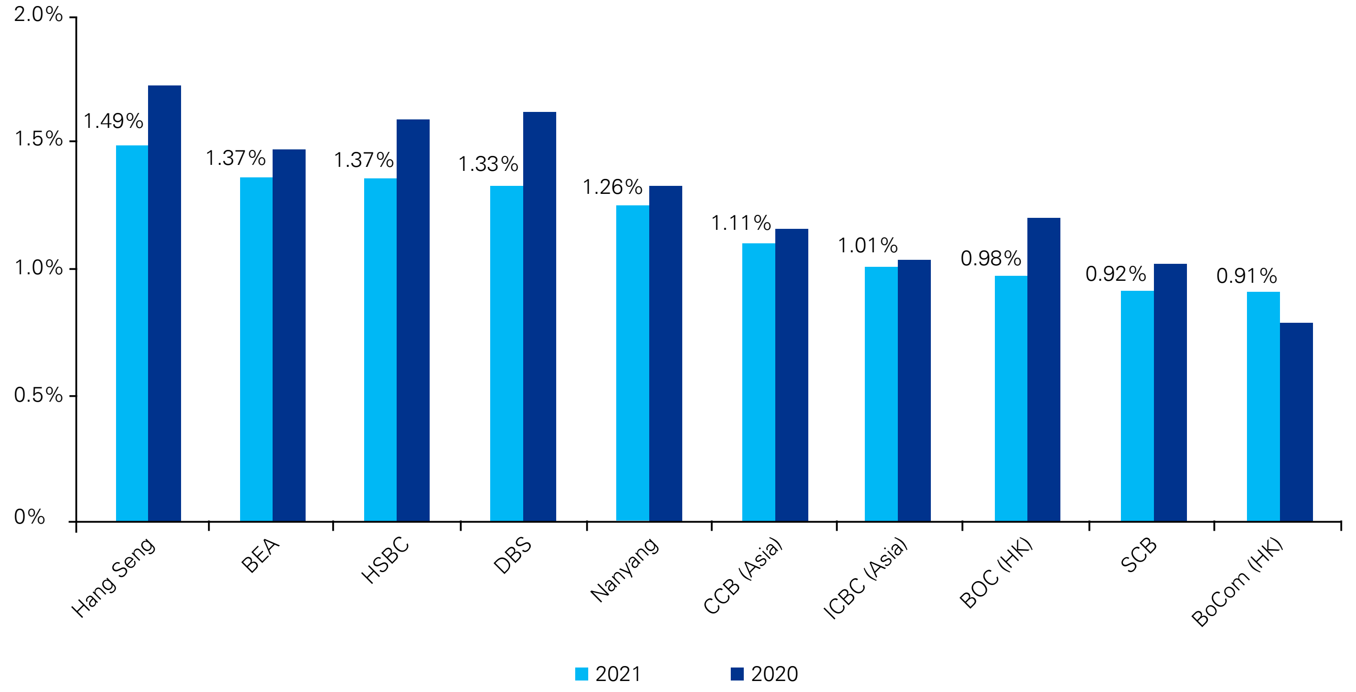
late 2022 or early 2023. The negative side of rising interest rates is higher funding costs for corporates, which could put pressure on profitability and weaken their debt servicing ability. Banks will need to remain cautious and maintain strong credit risk monitoring over their corporate exposures.

Following the launch of Hong Kong's first virtual bank in early 2020, eight are currently active in the market, with 2021 marking their first full year of operation. Please refer to the section on Hong Kong's virtual banks in this report for more details on the performance of these banks in 2021.

In this report, we present an analysis[3] of key metrics for the top 10 locally incorporated licensed banks[4] in Hong Kong. While some banks have a dual entity structure in Hong Kong (e.g. a branch and an incorporated authorised institution), we have not combined their results. The analysis is performed on a reporting entity basis.

Net interest margin

Net interest margin



Source: Extracted from individual banks' financial and public statements

The Federal Funds Rate and also the HKMA Base Rate remained flat throughout 2021 after the cut that took place in the first half of 2020.

The average NIM[5] across all surveyed licensed banks decreased by 9 basis points compared with 2020, which was driven by the flattened yield curve and tightened credit spreads. The average NIM for the top 10 licensed banks for 2021 decreased to 1.18 percent from 1.38 percent in 2020.

[3] The analysis is based on financial institutions registered with the Hong Kong Monetary Authority.

[4] The top 10 locally incorporated licensed banks mentioned in this article are the 10 banks with highest total assets among all locally incorporated licensed banks as at 31 December 2021.

[5] NIM is either quoted from public announcements of financial statements, or calculated based on annualised net interest income and interest-bearing assets or total assets, depending on the availability of information

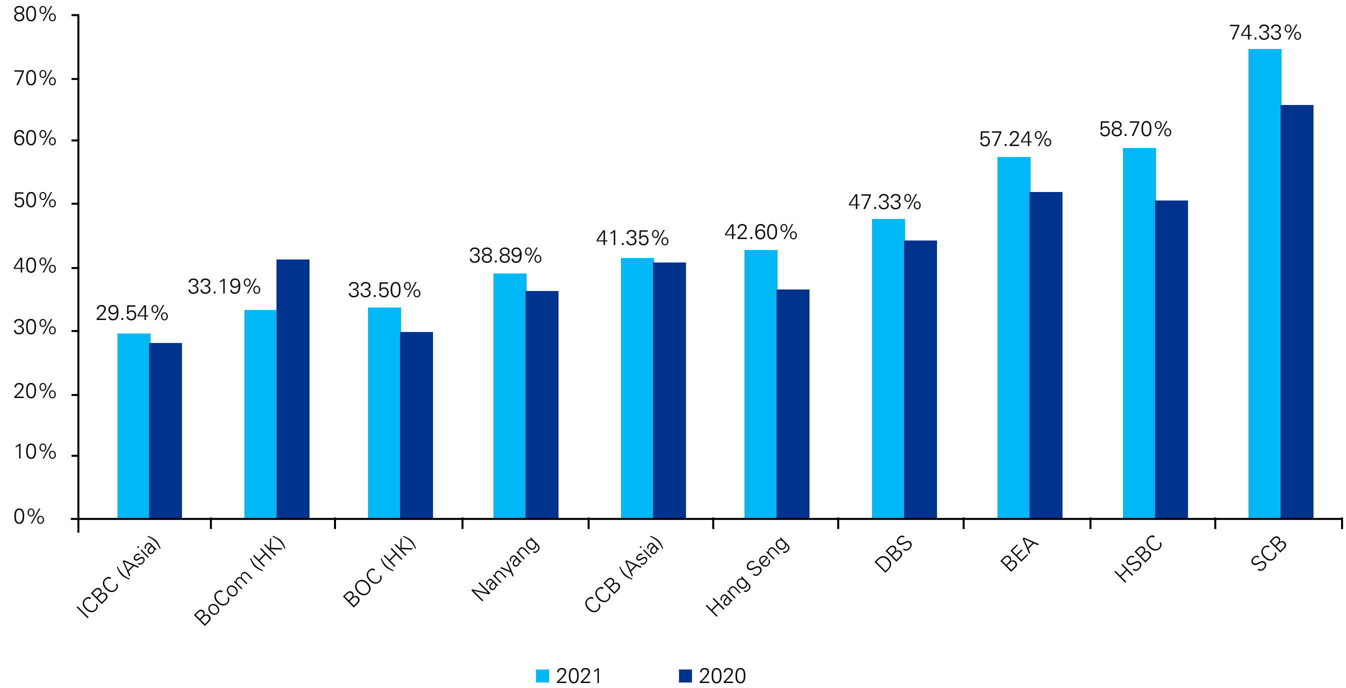
Among the top 10 licensed banks, Hang Seng Bank Limited (Hang Seng) continued to post the highest NIM, despite recording a decrease of 24 basis points. Although the bank's loans and deposits from customer balances expanded by 5.7 percent and 1.7 percent respectively during the year, net interest income decreased by 11 percent. This decrease in net interest income was mainly attributed to compressed deposit spreads and a lower contribution from net-free funds, partly offset by an increase in average interest-earning assets of 2.7 percent. Net interest income from personal banking and commercial banking fell significantly by 11.4 percent to HK$13 billion and 14.9 percent to HK$7 billion respectively.[6]

DBS Bank (Hong Kong) Limited (DBS) recorded the largest decrease of 30 basis points in NIM from 2020. There was a significant 18.4 percent drop in net interest income, despite an increase in the loan/deposit ratio from 47.94 percent in 2020 to 63.90 percent in 2021. The repricing of loans with the decrease in loan interest rate under the prolonged low interest environment was the key contributing factor as the majority of loans and advances to customers are on floating rate terms.[7]

In our view, the forthcoming interest rate hikes by the Fed in 2022 are overall positive for the banks as they will boost revenue. The extent and speed of this are still uncertain and depend on the Fed's response to the US economic position, where inflation seems to be more than transitory, and the degree to which HKD interest rates will mirror USD interest rates.

Costs

Cost-to-income ratio



Source: Extracted from individual banks' financial and public statements

[6] Hang Seng Bank Annual Report 2021, pp.37-38, 200-201, https://vpr.hkma.gov.hk/statics/assets/doc/100057/ar_21/ar_21_eng.pdf
[7] DBS Annual Report 2021, pp.6-8, 20, 35, https://vpr.hkma.gov.hk/statics/assets/doc/100034/ar_21/ar_21_eng.pdf

Under the low interest environment, cost management remained an essential focus for banks in Hong Kong to improve profitability. There was a negative trend in this area as the cost-to-income ratio for the surveyed banks on average increased by 6.3 percentage points for the year ended 2021, from 47.0 percent to 53.3 percent. This was driven by a 4.0 percent decrease in operating income and an 8.8 percent increase in operating expenses. Total operating costs increased from HK$205 billion for the year ended 2020 to HK$223 billion for the year ended 2021. Compared to the increase of HK$1 billion from 2019 to 2020, the significant jump in costs during 2021 was mainly attributed to rising staff costs. Under the pandemic situation, the talent shortage in the financial sector has been acute. Quarantine and travel rules have impacted the ability for banks to recruit new staff or relocate existing staff from other jurisdictions to Hong Kong. The total staff costs of the surveyed banks increased by 8.1 percent or by HK$18.12 million from 2020 to 2021, which was driven largely by adjustments in compensation to provide competitive remuneration packages so as to retain talent.

The top 10 surveyed banks showed a 5.0 percent decrease in total operating income, combined with an 8.6 percent increase in total operating expenses. The weighted-average cost-to-income ratio of the top 10 banks deteriorated from 46.8 percent in 2020 to 49.5 percent in 2021.

Industrial and Commercial Bank of China (Asia) Limited (ICBC (Asia)) and Standard Chartered Bank (Hong Kong) Limited (SCB) continued to be the banks with the lowest and highest cost-to-income ratios, respectively. Bank of Communications (Hong Kong) Limited (BoCom (HK)) was the only bank out of the top 10 surveyed banks to record a decrease in its cost-to-income ratio. Despite the challenging environment, BoCom (HK) reduced its cost-to-income ratio from 41.0 percent in 2020 to 33.2 percent in 2021. This decrease was attributed to higher total operating income resulting from a 59.7 percent increase in net interest income and growth of 28.7 percent in net fee and commission income.[8]

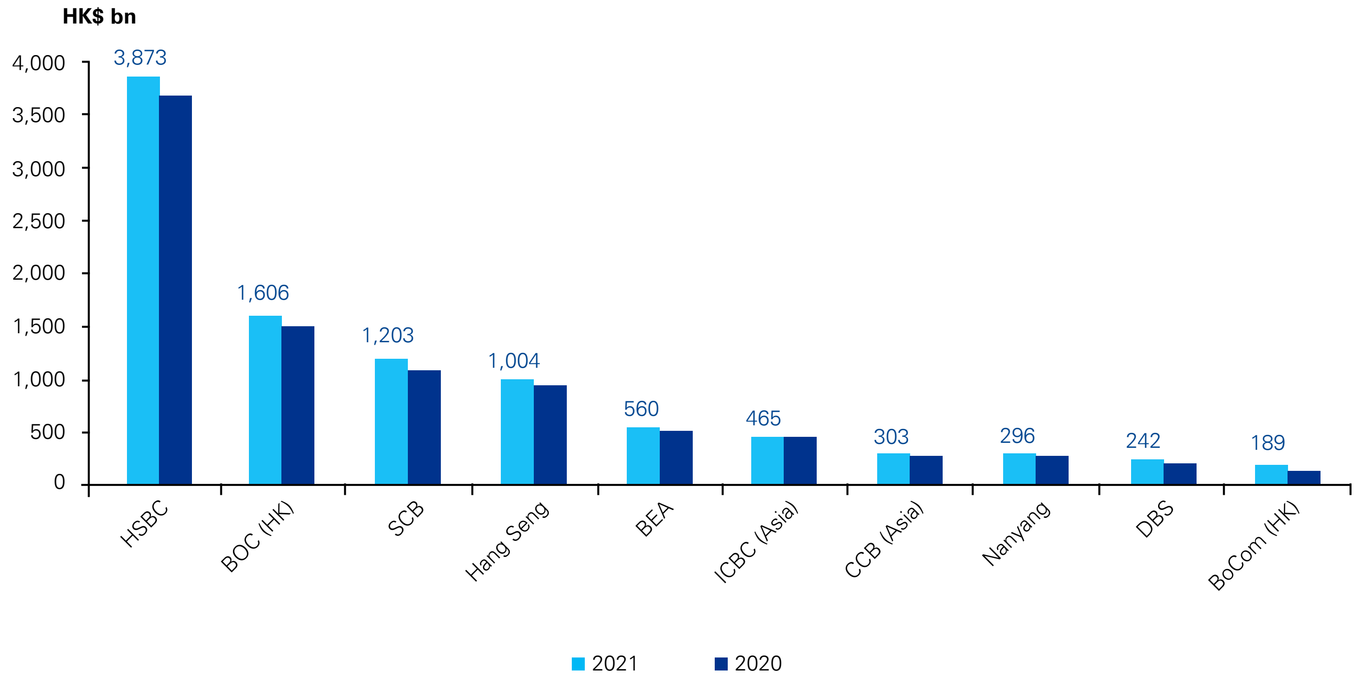
SCB remains the bank with the highest cost-to-income ratio, which hit 70 percent for the first time in the past three years. SCB also recorded the largest increase in cost-to-income ratio among the top 10 banks – from 65.5 percent in 2020 to 74.3 percent in 2021. The rising cost-to-income ratio was attributed to the significant increase of 16.1 percent in operating expenses, which was only partially offset by the 2.3 percent growth in operating income. The increase in total operating expenses was mainly driven by a sizable increase in staff costs of 16.1 percent and other administrative costs.[9]

---

[8] BoCom (HK) Annual Report 2021, p.10, https://vpr.hkma.gov.hk/statics/assets/doc/100320/ar_21/ar_21_eng.pdf
[9] SCB Annual Report 2021, p.12, https://vpr.hkma.gov.hk/statics/assets/doc/100269/ar_21/ar_21_eng.pdf

Loans and advances

Loans and advances



Source: Extracted from individual banks' financial and public statements

Continuing the growth of previous years, total loans and advances of all surveyed banks increased by 6.6 percent, up from growth of 3.4 percent in 2020.

Total loans and advances for the surveyed banks increased from HK$10,429 billion as at 31 December 2020 to HK$11,113 billion at year end 2021. Commercial loans, mortgage lending and loans for use outside Hong Kong continued to make up most of the loans portfolio, representing 88.7 percent of total loans, a slight decrease from 89.3 percent in 2020. Loans for use outside Hong Kong and commercial loans continue to be the two largest types of loans. The balance remained relatively flat for all loan products.

Hongkong and Shanghai Banking Corporation Limited (HSBC) and Bank of China (Hong Kong) Limited (BOC (HK)) continue to lead the lending market, constituting 49.3 percent of total loans of all surveyed banks as at 31 December 2021.

Among the top 10 surveyed banks, gross loans and advances increased from HK$9,218 billion to HK$9,741 billion. This growth of 5.7 percent has accelerated compared with the increase of 2.6 percent in 2020. Nine out of the top 10 surveyed banks recorded an expansion in their loan portfolio. ICBC (Asia) was the only bank to record a slight decline of 1.1 percent in gross loans and advances.

BoCom (HK) showed the largest percentage growth in 2021. The gross loans of BoCom (HK) increased notably from HK$138 billion in 2020 to HK$189 billion in 2021, representing a 37.0 percent increment. The increase was mainly due to loans for property development and manufacturing.[10]

[10] BoCom (HK) Annual Report 2021, p.60, https://vpr.hkma.gov.hk/statics/assets/doc/100320/fd_int/fd_int_1221_eng.pdf

After experiencing loan contraction in 2019, DBS continued to grow in the last two years. The gross loans of DBS increased notably from HK$158 billion in 2019 to HK$242 billion in 2021, representing a 53.2 percent increment from 2019. The increase was mainly due to building and construction loan usage in both 2020 and 2021.[11]

HSBC's gross loans and advances, which cover its Asia Pacific operations as well, increased by 4.7 percent to HK$3,873 billion.[12] The overall loan balances for HSBC's Hong Kong operations remained stable with an increase in residential mortgages, partially offset by a decrease in industrial, commercial and financial lending. BOC (HK)'s gross loans and advances increased by 6.5 percent to HK$1,606 billion, which was mainly driven by growth in both property development lending and residential mortgage loans.[13]

The Hong Kong Government has forecast the Hong Kong economy to grow by 1 to 2 percent in 2022[14], compared with growth of 6.4 percent in 2021. Consumer price inflation is forecast to be 2 percent in 2022, up from 0.6 percent in 2021.[15] There was a notable deterioration in the Hong Kong economy during the first quarter of 2022 amid the fifth wave of the pandemic and the resultant restrictive measures. Looking forward, the outlook for Hong Kong's banking sector will be impacted by lower economic activity and uncertainty. We expect retail spending to bounce back quickly following the end of the fifth wave due to the progressive relaxation of social distancing measures and the Consumption Voucher Scheme. However, the confidence of corporates in Hong Kong and China to borrow and invest is less certain and will have a bigger impact on loan growth in 2022.

Travel restrictions, particularly to mainland China, may gradually ease in the future and could have a favourable impact on the local economy. This is critical to boost confidence for corporates to borrow and invest in Hong Kong and China. In addition, challenges from global economic indicators, such as inflation, also warrant close attention and could deter corporates from investing in the short term.

[11] DBS Annual Report 2021, p.28, https://vpr.hkma.gov.hk/statics/assets/doc/100034/ar_21/ar_21_eng.pdf

[12] HSBC Annual Report and Accounts 2021, p.99, https://vpr.hkma.gov.hk/statics/assets/doc/100002/ar_21/ar_21_eng.pdf

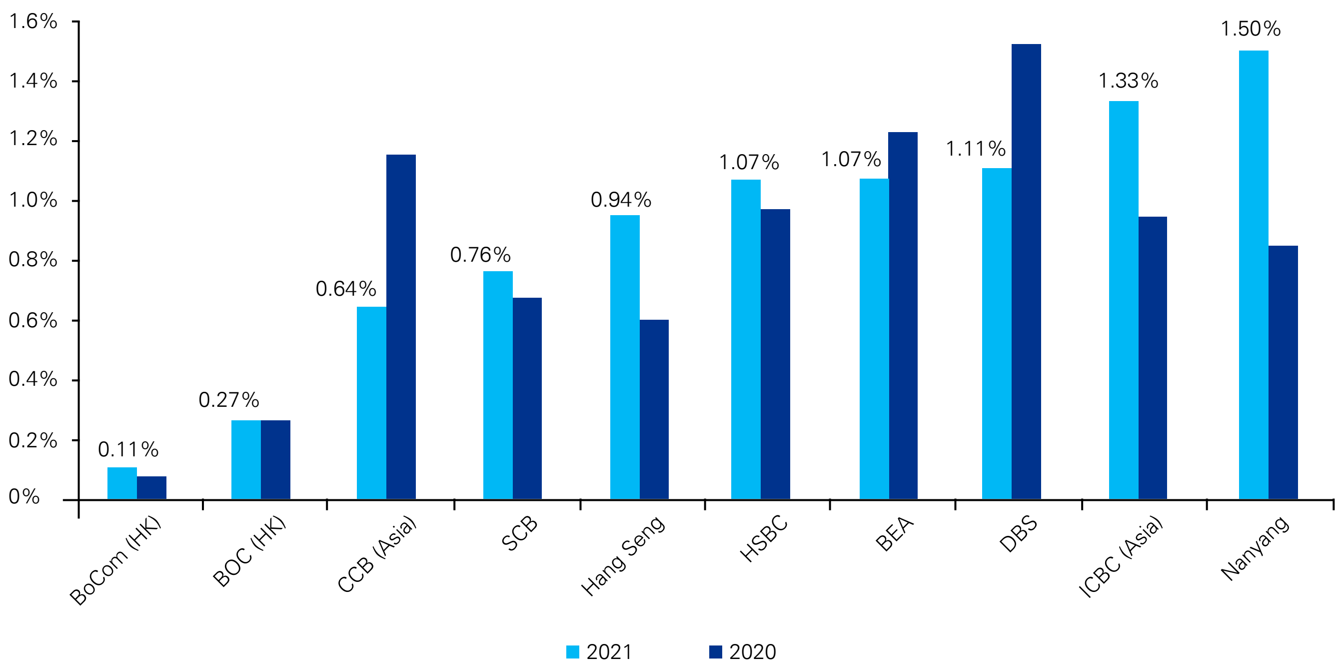
[13] BOC Hong Kong (Holdings) Limited Annual Report 2021, p.277, https://vpr.hkma.gov.hk/statics/assets/doc/100072/ar_21/ar_21.pdf

[14] Economic Situation in the First Quarter of 2022 and Latest GDP and Price Forecasts for 2022, p.1, https://www.hkeconomy.gov.hk/en/pdf/22q1_pr.pdf

[15] 2021 Economic Background and 2022 Prospects, p.21, https://www.hkeconomy.gov.hk/en/pdf/er_21q4.pdf

Credit quality

Impaired loan ratio



Source: Extracted from individual banks' financial and public statements

Amid the recovery of the global economy in 2021, the credit quality of the Hong Kong banking sector deteriorated slightly. The impaired loan ratio[16] for all surveyed banks slightly increased from 0.78 percent to 0.86 percent and the impaired loan ratio for the top 10 banks also increased from 0.82 percent to 0.88 percent.

Among the top 10 surveyed banks, Nanyang Commercial Bank, Limited (Nanyang) and BoCom (HK) recorded the highest and lowest impaired loan ratio in 2021, respectively. The impaired loan ratio of Nanyang was 1.50 percent as at the end of 2021, up from 0.85 percent in 2020. Hang Seng downgraded several corporate loans in 2021, which resulted in its ratio rising from 0.60 percent to 0.94 percent.

China Construction Bank (Asia) Corporation Limited (CCB (Asia)), DBS and Bank of East Asia, Limited (BEA) showed an improvement, with their impaired loan ratio reducing by 51, 41 and 16 basis points respectively. These reductions were mainly attributed to several write-offs of impaired assets during 2021.

There were increased defaults of property developers from Q2 of 2021, which indicated worsening financial positions due to rapid expansion and over-borrowing in previous years. Looking ahead, the debt servicing ability of property developers hinges largely on the performance of the property market. We expect that banks will be more stringent in extending credit to property developers in 2022.

In January 2022, the HKMA announced a further extension of the Pre-approved Principal Payment Holiday Scheme, which was first introduced in April 2020, to the end of October 2022. Although there could be a negative impact on the impaired loans ratio when customers resume normal repayment after the expiry of the scheme, the low participation rate of 2.4 percent in July 2021 indicated that the volume of loans through the scheme is modest and the needs of small and medium-sized enterprises for relief measures might have reduced.[17] In light of this, it is not expected that there will be a significant impact to the impaired loan ratio if the scheme is not extended further.

In our view, the asset quality of the Hong Kong banking sector remained sound by both historical and international standards despite the pandemic. We expect that banks will stay vigilant in assessing the impacts of the pandemic, coupled with the possible downside risks arising from challenges in the China real estate sector, escalating geopolitical tensions in Europe and inflationary pressures in other economies. Banks need to closely monitor the credit quality of their loans and take prompt action to avoid any further impact from future changes. We expect that growth in the Hong Kong banking sector in 2022 hinges largely upon the opening of borders and the confidence of corporates in Hong Kong.

[16] Impaired loan ratio is calculated as impaired loans and advances divided by gross loans and advances to customers.

[17] Half-Yearly Monetary and Financial Stability Report, Hong Kong Monetary Authority, September 2021, p.55, https://www.hkma.gov.hk/media/eng/publication-and-research/quarterly-bulletin/qb202109/E_Half-yearly_202109.pdf

Rita Wong
Partner, Financial Services
KPMG China

Simon Shum
Partner, Financial Services
KPMG China

Mainland banks in Hong Kong maintain growth momentum

With 2022 marking the 25th Anniversary of the Establishment of the Hong Kong Special Administrative Region, the city remains an international financial centre with a key role to play in connecting mainland China with the rest of the world. As part of this role, Hong Kong has witnessed a rapid expansion in cross-border economic activities with the mainland, resulting in increased demand for banking services by both corporates and retail customers.

Although tightened immigration controls related to COVID-19 have recently had an impact on cross-border business travels and economic activities, mainland banks in Hong Kong have recorded a remarkable growth in terms of presence (Figure 1) as well as market share over the past 10 years (Figures 2 and 3), benefitting from significant support from their parent banks in terms of capital and customer referrals.

Figure 1: Newly-established mainland banks, 2011–2021

Licensed Banks	
Bank of Communications (Hong Kong)	Bank of Dongguan
China Bohai Bank	China Everbright Bank
China Guangfa Bank	China Minsheng Banking Corp.
China Zheshang Bank	Chong Hing Bank (*)
Hua Xia Bank	Industrial Bank
PING AN BANK	Shanghai Pudong Development Bank

*Not newly established, but acquired by Yuexiu Group in 2014.

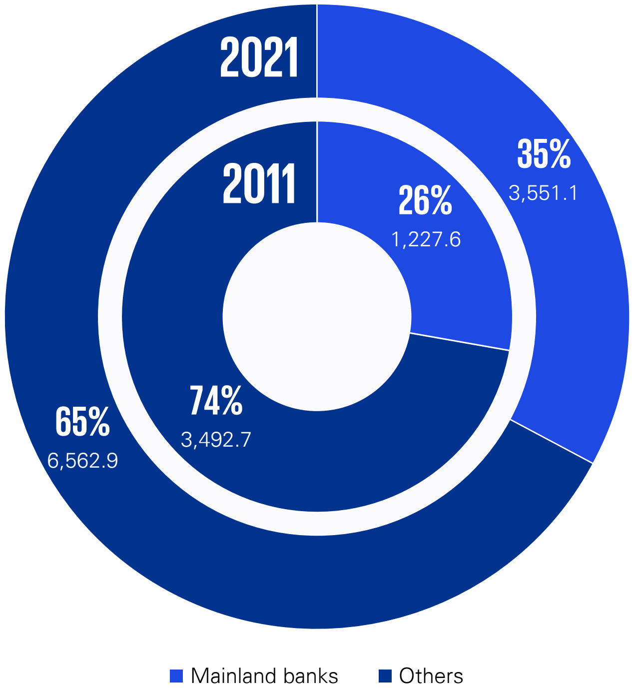
Virtual Banks	
Airstar Bank	Ant Bank (Hong Kong)
Fusion Bank	Livi Bank
Ping An OneConnect Bank (Hong Kong)	ZA Bank

Among all banks granted licenses by the Hong Kong Monetary Authority (HKMA) during 2011 to 2021, over a third are headquartered in mainland China. However, the dominance of mainland banks is more obvious when looking at the virtual banks that have launched in Hong Kong since 2020: six out of eight virtual banks are principally sponsored by mainland companies.

In terms of total loans and customer deposits, mainland banks have outpaced the sector over the past decade. They recorded nearly 2.9 times growth in total loans to customers compared to 1.9 times for the other banks between 2011 and 2021. The faster growth rate is also noticeable when considering customer deposits, with the mainland players locking in 2.8 times growth, while the others only recorded 1.8 times growth during the period.

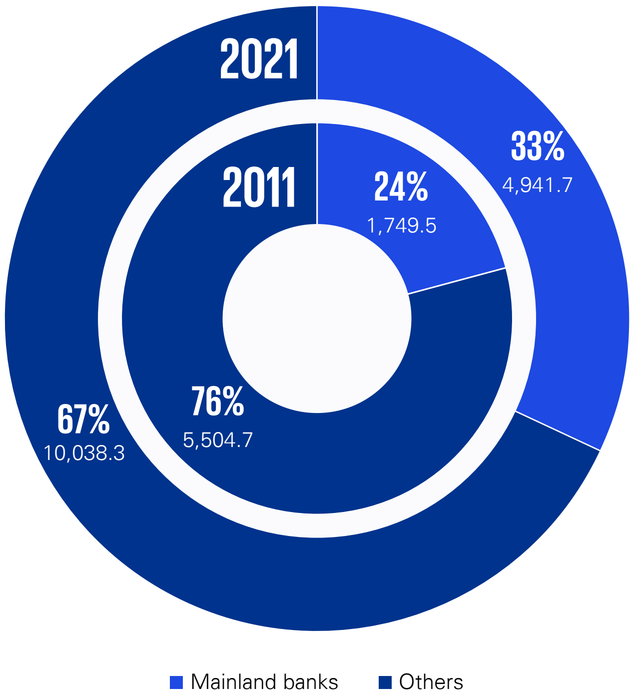
Market share of mainland banks

Figure 2: Breakdown of total loans from all locally incorporated licensed banks in Hong Kong (HK$ bn)



Source: Extracted from individual banks' financial and public statements

Figure 3: Breakdown of customer deposits among all locally incorporated licensed banks in Hong Kong (HK$ bn)



Source: Extracted from individual banks' financial and public statements

Focus areas of development

Going from strength to strength, the development focus of mainland banks has evolved over the past decade. In 2017, KPMG published Review and Outlook of Chinese Banks in Hong Kong (砥礪前行廿年—香港中資銀行業回顧與展望) – a report that reflected on the changes in the sector since the handover of Hong Kong in 1997.

Based on interviews with senior executives from 12 banks, the report highlighted five key focus areas for the sector in Hong Kong: RMB internationalisation, the Belt and Road and Greater Bay Area (GBA) initiatives, fintech development, the opportunities and challenges of setting up corporate treasury centres in Hong Kong, and the development of mainland banks' wealth management business in the city. Five years on from that report, these themes are still relevant for the sector and we are continuing to see new developments and initiatives in these focus areas.

Going global

As more mainland enterprises seek to expand outside of China and take advantage of initiatives like RMB internationalisation and the Belt and Road initiative, mainland banks are supporting their customers in this global drive, notably into the ASEAN market. This presents significant opportunities for the Hong Kong operations of mainland banks as they are able to tap into financial talent with a global perspective, regulations in line with international standards, experience in offering a comprehensive range of financial products and a geographical advantage. Certain banks are developing their Hong Kong subsidiaries into a regional hub. For instance, Industrial and Commercial Bank of China (Asia) (ICBCA) established its Asia Pacific Syndicated Loan Centre in Hong Kong to better serve the group's customers in the region. Bank of Communications (Hong Kong) (BoCom) also acts as the base for the group's overseas business.

Capitalising on Greater Bay Area opportunities

We are also seeing more GBA products emerging in the market. For instance, a GBA mortgage service is offered by most of the mainland banks, including China Construction Bank (Asia) (CCBA) and Nanyang Commercial Bank.

To cater for current consumer spending habits, Bank of China (Hong Kong) (BOC (HK)) offers an e-wallet which supports cross-border payments in the GBA through a single mobile app. Meanwhile, banks such as China CITIC Bank International (CNCBI) and BoCom have launched specific GBA cards for use across the region.

In October 2021, HKMA first announced the list of eligible banks in Hong Kong which can take part in the GBA Wealth Management Connect scheme. Among 19 banks eligible for the Northbound Scheme – which refers to eligible residents in Hong Kong and Macao that can invest in wealth management products distributed by banks in mainland China – 13 are mainland banks. Capital flows between mainland China and Hong Kong under Wealth Management Connect reached RMB 175 million in the first month of its launch. As the scheme continues to gain traction, we expect to see further enhancements such as greater quota size and the introduction of new products that should result in further business opportunities for banks.

Developing ESG products

China's 14th Five-Year Plan announced in 2021 sets out the country's direction for reducing carbon emissions and the development of green finance. This is also in line with the green and sustainable banking initiative promoted by the HKMA.

Mainland banks have been active in offering green bonds and loan products in Hong Kong. For example, BOC (HK) has launched a green mortgage scheme, green loans scheme, green deposit scheme for personal customers and a RMB ESG fund, alongside the offering of green bonds. Highlighting the potential of these areas, the bank's green deposits and green loans balance achieved growth of 354 percent and 311 percent, respectively, in 2021. Meanwhile, Agricultural Bank of China Hong Kong Branch has developed a Sustainable Bond Framework for issuing green, social, sustainability bonds to finance projects that have positive environmental and social impacts, while CCBA provides green finance advisory services to facilitate corporate clients in obtaining green finance certification.

Deepening fintech adoption

Mainland China has a large and flourishing fintech ecosystem as evidenced by its largely cashless society. With the e-CNY digital currency on the way and the release of the new Three-year Fintech Development Plan by the People's Bank of China in 2022, we have seen huge momentum in fintech adoption by mainland banks in Hong Kong, driven by support from their headquarters.

Accelerated by COVID-19, banking customers in Hong Kong have become more receptive to using online channels to engage with banks. Mainland banks are

taking this opportunity to increase their investment in the fintech space. An example of how the customer engagement journey is being redesigned and rebranded is the InMotion mobile platform developed by CNCBI, integrating a wide range of digital services such as remote account opening, robo investment advisory, virtual credit cards and payments. Similarly, CMB Wing Lung Bank offers the CMBWLB Wintech mobile banking service that provides express account opening, payment and remittance services.

The adoption of technology in offline branches is also increasing as part of the brand revamp of mainland banks. More banks have started to embed technology in their operations as they look to better appeal to the younger generation, which is more tech-savvy.

Apart from improvements to the customer experience, mainland banks are also digitising their back-end operations, leading to benefits such as better risk management, lower operating costs and improved operational resilience to better cope with crises such as the pandemic. To illustrate such operational transformation, ICBCA is building a smart credit risk control system and enhancing its operational processes through robotic process automation.

Overall, while Hong Kong continues to position itself as an international financial centre offering significant cross-border opportunities with mainland China, we expect that the mainland banks in Hong Kong will continue to focus on key initiatives such as the GBA to maintain their growth momentum over the coming years.

Benjamin Man
Partner, Financial Services
KPMG China

Anthony Kot
Senior Manager, Financial Services
KPMG China

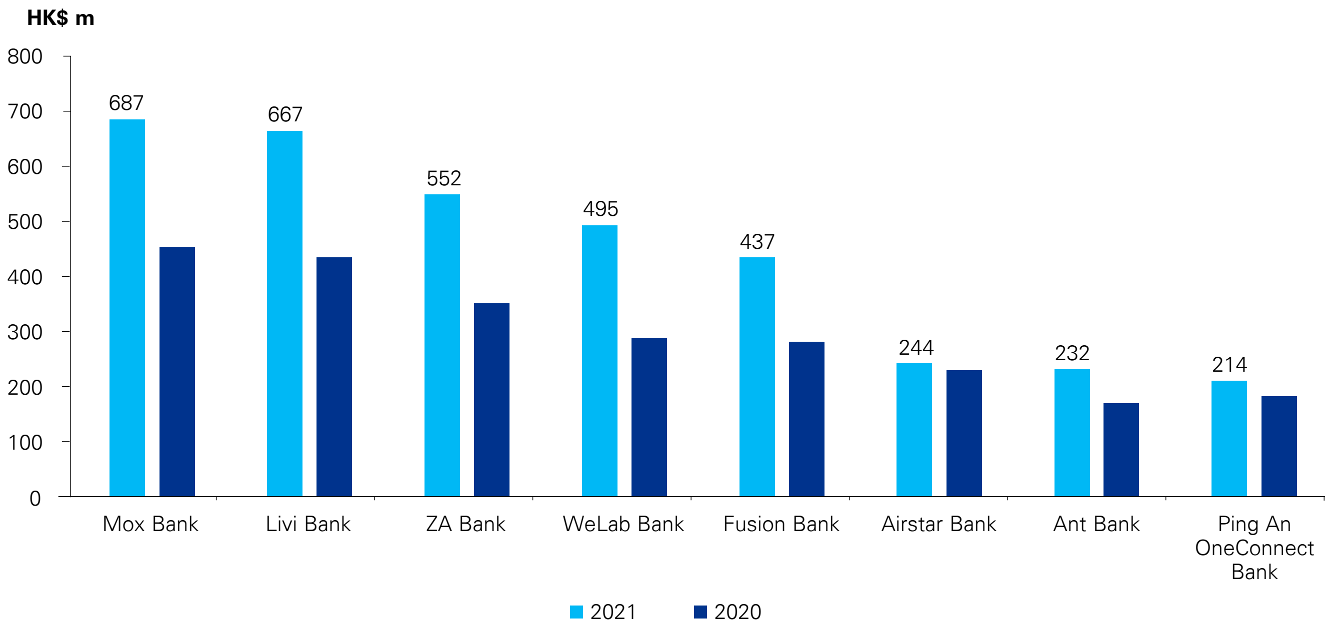
Performance of Hong Kong's virtual banks in 2021 and key challenges

2021 marked the first full year of operation for Hong Kong's eight virtual banks amid the COVID-19 pandemic. In 2021, these banks experienced modest growth in the number of accounts opened and their market share, as evidenced by the increase in total combined customer deposits and net loans. Nevertheless, the performance of the eight virtual banks worsened, with all of them reporting a deterioration in their loss before tax compared with 2020.

Given the stiff competition in the market and uncertain path to profitability, a virtual bank without a clear competitive edge or point of differentiation will lose out to their competitors. We expect some virtual banks could even quietly cease operations or consolidate their operations over the next few years.

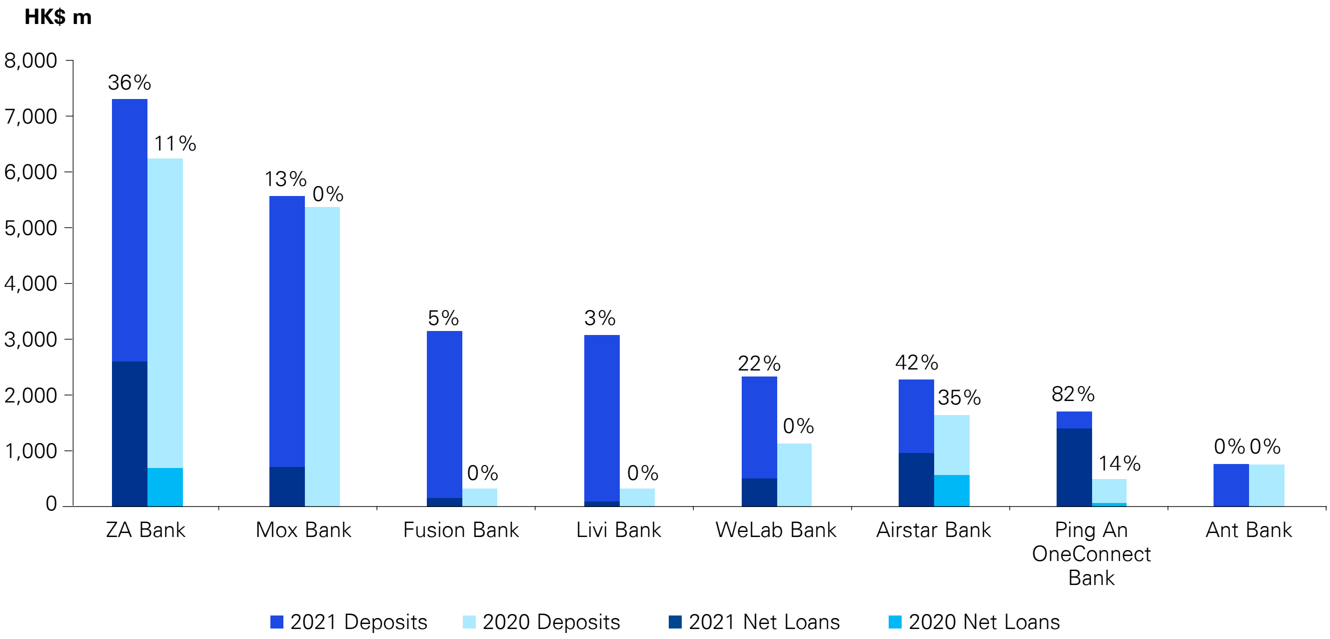
In 2021, Ping An OneConnect Bank and Airstar Bank had the relatively best performance among all virtual banks in terms of reporting the smallest percentage increase in loss before tax compared to 2020. This better performance was driven by a higher loan-to-deposit ratio of 82 percent and 42 percent, respectively, as both banks focus on the small and medium-sized enterprises (SMEs) customer segment.

Loss before tax



Source: Extracted from individual banks' financial and public statements

Loans and deposits



Percentage shows loan-to-deposit ratio

Source: Extracted from individual banks' financial and public statements

The total combined net loans offered by the virtual banks advanced from HK$1 billion in December 2020 to HK$6 billion by December 2021, since several started offering loan products during the year. Despite this increase, the loan size remains significantly below where it needs to be to drive positive profitability, as indicated by the average loan-to-deposit ratio of only 25 percent in 2021. This figure stands in stark contrast to the average ratio of 86.7 percent for all AIs[18].

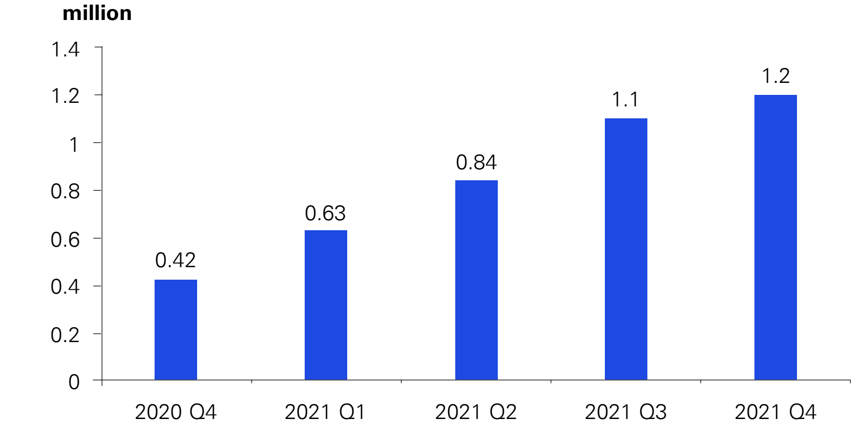
The future for virtual banks is uncertain

Virtual banks continue to face heighted competition from traditional incumbent banks, which in 2021 further invested in their digital banking capabilities and reduced fees such as the minimum balance fees. Momentum in the growth of new virtual banking customers slowed down in the second half of 2021 as illustrated by the number of virtual bank accounts. While the total customer deposits held in virtual banks stood at approximately HK$25 billion in December 2021 (2020: HK$16 billion), this represented only 0.17 percent of the entire banking sector in Hong Kong (2020: 0.11 percent).

[18] Monetary Statistics for December 2021, Hong Kong Monetary Authority, January 2022, https://www.hkma.gov.hk/eng/news-and-media/press-releases/2022/01/20220131-10/

Traditional banks have remained the preferred choice of primary banking provider for customers due to their perceived stability and reliability. For instance, HSBC's PayMe surpassed the two and a half million customers mark in August 2021 and is a market leading social payment application.[19] The limited product and service offerings of virtual banks are also restrictive for customers and they may need to rely on traditional banks for other services such as mortgages.

Number of virtual bank accounts



Source: HKMA[20,21], The Wall Street Journal[22]

Differentiating from competition

Notwithstanding the uncertain path to profitability, virtual banks need to formulate a robust strategy to stand out from their competitors, which can be best achieved via market/customer segmentation or product differentiation.

Segmentation

Some virtual banks have started to develop their own niches by targeting specific market and/or customer segments.

For instance, ZA Bank and Mox Bank focus on the retail segment, specifically serving the mass-retail and young-affluent sub-segments. Ping An OneConnect Bank and Airstar Bank, on the other hand, cater to the needs of SMEs through corporate banking and loan services. According to a HKMA Survey on SME credit conditions in 2021, 35 percent of SMEs stated that they had experienced partially successful or unsuccessful bank credit applications[23]. Therefore, SMEs not yet served by traditional banks could represent good market potential for virtual banks.

[19] HSBC, August 2021, https://www.about.hsbc.com.hk/-/media/hong-kong/en/news-and-media/210802-payme-launches-hkd4-million-reward-campaign-en.pdf
[20] 2020 Annual Report, Hong Kong Monetary Authority, April 2021, https://www.hkma.gov.hk/media/eng/publication-and-research/annual-report/2020/AR2020_E.pdf
[21] Opportunities and Challenges Brought About by Rapid Growth of Digital Banking Transactions, Hong Kong Monetary Authority, April 2022, https://www.hkma.gov.hk/eng/news-and-media/insight/2022/04/20220419/
[22] Virtual Lenders Shake Up Hong Kong's Banking Industry, The Wall Street Journal, 23 February 2022, https://www.wsj.com/articles/virtual-lenders-shake-up-hong-kong-banking-industry-11645568850
[23] Survey on Small and Medium-Sized Enterprises (SMEs)' Credit Conditions for Fourth Quarter 2021, Hong Kong Monetary Authority, February 2022, https://www.hkma.gov.hk/media/eng/doc/key-information/press-release/2022/20220207e4a1.pdf

Product differentiation

Some virtual banks are adding unique features to their products to stand out from the competition.

For instance, MOX Bank focuses on driving retail spending and transactions through its credit card, through which it leverages the reputation and experience of its key shareholder, Standard Chartered Bank (Hong Kong) Limited.

ZA Bank, being owned by an insurer, offers unique product and service offerings such as the ZA Health Pass, which is a monthly health membership scheme to access different health care providers[24].

Likewise, Livi Bank and ZA Bank have also employed the use of 'gamification' in their services through the 'PowerDraw' and 'Shake Shake' features, which involve customers completing quests and shaking their mobile devices to earn rewards[25]. These game-like interfaces encourage user engagement, which helps to enhance the overall customer experience.

Wealth management

Several virtual banks have publicly announced their ambition to offer wealth management services to the emerging affluent segment (individuals with HK$300,000 to HK$1 million of investible assets, which represented approximately 24 percent of Hong Kong's population in 2021[26]).

WeLab Bank and ZA Bank obtained the necessary licenses from the Securities and Futures Commission and have started offering wealth management services[27, 28]. More approvals are expected in 2022.

The provision of wealth management to the emerging affluent segment represents somewhat of a 'sweet spot' for virtual banks since these customers are usually keen to engage in financial planning, but may not be able to meet the high minimum thresholds of investible assets set by traditional banks.

---

[24] ZA Bank, accessed on 17 May 2022, https://health.za.group/en

[25] Livi Bank, accessed on 17 May 2022, https://www.livibank.com/happiness/shake-shake.html

[26] Hong Kong virtual banks target billion-dollar wealth management fees as HSBC, Chinese banks slip up, South China Morning Post, 30 April 2022, https://www.scmp.com/business/article/3175956/hong-kong-virtual-banks-target-billion-dollar-wealth-management-fees-hsbc

[27] ZA Bank becomes Hong Kong's first virtual bank to receive Type 1 SFC licence (dealing in securities), ZA Bank, January 2022, https://bank.za.group/en/content/19e91b1c-5fa9-4f39-86c7-feb33fe0e324

[28] WeLab Bank is Hong Kong's 1st Virtual Bank to offer Digital Wealth Advisory Solutions, GoWealth Digital Wealth Advisory goes into Soft Launch, WeLab Bank, April 2022, https://www.welab.bank/en/newsroom/welab-bank-is-hong-kongs-1st-virtual-bank-to-offer-digital-wealth-advisory-solutions-gowealth-digital-wealth-advisory-goes-into-soft-launch

Operational resilience

Tom Jenkins
Partner, Head of Financial Risk Management
KPMG China

Jeffrey Hau
Partner, Risk Consulting
KPMG China

Operational resilience is a focus for banks under new regulatory requirements

Banks will have to increase their focus on operational resilience under new regulations, with senior management taking an active role in ensuring their organisation is protected from significant disruption.

In May 2022, the Hong Kong Monetary Authority (HKMA) published the Supervisory Policy Manual on Operational Resilience (OR-2), under which banks are required to develop a framework to demonstrate their operational resilience.

The move by the HKMA is in line with actions being taken by regulators in other jurisdictions, in response to challenges such as COVID-19, the shift to remote working, digital acceleration, and rising cyber threats.

Creating a framework

Operational resilience refers to a bank's ability to deliver critical operations in the face of disruption. Preparing for the new requirements in this area is likely to be onerous for banks.

Banks must begin the exercise by identifying and documenting their critical services and operations, and may leverage on their existing recovery and resolution plans. The bank's board will then need to approve the list of critical operations. Banks must also map out the resources that support these operations across areas such as technology, data, talent, facilities and suppliers. Next, they must identify and document the threats and severe but plausible scenarios that may pose a challenge to delivering these operations, or the resources that support them.

> *One of the key features of the new HKMA requirements on operational resilience is that it changes the lens through which banks must approach operational resilience – it is no longer an operational risk exercise, but should be a business-driven initiative.*

Once this is complete, banks will have to ensure they have appropriate controls in place to continue to operate if they encounter a disruption. While banks already have control frameworks to mitigate risks, the new standard re-aligns the focus to critical operations, with the additional requirement to test the bank's ability to respond and recover within the specified tolerance range for disruption. If they fall outside of this tolerance, or they encounter a disruption, banks will need to have plans in place to immediately remedy the situation. Banks will also have to put in place key performance indicators (KPIs) to monitor and measure their ability to remain within tolerance.

The timeline for implementing the new requirements is likely to be challenging for banks, given that the scale of the exercise is large. Once the regulations are finalised, authorised institutions will have only 12 months to develop their operational resilience framework, followed by a further 36 months to demonstrate operational resilience.

Failure to implement the new requirements may restrict banks from obtaining HKMA approval for the launch of new products, impact a bank's CAMEL rating and its ability to meet the Authorisation Criteria under the Banking Ordinance.

A change in focus

One of the key features of the new requirements is that it changes the lens through which banks must approach operational resilience – it is no longer an operational risk exercise, but should be a business-driven initiative. Instead of focusing on individual elements, such as disaster recovery and business continuity, banks will instead have to understand their critical operations from front to back. In addition, they must not only identify the key issues that could prevent them from delivering their operations, but also consider the impact a bank failure would have on the financial system, as well as the impact any failure of operations would have on customers who rely on their services.

Another key difference is that the new requirements place more onus on the banks, moving from a mode of regulation in which the HKMA identifies individual areas of risk and issues specific requirements to manage them, to asking institutions to do their own holistic analysis. As such, banks are being asked to identify the threats and scenarios under which they could face significant disruption themselves. They are also responsible for identifying how they would maintain or resume their operations in the face of disruption.

At the same time, the regulations add an additional layer of scrutiny that banks will have to deal with if they encounter a service continuity issue. Under the new regime, the regulator is not only expected to focus on the cause of a specific incident and its impact, but also why the bank had not anticipated the incident through its operational resilience framework, with protocols put in place to take appropriate action to prevent it from happening again.

While many of the individual components referenced in the new requirements (such as maintaining an operational risk management framework) are not new, the standard shifts the responsibility of managing operational resilience onto the management of the financial institution. In the regulations, the HKMA specifically states that the board of directors bears ultimate responsibility for ensuring that an authorised institution remains operationally resilient.

As a result, the senior management of a bank will need to review its operational processes to identify the key areas that could affect operational resilience, as well as monitor the KPIs put in place on an ongoing basis to enable them to gauge the level of operational resilience and manage the resources and threats which can affect the delivery of their critical operations.

Implementation challenges

With the tight timeline, banks face a number of challenges in preparing for the new requirements, and should therefore not underestimate the amount of work required. One potential challenge is the level of coordination and collaboration needed across a number of different functions. As a result, senior management will not simply be able to delegate preparations to its operational risk function or compliance function. Instead, they will need to take a bank-wide approach, involving a number of different stakeholders and departments, with a project management office overseeing the multi-year project, as well as continuous operational resilience management beyond the initial implementation phase.

Another complexity involves the need to map out the interconnections and interdependencies between different areas of operations, which will involve looking beyond the roles and responsibilities of individual functions, to take an end-to-end view. Given the scale of the exercise, banks will require technological assistance to pull together all of the necessary data.

It is particularly important that banks put the right technology in place to do this, as the new approach to operational resilience is not a one-off exercise, but rather something banks will be required to do on an ongoing basis. The framework is also likely to need to be refreshed every time a bank introduces a new product or service, or when the bank goes through a major operational change, to ensure the relevant documentation and testing remains up to date.

In addition, banks will also need to give people in different parts of their organisation access to the information relating to operational resilience, as well as the ability to edit and maintain the information, while demonstrating appropriate audit trails. If institutions do not have these basic functions embedded in their solution, they will struggle to meet the new requirements.

KPMG offers a Powered Resilience Framework, which can assist banks with delivering their operational resilience framework through digitalising manual processes, mapping workflows and increasing connectivity between different functions, helping to accelerate execution and increase transparency.

> *“With the tight timeline, banks face a number of challenges in preparing for the new requirements and should therefore not underestimate the amount of work required.”*

Operational transformation

Rupert Chamberlain
Partner, Head of Managed Services
KPMG China

Sean Ren
Director, Strategy and Operations
KPMG China

Transforming operations is key to remaining agile and competitive

Knowing that transformation is the path to sustained advantage, banks in recent years have invested heavily to digitise the customer experience. That journey has been accelerated by the COVID-19 pandemic, highlighting the limitations of existing technology.

However, operational transformation also includes activities in the middle and back office that enable great front-end experiences. These processes – in areas like customer onboarding, risk, regulatory compliance, data quality and analytics – can help organisations reduce costs, expedite straight-through processing, and nimbly adapt to the changing needs of customers, regulators and other stakeholders. Yet many banks still operate these kinds of activities in a legacy fashion.

Adoption of new technologies has been facilitated by the Hong Kong Monetary Authority (HKMA) and its Fintech 2025 initiative, through which it encourages financial sector organisations to comprehensively incorporate technology into their operations by 2025. To remain competitive, banks must focus their transformation not just on the front office but on the middle and back offices as well.

Key transformation drivers

Improving efficiency continues to be an important reason for transformation, as banks strive to optimise cost-to-income ratios through reorganisation, new technology and updated servicing arrangements. Leading banks are also considering other benefits of operational transformation:

- Customer insights. By digitising customer information and augmenting it with external data sources, banks can apply analytics to identify customer needs sooner, allow for more dynamic credit monitoring, and gain deeper insights – a source of competitive advantage.
- Regulatory agility. Automation can help banks stay on top of complex and rapidly changing regulations, while expediting decision-making and reducing the cost of compliance and reporting. In addition, transformation of risk and regulatory functions can help banks better measure and report their environmental, social and governance (ESG) commitments.
- Improved services. As challenger banks and niche service providers enter the market, customers have changed their expectations for the type of services that banks offer and how they are delivered. Incumbents, therefore, must create a data-and-technology baseline of maturity and consistency for launching new services. For example, modern platforms can future-proof the business by enabling specialised services. One is small and medium-sized enterprise (SME) lending, which leverages customer data to assess credit risk differently and onboard customers quickly and easily.
- Employee attraction and retention. Automation improves productivity and satisfaction by freeing employees from tedious manual tasks so they can focus on growth-related activities, such as strategies based on customer analytics. That improved employee experience can also help in recruitment, positioning the bank as an employer of choice.

“*To effectively operationalise their growth ambition, banks must address the way people, processes, locations and data interact with one another in key functions. Transformation should be technology-enabled but strategy-led.*”

Beyond technology: enabling successful transformation

Advanced technologies are critical for the operations of the future, but true transformation does not stop with tech. To effectively operationalise their growth ambition, banks must address the way people, processes, locations and data interact with one another in key functions. Transformation should be technology-enabled but strategy-led.

A few key considerations:

1. Ensure senior-level sponsorship and commitment to change. New technologies and processes require a culture change at all levels of an organisation, starting at the top. Banks should empower the people who will drive the change, as well as those who will be impacted by it, lest they add time, cost and difficulty to the initiative. Effective change management can spell the difference between transformation success and failure.

2. View transformation as an ongoing journey. In a world of constant flux, transformation is not a fixed destination, because by the time you get there, 'there' has already moved on. Still, it is important to keep the transformation on track by targeting clear quantitative outcomes, rather than one-off key performance indicators. Banks should also set measurable interim goals to assess what is working, where changes are needed and how to make nimble adjustments.

3. Carefully choose the right solution providers. While fintech providers may offer innovative solutions, many lack a track record and are at an early stage of funding, which raises the risk that they will not survive long enough to service their solution. Banks are wise to opt for larger, more established players to be journey partners on their biggest transformation programmes. Leading providers offer deep subject-matter expertise and broad transformation experience along with advanced technology.

Greater use of managed services

Given the complexities of operational transformation, banks are increasingly looking to leading managed services providers as transformation partners. These providers take over key processes by combining human capabilities, technologies, insights, leading practices, strategic alliances with cloud software companies, and change management expertise – usually packaged as a multi-year subscription with predictable costs.

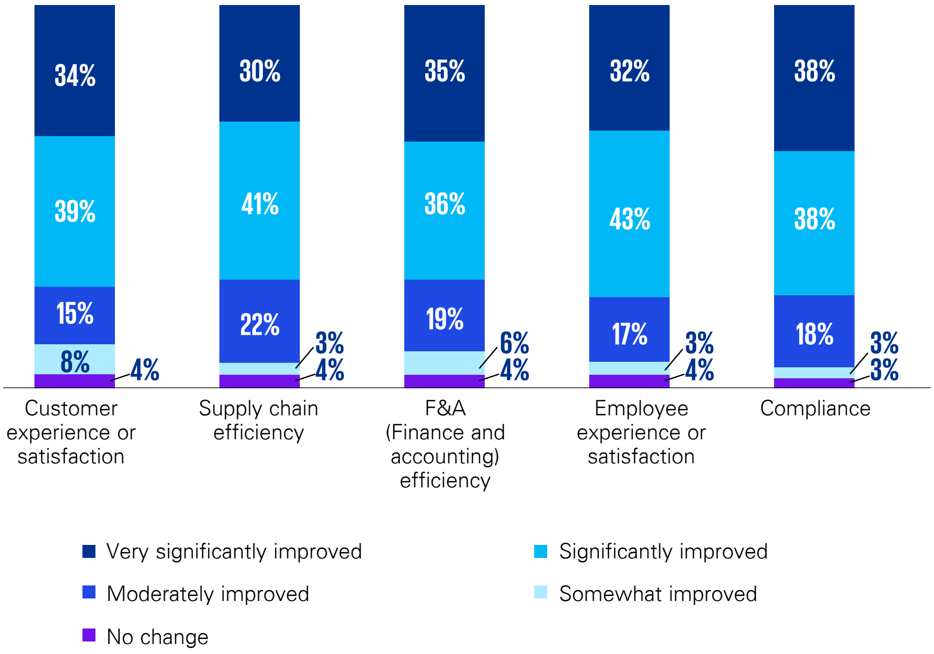
According to the KPMG and HFS Managed Services Outlook, a global survey of executives in October 2021, more than half of banking and financial services companies use managed services for 51 percent to 100 percent of their work in information technology (IT), cybersecurity, risk, compliance and business performance.

The survey also finds that in the next two years, the majority of banks plan to increase their spending on managed services across these areas, with particularly high investment in IT, risk and cybersecurity. This is because modern managed services providers bring technologies, talent and expert transformation guidance that can be hard for banks to access through internal resources alone, or through traditional business process outsourcing (BPO). Indeed, if banks opt to design and implement their own systems, they may face significant costs, distractions and delays.

Some managed services providers, on the other hand, have existing technology that can be configured to a bank's needs, as well as banking-industry expertise that can accelerate the transformation journey. For example, a provider with deep regulatory experience can advise banks on upcoming regulations and introduce technology that not only satisfies the regulator, but also helps improve the customer experience, inspire stakeholder trust and boost market share.

While cost reduction remains an important driver of transformation, leading managed services providers also deliver other strategic outcomes. In the survey, 96 percent of banking and financial services respondents expect managed services in the next two years to improve customer experience, employee experience, compliance, supply chain efficiency, and finance-and-accounting efficiency. About a third of those respondents expect very significant improvements (Figure 1).

Figure 1: Banks expect significant operational impact from managed services in the next two years



N = 155 global executives in banking and financial services

Question: What is the expected operational impact over the next 24 months when using managed services at scale?

Source: KPMG and HFS Managed Services Outlook, October 2021

Meanwhile, in terms of financial impact, the majority of respondents expect managed services to deliver an increase of 11 percent to 20 percent in revenue, profit and working capital over the next two years. That combination of financial and operational impact is a compelling value proposition for managed services.

Shaping a new future

KPMG China has several propositions to help banking clients. With KPMG Managed Services, we combine advanced technology with functional and sector expertise to handle knowledge-intensive processes across the enterprise – on a subscription-as-a-service basis. In addition to helping to reduce costs, KPMG professionals can help clients drive outcomes like resilience, customer retention, stakeholder trust, and competitive advantage. We help banks operationalise their growth ambition, so they can accelerate the transformation journey while seeking to reduce disruption and risk.

With KPMG Connected Enterprise for Banking, we help clients align the front, middle and back offices around the customer, creating a borderless organisation where people, data and technology interact to deliver profitable growth. Our approach includes banking technology, tools and methodologies for enterprise-wide digital transformation.

> *"Given the complexities of operational transformation, banks are increasingly looking to leading managed services providers as transformation partners. These providers take over key processes by combining human capabilities, technologies, insights, leading practices, strategic alliances with cloud software companies, and change management expertise."*

Regtech

Chad Olsen
Partner, Head of Forensic, Hong Kong
KPMG China

James O'Callaghan
Partner, Head of Regtech, Hong Kong
KPMG China

The real business case for Regtech

The growing adoption of regulatory technology (Regtech) is being accompanied by a shift in awareness among senior leadership at banks of the wider benefits it offers their businesses. Alongside the realisation that Regtech assists with better controls and enhanced regulatory compliance, there is an increasing expectation that it can also be used to drive cost and operational efficiency. This shift in understanding helps to make the business case for the positive impact Regtech can have on an organisation's bottom line.

Organisations need to become better at measuring Regtech's outcomes, moving away from a one-dimensional view of its benefits in terms of compliance, and instead to start looking at a broader range of factors, including stakeholder value and building higher levels of trust, not only within their organisation but also among their shareholders, business partners and customers. This should encompass three things:

1. A view of technology adoption to manage the future of banking

As banks future proof themselves to new channels, products and shifting customer bases, their traditional methods and platforms need to change.

Whilst most banks have established footprints in key markets, the establishment of virtual banking or, more simply put, the ability to bank without seeing the customer, now presents new risks and evolves existing risks. A view needs to be formed to determine if the technologies available will be able to cater to, or even leapfrog that change as quickly as the risk evolves.

> *A good view to measure the success of technology should be two-fold – one should look at customer experience that translates to better revenues earned and brand loyalty. The other should be the identification, detection and remediation of risks as a direct consequence of the technology implemented.*

Another consequent view that needs to be formed is the future of the workforce. The workforce needs to be supported by operating models and equipped with the skills and competencies needed to manage these new technologies and the risks involved. Resources need to be remoulded to spend less time on the mundane, and more time on solving problems, enriching client experiences, and reducing risks.

2. A broader application of technology beyond financial crime

Whilst financial crime is a common area of application for Regtech, its application in areas such as risk management and regulatory compliance also requires an equal focus. This includes areas such as conduct and customer protection, regulatory and tax reporting, and regulatory compliance obligations. In addition, it expands into other areas, such as operational risk, market conduct, credit risk management and audit.

There are also instances where Regtech solutions designed for one area of a bank's business have had benefits, or 'cross pollinated', in other areas. For example, a solution developed to address lending fraud has also been used to monitor loan portfolios to identify high-risk clients from a credit behaviour standpoint. At the same time, there are broader solutions that are being refined and repurposed to address specific issues. For example, audio monitoring at call centres to monitor for potential cases of mis-selling, is now also being used to identify fraudulent behaviour.

Another example of the additional benefits Regtech brings is in the area of using technology to screen credit portfolios. While helping banks to reduce lending fraud, this use case has also enabled them to develop new credit scoring systems. As a result of these new approaches, small and medium-sized enterprises have been able to gain greater access to financial products and liquidity, creating more opportunities for them as customers, and helping to service this important market segment.

3. A method to measure adoption beyond technology

As previously mentioned, the term Regtech can be misleading as it is often equated to just the use of technology. Instead, it is essentially and ultimately about people, because people and operating models change as a result of better technology being adopted.

As such, measurements of adoption are usually focused on headcount reductions, labour resource savings and man hours reduced because of automation. What is not measured is how people are moved and skilled to shift higher up the value chain as a direct consequence of the benefit of these newer technologies being implemented.

There are numerous methods to measure success, but these are often focused on measuring efficiency gains and optimisation, and less on effectiveness. A different view needs to be formed.

A good view to measure regulatory technology should be three-fold – one should look at customer experience that translates to better revenues earned and brand loyalty. The second should be the identification, detection and remediation of risks as a direct consequence of the technology implemented. Lastly, it must have an impact on cost savings and to the organisation's bottom line and shareholder value.

Board members ultimately want a view of how investments improve the bottom line and share value as much as they want to see risks being managed and avoided.

Overcoming adoption challenges

Despite growing awareness of the benefits Regtech offers, banks still face a number of hurdles in incorporating it into their operations. These challenges range from finding the right vendors and solutions, to reskilling the workforce, taking a holistic approach to Regtech adoption and overcoming limitations created by legacy systems.

While the availability of new technology presents an advantage, it also creates issues because most solution platforms are singular in purpose, even with end-to-end capabilities. As a result, it can be challenging for an authorised institution to go about ensuring broader Regtech adoption when it has the view of adopting Regtech one solution at a time. Other issues include the question of whether the technology can be trusted and how long it will be before it gets outdated. In addition, there are concerns about who will be there to work things through with the organisation from start to end across its entire adoption strategy, and what approach to adoption presents the least amount of risk while achieving the greatest benefit.

Banks currently tend to go to individual vendors to find solutions to the different issues they want Regtech to assist them with. As the Regtech ecosystem develops, there is likely to be increasing demand for a 'one-stop shop' that can help direct banks' technology adoption and implement solutions that meet all of their needs. Banks need a trusted advisor that both understands the market, the designs, and culture, and is in the market to assist them throughout this journey, as well as the next.

A key issue, as previously alluded to, is workforce transformation. The skills, experience and capabilities that banks will require from talent in the future as they continue their digitisation and Regtech adoption journeys, will be substantially different to those they require today. As a result, banks not only need to focus on recruiting new talent, but also reskilling existing talent. The HKMA launched its Enhanced Competency Framework on Fintech at the end of 2021, establishing a set of competency standards for fintech and Regtech practitioners in the banking industry to help build capacity in this area. Even so, the banking industry still faces a significant talent gap, and the scale of re-educating their existing workforce in order to realise their digital aspirations should not be underestimated.

Another challenge is that the legacy systems and operating environment of many banks hamper their ability to introduce new technology. To overcome this issue, they need to improve their internal infrastructure and accelerate their cloud adoption, seeing the introduction of Regtech in the context of wider digitisation. At the same time, they must take steps to make the necessary information and data available to 'plug in' to Regtech solutions to enable banks to gain the maximum benefit from them.

Banks should also focus on being part of the broader Regtech community, participating more in the sector to help them better understand the market and the solutions that are available.

In addition, banks need to take a bolder approach to Regtech adoption, as there is currently a tendency for banks to be too conservative in incorporating new and emerging technology, with innovations often not getting beyond the proof of concept stage. This is in part the result of their reluctance to work with small vendors or new providers that do not have a proven track record. But to get the right solution this challenge needs to be overcome.

Looking to the future

In the meantime, there is a trend for Regtech providers to develop increasingly specific solutions catering to niche areas of business, such as solutions that help compute the ownership of companies, or ones that detect impersonation fraud through remote devices. As the market continues to develop, and Regtech vendors mature, there will likely be more convergence, with different providers working together to develop more innovative and broader solutions. Providers are already coming together to develop solutions that can be plugged into each other’s systems, as there is a growing realisation that the Regtech ecosystem will be more powerful if vendors work together.

> *“The skills, experience and capabilities that banks will require from talent in the future as they continue their digitisation and Regtech adoption journeys, will be substantially different to those they require today. As a result, banks not only need to focus on recruiting new talent, but also reskilling existing talent.”*

ESG

Pat Woo
Partner, Head of ESG, Hong Kong
Global Co-Chair, Sustainable Finance,
KPMG IMPACT
KPMG China

Angus Choi
Partner, ESG Advisory
KPMG China

The transition to a low-carbon economy creates opportunities for banks

Banks in Hong Kong have a key role to play in financing the transition to a low-carbon economy. As countries across Asia Pacific set carbon neutral targets, banks' ESG focus is shifting towards the growth opportunities offered by transitional finance.

ESG opportunities are further enhanced by the Hong Kong SAR Government's ambitions for the city to be a green and sustainable finance hub for the Asia Pacific region. It has set up the Green and Sustainable Finance Cross-Agency Steering Group, co-chaired by the Hong Kong Monetary Authority (HKMA) and the Securities and Futures Commission, to accelerate the growth of green and sustainable finance in Hong Kong. It is also exploring the feasibility of developing Hong Kong into a regional carbon trading centre.

Transitional finance

The government has set the target for Hong Kong to be carbon neutral by 2050, with an interim target of achieving a 50% reduction in carbon emissions compared with the 2005 level by 2035. The scale of investment needed to achieve this goal is significant, with the government planning to issue bonds worth HK$175 billion in the five years from 2021/22 through the Government Green Bond Programme to fund public works and other green projects.

Companies will also require substantial funding to enable them to make the necessary investments to transition to alternative sustainable energy sources, and upgrade their operations to become more energy efficient. As a result, transitional finance looks set to account for an increasingly larger share of the green and sustainable finance market going forward.

> *"Companies will require substantial funding to make the necessary investments to transition to alternative sustainable energy sources, and upgrade their operations to become more energy efficient. As a result, transitional finance looks set to account for an increasingly larger share of the green and sustainable finance market going forward."*

Transitional finance fills the gap between traditional finance and sustainable finance, particularly for companies in high carbon sectors that are still at the beginning of their decarbonisation journey. The International Capital Market Association has also published a Climate Transition Finance Handbook in which it provides guidance to capital market participants on the practices, actions and disclosures they should make when raising funds for climate-transition related purposes. Banks will need to provide innovative financial products in this area to support businesses in these changes and minimise disruption to the economy during the transition.

A significant aspect of this transition in Hong Kong, and Asia Pacific as a whole, will involve decarbonising the supply chain. For major global retail brands, many of which have set their own net zero targets, more than 90 percent of their carbon emissions come from their supply chains. These supply chain companies are predominantly located in Asia Pacific. To help larger corporations achieve their carbon neutral goals, banks will need to ensure sufficient capital is also provided to smaller companies in the region to finance their own carbon transition. Helping companies throughout the supply chain gather and make available data on their carbon emissions will also be critical.

There are also growing opportunities for banks in the retail market. Products such as green mortgages, under which homeowners are offered preferential terms if their property is sustainably designed or meets certain energy efficiency standards, are a growing segment in western markets but still relatively new in Hong Kong.

Meanwhile, in the wake of COVID-19, there is rising demand for sustainability linked-bonds to support social projects to help communities and economies recover from the impact of the pandemic. Banks are already playing an important role in this economic recovery journey, and this area is set to continue to be a focus in 2022.

Looking further ahead, banks will also need to position themselves to both facilitate and capture future opportunities arising out of the development of carbon pricing and a carbon offset market, as the price of carbon becomes embedded in economies. ESG derivatives, under which payouts are linked to certain sustainability key performance indicators being met, is another developing area.

A common taxonomy

One of the challenges banks currently face in the area of green and sustainable finance is the lack of universal standards. The European Commission has issued the EU taxonomy for sustainable activities, setting out a classification system to define which economic activities are considered to be environmentally sustainable, to protect investors from green washing and to help direct money to where it is most needed. China has also produced its own taxonomy for what constitutes a green investment. The presence of these two systems led the International Platform on Sustainable Finance to launch the Common Ground Taxonomy (CGT) initiative. It published its first report in December, identifying commonality, as well as major differences, between the two taxonomies.

Given Hong Kong's role as a connector between the east and west, Hong Kong's Green and Sustainable Finance Cross-Agency Steering Group is exploring developing a green classification framework for the local market that facilitates easy navigation between the CGT, China's and the EU's taxonomies, while also taking into account other definitions of green and transitional activities and local considerations.

Sustainable finance is a fast-moving market and standards are evolving quickly. As a result, banks need to pay attention to future proofing their green and sustainable finance products, particularly as green bonds may span several years or even decades.

At the same time, banks should also be alert to investor concerns around green washing. As such, they should not only focus on the front end and product sales, but should also develop robust data collection and transparency systems, controls and governance at the back end to support growth in this area, balancing the need to chase market share with that of controlling risk.

Talent constraints

Capability building is another important area for banks to ensure their ESG-related activities are both sustainable and credible. There is currently a shortage of ESG talent in Hong Kong, with global competition for talent with knowledge and expertise in this area intense. International recruitment for banks based in the city is further complicated by Hong Kong's anti-pandemic measures, which make it less attractive as a base for foreign talent.

To help build talent locally, the HKMA recently added ESG as a relevant topic for continuing professional development as part of its Enhanced Competency Framework for Banking Practitioners. In addition, the Hong Kong University of Science and Technology has launched a Bachelor of Science in Sustainable and Green Finance. There is also an urgent need for banks to increase their own capacity in this area to position themselves to capture the opportunities, and to avoid accusations of green washing. Having sufficient talent is also important to help banks avoid non-compliance issues. For example, the HKMA has announced that climate-related disclosures by banks should be aligned with the recommendations of the Financial Stability Board's Task Force on Climate-related Financial Disclosures.

As sustainability considerations increasingly take centre stage, banks must move away from a mindset that sees ESG as a compliance issue, and instead integrate it throughout their operations. The increased focus on ESG by regulators, enterprises and individual customers, particularly the younger generation, provides banks with an opportunity to enhance their reputation through being strong in this area, giving them a competitive advantage.

> *"Capability building is an important area for banks to ensure their ESG-related activities are both sustainable and credible. There is currently a shortage of ESG talent in Hong Kong, with global competition for talent with knowledge and expertise in this area intense."*

Climate risk management

Gemini Yang
Partner, Financial Risk Management
KPMG China

Banks must increase their focus on climate resilience to protect themselves from climate change and access decarbonisation opportunities

Banks should take a holistic approach to climate resilience, incorporating measures into risk management, strategy and even client onboarding. They should also position themselves to access new product opportunities arising from the transition to a low-carbon economy.

In December 2021, the Hong Kong Monetary Authority (HKMA) published the results of its pilot climate risk stress test on the banking sector. It found that under an extreme climate risk scenario, banks would suffer a material reduction in profitability due to an increase in credit losses on residential mortgages and high-emitting industries. It added that climate change could also significantly weaken banks' capital positions.

Banks have until the end of 2022 to put in place a climate risk management framework that incorporates climate change factors into their governance, strategy, risk management and disclosures.

Even before the HKMA made it a mandatory requirement for authorised institutions to incorporate a broader range of climate risk factors into their risk assessment frameworks, there was already a growing awareness among banks of the importance of becoming more climate resilient.

Banks face three major risks arising out of climate change, namely transition risk as large corporate customers transition to a low-carbon economy, the physical risk to assets that banks hold as collateral for debt or own themselves, and liability risk.

> *Senior management will need to be closely involved in the climate resilience risk management process, working with the risk function, as well as the front office, to establish whether they need to change their business strategy in relation to certain sectors.*

In response to these risks, banks need to strengthen their climate strategies and significantly enhance their enterprise risk management (ERM) frameworks, conducting credit risk impact analysis for loan portfolios, market risk impact analysis for investment portfolios, and operational risk impact analysis for the bank's own facilities, operations and major outsourced arrangements. Impact analysis for other areas such as liquidity risk and reputational risk should also be conducted for banks.

Understanding vulnerabilities

Climate resilience risk management is likely to have the biggest impact on loan and investment portfolios for banks in Hong Kong. As part of the HKMA's Supervisory Policy Manual GS-1 Climate Risk Management requirements, banks will need to review their portfolios to identify which companies are most vulnerable to the transition to a low carbon economy, such as corporates that operate in carbon-intensive sectors, including energy, transportation, manufacturing. Other sectors that are also likely to be impacted by climate change include property development and construction, steel manufacturers, and water-related industries. They will also need to identify which companies face a physical risk as a result of climate change, for example those with businesses or properties located near coastal areas. Banks will need to be particularly alert to any concentration risk in their credit portfolios.

Senior management will need to be closely involved in the process, working with the risk function, as well as the front office, to establish whether they need to change their business strategy in relation to certain sectors, for example, limiting their exposure to companies in high carbon sectors, such as thermal power generation and traditional manufacturing.

A number of banks are already exploring how to enhance their credit approval criteria and their internal rating process to incorporate climate-risk related components. Climate resilience measures should also be incorporated into new business strategy, including client acquisition and on-boarding.

Challenges and opportunities

Banks face a number of challenges in their journey to become more climate resilient. One immediate challenge is that they are likely to find that the risk management models they have previously developed do not fully cover climate change risk, meaning they will need to create new statistical models. For traditional banks, these models will fall outside of their normal risk management range. As a result, they are likely to need to set up new technology systems, and find talent with climate risk expertise. Unfortunately, competition for talent is currently intense, with the demand from banks globally for people with expertise in this area significantly outstripping the supply.

Another challenge banks face relates to data. In order to build solid models for risk management, as well as to analyse and predict companies' financial performance in the face of climate change to inform lending and investment decisions, banks will need access to significant volumes of data. This data will need to span a number of different areas, including the decarbonisation pathways for various sectors, historical carbon emissions for different sectors, and forward-looking predictions on carbon prices. Banks will also have to develop new data analytics tools to transform unstructured data into structured data.

At the same time, banks will need to acquire a deeper understanding of the operations of companies in carbon intensive sectors, and the relevant new technologies they may harness to enable them to decarbonise. Knowledge in this area will be crucial to enable banks to assess the validity of claims customers may make on the impact certain technology will have on the carbon emissions of their business.

The climate risk assessment will enable banks to be more climate-resilient and put them in a stronger position to pivot towards accessing the opportunities created by trends such as decarbonisation. These opportunities could range from more robust investment portfolios, to broader new products that encourage and assist clients with decarbonisation, such as green bonds and green loans. This expansion into new areas will also need to be supported by additional resources, as well as a new climate-embedded strategy and an enhanced governance structure.

Increased disclosure requirements

In the meantime, banks are also facing increased climate-related disclosure requirements. The HKMA has announced that disclosures should be aligned with Task Force on Climate-related Financial Disclosures (TCFD), which were developed by the Financial Stability Board to offer a consistent global standard for climate-related financial risk disclosures. Banks in Hong Kong have until mid-2023 to submit their first disclosures, a timeline that is likely to prove challenging.

The HKMA has not issued regulatory guidance on the financial information that will need to be included in these disclosures. As a result, many banks are using global standards as their guide, such as Science Based Targets (SBTi) and Partnership for Carbon Accounting Financials (PCAF). However, as a condition of membership to these organisations, banks might have to regularly share data with them. This requirement would potentially lead to concerns among some banks in Hong Kong relating to data privacy and confidentiality, making them hesitant to join.

Banks need to take a number of steps in relation to climate change in a short space of time. But they should not allow the new regulatory requirements in this area to distract them from the opportunities the transition to a low-carbon economy presents.

“Banks need to take a number of steps in relation to climate change in a short space of time. But they should not allow the new regulatory requirements in this area to distract them from the opportunities the transition to a low-carbon economy presents.”

Talent

Kate Munroe
Director, People and Change,
KPMG China

The future of work in banking

Banks in Hong Kong are facing a talent market crunch at a time when they need to build capacity and capabilities to succeed in a competitive marketplace. This has been underlined by a recent KPMG survey, which showed that 39 percent of organisations in financial services are looking to increase their headcount in 2022[29].

While the threat of disruptive new players has dissipated, competition in the banking industry in Hong Kong remains tough due to the presence of strong international and mainland Chinese banks. The development of new capabilities to drive transformation needs to be achieved quickly if banks are to ensure they are future fit to compete with the industry as it develops.

At the same time, the industry has recognised that the skillsets banks require are also changing. Alongside core banking skills, organisations need to develop and recruit talent with expertise in areas such as ESG, data, cybersecurity and digital banking, as well as a focus on soft skills, such as cross border networking, customer connection skills, adaptability and creativity to enable them to capitalise on new opportunities in the sector.

Workforce: future workforce planning

This rising demand comes at a time that banks are facing an acute contraction of talent. The outflow of both foreign and local talent from Hong Kong is a growing concern for leaders within the banking sector. It is also unclear whether this outflow is a short-term trend in response to COVID-19 restrictions, or a longer-term issue. There is also an increased willingness for Hong Kong talent to move to other Greater Bay Area cities in search of career opportunities, with 75 percent of employees now open to this option[30].

---

[29] Hong Kong Executive Salary Outlook 2022, KPMG, April 2022, https://home.kpmg/cn/en/home/insights/2022/04/hong-kong-executive-salary-outlook-2022.html
[30] Ibid.

> *"Banks should see changing working patterns as an opportunity to access the global talent market, to enhance their employee value propositions and to re-engage their workforce around the topics of hybrid working and wellbeing as part of the overall employee experience."*

Alongside talent relocating outside of Hong Kong, the banking industry is grappling with internal talent churn within the city. The talent market was fairly stagnant during the early period of the pandemic, as employees were perhaps more inclined to choose security rather than look for new opportunities. The growing number of banking talent leaving the city has therefore led to a reduction in talent supply for employers and a significant increase in choice for those who remain and are looking for a next step. This increase in talent movement is typically being driven by a demand for higher salaries and benefits, a better working environment (often with more flexibility) and enhanced development opportunities.

As a result, banks are not only losing a lot of their core capability to deliver on current strategic imperatives, but they are unable to grow capacity to meet their longer-term goals. Meanwhile, there is a real imperative for them to attract new talent with the skills they need in order to remain competitive due to strong global demand.

To address these challenges banks will need to think more creatively around how they plan for, acquire and manage their workforce needs going forward, accessing new talent markets and creating more flexibility as part of the employee value proposition.

Work: new ways of working

These challenges come at a time when the banking industry is getting to grips with the realities created by new working patterns introduced during the pandemic. To date, banks in the region have been largely reactive in their response to 'work from home' and 'work from anywhere' requirements, often dealing with problems arising out of employees being stranded outside of their normal work jurisdiction on a case-by-case basis.

However, this is beginning to change and going forward, banks should see these changing working patterns as an opportunity to access the global talent market, to enhance their employee value propositions and to re-engage their workforce around the topics of hybrid working and wellbeing as part of the overall employee experience. While some banks are slowly beginning to adapt, others are hampered by internal policies and processes that are not able to change fast enough to support new realities like cross-border working.

If banks do decide to become more creative in the way they access talent markets, they will also need to focus on how they then manage the fundamentals of working remotely, such as employee engagement and performance management, in order to make the shift in policy a success. These will need to also be addressed alongside any regulatory considerations and tax implications that arise from moving to a more 'boundaryless' way of operating.

Alongside accessing the global talent market, banks can also look at more diverse or non-traditional ways of acquiring talent locally, such as outsourcing certain functions or plugging skill gaps through freelancers and gig workers, as well as acquiring the talent they need through mergers or acquisitions. Going forward, as COVID-19 travel restrictions ease, they should also focus on tapping into the Greater Bay Area talent market.

Workplace: organisational culture

Not only has COVID-19 impacted working patterns, it has also caused employees to re-evaluate what they look for from employment and what their motivation is for working for a particular organisation. Employees may also be increasingly unwilling to compromise on newfound foundational needs, such as more flexible work arrangements that enabled them to achieve a better work-life balance, as policies introduced during the pandemic are unwound.

Meanwhile, a strong correlation is emerging between the success of an organisation and its levels of employee engagement, with trust becoming a more important component of that equation. To establish that level of trust, organisations increasingly need to have a purpose that resonates with their employees. At the same time, talent are increasingly looking to work for organisations whose purpose and values align with their own, helping them to answer the question 'how does my own individual purpose in an organisation contribute to its wider goals?'. As a result, conversations about organisational purpose should be at the forefront of leadership discussions.

With this in mind, topics such as ESG are also becoming more meaningful within this employer-employee relationship. As banks continue on their ESG journeys, they are increasingly focusing on wider cultural change, with ESG no longer being seen as a tick-box compliance exercise, but instead embracing what ESG means to them as an organisation, their people and the wider community in which they operate, and thinking about how this is translated into purpose for their employees. Banks also need to be mindful of the people aspects of their ESG strategies, such as diversity and inclusion, and social responsibility.

As competition for talent intensifies, banks must focus on how to engage, develop and retain existing talent, as well as how they recruit new ones. To remain employers of choice, they will need to differentiate themselves through ensuring their organisation has a strong sense of purpose, and by being more creative and innovative in the way they engage and respond to employees' changing working preferences.

> *"To remain employers of choice, banks will need to differentiate themselves through ensuring their organisation has a strong sense of purpose, and by being more creative and innovative in the way they engage and respond to employees' changing working preferences."*

BEPS 2.0

John Timpany
Partner, Head of Tax, Hong Kong
KPMG China

Matthew Fenwick
Partner, Corporate Tax Advisory
KPMG China

Banks must start planning for BEPS 2.0 tax reforms now

The OECD's latest Base Erosion and Profit Shifting initiative (BEPS 2.0) is set to be the biggest tax change for banks in a generation. Alongside potentially increasing the amount of tax that banks in Hong Kong pay, it will also lead to a higher compliance burden. Banks should start preparing for the change as soon as possible, to enable them to plan for its implications and optimise their position.

BEPS 2.0 has two pillars. Pillar One focuses on ensuring large multinational enterprises (MNEs) pay taxes in the 'right' place, while the Pillar Two establishes a global minimum corporate tax rate of 15 percent. Pillar One is not expected to have a material impact on banks themselves, although it is likely to impact their customers. By contrast, Pillar Two will have a significant impact when it comes into force.

The landscape is still evolving and for various reasons jurisdictions are pursuing differing approaches and time frames. That said, the OECD published draft rules around Pillar Two in December last year, with a public consultation launched in February of this year. Draft rules covering the financial services exclusion from Pillar One were released for consultation in May 2022.

Separately, in his 2022-23 Budget Speech, Financial Secretary Paul Chan restated Hong Kong's commitment to apply the international standards around corporate taxation and the introduction of a domestic minimum tax in Hong Kong. Draft legislation will be submitted to LegCo in the second half of this year, with a view to introducing a domestic minimum top-up tax for MNEs with a global turnover of more than EUR750 million from 2024-25, to ensure their effective tax rate reaches the global minimum of 15 percent.

> *Banking groups in Hong Kong will have to consider what planning and structuring opportunities are available to mitigate any downside arising from the introduction of Pillar Two.*

Understanding the implications

The announcement, while not unexpected, has significant implications for banks in Hong Kong, many of which currently have an effective tax rate below the new global minimum of 15 percent.

As a first step to complying with the new rules, banks in the city will have to conduct an analysis to establish the effective tax rate they are currently paying across their organisation in Hong Kong. The exercise is complicated by the many different entities operating within a banking group, with these entities engaged in different activities. Alongside traditional banking operations, other activities may include regional office and support services, and asset management, as well as insurance operations, securities brokers, and investment holding companies, many of which will have different effective tax rates.

It is only once banks have collected this information, that they will be in a position to conduct an impact assessment to understand the implications of Pillar Two for their organisation. Meanwhile, they will also have to deal with the ongoing compliance associated with the introduction of Pillar Two, both in terms of reporting to regional and group offices that are located outside of Hong Kong, as well as filings to Hong Kong's Inland Revenue Department.

Banking groups in Hong Kong will also have to consider what planning and structuring opportunities are available to mitigate any downside arising from the introduction of Pillar Two. Unless other group companies of banks in Hong Kong are paying a higher rate of tax than 15 percent, the starting presumption is that many will be liable for additional tax without proper assessment and planning. In his Budget statement, Chan estimated that the introduction of BEPS 2.0 in Hong Kong would raise an additional HK$15 billion in tax revenues.

A challenging timeline

The situation is further complicated by the tight timeline in which banks will have to prepare for the new regime. The minimum tax rate could start to take effect, at least for certain jurisdictions, from 1 January 2023. If a bank is not paying the effective global minimum tax rate of 15 percent on profits from this date, it could be liable for a top-up tax if not in Hong Kong then potentially elsewhere. As a result, some banks have less than a year in which to implement the changes.

Given the nature and scale of information banks will need to collect in order to comply with the new rules, the timeline is challenging. Even if banks may not be impacted by Pillar Two from the start of 2023, they will still need to assess what impact the change will have on their financial statements when it is introduced in order to disclose the information to the financial markets. As a result, banks will need to start undertaking impact assessments as soon as possible.

The exercise is likely to lead to a significantly increased compliance burden for banks that have their regional or group offices in Hong Kong. These institutions will not only have to complete analysis on their Hong Kong operations, but also on operations in the other jurisdictions covered by the regional or group office.

The challenge is further compounded by the fact that many banks are already running lean teams. This could make it tough to find talent internally to staff a BEPS 2.0 project team to prepare for the changes. Such a team will not only require tax experts, but also support from finance, operations and IT personnel. A significant part of the project will involve collecting the right information to understand what the accounting implications of the change will be and updating internal IT systems to channel this information to those who require it.

Optimising tax positions

Although Hong Kong's legislative proposal for BEPS 2.0 has not yet been published, given the global nature of the exercise, it is expected to follow closely the Inclusive Framework set out by the OECD. Even so, there are still likely to be issues that are open for interpretation, and there is some uncertainty about how the principles set out by the OECD will be translated into local legislation.

At the same time, Hong Kong's tax system will likely retain its territorial source principle – notwithstanding a separate workstream in Government to address Hong Kong's inclusion in the EU's list of non-cooperative tax jurisdictions. Accordingly, there may be significant deviations between the base profits calculation under domestic law and that under BEPS 2.0.

A clear understanding of all the tax suffered by the bank, both in Hong Kong and offshore, is also important in understanding the impact of Pillar Two.

Meanwhile, banks will need to understand the implications of different choices they make in accounting, such as recognition of income, expenses amortisation and the capitalisation of certain items, and how these are reflected in their accounts. To the extent that there is optionality around the quantum, timing, nature and form of items of income or expenditure, there are potentially different outcomes that could be more or less optimal, and potentially lead to a different effective tax rate. As a result, banks will need to explore the options available to help optimise their position under BEPS 2.0 with the support of technical accountants and auditors.

> *Given the global nature of BEPS 2.0, Hong Kong is expected to follow closely the Inclusive Framework set out by the OECD. Even so, there are still likely to be issues that are open for interpretation, and there is some uncertainty about how the principles set out by the OECD will be translated into local legislation.*

Corporate loan fraud

Guy Isherwood
Senior Advisor
KPMG China

Chad Olsen
Partner, Head of Forensic, Hong Kong
KPMG China

With corporate loan fraud expected to increase, banks should focus resources on understanding and mitigating the risk

Banks' ability to manage corporate loan fraud[31] is an integral part of corporate credit risk management. Failure to do so effectively has left banks vulnerable to excessive losses. Putting measures in place, including harnessing technology, to identify corporate loan fraud early and take appropriate action to mitigate their exposure, will give banks a significant competitive advantage over their peers.

Corporate loan fraud typically falls into two broad categories. Firstly, there are criminal syndicates that set up sophisticated networks of shell companies and/or fake businesses with the sole aim of defrauding banks. These syndicates typically produce false documentation to support their claimed business operations. Secondly, and often more concerningly, there are genuine businesses that experience trading difficulties and fabricate financeable transactions to borrow their way out of their financial stress. Entities committing corporate loan fraud in this second area may fabricate documentation, collude with counterparties (related or otherwise), double pledge or misrepresent their collateral, and to do so misrepresent their financial statements.

Corporate loan fraud is expected to increase in the coming year due to the various headwinds the global economy faces, such as the impact of geopolitical tensions on commodity prices, high inflation, and rising interest rates. On the commodities side, traders could find themselves on the wrong side of market volatility, leading to significant losses. Meanwhile, high inflation will increase costs for many companies, some of which it may not be possible to pass on to customers, eroding their operating margins. At the same time, enterprises with leveraged balance sheets could also experience a severe performance drag from rising interest rates. As companies come under increasing stress, the pressure to commit corporate loan fraud will grow.

31 Corporate loan fraud occurs when a borrower manipulates or falsifies transactions, including supporting documentation, and in doing so misrepresents financial accounting statements, to obtain or retain access to bank financing.

"Some leading banks in Hong Kong are starting to introduce organisational and operational changes to take a more holistic approach to managing credit fraud risk. While the sector should not ignore tried and tested ways of identifying corporate loan fraud, it should also be focusing on how it can better incorporate technology to solve the problem."

Understanding corporate loan fraud

Historically banks have failed to recognise the true extent of their losses arising out of corporate loan fraud due to the way they recorded these losses. Understating the material and persistent losses from such fraud led to a lack of focus and under-investment in detecting and managing this perennial risk.

There were two drivers for this practice. Firstly, the business incentive to focus on recovery, rather than taking the time to investigate the root cause and complex constellation of warning signs that are evident prior to a corporate loan fraud being uncovered. Secondly, there was little incentive in banks recognising the lending loss as a fraud, with a fraud loss being accounted for as an operational loss, i.e., a cost item, rather than a credit loss, i.e., a loan impairment.

The practice has hidden the true extent of corporate loan fraud losses at banks, which in turn has led to this kind of fraud not receiving the attention it requires. This failure to recognise corporate loan fraud for what it is, and manage it as an integral part of credit risk, has left banks open to excessive losses.

Managing risk

There is growing recognition among leading banks in Hong Kong of the need to manage corporate loan fraud risk, in part due to several high profile cases among commodity traders and manufacturers in Singapore, Hong Kong and mainland China. As such, some leading banks in the city are starting to introduce organisational and operational changes to take a more holistic approach to managing credit fraud risk. While the sector should not ignore tried and tested ways of identifying corporate loan fraud, it should also be focusing on how it can better incorporate technology to solve the problem.

Banks need to recognise that the warning signs of corporate loan fraud are visible across multiple points of a customer's profile, activities and transaction flows. Identifying and triangulating these warning signs has not been a priority for banks in the past, in part as they could not justify the size of the investment required to tackle the issue, having not quantified the losses arising out of this type of fraud. Recent recognition that corporate loan fraud losses far outweigh the costs of addressing the problem, is now focusing attention on this risk area.

One of the first steps banks can take is to put in place the right accountabilities and structures to start managing the risk directly. Structural changes will involve putting in place a suitable governance overlay, backed by the right management information to monitor the effectiveness of the systems on an ongoing basis. Meanwhile detection processes can be improved through training and education for frontline staff to help them both understand the issue better, and to feel more confident to flag up any potential warning signs with their customers.

Banks must also improve their analytical processes for new client acquisitions. Alongside checking new customers against traditional credit metrics, relationship managers and credit officers should also explain in credit application comments why they are confident a customer does not present a fraud risk. Greater accountability should also be introduced to make it clear where responsibilities for detecting fraud lie.

In addition, banks should invest in more technology systems to detect corporate loan fraud, rather than relying on manual processes or expert judgements. In addition to 'new to bank' customers, banks are starting to develop their own analytical tools to scan portfolios for signs of suspicious activity. As with credit models, these detection tools can be refined and improved over time.

Banks can also use financial statement ratios analytics to identify when genuine businesses may be heading for difficulties. Despite the misconception that financial statements lag the current situation, they can be a helpful indicator of 'yet to emerge' frauds. KPMG has created an analytic tool using an algorithm that can screen companies' financial ratios over time and rank the risk profile against peer groups. The model identifies higher risk sectors and companies that require closer attention.

Technology solutions are also available that look for connections between counterparties. A challenge for banks in Hong Kong in managing corporate loan fraud is complex corporate structures. A lack of transparency between holding companies and their cross-border subsidiaries can make it difficult to understand the relationship between different companies. Solutions that look for connections between counterparties through monitoring transactions between counterparties, and checking those counterparties against external data can identify patterns that could indicate fraud.

Other new solutions that can be incorporated to solve long-standing problems include optical character recognition and artificial intelligence, which can be used to look at and analyse documents to identify credit transactions with a high fraud risk. Borrowers fabricating documents to support alleged transactions often lose focus, leading to similarities in the documents they produce. AI solutions can be used to spot these patterns.

Finally, an issue inherent in many corporate loan fraud cases in Asia is the use of double accounting, where in certain situations more than one book of accounting records are maintained. Whilst it is conventional and accepted for lenders to rely on audited statements, banks could also look at how technology could be used to help examine cashflows derived from existing bank statements, especially if they have had a long-term relationship or are the prime lender for the borrower. Technology could help to re-construct, or at least provide a check, on certain portions of a company's represented profit and loss statements matching a period. This includes payments to suppliers, receipts from customers, inventory or raw materials purchased and use of the loan disbursements.

Incorporating the right technologies into their operations will enable banks to identify corporate loan fraud at an early stage and have the opportunity to reduce their risk exposure. With the majority of banks only starting to tackle the issue, those banks that already focus on this area have a significant advantage over their competitors.

> *"Incorporating the right technologies into their operations will enable banks to identify corporate loan fraud at an early stage and have the opportunity to reduce their risk exposure."*

Financial highlights

Performance rankings:

- Licensed banks
- Virtual banks
- Restricted licence banks
- Deposit-taking companies
- Foreign bank branches

Performance rankings

Licensed banks

Ranking	Total assets	HK$ million	Ranking	Net profit after tax	HK$ million	Ranking	Cost/income ratio	
1.	Hongkong And Shanghai Banking Corporation Limited (The)	9,903,393	1.	Hongkong And Shanghai Banking Corporation Limited (The)	72,548	1.	Industrial And Commercial Bank of China (Asia) Limited	29.5%
2.	Bank of China (Hong Kong) Limited	3,442,975	2.	Bank of China (Hong Kong) Limited	24,231	2.	Shanghai Commercial Bank Limited	32.6%
3.	Standard Chartered Bank (Hong Kong) Limited	2,479,259	3.	Hang Seng Bank, Limited	13,946	3.	Bank of Communications (Hong Kong) Limited	33.2%
4.	Hang Seng Bank, Limited	1,820,185	4.	Standard Chartered Bank (Hong Kong) Limited	6,699	4.	Bank of China (Hong Kong) Limited	33.5%
5.	Industrial And Commercial Bank of China (Asia) Limited	927,875	5.	Industrial And Commercial Bank of China (Asia) Limited	5,665	5.	Nanyang Commercial Bank, Limited	38.9%
6.	Bank of East Asia, Limited (The)	907,470	6.	Bank of East Asia, Limited (The)	5,313	6.	CMB Wing Lung Bank Limited	40.7%
7.	Nanyang Commercial Bank, Limited	536,331	7.	DBS Bank (Hong Kong) Limited	4,750	7.	China Construction Bank (Asia) Corporation Limited	41.4%
8.	China Construction Bank (Asia) Corporation Limited	497,290	8.	China Construction Bank (Asia) Corporation Limited	3,330	8.	Chong Hing Bank Limited	42.6%
9.	Bank of Communications (Hong Kong) Limited	457,516	9.	Nanyang Commercial Bank, Limited	3,231	9.	Hang Seng Bank, Limited	42.6%
10.	DBS Bank (Hong Kong) Limited	447,808	10.	CMB Wing Lung Bank Limited	3,032	10.	DBS Bank (Hong Kong) Limited	47.3%

Restricted licence banks

Ranking	Total assets	HK$ million	Ranking	Net profit after tax	HK$ million	Ranking	Cost/income ratio	
1.	Bank of Shanghai (Hong Kong) Limited	35,332	1.	J.P. Morgan Securities (Asia Pacific) Limited	2,590	1.	Kasikornbank Public Company Limited	9.9%
2.	KDB Asia Limited	26,033	2.	Citicorp International Limited	1,843	2.	KDB Asia Limited	21.3%
3.	Kasikornbank Public Company Limited	22,491	3.	KDB Asia Limited	291	3.	Bank of Shanghai (Hong Kong) Limited	31.2%
4.	J.P. Morgan Securities (Asia Pacific) Limited	19,529	4.	Kasikornbank Public Company Limited	240	4.	Siam Commercial Bank Public Company Limited (The)	38.3%
5.	Siam Commercial Bank Public Company Limited (The)	13,722	5.	Bank of China International Limited	122	5.	Banc of America Securities Asia Limited	42.3%
6.	Banc of America Securities Asia Limited	9,551	6.	Banc of America Securities Asia Limited	41	6.	Citicorp International Limited	51.7%
7.	Bank of China International Limited	8,693	7.	Habib Bank Zurich (Hong Kong) Limited	31	7.	Allied Banking Corporation (Hong Kong) Limited	57.5%
8.	Citicorp International Limited	7,811	8.	ORIX Asia Limited	25	8.	Bank of China International Limited	60.9%
9.	ORIX Asia Limited	4,538	9.	Allied Banking Corporation (Hong Kong) Limited	21	9.	Habib Bank Zurich (Hong Kong) Limited	68.4%
10.	Habib Bank Zurich (Hong Kong) Limited	2,975	10.	Siam Commercial Bank Public Company Limited (The)	21	10.	J.P. Morgan Securities (Asia Pacific) Limited	69.5%

Deposit-taking companies

Ranking	Total assets	HK$ million	Ranking	Net profit after tax	HK$ million	Ranking	Cost/income ratio	
1.	Public Finance Limited	6,610	1.	Public Finance Limited	264	1.	BCOM Finance (Hong Kong) Limited	23.0%
2.	Kexim Asia Limited	4,829	2.	Woori Global Markets Asia Limited	50	2.	Woori Global Markets Asia Limited	33.6%
3.	Woori Global Markets Asia Limited	3,980	3.	Kexim Asia Limited	32	3.	Kexim Asia Limited	40.0%
4.	KEB Hana Global Finance Limited	1,439	4.	KEB Hana Global Finance Limited	26	4.	KEB Hana Global Finance Limited	49.4%
5.	Vietnam Finance Company Limited	916	5.	BPI International Finance Limited	15	5.	Public Finance Limited	51.2%
6.	BPI International Finance Limited	363	6.	BCOM Finance (Hong Kong) Limited	5	6.	Commonwealth Finance Corporation Limited	80.1%
7.	Corporate Finance (D.T.C.) Limited	328	7.	Corporate Finance (D.T.C.) Limited	0.37	7.	BPI International Finance Limited	82.7%
8.	Commonwealth Finance Corporation Limited	287	8.	Fubon Credit (Hong Kong) Limited	0.03	8.	Corporate Finance (D.T.C.) Limited	91.1%
9.	BCOM Finance (Hong Kong) Limited	272	9.	Vietnam Finance Company Limited	-	9.	Vietnam Finance Company Limited	96.6%
10.	Fubon Credit (Hong Kong) Limited	96	10.	Chong Hing Finance Limited	(0.08)	10.	Chau's Brothers Finance Company Limited	109.7%

Foreign bank branches

Ranking	Total assets	HK$ million	Ranking	Net profit after tax	HK$ million	Ranking	Cost/income ratio	
1.	Agricultural Bank of China Limited	583,480	1.	UBS AG	8,711	1.	Agricultural Bank of China Limited	10.8%
2.	Citibank, N.A.	543,697	2.	Agricultural Bank of China Limited	3,232	2.	Woori Bank	10.9%
3.	Mizuho Bank, Ltd.	521,993	3.	Industrial Bank Co., Ltd.	2,657	3.	Shinhan Bank	12.0%
4.	Bank of Communications Co., Ltd.	424,081	4.	Citibank, N.A.	2,440	4.	Punjab National Bank	14.2%
5.	MUFG Bank, Ltd.	397,695	5.	China Development Bank	2,247	5.	KEB Hana Bank	15.2%
6.	BNP Paribas	360,197	6.	DBS Bank Ltd.	2,138	6.	Bank of China Limited	15.6%
7.	DBS Bank Ltd.	356,513	7.	United Overseas Bank Ltd.	1,812	7.	China Everbright Bank Co., Ltd.	16.9%
8.	Sumitomo Mitsui Banking Corporation	308,363	8.	Shanghai Pudong Development Bank Co., Ltd.	1,781	8.	Kookmin Bank	17.3%
9.	China Development Bank	284,805	9.	China Minsheng Banking Corp., Ltd.	1,731	9.	Indian Overseas Bank	17.7%
10.	UBS AG	274,552	10.	China Everbright Bank Co., Ltd.	1,699	10.	Union Bank of India	18.0%

Source: Extracted from individual banks' financial and public statements

Licensed banks

Ranking	Return on equity		Ranking	Growth in assets		Ranking	Growth in net profit after tax	
1.	Morgan Stanley Bank Asia Limited	13.3%	1.	Morgan Stanley Bank Asia Limited	24.7%	1.	Fubon Bank (Hong Kong) Limited	414.7%
2.	DBS Bank (Hong Kong) Limited	11.2%	2.	Bank of Communications (Hong Kong) Limited	22.7%	2.	Bank of Communications (Hong Kong) Limited	84.1%
3.	Shanghai Commercial Bank Limited	8.7%	3.	Chong Hing Bank Limited	9.6%	3.	China CITIC Bank International Limited	84.1%
4.	Bank of China (Hong Kong) Limited	8.0%	4.	Bank of China (Hong Kong) Limited	9.5%	4.	Bank of East Asia, Limited (The)	44.2%
5.	Hongkong And Shanghai Banking Corporation Limited (The)	7.9%	5.	Chiyu Banking Corporation Limited	8.4%	5.	Chiyu Banking Corporation Limited	33.1%
6.	Hang Seng Bank, Limited	7.6%	6.	China CITIC Bank International Limited	6.3%	6.	Public Bank (Hong Kong) Limited	13.3%
7.	Public Bank (Hong Kong) Limited	7.3%	7.	Nanyang Commercial Bank, Limited	6.1%	7.	Dah Sing Bank, Limited	11.1%
8.	Citibank (Hong Kong) Limited	6.8%	8.	Citibank (Hong Kong) Limited	5.8%	8.	Morgan Stanley Bank Asia Limited	10.7%
9.	Chiyu Banking Corporation Limited	6.1%	9.	Hongkong And Shanghai Banking Corporation Limited (The)	5.2%	9.	DBS Bank (Hong Kong) Limited	9.8%
10.	CMB Wing Lung Bank Limited	5.9%	10.	Fubon Bank (Hong Kong) Limited	5.2%	10.	Shanghai Commercial Bank Limited	6.0%

Restricted licence banks

Ranking	Return on equity		Ranking	Growth in assets		Ranking	Growth in net profit after tax	
1.	Citicorp International Limited	26.6%	1.	Banc of America Securities Asia Limited	118.2%	1.	KDB Asia Limited	249.1%
2.	J.P. Morgan Securities (Asia Pacific) Limited	23.4%	2.	KDB Asia Limited	34.9%	2.	Kasikornbank Public Company Limited	241.8%
3.	KDB Asia Limited	8.3%	3.	J.P. Morgan Securities (Asia Pacific) Limited	32.5%	3.	Habib Bank Zurich (Hong Kong) Limited	187.4%
4.	Bank of China International Limited	7.1%	4.	Kasikornbank Public Company Limited	15.7%	4.	Bank of China International Limited	139.1%
5.	Habib Bank Zurich (Hong Kong) Limited	5.6%	5.	Habib Bank Zurich (Hong Kong) Limited	10.1%	5.	ORIX Asia Limited	69.0%
6.	Kasikornbank Public Company Limited	5.4%	6.	Allied Banking Corporation (Hong Kong) Limited	1.1%	6.	J.P. Morgan Securities (Asia Pacific) Limited	14.8%
7.	Allied Banking Corporation (Hong Kong) Limited	3.7%	7.	Goldman Sachs Asia Bank Limited	-0.2%	7.	Banc of America Securities Asia Limited	14.2%
8.	ORIX Asia Limited	1.2%	8.	Citicorp International Limited	-3.4%	8.	Allied Banking Corporation (Hong Kong) Limited	1.3%
9.	Banc of America Securities Asia Limited	1.0%	9.	ORIX Asia Limited	-6.0%	9.	Citicorp International Limited	-14.7%
10.	Goldman Sachs Asia Bank Limited	0.7%	10.	Bank of China International Limited	-6.8%	10.	Goldman Sachs Asia Bank Limited	-32.7%

Deposit-taking companies

Ranking	Return on equity		Ranking	Growth in assets		Ranking	Growth in net profit after tax	
1.	Public Finance Limited	16.3%	1.	Vietnam Finance Company Limited	137.1%	1.	KEB Hana Global Finance Limited	89.7%
2.	BPI International Finance Limited	10.5%	2.	Kexim Asia Limited	23.9%	2.	Woori Global Markets Asia Limited	73.6%
3.	Woori Global Markets Asia Limited	5.3%	3.	Woori Global Markets Asia Limited	17.3%	3.	Kexim Asia Limited	35.1%
4.	KEB Hana Global Finance Limited	4.8%	4.	KEB Hana Global Finance Limited	14.1%	4.	Public Finance Limited	20.1%
5.	Kexim Asia Limited	2.4%	5.	Corporate Finance (D.T.C.) Limited	10.4%	5.	BCOM Finance (Hong Kong) Limited	-20.0%
6.	BCOM Finance (Hong Kong) Limited	1.8%	6.	BCOM Finance (Hong Kong) Limited	1.4%	6.	Corporate Finance (D.T.C.) Limited	-31.6%
7.	Corporate Finance (D.T.C.) Limited	0.4%	7.	Fubon Credit (Hong Kong) Limited	-0.1%	7.	Fubon Credit (Hong Kong) Limited	-95.9%
8.	Vietnam Finance Company Limited	0.1%	8.	Chong Hing Finance Limited	-0.4%	8.	Vietnam Finance Company Limited	-108.4%
9.	Fubon Credit (Hong Kong) Limited	0.0%	9.	Chau's Brothers Finance Company Limited	-1.0%	9.	Chong Hing Finance Limited	-127.1%
10.	Chong Hing Finance Limited	-0.2%	10.	Public Finance Limited	-5.9%	10.	Commonwealth Finance Corporation Limited	-153.4%

Foreign bank branches / Virtual banks

Ranking	Growth in assets		Ranking	Growth in net profit after tax		Ranking	Total deposits from customers	HK$ million
1.	China Guangfa Bank Co., Ltd.	1709.8%	1.	State Bank of India	4492.9%	1.	ZA Bank Limited	7,062
2.	Qatar National Bank (Q.P.S.C.)	1106.2%	2.	UCO Bank	3000.0%	2.	Mox Bank Limited	5,375
3.	China Bohai Bank Co., Ltd.	658.2%	3.	National Australia Bank Limited	455.4%	3.	Fusion Bank Limited	3,049
4.	Ping An Bank Co., Ltd.	119.9%	4.	Natixis	230.4%	4.	Livi Bank Limited	2,977
5.	Hua Xia Bank Co., Limited	114.4%	5.	CIMB Bank Berhad	225.6%	5.	Welab Bank Limited	2,259
6.	China Zheshang Bank Co., Ltd.	68.2%	6.	Barclays Bank PLC	206.4%	6.	Airstar Bank Limited	2,203
7.	Bank J. Safra Sarasin AG	52.1%	7.	China Guangfa Bank Co., Ltd.	175.4%	7.	Ping An OneConnect Bank (Hong Kong) Limited	1,650
8.	Kookmin Bank	48.6%	8.	Bank Sinopac	168.9%	8.	Ant Bank (Hong Kong) Limited	741
9.	Taiwan Shin Kong Commercial Bank Co., Ltd.	37.9%	9.	Bank of Montreal	156.8%			
10.	East West Bank	35.9%	10.	Crédit industriel et commercial	152.6%			

Source: Extracted from individual banks' financial and public statements

Licensed banks – Financial highlights

	HK$ million	Year ended	Income statement					
			Net interest income	Non-interest income	Operating expenses	Operating profit before impairment charges	Change in expected credit loss against customer advances	Other items
1	Bank of China (Hong Kong) Limited	31-Dec-21	28,144	19,045	15,809	31,380	1,966	(339)
2	Bank of Communications (Hong Kong) Limited	31-Dec-21	3,638	1,436	1,684	3,390	316	77
3	Bank of East Asia, Limited (The)	31-Dec-21	11,185	5,098	9,321	6,962	1471	645
4	China CITIC Bank International Limited	31-Dec-21	5,805	2,390	3,929	4,266	1,804	38
5	China Construction Bank (Asia) Corporation Limited	31-Dec-21	5,217	2,669	3,261	4,625	637	(48)
6	Chiyu Banking Corporation Limited	31-Dec-21	1,652	735	1,299	1,088	36	253
7	Chong Hing Bank Limited	31-Dec-21	3,285	1,111	1,871	2,525	745	17
8	Citibank (Hong Kong) Limited	31-Dec-21	2,625	3,993	4,836	1,782	98	301
9	CMB Wing Lung Bank Limited	31-Dec-21	4,190	2,275	2,630	3,835	412	181
10	Dah Sing Bank, Limited	31-Dec-21	3,940	1,436	3,031	2,345	394	(4)
11	DBS Bank (Hong Kong) Limited	31-Dec-21	6,176	4,931	5,257	5,850	259	79
12	Fubon Bank (Hong Kong) Limited	31-Dec-21	1,286	382	976	692	263	41
13	Hang Seng Bank, Limited	31-Dec-21	23,822	9,360	14,134	19,048	2,807	144
14	Hongkong And Shanghai Banking Corporation Limited (The)	31-Dec-21	98,114	80,544	104,876	73,782	7,055	19,836
15	Industrial And Commercial Bank of China (Asia) Limited	31-Dec-21	9,367	3,421	3,777	9,011	1,770	(267)
16	Morgan Stanley Bank Asia Limited	31-Dec-21	282	4,166	3,114	1,334	-	-
17	Nanyang Commercial Bank, Limited	31-Dec-21	6,325	2,264	3,340	5,249	1,413	(94)
18	OCBC Wing Hang Bank Limited	31-Dec-21	4,610	1,503	3,381	2,732	(3)	98
19	Public Bank (Hong Kong) Limited	31-Dec-21	1,274	228	836	666	91	-
20	Shanghai Commercial Bank Limited	31-Dec-21	3,653	1,555	1,697	3,511	21	53
21	Standard Chartered Bank (Hong Kong) Limited	31-Dec-21	22,746	23,227	34,173	11,800	2,147	(847)
22	Tai Sang Bank Limited	31-Dec-21	6	16	27	(5)	-	8
23	Tai Yau Bank, Limited	31-Dec-21	3	1	19	(15)	-	-
	TOTAL[N1]	**2021**	**223,523**	**162,426**	**209,144**	**176,805**	**20,895**	**20,028**
	Total excluding HSBC[N2]	**2021**	**149,231**	**91,242**	**118,402**	**122,071**	**16,647**	**336**
	Total excluding BOCHK & HSBC[N2]	**2021**	**121,087**	**72,197**	**102,593**	**90,691**	**14,681**	**675**

* This is Liquidity Coverage Ratio.
# This is Liquidity Maintenance Ratio.
N1 This does not include Hang Seng Bank, as it is already included in the results of The Hongkong and Shanghai Banking Corporation.
N2 This include Hang Seng Bank.
N3 ROA is calculated as net profit after tax divided by average total assets.
N4 ROE is calculated as net profit after tax divided by average total equity.

Source: Extracted from individual banks' financial and public statements

Financial highlights		Size and strength measures						
Profit before tax	Net profit after tax	Total assets	Gross advances to customers	Expected credit loss allowance against customer advances	Total deposits from customers	Total equity	Capital adequacy ratio	Liquidity ratio
29,075	24,231	3,442,975	1,605,653	9,878	2,334,362	306,105	21.4%	146.7%*
3,151	2,670	457,516	189,298	885	331,727	50,560	20.8%	140.9%*
6,136	5,313	907,470	559,580	4,371	633,505	116,050	21.6%	182.4%*
2,500	2,128	417,472	242,667	1,872	327,768	49,787	17.1%	239.0%*
3,940	3,330	497,290	303,297	3,063	377,197	79,739	21.2%	146.8%*
1,305	1,122	177,287	84,675	529	126,706	18,771	17.9%	172.4%*
1,797	1505	255,248	155,061	1,206	201,087	34,596	19.2%	45.8%#
1,985	1,676	312,247	118,051	290	235,727	25,290	26.0%	50.1%#
3,604	3,032	389,075	204,413	1,660	293,061	52,433	19.6%	159.9%*
1,947	1,638	249,822	148,569	1,379	197,022	30,729	18.1%	48.3%#
5,670	4,750	447,808	242,401	3,451	373,933	43,042	19.0%	158.9%*
470	386	118,115	61,703	499	84,421	14,752	17.9%	73.9%#
16,385	13,946	1,820,185	1,004,325	6,928	1,230,216	184,416	18.9%	191.8%*
86,563	72,548	9,903,393	3,872,956	32,017	6,177,182	923,511	18.7%	154.3%*
6,974	5,665	927,875	464,848	7,608	548,304	143,593	22.7%	178.9%*
1,334	1,130	77,284	31,755	-	66,350	9,114	53.0%	67.0%#
3,742	3,231	536,331	296,050	4,013	383,781	66,334	18.5%	153.4%*
2,833	2,375	325,478	202,220	575	229,734	46,626	19.4%	36.6%#
575	476	39,865	25,767	184	32,182	6,637	23.3%	48.9%#
3,543	2,906	233,933	96,422	516	183,587	34,221	21.5%	61.2%#
8,806	6,699	2,479,259	1,202,731	6,248	1,820,815	183,468	19.1%	145.0%*
3	4	1,049	215	-	299	716	100.9%	127.8%#
(15)	(15)	2,056	1	-	1,255	797	218.1%	86.2%#
175,938	**146,800**	**22,198,848**	**10,108,333**	**80,244**	**14,960,005**	**2,236,871**	**-**	**-**
105,760	**88,198**	**14,115,640**	**7,239,702**	**55,155**	**10,013,039**	**1,497,776**	**-**	**-**
76,685	**63,967**	**10,672,665**	**5,634,049**	**45,277**	**7,678,677**	**1,191,671**	**-**	**-**

	HK$ million	Year ended	Key ratios					
			Performance measures					
			Net customer loan/deposit ratio	Net interest income/ average total assets	Non-interest income/total operating income	Cost/ income ratio	ROA[N3]	ROE[N4]
1	Bank of China (Hong Kong) Limited	31-Dec-21	68.4%	0.9%	40.4%	33.5%	0.7%	8.0%
2	Bank of Communications (Hong Kong) Limited	31-Dec-21	56.8%	0.9%	28.3%	33.2%	0.6%	5.5%
3	Bank of East Asia, Limited (The)	31-Dec-21	87.6%	1.2%	31.3%	57.2%	0.6%	4.6%
4	China CITIC Bank International Limited	31-Dec-21	73.5%	1.4%	29.2%	47.9%	0.5%	4.4%
5	China Construction Bank (Asia) Corporation Limited	31-Dec-21	79.6%	1.1%	33.8%	41.4%	0.7%	4.2%
6	Chiyu Banking Corporation Limited	31-Dec-21	66.4%	1.0%	30.8%	54.4%	0.7%	6.1%
7	Chong Hing Bank Limited	31-Dec-21	76.5%	1.3%	25.3%	42.6%	0.6%	4.8%
8	Citibank (Hong Kong) Limited	31-Dec-21	50.0%	0.9%	60.3%	73.1%	0.6%	6.8%
9	CMB Wing Lung Bank Limited	31-Dec-21	69.2%	1.1%	35.2%	40.7%	0.8%	5.9%
10	Dah Sing Bank, Limited	31-Dec-21	74.7%	1.6%	26.7%	56.4%	0.7%	5.5%
11	DBS Bank (Hong Kong) Limited	31-Dec-21	63.9%	1.3%	44.4%	47.3%	1.0%	11.2%
12	Fubon Bank (Hong Kong) Limited	31-Dec-21	72.5%	1.1%	22.9%	58.5%	0.3%	2.6%
13	Hang Seng Bank, Limited	31-Dec-21	81.1%	1.3%	28.2%	42.6%	0.8%	7.6%
14	Hongkong And Shanghai Banking Corporation Limited (The)	31-Dec-21	62.2%	1.0%	45.1%	58.7%	0.8%	7.9%
15	Industrial And Commercial Bank of China (Asia) Limited	31-Dec-21	83.4%	1.0%	26.8%	29.5%	0.6%	4.0%
16	Morgan Stanley Bank Asia Limited	31-Dec-21	47.9%	0.4%	93.7%	70.0%	1.6%	13.3%
17	Nanyang Commercial Bank, Limited	31-Dec-21	76.1%	1.2%	26.4%	38.9%	0.6%	5.0%
18	OCBC Wing Hang Bank Limited	31-Dec-21	87.8%	1.4%	24.6%	55.3%	0.7%	5.1%
19	Public Bank (Hong Kong) Limited	31-Dec-21	79.5%	3.1%	15.2%	55.7%	1.2%	7.3%
20	Shanghai Commercial Bank Limited	31-Dec-21	52.2%	1.6%	29.9%	32.6%	1.3%	8.7%
21	Standard Chartered Bank (Hong Kong) Limited	31-Dec-21	65.7%	0.9%	50.5%	74.3%	0.3%	3.7%
22	Tai Sang Bank Limited	31-Dec-21	71.9%	0.6%	72.7%	122.7%	0.4%	0.6%
23	Tai Yau Bank, Limited	31-Dec-21	0.1%	0.1%	25.0%	475.0%	-0.7%	-1.9%
	TOTAL[N1]	**2021**	**67.0%**	**1.0%**	**42.1%**	**54.2%**	**0.7%**	**6.6%**
	Total excluding HSBC[N2]	**2021**	**71.8%**	**1.1%**	**37.9%**	**49.2%**	**0.6%**	**7.3%**
	Total excluding BOCHK & HSBC[N2]	**2021**	**72.8%**	**1.1%**	**37.4%**	**53.1%**	**0.6%**	**6.7%**

* This is Liquidity Coverage Ratio.
\# This is Liquidity Maintenance Ratio.
N1 This does not include Hang Seng Bank, as it is already included in the results of The Hongkong and Shanghai Banking Corporation.
N2 This include Hang Seng Bank.
N3 ROA is calculated as net profit after tax divided by average total assets.
N4 ROE is calculated as net profit after tax divided by average total equity.

Source: Extracted from individual banks' financial and public statements

Loan asset quality								
Impaired advances (stage 3)					Advances (stage 2)			
Gross impaired advances	Gross impaired advances/ Advances to customers	Stage 3 expected credit loss allowance made against impaired advances	Stage 3 expected credit loss allowance as a percentage of gross impaired advances	Collateral for impaired advances	Gross advances in Stage 2	Expected credit loss allowance made against Stage 2 advances	Stage 2 expected credit loss allowances as a percentage of gross stage 2 advances	Risk-weighted assets ("RWA")
4,321	0.3%	2,632	60.9%	2,260	33,457	2,406	7.2%	1,296,153
202	0.1%	77	38.1%	80	8,523	109	1.3%	293,767
5,977	1.1%	3,177	53.2%	3,656	29,856	527	1.8%	507,309
2,254	0.9%	555	24.6%	1,646	9,877	175	1.8%	315,565
1,941	0.6%	901	46.4%	992	19,833	888	4.5%	383,384
676	0.8%	206	30.5%	16	2,248	2	0.1%	102,273
1,999	1.3%	547	27.4%	1,502	5,548	88	1.6%	188,670
41	0.0%	27	65.9%	15	169	115	68.0%	97,844
1,752	0.9%	1,087	62.0%	38	31,490	170	0.5%	270,579
1,399	0.9%	548	39.2%	758	11,502	354	3.1%	171,602
2,687	1.1%	1,355	50.4%	1,092	16,397	1,057	6.4%	249,335
458	0.7%	252	55.0%	90	2,999	78	2.6%	76,731
9,457	0.9%	2,700	28.6%	5,180	141,747	3,466	2.4%	734,128
41,332	1.1%	19,654	47.6%	14,956	480,632	9,426	2.0%	3,156,553
6,182	1.3%	1,440	23.3%	8,379	19,123	746	3.9%	643,835
-	0.0%	-	0.0%	-	-	-	0.0%	16,754
4,429	1.5%	2,532	57.2%	4,225	4,773	168	3.5%	375,956
761	0.4%	226	29.7%	550	15,039	109	0.7%	222,274
248	1.0%	66	26.6%	278	251	22	8.8%	26,826
521	0.5%	53	10.3%	871	9,327	174	1.9%	176,263
9,160	0.8%	3,523	38.5%	3,077	32,021	1,117	3.5%	894,188
-	0.0%	-	0.0%	-	-	-	0.0%	535
-	0.0%	-	0.0%	-	-	-	0.0%	365
86,340	**0.9%**	**38,845**	**45.0%**	**44,481**	**733,065**	**17,731**	**2.4%**	**9,466,761**
54,465	**0.8%**	**21,891**	**40.2%**	**34,705**	**394,180**	**11,771**	**3.0%**	**7,044,336**
50,144	**0.9%**	**19,259**	**38.4%**	**32,445**	**360,723**	**9,365**	**2.6%**	**5,748,183**

Restricted licence banks – Financial highlights

	HK$ million	Year ended	Income statement					
			Net interest income	Non-interest income	Operating expenses	Operating profit before impairment charges	Change in expected credit loss against customer advances	Other items
1	Allied Banking Corporation (Hong Kong) Limited	31-Dec-21	50	9	34	25	-	-
2	Banc of America Securities Asia Limited	31-Dec-21	-	89	38	51	-	-
3	Bank of China International Limited	31-Dec-21	98	276	228	146	-	-
4	Bank of Shanghai (Hong Kong) Limited	31-Dec-21	705	87	247	545	347	(282)
5	Citicorp International Limited	31-Dec-21	5	4,547	2,351	2,201	-	-
6	Goldman Sachs Asia Bank Limited	31-Dec-21	7	39	38	8	-	-
7	Habib Bank Zurich (Hong Kong) Limited	31-Dec-21	68	52	82	38	-	-
8	J.P. Morgan Securities (Asia Pacific) Limited	31-Dec-21	19	10,142	7,059	3,102	-	-
9	Kasikornbank Public Company Limited	31-Dec-21	230	42	27	245	3	-
10	KDB Asia Limited	31-Dec-21	276	174	95	355	4	(3)
11	ORIX Asia Limited	31-Mar-21	148	53	142	59	28	-
12	Siam Commercial Bank Public Company Limited (The)	31-Dec-21	27	8	13	22	(1)	-
	TOTAL	**2021**	**1,633**	**15,518**	**10,354**	**6,797**	**381**	**(285)**

Note that all are Liquidity Maintenance Ratio
Source: Extracted from individual banks' financial and public statements

Financial highlights								
		Size and strength measures						
Profit before tax	Net profit after tax	Total assets	Gross advances to customers	Expected credit loss allowance against customer advances	Total deposits from customers	Total equity	Capital adequacy ratio	Liquidity ratio#
25	21	1,638	1,061	-	1,022	574	37.8%	98.6%
51	41	9,551	-	-	-	4,252	176.7%	13671.4%
146	122	8,693	4,746	1	6,778	1,784	44.4%	46.3%
(84)	(89)	35,332	18,855	308	14,029	4,844	19.4%	107.8%
2,201	1,843	7,811	-	-	-	6,786	66.3%	160.0%
8	7	1,095	-	-	8	924	230.9%	160.0%
38	31	2,975	1,929	13	1,651	571	27.5%	69.3%
3,102	2,590	19,529	-	-	-	12,376	51.9%	407.6%
242	240	22,491	1,481	15	10	4,486	18.8%	160.0%
348	291	26,033	18,721	121	242	3,658	17.5%	90.4%
31	25	4,538	3,770	76	1,039	2,184	52.6%	329.5%
23	21	13,722	790	2	406	-	18.7%	95.6%
6,131	**5,143**	**153,408**	**51,353**	**536**	**25,185**	**42,439**	**-**	**-**

	HK$ million	Year ended	Key ratios					
			Performance measures					
			Net customer loan/deposit ratio	Net interest income/ average total assets	Non-interest income/total operating income	Cost/ income ratio	ROA	ROE
1	Allied Banking Corporation (Hong Kong) Limited	31-Dec-21	103.8%	3.1%	14.7%	57.5%	1.3%	3.7%
2	Banc of America Securities Asia Limited	31-Dec-21	N/A	0.0%	99.9%	42.3%	0.6%	1.0%
3	Bank of China International Limited	31-Dec-21	70.0%	1.1%	73.8%	60.9%	1.4%	7.1%
4	Bank of Shanghai (Hong Kong) Limited	31-Dec-21	132.2%	1.9%	11.0%	31.2%	-0.2%	-1.8%
5	Citicorp International Limited	31-Dec-21	N/A	0.1%	99.9%	51.7%	23.2%	26.6%
6	Goldman Sachs Asia Bank Limited	31-Dec-21	0.0%	0.6%	84.6%	68.4%	0.6%	0.7%
7	Habib Bank Zurich (Hong Kong) Limited	31-Dec-21	116.0%	2.4%	43.5%	68.3%	1.1%	5.6%
8	J.P. Morgan Securities (Asia Pacific) Limited	31-Dec-21	N/A	0.1%	99.8%	69.5%	15.1%	23.4%
9	Kasikornbank Public Company Limited	31-Dec-21	14412.1%	1.1%	15.4%	9.9%	1.1%	5.4%
10	KDB Asia Limited	31-Dec-21	7686.0%	1.2%	38.7%	21.1%	1.3%	8.3%
11	ORIX Asia Limited	31-Mar-21	355.5%	3.2%	26.4%	70.6%	0.5%	1.2%
12	Siam Commercial Bank Public Company Limited (The)	31-Dec-21	194.1%	0.2%	21.7%	38.3%	0.1%	N/A
	TOTAL	**2021**	**201.8%**	**1.1%**	**90.5%**	**60.4%**	**3.4%**	**12.1%**

Source: Extracted from individual banks' financial and public statements

	Loan asset quality							
	Impaired advances / Stage 3 advances					Advances (stage 2)		
	Gross impaired advances	Gross impaired advances/ Advances to customers	Stage 3 expected credit loss allowance made against impaired advances	Stage 3 expected credit loss allowance as a percentage of gross impaired advances	Collateral for impaired advances	Gross advances in Stage 2	Expected credit loss allowance made against Stage 2 advances	Stage 2 expected credit loss allowances as a percentage of gross stage 2 advances
	16	1.5%	-	0.0%	21	1	-	0.0%
	-	0.0%	-	0.0%	-	-	-	0.0%
	1	0.0%	1	100.0%	-	-	-	0.0%
	357	1.9%	110	30.8%	-	195	39	20.0%
	-	0.0%	-	0.0%	-	-	-	0.0%
	-	0.0%	-	0.0%	-	-	-	0.0%
	-	0.0%	-	0.0%	-	234	9	4.0%
	-	0.0%	-	0.0%	-	-	-	0.0%
	-	0.0%	-	0.0%	-	-	-	0.0%
	76	0.4%	76	100.0%	-	10	3	30.6%
	101	2.7%	34	33.6%	68	58	9	14.8%
	-	0.0%	-	0.0%	-	-	-	0.0%
	551	**1.1%**	**221**	**40.1%**	**68**	**497**	**60**	**12.1%**

Deposit-taking companies – Financial highlights

	HK$ million	Year ended	Income statement					
			Net interest income	Non-interest income	Operating expenses	Operating profit before impairment charges	Change in expected credit loss against customer advances	Other items
1	BCOM Finance (Hong Kong) Limited	31-Dec-21	-	7	1	6	-	-
2	BPI International Finance Limited	31-Dec-21	2	59	50	11	-	-
3	Chau's Brothers Finance Company Limited	31-Dec-21	5	-	5	-	1	-
4	Chong Hing Finance Limited	31-Dec-21	-	-	-	-	-	-
5	Commonwealth Finance Corporation Limited	31-Dec-21	11	4	12	3	4	-
6	Corporate Finance (D.T.C.) Limited	31-Dec-21	4	-	4	-	-	-
7	Fubon Credit (Hong Kong) Limited	31-Dec-21	-	-	1	(1)	(1)	-
8	KEB Hana Global Finance Limited	31-Dec-21	20	40	29	31	-	-
9	Kexim Asia Limited	31-Dec-21	52	10	25	37	-	1
10	Public Finance Limited	31-Dec-21	702	111	416	397	81	-
11	Vietnam Finance Company Limited	31-Dec-21	6	1	7	-	-	-
12	Woori Global Markets Asia Limited	31-Dec-21	47	48	32	63	2	-
	Total	**2021**	**849**	**280**	**582**	**547**	**87**	**1**

Note that all are Liquidity Maintenance Ratio
Source: Extracted from individual companies' financial and public statements

Financial highlights									
		Size and strength measures							
Profit before tax	Net profit after tax	Total assets	Risk-weighted assets ("RWA")	Gross advances to customers	Expected credit loss allowance against customer advances	Total deposits from customers	Total equity	Capital adequacy ratio	Liquidity ratio#
6	5	272	N/A	-	-	1	270	N/A	N/A
11	15	363	268	106	-	202	148	53.5%	389.9%
(1)	(1)	71	N/A	49	1	1	69	125.9%	161%
-	-	46	N/A	-	-	-	46	N/A	N/A
(1)	(1)	287	N/A	189	4	129	113	63.0%	122.0%
-	-	328	N/A	164	-	223	103	N/A	N/A
-	-	96	N/A	1	-	-	91	N/A	N/A
31	26	1,439	787	1,334	1	-	556	70.5%	20028.6%
38	32	4,829	4,560	2,453	6	-	1,303	31.2%	146.9%
316	264	6,610	5,037	5,224	135	4,688	1,652	26.9%	108.3%
-	-	916	N/A	2	-	-	145	N/A	N/A
61	50	3,980	3,906	2,141	27	N/A	979	25.1%	177.3%
461	**390**	**19,237**	**14,558**	**11,663**	**174**	**5,244**	**5,475**	**-**	**-**

			Key ratios					
			Performance measures					
	HK$ million	Year ended	Net customer loan/deposit ratio	Net interest income/ average total assets	Non-interest income/ total operating income	Cost/ income ratio	ROA	ROE
1	BCOM Finance (Hong Kong) Limited	31-Dec-21	0.0%	0.1%	100.0%	23.0%	1.8%	1.8%
2	BPI International Finance Limited	31-Dec-21	52.7%	0.5%	96.7%	82.7%	3.8%	10.5%
3	Chau's Brothers Finance Company Limited	31-Dec-21	7911.1%	5.8%	9.4%	109.7%	-0.7%	-0.8%
4	Chong Hing Finance Limited	31-Dec-21	N/A	0.2%	0.0%	199.7%	-0.2%	-0.2%
5	Commonwealth Finance Corporation Limited	31-Dec-21	143.8%	3.5%	29.2%	80.1%	-0.4%	-1.1%
6	Corporate Finance (D.T.C.) Limited	31-Dec-21	73.7%	1.4%	6.0%	91.1%	0.1%	0.4%
7	Fubon Credit (Hong Kong) Limited	31-Dec-21	N/A	0.4%	0.0%	253.0%	0.0%	0.0%
8	KEB Hana Global Finance Limited	31-Dec-21	N/A	1.5%	66.5%	49.4%	1.9%	4.8%
9	Kexim Asia Limited	31-Dec-21	N/A	1.2%	17.3%	40.0%	0.7%	2.4%
10	Public Finance Limited	31-Dec-21	108.6%	10.3%	13.7%	51.2%	3.9%	16.3%
11	Vietnam Finance Company Limited	31-Dec-21	658.5%	1.0%	7.0%	96.6%	0.0%	0.1%
12	Woori Global Markets Asia Limited	31-Dec-21	N/A	1.3%	50.8%	33.6%	1.4%	5.3%
	Total	**2021**	**219.1%**	**4.4%**	**24.8%**	**51.6%**	**2.0%**	**7.1%**

Source: Extracted from individual companies' financial and public statements

Loan asset quality							
Impaired advances (stage 3)					Advances (stage 2)		
Gross impaired advances	Gross impaired advances/ Advances to customers	Stage 3 expected credit loss allowance made against impaired advances	Stage 3 expected credit loss allowance as a percentage of gross impaired advances	Collateral for impaired advances	Gross advances in Stage 2	Expected credit loss allowance made against Stage 2 advances	Stage 2 expected credit loss allowances as a percentage of gross stage 2 advances
N/A	N/A	-	0.0%	-	-	-	0.0%
-	0.0%	-	0.0%	-	-	-	0.0%
1	1.0%	1	100.0%	-	-	-	0.0%
-	N/A	-	0.0%	-	-	-	0.0%
5	2.7%	3	50.0%	-	-	-	0.0%
-	0.0%	-	0.0%	-	-	-	0.0%
-	0.0%	-	0.0%	-	-	-	0.0%
-	0.0%	-	0.0%	-	44	-	0.0%
-	0.0%	-	0.0%	-	-	-	0.0%
62	1.2%	32	52.4%	4	40	21	52.1%
-	0.0%	-	0.0%	-	-	-	0.0%
65	3.0%	23	35.8%	-	-	-	0.0%
133	**1.1%**	**59**	**44.4%**	**4**	**84**	**21**	**25.0%**

Foreign bank branches – Financial highlights

	HK$ million	Year ended	Income statement				
			Net interest income	Non-interest income	Operating expenses	Operating profit before impairment charges	Change in expected credit loss against customer advances
1	ABN AMRO Bank N.V.	31-Dec-21	33	40	104	(31)	74
2	Agricultural Bank of China Limited	31-Dec-21	3,942	546	486	4,002	191
3	Australia And New Zealand Banking Group Limited	30-Sep-21	628	617	980	265	88
4	Banco Bilbao Vizcaya Argentaria S.A.	31-Dec-21	365	338	201	502	(3)
5	Banco Santander, S.A.	31-Dec-21	436	366	709	93	6
6	Bangkok Bank Public Company Limited	31-Dec-21	277	161	158	280	114
7	Bank J. Safra Sarasin AG	31-Dec-21	140	390	560	(30)	1
8	Bank Julius Baer & Co. Ltd.	31-Dec-21	605	2,602	1,915	1,292	(1)
9	Bank of America, National Association	31-Dec-21	735	1,380	1,656	459	929
10	Bank of China Limited	31-Dec-21	444	340	122	662	-
11	Bank of Communications Co., Ltd.	31-Dec-21	1,617	1,750	1,493	1,874	695
12	Bank of Dongguan Co., Ltd.	31-Dec-21	-	-	82	(82)	-
13	Bank of India	31-Mar-21	95	29	39	85	31
14	Bank of Montreal	31-Oct-21	108	423	460	71	(33)
15	Bank of New York Mellon (The)	31-Dec-21	48	694	502	240	-
16	Bank of Nova Scotia (The)	31-Oct-21	215	117	227	105	-
17	Bank of Singapore Limited	31-Dec-21	134	1,020	719	435	-
18	Bank of Taiwan	31-Dec-21	107	11	40	78	(13)
19	Bank Sinopac	31-Dec-21	451	176	177	450	67
20	Banque Pictet & Cie Sa	31-Dec-21	19	118	230	(93)	-
21	Barclays Bank PLC	31-Dec-21	(14)	2,336	1,837	485	(3)
22	BDO Unibank, Inc.	31-Dec-21	95	20	38	77	16
23	BNP Paribas	31-Dec-21	2,910	3,535	4,498	1,947	79
24	BNP Paribas Securities Services	31-Dec-21	26	437	424	39	-
25	CA Indosuez (Switzerland) SA	31-Dec-21	31	330	352	9	-
26	Canadian Imperial Bank of Commerce	31-Oct-21	56	365	200	221	1
27	Cathay Bank	31-Dec-21	50	11	44	17	73
28	Cathay United Bank Company, Limited	31-Dec-21	314	102	195	221	218
29	Chang Hwa Commercial Bank, Ltd.	31-Dec-21	96	23	39	80	162
30	Chiba Bank, Ltd. (The)	31-Mar-21	49	2	25	26	-
31	China Bohai Bank Co., Ltd.	31-Dec-21	17	11	146	(118)	32
32	China Construction Bank Corporation	31-Dec-21	847	594	678	763	(338)
33	China Development Bank	31-Dec-21	1,125	48	273	900	(1,351)
34	China Everbright Bank Co., Ltd.	31-Dec-21	1,930	516	413	2,033	4
35	China Guangfa Bank Co., Ltd.	31-Mar-21	94	(23)	133	(62)	81
36	China Merchants Bank Co., Ltd.	31-Dec-21	864	894	472	1,286	17

* Some branches hold impairment allowances of head office
# Note that all are Liquidity Maintenance Ratio
Source: Extracted from individual companies' financial and public statements

Financial highlights								
			Size and strength measures					
Other items	Profit before tax	Net profit after tax	Total assets	Gross advances to customers	Expected credit loss allowance against customer advances*	Total deposits from customers	Liquidity ratio#
(28)	(133)	(133)	8,871	262	6	18	88.6%
60	3,871	3,232	583,480	250,079	1,999	167,610	102.1%
-	177	148	156,398	66,171	471	34,827	41.0%
-	505	425	46,677	39,774	18	436	46.2%
-	87	48	74,436	23,329	42	10,095	58.0%
-	166	126	68,789	15,223	2,245	13,807	41.2%
-	(31)	(31)	20,665	11,462	2	15,424	41.4%
-	1,293	1,080	86,207	46,749	-	62,490	40.1%
-	(470)	(378)	112,752	57,041	1,389	42,325	53.9%
(9)	653	551	132,171	-	-	-	1555.0%
25	1,204	1,050	424,081	116,747	1,489	176,821	156.0%
(3)	(85)	(85)	1,863	559	3	61	3848.3%
1	55	55	15,246	2,970	343	2,566	193.1%
(1)	103	113	45,845	13,212	N/A	8,630	81.8%
-	240	213	61,747	43	-	1,902	702.0%
-	105	88	44,229	26,501	-	13,830	46.0%
-	435	364	32,676	14,558	-	14,803	55.7%
1	92	92	14,836	1,925	60	7,124	96.1%
13	396	328	36,777	10,915	155	27,995	65.6%
-	(93)	(93)	8,573	3,667	-	5,439	49.7%
-	488	429	10,917	55	-	1,195	265.6%
-	61	50	6,283	2,961	10	3,283	69.6%
-	1,868	1,525	360,197	160,379	1,207	200,815	46.6%
-	39	31	8,907	14	2	1,764	88.7%
-	9	8	8,688	2,425	-	6,142	51.5%
-	220	182	21,811	7,022	1	8,886	57.3%
-	(56)	(56)	3,775	2,148	22	1,800	52.3%
1	4	9	25,062	11,601	119	11,531	63.0%
-	(82)	(83)	12,144	3,872	162	7,851	76.3%
-	26	23	8,886	3,453	-	275	121.9%
-	(150)	(150)	7,681	2,934	30	2,357	172.4%
-	1,101	918	207,109	53,133	673	53,716	56.1%
-	2,251	2,247	284,805	173,493	11,893	39,332	93.7%
-	2,029	1,699	215,536	72,917	252	82,617	71.3%
(14)	(157)	(157)	19,691	6,102	81	68	297.4%
-	1,269	1,006	153,430	42,783	252	112,872	59.9%

	HK$ million	Year ended	Income statement				
			Net interest income	Non-interest income	Operating expenses	Operating profit before impairment charges	Change in expected credit loss against customer advances
37	China Minsheng Banking Corp., Ltd.	31-Dec-21	2,240	349	504	2,085	25
38	China Zheshang Bank Co., Ltd.	31-Dec-21	437	45	149	333	(34)
39	CIMB Bank Berhad	31-Dec-21	79	12	76	15	705
40	Citibank, N.A.	31-Dec-21	3,134	3,711	4,311	2,534	(218)
41	Commerzbank AG	31-Dec-21	141	(13)	262	(134)	(4)
42	Commonwealth Bank of Australia	30-Jun-21	58	21	150	(71)	181
43	Coöperatieve Rabobank U.A.	31-Dec-21	478	385	697	166	67
44	Credit Agricole Corporate And Investment Bank	31-Dec-21	571	1,736	1,429	878	71
45	Crédit Industriel et Commercial	31-Dec-21	81	27	54	54	(4)
46	Credit Suisse AG	31-Dec-21	784	2,962	2,878	868	(37)
47	CTBC Bank Co., Ltd.	31-Dec-21	940	356	552	744	220
48	DBS Bank Ltd.	31-Dec-21	1,905	1,251	770	2,386	(142)
49	Deutsche Bank Aktiengesellschaft	31-Dec-21	1,514	4,316	4,743	1,087	89
50	DZ BANK AG Deutsche Zentral-Genossenschaftsbank, Frankfurt Am Main	31-Dec-21	125	50	99	76	53
51	E.Sun Commercial Bank, Ltd.	31-Dec-21	446	219	145	520	19
52	EFG Bank AG	31-Dec-21	105	314	481	(62)	-
53	Erste Group Bank AG	31-Dec-21	162	(23)	60	79	1
54	East West Bank	31-Dec-21	120	73	139	54	20
55	Far Eastern International Bank	31-Dec-21	41	13	38	16	44
56	First Abu Dhabi Bank PJSC	31-Dec-21	81	172	94	159	(17)
57	First Commercial Bank, Ltd.	31-Dec-21	197	43	53	187	150
58	HDFC Bank Limited	31-Mar-21	44	15	15	44	12
59	Hua Nan Commercial Bank, Ltd.	31-Dec-21	163	42	58	147	19
60	Hua Xia Bank Co., Limited	31-Dec-21	318	40	189	169	77
61	ICICI Bank Limited	31-Mar-21	57	232	127	162	51
62	Indian Overseas Bank	31-Mar-21	67	80	26	121	111
63	Industrial And Commercial Bank of China Limited	31-Dec-21	890	155	431	614	(220)
64	Industrial Bank Co., Ltd.	31-Dec-21	2,302	106	601	1,807	(1,377)
65	Industrial Bank of Korea	31-Dec-21	110	53	41	122	4
66	ING Bank N.V.	31-Dec-21	470	254	448	276	235
67	Intesa Sanpaolo S.p.A.	31-Dec-21	380	107	150	337	165
68	JPMorgan Chase Bank, National Association	31-Dec-21	569	9,597	8,632	1,534	223
69	KBC Bank N.V.	31-Dec-21	41	31	64	8	1
70	KEB Hana Bank	31-Dec-21	255	127	58	324	6
71	Kookmin Bank	31-Dec-21	273	92	63	302	50
72	LGT Bank AG	31-Dec-21	210	2,139	2,165	184	-
73	Malayan Banking Berhad	31-Dec-21	386	(27)	174	185	268

* Some branches hold impairment allowances of head office
# Note that all are Liquidity Maintenance Ratio
Source: Extracted from individual companies' financial and public statements

Financial highlights

Other items	Profit before tax	Net profit after tax	Size and strength measures				
			Total assets	Gross advances to customers	Expected credit loss allowance against customer advances*	Total deposits from customers	Liquidity ratio#
60	2,120	1,731	209,034	101,465	729	119,851	67.1%
-	367	306	53,756	17	17	4,177	212.0%
-	(690)	(573)	11,496	3,090	888	4,248	128.7%
-	2,752	2,440	543,697	146,806	288	423,616	41.9%
-	(130)	(130)	10,596	628	315	44	849.1%
2	(250)	(264)	6,985	3,007	(710)	779	173.2%
-	99	94	92,927	35,999	380	12,233	47.6%
2	809	679	198,290	73,933	289	38,096	62.9%
-	58	48	17,459	10,738	10	2,742	48.1%
-	905	788	130,329	58,629	11	98,717	229.9%
(2)	522	434	77,851	26,523	308	66,820	71.2%
-	2,528	2,138	356,513	212,576	953	71,998	42.5%
-	998	825	154,070	53,219	488	69,098	63.3%
-	23	23	19,122	8,004	124	419	145.6%
-	501	430	42,862	17,222	338	35,922	51.5%
-	-62	-62	14,976	6,612	-	11,723	56.7%
-	78	82	27,746	-	-	-	90.1%
-	34	25	14,987	6,644	67	11,180	44.1%
-	(28)	(28)	3,962	2,047	24	2,857	47.7%
-	176	151	42,041	5,066	5	29,051	69.4%
(3)	34	28	18,010	7,665	87	13,019	46.1%
-	32	27	6,484	4,167	46	1,101	228.1%
16	144	122	22,801	7,336	103	17,480	62.1%
-	92	92	38,510	19,410	73	9,186	73.0%
(1)	110	92	11,976	4,552	59	2,077	47.9%
2	12	12	5,941	3,494	85	1,830	93.9%
-	834	699	224,074	66,149	141	-	61.6%
-	3,184	2,657	219,469	96,082	1,126	99,505	65.5%
-	118	104	16,122	5,061	16	1,184	134.2%
-	41	31	79,876	33,451	692	6,351	50.0%
1	173	151	59,999	17,520	859	2,746	48.9%
(1)	1,310	1,083	237,569	19,974	311	58,002	82.6%
-	7	6	7,014	2,701	12	1,322	50.3%
-	318	263	23,750	19,348	143	5,897	46.6%
-	252	227	36,695	25,228	144	849	70.0%
-	184	148	51,801	17,464	-	40,013	61.2%
-	(83)	(64)	46,430	25,872	536	25,389	80.0%

	HK$ million	Year ended	Net interest income	Non-interest income	Operating expenses	Operating profit before impairment charges	Change in expected credit loss against customer advances
			Income statement				
74	Mega International Commercial Bank Co., Ltd.	31-Dec-21	246	37	69	214	(16)
75	Mitsubishi UFJ Trust And Banking Corporation	31-Mar-21	117	(48)	55	14	-
76	Mizuho Bank, Ltd.	31-Mar-21	1,398	661	817	1,242	141
77	MUFG Bank, Ltd.	31-Mar-21	558	735	1,153	140	(26)
78	National Australia Bank Limited	30-Sep-21	210	281	139	352	(25)
79	Natixis	31-Dec-21	426	2,109	1,597	938	68
80	NongHyup Bank	31-Dec-21	-	-	2	(2)	-
81	O-Bank Co., Ltd.	31-Dec-21	194	103	125	172	9
82	Oversea-Chinese Banking Corporation Limited	31-Dec-21	991	294	330	955	425
83	Ping An Bank Co., Ltd.	31-Dec-21	351	331	256	426	205
84	Punjab National Bank	31-Mar-21	190	35	32	193	51
85	Qatar National Bank (Q.P.S.C.)	31-Dec-21	11	2	59	(46)	-
86	Royal Bank of Canada	31-Oct-21	50	911	913	48	-
87	Shanghai Commercial & Savings Bank, Ltd. (The)	31-Dec-21	131	47	44	134	-
88	Shanghai Pudong Development Bank Co., Ltd.	31-Dec-21	1,444	1,064	507	2,001	46
89	Shinhan Bank	31-Dec-21	337	261	72	526	(2)
90	Societe Generale	31-Dec-21	397	1,633	1,865	165	(32)
91	State Bank of India	31-Mar-21	447	189	(119)	755	-
92	State Street Bank And Trust Company	31-Dec-21	163	1,286	1,322	127	1
93	Sumitomo Mitsui Banking Corporation	31-Mar-21	1,268	647	638	1,277	366
94	Sumitomo Mitsui Trust Bank, Limited	31-Mar-21	(257)	469	96	116	79
95	Taipei Fubon Commercial Bank Co., Ltd.	31-Dec-21	396	303	189	510	13
96	Taishin International Bank Co., Ltd	31-Dec-21	239	153	174	218	1
97	Taiwan Business Bank, Ltd	31-Dec-21	63	9	40	32	48
98	Taiwan Cooperative Bank, Ltd.	31-Dec-21	101	12	34	79	184
99	Taiwan Shin Kong Commercial Bank Co., Ltd.	31-Dec-21	110	26	55	81	10
100	UBS AG	31-Dec-21	3,000	18,729	11,364	10,365	5
101	UCO Bank	31-Mar-21	46	151	51	146	45
102	UniCredit Bank AG	31-Dec-21	343	61	291	113	-
103	Union Bancaire Privée, UBP SA	31-Dec-21	139	440	479	100	-
104	Union Bank of India	31-Mar-21	95	66	29	132	671
105	United Overseas Bank Ltd.	31-Dec-21	2,313	971	785	2,499	350
106	Wells Fargo Bank, National Association	31-Dec-21	69	1,427	1,426	70	-
107	Westpac Banking Corporation	30-Sep-21	56	(1)	99	(44)	65
108	Woori Bank	31-Dec-21	242	71	34	279	2
109	Yuanta Commercial Bank Co., Ltd.	31-Dec-21	38	7	35	10	(15)
	Total	**2021**	**54,985**	**82,853**	**76,610**	**61,228**	**4,620**

* Some branches hold impairment allowances of head office
# Note that all are Liquidity Maintenance Ratio
Source: Extracted from individual companies' financial and public statements

Financial highlights							
			Size and strength measures				
Other items	Profit before tax	Net profit after tax	Total assets	Gross advances to customers	Expected credit loss allowance against customer advances*	Total deposits from customers	Liquidity ratio#
5	235	199	36,431	8,398	97	33,341	63.8%
-	14	14	34,216	-	-	88	202.9%
-	1,101	905	521,993	218,283	305	79,488	53.8%
-	166	108	397,695	199,114	2,051	126,563	44.5%
-	377	311	57,701	2,660	17	6,762	144.8%
13	883	750	83,908	48,127	144	6,472	47.9%
-	(2)	(2)	14	-	-	-	159.3%
-	163	134	12,883	7,461	95	11,688	58.2%
-	530	442	114,609	57,099	519	20,505	85.1%
-	221	150	55,419	18,506	268	28,902	89.6%
-	142	113	25,744	13,292	381	113	408.1%
-	(46)	(46)	34,436	780	1	25,684	78.3%
1	49	49	36,275	848	-	1,059	115.0%
-	134	112	8,422	2,352	56	5,985	49.2%
-	1,955	1,781	200,881	77,282	577	77,125	62.9%
-	528	455	37,903	26,265	74	2,625	94.2%
1	198	171	119,016	53,176	343	7,845	52.9%
-	755	643	129,545	33,520	505	4,493	90.9%
-	126	109	48,634	26	-	17,360	54.6%
(7)	904	727	308,363	156,657	525	78,446	44.6%
-	37	(9)	95,609	14,668	-	19,424	274.3%
(1)	496	416	64,188	17,791	206	42,993	47.1%
(1)	216	181	22,861	11,712	75	18,023	40.6%
5	(11)	(11)	4,893	2,194	34	3,703	43.5%
-	(105)	(105)	9,117	2,858	134	6,055	69.6%
(1)	70	58	11,599	4,555	59	8,221	75.1%
-	10,360	8,711	274,552	171,148	616	174,843	71.9%
-	101	93	6,579	4,921	138	1,156	151.0%
(66)	47	47	79,514	2,870	-	1,640	915.9%
-	100	81	26,006	10,165	-	16,150	78.0%
-	(539)	(539)	14,181	10,073	720	792	89.1%
-	2,149	1,812	224,648	158,976	1,134	76,137	37.2%
-	70	60	6,491	4,923	-	-	2903.9%
-	(109)	(112)	2,419	26	-	-	614.3%
-	277	233	31,300	19,120	33	2,704	108.6%
-	25	24	4,587	557	7	1,816	109.0%
71	**56,679**	**47,754**	**9,609,093**	**3,754,581**	**40,997**	**3,338,430**	**-**

Foreign bank branches – Financial highlights

(Continued)

	HK$ million	Year ended	Key ratios: Performance measures: Net customer loan/deposit ratio	Net interest income/ average total assets	Non-interest income/total operating income	Cost/ income ratio
1	ABN AMRO Bank N.V.	31-Dec-21	1422.2%	0.2%	54.8%	142.5%
2	Agricultural Bank of China Limited	31-Dec-21	148.0%	0.7%	12.2%	10.8%
3	Australia And New Zealand Banking Group Limited	30-Sep-21	188.6%	0.4%	49.6%	78.7%
4	Banco Bilbao Vizcaya Argentaria S.A.	31-Dec-21	9118.3%	0.8%	48.1%	28.6%
5	Banco Santander, S.A.	31-Dec-21	230.7%	0.6%	45.6%	88.4%
6	Bangkok Bank Public Company Limited	31-Dec-21	94.0%	0.4%	36.8%	36.1%
7	Bank J. Safra Sarasin AG	31-Dec-21	74.3%	0.8%	73.6%	105.7%
8	Bank Julius Baer & Co. Ltd.	31-Dec-21	74.8%	0.7%	81.1%	59.7%
9	Bank of America, National Association	31-Dec-21	131.5%	0.7%	65.2%	78.3%
10	Bank of China Limited	31-Dec-21	N/A	0.3%	43.4%	15.6%
11	Bank of Communications Co., Ltd.	31-Dec-21	65.2%	0.3%	52.0%	44.3%
12	Bank of Dongguan Co., Ltd.	31-Dec-21	911.5%	0.0%	N/A	N/A
13	Bank of India	31-Mar-21	102.4%	0.5%	23.4%	31.5%
14	Bank of Montreal	31-Oct-21	N/A	0.2%	79.7%	86.6%
15	Bank of New York Mellon (The)	31-Dec-21	2.3%	0.1%	93.5%	67.7%
16	Bank of Nova Scotia (The)	31-Oct-21	191.6%	0.5%	35.2%	68.4%
17	Bank of Singapore Limited	31-Dec-21	98.3%	0.4%	88.4%	62.3%
18	Bank of Taiwan	31-Dec-21	26.2%	0.7%	9.3%	33.9%
19	Bank Sinopac	31-Dec-21	38.4%	1.3%	28.1%	28.2%
20	Banque Pictet & Cie Sa	31-Dec-21	67.4%	0.2%	86.1%	167.9%
21	Barclays Bank PLC	31-Dec-21	4.6%	-0.1%	100.6%	79.1%
22	BDO Unibank, Inc.	31-Dec-21	89.9%	1.6%	17.4%	33.0%
23	BNP Paribas	31-Dec-21	79.3%	0.8%	54.8%	69.8%
24	BNP Paribas Securities Services	31-Dec-21	0.7%	0.3%	94.4%	91.6%
25	CA Indosuez (Switzerland) SA	31-Dec-21	39.5%	0.3%	91.4%	97.5%
26	Canadian Imperial Bank of Commerce	31-Oct-21	79.0%	0.3%	86.7%	47.5%
27	Cathay Bank	31-Dec-21	118.1%	1.4%	18.0%	72.1%
28	Cathay United Bank Company, Limited	31-Dec-21	99.6%	1.3%	24.5%	46.9%
29	Chang Hwa Commercial Bank, Ltd.	31-Dec-21	47.3%	0.8%	19.3%	32.8%
30	Chiba Bank, Ltd. (The)	31-Mar-21	1255.6%	0.5%	3.9%	49.0%
31	China Bohai Bank Co., Ltd.	31-Dec-21	123.2%	0.4%	39.3%	521.4%
32	China Construction Bank Corporation	31-Dec-21	97.7%	0.4%	41.2%	47.1%
33	China Development Bank	31-Dec-21	410.9%	0.3%	4.1%	23.3%
34	China Everbright Bank Co., Ltd.	31-Dec-21	88.0%	0.9%	21.1%	16.9%
35	China Guangfa Bank Co., Ltd.	31-Mar-21	8854.4%	0.9%	-32.4%	187.3%
36	China Merchants Bank Co., Ltd.	31-Dec-21	37.7%	0.5%	50.9%	26.8%

Source: Extracted from individual companies' financial and public statements

	Loan asset quality				
	Impaired advances / Stage 3 advances				
ROA	Gross impaired advances	Gross impaired advances/ Advances to customers	Stage 3 expected credit loss allowance made against impaired advances	Stage 3 expected credit loss allowance made against impaired advances as percentage of gross impaired advances	Collateral for impaired advances
-1.0%	5	1.9%	5	100.0%	-
0.6%	150	0.1%	146	97.3%	1
0.1%	54	0.1%	54	100.0%	-
0.9%	780	2.0%	13	1.7%	782
0.1%	-	0.0%	-	N/A	-
0.2%	202	1.3%	196	97.0%	-
-0.2%	-	0.0%	-	N/A	-
1.2%	-	0.0%	-	N/A	-
-0.4%	1,841	3.2%	759	41.2%	-
0.3%	-	0.0%	-	N/A	-
0.2%	2,583	2.2%	1,228	47.5%	1,215
-4.6%	-	0.0%	-	N/A	-
0.3%	159	5.4%	155	97.5%	15
0.2%	-	0.0%	-	N/A	-
0.3%	-	0.0%	-	N/A	-
0.2%	-	0.0%	-	N/A	-
1.2%	-	0.0%	-	N/A	-
0.6%	139	7.2%	39	28.1%	-
0.9%	11	0.1%	11	100.0%	-
-1.1%	-	0.0%	-	N/A	-
4.1%	-	0.0%	-	N/A	-
0.8%	-	0.0%	-	N/A	-
0.4%	1,650	1.0%	794	48.1%	1,046
0.3%	-	0.0%	-	N/A	-
0.1%	-	0.0%	-	N/A	-
0.9%	-	0.0%	-	N/A	-
-1.6%	27	1.3%	-	0.0%	20
0.0%	-	0.0%	-	N/A	-
-0.7%	125	3.2%	117	93.6%	-
0.2%	-	0.0%	-	N/A	-
-3.5%	-	0.0%	-	N/A	-
0.4%	-	0.0%	-	N/A	-
0.7%	5,311	3.1%	4,176	78.6%	46
0.8%	10	0.0%	10	100.0%	-
-1.5%	-	0.0%	-	N/A	-
0.6%	83	0.2%	28	33.7%	-

			Key ratios			
			Performance measures			
	HK$ million	Year ended	Net customer loan/deposit ratio	Net interest income/ average total assets	Non-interest income/total operating income	Cost/ income ratio
37	China Minsheng Banking Corp., Ltd.	31-Dec-21	84.1%	1.1%	13.5%	19.5%
38	China Zheshang Bank Co., Ltd.	31-Dec-21	409.8%	1.0%	9.3%	30.9%
39	CIMB Bank Berhad	31-Dec-21	51.8%	0.7%	13.2%	83.5%
40	Citibank, N.A.	31-Dec-21	34.6%	0.6%	54.2%	63.0%
41	Commerzbank AG	31-Dec-21	711.4%	0.8%	-10.2%	204.7%
42	Commonwealth Bank of Australia	30-Jun-21	477.2%	0.7%	26.6%	189.9%
43	Coöperatieve Rabobank U.A.	31-Dec-21	291.2%	0.5%	44.6%	80.8%
44	Credit Agricole Corporate And Investment Bank	31-Dec-21	193.3%	0.3%	75.2%	61.9%
45	Crédit Industriel et Commercial	31-Dec-21	391.2%	0.5%	25.0%	50.0%
46	Credit Suisse AG	31-Dec-21	59.4%	0.5%	79.1%	76.8%
47	CTBC Bank Co., Ltd.	31-Dec-21	39.2%	1.2%	27.5%	42.6%
48	DBS Bank Ltd.	31-Dec-21	293.9%	0.5%	39.6%	24.4%
49	Deutsche Bank Aktiengesellschaft	31-Dec-21	76.3%	1.0%	74.0%	81.4%
50	DZ BANK AG Deutsche Zentral-Genossenschaftsbank, Frankfurt Am Main	31-Dec-21	1880.7%	0.6%	28.6%	56.6%
51	E.Sun Commercial Bank, Ltd.	31-Dec-21	47.0%	1.1%	32.9%	21.8%
52	EFG Bank AG	31-Dec-21	56.4%	0.6%	74.9%	114.8%
53	Erste Group Bank AG	31-Dec-21	N/A	0.6%	-16.5%	43.2%
54	East West Bank	31-Dec-21	58.8%	0.9%	37.8%	72.0%
55	Far Eastern International Bank	31-Dec-21	70.8%	1.0%	24.1%	70.4%
56	First Abu Dhabi Bank PJSC	31-Dec-21	17.4%	0.2%	68.0%	37.2%
57	First Commercial Bank, Ltd.	31-Dec-21	58.2%	1.1%	17.9%	22.1%
58	HDFC Bank Limited	31-Mar-21	374.3%	0.7%	25.4%	25.4%
59	Hua Nan Commercial Bank, Ltd.	31-Dec-21	41.4%	0.7%	20.5%	28.3%
60	Hua Xia Bank Co., Limited	31-Dec-21	210.5%	1.1%	11.2%	52.8%
61	ICICI Bank Limited	31-Mar-21	216.3%	0.4%	80.3%	43.9%
62	Indian Overseas Bank	31-Mar-21	186.3%	1.1%	54.4%	17.7%
63	Industrial And Commercial Bank of China Limited	31-Dec-21	N/A	0.4%	14.8%	41.2%
64	Industrial Bank Co., Ltd.	31-Dec-21	95.4%	1.1%	4.4%	25.0%
65	Industrial Bank of Korea	31-Dec-21	426.1%	0.7%	32.5%	25.2%
66	ING Bank N.V.	31-Dec-21	515.8%	0.6%	35.1%	61.9%
67	Intesa Sanpaolo S.p.A.	31-Dec-21	606.7%	0.7%	22.0%	30.8%
68	JPMorgan Chase Bank, National Association	31-Dec-21	33.9%	0.2%	94.4%	84.9%
69	KBC Bank N.V.	31-Dec-21	203.4%	0.6%	43.1%	88.9%
70	KEB Hana Bank	31-Dec-21	325.7%	1.1%	33.2%	15.2%
71	Kookmin Bank	31-Dec-21	2954.5%	0.9%	25.2%	17.3%
72	LGT Bank AG	31-Dec-21	43.6%	0.4%	91.1%	92.2%
73	Malayan Banking Berhad	31-Dec-21	99.8%	0.9%	-7.5%	48.5%

Source: Extracted from individual companies' financial and public statements

	Loan asset quality				
	Impaired advances / Stage 3 advances				
ROA	Gross impaired advances	Gross impaired advances/ Advances to customers	Stage 3 expected credit loss allowance made against impaired advances	Stage 3 expected credit loss allowance made against impaired advances as percentage of gross impaired advances	Collateral for impaired advances
0.8%	376	0.4%	246	65.4%	9
0.7%	-	0.0%	-	N/A	-
-5.3%	1,175	38.0%	886	75.4%	-
0.4%	125	0.1%	47	37.6%	55
-0.7%	314	50.0%	314	100.0%	-
-3.0%	1,073	35.7%	694	64.7%	-
0.1%	885	2.5%	352	39.8%	489
0.3%	161	0.2%	161	100.0%	-
0.3%	-	0.0%	-	N/A	-
0.5%	7	0.0%	7	100.0%	-
0.6%	225	0.8%	225	100.0%	-
0.6%	417	0.2%	417	100.0%	-
0.6%	2,294	4.3%	422	18.4%	1,298
0.1%	201	2.5%	124	61.7%	-
1.0%	-	0.0%	-	N/A	-
-0.3%	-	0.0%	-	N/A	-
0.3%	-	N/A	-	N/A	N/A
0.2%	10	0.2%	-	0.0%	10
-0.7%	-	0.0%	-	N/A	-
0.3%	-	0.0%	-	N/A	-
0.1%	-	0.0%	-	N/A	-
0.4%	-	0.0%	-	N/A	-
0.5%	117	1.6%	19	16.2%	108
0.3%	-	0.0%	-	N/A	-
0.6%	-	0.0%	-	N/A	-
0.2%	287	8.2%	56	19.5%	41
0.3%	30	0.0%	30	100.0%	-
1.2%	420	0.4%	148	35.2%	287
0.7%	-	0.0%	-	N/A	-
0.0%	1,332	4.0%	671	50.4%	54
0.3%	1,224	7.0%	743	60.7%	72
0.4%	16,910	84.7%	-	0.0%	-
0.1%	10	0.4%	9	90.0%	-
1.1%	278	1.4%	115	41.4%	55
0.7%	-	0.0%	-	N/A	-
0.3%	-	0.0%	-	N/A	-
-0.1%	3,498	13.5%	438	12.5%	-

			Key ratios			
			Performance measures			
	HK$ million	Year ended	Net customer loan/deposit ratio	Net interest income/ average total assets	Non-interest income/total operating income	Cost/ income ratio
74	Mega International Commercial Bank Co., Ltd.	31-Dec-21	24.9%	0.7%	13.1%	24.4%
75	Mitsubishi UFJ Trust And Banking Corporation	31-Mar-21	0.0%	0.4%	-69.6%	79.7%
76	Mizuho Bank, Ltd.	31-Mar-21	274.2%	0.3%	32.1%	39.7%
77	MUFG Bank, Ltd.	31-Mar-21	155.7%	0.1%	56.8%	89.2%
78	National Australia Bank Limited	30-Sep-21	39.1%	0.3%	57.2%	28.3%
79	Natixis	31-Dec-21	741.4%	0.5%	83.2%	63.0%
80	NongHyup Bank	31-Dec-21	N/A	0.0%	N/A	N/A
81	O-Bank Co., Ltd.	31-Dec-21	63.0%	1.5%	34.7%	42.1%
82	Oversea-Chinese Banking Corporation Limited	31-Dec-21	275.9%	0.8%	22.9%	25.7%
83	Ping An Bank Co., Ltd.	31-Dec-21	63.1%	0.9%	48.5%	37.5%
84	Punjab National Bank	31-Mar-21	11425.7%	0.8%	15.6%	14.2%
85	Qatar National Bank (Q.P.S.C.)	31-Dec-21	3.0%	0.1%	15.4%	453.8%
86	Royal Bank of Canada	31-Oct-21	80.1%	0.1%	94.8%	95.0%
87	Shanghai Commercial & Savings Bank, Ltd. (The)	31-Dec-21	38.4%	1.6%	26.4%	24.7%
88	Shanghai Pudong Development Bank Co., Ltd.	31-Dec-21	99.5%	0.7%	42.4%	20.2%
89	Shinhan Bank	31-Dec-21	997.8%	0.9%	43.6%	12.0%
90	Societe Generale	31-Dec-21	673.5%	0.3%	80.4%	91.9%
91	State Bank of India	31-Mar-21	734.8%	0.4%	29.7%	-18.7%
92	State Street Bank And Trust Company	31-Dec-21	0.1%	0.3%	88.8%	91.2%
93	Sumitomo Mitsui Banking Corporation	31-Mar-21	199.0%	0.4%	33.8%	33.3%
94	Sumitomo Mitsui Trust Bank, Limited	31-Mar-21	75.5%	-0.3%	221.2%	45.3%
95	Taipei Fubon Commercial Bank Co., Ltd.	31-Dec-21	40.9%	0.7%	43.3%	27.0%
96	Taishin International Bank Co., Ltd	31-Dec-21	64.6%	1.2%	39.0%	44.4%
97	Taiwan Business Bank, Ltd	31-Dec-21	58.3%	1.2%	12.5%	55.6%
98	Taiwan Cooperative Bank, Ltd.	31-Dec-21	45.0%	1.1%	10.6%	30.1%
99	Taiwan Shin Kong Commercial Bank Co., Ltd.	31-Dec-21	54.7%	1.1%	19.1%	40.4%
100	UBS AG	31-Dec-21	97.5%	1.1%	86.2%	52.3%
101	UCO Bank	31-Mar-21	413.8%	0.7%	76.6%	25.9%
102	UniCredit Bank AG	31-Dec-21	175.0%	0.4%	15.1%	72.0%
103	Union Bancaire Privée, UBP SA	31-Dec-21	62.9%	0.6%	76.0%	82.7%
104	Union Bank of India	31-Mar-21	1180.9%	0.6%	41.0%	18.0%
105	United Overseas Bank Ltd.	31-Dec-21	207.3%	1.1%	29.6%	23.9%
106	Wells Fargo Bank, National Association	31-Dec-21	N/A	0.5%	95.4%	95.3%
107	Westpac Banking Corporation	30-Sep-21	N/A	0.5%	-1.8%	180.0%
108	Woori Bank	31-Dec-21	705.9%	0.9%	22.7%	10.9%
109	Yuanta Commercial Bank Co., Ltd.	31-Dec-21	30.3%	0.9%	15.6%	77.8%
	Total	**2021**	**111.2%**	**0.6%**	**60.1%**	**55.6%**

Source: Extracted from individual companies' financial and public statements

	Loan asset quality				
	Impaired advances / Stage 3 advances				
ROA	Gross impaired advances	Gross impaired advances/ Advances to customers	Stage 3 expected credit loss allowance made against impaired advances	Stage 3 expected credit loss allowance made against impaired advances as percentage of gross impaired advances	Collateral for impaired advances
0.6%	-	0.0%	-	N/A	-
0.0%	-	N/A	-	N/A	-
0.2%	716	0.3%	305	42.6%	1
0.0%	58	0.0%	29	50.0%	-
0.4%	5	0.2%	-	0.0%	-
0.9%	120	0.2%	106	88.3%	-
-14.3%	-	N/A	-	N/A	-
1.0%	62	0.8%	14	22.6%	62
0.4%	569	1.0%	405	71.2%	-
0.4%	-	0.0%	-	N/A	-
0.5%	196	1.5%	270	137.8%	-
-0.2%	-	0.0%	-	N/A	-
0.1%	-	0.0%	-	N/A	-
1.3%	16	0.7%	8	50.0%	-
0.9%	226	0.3%	192	85.0%	-
1.2%	-	0.0%	-	N/A	-
0.1%	874	1.6%	303	34.7%	125
0.5%	194	0.6%	194	100.0%	-
0.2%	-	0.0%	-	N/A	-
0.2%	999	0.6%	525	52.6%	-
0.0%	132	0.9%	79	59.8%	-
0.7%	173	1.0%	30	17.3%	-
0.9%	48	0.4%	48	100.0%	-
-0.2%	54	2.5%	12	22.2%	-
-1.1%	304	10.6%	107	35.2%	-
0.6%	-	0.0%	-	N/A	-
3.3%	1,910	1.1%	616	32.3%	1,294
1.4%	108	2.2%	8	7.4%	-
0.1%	-	0.0%	-	N/A	-
0.3%	-	0.0%	-	N/A	-
-3.4%	353	3.5%	234	66.3%	316
0.9%	1,417	0.9%	636	44.9%	616
0.5%	-	0.0%	-	N/A	-
-1.0%	-	0.0%	-	N/A	-
0.8%	-	0.0%	-	N/A	-
0.6%	-	0.0%	-	N/A	-
0.5%	**52,616**	**1.4%**	**17,559**	**33.4%**	**8,017**

Virtual banks – Financial highlights

	HK$ million	Year ended	Financial highlights – Income statement: Net interest income	Non-interest income	Operating expenses	Operating profit before impairment charges	Change in expected credit loss against customer advances	Other items	Profit before tax	Net profit after tax
1	Airstar Bank Limited	31-Dec-21	42	(2)	258	(218)	26	-	(244)	(244)
2	Ant Bank (Hong Kong) Limited	31-Dec-21	(6)	4	232	(234)	-	2	(232)	(232)
3	Fusion Bank Limited	31-Dec-21	(15)	-	420	(435)	2	-	(437)	(435)
4	Livi Bank Limited	31-Dec-21	(8)	7	662	(663)	4	-	(667)	(667)
5	Ping An OneConnect Bank (Hong Kong) Limited	31-Dec-21	34	-	245	(211)	3	-	(214)	(214)
6	Mox Bank Limited	31-Dec-21	(18)	10	656	(664)	23	-	(687)	(687)
7	Welab Bank Limited	31-Dec-21	(6)	4	481	(483)	8	(4)	(495)	(495)
8	ZA Bank Limited	31-Dec-21	87	46	644	(511)	28	(13)	(552)	(552)
	Total	**2021**	**110**	**69**	**3,598**	**(3,419)**	**94**	**(15)**	**(3,528)**	**(3,526)**

Source: Extracted from individual banks' financial and public statements

							Key ratios					
Size and strength measures							Performance measures					
Total assets	Gross advances to customers	Expected credit loss allowance against customer advances	Total deposits from customers	Total equity	Capital adequacy ratio	Liquidity ratio	Net customer loan/ deposit ratio	Net interest income/ average total assets	Non-interest income/ total operating income	Cost/ income ratio	ROA	ROE
3,228	955	22	2,203	961	55.0%	151.0%	42.4%	1.4%	-5.0%	645.0%	-8.0%	-22.6%
1,989	1	-	741	1,197	241.0%	206.0%	0.0%	-0.4%	-200.0%	-11600.0%	-13.7%	-25.6%
4,406	154	2	3,049	990	81.8%	370.8%	5.0%	-0.5%	0.0%	-2800.0%	-15.9%	-55.6%
4,351	92	4	2,977	1,194	134.5%	98.8%	3.0%	-0.2%	-700.0%	-66200.0%	-19.9%	-43.7%
2,484	1,365	4	1,650	698	181.8%	66.0%	82.5%	1.8%	0.0%	720.6%	-11.6%	-32.7%
6,763	710	16	5,375	1,045	44.5%	70.5%	12.9%	-0.3%	-125.0%	-8200.0%	-10.2%	-59.5%
2,918	505	8	2,259	511	71.2%	205.9%	22.0%	-0.3%	-200.0%	-24050.0%	-21.3%	-98.4%
9,804	2,548	35	7,062	2,480	37.5%	69.5%	35.6%	1.0%	34.6%	484.2%	-6.2%	-27.3%
35,943	**6,329**	**91**	**25,316**	**9,076**			**24.6%**	**0.0%**	**38.5%**	**2010.1%**	**-9.8%**	**-38.8%**

About KPMG

KPMG China is based in 31 offices across 28 cities with around 14,000 partners and staff in Beijing, Changsha, Chengdu, Chongqing, Dalian, Dongguan, Foshan, Fuzhou, Guangzhou, Haikou, Hangzhou, Hefei, Jinan, Nanjing, Ningbo, Qingdao, Shanghai, Shenyang, Shenzhen, Suzhou, Taiyuan, Tianjin, Wuhan, Xiamen, Xi'an, Zhengzhou, Hong Kong SAR and Macau SAR. Working collaboratively across all these offices, KPMG China can deploy experienced professionals efficiently, wherever our client is located.

KPMG is a global organisation of independent professional services firms providing Audit, Tax and Advisory services. We operate in 145 countries and territories with more than 236,000 partners and employees working in member firms around the world. Each KPMG firm is a legally distinct and separate entity and describes itself as such. KPMG International Limited is a private English company limited by guarantee. KPMG International Limited and its related entities do not provide services to clients.

In 1992, KPMG became the first international accounting network to be granted a joint venture licence in mainland China. KPMG was also the first among the Big Four in mainland China to convert from a joint venture to a special general partnership, as of 1 August 2012. Additionally, the Hong Kong firm can trace its origins to 1945. This early commitment to this market, together with an unwavering focus on quality, has been the foundation for accumulated industry experience, and is reflected in KPMG's appointment for multi-disciplinary services (including audit, tax and advisory) by some of China's most prestigious companies.

Contact us

Bonn Liu
Partner, Head of Asset Management, ASPAC
Head of Financial Services, Banking and Capital Markets, Hong Kong
KPMG China
+852 2826 7241
bonn.liu@kpmg.com

Paul McSheaffrey
Partner, Financial Services
KPMG China
+852 2978 8236
paul.mcsheaffrey@kpmg.com

Pat Woo
Partner, Head of ESG, Hong Kong
Global Co-Chair, Sustainable Finance, KPMG IMPACT
KPMG China
+852 3927 5674
pat.woo@kpmg.com

Terence Fong
Partner, Head of Chinese Banks, Hong Kong
KPMG China
+852 2978 8953
terence.fong@kpmg.com

Gemini Yang
Partner, Financial Risk Management
KPMG China
+852 3927 5731
gemini.yang@kpmg.com

Rupert Chamberlain
Partner, Head of Managed Services
KPMG China
+852 2140 2871
rupert.chamberlain@kpmg.com

Chad Olsen
Partner, Head of Forensic, Hong Kong
KPMG China
+852 3927 5576
chad.olsen@kpmg.com

James O'Callaghan
Partner, Head of Regtech, Hong Kong
KPMG China
+852 2143 8866
james.ocallaghan@kpmg.com

John Timpany
Partner, Head of Tax, Hong Kong
KPMG China
+852 2143 8790
john.timpany@kpmg.com

Matthew Fenwick
Partner, Corporate Tax Advisory
KPMG China
+852 2143 8761
matthew.fenwick@kpmg.com

Rita Wong
Partner, Financial Services
KPMG China
+852 2978 8172
rita.wong@kpmg.com

Simon Shum
Partner, Financial Services
KPMG China
+852 2826 7207
simon.shum@kpmg.com

Angus Choi
Partner, ESG Advisory
KPMG China
+852 2847 5160
angus.choi@kpmg.com

Benjamin Man
Partner, Financial Services
KPMG China
+852 2143 8565
benjamin.man@kpmg.com

Tom Jenkins
Partner, Head of Financial Risk Management
KPMG China
+852 2143 8570
tom.jenkins@kpmg.com

Jeffrey Hau
Partner, Risk Consulting
KPMG China
+852 2685 7780
jeffrey.hau@kpmg.com

Guy Isherwood
Senior Advisor
KPMG China
+852 2978 8243
guy.isherwood@kpmg.com

Kate Munroe
Director, People and Change
KPMG China
+852 3927 5654
kate.munroe@kpmg.com

Sean Ren
Director, Strategy & Operations
KPMG China
+852 3927 5818
sean.ren@kpmg.com

Anthony Kot
Senior Manager, Financial Services
KPMG China
+852 2143 8699
anthony.kot@kpmg.com

kpmg.com/cn/socialmedia

kpmg/cn/banking

For a list of KPMG China offices, please scan the QR code or visit our website:
https://home.kpmg.com/cn/en/home/about/offices.html

Publication number: HK-FS22-0005

Publication date: June 2022

This publication is printed on Novatech paper which is FSC™ Certified. Acid-free. Elemental Chlorine Free (ECF). EU Flower Environmental Certificate. EMAS Environmental Certificate. ISO 14001 Environmental Certificate. Certificated for packaging in direct contact with dry and non-greasy foodstuffs.

Cover – 250 gsm Novatech matt white paper. Text pages – 135 gsm Novatech matt white paper.

Printed using environmentally friendly soy ink.