

Management Discussion and Analysis — Business Review

Operating income for each line of business of the Group is set forth in the following table:

Unit: RMB million, except percentages

Items	2019		2018	
	Amount	% of total	Amount	% of total
Commercial banking business	497,424	90.44%	462,355	91.77%
Including: Corporate banking business	221,123	40.21%	211,365	41.96%
Personal banking business	186,744	33.95%	173,531	34.44%
Treasury operations	89,557	16.28%	77,459	15.37%
Investment banking and insurance	35,226	6.40%	25,524	5.07%
Others and elimination	17,360	3.16%	15,927	3.16%
Total	550,010	100.00%	503,806	100.00%

A detailed review of the Group's principal deposits and loans is summarised in the following table:

Unit: RMB million

Items	As at 31 December 2019	As at 31 December 2018	As at 31 December 2017
Corporate deposits			
Chinese mainland: RMB	6,027,076	5,884,433	5,495,494
Foreign currency	544,829	453,815	436,458
Hong Kong, Macao, Taiwan and other countries and regions	1,729,564	1,594,165	1,451,822
Subtotal	8,301,469	7,932,413	7,383,774
Personal deposits			
Chinese mainland: RMB	5,544,204	5,026,322	4,551,168
Foreign currency	288,793	302,256	310,253
Hong Kong, Macao, Taiwan and other countries and regions	1,156,651	1,093,892	969,807
Subtotal	6,989,648	6,422,470	5,831,228
Corporate loans			
Chinese mainland: RMB	5,591,228	5,057,654	4,761,874
Foreign currency	259,463	280,878	338,379
Hong Kong, Macao, Taiwan and other countries and regions	2,135,689	2,009,066	1,872,448
Subtotal	7,986,380	7,347,598	6,972,701
Personal loans			
Chinese mainland: RMB	4,450,464	3,933,840	3,481,682
Foreign currency	1,253	1,177	1,250
Hong Kong, Macao, Taiwan and other countries and regions	596,092	505,068	440,925
Subtotal	5,047,809	4,440,085	3,923,857

Commercial Banking

Commercial Banking in the Chinese mainland

Focused on the three main tasks of serving the real economy, preventing financial risks, and deepening financial reform, the Bank adhered to the general principle of pursuing progress while ensuring stability and strengthened the implementation of its development strategies, thus achieving stable growth across all businesses and recording steady improvement in operating results. In 2019, the commercial banking business in the Chinese mainland achieved an operating income of RMB414.163 billion, an increase of RMB26.920 billion or 6.95% compared with the prior year. Details are summarised in the table below:

Unit: RMB million, except percentages

Items	2019		2018	
	Amount	% of total	Amount	% of total
Corporate banking business	187,866	45.36%	183,739	47.45%
Personal banking business	163,429	39.46%	153,589	39.66%
Treasury operations	62,925	15.19%	47,855	12.36%
Others	(57)	(0.01%)	2,060	0.53%
Total	414,163	100.00%	387,243	100.00%

Corporate Banking

The Bank made great efforts to expedite the transformation of its corporate banking business. It further consolidated its corporate customer base, continuously optimised both customer and business structure and strived to improve its global service capacity for corporate banking customers, thus promoting high-quality development in its corporate banking business. In 2019, the Bank's corporate banking business in the Chinese mainland realised an operating income of RMB187.866 billion, an increase of RMB4.127 billion or 2.25% compared with the prior year.

Corporate Deposits

The Bank stepped up its efforts to expand customers base and attract more administrative institution customers, optimised the corporate customer marketing system for primary-level outlets, and improved the products and services it offers to customers from key industries engaged in supporting the people's livelihood, public finance and social security, education and public health, etc. In line with its strategy of persistently enabling advancement through technology, the Bank pushed forward digital development in corporate banking, including refining its management through big data techniques that allow it to tap potential areas of customer deposit growth and broaden deposit sources. As part of its omni-channel marketing efforts, the Bank upgraded its corporate online banking system and enhanced the role of settlement, cash management and other primary businesses in driving its deposit business, in order to actively attract more stable sources of deposits. It also increased its service capabilities for financial companies and sharpened its focus on expanding existing customers' total financial assets, so as to support high-quality growth in corporate deposits.

As at the end of 2019, the Bank's RMB corporate deposits in the Chinese mainland totalled RMB6,027.076 billion, an increase of RMB142.643 billion or 2.42% compared with the prior year-end. Foreign currency corporate deposits amounted to USD78.098 billion, an increase of USD11.975 billion or 18.11% compared with the prior year-end.

Corporate Loans

The Bank continued to strengthen its support for the real economy. Seizing the opportunities arising from economic transformation, it actively supported key investment areas and assisted in transforming and upgrading the local economy, as well as accelerating adjustments to the credit structure. It provided greater credit support for projects in infrastructure, manufacturing, modern services, technological innovation enterprises and other fields, and improved services for private enterprises. It optimised the regional credit structure and stipulated differentiated credit policies for regions of strategic significance, such as the Beijing-Tianjin-Hebei region, the Xiongan New Area, the Guangdong-Hong Kong-Macao Greater Bay Area, the Yangtze River Delta and the Hainan Pilot Free Trade Zone (the "Hainan FTZ"), in a bid to support the high-quality development of the real economy. In addition, the Bank played an active role in serving key sectors such as social welfare and people's livelihood, internet, rural revitalisation, pensions, the Olympic Winter Games and winter sports.

As at the end of 2019, the Bank's RMB corporate loans in the Chinese mainland totalled RMB5,591.228 billion, an increase of RMB533.574 billion or 10.55% compared with the prior year-end. Foreign currency corporate loans totalled USD37.193 billion, a decrease of USD3.732 billion or 9.12% compared with the prior year-end.

Delivering solid performance in serving the real economy

In 2019, the Bank took solid steps to serve the real economy and developed new ways to deliver financial services. It actively supported supply side structural reform, appropriately increased credit support, achieved rapid growth in domestic RMB loans, and increased local government bond investment. It raised the investment in the major economic areas and security of people's livelihood. The proportion of loans to manufacturing maintained a high level. It strengthened credit support for inclusive finance and private enterprises. Inclusive finance loans realised "increase in amount and decrease in price". The growth rate of private enterprise loans was higher than that of corporate loans. It actively involved in the new pattern of opening-up and vigorously supported "Steady Foreign Trade" and "Steady Foreign Investment". The domestic international settlement business remained No. 1 in the industry. The foreign exchange transaction currencies and business volume remained No. 1 among Chinese peers. It actively promoted debt-for-equity swaps. The number of signed market-oriented debt-for-equity swap projects and the amount of contracts hit new records. It assisted in the tough battle of poverty relief, and helped the "Four Northern Counties" of Xianyang achieve poverty alleviation.

In 2019, the Bank earnestly implemented the national strategies for coordinated regional development. It accelerated to lay out its business in the Yangtze River Delta, Guangdong-Hong Kong-Macao Greater Bay Area, and Beijing-Tianjin-Hebei region, and the contributions of key regions further improved. In the Beijing-Tianjin-Hebei region and Xiongan New Area, the Bank actively supported the coordinated development of the Beijing-Tianjin-Hebei region and the construction of Winter Olympics infrastructure, established a regional R&D base, and laid the groundwork for BOC Fullerton Community Bank focused on investment management purpose. In the Yangtze River Delta region, the Bank took the lead in issuing the *Comprehensive Financial Service Plan for the Yangtze River Delta Integration*, the *Action Program for Integrated Business Development in the Yangtze River Delta* and the *Action Program for the Lingang Special Area of the Shanghai Pilot FTZ*. It was among the first batch of banks to set up a branch in the Lingang Special Area of the Shanghai Pilot FTZ, and developed Shanghai RMB Trading Unit to strengthen the Unit's outreach in the area, thereby deepening the integrated business development in the Yangtze River Delta. In the Guangdong-Hong Kong-Macao Great Bay Area, the Bank issued the *Plan for Business Development in Guangdong-Hong Kong-Macao Great Bay Area*, implemented six special action programs, and provided full support for the development of Shenzhen into a pilot demonstration area of socialism. It led its peers in introducing the "Greater Bay Area Account Opening" service, became one of the first recipients of a Hong Kong's virtual banking license, and maintained a leading market share in the Greater Bay Area.



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Financial Institutions Business

The Bank continued to deepen cooperation with various financial institutions. It built up its integrated financial services platform and maintained a leading position in terms of financial institution customer coverage. By leveraging the correspondent relationships it has established with around 1,600 institutions, the Bank provided multinational institutions and enterprises with financial services such as international settlement, bond financing, foreign exchange trading, investment custody and global cash management. Closely following the implementation of the Belt and Road Initiative, the Bank strengthened cooperation with key correspondent banks in countries and regions along the Belt and Road. It continued to deepen comprehensive cooperation with organisations and institutions such as Asian Infrastructure Investment Bank, BRICS New Development Bank and the Silk Road Fund, participated in the investment and financing projects of local policy financial institutions, and provided extensive financial services. By increasing efforts to expand its cross-border RMB businesses, the Bank has become the major RMB clearing channel and main RMB cooperating bank for overseas central banks and other sovereign institutions, commercial banks and exchange houses. The Bank has now opened 1,448 cross-border RMB clearing accounts for correspondent banks across 114 countries and regions, and thus holds a leading position among Chinese banks. It also promoted the RMB Cross-Border Interbank Payment System (CIPS) and signed cooperation agreements for indirect participant relationships with 289 domestic and overseas financial institutions, seizing the largest market share among peers. The Bank's custodian service for Qualified Foreign Institutional Investors (QFII) and RMB Qualified Foreign Institutional Investors (RQFII) and its agency service for overseas central banks and other sovereign institutions all earned a leading spot in the industry in terms of both customer base and business scale. It also became the sole foreign exchange agent for

Bank of Korea in China's interbank foreign exchange market. The Bank extended its advantage of featured service in factor market, developed specialised service models for the factor market ecosystem, and signed strategic cooperation agreements with China Foreign Exchange Trade System, China UnionPay, Shanghai Gold Exchange, Shanghai Clearing House, Shanghai Commercial Paper Exchange Corporation Ltd. and China International Payment Service Corp. The Bank also served as the sole settlement bank for the comprehensive promotion phase of H-share "full circulation", and held the sole cross-border settlement account of China Securities Depository and Clearing Corporation Limited (CSDC).

As at the end of 2019, the Bank ranked first in terms of market share in foreign currency deposits from financial institutions, as well as holding a leading position among peers in terms of growth in both the number and market share of third-party custody customers.

Transaction Banking

Actively adapting to the trend of FinTech innovation and the integrated financial needs of customers, the Bank vigorously developed its transaction banking business. It largely completed the domestic and overseas framework and logical integration of its transaction banking business, and launched the principal, first-phase components of the BOC Intelligent Global Transaction Banking service platform ("iGTB platform").

The Bank fully leveraged its professional advantages in trade finance and implemented the national requirement of "ensuring stable foreign trade". In 2019, the Group's international trade transaction volume reached USD5.2 trillion. The Bank's institutions in the Chinese mainland retained the largest market share in the international trade settlement market, and held the leading position among peers in cross-border guarantee business. As the strategic partner of

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the CIIE, the Bank followed the country's opening-up strategy and provided all-round high-quality services for the CIIE. It supported the National Office of Port Administration in improving the financial services element of the standard version of "Single Window", and launched such functions as tax and fee payment, reservation for account opening, concentrated and consolidated tax collection letter of guarantee ("L/G") online application, cross-border remittance, SME tax and fee financing and insurance premium payment. The Bank upgraded its integrated financial services plan for cross-border e-commerce, which covers such services as matchmaking, financing and payment for cross-border e-commerce industry, and formulated the three financial service systems of "aggregation, financing and connection".

The Bank improved its corporate products and services system and enhanced the quality and efficiency of its services to the real economy. It expedited the expansion of supply chain finance services to support financing for small and medium-sized enterprises, and launched receivables buyout, dealer financing and other innovative financial service solutions in a number of key industries. It streamlined procedures for corporate account opening and realised the "one-stop opening" of local and foreign currency accounts by applying new technologies such as facial recognition and big data. The Bank also promoted its "BOC Bill E-discount" product to provide an online bill discount service for micro, small and medium-sized enterprises and private enterprises.

The Bank pushed forward RMB internationalisation in an orderly manner. It served as the main channel for RMB cross-border flows and acted as a market leader in service innovation. In 2019, the Group's transaction volume of cross-border RMB payment reached RMB7.32 trillion, up 23.03% compared with the prior year, of which the Bank's institutions in the Chinese mainland settled RMB5.03 trillion, an

increase of 26.01% compared with the prior year, thus maintaining the largest market share. The Bank gave full play to the RMB's role as a financing and investment currency, assisting sovereign institutions including the Government of Portugal and the Central Bank of the Philippines, as well as some well-known commercial institutions, in issuing Panda bonds. Making the most of the RMB's role as a pricing currency, the Bank provided comprehensive services for the internationalised futures products of domestic exchanges, and supported the development of the financial factor market. It hosted a forum themed on "Internationalisation of RMB — Facilitating the Building of the Free Trade Zone" at the second CIIE, as well as forums and promotions on RMB internationalisation in Japan, Hungary and other countries, so as to promote the circulation and use of RMB across the world. The Bank also continued to publish the "BOC Cross-border RMB Index (CRI)", "BOC Offshore RMB Index (ORI)" and the *White Paper on RMB Internationalisation*, providing comprehensive and professional support to help global customers understand and use RMB.

In addition, the Bank continued to promote products and services innovation and strengthened the development of application scenarios for transaction banking. It improved the comprehensive product system of its "Global Cash Management Platform+" and expanded global integration for key products, thus realising a rapid increase in the number of group customers of its cash management business.

During the reporting period, the Bank was recognised as "Best Bank for Transaction Services" and "Best Chinese Bank for RMB Internationalisation" by *Global Finance*, and awarded "Best Transaction Bank for Trade Finance" and "Best Transaction Bank for International Cash Management" by *Asiamoney* and "Best Regional Cash Manager in Asia" by *Euromoney*, demonstrating the Bank's professional advantages in transaction banking.

Strengthening support for the Belt and Road Initiative

The Bank continued to implement the Belt and Road Initiative and gave substantial support to its development. It strived to become the preferred bank for China's "Going Global" enterprises, foreign "Bringing In" enterprises and local enterprises along the Belt and Road. It refined its institutional network in countries along the Belt and Road. It supported key cooperative projects along the Belt and Road in line with market principles, served as the main channel for Belt and Road related RMB internationalisation business, and took the lead in channelling global financial resources into Belt and Road countries and regions.

The Bank further expanded its network in countries along the Belt and Road. As at the end of 2019, the Bank's overseas institutions had established a presence in 61 countries and regions, including 25 countries along the Belt and Road. This represents the largest footprint of any Chinese bank, both worldwide and along the Belt and Road. In 2019, the Bank commenced branch or subsidiary operations in India (Mumbai), Athens, Bucharest and Buenos Aires, further expanding its network in countries along the Belt and Road.

The Bank steadily pushed forward credit issuance and project expansion. The Bank had followed up on over 600 major Belt and Road related projects as at the end of 2019. It has granted more than USD160.0 billion of credit support to countries along the Belt and Road since 2015.

The Bank continuously promoted RMB internationalisation. The Bank continued to improve its cross-border RMB clearing system in an effort to enhance the quality and efficiency of its clearing services and to promote RMB development in local markets. In 2019, the volume of RMB clearing transactions carried out by the Bank's institutions along the Belt and Road surpassed RMB4 trillion. The issuance of RMB-denominated sovereign bonds boosted the cross-border use of RMB along the Belt and Road.

The Bank actively expanded its foreign exchange product offering. The Bank promoted foreign exchange products in countries along the Belt and Road, including multi-currency spot and forward foreign exchange trading, swaps and options, so as to help enterprises mitigate exchange rate risk. It now has the capability to provide quotations for 99 emerging market currencies, and 46 currencies of countries along the Belt and Road.

The Bank participated in the second Belt and Road Forum for International Cooperation. During the "Thematic Forum on Financial Connectivity", the Bank actively participated in the signing of the *Green Investment Principles for the Belt and Road*. At the first Belt and Road Entrepreneur Conference, on-site contracting was completed for four symbolic Belt and Road projects recommended by the Bank. In addition, as co-organiser of the matchmaking talks event of the Belt and Road Entrepreneur Conference, the Bank arranged nearly 800 one-to-one talks through its cross-border matchmaking platform for SMEs. Finally, the Belt and Road International Financial Exchange & Cooperation Seminar hosted by the Bank was listed in the deliverables of the second Belt and Road Forum for International Cooperation.



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Inclusive Finance

Actively implementing national policies and measures to develop inclusive finance and serve the real economy, the Bank continuously improved its inclusive finance service system, focused on reducing financing costs for micro and small-sized enterprises, and steadily enhanced the quality and efficiency of its services for these enterprises.

The Bank strengthened credit support for micro and small-sized enterprises and provided comprehensive policy and resource support for inclusive finance. It refined its inclusive finance structure, established a sound service system, promoted the application of a bank-wide organisational structure for inclusive finance and built the “five specialised operating mechanisms”. As at the end of 2019, the Bank’s outstanding inclusive finance loans granted to micro and small-sized enterprises⁴ reached RMB412.9 billion, an increase of 38% compared with the prior year-end, outpacing the growth rate of the Bank’s total loans. The number of micro and small-sized customers stood at nearly 400,000, higher than the beginning of the year. The average interest rate of new inclusive finance loans to micro and small-sized enterprises was 4.30%, while the quality of loans granted to micro and small-sized enterprises remained stable. The Bank strengthened risk control and improved operational compliance in terms of systems and mechanisms, policy processes and information systems, so as to boost the high-quality development of inclusive finance.

The Bank actively provided SME cross-border matchmaking services to promote connectivity across the globe. It held 11 cross-border trade and investment conferences in 2019. As the sole strategic partner of the CIIE, the Bank successfully hosted the Exhibitor-Businessman Supply-Demand Matchmaking Conference of the second CIIE. It has held 61 cross-border matchmaking events since 2014, facilitating the participation of 30,000 enterprises from 125 countries and regions, and helping them to achieve business cooperation on trade, investment and the introduction of technologies, etc.

Pension Business

Focusing on the development of China’s social security system, the Bank continuously expanded its pension business coverage, promoted product innovation and improved system functions. It provided a range of products including enterprise annuities, occupational annuities, employee benefit plans and pension security management products, thus continuously enhancing

customer satisfaction. It also accelerated strategic planning for its pension business and launched scenario building for the silver economy, thereby vigorously supporting the development of the silver economy. As at the end of 2019, pension funds under custody reached RMB52.266 billion and the total number of individual pension accounts held by the Bank reached 5.3949 million, an increase of 0.3830 million or 7.64% compared with the prior year-end. Assets under custody amounted to RMB387.145 billion, an increase of RMB165.987 billion or 75.05% compared with the prior year-end, with the Bank serving more than 16,000 clients.

Personal Banking

By emphasising a customer-centric approach, the Bank adapted to the trend of FinTech development and accelerated the digital transformation and structural reform of personal banking, thus driving the healthy and sustainable development of the business. In 2019, the Bank’s personal banking business in the Chinese mainland realised an operating income of RMB163.429 billion, an increase of RMB9.840 billion or 6.41% compared with the prior year.

Personal Deposits

In response to the trend of interest rate liberalisation, the Bank leveraged its advantages in comprehensive personal financial services, intensified innovation in personal deposit products and improved the payment settlement service process, thus satisfying differentiated customers’ needs. It further expanded its payment agency business by classifying its customer groups and improving the connectivity between corporate and personal businesses. It also provided payment agency customers with a package of integrated service solutions, including account opening, salary payment, consumption and investment. The Bank launched an online margin deposit business featuring multiple transaction scenarios. It further developed its personal foreign exchange services by increasing the number of currencies available in its personal deposit and withdrawal business to 25 and the number of convertible foreign currencies available to customers to 39, thus maintaining a leading position among peers. In addition, the Bank improved customer experience by launching a foreign exchange cash reservation service for 23 currencies via e-channels such as mobile banking, WeChat banking and online banking in major cities in the Chinese mainland. The Bank actively leveraged its advantages in foreign exchange business and provided services for major events such as the China International Import Expo.

⁴ Inclusive finance loans granted to micro and small-sized enterprises are measured in accordance with the *Circular of the General Office of the China Banking and Insurance Regulatory Commission on Further Improving the Quality and Efficiency of Banks’ Financial Services for Micro and Small-sized Enterprises in 2019* (Y.B.J.B.F. [2019] No. 48)

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As at the end of 2019, the Bank's RMB personal deposits in the Chinese mainland totalled RMB5,544.204 billion, an increase of RMB517.882 billion or 10.30% compared with the prior year-end. Personal foreign currency deposits amounted to USD41.397 billion, maintaining a leading market share.

Personal Loans

The Bank stepped up efforts to serve the real economy and support an upgrade in consumption by steadily advancing the development and transformation of its personal loan business. It put into practice national regulatory policies and requirements on real estate, with a particular focus on serving the needs of households seeking to buy owner-occupied homes for the first time in key regions, thus promoting the sustainable and sound development of its residential mortgage loan business. The Bank upgraded the functions of its featured "BOC E-Credit" product, continuously strengthened the connection between social security, housing provident fund and taxation data, and made innovative breakthroughs in its products and services by integrating consumer scenarios. It launched "BOC E-Credit • Operation Loan", "BOC E-Credit • Tax Loan", "BOC Wealth Accumulator", loans for merchants and other inclusive finance loan products, and carried out state requirements for cutting taxes and fees, with a focus on addressing the difficulties and high financing costs faced by micro and small-sized enterprises. The Bank's newly-launched industry chain online loan product for individual businesses in the Chinese mainland was selected as one of the "Ten Cases Serving the Real Economy with Financial Innovation in 2019" by *Hong Kong Commercial Daily* and the China Association for the Promotion of Development Financing. Moreover, the Bank continued to grant government-sponsored student loans, securing a leading market position, and carried out educational support campaigns such as "Cultural and Arts on Campus", "Rainbow Bridge" and "Integrity Education on Campus".

As at the end of 2019, the Bank's RMB personal loans in the Chinese mainland totalled RMB4,450.464 billion, an increase of RMB516.624 billion or 13.13% compared with the prior year-end.

Wealth Management and Private Banking

The Bank accelerated the development of its wealth management and private banking services by driving the innovation and transformation of various businesses and improving its customer service capabilities. Focusing on customers' wealth management needs, the Bank constructed a market-wide product selection platform to enhance its asset allocation capacity. It

intensified FinTech application and developed featured intelligent automatic investment strategies in order to improve its integrated and intelligent investment product sales capabilities. It built a professional asset allocation decision-making system, established BOC Investment Strategy Research Centre and released the BOC Guangdong-Hong Kong-Macao Greater Bay Area Wealth Index and the *2020 BOC White Paper on Personal Banking Global Asset Allocation*. In addition, the Bank strengthened its service system building, improved its talent management mechanism, and achieved significant progress in cultivating teams of wealth management managers, private bankers and investment advisors. It vigorously developed family trust and discretionary investment business, and drove forward the building of an Asia-Pacific private banking platform, thus further improving its global services.

As at the end of 2019, the Bank had set up 8,215 wealth management centres, 1,107 prestigious wealth management centres and 46 private banking centres in the Chinese mainland. The Group managed more than RMB1.6 trillion of financial assets on behalf of its private banking customers. In 2019, the Bank received awards including "Best Private Bank for International Network in China" from *Asiamoney*, "Excellence In Distributor for Private Equity" in the Ying Hua Awards organised by *China Fund*, "Best National Private Banking in China" from *Asian Private Banker*, and "Golden Award | Best Domestic Private Bank — Family Succession Service" from *Wealth*. It also won "2019 Best Cross-border Financial Service" from *China Business*, and "Innovative Institution of Best Local Family Service Practice" from FOTT.

Bank Card

Closely following changes in market trends and customer demand, the Bank kept improving its bank card business structure and effectively controlled business risks with the aim of achieving high-quality development. In terms of credit card, the Bank implemented the "Five Indicators" evaluation, namely activation ratio, active customer ratio, credit line use ratio, risk-adjusted return on capital (RAROC) and non-performing loan ratio, and thus maintained stable asset quality in its credit card business. The Bank strengthened online and offline scenario design around winter sports, education and home decoration. Focusing on the needs of key customer groups such as young customers, overseas students, car owners and cross-border customers, the Bank launched distinctive credit card products. As the official banking partner of two Olympic Games, the Bank issued the world's first Visa Olympic Winter Games Beijing 2022-themed Credit Card and China UnionPay Winter Sports-

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themed Credit Card to serve winter sports and a nationwide fitness campaign, building a strong market reputation around the concept of “For ice and snow sports, look for BOC”. Following and supporting the country’s highway reform and facilitating customers’ automotive consumption, the Bank continuously refined its Car Credit Card and ETC Co-branded Credit Card products, and opened an express channel for online ETC application. It also continued to promote the digital and intelligent transformation of its credit card business and the online and electronic transformation of its credit card channels. It launched BOC Digital Credit Card and built a “Digital Card Plus” payment ecosystem, thus realising a whole-chain and closed ecological loop that ensures customers remain active upon acquisition. In addition, the Bank upgraded its instalment service through the launch of online “BOC E Instalment”, which helped premium instalment payments increase by 70% compared with the prior year. It accelerated the promotion of new and second-hand car purchase instalment plus car derivative instalment, which together achieved a 9.9% year-on-year growth rate in a decelerating domestic auto market. The Bank upgraded the functions of its digital acquiring products and launched a facial recognition payment product based on biometric authentication technologies for “BOC Smart Payment”. It improved its online checkout product to allow for comprehensive acceptance of online payments, convenient access and customised acceptance for merchants. It released the “BOC Smart Merchant” app to facilitate the seamless online connection of the entire merchant business process. The Bank actively promoted scenario building,

successfully launching more than 200 programmes for cross-border, education, sports, silver economy, transportation, medical health, government affairs payment, entertainment and tourism scenarios, and exclusively provided the acquiring service for a series of national activities such as the 2nd China International Import Expo and the 16th China-ASEAN Expo. Focusing on customer experience, the Bank continuously developed 360-degree customer life cycle maintenance so as to enhance service effectiveness. It protected cardholder rights and interests through combined marketing activities for key customer groups and carried out emotionally resonant and interactive publicity campaigns, and thus raised the influence of its credit card brands.

The Bank steadily promoted its debit card business and expanded scenario-based applications for mobile payment, thus continuing to improve customer experience. It leveraged its advantages in campus services and made efforts to create a “Whole Education” scenario by expanding its service scope to primary and high schools, kindergartens, training institutions and other “blue ocean” educational markets. The Bank, in cooperation with local Human Resources and Social Security Bureaux, had at the end of 2019 accumulatively issued 108 million social security cards equipped with financial functions. It also launched innovative online products including electronic social security cards and electronic health cards, providing customers with integrated “online + offline” and “financial + non-financial” services. It developed rail travel scenarios and completed the application of Railway e-Card on ten railway lines.

The Bank’s bank card issuance and transaction volumes as at the end of 2019 are set forth below:

Unit: million cards/RMB billion, except percentages

Items	As at 31 December 2019	As at 31 December 2018	Change (%)
	2019	2018	Change (%)
Cumulative number of debit cards	565.1313	525.7446	7.49%
Cumulative number of credit cards	124.9501	110.6573	12.92%
Cumulative number of social security cards with financial functions	108.4211	101.8742	6.43%
Transaction amount of debit cards	7,115.278	5,941.075	19.76%
Transaction amount of credit cards	1,777.209	1,619.555	9.73%
Instalments volume of credit cards	325.606	279.132	16.65%

Accelerating Digital Transformation of Personal Banking

The Bank implemented the digital development strategy on all fronts, reformed the organisational structure of its personal banking business, and pushed forward the digital transformation of personal banking business for the whole process of front, middle and back offices.

Enabling advancement through technology to conduct organisational structure reform. To ride on the FinTech development trend, the Bank established the Digital Personal Banking Department with the Digitalised Platform Centre and the Private Banking Centre under the new department, with a view to upgrading the personal banking development mode in all aspects. Keenly aware of the consumption upgrade trend, the Bank built the Consumer Finance Department, in a bid to put in place an integrated consumer finance service system. Additionally, it worked harder to shape its credit card brand and optimised the responsibilities assigned to the Bank Card Centre so as to highlight the characteristics unique to the business line. With respect to the reform in its management mechanism, the Bank focused on management coordination, integration and optimisation, did a better job in the division of functions and duties, strove to unify a stronger synergy for further development, and increased the ability to respond agilely.

Following the strategy of “Mobile First” to establish an agile front office. In 2019, the Bank unveiled Mobile Banking Version 6.0. This introduced more than 300 improvements in terms of functionality, user experience, scenarios, technological application, and other aspects. At the end of the year, mobile banking customers numbered 181 million across the Bank and related transactions during the year totalled RMB28 trillion, an increase of 24% and 41% respectively compared with the prior year.

Following the strategy of “Intelligent First” to establish a centralised middle office. The Bank promoted the use of smart accounts and launched the “income/expenses recording” function in its digital account books. It also promoted the Zhi Hui Rights Protection Programme, paving the way for the launch of a personal customer rights management system. With respect to intelligent investment advisor services, the BOC Robot Advisor programme, an intelligent service portfolio, recorded a transaction volume of RMB12.3 billion and attracted a total of over 100,000 customers.

Following the strategy of “Automatic First” to establish an efficient back office. To enhance its digitalised risk control capabilities, the Bank built and implemented a full-coverage, intelligent and efficient anti-fraud on-going risk control platform at the enterprise level, with the aim of keeping customer funds secure. In addition, it was the first Chinese bank to unveil “Cellphone Shield”, a mobile banking-oriented digitalised authorisation tool, which made fund transfer through mobile banking much easier and safer. To raise data integration standards, the Bank brought out rapid growth of data scale in its big data platform, fostered modelling capability in its data sandbox and created 1,894 customer tags, thus enabling its personal banking business to utilise data in an automatic, visualised and mobile manner.



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Financial Markets Business

The Bank actively aligned itself with trends towards interest rate and exchange rate liberalisation and RMB internationalisation. By closely tracking market developments and fully leveraging its professional advantages, the Bank continuously adjusted its business structure and strengthened its efforts to participate in financial market innovation and achieve compliance with international regulatory requirements, thus increasing its business influence in financial markets.

Securities Investment

By strengthening its analysis and judgment regarding the macro-economic situation and market interest rates, the Bank proactively seized market opportunities, rationally adjusted the duration of its investment portfolio and optimised its investment structure. The Bank actively supported the development of the real economy with a particular focus on key strategies and major areas, and participated appropriately in local government bond investment. Following trends in global bond markets, the Bank optimised its foreign currency investment portfolio and managed to prevent and mitigate interest rate risk and credit risk.

Trading

The Bank continuously improved its integrated global financial markets business system, based on the three core product lines of interest rates, exchange rates and commodities. It endeavoured to improve its quantitative trading capability and comprehensive customer service ability, in order to boost the stable and rapid development of its financial markets business. The Bank diversified its foreign exchange products, continued to outperform its peers in market share of foreign currency exchange against RMB business, and brought the number of currency pairs available for exchange up to 39. It also increased the total number of tradable foreign currencies to 110, among which 99 are emerging market currencies and 46 are currencies of Belt and Road countries. Relying on a multi-layered service system covering research, trading and sales, the Bank strengthened the integrated expansion of its

overseas institutional investor client base. The Bank assisted the two-way opening-up of China's financial markets and participated in the interconnection of the Shanghai Gold Exchange and Chicago Mercantile Exchange (CME). It stepped up product innovation, with its personal trading products system now covering precious metals, bonds, crude oil and foreign exchange, so as to meet the multi-faceted asset allocation needs of personal customers. In line with the financial needs of the real economy, the Bank provided professional hedging services against risks relating to exchange rates, interest rates and commodity prices. It improved online service capabilities and realised rapid growth in transaction volume and customer base. In addition, viewing compliance as a core competitive edge, the Bank pressed forward with the mandatory initial margin compliance programme.

Investment Banking and Asset Management

The Bank fully leveraged the competitive advantages of its international and diversified operations with a focus on serving the real economy. It provided customers with comprehensive, professional and customised investment banking and asset management solutions, including professional financial products and services for bond underwriting and distribution, asset management, asset securitisation and M&A restructuring advisory. To facilitate the construction of China's multi-layered capital markets system and to support customers' direct financing needs, the Bank underwrote debt financing instruments for non-financial institutions in the China interbank bond market of a total amount of RMB457.356 billion. The Bank's bond underwriting business for financial institutions was greatly boosted, with its financial bond underwriting volume and market share continuing to improve. It maintained the leading market share among all commercial banks in the interbank market in terms of asset securitisation underwriting business. The Bank enhanced its cross-border competitiveness by assisting offshore issuers such as the Republic of the Philippines, the Republic of Portugal, Cassa Depositi e Prestiti, Crédit Agricole S.A. and United Overseas Bank in issuing Panda bonds. It held the leading market share in Panda Bonds business. It acted as Joint Lead Manager and

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Joint Bookrunner for the MOF's issuance of its first RMB sovereign bond in Macao, the issuance of its first sovereign bond denominated in Euro since 2004, and the issuance of a USD sovereign bond for the third consecutive year, which totalled more than USD10.0 billion equivalent. These issuances further constructed the yield curve of foreign currency-denominated sovereign bonds and facilitated the establishment of the pricing benchmark for Chinese credits. The Bank continuously ranked first in the market share as an underwriter of Chinese offshore bonds. It also made efforts to promote the development of green finance, and maintained the largest market share for green bond issuance in the China interbank market. Proactively exploring financial solutions for poverty alleviation, the Bank successfully assisted the issuance of the first off-site poverty alleviation notes. Moreover, it strongly supported private enterprise financing, underwriting debt financing instruments for private enterprises totalling RMB33.588 billion and thus further expanding financing channels for private enterprises. As a result, the Bank was awarded as "China Bond House" and "Best Renminbi Bond" by *IFR Asia*, "Best Panda Bond House", "Best Investment Grade Bond House in Asia" and "Best Panda Bond" by *FinanceAsia*, "Best Firm for ABN" and "Best for Auto ABS" by *Asiamoney*, and "Best Bond Advisor", "Best Green Bond", "Best Quasi-Sovereign Bond", "Best Social Impact Bond" and "Best Securitisation Advisor" by *The Asset*. As such, the brand influence of BOC Debt Capital Markets was continuously enhanced.

The Bank continued to promote the transformation of its wealth management business, further expanded its product line and steadily increased its net value product balance. It strengthened support for the real economy and provided various themed wealth management products surrounding national policies and intense market interest, such as pension finance, green finance, inclusive finance, and the private economy. The Bank also launched themed products to actively support the development of strategic zones, including the Yangtze River Delta and the Guangdong-Hong Kong-Macao Greater Bay Area, and so on. As at the end of 2019, the total balance of wealth management products issued by the Bank and BOC Wealth Management amounted to RMB1,427.7 billion.

The Bank established a professional financial advisory service system and strengthened group-level coordination. Leveraging the advantages arising from coordination between the Head Office and branches, as well as the integration of both its domestic and overseas operations and its commercial banking and investment banking functions, the Bank provided customers with professional advisory services such as divestitures, cross-border M&A, debt restructuring, equity financing, private fund raising and project financing. It steadily promoted its credit asset-backed securitisation business and optimised the structure of its existing assets. The Bank successfully issued five residential mortgage-backed securities with a total amount of RMB49.985 billion and one non-performing credit asset-backed security with a total amount of RMB569.7 million in the year.

Custody Business

The Bank actively served the national development strategies and improved the development quality of its custody business by continuously expanding its service coverage, improving the service offering, consolidating the business line and increasing business scale. As at the end of 2019, total assets of the Bank's custody business amounted to RMB10.5 trillion, an increase of 8.62% compared with the prior year-end. In service of the two-way opening-up of China's financial markets, the Bank conducted a batch of symbolic projects in related with mutual market connections and ranked top among Chinese banks in terms of cross-border custody assets, which reached RMB353.0 billion. It assisted the development of the silver economy and won all of the tenders for custodian bank services made by provisional and municipal occupational annuities during the year, as well as the annuity custody programmes of many major enterprises. Supporting the reform of state-owned enterprises, the Bank provided custody services for multiple state-owned enterprise reform ETFs, raising an initial total of RMB22.082 billion. It supported the transformative development of the asset management business and provided its industrial peers with custodian and outsourcing services on bank collective investment products. In addition, the Bank implemented its technology-driven strategy and expedited the construction of its custody system, thus improving its operational service efficiency.

Supporting Olympic and Paralympic Winter Games Beijing 2022 with financial services

As the official banking partner of Olympic and Paralympic Winter Games Beijing 2022 (“Beijing 2022 Games”), the Bank spared no effort to deliver financial services and support the preparations for the event, and encouraged 300 million people to embrace winter sports.

The Bank capitalised on its advantages in integrated operations and provided quality financial services for Beijing 2022 Games. The Bank firmly supported the construction of venues and infrastructure for Beijing 2022 Games by providing bank credit for core projects such as the Big Air Shougang, the Yanqing Zone venues, and the National Cross-Country Skiing Centre, National Ski Jumping Centre, National Biathlon Centre and Zhangjiakou Olympic Village. It also provided the Beijing Organising Committee for the 2022 Olympic and Paralympic Winter Games, official partners, sponsors and licensees with exclusive financial services such as account management, settlement and exchange, exchange rate consulting and letters of guarantee.

The Bank intensified FinTech innovation to build up a high-tech-based Olympics. As required by the PBOC concerning the payment environment development for Beijing 2022 Games, the Bank sped up the launch of high-tech-based and smart financial products, improved the payment experience of participants, spectators and tourists from home and abroad, and thus endeavoured to integrate financial services with high-tech-based Olympics.

The Bank leveraged its leading role as an official partner to encourage 300 million people to embrace winter sports. The Bank issued the world’s first Olympic Winter Games Beijing 2022-themed credit card and debit card in 2019 to provide support for winter sports enthusiasts and the public to participate in winter sports through abundant benefits. The Bank carried out Olympics-themed publicity campaigns such as “Olympic Day” and “1,000-day Countdown to the Beijing 2022 Games” and supported domestic and international winter sports events such as the 14th National Winter Games and “Experience Beijing” — A Series of Winter Sporting Events to publicise the event and bolster the popularisation of winter sports.



Village Bank

BOC Fullerton Community Bank actively implemented the national strategy of rural revitalisation with the aim of “focusing on county area development, supporting farmers and small-sized enterprises, and growing together with communities”. It is committed to providing modern financial services to county-level micro and small-sized enterprises, individual merchants, wage earners and farmers, thus promoting the construction of a beautiful and liveable countryside.

BOC Fullerton Community Bank expedited the expansion of its institutional distribution network to support financial development in county areas. After acquiring shares in village banks held by China Development Bank and China Construction Bank, it expanded its business scale, so as to better support for the development of China's central and western regions and the real economy in county areas.

As at the end of 2019, BOC Fullerton Community Bank controlled 125 village banks with 166 sub-branches in 22 provinces (including municipalities directly under the Central Government). It has become the largest domestic village bank group in terms of total institutions and business scope, and has obtained approval to establish an investment management village bank in the Xiongan New Area. It also continuously improved its product and service system to further expand its customer base and business scale. As at the end of 2019, the registered capital of BOC Fullerton Community Bank amounted to RMB7.524 billion, with its total assets and net assets standing at RMB65.803 billion and RMB10.881 billion respectively. The balances of total deposits and loans of these banks stood at RMB41.588 billion and RMB44.467 billion respectively, an increase of 6.80% and 13.27% compared with the prior year-end. The NPL ratio was 1.68%, and the ratio of allowance for loan impairment losses to NPLs was 254.01%. In 2019, BOC Fullerton Community Bank achieved a profit for the year of RMB840 million.

Overseas Commercial Banking

In 2019, the Bank further enhanced its global service and support capabilities and sharpened its market competitiveness by continuously promoting the establishment of overseas institutions, pushing forward the integrated development of its domestic and overseas operations, actively deepening the construction of the financial artery of the Belt and Road Initiative and advancing RMB internationalisation on all fronts. As at the end of 2019, the Bank's overseas commercial banking customer deposits and loans totalled USD454.235 billion and USD389.956 billion respectively. In 2019, the Bank's overseas commercial banking business achieved a profit before income tax of USD8.879 billion, accounting for 24.42% of the Group's total profit before income tax.

Regarding the distribution of overseas institutions, the Bank closely tracked the financial services needs of global customers and accelerated the development and distribution of institutions in countries along the Belt and Road, so as to further improve its global service network. As at the end of 2019, the overseas institutions of the Bank totalled 557, covering 61 countries and regions across the world.

For corporate banking business, by giving full play to the advantages arising from its integrated commercial and investment banking operations, the Bank provided a full spectrum of premium, efficient, customised and comprehensive financial services for “Going Global” and “Bringing In” customers, “Fortune Global 500” enterprises and local corporate customers. It further improved its globalised customer service system and continually enhanced its middle and high-end products and services. Through core products including syndicated loans, project financing, cross-border M&A, export credit, global cash management and L/G, the Bank provided great support for key projects related to infrastructure construction, energy resource development and overseas industrial parks, with the aim of providing sound financial services for the Belt and Road Initiative, promoting international



cooperation in production capacity and helping enterprises achieve sustainability in their overseas investments and operations.

For personal banking business, the Bank continued to improve its overseas customer service network, extending its business coverage to more than 30 countries and regions. It vigorously promoted business innovation, actively served customers' financial and non-financial needs, and provided account, settlement, debit card, mobile banking and other services for overseas business travellers, overseas students, expatriates and local customers. The Bank made in-depth efforts to improve cross-border scenarios, enriched its cross-border product and service system and launched the "Account Opening Witness" service in the Guangdong-Hong Kong-Macao Greater Bay Area to help Hong Kong residents open personal accounts in the Chinese mainland via BOCHK branches. These efforts gave a continuous boost to the Bank's cross-border service quality and market influence. The Bank also launched the "Cross-border Wallet" payment service for Macao

residents, becoming the first bank in the Chinese mainland to offer code-scanning payment for cross-border accounts and the first Chinese bank to enable cross-border e-wallet clearing through the PBOC's Cross-border Interbank Payment System. The Bank accelerated the scenario integration of cross-border credit card customers, continuously enriched the marketing activity and content for the "Enjoy the World with BOC Credit Card" series of cross-border credit cards, enhanced its unique brand influence in cross-border payment and strived to provide cross-border customers with preferential, convenient and high-quality cross-border card services. It expanded its overseas card issuance and acquiring services, developed new products such as Macao MasterCard Credit Card, released an overseas version of "BOC Smart Payment" and successfully launched it in its Phnom Penh Branch.

For financial markets business, the Bank gave full play to its advantages in integrated global operations and actively engaged in RMB futures market-making on the exchanges of Singapore, South Korea, Dubai, etc.,

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in line with the national opening-up strategy. It became the first Chinese bank to serve as a central clearing member of the London Clearing House. The Bank continued to enhance its capacity for expanding its overseas customer base, with its professional service capabilities reaching international standards. It realised rapid growth and continually optimised the structure of its three product lines of exchange rates, interest rates and commodities, and thus continuously improved its business scale and profitability. The Bank sped up efforts to develop its global custody service network and strived to deliver custody services to “Going Global” and “Bringing In” customers. It grasped opportunities arising from capital market connectivity to undertake the marketing of new businesses such as cross-border deposits. The Bank successfully issued the fifth tranche of its Belt and Road-themed bonds with a total volume equivalent to approximately USD3.8 billion. It also successfully issued the sixth tranche of its green bonds with a total volume equivalent to approximately USD1.0 billion, of which the USD-denominated bond was the first Secured Overnight Financing Rate (SOFR) bond issued by a commercial institution in the Asia-Pacific region.

For clearing services, the Bank continuously improved its cross-border RMB clearing capabilities and further consolidated its position at the leading edge of international payments. After holding an opening ceremony, the Bank’s Tokyo Branch formally commenced business as the RMB clearing bank in Japan. The Bank also received authorisation to serve as the RMB clearing bank in the Philippines, which means that it now accounts for 13 of the world’s 27 authorised RMB clearing banks and continues to lead its peers. It also ranked first in terms of the number of CIPS indirect participants. In 2019, the Bank’s cross-border RMB clearing transactions totalled RMB434 trillion, an increase of almost 12% compared with the prior year, maintaining first place in the global market.

For e-banking, the Bank further expanded its overseas coverage and continued to enhance its global online financial services capacity. With its online financial services platform actively integrating its overseas and domestic operations, the Bank further enriched service functions such as overseas corporate online banking and overseas bank-enterprise connection channels, and therefore continued to lead its peers in global fund management services. As at the end of 2019, the Bank offered overseas corporate online banking services in 46 countries and regions, with 14 available languages. It provided overseas mobile banking services in 27 countries, supporting 10 languages and offering over 60 services within 13 categories.

BOCHK

In 2019, BOCHK remained committed to its strategy of building a top-class, full-service and internationalised regional bank. Taking a customer-centric approach, it actively responded to changes in the market environment and seized market opportunities to steadily push forward its business priorities, with major financial indicators remaining at solid levels. Striving to be customer-centric at all times, it continued to develop the local market in Hong Kong and expedited its innovation-led transformation. BOCHK expanded its active involvement and business development in the Guangdong-Hong Kong-Macao Greater Bay Area, and endeavoured to consolidate its leading market position for major businesses in the area by sharpening its integrated business systems. It deepened the integration of its Southeast Asian entities, enhancing both regional synergies and development quality. It expedited its digital and innovation-driven development and enhanced FinTech application in its products and services. Moreover, BOCHK remained dedicated to cultivating its bank culture to ensure balanced and sustainable development. As at the end of 2019, BOCHK’s issued

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share capital was HKD52.864 billion. Its total assets amounted to HKD3,026.056 billion and net assets reached HKD307.492 billion. Its profit for the year was HKD34.074 billion.

BOCHK continued to develop its core market in Hong Kong and outperformed its peers in key business areas. The growth of BOCHK's total customer deposits and loans was above the market average. Its asset and liability structure was further optimised, with asset quality outperforming the local market. BOCHK strived to optimise its business structure to enhance its regional and integrated service capabilities and successfully arranged a number of significant syndicated loans and debt issuance projects. It remained the top mandated arranger in the Hong Kong-Macao syndicated loan market for the 15th consecutive year. In line with measures promoted by the HKSAR government, it enhanced its service levels for commercial customers in Hong Kong and mitigated the operating pressure felt by SMEs. BOCHK deepened its business relationships with government and institutional customers, and pushed forward the development of its key businesses in cash pooling, treasury centre, cash management and trade finance. It deepened the use of scenario-based applications and online service capabilities to support the enhancement of financial infrastructure and e-channels. Continuous improvements were made to the product functions and scenario-based applications of the BoC Pay and BoC Bill payment systems in order to foster the development of an ecosystem for payment and collection services, resulting in a continuous increase in market penetration. It catered to the differentiated needs of personal clients and provided exclusive and all-round services to its mid to high-end clients, which led to continuous improvement in the structure and scale of its customer base. In addition, it accelerated FinTech innovation and promoted digital upgrading and scenario-based application in its products and services, so as to better satisfy people's livelihood banking needs.

BOCHK promoted integrated development and collaboration in the Greater Bay Area in order to expand featured cross-border services. BOCHK actively participated in the development of the Guangdong-Hong Kong-Macao Greater Bay Area, free trade zones and the Xiongan New Area by providing financing support and expert advisory guidance. It strengthened its collaboration and communication with branches and subsidiaries within the Group in order to establish an integrated sales and service system in the Greater Bay Area across four major aspects of cross-border activities: people flow, commodities flow, fund flow and information flow. It captured opportunities in terms of customers, projects and products, with a focus on serving key business areas with appropriate products and services in order to further enhance its cross-border financial service capabilities. To meet the demand of residents from Guangdong, Hong Kong and Macao for financial services, including account opening, payment services, wealth management and financing, BOCHK launched a "Greater Bay Area Account Opening" service to provide a Chinese mainland personal account opening attestation service for Hong Kong residents. The "Greater Bay Area Service Connect" service was launched to provide mutual service access to wealth management customers. As a result, BOCHK achieved a solid increase in the number of cross-border customers.

BOCHK promoted its business development in Southeast Asia and enhanced regional synergies. Following the completion of the acquisition of Bank of China Vientiane Branch, BOCHK's Southeast Asia business now covers eight Southeast Asian countries. BOCHK steadily pushed forward the implementation of its regional management model, reinforced resource support and adopted differentiated development strategies for each Southeast Asian entity. It strengthened collaborative marketing with its Southeast Asian entities and continuously enriched their product and service portfolios so as to expand into local mainstream markets. As a result, they successfully acquired major clients in the region,

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resulting in a continuous expansion of customer base and business scale. Bank of China (Thai) Public Company Limited helped a Thai asset management company client to become an RQFII, while Bank of China (Malaysia) Berhad launched a BOC Wealth Management service. BOCHK Ho Chi Minh City Branch successfully handled the first cross-border RMB entrusted settlement business in Vietnam's non-border area. Bank of China Manila Branch was designated as the RMB clearing bank in the Philippines. BOCHK Jakarta Branch ranked fifth in the overall banking industry in Indonesia, and first among foreign bank branches. It was awarded the title of "Best Foreign Bank of the Year" in Indonesia and became the first bank to distribute RMB insurance products in the Indonesian market. The Southeast Asian entities comprehensively enhanced their capabilities in credit risk, internal control and compliance as well as anti-money laundering management, ensuring compliance with relevant regulatory requirements.

BOCHK expedited its digital transformation and pushed forward FinTech innovation. BOCHK kept pace with market trends and stayed aligned with changes in market demand. By applying innovative technologies such as big data, artificial intelligence (AI), blockchain, biometric authentication, open API and robotic process automation in financial products, service processes, operations management and risk control, BOCHK was able to continuously improve its service levels and strengthen customer experience. It promoted a new payment and collection model and developed a diversified, small amount and high frequency payment scenario. Robotic Process Automation (RPA) technology was gradually introduced to handle middle and back office operational processes, in a bid to increase operational efficiency and reduce operational risks. It launched the Global Transaction

Banking Platform, a new version of mobile banking and an intelligent customer service platform, so as to promote an integrated financial mobile portal. BOCHK accelerated the intelligent development of its branch network and optimised its customer service processes. It also supported innovation-driven strategy research, further enriched scenario-based applications of FinTech and accelerated its pace of innovation. In addition, Livi VB Limited ("Livi"), a virtual banking joint venture company owned by BOC Hong Kong (Holdings) Limited, JD New Orbit Technology (Hong Kong) Limited and JSH Virtual Ventures Holdings Limited, was granted a banking licence by the Hong Kong Monetary Authority. Using various innovative technologies, Livi will bring a unique banking experience to customers.

During the year, BOCHK was recognised as "Best Retail Bank in Hong Kong", "Best Cash Management Bank in Hong Kong" and "Best Transaction Bank in Hong Kong" by *The Asian Banker*, "Best Bank for CSR in Hong Kong" by *Asiamoney*, "Hong Kong Domestic Foreign Exchange Bank of the Year", "Hong Kong Domestic Trade Finance Bank of the Year", "Hong Kong Domestic Cash Management Bank of the Year", and "Mobile Banking Initiative of the Year — Hong Kong" by *Asian Banking & Finance*, "Best Currency Swap Member" and "Opening Contribution Award" by the China Foreign Exchange Trade System, and received the "Outstanding International Member Award" from the Shanghai Gold Exchange, the "Key Business Partner in FIC Market" award from HKEX, and the "Best SME's Partner Gold Award 2019" from The Hong Kong General Chamber of Small and Medium Business.

(Please refer to the results report of BOCHK for a full review of BOCHK's business performance and related information.)

Delivering comprehensive services to the second CIIE



Driven by a strong sense of responsibility and mission, the Bank gave full play to its advantages in globalised and integrated operations in support of the nation's opening-up strategy. Based on the services delivered to the first CIIE, the Bank assisted with preparations for the second CIIE as a strategic partner.

Deeply involved in attracting exhibitors and businesses. Leveraging its extensive global institutional network, the Bank has held Expo promotion and exhibitor attraction events in 12 countries and regions since the closing of the first CIIE. The Bank organised business attraction and promotion activities in more than 20 countries and regions as an “overseas business attraction undertaking institution”, inviting overseas exhibitors and procurers to negotiate transactions in China. In its capacity as a “supporting organisation for the overall programme of domestic business attraction road shows”, the Bank supported business attraction road shows in 21 cities held across the country by the China International Import Expo Bureau and local commerce authorities, and invited thousands of domestic enterprises to participate in the CIIE.

Facilitated supply-demand matchmaking. The Bank again organised the Exhibitor-Businessman Supply-and-Demand Matchmaking Meeting, attracting 4,625 enterprises from 103 countries and regions and leading to a total of 2,160 purchase intention agreements. Compared with the first CIIE, the number of exhibitors during the second CIIE increased by 16%, the number of businessmen increased by 32%, and the number of purchase intention agreements increased by 72%. The newly upgraded “BOC Global Matchmaking System (GMS)” was used to intelligently match customer demand, automatically arrange meeting logistics and release the results of talks on a real-time basis.

Successfully held themed events. The Bank participated in the “E-commerce Innovation Development in the Digital Era” session of Hongqiao International Economic Forum, as well as hosting a thematic forum on “Internationalisation of RMB — Facilitating the Building of the Free Trade Zone”, thus contributing to economic and trade exchange and cooperation between China and overseas parties.

Delivered comprehensive financial services. The Bank optimised and upgraded on-site services, adopted new technologies such as AI, big data and cloud computing, introduced the “BOC face-scanning payment” channel, built intelligent outlets and provided convenient online digital financial services for participating enterprises and individuals.

Comprehensive Operation Platforms

Seizing the strategic opportunities arising from the construction of multi-layered capital markets, the Bank pushed forward its high-quality, integrated development. In the aim of serving the real economy and satisfying the diverse needs of customers, the Bank continued to focus on core business, firmly held the bottom line for operational compliance and strengthened collaboration within the Group, making its financial services more adaptable, competitive and inclusive. In 2019, the Bank made steady progress in its comprehensive development and achieved breakthroughs in key areas.

Investment Banking Business

BOCI

The Bank is engaged in investment banking business through BOCI. As at the end of 2019, BOCI had an issued share capital of HKD3.539 billion, total assets of HKD68.639 billion, and net assets of HKD19.585 billion. In 2019, BOCI realised a profit for the year of HKD1.479 billion.

BOCI further enhanced its capabilities in cross-border services to serve the global clients. It made great efforts to develop its M&A business, capitalised on its structural advantages in government services, leveraged its financial solution expert panel, and actively extended its reach in Southeast Asian markets. In addition, it achieved steady progress in its equity underwriting and financial advisory businesses, helping foreign enterprises to attract Chinese capital and expand into the Chinese market while assisting Chinese companies in their “Going Global” efforts. In 2019, BOCI was the only Chinese investment bank mandated to assist Saudi Arabian Oil Company (“Saudi Aramco”) in its IPO, the biggest ever in global capital markets, thus further increasing its international influence.

BOCI placed an emphasis on cross-border business cooperation between the Chinese mainland and Hong Kong. It promoted the internationalisation

of the domestic commodity futures market and provided over-the-counter (“OTC”) trading services for oil futures of the Shanghai International Energy Exchange. It took the initiative to launch the “BOCI Greater Bay Area Leaders Index”. Moreover, BOCI continuously improved its private banking infrastructure and system so as to enhance its comprehensive wealth management offering and thus make its market leadership and competitive advantages more sustainable. BOCI-Prudential Asset Management Limited, a subsidiary of BOCI, maintained its position as a top-ranked service provider in the Hong Kong Mandatory Provident Fund (MPF) and Macao Pension Fund businesses. BOCI also played an active role in the Mainland-Hong Kong Mutual Recognition of Funds (MRF) scheme.

Adopting a lean management philosophy, BOCI actively pressed ahead with FinTech and product innovation. It rolled out a next-generation securities sales and trading platform app, and applied big data and AI to achieve deeper levels of cross-selling and improve end user experience. It also enriched its offering of callable bull/bear contracts (CBBC) and thereby solidified its leading position in terms of brokerage and equity derivatives business in stock and warrant market of Hong Kong.

BOCI received a number of awards from respected financial and economic organisations during the year, including “Oil and Products House of the Year, Asia”, “Commodity Research House of the Year, Asia”, “Best Bond Advisor — Global (China)”, “China Corporate and Investment Banking Awards 2019 — Best for Cross Border Debt Capital Markets, China”, “Country Award 2019 — Best DCM House (Hong Kong-Chinese Financial Institutions)” and “Best FinTech Investors”.

BOCI China

BOCI China is engaged in securities-related businesses in the Chinese mainland. As at the end of 2019, the registered capital, total assets and net assets of BOCI China were RMB2.500 billion, RMB48.312 billion and RMB12.738 billion respectively. In 2019, it realised a profit for the year of RMB800 million.

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BOCI China aimed for a top-tier position among its peers by pushing forward wealth management transformation for personal customers and transaction ecosystem management transformation for institutional customers. Deepening the synergistic advantages of “investment banking + commercial banking”, “investment banking + investment” and “domestic + overseas” in its investment banking business, it shifted its investment banking focus towards transaction-driven comprehensive financial services, its brokerage business focus towards wealth management and its asset management business focus towards active management, while improving the overall versatility of its branches. As a result, its customer service capability steadily strengthened. In 2019, BOCI China ranked sixth and tenth for stock and bond underwriting scale respectively, as well as fifth and 12th for assets under management (AUM) and net income respectively, showcasing an increasing influence in the market.

In 2019, BOCI China was awarded “Excellent All-round Investment Bank”, “Excellent Interbank Bond Investment Bank”, “Excellent Bond Project” and “Excellent Hong Kong Stock Connect Broker” by *Securities Times*, “International Avant-garde Investment Bank” and “Avant-garde Investment Bank in Bond Underwriting” by *International Financial News*, “Elite Award for Best Broker/Asset Manager in Fixed-income Products” by *China Fund*, as well as “Golden Bull Growing Securities Company” and “Best Industry Analyst Team in 2019” by *China Securities Journal*.

On 26 February 2020, BOCI China was successfully listed on the main board of SSE, and was widely recognised by investors. The Bank holds equity interest in BOCI China through its wholly-owned subsidiary BOCI, and will fully leverage its brand value and synergies to help BOCI China grow into a world-class investment bank.

(Please refer to the BOCI China Annual Report for a full review of its business performance and related information.)

Asset Management Business

BOCIM

The Bank is engaged in fund management business in the Chinese mainland through BOCIM. As at the end of 2019, BOCIM’s registered capital amounted to RMB100 million, its total assets stood at RMB4.679 billion and its net assets totalled RMB3.703 billion. In 2019, its profit for the year reached RMB868 million.

By steadily expanding its asset management business and implementing robust internal controls and risk management, BOCIM maintained stable profitability, improved its brand and market reputation and further enhanced its comprehensive strengths. As at the end of 2019, BOCIM’s AUM reached RMB651.2 billion. In particular, its public-offered funds reached RMB381.8 billion and its non-monetary public-offered funds reached RMB252.8 billion.

BOCIM won a number of prestigious awards including “Top 10 Golden Bull Investment Managers” from *China Securities*, “Gold Fund • TOP Fund Managers” from *Shanghai Securities News* and “Star Fund Award of China fund industry” from *Securities Times*, among others. The funds managed by BOCIM were also granted several awards.

BOC Wealth Management

The Bank is engaged in wealth management business in the Chinese mainland through BOC Wealth Management. BOC Wealth Management’s business includes wealth management products for the general public, wealth management products for qualified investors, consulting, and other asset management related products and services. BOC Wealth Management was officially established and opened on 4 July 2019, and is a wholly owned subsidiary of the Bank. As at the end of 2019, BOC Wealth Management’s registered capital was RMB10.0 billion, its total assets amounted to RMB10.233 billion and its net assets totalled RMB10.175 billion.

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BOC Wealth Management worked rapidly to improve its governance framework, build its risk management system and enhance its employee team building so as to solidly launch its business operations. It received regulatory approval to collaborate with Amundi Asset Management in establishing the first sino-foreign joint wealth management company in the Chinese mainland, further expanding the entities and products available in the asset management market. As at the end of 2019, BOC Wealth Management's wealth management product balance amounted to RMB74.492 billion.

BOC Wealth Management was awarded "Best Bank Wealth Management Company" in the 2019 EastMoney Awards.

Insurance

BOCG Insurance

The Bank is engaged in general insurance business in Hong Kong through BOCG Insurance. As at the end of 2019, BOCG Insurance reported issued share capital of HKD3.749 billion, total assets of HKD9.130 billion and net assets of HKD4.125 billion. In 2019, BOCG Insurance recorded gross written premiums of HKD2.642 billion and realised a profit for the year of HKD28 million. It remained at the forefront of the Hong Kong general insurance market in terms of gross written premium.

Deepening services locally in Hong Kong, BOCG Insurance made solid progress in expanding its business, made timely adjustments to its product structure in the local market, and strengthened the promotion of travel insurance and other products. BOCG Insurance refined its business approach in the Chinese mainland, actively participated in the development of the Guangdong-Hong Kong-Macao Greater Bay Area and launched a series of specific products for customers in the area. It reached out to overseas markets by supporting the Belt and Road Initiative and collaborating with BOCHK Vientiane Branch and Phnom Penh Branch to conduct a number of key insurance schemes.

BOC Life

The Bank is engaged in life insurance business in Hong Kong through BOC Life. As at the end of 2019, BOC Life's issued share capital was HKD3.538 billion, total assets amounted to HKD153.116 billion and net assets amounted to HKD10.095 billion. In 2019, its profit for the year was HKD683 million. BOC Life maintained its leading position in Hong Kong's life insurance sector and remained the market leader in RMB insurance business.

BOC Life continued to push forward product and service innovation. It was among the first batch of insurers to promote the tax deductible Voluntary Health Insurance Scheme and Qualified Deferred Annuity Policy, in a bid to satisfy different customer needs. "Forever Glorious ULife Plan II" and "Luminous Prime ULife Plan" were launched to enhance service support for high-end customers and uplift the value of new business and long-term profitability. It launched "iTarget 3 Years Savings Insurance Plan" simultaneously via BOCHK's mobile and internet banking for the first time, established the "Life Insurance Self-Service Counter", and launched "iProtect 10 Years Insurance Plan" via BOCHK's mobile banking, providing customers with a diverse range of choices. It also introduced a "digital sales assistant" in the customer service centre and added policy binding and policy information functions on BOC Life's WeChat Official Account, making services more convenient.

BOC Insurance

The Bank is engaged in property insurance business in the Chinese mainland through BOC Insurance. As at the end of 2019, BOC Insurance reported registered capital of RMB4.535 billion, total assets of RMB13.449 billion and net assets of RMB4.234 billion. In 2019, it realised written premiums of RMB6.687 billion and a profit for the year of RMB242 million.

Persistently serving the real economy and supporting the development of inclusive finance, BOC Insurance

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has served 13.6 thousand SME clients. It actively responded to the Belt and Road Initiative and carried out overseas insurance business which has covered nearly 30 industries in more than 70 countries and regions including Asia, Africa and South America, maintaining a leading position in overseas insurance business. It supported customs clearance facilitation reform by providing services to the China International Trade Single Window and moving online the full process of customs bond insurance and cargo transportation insurance. It also supported regional development strategies by developing an insurance action plan for a water resources allocation project in the Hong Kong-Zhuhai-Macao Bridge and the Yangtze River Delta. In addition, it assumed its share of social responsibility and demonstrated its care for the people's livelihood by joining the single-purpose pre-paid card performance bond insurance pool and the China Urban and Rural Residential Building Earthquakes Catastrophe Insurance Pool, as well as obtaining the relevant qualifications for providing critical illness insurance to urban and rural residents.

BOC Insurance received an "A" integrated risk rating (classified regulation) for the 13th consecutive quarter, and also maintained an "A-" rating and "stable" outlook from Standard & Poor's for the sixth consecutive year. It was awarded "Growing Insurer of the Year" in the 2019 China Finance Billboard by Hexun and "Outstanding Property Insurance Company" in the Piloting China Awards organised by JRJ.com. Its customs bond insurance product was recognised as the "Best Practice of Finance Serving Global Industry Chain in 2019" by the Asian Financial Cooperation Association and China Financial Publishing House.

BOC-Samsung Life

The Bank is engaged in life insurance business in the Chinese mainland through BOC-Samsung Life. As at the end of 2019, BOC-Samsung Life's registered capital stood at RMB1.667 billion, total assets amounted to RMB21.105 billion and net assets amounted to RMB1.532 billion. In 2019, BOC-Samsung Life recorded written premiums and premium deposits of RMB9.385 billion and a profit for the year of RMB55 million.

BOC-Samsung Life continued to enhance its cross-selling capabilities and realised a year-on-year increase of 30% in premiums in 2019, above the industry average. Emphasising the original purpose of the insurance business, it vigorously developed its long-term savings and protection business, resulting in a year-on-year increase of 120% in the first year premiums of high-value regular policies. It quickened the pace of its network expansion, with the Shandong Branch, Shaanxi Branch and Shijiazhuang Sub-branch, as well as other five institutions, opening for operation during the year. Capitalising on FinTech trends, BOC-Samsung Life provided 20 products through the comprehensive financial service portal included in BOC mobile banking, successfully launched its "E-marketing" mobile sales platform, and achieved positive results from precision marketing based on "customer portrait" technology. Focusing on customer demand, it innovated its protection products and optimised the customer experience by providing 36 WeChat online service functions. It also placed value on strengthening consumer protection, and popularised insurance knowledge through BOC mobile banking.

BOC-Samsung Life was rated "A" level in the annual evaluation results of insurance companies services released by China Banking and Insurance Information Technology Management Co., Ltd. It was also awarded "Outstanding Socially Responsible Enterprise" by xinhuanet.com, "2019 Excellent Life Insurance Company" by *National Business Daily* and "Excellent Wealth Management Award" by *Securities Daily*.

Investment Business

BOCG Investment

The Bank is engaged in direct investment and investment management business through BOCG Investment. BOCG Investment's business activities include private equity investment, fund investment and management, real estate investment and management and special situation investment. As at the end of 2019, BOCG Investment recorded issued share capital of HKD34.052 billion, total assets of HKD124.976 billion and net assets of HKD64.106 billion. In 2019, it recorded a profit for the year of HKD4.634 billion.

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BOCG Investment's development strategy is based on integration, fund-based development and digitalisation. It actively implemented the nation's regional development strategy by broadening investment and loan linkage channels and supporting the development of the real economy. BOCG Investment established the BOC Yangtze River Delta Equity Investment Fund in Shanghai with a total target size of RMB30.0 billion, including a first phase of RMB5.0 billion. It adapted to new trends in the consumer sector by promoting the development of the winter sports industry and the senior care market. Focusing on emerging industries and new trends such as AI, logistics, medicine and medical treatment, BOCG Investment invested in a number of projects with significant market influence. During the year, it was recognised as one of the "Top 50 Chinese Private Equity Investment Institutions of 2019" and "Top 50 Chinese State-owned Investment Institutions of 2019". BOCG Investment continued to strengthen its market-oriented financing capabilities and successfully issued a USD600 million senior bond.

BOC Asset Investment

The Bank is engaged in debt-for-equity swaps and related business in the Chinese mainland through BOC Asset Investment. As at the end of 2019, the registered capital of BOC Asset Investment was RMB10.0 billion, with its total assets and net assets standing at RMB72.613 billion and RMB10.388 billion respectively. In 2019, it realised a profit for the year of RMB326 million.

BOC Asset Investment actively implemented the national strategic decision to deepen supply-side structural reform. It conducted debt-for-equity swaps based on both market-oriented and law-based principles, with the aim of improving enterprises' business operations and helping them to reduce leverage ratios and improve market valuations, thus creating value. In 2019, the market-oriented debt-for-equity swap business of BOC Asset Investment reached RMB118.8 billion, with 40 directors and 16 supervisors participating in the corporate governance of 50 projects. BOC Asset Investment established a Positive Guidance List for private enterprises, and supported a number of leading and high-potential

private enterprises to adopt different business models such as increasing capital and paying off debts and converting debt collection into equity. It also raised funds through multiple channels, including successfully issuing RMB10.0 billion of financial bonds.

Leasing Business

BOC Aviation

The Bank is engaged in the aircraft leasing business through BOC Aviation. BOC Aviation is one of the world's leading aircraft operating leasing companies and is the largest aircraft operating leasing company headquartered in Asia, as measured by the value of owned aircraft. As at the end of 2019, BOC Aviation recorded issued share capital of USD1.158 billion, total assets of USD19.764 billion and net assets of USD4.581 billion. In 2019, it recorded a profit for the year of USD702 million.

Committed to pursuing sustainable growth, BOC Aviation continued to implement its proactive business strategy and steadily promoted its standing in the aircraft leasing industry. It actively expended the Belt and Road market and had leased more than 68% of its aircraft to airlines of Belt and Road countries and regions, as well as airlines based in the Chinese mainland, Hong Kong, Macao and Taiwan, as at the end of 2019. Continuously targeting customer demand, the company took delivery of 54 aircraft, including 12 aircraft that airline customers purchased at delivery, as it continued to expand its owned fleet. All of these aircraft have been placed on long-term leases. During the course of 2019, BOC Aviation signed 87 leases for future deliveries and added eight new customers. The company consistently sought to optimise its asset structure and improve its sustainable development. It sold 28 owned and two managed aircraft during the year, leaving it with an owned, managed and on-order fleet size of 523 as at the end of the year. The average owned fleet age was 3.1 years (weighted by net book value) as at 31 December 2019, which was one of the youngest aircraft portfolios in the aircraft leasing industry.

(Please refer to the BOC Aviation Annual Report for a full review of its business performance and related information.)

Enhancing the internal connectivity and collaboration of the Group and incentivise comprehensive operation

With a focus on customer demand, the Bank devoted itself to increasing connectivity both within commercial banking and between commercial banking and its comprehensive operation subsidiaries, with the aim of building a service system characterised by comprehensive functionality, smooth coordination and powerful competitive edge, in order to enhance the Group's integrated operations and drive uplift in the Group's market value.

Continually strengthened top-level design. Leveraging such mechanisms as the Steering Committee of Comprehensive Operation, the Bank created a suite of policies on the coordinated management and control of comprehensive operation, launched a number of projects with significant market influence, developed a batch of case studies on coordination across the Group's institutions, and cultivated a group of multi-talented financial professionals. In this way, it promoted the necessary pillars for comprehensive operation. The Bank also optimised the Group's equity structure, developed the Group's ownership structure streamlining plan, actively and firmly exited unnecessary investments in a number of companies, and thereby rationalised and reduced the Group's layers of shareholding.

Constantly improved deep-level mechanisms. Multiple measures were taken to strengthen the business collaboration ability. The Bank set up a linked marketing mechanism for the Scientific and Technological Innovation Board-related programme. BOCI China became one of the joint lead underwriters for the IPO of China Railway Signal & Communication Corporation Limited ("CRSC") on the Scientific and Technological Innovation Board, with BOC Asset Investment taking part in the strategic placement. Through a systematic review of the Group's key comprehensive operation products and promising case studies of collaboration, the Bank guided branches and subsidiaries to serve the diverse needs of customers in a comprehensive way, and to vigorously upgrade the Group's capacity of financial innovation and service integration.

Continuously developed an ecosystem. The Bank shifted the focus of its comprehensive operation downwards, seeking out key breakthroughs with an emphasis on the government's core regional initiatives, including the development of the Beijing-Tianjin-Hebei region, the Guangdong-Hong Kong-Macao Greater Bay Area and the Yangtze River Economic Belt. It stepped up the use of a toolkit consisting of "investment, loan, bond, stock, insurance and lease", optimised innovative models for cooperation across banking, government and business, and pressed ahead with its "ladder model" for globalised and integrated collaboration. The Bank took the lead in creating the BOC Yangtze River Delta Fund with a total volume of RMB30.0 billion in Shanghai, and was the first to receive CBIRC approval for establishing a wealth management sino-foreign joint venture. The Bank also established an arm of BOC Financial Technology, a BOCG Investment representative office and a BOC Asset Investment debt-for-equity fund in Suzhou, so as to build an experimental site and demonstration zone for globalised, integrated, digital and scenario-based financial services.

Persistently encouraged endeavours at the primary level. The Bank put in place a joint meeting mechanism for its domestic and overseas institutions under comprehensive operation, and pooled the customer and business resources of its commercial banking and comprehensive operation subsidiaries in order to seek regionally balanced development. The Bank also improved the honours and incentives mechanism associated with comprehensive operation, informed primary-level institutions and employees of such honours and incentives, and made efforts to raise awareness of connectivity and collaboration across different lines and increase business synergy.



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Service Channels

With a focus on enhancing customer experience, the Bank pushed forward its service channel integration and outlet transformation so as to attract more customers and drive stronger economies of scale. As a result, it cultivated an ecosystem wherein online and offline channels are integrated and financial and non-financial scenarios are seamlessly connected.

Online Channel

Following a “Mobile First” strategy and embracing the trend of digital transformation, the Bank continued to increase its efforts to expand online channels and upgrade its mobile banking service, realising a rapid growth in online businesses. In 2019, the Bank’s substitution ratio of e-banking channels for outlet-based business transactions reached 93.93%. Its e-channel transaction amount reached RMB243.77 trillion, an increase of 9.05% compared with the prior year. Among this, mobile banking transaction volumes reached RMB28.28 trillion, an increase of 41.17% compared with the prior year, making mobile banking the online trading channel with the most active customers.

Unit: million customers, except percentages

Items	As at 31 December 2019	As at 31 December 2018	Change (%)
Number of corporate online banking customers	4.6163	3.8905	18.66%
Number of personal online banking customers	182.3062	166.2361	9.67%
Number of mobile banking customers	180.8226	145.3118	24.44%
Number of telephone banking customers	112.7403	113.7678	(0.90%)

Unit: RMB billion, except percentages

Items	2019	2018	Change (%)
Transaction amount of corporate online banking	204,334.071	190,007.123	7.54%
Transaction amount of personal e-banking	36,366.825	30,076.152	20.92%
Transaction amount of mobile banking	28,278.569	20,031.165	41.17%

The Bank picked up the pace of building a mobile portal for its integrated financial services for corporate banking customers. Taking into account the needs of small and medium-sized enterprises for convenient mobile finance, the Bank started by improving basic services, enriching featured services and expanding new scenarios in order to push forward implementation in a tiered and step-by-step manner. On top of mobile reconciliation, transfer and remittance, online reservation of account opening and other high-frequency corporate customer transactions, the Bank also launched differentiated services including foreign exchange settlement, international settlement documents services and L/G inquiry and reminding service, so as to meet more of enterprises’ mobile banking demands and improve customer experience. The Bank enhanced FinTech applications, promoting more integrated service scenarios and building signature products. It continuously diversified its service models, added a T+1 exchange rate locking function, and reached agreements of intent for cross-border business cooperation with a number of leading payment service institutions. The Bank refined the process of corporate online banking activation and launched a counter-based contracting function in order to efficiently increase the activation of corporate online banking.

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The Bank promoted the transformation of mobile banking from a trading platform to an integrated service platform for its personal banking customers. It continuously optimised the user experience of its mobile banking functions to cover more than 200 digital financial services, including “thousand customers, thousand faces” recommendation services, voice-enabled fast transfer, personal business loan services and intelligent foreign cash identification, and offered customers investment and wealth management products covering bank wealth management, funds distribution, bond, insurance, precious metals, foreign exchange, etc. The Bank continued to diversify the non-financial services of its mobile banking offering, launching the original information platform “BOC Headline” and providing high-quality content services through BOC Live Platform. It enhanced FinTech applications, promoted more integrated service scenarios, further embedded and standardised the “open banking” concept, and accelerated the integration of accounts, foreign exchange, precious metals and other products and services into online scenarios. The Bank continued to optimise the service functions of WeChat banking, online banking, telephone banking and SMS banking. Based on its next-generation customer service system, it enhanced its intelligent customer service capabilities and further improved customer experience.

In 2019, the Bank was awarded “Best Blockchain Initiative, Application or Programme in China (Financial Institution)” by *The Asian Banker*, “Best Mobile Banking” by the Financial Internet Branch of the China Computer Users Association, “Best FinTech Innovation and Application Award” and “Best Mobile Banking” by China Financial Certification Authority, and “Top Ten Mobile Banking Innovation” by the China Financial Innovation Awards.

Offline Channel

The Bank built “5G Intelligence + Brand” outlets relying on 5G technology, big data, AI and other cutting-edge technologies. It launched the “BOC 5G Intelligence + Life House” in Beijing to showcase a comprehensive financial ecosystem integrating new finance, new retail banking and new lifestyle trends across different businesses, with “Integrate Finance into Life” as its core concept. With the theme of “Serve People’s Livelihood with Finance”, the Bank also launched the “BOC 5G Intelligence + Livelihood House” in Tianjin, developing multiple people’s livelihood scenarios and focusing on the original purpose of finance: serving the real economy and benefiting the people.

The Bank pushed forward outlet transformation, centring on its bank-wide smart counters, to enhance outlets’ value-creating capacity. In 2019, the Bank completed 18 upgrades of its smart counters so as to further improve its offline intelligent service system, and made the smart counter a major channel for customer attraction and service provision. It promoted mobile smart counters across all sub-branches in the Chinese mainland, with the aim of encouraging a proactive approach to acquiring customers beyond the boundary of the outlet hall and effectively expanding the scope of services. Corporate account opening via mobile counters was implemented across the Bank. Door-to-door “one-stop” corporate account opening and product contracting were realised by relying on channel innovation and process improvement, thus effectively shortening business processing time and enhancing customer services. The cash version of smart counters was also launched across the Bank, providing smart cash services including large amounts and multiple denominations and mediums. The Bank also became the first to introduce a new O2O physical delivery model, realising smoother online-offline coordination by focusing on foreign currency exchange as an entry point. Specifically, it enabled customers to make online reservation and collect foreign currency packages through smart counters, thus sharpening the competitive edge of its foreign currency business. In addition, the Bank piloted an immediate issuance service for social security cards in its Tianjin Branch, offering an end-to-end process including card application, card production, card activation and social security function activation. It developed its “cardless” personal banking business, introduced a mobile banking code scanning mechanism and realised online and offline authentication and mutual trust, thus creating a “contactless service” experience without medium or manual review.

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The Bank optimised its outlet performance assessment system and continued to work on deepening the classified management of its outlets, in a bid to promote outlet efficiency and effectiveness. Focusing on core business areas, the Bank accelerated the building of featured outlets to offer differentiated, higher quality services. In addition, the Bank refined the operational management of its outlets and adjusted the authority and responsibilities of primary-level employee positions. It improved outlets' marketing service approaches and strengthened the risk management of its outlet business, thus enhancing comprehensive operational efficiency.

As at the end of 2019, the Bank's commercial banking network in the Chinese mainland (including Head Office, tier-1 branches, tier-2 branches and outlets) comprised 10,652 branches and outlets. Its non-commercial banking institutions in the Chinese mainland totalled 490, and the number of its institutions in Hong Kong, Macao, Taiwan and other countries and regions totalled 557.

Unit: single item, except percentages

Items	As at 31 December 2019	As at 31 December 2018	Change (%)
ATM	37,331	41,723	(10.53%)
Smart counter	30,425	26,044	16.82%
Self-service terminal	1,875	17,627	(89.36%)

Information Technology Development

Following its strategy of enabling advancement through technology and driving development through innovation, the Bank continuously boosted its digital transformation and moved more rapidly to build a digital bank characterised by rich scenarios, online and offline coordination, an excellent user experience, flexible and innovative products, efficient operation and management, and intelligent risk control. In 2019, the Bank made investment of RMB11.654 billion in information technology, the investment amount increased by 15.15% compared with the prior year.

The Bank achieved new results in the innovative development of its FinTech system and mechanisms. It set up BOC Finance Technology Co., Ltd. ("BOC FinTech"), which started to lay the groundwork for a new mechanism for improving business competitiveness by using technologies according to market-oriented principles, therefore jointly promoting the implementation of the Group's IT strategy. It also implemented the joint creation of relationship manager assignment mechanisms, which further deepened the integration of technology with business and strengthened the services delivered by the Head Office and branches. It established multiple joint laboratories, signed strategic cooperation agreements with well-known enterprises and universities, and cooperated broadly with them in the areas of new technology research and application as well as scenario ecosystem construction. In addition, the Bank promoted the construction of innovative R&D bases in the Xiongan New Area, the Yangtze River Economic Belt and the Guangdong-Hong Kong-Macao Greater Bay Area, continued to carry out basic research on new technologies, and actively boosted the application of new technologies such as 5G, Internet of Things, blockchain and virtual reality.

The Bank recorded new progress in the construction of strategic infrastructure projects. It advanced the layout of next-generation multi-centre infrastructure in multiple locations, completed the building of a cloud platform and created an agile and efficient cloud service model, and supported the infrastructure deployment and transformation of its branches and comprehensive operation companies. It deepened the building of the three new technology platforms of cloud computing, big data and AI, accelerated the pace of application migration to the cloud, and developed a cloud computing-based model of integrated enterprise-level development, operation and maintenance. It launched a big data platform, pushed forward data analysis and data creation, and effectively supported the implementation of a series of key projects. The Bank widely promoted the enterprise-level AI platform "AI Brain of BOC", completed the building of the core Head Office nodes of its next-generation backbone network, and piloted access and launch of Internet Protocol Version 6 (IPv6) at seven branches, thus comprehensively enhancing its network service capacity.

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The Bank made new breakthroughs in the digital transformation of key business areas. It has now broadly completed its digital channel operation system and digital risk control system, and commenced the wide-ranging development of transaction banking and other digital products. It launched the industry's first integrated financial services zone in mobile banking, introduced the first phase of its iGTB platform, released mobile versions of its corporate, foreign currency withdrawal and overseas smart counters, and completed functionality development for BOC Corporate E Loan. The Bank made in-depth applications of digital technologies and achieved good results. It became the first bank to issue a blockchain bond, and opened the sector's first fully functional, self-service "BOC 5G Intelligence + Life House" outlet. The Bank also launched distributed applications such as next-generation smart customer services, a distributed image platform and "smart shopping mall", as well as data applications such as smart marketing for mobile banking, risk data analysis and processing, and smart audit platform. It built up its scenario ecosystem across the Bank, actively promoting the pilot application of new technologies in scenario development with reference to the three strategies of integrated scenarios, integration of

scenarios and self-built scenarios. Integrating the advantages of its internal and external resources, the Bank accelerated the building of four strategic scenarios, including cross-border, education, sports and silver economy.

The Bank highlighted new aspects of its global and integrated development. It improved the information system building process for newly established overseas institutions, and effectively supported the Bank's global and regional business layout. It completed the launch of the overseas lightweight core system in BOCHK Jakarta Branch, which won the "2019 Outstanding Contribution Award for FinTech Product Innovation" owing to its high availability, scalability and extendibility. The Bank extended the overseas reach of mature, high-quality products and services such as mobile banking, smart counters and smart customer services, and thus significantly enhanced its global service capabilities. It formulated the *Technology Development Plan for Comprehensive Operation Companies of BOC Group* and established a management information system covering all comprehensive operation companies of the Group, further consolidating the foundation for the Group's comprehensive development.

