ICBC

INDUSTRIAL AND COMMERCIAL BANK OF CHINA LIMITED

(A joint stock limited company incorporated in the People's Republic of China with limited liability)

Stock Code: 1398
USD Preference Shares Stock Code: 4603
EUR Preference Shares Stock Code: 4604
RMB Preference Shares Stock Code: 84602

2018

Capital Adequacy Ratio Report

CONTENTS

This report is prepared in both Chinese and English. In the case of discrepancy between the two versions, the Chinese version shall prevail.

Introduction

Company Profile

Industrial and Commercial Bank of China was established on 1 January 1984. On 28 October 2005, the Bank was wholly restructured to a joint-stock limited company. On 27 October 2006, the Bank was successfully listed on both Shanghai Stock Exchange and The Stock Exchange of Hong Kong Limited.

Through its continuous endeavor and stable development, the Bank has developed into the leading bank in the world, possessing an excellent customer base, a diversified business structure, strong innovation capabilities and market competitiveness. The Bank regards service as the very foundation to seek further development and adheres to creating value through services while providing a comprehensive range of financial products and services to 7,033 thousand corporate customers and 607 million personal customers. The Bank has been consciously integrating the social responsibilities with its development strategy and operation and management activities, and gaining wide recognition in the aspects of promoting inclusive finance, supporting targeted poverty relief, protecting environment and resources and participating in public welfare undertakings.

The Bank always keeps in mind its underlying mission of serving the real economy with its principal business, and along with the real economy it prospers, suffers and grows. Taking a risk-based approach and never overstepping the bottom line, it constantly enhances its capability of controlling and mitigating risks. Besides, the Bank remains steadfast in understanding and following the business rules of commercial banks to strive to be a century-old bank. It also stays committed to seeking progress with innovation while maintaining stability, continuously enhances the strategy of mega retail, mega asset management, mega investment banking as well as international and comprehensive development, and actively embraces the internet. The Bank unswervingly delivers specialized services, and pioneers a specialized business model, thus making it "a craftsman in large banking".

The Bank was ranked the 1st place among the Top 1000 World Banks by *The Banker*, ranked 1st place in the Global 2000 listed by *Forbes* and topped the sub-list of commercial banks of the Global 500 in *Fortune* for the sixth consecutive year, and took the 1st place among the Top 500 Banking Brands of *Brand Finance* for the third consecutive year.

Disclosure Basis

This report is prepared and disclosed in accordance with the Capital Regulation promulgated by the former CBRC in June 2012 and related regulations.

Disclosure Statement

The report contains forward-looking statements on the Bank's financial positions, business performance and development. The statements are made based on existing plans, estimates and forecast, and bear upon future external events or the Group's future finance, business or performance in other aspects, and may involve future plans which do not constitute substantive commitment to investors. Hence, investors and persons concerned shall be fully aware of the risks and understand the difference between plans, estimates and commitments.

Scope of Calculation of Capital Adequacy Ratio

Investees' Consolidation Treatment under Capital Adequacy Ratio Calculation

The Bank calculated capital adequacy ratios at all tiers in accordance with the Capital Regulation. The scope of calculation of consolidated capital adequacy ratio includes the Bank and financial institutions in which the Bank directly or indirectly invested in accordance with the Capital Regulation.

TREATMENT OF DIFFERENT TYPES OF INVESTMENTS FOR THE CALCULATION OF CONSOLIDATED CAPITAL ADEQUACY RATIO

S/N	Type of investee	Treatment for the calculation of capital adequacy ratio
1	Financial institutions with majority voting rights or controlling interest (excluding insurance companies)	Included in the calculation of capital adequacy ratio
2	Insurance companies with majority voting rights or controlling interest	Excluded from the calculation of capital adequacy ratio, deducted corresponding capital investment from capital at all tiers; deducted the corresponding capital shortfall, if any
3	Significant minority investments in capital instruments issued by financial institutions	Excluded from the calculation of capital adequacy ratio, deducted the part of core tier 1 capital investments exceeding 10% of the Bank's core tier 1 capital and deducted all of additional tier 1 and tier 2 capital investments from corresponding tiers of capital. The part failing to reach the deduction threshold shall be calculated as risk-weighted assets
4	Non-significant minority investments in capital instruments issued by financial institutions	Excluded from the calculation of capital adequacy ratio and deducted the part of total investments exceeding 10% of the Bank's core tier 1 capital from corresponding tiers of regulatory capital. The part failing to reach the deduction threshold shall be calculated as risk-weighted assets
5	Minority investments in the equity of commercial entities	Excluded from the calculation of capital adequacy ratio and calculated as risk-weighted assets

At the end of 2018, the difference between the scope of the calculation of consolidated capital adequacy ratio and the scope of financial reporting consolidation is ICBC-AXA. Pursuant to the Capital Regulation, ICBC-AXA was excluded from the calculation of consolidated capital adequacy ratio.

Major Investees Included in and Deducted from the Calculation of Capital Adequacy Ratio

TOP 10 INVESTEES INCLUDED IN THE CALCULATION OF CAPITAL ADEQUACY RATIO

In RMB millions, except for percentages

S/N	Name of investee	Balance of investment	Shareholding percentage (%)	Place of incorporation	Principal activity
1	ICBC (Asia)	40,754	100.00	Hong Kong, China	Commercial banking
2	ICBC Investment	12,000	100.00	Nanjing, China	Financial assets investment
3	ICBC Leasing	11,000	100.00	Tianjin, China	Leasing
4	ICBC (Macau)	10,316	89.33	Macau, China	Commercial banking
5	ICBC Standard Bank	5,348	60.00	London, UK	Commercial banking
6	ICBC (Thai)	4,898	97.86	Bangkok, Thailand	Commercial banking
7	ICBC (Argentina)	4,521	80.00	Buenos Aires, Argentina	Commercial banking
8	ICBC International	4,066	100.00	Hong Kong, China	Investment banking
9	ICBC (Europe)	3,294	100.00	Luxembourg	Commercial banking
10	ICBC (Turkey)	2,712	92.84	Istanbul, Turkey	Commercial banking

INVESTEES DEDUCTED FROM THE CALCULATION OF CAPITAL ADEQUACY RATIO

In RMB millions, except for percentages

S/N	Name of investee	Balance of investment	Shareholding percentage (%)	Place of incorporation	Principal activity
1	ICBC-AXA	7,980	60.00	Shanghai, China	Insurance

Capital Deficiencies and Restrictions on Capital Transfer

As at the end of 2018, there is no capital deficiency in the financial institutions in which the majority or controlling interests is held by the Bank as measured in accordance with local regulatory requirements. During the reporting period, there is no material restriction on the fund transfer within the Group.

Capital and Capital Adequacy Ratio

Implementation of Advanced Capital Management Approaches

In April 2014, the former CBRC officially approved the Bank's implementation of advanced capital management approaches. According to the scope of implementing the advanced capital management approaches as approved by the former CBRC, the foundation internal ratings-based (IRB) approach was adopted for corporate credit risk, the IRB approach for retail credit risk, the internal model approach (IMA) for market risk, and the standardized approach for operational risk meeting regulatory requirements. The weighted approach was adopted for credit risk uncovered by the IRB approach and the standardized approach for market risk uncovered by the IMA.

Capital Adequacy Ratio

RESULTS OF CAPITAL ADEQUACY RATIO CALCULATION OF THE GROUP AND PARENT COMPANY

In RMB millions, except for percentages

Item	At 31 December 2018		At 31 December 2017	
	Group	Parent Company	Group	Parent Company
Calculated in accordance with the Capital Regulation:				
Net core tier 1 capital	2,232,033	2,040,396	2,030,108	1,856,054
Net tier 1 capital	2,312,143	2,102,348	2,110,060	1,935,429
Net capital base	2,644,885	2,419,120	2,406,920	2,216,707
Core tier 1 capital adequacy ratio	12.98%	13.23%	12.77%	12.88%
Tier 1 capital adequacy ratio	13.45%	13.63%	13.27%	13.44%
Capital adequacy ratio	15.39%	15.68%	15.14%	15.39%
Calculated in accordance with the Regulation Governing Capital Adequacy of Commercial Banks and related regulations:				
Core capital adequacy ratio	11.54%	11.89%	11.65%	11.96%
Capital adequacy ratio	14.11%	14.34%	14.56%	14.67%

Capital Composition

As at the end of 2018, the core tier 1 capital adequacy ratio, tier 1 capital adequacy ratio and capital adequacy ratio calculated by the Bank in accordance with the Capital Regulation stood at 12.98%, 13.45% and 15.39%, respectively, complying with regulatory requirements.

CAPITAL ADEQUACY RATIO OF THE GROUP CALCULATED IN ACCORDANCE WITH THE CAPITAL REGULATION

In RMB millions, except for percentages

Item	At 31 December 2018	At 31 December 2017
Core tier 1 capital	**2,247,021**	**2,044,390**
Paid-in capital	356,407	356,407
Valid portion of capital reserve	151,968	151,952
Surplus reserve	261,636	232,660
General reserve	278,980	264,850
Retained profits	1,205,924	1,096,868
Valid portion of minority interests	3,752	2,716
Others	(11,646)	(61,063)
Core tier 1 capital deductions	**14,988**	**14,282**
Goodwill	8,820	8,478
Other intangible assets other than land use rights	1,927	1,532
Cash flow hedge reserves that relate to the hedging of items that are not fair valued on the balance sheet	(3,739)	(3,708)
Investments in core tier 1 capital instruments issued by financial institutions that are under control but not subject to consolidation	7,980	7,980
Net core tier 1 capital	**2,232,033**	**2,030,108**
Additional tier 1 capital	**80,110**	**79,952**
Additional tier 1 capital instruments and related premium	79,375	79,375
Valid portion of minority interests	735	577
Net tier 1 capital	**2,312,143**	**2,110,060**
Tier 2 capital	**332,742**	**297,360**
Valid portion of tier 2 capital instruments and related premium	202,761	222,321
Surplus provision for loan impairment	127,990	71,736
Valid portion of minority interests	1,991	3,303
Tier 2 capital deductions	**–**	**500**
Significant minority investments in tier 2 capital instruments issued by financial institutions that are not subject to consolidation	–	500
Net capital base	**2,644,885**	**2,406,920**
Risk-weighted assets(1)	**17,190,992**	**15,902,801**
Core tier 1 capital adequacy ratio	**12.98%**	**12.77%**
Tier 1 capital adequacy ratio	**13.45%**	**13.27%**
Capital adequacy ratio	**15.39%**	**15.14%**

Note: (1) Refers to risk-weighted assets after capital floor and adjustments.

For information disclosed in accordance with the Notice on Enhancing Disclosure Requirements for Composition of Capital, Appendix 2 to the former CBRC's Notice on Issuing Regulatory Documents on Capital Regulation for Commercial Banks, please refer to the Appendixes of this report, including Capital Composition, Balance Sheet at the Group's level (financial consolidation and regulatory consolidation), Illustrated Balance Sheet, Mapped Components of Balance Sheet to Capital Item as well as Main Features of Eligible Capital Instruments.

CAPS IN THE CAPITAL CALCULATION

In RMB millions

Item	At 31 December 2018	At 31 December 2017
I. Valid caps of surplus provision for loan impairment to tier 2 capital		
Parts covered by internal ratings-based approach		
Provision for loan impairment	393,682	322,539
Expected loss	228,454	255,878
Surplus provision for loan impairment	165,228	66,661
Valid cap of surplus provision for loan impairment in tier 2 capital irrespective of adjustment during the parallel period	62,242	58,735
Valid portion of surplus provisions for loan impairment in tier 2 capital higher than 150% of allowance to non-performing loans ("NPL") giving consideration to adjustment during the parallel period	57,982	3,064
Valid cap of surplus provisions for loan impairment in tier 2 capital giving consideration to adjustment during the parallel period	120,224	61,799
Valid portion of surplus provision for loan impairment in tier 2 capital during the parallel period	120,224	61,799
Parts uncovered by internal ratings-based approach		
Provision for loan impairment	19,049	17,943
Minimum requirement on provision for loan impairment	11,283	8,006
Surplus provision for loan impairment	7,766	9,937
Valid caps of surplus provision for loan impairment in tier 2 capital	64,705	56,662
Valid portion of surplus provision for loan impairment in tier 2 capital	7,766	9,937
II. Deduction cap for items applicable to thresholds deduction		
Non-significant minority investments in capital instruments issued by financial institutions that are not subject to consolidation	64,004	35,059
Relevant cap	223,203	203,011
Deductible portion	–	–
Significant minority investments in core tier 1 capital instruments issued by financial institutions that are not subject to consolidation	32,215	28,353
Relevant cap	223,203	203,011
Deductible portion	–	–
Deferred tax assets arising from temporary differences	57,073	48,158
Relevant cap	223,203	203,011
Deductible portion	–	–
Significant minority investments in core tier 1 capital instruments issued by financial institutions that are not subject to consolidation and deferred tax assets arising from temporary differences	89,288	76,511
Relevant cap	334,805	304,516
Deductible portion	–	–

For changes in share capital of the Bank during the reporting period, please refer to "Details of Changes in Share Capital and Shareholding of Substantial Shareholders" in the 2018 Annual Report. For material capital investment activities of the Bank during the reporting period, please refer to "Significant Events" in the 2018 Annual Report.

Risk-Weighted Assets

In RMB millions

Item	At 31 December 2018	At 31 December 2017
Credit risk-weighted assets	15,558,010	14,332,051
Parts covered by internal ratings-based approach	10,373,820	9,789,156
Parts uncovered by internal ratings-based approach	5,184,190	4,542,895
Market risk-weighted assets	368,580	347,665
Parts covered by internal model approach	308,425	268,963
Parts uncovered by internal model approach	60,155	78,702
Operational risk-weighted assets	1,264,402	1,223,085
Total	**17,190,992**	**15,902,801**

Internal Capital Adequacy Assessment

The Bank's internal capital adequacy assessment comprises the risk identification, substantive risk assessment, capital adequacy forecast and comprehensive risk stress testing. The risk identification is to make a judgment on all the major risks the Bank is exposed to. The substantive risk assessment system provides an assessment on all substantive risks of the Bank and conducts a comprehensive analysis on the risk profile and management status of various substantive risks to compute the target capital adequacy ratio of the Bank. The capital adequacy forecast is to forecast changes in risk-weighted assets and capital, taking into account the Bank's business planning and financial planning so as to further predict the capital adequacy levels in the following years. The comprehensive risk stress testing is to set stress scenarios reflecting business operation, asset-liability portfolio and risk features of the Bank under the premise of analysis on future macroeconomic trends to work out changes in indicators such as capital adequacy ratios of the Bank under the stress scenarios.

Capital Planning and Management Plan for Capital Adequacy Ratios

In 2018, the Board of Directors and the Shareholders' General Meeting of the Bank reviewed and approved the 2018–2020 Capital Planning of ICBC in response to the new economic and financial trends and regulatory requirements. Comprehensively taking into account domestic and overseas regulatory requirements and the needs for sustainable development and shareholder return, the Planning defined the capital management objectives and specific measures to be undertaken. During the planning period, the Bank will endeavor to ensure that capital adequacy ratios at all tiers comply with regulatory rules of China and regulatory requirements on capital surcharges of Global Systemically Important Banks. The Bank will also endeavor to maintain a safety margin and buffer, so as to support its strategic development and prevent capital adequacy ratio from falling below the regulatory requirement due to unforeseen circumstances. On the basis of keeping capital adequacy ratio at a reasonable level, the Bank will attach great importance to the balance between capital adequacy and return on capital, and maintain stable capital adequacy ratio. Moreover, the Bank will continue to strengthen capital replenishment and coordinated management on capital use, further improve capital management mechanism and constantly deepen the reform on economic capital management to increase capital use efficiency and return on capital.

The Capital Regulation specifies that Chinese commercial banks shall achieve the compliance of capital adequacy ratio with new regulatory requirements before the end of 2018 and encourages qualified commercial banks to reach the compliance ahead of the schedule. In accordance with relevant regulatory policies and the Compliance Planning for Capital Adequacy Ratio of Industrial and Commercial Bank of China, the Bank's capital adequacy ratios at all tiers had reached the regulatory standard during the reporting period and will continue to fulfill the regulatory requirements.

On the basis of capital replenishment by retained profits, the Bank proactively expanded the channels for external capital replenishment and continuously promoted the issuance of new types of capital instruments.

According to the capital planning and capital replenishment planning, the Bank publicly issued the tier 2 capital bonds of RMB55.0 billion in March 2019 in China's national inter-bank bond market. The funds raised will be used to replenish the Bank's tier 2 capital in accordance with the applicable laws as approved by relevant regulators. Please refer to the announcements published by the Bank on the websites of SEHK and SSE.

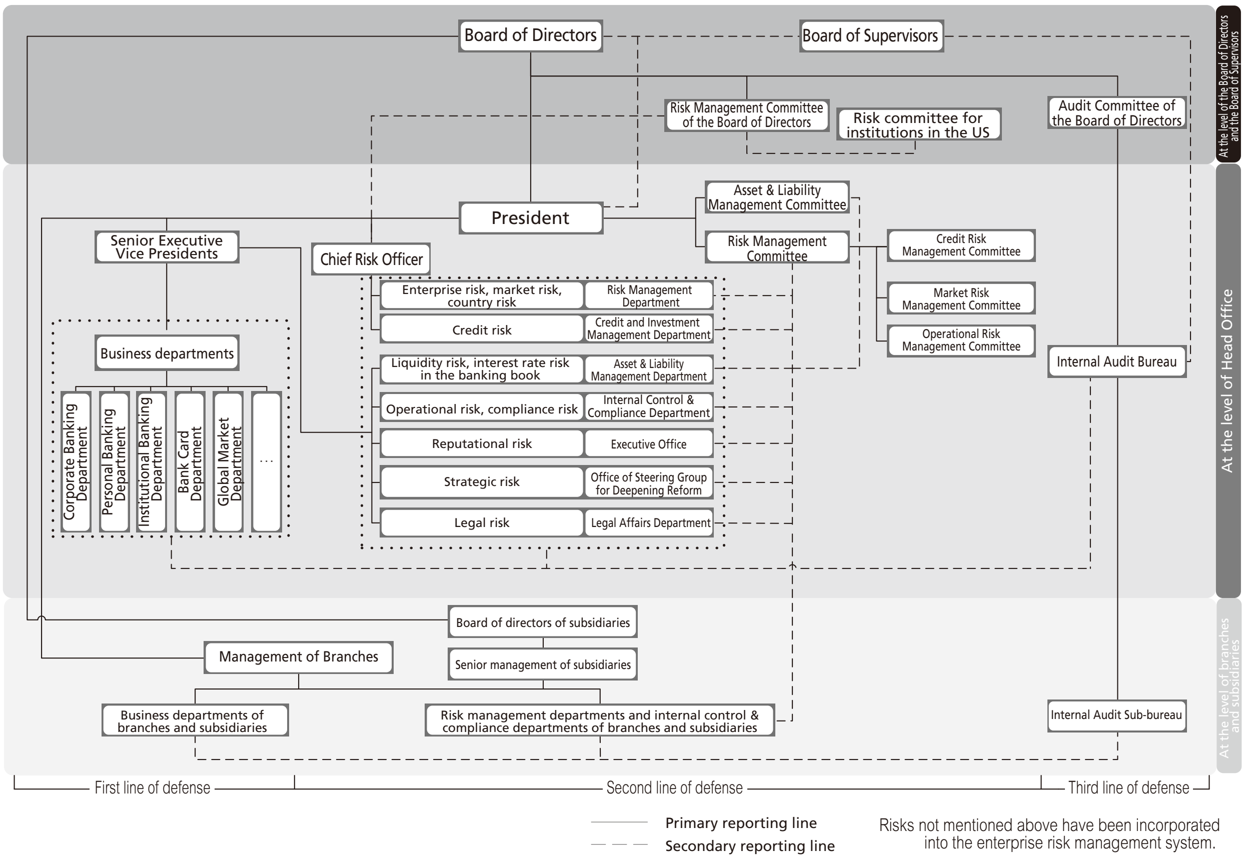
On 28 March 2019, the Board of Directors of the Bank reviewed and approved the Proposal on the Issuance of Undated Additional Tier 1 Capital Bonds. The Bank plans to issue write-down undated additional tier 1 capital bonds with the total amount up to RMB80.0 billion in China's national inter-bank bond market. All funds raised will be used to bolster the Bank's additional tier 1 capital. The undated additional tier 1 capital bonds issuance plan is still subject to the review and approval by the Shareholders' General Meeting of the Bank, after which it is further subject to the approval by the relevant regulatory authorities. Please refer to the announcements published by the Bank on the websites of SEHK and SSE.

On 30 August 2018 and 21 November 2018, the Board of Directors and the Shareholders' General Meeting of the Bank reviewed and approved the Proposal on the Domestic Preference Share Issuance Plan of Industrial and Commercial Bank of China Limited and the Proposal on the Offshore Preference Share Issuance Plan of Industrial and Commercial Bank of China Limited. The Bank plans to issue preference shares with a total amount up to an equivalent of RMB100.0 billion on the domestic and offshore markets. Among which, preference shares up to RMB100.0 billion will be issued in a single or multiple series in the domestic market and preference shares up to an equivalent of RMB44.0 billion will be issued in the offshore market. The specific issuance amount will be determined within the above-mentioned limits by the Board of Directors as authorized by the Shareholders' General Meeting (sub-authorization is available). All the funds raised from the domestic and offshore issuance of preference shares after deducting the issuance costs will be used to replenish additional tier 1 capital of the Bank. The preference share issuance plan is still subject to the approval by relevant regulatory authorities.

Enterprise Risk Management

Enterprise risk management is a process to effectively identify, assess, measure, monitor, control or mitigate and report risks in order to ensure the realization of the Group's operating and strategic objectives by setting up effective and balanced risk governance structure, fostering robust and prudent risk culture, formulating unified risk management strategies and risk appetite, and implementing the risk limit and risk management policies. The principles of enterprise risk management of the Bank include full coverage, matching, independence, perspectiveness and effectiveness, etc.

The Bank's organizational structure of risk management comprises the Board of Directors and its special committees, the Board of Supervisors, the Senior Management and its special committees, the risk management departments, the internal audit departments, etc. The risk management organizational structure is illustrated below:



In 2018, the Bank continued to push for development of the enterprise risk management system, upgraded risk management technologies and methods and enhanced the capacity of risk pre-judgment and dynamic adjustment capabilities, so as to make enterprise risk management more forward-looking and effective. It improved the enterprise risk management system, established a hierarchy risk appetite management system, intensified risk limit management, and enhanced effective risk data aggregation and risk reporting on all fronts according to the latest regulatory requirements. The Group's investment and financing risk monitoring platform was put in place to better manage cross risks, and the consolidated risk management of the Group was improved to boost the risk management capability of non-banking subsidiaries and strengthen regional risk management of overseas institutions. The Bank continued to upgrade its risk measurement system for better application, actively advanced FinTech application such as big data, improved internal rating and anti-fraud models, and enhanced risk measurement for higher accuracy and stability. It promoted the application of internal rating in the credit risk management. The Group's capabilities for market risk management and forward-looking analysis were improved to strengthen monitoring over transactions. Advances were also made in the system and mechanism for interest rate risk management of the banking book, with further improved strategies, policies and procedures. Following a steady and prudent liquidity management strategy, the Bank continued to consolidate the foundation of liquidity risk management system. It better employed operational risk management tools, strengthened data quality management, made continuous efforts to manage risks in key areas and links, and deepened risk management of the wealth management business in line with the New Rules on Asset Management.

Credit Risk

Credit risk is the risk where loss is caused to the banking business when the borrower or counterparty fails to meet its contractual obligations. The Bank's credit risks mainly originate from loans, treasury operations (including due from banks, placements with banks, reverse repurchase agreements, corporate bonds and financial bonds investment), receivables and off-balance sheet credit business (including guarantees, commitments and financial derivatives trading).

Credit Risk Management

The Bank strictly adheres to regulatory requirements regarding credit risk management, diligently fulfills established strategies and objectives under the leadership of the Board of Directors and the Senior Management, and implements an independent, centralized and vertical credit risk management mode. The Board of Directors assumes the ultimate responsibility for the effectiveness of credit risk management. The Senior Management is responsible for executing the strategies, overall policy and system regarding credit risk management approved by the Board of Directors. The Credit Risk Management Committee of the Senior Management is the reviewing and decision-making organ of the Bank in respect of credit risk management, is responsible for reviewing material and important affairs of credit risk management, and performs its duty in accordance with the Working Regulations for the Credit Risk Management Committee. The credit and investment management departments at different levels undertake the responsibility of coordinating credit risk management at respective levels, and the business departments implement credit risk management policies and standards for their respective business areas in accordance with their functions.

The Bank's credit risk management has the following characteristics: (1) Unified risk appetite. Unified credit risk appetite is implemented for the Bank's credit risk exposures; (2) Entire-process management. The credit risk management covers the entire process including customer investigation, credit rating, loan evaluation, loan review and approval, loan payment and post-lending monitoring; (3) System management. It continues to enhance the building of credit information system, and improve the tools to manage and control credit risk; (4) Strict management over credits. Strict qualification management is enforced on the business institutions and the credit practitioners; and (5) The special institution is set up to conduct unified risk monitoring over credit risk businesses.

According to the regulatory requirement on loan risk classification, the Bank implemented five-category classification management in relation to loan quality and classified loans into five categories: pass, special mention, substandard, doubtful and loss, based on the possibility of collecting the principal and interest of loans. In order to implement sophisticated management of credit asset quality and improve risk management, the Bank implemented the twelve-category internal classification system for corporate loans. The Bank applied five-category classification management to personal credit assets and ascertained the category of the loans based on the number of months in default, anticipated loss rate, credit rating, collateral and other quantitative and qualitative factors.

Credit Risk Management of Corporate Loans

The Bank continued to strengthen the constitution of the credit policy system. It improved the customer-centered credit risk management system to push ahead with unified credit risk management of the Group. Further advances have also been made in regulating credit businesses pledged by high-quality financial assets, and those guaranteed by high-quality financial institutions and sovereign entities. The Bank improved credit risk management framework for financial institutions to strengthen credit risk management of financial institutions; intensified off-balance-sheet business management to further regulate discounted commercial acceptances and better manage loan commitments of corporate customers; upgraded policies concerning the guarantee system, and fully implemented regulatory requirements on financing guarantee institutions to strengthen management of such institutions.

The Bank emphasized the leading role of credit policy. Focusing on the coordinated regional development strategy, the Bank gave priority to the Guangdong-Hong Kong-Macau Greater Bay Area, Xiongan New Area, and three supporting belts, provided investment and financing support for major projects, projects for people's wellbeing and projects under construction in such key areas as transportation, infrastructure and public service. In a stage of working faster to build China into a manufacturer of quality, the Bank supported advanced manufacturing in picking up pace and traditional industries in upgrading themselves to foster new drivers of growth. It also kept a firm hold on the projects in healthcare, education, elderly care, tourism, culture and other modern service industries to keep up with people's needs for a better life.

The Bank strengthened risk management in the real estate industry. It stepped up efforts to guarantee public wellbeing in real estate industry, continued to grant loans for selective shantytown renovation projects, and steadily carried out the business of loans for housing leasing. The Bank controlled the aggregate of loans for commercial real estate, and on this basis applied differentiated regional credit policies. Specifically, it mainly supported ordinary commercial housing projects in first-tier cities and second-tier cities with reasonable inventory digestion cycle and sufficient potential demand, prudently granted new loans for housing development in third and fourth-tier cities, and strictly controlled loans for commercial property development and shantytown renovation projects for commercial use.

The Bank strengthened credit risk management of small enterprises. It established an inclusive financial risk prevention and control system covering the whole process including customer access, middle-office approval and post-lending management. It strictly controlled the quality of new loans, strengthened research in market segmentation and target customer base management, and implemented differentiated due diligence mode based on the characteristics of loans to small and micro enterprises. The administrative measures for granting lifetime loans to small and micro enterprises was revised to regulate the management mode of small and micro loans. Leveraging the big data platform, the Bank improved its data monitoring model and continued to strengthen monitoring on small and micro loan risks from multiple dimensions. It also regularly inspected risks in existing loans and carried out classified risk prevention and mitigation in an effort to strengthen asset quality in all areas.

Credit Risk Management of Personal Loans

The Bank continued to upgrade policies on personal loans, tightened access to residential mortgages, and developed differentiated regulations on loan access and institutions cooperated with the Bank in residential mortgages business. It devoted more energy to increasing the granularity of risk monitoring, made better arrangements for risk monitoring models, and closely monitored the entire process of residential mortgages business to stave off risks. There is an improvement in the personal loan management system, with a government-bank collaboration platform in place to ensure transaction authenticity through interconnection with relevant information system of government departments. The Bank achieved better management of cooperative institutions in the business systems, and developed differentiated access approval level for all types of developers. Further advances have been made in major post-lending event reporting and default loan collection system to improve the Bank's risk management and control capabilities.

Credit Risk Management of Credit Card Business

The Bank improved policies on credit card risk management and tightened credit financing limit to personal customers. It optimized the personal credit extension strategy and implemented dynamic credit limit adjustment. The big data decision-making engine was upgraded for faster and smarter approval and decision-making process, and to strengthen early monitoring and warning of high-risk customers in the lending process. The Bank strengthened fraud risk prevention, and developed a full-process fraud risk prevention and control system. It actively inspected risks with third-party internet platforms. Effective ongoing efforts were made on non-performing assets ("NPAs") recovery and disposal by applying more collection methods and mitigating NPAs through various channels.

Credit Risk Management of Treasury Operations

Based on the strict implementation of bank-wide, unified credit risk management policy requirements, the Bank strengthened pre-investment analysis and post-lending management on credit risk exposed to investment business, and intensified the monitoring of existing business in key risk industries. It strictly implemented the regulatory requirements for currency market transactions, strengthened pre-access examination and dynamic risk monitor for counterparties, paid close attention to the change of counterparties' qualification and collateral value throughout the term of business, and took proactive measures to prevent risks. The Bank actively promoted the signing of ISDA, NAFMII and other legal agreements regarding derivatives, strictly controlled the counterparty credit line on derivatives through the financial market transaction platform, and strengthened dynamic management of margin in franchise transaction.

Credit Risk Exposure

In RMB millions

Item	At 31 December 2018		At 31 December 2017	
	Parts covered by internal ratings-based approach	Parts uncovered by internal ratings-based approach	Parts covered by internal ratings-based approach	Parts uncovered by internal ratings-based approach
Corporate	9,509,057	1,500,505	9,056,035	1,584,005
Sovereign	—	5,391,809	—	4,881,015
Financial institution	—	3,225,894	—	2,954,157
Retail	5,479,175	469,137	4,800,855	396,636
Equity	—	85,409	—	50,614
Asset securitization	—	79,182	—	18,669
Others	—	5,444,366	—	5,826,641
Total risk exposure	**14,988,232**	**16,196,302**	**13,856,890**	**15,711,737**

Internal Ratings-based Approach

Governance Structure of Internal Rating System

The Board of Directors assumes the ultimate responsibility for the internal rating system of the Bank, supervises and ensures formulation and implementation by the Senior Management of necessary internal rating policies and procedures, and approves major policies, rules and implementation plans regarding the internal rating system. The Senior Management is responsible for implementation of internal ratings-based system across the Bank. The Risk Management Department of the Head Office is responsible for design, development, implementation, monitoring and promotion of the internal ratings-based management. The Credit Approval Department of the Head Office is responsible for management of corporate customer rating of the Bank. Relevant departments of the Head Office including the Credit and Investment Management Department, the Personal Banking Department, the Bank Card Department, the Asset & Liability Management Department and the Finance & Accounting Department are responsible for application of the internal rating results. The Internal Audit Bureau of the Head Office is responsible for internal audit of the internal rating system. Risk management departments of the branches are responsible for monitoring, application, analysis and reporting of the internal rating system. Relevant customer management departments of the branches are responsible for investigation, implementation and rating application regarding the internal rating system.

Non-retail Business

The Bank adopts the foundation IRB approach to measure non-retail credit risk satisfying regulatory requirements with rating models established based on quantitative technologies as well as judgmental experience. The models assess debt-paying ability and willingness of customers based on financial indicators, competitiveness, management quality and operation status of the customers from quantitative and qualitative aspects. Customer's probability of default (PD), mapped via the master scale uniformly set, is determined by rating score.

The Bank measures risk parameters of the internal rating models in strict accordance with relevant regulatory requirements. Under the non-retail credit risk foundation IRB approach, obligor PD is determined by referring to past 10 years or more defaults of corporate customers of the Bank as well as the long-term default tendency of different asset portfolios. The internal rating parameters, maintained according to the rules regarding management of internal rating parameters of the Bank, are monitored and validated on a regular basis.

MEASUREMENT RESULTS OF NON-RETAIL CREDIT RISK UNDER FOUNDATION IRB APPROACH

In RMB millions, except for percentages

	At 31 December 2018				
PD level	Exposure at default	Weighted average PD	Weighted average LGD	Risk-weighted assets	Average risk weight
Level 1	1,028,554	0.09%	44.82%	295,902	28.77%
Level 2	1,241,539	0.21%	43.07%	568,046	45.75%
Level 3	1,927,918	0.65%	42.91%	1,417,249	73.51%
Level 4	2,237,164	1.61%	42.98%	2,145,184	95.89%
Level 5	1,628,203	2.54%	42.37%	1,696,971	104.22%
Level 6	634,196	3.72%	42.17%	724,280	114.20%
Level 7	255,674	5.28%	41.72%	320,157	125.22%
Level 8	111,927	7.20%	42.07%	162,405	145.10%
Level 9	99,847	9.60%	42.76%	168,379	168.64%
Level 10	37,199	18.00%	41.75%	74,602	200.55%
Level 11	113,740	56.00%	42.88%	210,507	185.08%
Level 12	193,096	100.00%	44.01%	56,599	29.31%
Total	**9,509,057**	—	—	**7,840,281**	**82.45%**

	At 31 December 2017				
PD level	Exposure at default	Weighted average PD	Weighted average LGD	Risk-weighted assets	Average risk weight
Level 1	1,082,413	0.10%	44.83%	323,409	29.88%
Level 2	1,131,860	0.22%	43.47%	545,264	48.17%
Level 3	1,584,233	0.66%	43.15%	1,169,187	73.80%
Level 4	2,400,421	1.64%	42.77%	2,300,607	95.84%
Level 5	1,416,786	2.59%	42.04%	1,468,810	103.67%
Level 6	594,603	3.72%	42.19%	686,814	115.51%
Level 7	235,013	5.28%	41.61%	292,979	124.66%
Level 8	74,325	7.20%	41.80%	106,656	143.50%
Level 9	97,639	9.60%	42.07%	163,955	167.92%
Level 10	69,107	18.00%	41.96%	131,773	190.68%
Level 11	146,487	56.00%	42.87%	274,188	187.18%
Level 12	223,148	100.00%	43.76%	454,736	203.78%
Total	**9,056,035**	—	—	**7,918,378**	**87.44%**

Retail Business

The Bank adopts IRB approach to measure retail credit risk pursuant to regulatory requirements, establishes the internal grading models covering entire life cycle of all types of retail products and asset pool classification and risk parameter measurement models covering all risk exposures of retail credit assets with the help of modeling methods and expert management experience, and realizes quantitative management of retail credit risk models.

The Bank conducts comprehensive analysis of loan repayment ability and willingness of customers by using modern mathematical statistics technologies to mine, analyze and extract data of customers, assets, debts and transactions, and develops the credit score model system including application score, behavior score and collection score models and realizing the coverage of entire life cycle of retail business.

According to relevant IRB approach requirements, the Bank has put in place asset pool classification procedures and technologies suited for the actual retail business, developed the asset pool classification system applied to measurement of all risks and accordingly realised measurement of risk parameters for retail credit assets like probability of default (PD), loss given default (LGD) and exposure at default, etc.

MEASUREMENT RESULTS OF RETAIL CREDIT RISK UNDER IRB APPROACH

In RMB millions, except for percentages

	At 31 December 2018				
Type of risk exposure	Exposure at default	Weighted average PD	Weighted average LGD	Risk-weighted assets	Average risk weight
Residential mortgages	4,523,389	1.27%	29.51%	1,034,874	22.88%
Qualifying revolving retail exposure	591,952	3.72%	54.41%	147,188	24.86%
Other retail exposures	363,834	7.68%	47.46%	215,541	59.24%
Total	**5,479,175**	—	—	**1,397,603**	**25.51%**

	At 31 December 2017				
Type of risk exposure	Exposure at default	Weighted average PD	Weighted average LGD	Risk-weighted assets	Average risk weight
Residential mortgages	3,884,415	1.49%	26.46%	848,821	21.85%
Qualifying revolving retail exposure	491,901	4.03%	50.78%	126,576	25.73%
Other retail exposures	424,539	9.68%	44.35%	245,677	57.87%
Total	**4,800,855**	—	—	**1,221,074**	**25.43%**

Application of Internal Rating Results

The internal rating results of the Bank are widely used throughout the whole credit risk management process including the credit risk strategy and credit policy formulation, customer access, credit approval, loan pricing, post-lending management, capital measurement, risk limit management, allowance management and performance assessment. While complying with the regulatory requirements, the Bank also takes into account the internal rating results as an important base for decision-making over credit risk management and credit business.

Weighted Approach

The Bank adopts weighted approach to measure credit risk exposures uncovered by the internal ratings-based (IRB) approach.

RISK EXPOSURE UNCOVERED BY IRB APPROACH BY WEIGHT

In RMB millions

Risk weight	At 31 December 2018		At 31 December 2017	
	Risk exposure	Unmitigated risk exposure	Risk exposure	Unmitigated risk exposure
0%	5,669,941	5,664,069	5,996,987	5,996,987
2%	465,876	20,342	25,768	25,768
20%	3,672,365	3,608,768	3,583,364	2,873,845
25%	1,778,173	1,218,306	1,809,348	1,110,675
50%	104,871	104,832	90,620	86,846
75%	519,617	512,848	428,500	417,747
100%	3,802,030	2,995,969	3,673,749	2,848,347
150%	6,402	229	1,300	1
250%	104,421	104,269	83,332	83,263
400%	37,259	37,259	5,844	5,844
1250%	35,347	35,347	12,925	12,925
Total	**16,196,302**	**14,302,238**	**15,711,737**	**13,462,248**

Note: The weights adopted in the weighted approach-based measurement of credit risk by the Bank were in strict compliance with the relevant provisions of the Capital Regulation.

RISK EXPOSURE OF CAPITAL INSTRUMENTS ISSUED BY OTHER COMMERCIAL BANKS HELD BY THE BANK, EQUITY INVESTMENT IN COMMERCIAL ENTITIES AND REAL ESTATE FOR NON-SELF USE

In RMB millions

Item	At 31 December 2018	At 31 December 2017
Ordinary shares issued by other commercial banks	27,933	29,982
Long-term subordinated bonds issued by other commercial banks	29,917	5,859
Preference shares issued by other commercial banks	3,231	–
Equity investment in commercial entities	42,076	9,098
Total	**103,157**	**44,939**

Credit Risk Mitigation

The Bank generally transfers or lowers credit risk through collateral and guarantees. The credit risk mitigation instruments effectively cover credit risk exposure of borrowers. The Bank reviews its risk mitigation instruments in the credit business to ensure their credit risk mitigation capability.

The Bank monitors the market value of collateral and pledges and the solvency of a guarantor regularly or irregularly if special circumstances warrant. Collateral mainly includes the right of construction land use, buildings and other attached objects, and pledges mainly include certificates of deposit, bank's promissory notes and bank's acceptance bills, etc. Collateral and pledges valuation procedures are divided into basic procedures and direct identification procedures. Basic procedures include investigation, review and examination, and approval; direct identification procedures include investigation and approval. For initial value appraisal of collateral, the Bank shall consider the characteristics of different types of collateral and employ proper appraisal methods to determine collateral value in consideration of market price, difficulty degree of liquidation and existence of flaws and other factors affecting the asset disposal price, thereby reasonably identifying the amount of collateral that can be guaranteed. Revaluation cycle of collateral and pledges is determined according to regulatory requirements, changes of market and other risk factors, and revaluation shall be completed before the revaluation cycle expires. The Bank shall reassess the collateral and pledge value irregularly upon discovering conditions which may possibly result in an impairment of the collateral and pledge or obvious adverse changes happening to the customer.

The Bank analyzes concentration risk of mitigation regularly or according to changes in internal and external environment, and takes appropriate countermeasures. Through the Bank's efforts in adjusting credit structure, the Bank continues to improve the structure of collateral and pledges and reduces concentration risk by credit structure adjustment.

COVERAGE OF ELIGIBLE RISK MITIGATION INSTRUMENTS COVERED BY IRB APPROACH

In RMB millions

	At 31 December 2018				At 31 December 2017			
Type of risk exposure	Eligible financial pledge	Other eligible collateral	Guarantee	Total	Eligible financial pledge	Other eligible collateral	Guarantee	Total
Non-retail business								
Corporate loans	208,892	981,140	652,877	1,842,909	168,426	1,065,678	619,965	1,854,069
Subtotal	**208,892**	**981,140**	**652,877**	**1,842,909**	**168,426**	**1,065,678**	**619,965**	**1,854,069**
Retail business								
Residential mortgages	–	4,523,389	–	4,523,389	–	3,884,415	–	3,884,415
Other retail exposures	7,765	289,491	5,051	302,307	26,325	341,707	6,401	374,433
Subtotal	**7,765**	**4,812,880**	**5,051**	**4,825,696**	**26,325**	**4,226,122**	**6,401**	**4,258,848**
Total	**216,657**	**5,794,020**	**657,928**	**6,668,605**	**194,751**	**5,291,800**	**626,366**	**6,112,917**

COVERAGE OF ELIGIBLE RISK MITIGATION INSTRUMENTS UNCOVERED BY IRB APPROACH

In RMB millions

	At 31 December 2018				At 31 December 2017			
Type of risk exposure	Netting settlement	Mortgage & pledge and guarantee	Others	Total	Netting settlement	Mortgage & pledge and guarantee	Others	Total
On-balance sheet credit risk	–	779,779	–	779,779	–	943,397	–	943,397
Off-balance sheet credit risk	–	54,756	–	54,756	–	71,280	–	71,280
Counterparty credit risk	11,618	–	1,047,911	1,059,529	12,285	–	1,222,527	1,234,812
Total	**11,618**	**834,535**	**1,047,911**	**1,894,064**	**12,285**	**1,014,677**	**1,222,527**	**2,249,489**

Loan Quality and Allowance for Impairment Losses on Loans

DISTRIBUTION OF LOANS BY FIVE-CATEGORY CLASSIFICATION

In RMB millions, except for percentages

	At 31 December 2018		At 31 December 2017	
Item	Amount	Percentage (%)	Amount	Percentage (%)
Pass	14,733,891	95.56	13,450,486	94.50
Special mention	450,930	2.92	561,974	3.95
NPLs	235,084	1.52	220,988	1.55
Substandard	108,821	0.70	81,209	0.57
Doubtful	90,383	0.59	108,854	0.76
Loss	35,880	0.23	30,925	0.22
Total	**15,419,905**	**100.00**	**14,233,448**	**100.00**

OVERDUE LOANS

In RMB millions, except for percentages

	At 31 December 2018		At 31 December 2017	
Overdue periods	Amount	% of total loans	Amount	% of total loans
Less than 3 months	91,153	0.59	107,218	0.75
3 months to 1 year	83,846	0.54	68,209	0.48
1 to 3 years	63,010	0.41	80,919	0.57
Over 3 years	31,923	0.21	29,729	0.21
Total	**269,932**	**1.75**	**286,075**	**2.01**

Note: Loans and advances to customers are deemed overdue when either the principal or interest is overdue. For loans and advances to customers repayable by installments, the total amount of loans is deemed overdue if part of the installments is overdue.

MOVEMENTS OF ALLOWANCE FOR IMPAIRMENT LOSSES ON LOANS

In RMB millions

	Movements of allowance for impairment losses on loans and advances to customers measured at amortised cost				Movements of allowance for impairment losses on loans and advances to customers measured at fair value through other comprehensive income			
Item	Stage 1	Stage 2	Stage 3	Total	Stage 1	Stage 2	Stage 3	Total
Balance at 1 January 2018	**107,961**	**111,867**	**152,770**	**372,598**	**23**	**–**	**448**	**471**
Transfer:								
to stage 1	19,393	(17,976)	(1,417)	–	–	–	–	–
to stage 2	(4,901)	5,493	(592)	–	–	–	–	–
to stage 3	(2,869)	(40,413)	43,282	–	–	–	–	–
Charge/(reverse)	38,217	24,083	85,074	147,374	173	0	(200)	(27)
Write-offs and transfer out	(338)	(2,294)	(106,146)	(108,778)	–	–	–	–
Recoveries of loans and advances previously written off	–	–	2,141	2,141	–	–	–	–
Other movements	621	646	(1,871)	(604)	2	–	–	2
Balance at 31 December 2018	**158,084**	**81,406**	**173,241**	**412,731**	**198**	**0**	**248**	**446**

For provisioning method of allowance for impairment losses on loans, please refer to the Significant Accounting Policies and Estimates in the Notes to the Financial Statements of the 2018 Annual Report.

Counterparty Credit Risk

Counterparty credit risk is the risk that economic loss is caused when the counterparty fails to perform its contractual obligations. The Bank is exposed to counterparty credit risk mainly as a result of over-the-counter (OTC) derivatives trading and securities financing trading.

The counterparty shall meet relevant requirements on customer access standards before conducting derivatives trading with the Bank. The Bank assesses credit status, risk management level and capital strength of the counterparty, approves and regularly reviews special credit extension for derivatives trading. Before trading, the Bank will first enquire whether the credit limit of the counterparty is adequate.

For certain OTC derivatives financial trading, the Bank concludes the Credit Support Appendix (CSA) under the ISDA master agreement with the counterparty in accordance with the requirements of both sides' regulatory authorities, where collateral exchange rules are set out to reduce credit risk. The two sides value the exposure of existing transactions in line with the compliance requirements of regulatory authorities on a regular basis, and the valuation results after confirmation by both sides set the basis for delivery price of collateral. The downgrading of counterparty's credit rating has no fixed relationship with the collateral swap, and it shall be set based on the agreement provisions. In case that there is no relevant expression in the agreement, such downgrading will not affect both sides' collateral swap; and if there is relevant expression in the agreement, the quantity of collateral will be adjusted as per the agreement.

COUNTERPARTY RISK EXPOSURE OF OTC DERIVATIVES TRADING

In RMB millions

Item	At 31 December 2018	At 31 December 2017
Risk exposure of non-netting settlement		
Interest rate contracts	4,830	3,567
Currency contracts	35,610	32,061
Equity contracts	1,256	3,155
Commodity contracts	10,121	15,124
Credit derivatives	3	112
Total risk exposure of non-netting settlement	51,820	54,019
Including: Gross positive fair value of derivative contracts	19,988	21,887
Risk exposure of netting settlement	48,849	57,494
Total of credit risk exposure measured under the current exposure approach	**100,669**	**111,513**
Risk mitigation impact of collateral and risk hedging credit derivatives	**–**	**–**
Net credit risk exposure of derivatives	**100,669**	**111,513**

NOMINAL PRINCIPAL OF CREDIT DERIVATIVES

In RMB millions

	At 31 December 2018		At 31 December 2017	
Item	Credit derivatives bought	Credit derivatives sold	Credit derivatives bought	Credit derivatives sold
Nominal principal of credit derivatives as credit portfolios of the Bank	**3,819**	**3,698**	**1,970**	**2,459**
Credit default swap	125	99	180	400
Total return swap	3,684	3,599	1,790	2,059
Others	10	–	–	–
Nominal principal of credit derivatives where the Bank acts as intermediary	**5,931**	**6,680**	**8,222**	**8,222**
Credit default swap	5,931	6,278	8,222	8,222
Total return swap	–	402	–	–

Asset Securitization

Credit asset securitization refers to structured financing activities where the originator trusts credit assets to the trustee, and the trustee issues beneficiary securities in the form of asset-backed securities to institutional investors, and the cash flow from the credit assets is used to pay income of asset-backed securities. All securitization originated by the Bank is traditional securitization.

Asset Securitization Business

The Bank participates in the asset securitization business mainly by acting as originator of asset securitization business, lending services provider, lead underwriter and institutional investor.

◆ *As originator and lending services provider*

The Bank continued to stimulate the development of asset securitization business. This effectively supported the revitalization of stock assets and optimization of credit structure. As at the end of 2018, some underlying assets of the asset securitization projects originated by the Bank were still retained, and the project operation remained steady. As the originator, the Bank held part of asset-backed securities which the Bank issued in line with the regulatory authority's risk self-retention requirement, and took corresponding credit risk and market risk for the part the risk of which was self-retained. At the end of 2018, assets continued to be recognized by the Group amounted to RMB37,239 million.

CREDIT ASSET SECURITIZATION BUSINESS ORIGINATED BY THE GROUP AND NOT SETTLED AT THE END OF THE REPORTING PERIOD

In RMB millions

				Underlying assets				
Asset securitization product	Originating year	Originator	External credit rating institution	Type of underlying assets	Exposure at origination	Exposure at the end of 2018	Non-performing at the end of 2018	Overdue at the end of 2018
2015 Gongyuan Phase II credit asset-backed securities	2015	The Bank	LH Ratings, China Ratings	Corporate loans	6,966	182	–	–
2016 Gongyuan Phase I non-performing asset-backed securities	2016	The Bank	CCXI, China Ratings	Corporate loans	1,077	111	111	111
2016 Gongyuan Phase III non-performing asset-backed securities	2016	The Bank	CCXI, China Ratings	Personal loans	4,080	1,140	1,140	1,140
2016 Gongyuan Phase IV residential mortgage asset-backed securities	2016	The Bank	CCXI, China Ratings	Personal loans	10,255	5,469	–	–
2017 Gongyuan Phase II non-performing asset-backed securities	2017	The Bank	CCXI, China Ratings	Personal loans	3,600	1,978	1,978	1,978
2017 Gongyuan Phase III residential mortgage asset-backed securities	2017	The Bank	CCXI, China Ratings	Personal loans	13,922	9,522	–	–
2017 Gongyuan Phase IV residential mortgage asset-backed securities	2017	The Bank	CCXI, China Ratings	Personal loans	12,726	9,197	–	–
2017 Gongyuan Phase V residential mortgage asset-backed securities	2017	The Bank	LH Ratings, China Ratings	Personal loans	13,052	9,042	–	–
2017 Gongyuan Phase VI non-performing asset-backed securities	2017	The Bank	LH Ratings, China Ratings	Personal loans	510	4	4	4
2017 Gongyuan Phase VII non-performing asset-backed securities	2017	The Bank	CCXI, China Ratings	Personal loans	2,350	1,704	1,704	1,704
2018 Gongyuan Phase I residential mortgage asset-backed securities	2018	The Bank	LH Ratings, China Ratings	Personal loans	10,950	8,975	–	–

CREDIT ASSET SECURITIZATION BUSINESS ORIGINATED BY THE GROUP AND NOT SETTLED AT THE END OF THE REPORTING PERIOD (CONTINUED)

In RMB millions

Asset securitization product	Originating year	Originator	External credit rating institution	Underlying assets: Type of underlying assets	Underlying assets: Exposure at origination	Underlying assets: Exposure at the end of 2018	Underlying assets: Non-performing at the end of 2018	Underlying assets: Overdue at the end of 2018
2018 Gongyuan Phase II residential mortgage asset-backed securities	2018	The Bank	China Ratings, CCXI	Personal loans	10,877	8,833	–	–
2018 Gongyuan Phase III residential mortgage asset-backed securities	2018	The Bank	LH Ratings, China Ratings	Personal loans	10,943	8,863	–	–
2018 Gongyuan Phase IV residential mortgage asset-backed securities	2018	The Bank	CCXI, China Ratings	Personal loans	11,864	10,579	–	–
2018 Gongyuan Zhicheng Phase I non-performing asset-backed securities	2018	The Bank	China Ratings, LH Ratings	Personal loans	470	107	107	107
2018 Gongyuan Zhicheng Phase II non-performing asset-backed securities	2018	The Bank	CCXI, China Ratings	Personal loans	1,240	1,240	1,240	1,240
2018 Gongyuan Zhicheng Phase III non-performing asset-backed securities	2018	The Bank	CCXI, China Ratings	Personal loans	441	441	441	441
2018 Gongyuan Zhicheng Phase IV non-performing asset-backed securities	2018	The Bank	CCXI, China Ratings	Personal loans	525	525	525	525
2018 Gongyuan Phase V residential mortgage asset-backed securities	2018	The Bank	LH Ratings, China Ratings	Personal loans	11,800	10,442	–	–
2018 Gongyuan Phase VI residential mortgage asset-backed securities	2018	The Bank	CCXI, China Ratings	Personal loans	11,409	10,134	–	–
2018 Gongyuan Phase VII residential mortgage asset-backed securities	2018	The Bank	China Ratings, LH Ratings	Personal loans	11,302	10,086	–	–
2018 Gongyuan Phase VIII residential mortgage asset-backed securities	2018	The Bank	CCXI, China Ratings	Personal loans	13,422	12,283	–	–
2018 Gongyuan Phase IX residential mortgage asset-backed securities	2018	The Bank	LH Ratings, China Ratings	Personal loans	13,363	12,196	–	–
2018 Gongyuan Zhiyuan Phase I credit asset-backed securities	2018	The Bank	China Ratings, LH Ratings	Corporate loans	5,455	4,236	–	–
2018 Gongyuan Zhicheng Phase V non-performing asset-backed securities	2018	The Bank	China Ratings, LH Ratings	Personal loans	386	63	63	63

CREDIT ASSET SECURITIZATION BUSINESS ORIGINATED BY THE GROUP AND NOT SETTLED AT THE END OF THE REPORTING PERIOD (CONTINUED)

In RMB millions

Asset securitization product	Originating year	Originator	External credit rating institution	Underlying assets: Type of underlying assets	Underlying assets: Exposure at origination	Underlying assets: Exposure at the end of 2018	Underlying assets: Non-performing at the end of 2018	Underlying assets: Overdue at the end of 2018
2018 Gongyuan Phase X residential mortgage asset-backed securities	2018	The Bank	CCXI, China Ratings	Personal loans	13,379	12,182	–	–
2018 Gongyuan Phase XI residential mortgage asset-backed securities	2018	The Bank	LH Ratings, China Ratings	Personal loans	13,341	12,107	–	–
2018 Gongyuan Anju Phase I residential mortgage asset-backed securities	2018	The Bank	CCXI, China Ratings	Personal loans	14,364	13,030	–	–
2018 Gongyuan Anju Phase II residential mortgage asset-backed securities	2018	The Bank	LH Ratings, China Ratings	Personal loans	14,323	13,102	–	–
2018 Gongyuan Anju Phase III residential mortgage asset-backed securities	2018	The Bank	China Ratings, CCXI	Personal loans	14,284	14,284	–	–
2018 Gongyuan Zhicheng Phase VI non-performing asset-backed securities	2018	The Bank	CCXI, China Ratings	Personal loans	2,250	2,250	2,250	2,250
2018 Gongyuan Zhicheng Phase VII non-performing asset-backed securities	2018	The Bank	CCXI, China Ratings	Personal loans	555	555	555	555
2018 Gongyuan Zhicheng Phase VIII non-performing asset-backed securities	2018	The Bank	CCXI, China Ratings	Personal loans	880	880	880	880
2018 Gongyuan Anju Phase IV residential mortgage asset-backed securities	2018	The Bank	China Ratings, LH Ratings	Personal loans	14,275	14,275	–	–
2018 Gongyuan Phase V residential mortgage asset-backed securities	2018	The Bank	CCXI, China Ratings	Personal loans	14,328	14,328	–	–
2018 Gongyuan Zhicheng Phase IX non-performing asset-backed securities	2018	The Bank	China Ratings, LH Ratings	Personal loans	379	379	379	379
Total					**285,343**	**234,724**	**11,377**	**11,377**

Note: At the end of 2018, the Bank did not originate any credit asset securitization products with underlying assets with revolving and early amortization features.

◆ *As lead underwriter*

The Bank performs obligations that are set forth in relevant requirements and agreements, works diligently, and carries out the sales and distribution of asset-backed securities in strict compliance with laws and regulations, as well as codes of conducts and professional ethics.

◆ *As institutional investor*

The Bank invests in the asset-backed securities which the Bank issues and retains, and those issued by other institutions of which most are AAA-rated senior tranche asset-backed securities. The Bank undertakes credit risk and market risk of the asset securitization products invested.

For accounting policies regarding asset securitization, please refer to the Significant Accounting Policies and Estimates in the Notes to the Financial Statements of the 2018 Annual Report.

Asset Securitization Risk Exposure and Capital Requirement

The Bank measures asset securitization risk exposure and capital requirement according to the Capital Regulation. At the end of 2018, risk-weighted assets for asset securitization stood at RMB125,388 million and capital requirement RMB10,031 million.

ASSET SECURITIZATION RISK EXPOSURE

In RMB millions

Type of risk exposure	At 31 December 2018	At 31 December 2017
As originator		
Asset-backed securities	39,492	3,689
As investor		
Asset-backed securities	39,690	14,980
Total	**79,182**	**18,669**

Market Risk

Market risk is defined as the risk of loss to the Bank's on- and off-balance sheet activities caused by adverse movements in market rates (including interest rates, exchange rates, stock prices and commodity prices). The Bank is primarily exposed to interest rate risk and currency risk (including gold).

Market Risk Management

Market risk management is the process of identifying, measuring, monitoring, controlling and reporting market risk for the purposes of setting up and enhancing the market risk management system, specifying responsibilities and process, determining and standardizing the measurement approaches, limit management indicators and market risk reports, controlling and mitigating market risk and improving the level of market risk management. The objective of market risk management is to control market risk exposures within a tolerable level and maximize risk-adjusted return according to the Bank's risk appetite.

The Bank strictly complies with regulatory requirements on market risk management, has implemented an independent, centralized and coordinated market risk management model, and formed a management organizational structure featuring the segregation of the front, the middle and the back offices in the financial market business. The Board of Directors assumes the ultimate responsibility for monitoring market risk management. The Senior Management is responsible for executing the strategies, overall policy and system concerning market risk management approved by the Board of Directors. The Market Risk Management Committee of the Senior Management is the reviewing and decision-making organ of the Bank in respect of market risk management, is responsible for reviewing material affairs of market risk management, and performs its duty in accordance with the Working Regulations for the Market Risk Management Committee. The risk management departments at different levels undertake the responsibility of coordinating market risk management at respective levels, and the business departments implement market risk management policies and standards for their respective business areas in accordance with their functions.

In 2018, the Bank continued to improve rules and regulations on market risk at the Group's level, and regulated the entire market risk management process management of overseas institutions. The Bank improved the group-wide market risk appetite limit transmission mechanism, strengthened the forward-looking analysis on the Group's currency risk and interest rate risk, and reinforced the trading behavior monitoring. The Bank pushed forward the overseas expansion and promotion of the Global Market Risk Management (GMRM) system and strengthened application of the market risk management system and data.

Market Risk Measurement

CAPITAL REQUIREMENT FOR MARKET RISK

In RMB millions

Risk type	At 31 December 2018	At 31 December 2017
Parts covered by internal model approach	**24,674**	**21,517**
Parts uncovered by internal model approach	**4,812**	**6,296**
Interest rate risk	2,220	3,012
Commodity risk	2,534	3,201
Stock risk	16	39
Option risk	42	44
Total	**29,486**	**27,813**

Note: According to the implementation scope of the advanced capital management approaches approved by the former CBRC, parts covered by the market risk internal model approach of the Bank include currency risk of the Group, general interest rate risk of the parent company and ICBC (Canada) and commodity risk of the parent company. Parts uncovered by the internal model approach are measured by the standardized approach.

The Bank applied the Historical Simulation Method (adopting a confidence interval of 99%, holding period of ten days and historical data of 250 days) to measure the VaR, which is then used for capital measurement under the internal model approach.

VALUE AT RISK (VAR)

In RMB millions

Item	2018				2017			
	Period end	Average	Maximum	Minimum	Period end	Average	Maximum	Minimum
VaR	**3,559**	**3,630**	**4,432**	**3,087**	**3,384**	**2,097**	**3,648**	**1,135**
Interest rate risk	118	98	147	51	79	257	535	64
Currency risk	3,510	3,566	4,388	2,990	3,313	2,068	3,568	1,158
Commodity risk	26	47	108	12	31	82	153	14
Stressed VaR	**3,938**	**3,762**	**4,432**	**3,087**	**3,384**	**2,480**	**3,648**	**1,863**
Interest rate risk	140	122	356	76	229	254	460	73
Currency risk	3,868	3,692	4,388	2,990	3,313	2,477	3,568	1,840
Commodity risk	38	43	99	11	45	96	172	22

The Bank carries out daily back-testing to verify the accuracy of VaR models. During the past 250 trading days before the end of the reporting period, the number of back-testing exceptions of the Group lied in the green zone demarcated by CBIRC. The market risk measurement models of the Bank captured the financial market fluctuations timely and produced objective pictures of market risk faced by the Bank.

In 2018, the Bank continued to improve the market risk stress testing plan, and conducted the stress tests of market risk at different levels and of different trading portfolios on a regular basis or from time to time by using the Global Market Risk Management (GMRM) system, consistent with the regulatory requirements and the Group's internal management needs. The Bank kept widening the application of stress testing results of market risk and continued to ameliorate the Group's market risk stress testing level.

Interest Rate Risk in the Banking Book

Interest rate risk in the banking book is defined as the risk of loss in the economic value and overall profit of the banking book arising from adverse movements in interest rate and maturity structure, etc.

Management of Interest Rate Risk in the Banking Book

In 2018, upholding a steady and prudent risk appetite, the Bank heightened the management system and mechanism of interest rate risk in the banking book, made positive headway in interest rate risk management strategies, policies and procedures, and better applied a combination of quantity, pricing and derivative instruments regarding assets and liabilities. Based on interest rate and business trends, the Bank intensified efforts to regulate and control the duration of assets and liabilities and interest rate sensitivity gap, so as to effectively control the interest rate risk in the banking book.

Management System and Governance Structure for Interest Rate Risk in the Banking Book

The Bank's management system for interest rate risk in the banking book conforms to the system importance, risk status and business complexity, and fits the Bank's overall development strategy and the enterprise risk management system. The system mainly consists of the following elements: an effective risk governance structure; sound risk management strategies, policies and procedures; effective risk identification, measurement, monitoring, control and mitigation that cover all areas; a complete internal control and review mechanism; a fully-built risk management system; and adequate information disclosure and reporting.

The Bank strictly complied with regulatory requirements for interest rate risk in the banking book, effectively managed interest rate risk in the banking book at the Bank and consolidated level, and developed a sound governance structure for interest rate risk in the banking book that is fully built and well-structured, with clearly defined rights and responsibilities. The Board of Directors and the Senior Management are vested with the ultimate and executive responsibilities, respectively, for managing interest rate risk in the banking book. The Asset & Liability Management Department of the Head Office takes the leading role in managing interest rate risk in the banking book, and other departments and institutions play their roles in implementing policies and standards concerning interest rate risk in the banking book. The Internal Audit Bureau and Internal Control & Compliance Department of the Head Office are responsible for reviewing and evaluating duties in respective of interest rate risk in the banking book.

Objective, Strategy and Important Policy of Management of Interest Rate Risk in the Banking Book

The objective of the Bank's management of interest rate risk in the banking book: the Bank aims at maximizing the risk-adjusted net interest income within the tolerable level of interest rate risk under its risk management and risk appetite.

The Bank formulated strategies and clarified objectives and modes for managing interest rate risk in the banking book based on risk appetite, risk status, macroeconomic and market changes. Based on the pre-judging of the interest rate trend and measurement results of the changes in overall profit and economic value, the Bank formulated and put into practice relevant management policies, adopted a coordinated approach to using interest rate risk control tools to mitigate and manage risks, so as to ensure the Bank's actual interest rate risks conform to its bearing capability and willingness.

On the basis of management strategies and objectives, the Bank developed policies and made clear the modes and instruments for managing interest rate risk in the banking book. By developing and modifying such methods as on-balance sheet adjustment and off-balance sheet hedging to manage interest rate risk, adeptly using quantity, pricing and derivative instruments regarding assets and liabilities, and applying limit management system, business plan, performance assessment and capital evaluation in all areas for interest rate risk management and assessment, the Bank achieved effective control of interest rate risk at the business lines, the branches, the affiliates and the products and portfolios easily affected by interest rate risk.

Stress Testing

In line with the principles of comprehensiveness, prudence and foresight, the Bank's stress testing on interest rate risk in the banking book adopted the interest rate risk exposure measurement approach and standardized duration approach to measure the effect of interest rate changes under different stress scenarios on the overall profit and economic value. Based on the domestic and overseas regulatory requirements, the bankwide asset and liability business structure, operation and management as well as risk appetite, the Bank set stress testing scenarios for interest rate risk in the banking book by taking into account the current interest rate level, historical changes and trends, total assets and liabilities and their term characteristics, business development strategies, customer behaviors and other factors, and conducted stress testing quarterly.

Banking Book Interest Rate Sensitivity Analysis

The Bank measures interest rate risk in the banking book on a monthly basis and reports the same on a quarterly basis in accordance with relevant requirements of CBIRC. While measuring the impact of interest rate change on net interest income and equity value, the Bank assigns the deposits without a maturity date to a reasonable time bucket in consideration of the deposit and loan characteristics and historic data, and assesses the impact of prepayment on interest rate risk measurement by taking the possibility of prepaying residential mortgages into full consideration.

Supposing that there is parallel shift of overall market interest rates, and taking no account of possible risk management actions taken by the management to mitigate the interest rate risk, the analysis on interest rate sensitivity of the Bank categorized by major currencies in 2018 is shown in the following table:

In RMB millions

	Increased by 100 basis points		Decreased by 100 basis points	
Currency	**Effect on net interest income**	**Effect on equity**	**Effect on net interest income**	**Effect on equity**
RMB	(3,281)	(30,513)	3,281	33,093
USD	(1,645)	(5,679)	1,645	5,683
HKD	936	–	(936)	–
Others	(59)	(690)	59	691
Total	**(4,049)**	**(36,882)**	**4,049**	**39,467**

Operational Risk

Operational risk is defined as the risk of loss resulting from insufficient or problematic internal processes, employees and IT systems or from external events, including legal risk, but excluding strategic and reputational risk. There are seven major types of operational risks faced by the Bank, including internal fraud, external fraud, employment system and workplace safety, customers, products and business activities, damage to physical assets, IT system, execution and delivery and process management. Among these, external fraud, execution and delivery and process management constitute major sources of operational risk losses of the Bank.

Operational Risk Management

The Bank strictly followed regulatory requirements on operational risk management and adopted the operational risk control mode of "integrated management, classified control". The Board of Directors assumes relevant responsibility for the effectiveness of the operational risk management according to the Articles of Association, and the Senior Management is responsible for implementing the strategy, overall policy and system for operational risk management approved by the Board of Directors. The Operational Risk Management Committee under the Senior Management, as the organizer and coordinator of operational risk management of the Bank, is responsible for reviewing and approving significant matters related to operational risk management according to the Working Regulations for the Operational Risk Management Committee. Marketing and product departments at all levels form the first line of defense of operational risk management, which assume direct responsibility for operational risk management in each business line. Internal control and compliance departments at various levels are comprehensive management departments for operational risk in institutions at various levels and assume the duty of operating the second line of defense of operational risk management, which are responsible for the arrangement and organization for the establishment and implementation of operational risk management system at each level; discipline enforcement, security, human resources, IT, finance and accounting, legal affairs, operation management, credit management and risk management departments at all levels are classification control departments for operational risk in institutions at various levels, which are responsible for management and control on specific types of operational risk. These departments, together with comprehensive management departments, form the second line of defense of operational risk management. The internal audit departments are responsible for auditing and evaluating the operation of the operational risk management system, and form the third line of defense.

Operational risk management objectives of the Bank are: to enhance the confidence of shareholders and the public by establishing a sound operational risk governance structure and improving operational risk management and control; to enhance customer satisfaction and employees' sense of belonging as well as overall services by identifying high-risk areas and resolving potential operational risks; to enhance operational efficiency of the Bank by improving process control and operational risk management resources allocation while weighing benefits against costs; to reduce operational risk losses of the Bank and improve the control ability and level by taking effective risk control and mitigation measures; to minimize the legal risk by conducting review and supervision and satisfying the external regulatory requirements.

The Bank adopts a differential operational risk management strategy: avoiding operational risks characterized with high severity and high frequency, transferring those characterized with high severity and low frequency, mitigating those characterized with low severity and high frequency, and taking those characterized with low severity and low frequency.

The Bank's operational risk management procedures include operational risk identification, assessment, control/mitigation, monitoring, measurement and reporting.

- Risk identification: The Bank identifies operational risk of new products and new businesses, operational risk event, operational risk loss event, etc.
- Risk assessment: The Bank formulates and implements management measures for operational risk and control self-assessment and scenario analysis, and makes comprehensive, timely, objective and forward-looking estimation of inherent risk, control effectiveness and residual risk of all business lines and all branches on a regular basis.

- Risk control/mitigation: The Bank formulates and implements operational risk control basic standards and measures, establishes and implements operational risk mitigation related management measures, builds operational risk control system of the Bank, and promptly prevents and mitigates potential operational risk. The Bank's operational risk mitigation measures include but are not limited to outsourcing, insurance, business continuity plan and capital allocation.
- Risk monitoring: The Bank formulates and implements management measures for operational risk monitoring, establishes an overall, professional and regional operational risk indicators monitoring system, and monitors, analyzes and warns key risk exposures of respective business line and institution on a regular basis.
- Risk measurement: The Bank formulates and implements management measures for operational risk capital measurement; relevant departments research and improve calculation methods and models for economic capital and regulatory capital, make capital allocation and adjustment, and monitor operational risk capital management according to their responsibilities.
- Risk reporting: The Bank formulates and implements operational risk management measures for risk reporting, truly and fully reflects the operational risk profile of all business lines and institutions, reveals potential critical risks and proposes effective measures and suggestions for improvement.

In 2018, the Bank continued to push the Group's operational risk management to a higher level in line with the regulatory focus and operational risk trends. It conducted risk governance in key fields and links on an ongoing basis, and actively conducted in-depth crackdown campaign to improve or update policies, procedures, systems and mechanisms and the procedure-based hard control over key links. External fraud risk management was strengthened to effectively protect customers' funds. Operational risk limit management was reinforced to ensure adequate monitoring and reporting of limit indicators. The Bank also improved the operational risk measurement system, intensified large-value operational risk event control, and continuously strengthened the application of operational risk management tools and risk data quality. During the reporting period, the operational risk management system of the Bank operated smoothly and the operational risk was controllable on the whole.

Legal Risk

Legal risk is the risk of incurring legal sanctions, regulatory penalties, financial losses, reputational losses or other negative consequences that arises out of or in connection with the failure of the Bank to comply with relevant laws, regulations, administrative rules, regulatory provisions or requirements of other relevant rules during the Bank's operation; the unfavorable legal defects that exist in products, services or information provided to clients, transactions engaged in, and contracts, agreements or other documents executed by the Bank; legal disputes (litigation or arbitration proceedings) between the Bank and its clients, counterparties and stakeholders; important changes in relevant laws and regulations, administrative rules, regulatory provisions and other relevant rules; and other relevant legal events that occur internally and externally.

Based on the objective to ensure legal and compliant operation, the Bank always attaches great importance to establishing a sound legal risk management system, forming a full-process legal risk prevention and control mechanism to support and secure business innovation and market competition, and to prevent and eliminate various potential or practical legal risks. The Board of Directors is responsible for reviewing and determining the strategy and policy relating to legal risk management, and assumes the ultimate responsibility of legal risk management. The Senior Management is responsible for executing the strategy and policy relating to legal risk management, examining and approving relevant important affairs. The Legal Affairs Department of the Head Office is in charge of legal risk management across the Group, with relevant business departments providing related support and assistance on legal risk prevention and control. The affiliates, domestic and overseas branches undertake the responsibility of legal risk management of their respective institutions.

In 2018, the Bank continued to strengthen legal risk management, by improving the risk prevention and control capacity in legal risk management, ensuring the legal and compliant operation, healthy business development and overall business stability of the Group. The Bank improved both the vertical linkage and horizontal coordination mechanism between the Head Office and branches. By embedding legal risk prevention and control into business negotiations, product design, contract signing and other links, the Bank prevented legal risk in advance and made the legal risk prevention and control more prospective, proactive and targeted. Legal risk prevention and control in key areas and links have made headway in line with new financial regulatory requirements. The Bank further improved the cross-border coordination and management for legal work and strengthened the legal risk management of overseas institutions, actively responding to cross-border legal issues emerging in the development of international operations. It applied multiple legal means to improve debt collection efficiency. Moreover, the Bank pragmatically strengthened the risk management and control of lawsuit-related risks, thereby preventing and mitigating lawsuit-related risks and losses. It assisted with the online judicial inquiry and enforcement, and improved the efficiency of providing enforcement assistance. The Bank made smooth progress in implementing the seal reform, put in place and improved a procedure-based mechanism for electronic signing system. It standardized contract management and reinforced authorization management, related party management, trademark management and intellectual property protection, and made continuous efforts to institutionalize risk management and control, and build a better-structured system.

Anti-Money Laundering

In strict compliance with anti-money laundering (“AML”) laws and regulations of China and host countries (regions) of overseas institutions, the Bank sincerely implemented the “risk-based” regulatory requirements in respect of AML, steadily fulfilled the legal obligations and social responsibilities concerning AML, and kept enhancing the Group’s management level regarding AML and counter-terrorist financing (“CTF”).

Confronted with complex and severe AML environment both in and outside China, the Bank upheld a “risk-based, problem-based, and foundation-oriented approach with a focus on regulatory requirements”, and coordinated efforts to promote the development of AML policies, systems and teams to shore up the Group’s AML management foundation. The Bank continued to improve the AML management structure at the Head Office level, intensified AML assessment and accountability, and actively cooperated with PBC to carry out FATF mutual evaluations. AML publicity and training activities were launched in all areas to strengthen AML responsibility of all staff. Domestic institutions continued to deepen the centralized AML processing reform to increase the intelligentization of AML system, strengthened the analysis ability of suspicious activity report and cooperated with regulators and competent authorities in AML investigation. Key overseas institutions redoubled efforts to strengthen AML management capability, with more energy devoted to prevent and control money laundering risks in key areas and critical links, and developed a long-term AML compliance management mechanism.

Operational Risk Measurement

The Bank adopts the standardized approach to measure capital requirement for operational risk. As at the end of 2018, the capital requirement for operational risk was RMB101,152 million.

Liquidity Risk

Liquidity risk is the risk that the Bank is unable to raise funds on a timely basis or at a reasonable cost to settle liabilities as they fall due, or perform other payment obligations and satisfy other funding demands arising from the normal course of business. Liquidity risk may arise from the following events or factors: withdrawal of customers' deposits, drawing of loans by customers, overdue payment of debtors, mismatch between assets and liabilities, difficulties in assets realization, operating losses, derivatives trading risk and risk associated with its affiliates.

Liquidity Risk Management

In 2018, the Bank continued to uphold a steady and prudent liquidity risk management strategy, and kept a close eye on factors affecting liquidity risk management. It constantly improved its liquidity risk management system, revised relevant management measures, and strengthened monitoring over key businesses, customers and funds to ensure sound liquidity risk management during payment peak times and critical times. The liquidity risk management system was improved, with more automatic supporting system for monitoring, measuring and managing liquidity risks, so as to boost refined management of liquidity risk. The Bank made coordinated efforts to manage liquidity risks in both domestic and overseas institutions, in local and foreign currencies, and on- and off-balance sheet, and took measures to see that the Group's liquidity is stable and safe.

Liquidity Risk Management System and Governance Structure

The Bank's liquidity risk management system conforms to the overall development strategy and the overall risk management system of the Bank, and is commensurate with the business scale, business nature, complexity and other aspects of the Bank. The system includes the following fundamental elements: effective governance structure for liquidity risk management; sound strategy, policy and procedures for liquidity risk management; effective identification, measurement, monitoring and control for liquidity risk and a complete management information system.

In respect of liquidity risk management, the Bank's governance structure embodies the decision-making system comprising the Board of Directors and its special committees as well as the Asset and Liability Management Committee and the Risk Management Committee of the Head Office; the supervision system comprising the Board of Supervisors, the Internal Audit Bureau and the Internal Control and Compliance Department; and the execution system comprising the Asset and Liability Management Department, leading management departments of on- and off-balance sheet businesses, the Information Technology Department, operation management departments of the Head Office and relevant departments of branches. Each of these systems performs the corresponding functions of decision making, supervision and execution functions according to division of responsibilities.

Objective, Strategy and Important Policy of Liquidity Risk Management

Objective of liquidity risk management: by establishing and improving the liquidity risk management system, the Bank aims at realizing complete identification, accurate measurement, continuous monitoring and effective control of the liquidity risk at the Group level, the Bank, the affiliates, the branches and the business lines, and ensuring the liquidity demand is satisfied at a reasonable cost in time under the normal business scenario and the stress scenario.

The Bank's liquidity risk management strategy and policy are formulated in accordance with the liquidity risk appetite, and they cover all businesses on- and off-balance sheet, all domestic and overseas business departments and branches that are likely to have a material impact on the liquidity risk, and contain the liquidity risk management under normal and stressed scenarios. The liquidity risk management strategy specifies the overall objective and mode of liquidity risk management and lists major policies and procedures for liquidity risk management. Important policies for liquidity risk management are formulated in accordance with external and macro operating environments and business development of the Bank, with a view to striking an effective balance among security, liquidity and profitability.

Liquidity Risk Management Mode

The mode of liquidity risk management of the Bank is consolidated liquidity risk management based on management of liquidity risk at the bank level. The Head Office manages the liquidity risk of the Bank in a unified and centralized manner and ensures liquidity security of the Bank through dynamic adjustment of the aggregate and structure of assets and liabilities, whereas the affiliates assume primary responsibilities concerning liquidity risk management of respective institution, and undertake corresponding responsibilities as required by the leading liquidity risk management departments of the Head Office.

Stress Testing

Following the prudence principle, the Bank employs the scenario analysis and the sensitivity analysis to perform stress testing on liquidity risk. The Bank has taken full consideration of various macroscopic and microscopic factors that may influence the Bank's liquidity status to set stress scenarios against those products, businesses and institutions with concentrated liquidity risk in line with the characteristics and complexity of the Bank's businesses. The Bank performs stress testing on a quarterly basis. Where necessary, the Bank may carry out temporary and special stress testing at a particular time in light of changes in the external operating environment and regulatory requirements.

Liquidity Risk Analysis

As at the end of 2018, RMB liquidity ratio and foreign currency liquidity ratio of the Bank were 43.8% and 83.0% respectively, both meeting the regulatory requirements. Loan-to-deposit ratio was 71.0%.

Net stable funding ratio aims to ensure commercial banks have sufficient stable sources of funding to meet the needs for stable funding of assets and off-balance sheet risk exposures. The net stable funding ratio is the ratio of the available stable funding to the required stable funding. The available stable funding refers to the sum of the product of the book value of capital and liability items of commercial banks and the corresponding available stable fund coefficient. The required stable funding refers to the sum of the product of the book value of asset items of commercial banks and the off-balance sheet exposure and the corresponding required stable funding coefficient. As at the end of 2018, the net stable funding ratio was 126.62%, the available stable funding was RMB18,647,495 million, and the required stable funding was RMB14,726,640 million.

The daily average liquidity coverage ratio for the fourth quarter of 2018 was 126.66%, 6.30 percentage points higher than the previous quarter, mainly due to adequate available funding in the fourth quarter and the increase in cash inflow within 30 days. High-quality liquid assets cover cash, available central bank reserve under stress and primary and secondary bond assets that can be included in the liquidity coverage ratio under the regulatory requirements.

The Bank also assessed its liquidity risk profile by using liquidity exposure analysis. As at the end of 2018, the liquidity exposure for the less than 1 month category turned from negative to positive, which was mainly due to the decrease of repurchase agreements with corresponding term. The negative liquidity exposure for the 3 months to 1 year category increased, mainly caused by the increase of due to customers with corresponding term. The positive liquidity exposure for the 1 to 5 years category expanded, mainly due to the increase in investments in bonds and loans and advances to customers with corresponding term. The positive liquidity exposure for the category of over 5 years increased, which was mainly due to increase in loans and advances to customers with corresponding term. Deposits maintained steady growth with a high deposition rate, and at the same time the Bank made major investment in highly liquid bond assets, and possessed sufficient liquidity reserves. Therefore, the overall liquidity of the Bank maintained at a safe level.

LIQUIDITY EXPOSURE ANALYSIS

In RMB millions

	Overdue/ repayable on demand	Less than 1 month	1 to 3 months	3 months to 1 year	1 to 5 years	Over 5 years	Undated	Total
At 31 December 2018	(12,057,413)	432,760	(674,702)	(1,884,799)	4,412,116	8,793,935	3,322,986	2,344,883
At 31 December 2017	(10,793,525)	(200,327)	(595,509)	(829,587)	3,452,159	7,619,544	3,488,301	2,141,056

Other Risks

Equity Risk in the Banking Book

The Bank's equity investments in the banking book include long-term equity investments, the portion of equity investments measured at fair value through profit or loss and equity investments measured at fair value through other comprehensive income which belong to the banking book. The Bank strictly follows the Capital Regulation to measure significant and non-significant equity investment.

EQUITY RISK IN THE BANKING BOOK

In RMB millions

	At 31 December 2018			At 31 December 2017		
Equity type	Publicly-traded equity investment risk exposure(1)	Non-publicly-traded equity investment risk exposure(1)	Unrealised potential gains (losses)(2)	Publicly-traded equity investment risk exposure(1)	Non-publicly-traded equity investment risk exposure(1)	Unrealised potential gains (losses)(2)
Financial institution	31,385	11,948	4,526	33,199	1,822	207
Corporate	1,939	40,137	976	3,193	11,076	194
Total	**33,324**	**52,085**	**5,502**	**36,392**	**12,898**	**401**

Notes: (1) Publicly-traded equity investment refers to equity investment made in listed companies, and non-publicly-traded equity investment refers to equity investment made in non-listed companies.

(2) Unrealised potential gains (losses) refer to unrealised gains or losses recognized on the balance sheet but not recognized on the income statement.

For accounting policies regarding equity investment, please refer to the Significant Accounting Policies and Estimates in the Notes to the Financial Statements of the 2018 Annual Report.

Reputational Risk

Reputational risk is defined as the risk of negative assessment or comments on a commercial bank from stakeholders as a result of its operation, management and other behaviors or external events. Reputational risk may arise in any part of the Bank's operation and management, and usually co-exists and correlates with credit risk, market risk, operational risk and liquidity risk.

Reputational risk management of the Bank refers to the process and method for ensuring the achievement of the overall objective of reputational risk management based on the reputational risk management objective and planning, through the establishment and improvement of the reputational risk management system and through daily reputational risk management and proper handling of reputational events. Good reputation is central to the operation and management of a commercial bank. The Bank highly values its reputation and has incorporated reputational risk management in the corporate governance and enterprise risk management system to prevent reputational risk.

The Board of Directors is responsible for reviewing and finalizing bank-wide policies concerning reputational risk management that are in line with the strategic objective of the Bank, establishing a bank-wide system of reputational risk management, monitoring the overall status and effectiveness of reputational risk management across the Bank and assuming the ultimate responsibility for reputational risk management. The Senior Management is responsible for leading reputational risk management of the Bank, implementing the strategies and policies established by the Board of Directors, reviewing and finalizing the rules, measures and operating procedures for reputational risk management and the plans to handle extraordinarily major reputational events and ensuring the proper and effective operation of the reputational risk management system. The Bank has established a special reputational risk management team to take charge of the daily management of reputational risk.

In 2018, the Bank constantly advanced the building of the reputational risk management policies and mechanism, and reinforced the prevention, control and management of the reputational risk sources. It stepped up efforts to apply information technology in reputational risk management to promote the IT-based reputational risk management. It performed reputational risk management and protection of consumer rights and interests by synchronized method, actively responded to the comments and suggestions of the public, and continued to increase the reputational risk awareness of all the employees. The Bank organized a series of featured reports with greater influence for publicity to enhance its brand image. During the reporting period, the Bank's reputational risk was controllable with no material reputational risk event occurred.

Country Risk

Country risk is the risk incurred to a bank arising from the inability or refusal by the borrower or debtor to repay bank debt, losses suffered by the Bank or its commercial presence in such country or region and other losses due to economic, political and social changes and events in a country or a region. Country risk may be triggered by deterioration of economic conditions, political and social turmoil, asset nationalization or expropriation, government's refusal to pay external debt, foreign exchange control or currency depreciation in a country or a region.

The Bank strictly observes regulatory requirements on country risk management. The Board of Directors assumes the ultimate responsibility for the effectiveness of country risk management. The Senior Management is responsible for executing the country risk management policies approved by the Board of Directors. The Risk Management Committee of the Head Office is responsible for reviewing matters regarding country risk management. The Bank manages and controls country risk with a series of tools, including country risk assessment and rating, country risk limit, country risk exposure calculation and monitoring and stress testing. The Bank reviews the country risk rating and limits at least once every year.

In 2018, facing the increasingly complicated international political and economic environment, the Bank strictly abode by regulatory requirements and, with consideration of its business development needs, continued to strengthen country risk management. The Bank closely observed changes in country risk exposures, constantly tracked, monitored and reported country risk, and timely updated and adjusted the country risk rating and limits. It continued to strengthen early warning mechanism for country risk, proactively conducted stress testing on country risk and reasonably and effectively controlled country risk while pushing ahead with the internationalization strategy.

Remuneration

Remuneration Governance Framework

In line with corporate governance requirements, the Bank is committed to establishing and improving remuneration governance framework, specifying the scope of roles and responsibilities of relevant entities, improving decision-making mechanism of remuneration policies and building remuneration governance system with full participation of all stakeholders.

The Board of Directors assumes the ultimate responsibility of remuneration management. The Board of Directors proactively supervises the design and operation of the remuneration system, periodically reviews its compliance, and ensures the remuneration system achieves the intended goals. The Bank set up the Compensation Committee of the Board of Directors in accordance with the Articles of Association to assist the Board of Directors in remuneration management. The Senior Management is responsible for organizing and implementing remuneration management related resolutions of the Board of Directors as well as organizing and formulating incentive assessment and remuneration distribution measures within the scope of authorization. The Human Resource Department is responsible for implementing specific remuneration management issues. Departments including the Risk Management Department, the Internal Audit Bureau, the Internal Control and Compliance Department and the Finance and Accounting Department participate in and supervise the execution of remuneration management mechanism and provide feedback for improvement.

Compensation Committee of the Board of Directors

The Compensation Committee is mainly responsible for formulating assessment measures on the performance of duties and compensation plans for Directors, organizing the assessment on the performance of duties of Directors, putting forth proposal on remuneration distribution for Directors, formulating and reviewing the assessment measures and compensation plans for Senior Management members of the Bank and evaluating the performance and behaviors of Senior Management members. As at the disclosure date of the results, the Compensation Committee consisted of seven directors, including Executive Director Mr. Gu Shu; Independent Non-executive Directors Mr. Nout Wellink, Mr. Anthony Francis Neoh, Ms. Sheila Colleen Bair and Mr. Shen Si; Non-executive Directors Ms. Mei Yingchun and Mr. Dong Shi. Independent Non-executive Director Mr. Nout Wellink was Chairman of the Committee. During the reporting period, the Compensation Committee held three meetings.

Remuneration Management Policies

The Bank adopts the remuneration policy that is in line with corporate governance requirements and sustainable development targets, adapted to risk management systems and talent development strategies, and matched to employees' value contribution so as to promote bank-wide steady business operation and sustainable development. The remuneration policy applies to all institutions and employees of the Bank.

Performance-based Remuneration Mechanism

The remuneration package of the Bank's employees consists of basic remuneration and performance-based remuneration. The remuneration allocation takes "job value, capabilities and performance" as the basic principles. The basic salary level depends on the employees' value contribution and capabilities of fulfilling duties while the level of the performance-based remuneration depends on performance assessment of the Bank as a whole, the institution or department of the employee and the employee. Currently, in accordance with relevant laws and regulations promulgated by the state and regulatory authorities, the Bank has not yet implemented share options or any other form of long or medium term share incentives; all performance-based remuneration of the employees is paid in cash.

Focused on value creation, risk control and sustainable development, the Bank has established an integrated performance assessment system comprised of three categories of indicators: performance management, risk and internal control, operational transformation and business development, which guides the bank-wide attention to not only the indicators of current period, but also the indicators relating to long-term development, such as customers, markets and structural adjustments. The Bank also reasonably controls the balance of profits, risk and quality so as to improve the steadiness and scientism of business management.

Risk-aligned Remuneration Mechanism

The Bank's remuneration policy is in line with the risk management system and adapted to the institutional scale, and the nature and the sophistication of the business to control the employee's risk-taking and short term actions. The remuneration structures of each institution or position are different according to the need of risk management. The Bank adjusted the risks that have not yet been reflected in the period by taking risk mitigation measures including risk-adjusted performance and deferred remuneration payment, and implemented performance assessment and incentives to promote a positive and healthy risk management culture.

A deferred payment schedule is gradually introduced according to business development needs. The Bank gradually established deferred payment mechanism based on business needs and deferred part of the performance-related remuneration of employees who assume responsibilities for material risk and risk management and control. For persons receiving deferred payment, if significant losses of risk exposures are incurred within their responsibility during their employment, the Bank can recall part or all of performance-related remuneration paid in relevant period and stop further payments.

Independence of the Remuneration for Risk and Compliance Employees

Remuneration for risk and compliance employees are based on their value contributed, capability, and performance, not directly related to their responsible businesses. The Bank sets up a vertical internal audit system, which takes on the responsibility for the Board of Directors and reports to the Board of Directors directly. The remuneration of the internal audit employees is independent from that of other lines of business.

For basic information and annual remuneration of Senior Management members and remuneration of the Compensation Committee of the Board of Directors of the Bank, please refer to the 2018 Annual Report.

Appendixes

The following information is disclosed in accordance with the Notice on Issuing Regulatory Documents on Capital Regulation for Commercial Banks Appendix 2 Notice on Enhancing Disclosure Requirements for Composition of Capital.

CAPITAL COMPOSITION

In RMB millions, except for percentages

S/N	Item	At 31 December 2018	At 31 December 2017	Reference[(1)]
Core tier 1 capital:				
1	Paid-in capital	356,407	356,407	X18
2	Retained earnings	1,746,540	1,594,378	
2a	Surplus reserve	261,636	232,660	X21
2b	General reserve	278,980	264,850	X22
2c	Retained profits	1,205,924	1,096,868	X23
3	Accumulated other comprehensive income (and other public reserves)	140,322	90,889	
3a	Capital reserve	151,968	151,952	X19
3b	Others	(11,646)	(61,063)	X24
4	Valid portion to core tier 1 capital during the transition period (only applicable to non-joint stock companies. Fill in 0 for joint stock banks)	–	–	
5	Valid portion of minority interests	3,752	2,716	X25
6	**Core tier 1 capital before regulatory adjustments**	**2,247,021**	**2,044,390**	
Core tier 1 capital: Regulatory adjustments				
7	Prudential valuation adjustments	–	–	
8	Goodwill (net of deferred tax liabilities)	8,820	8,478	X16
9	Other intangible assets other than land use rights (net of deferred tax liabilities)	1,927	1,532	X14–X15
10	Deferred tax assets that rely on future profitability excluding those arising from temporary differences (net of deferred tax liabilities)	–	–	
11	Cash flow hedge reserves that relate to the hedging of items that are not fair valued on the balance sheet	(3,739)	(3,708)	X20
12	Shortfall of provision for loan impairment	–	–	
13	Gain on sale related to asset securitization	–	–	
14	Unrealised gains and losses due to changes in own credit risk on fair valued liabilities	–	–	

Note: (1) For mapped components of the balance sheet under regulatory scope of consolidation to capital items, please refer to "Explanations for Detailed Items".

CAPITAL COMPOSITION (CONTINUED)

In RMB millions, except for percentages

S/N	Item	At 31 December 2018	At 31 December 2017	Reference
15	Defined-benefit pension fund net assets (net of deferred tax liabilities)	–	–	
16	Direct or indirect investments in own ordinary shares	–	–	
17	Reciprocal cross-holdings in core tier 1 capital between banks or between banks and other financial institutions	–	–	
18	Deductible amount of non-significant minority investment in core tier 1 capital instruments issued by financial institutions that are not subject to consolidation	–	–	
19	Deductible amount of significant minority investment in core tier 1 capital instruments issued by financial institutions that are not subject to consolidation	–	–	
20	Mortgage servicing rights	N/A	N/A	
21	Deferred tax assets arising from temporary differences (amount above 10% threshold, net of deferred tax liabilities)	–	–	
22	Deductible amount exceeding the 15% threshold for significant minority capital investments in core tier 1 capital instruments issued by financial institutions that are not subject to consolidation and undeducted portion of deferred tax assets arising from temporary differences (net of deferred tax liabilities)	–	–	
23	Including: Deductible amount of significant minority investments in core tier 1 capital instruments issued by financial institutions	–	–	
24	Including: Deductible amount of mortgage servicing rights	N/A	N/A	
25	Including: Deductible amount in deferred tax assets arising from temporary differences	–	–	
26a	Investments in core tier 1 capital instruments issued by financial institutions that are under control but not subject to consolidation	7,980	7,980	X11
26b	Shortfall in core tier 1 capital instruments issued by financial institutions that are under control but not subject to consolidation	–	–	

CAPITAL COMPOSITION (CONTINUED)

In RMB millions, except for percentages

S/N	Item	At 31 December 2018	At 31 December 2017	Reference
26c	Others that should be deducted from core tier 1 capital	–	–	
27	Undeducted shortfall that should be deducted from additional tier 1 capital and tier 2 capital	–	–	
28	**Total regulatory adjustments to core tier 1 capital**	**14,988**	**14,282**	
29	**Core tier 1 capital**	**2,232,033**	**2,030,108**	
Additional tier 1 capital:				
30	Additional tier 1 capital instruments and related premium	79,375	79,375	
31	Including: Portion classified as equity	79,375	79,375	X28
32	Including: Portion classified as liabilities	–	–	
33	Invalid instruments to additional tier 1 capital after the transition period	–	–	
34	Valid portion of minority interests	735	577	X26
35	Including: Invalid portion to additional tier 1 capital after the transition period	–	–	
36	**Additional tier 1 capital before regulatory adjustments**	**80,110**	**79,952**	
Additional tier 1 capital: Regulatory adjustments				
37	Direct or indirect investments in own additional tier 1 instruments	–	–	
38	Reciprocal cross-holdings in additional tier 1 capital between banks or between banks and other financial institutions	–	–	
39	Deductible amount of non-significant minority investment in additional tier 1 capital instruments issued by financial institutions that are not subject to consolidation	–	–	
40	Significant minority investments in additional tier 1 capital instruments issued by financial institutions that are not subject to consolidation	–	–	
41a	Investments in additional tier 1 capital instruments issued by financial institutions that are under control but not subject to consolidation	–	–	
41b	Shortfall in additional tier 1 capital instruments issued by financial institutions that are under control but not subject to consolidation	–	–	

CAPITAL COMPOSITION (CONTINUED)

In RMB millions, except for percentages

S/N	Item	At 31 December 2018	At 31 December 2017	Reference
41c	Others that should be deducted from additional tier 1 capital	–	–	
42	Undeducted shortfall that should be deducted from tier 2 capital	–	–	
43	**Total regulatory adjustments to additional tier 1 capital**	**–**	**–**	
44	**Additional tier 1 capital**	**80,110**	**79,952**	
45	**Tier 1 capital (core tier 1 capital + additional tier 1 capital)**	**2,312,143**	**2,110,060**	
Tier 2 capital:				
46	Tier 2 capital instruments and related premium	202,761	222,321	X17
47	Invalid instruments to tier 2 capital after the transition period	81,140	101,425	
48	Valid portion of minority interests	1,991	3,303	X27
49	Including: Invalid portion to tier 2 capital after the transition period	856	1,051	
50	Valid portion of surplus provision for loan impairment	127,990	71,736	X02+X04
51	**Tier 2 capital before regulatory adjustments**	**332,742**	**297,360**	
Tier 2 capital: Regulatory adjustments				
52	Direct or indirect investments in own tier 2 instruments	–	–	
53	Reciprocal cross-holdings in tier 2 capital between banks or between banks and other financial institutions	–	–	
54	Deductible portion of non-significant minority investment in tier 2 capital instruments issued by financial institutions that are not subject to consolidation	–	–	
55	Significant minority investments in tier 2 capital instruments issued by financial institutions that are not subject to consolidation	–	500	X31
56a	Investments in tier 2 capital instruments issued by financial institutions that are under control but not subject to consolidation	–	–	
56b	Shortfall in tier 2 capital instruments issued by financial institutions that are under control but not subject to consolidation	–	–	

CAPITAL COMPOSITION (CONTINUED)

In RMB millions, except for percentages

S/N	Item	At 31 December 2018	At 31 December 2017	Reference
56c	Others that should be deducted from tier 2 capital	–	–	
57	**Total regulatory adjustments to tier 2 capital**	**–**	**500**	
58	**Tier 2 capital**	**332,742**	**296,860**	
59	**Total capital (tier 1 capital + tier 2 capital)**	**2,644,885**	**2,406,920**	
60	**Total risk-weighted assets**	**17,190,992**	**15,902,801**	
Requirements for capital adequacy ratio and reserve capital				
61	Core tier 1 capital adequacy ratio	12.98%	12.77%	
62	Tier 1 capital adequacy ratio	13.45%	13.27%	
63	Capital adequacy ratio	15.39%	15.14%	
64	Institution specific buffer requirement	4.0%	3.5%	
65	Including: Capital conservation buffer requirement	2.5%	2.5%	
66	Including: Countercyclical buffer requirement	–	–	
67	Including: G-SIB buffer requirement	1.5%	1.0%	
68	Percentage of core tier 1 capital meeting buffers to risk-weighted assets	7.98%	7.77%	
Domestic minima for regulatory capital				
69	Core tier 1 capital adequacy ratio	5%	5%	
70	Tier 1 capital adequacy ratio	6%	6%	
71	Capital adequacy ratio	8%	8%	
Amounts below the thresholds for deduction				
72	Undeducted portion of non-significant minority investments in capital instruments issued by financial institutions that are not subject to consolidation	64,004	35,059	X05+X07+X08+X09+X12+X29+X30
73	Undeducted portion of significant minority investments in capital instruments issued by financial institutions that are not subject to consolidation	32,215	28,353	X06+X10+X13
74	Mortgage servicing rights (net of deferred tax liabilities)	N/A	N/A	
75	Deferred tax assets arising from temporary differences (net of deferred tax liabilities)	57,073	48,158	
Valid caps of surplus provision for loan impairment in tier 2 capital				
76	Provision for loan impairment under the weighted approach	19,049	17,943	X01

CAPITAL COMPOSITION (CONTINUED)

In RMB millions, except for percentages

S/N	Item	At 31 December 2018	At 31 December 2017	Reference
77	Valid cap of surplus provision for loan impairment in tier 2 capital under the weighted approach	7,766	9,937	X02
78	Surplus provision for loan impairment under the internal ratings-based approach	393,682	322,539	X03
79	Valid cap of surplus provision for loan impairment in tier 2 capital under the internal ratings-based approach	120,224	61,799	X04
Capital instruments subject to phase-out arrangements				
80	Valid cap to core tier 1 capital instruments for the current period due to phase-out arrangements	–	–	
81	Excluded from core tier 1 capital due to cap	–	–	
82	Valid cap to additional tier 1 capital instruments for the current period due to phase-out arrangements	–	–	
83	Excluded from additional tier 1 capital due to cap	–	–	
84	Valid cap to tier 2 capital instruments for the current period due to phase-out arrangements	81,140	101,425	
85	Excluded from tier 2 capital for the current period due to cap	67,102	46,822	

BALANCE SHEET AT THE GROUP'S LEVEL

In RMB millions

Item	At 31 December 2018 Consolidated balance sheet as in published financial statements	At 31 December 2018 Balance sheet under regulatory scope of consolidation	At 31 December 2017 Consolidated balance sheet as in published financial statements	At 31 December 2017 Balance sheet under regulatory scope of consolidation
Assets				
Cash and balances with central banks	3,372,576	3,372,576	3,613,872	3,613,872
Due from banks and other financial institutions	384,646	374,509	370,074	363,278
Precious metals	181,292	181,292	238,714	238,714
Placements with banks and other financial institutions	577,803	577,803	477,537	477,537
Derivative financial assets	71,335	71,335	89,013	89,013
Reverse repurchase agreements	734,049	733,460	986,631	981,553
Loans and advances to customers	15,046,132	15,045,239	13,892,966	13,892,372
Financial investments:	6,754,692	6,662,605	5,756,704	5,669,906
— Financial investments measured at fair value through profit or loss	805,347	772,191	440,938	440,912
— Financial investments measured at fair value through other comprehensive income	1,430,163	1,408,749		
— Financial investments measured at amortised cost	4,519,182	4,481,665		
— Available-for-sale financial assets			1,496,453	1,465,021
— Held-to-maturity investments			3,542,184	3,536,757
— Receivables			277,129	227,216
Long-term equity investments	29,124	37,104	32,441	40,421
Fixed assets	253,525	253,460	216,156	216,088
Construction in progress	35,081	35,079	29,531	29,531
Deferred income tax assets	58,375	58,097	48,392	48,392
Other assets	200,910	186,769	335,012	318,891
Total assets	**27,699,540**	**27,589,328**	**26,087,043**	**25,979,568**

BALANCE SHEET AT THE GROUP'S LEVEL (CONTINUED)

In RMB millions

Item	At 31 December 2018		At 31 December 2017	
	Consolidated balance sheet as in published financial statements	Balance sheet under regulatory scope of consolidation	Consolidated balance sheet as in published financial statements	Balance sheet under regulatory scope of consolidation
Liabilities				
Due to central banks	481	481	456	456
Due to banks and other financial institutions	1,328,246	1,328,246	1,214,601	1,214,601
Placements from banks and other financial institutions	486,249	486,249	491,948	491,948
Financial liabilities measured at fair value through profit or loss	87,400	87,399	89,361	89,359
Derivative financial liabilities	73,573	73,573	78,556	78,556
Repurchase agreements	514,801	513,495	1,046,338	1,044,481
Certificates of deposit	341,354	341,354	260,274	260,274
Due to customers	21,408,934	21,410,976	19,562,936	19,564,945
Employee benefits payable	33,636	33,351	33,142	32,820
Taxes payable	95,678	95,318	82,550	82,502
Debt securities issued	617,842	617,842	526,940	526,940
Deferred income tax liabilities	1,217	1,024	433	233
Other liabilities	365,246	261,639	558,452	456,349
Total liabilities	**25,354,657**	**25,250,947**	**23,945,987**	**23,843,464**
Equity				
Share capital	356,407	356,407	356,407	356,407
Other equity instruments	86,051	86,051	86,051	86,051
Capital reserve	151,968	151,968	151,952	151,952
Other comprehensive income	(11,875)	(11,646)	(62,058)	(61,063)
Surplus reserve	261,720	261,636	232,703	232,660
General reserve	279,064	278,980	264,892	264,850
Retained profits	1,206,666	1,205,924	1,097,544	1,096,868
Equity attributable to equity holders of the parent company	**2,330,001**	**2,329,320**	**2,127,491**	**2,127,725**
Minority interests	14,882	9,061	13,565	8,379
Total equity	**2,344,883**	**2,338,381**	**2,141,056**	**2,136,104**

Note: Prepared in accordance with PRC GAAP.

EXPLANATIONS FOR DETAILED ITEMS

In RMB millions

Item	At 31 December 2018 Balance sheet under regulatory scope of consolidation	Reference
Loans and advances to customers	**15,045,239**	
Total loans and advances to customers	15,457,970	
Less: Provision for loan impairment under the weighted approach	19,049	X01
Including: Valid cap of surplus provision for loan impairment in tier 2 capital under the weighted approach	7,766	X02
Less: Provision for loan impairment under the internal ratings-based approach	393,682	X03
Including: Valid cap of surplus provision for loan impairment in tier 2 capital under the internal ratings-based approach	120,224	X04
Financial investments:		
Financial investments measured at fair value through profit or loss	772,191	
Including: Non-significant minority investments in core tier 1 capital instruments issued by financial institutions that are not subject to consolidation	89	X05
Including: Significant minority investments in core tier 1 capital instruments issued by financial institutions that are not subject to consolidation	34	X06
Including: Non-significant minority investments in additional tier 1 capital instruments issued by financial institutions that are not subject to consolidation	4,737	X07
Including: Non-significant minority investments in tier 2 capital instruments issued by financial institutions that are not subject to consolidation	45,164	X08
Financial investments measured at fair value through other comprehensive income	1,408,749	
Including: Non-significant minority investments in core tier 1 capital instruments issued by financial institutions that are not subject to consolidation	5,845	X09
Including: Significant minority investments in core tier 1 capital instruments issued by financial institutions that are not subject to consolidation	3,883	X10
Including: Non-significant minority investments in tier 2 capital instruments issued by financial institutions that are not subject to consolidation	5,963	X29
Financial investments measured at amortised cost	4,481,665	
Including: Non-significant minority investments in tier 2 capital instruments issued by financial institutions that are not subject to consolidation	2,108	X30
Including: Significant minority investments in tier 2 capital instruments issued by financial institutions that are not subject to consolidation	–	X31

EXPLANATIONS FOR DETAILED ITEMS (CONTINUED)

In RMB millions

Item	At 31 December 2018 Balance sheet under regulatory scope of consolidation	Reference
Long-term equity investments	**37,104**	
Including: Investment in core tier 1 capital instruments issued by financial institutions that are under control but not subject to consolidation	7,980	X11
Including: Undeducted portion of non-significant minority investments in capital instruments issued by financial institutions that are not subject to consolidation	98	X12
Including: Undeducted portion of significant minority investments in capital instruments issued by financial institutions that are not subject to consolidation	28,298	X13
Other assets	**186,769**	
Interest receivable	2,624	
Intangible assets	19,301	X14
Including: Land use rights	17,374	X15
Other receivables	145,678	
Goodwill	8,820	X16
Long-term deferred expenses	3,484	
Repossessed assets	9,366	
Others	(2,504)	
Debt securities issued	**617,842**	
Including: Valid portion of tier 2 capital instruments and their premium	202,761	X17
Share capital	**356,407**	X18
Other equity instruments	**86,051**	
Including: Preference shares	79,375	X28
Capital reserve	**151,968**	X19
Other comprehensive income	**(11,646)**	X24
Reserve for changes in fair value of financial assets	15,823	
Reserve for cash flow hedging	(3,804)	
Including: Cash flow hedge reserves that relate to the hedging of items that are not fair valued on the balance sheet	(3,739)	X20
Changes in share of other owners' equity of associates and joint ventures	(1,150)	
Foreign currency translation reserve	(22,253)	
Others	(262)	
Surplus reserve	**261,636**	X21
General reserve	**278,980**	X22
Retained profits	**1,205,924**	X23
Minority interests	**9,061**	
Including: Valid portion to core tier 1 capital	3,752	X25
Including: Valid portion to additional tier 1 capital	735	X26
Including: Valid portion to tier 2 capital	1,991	X27

MAIN FEATURES OF ELIGIBLE CAPITAL INSTRUMENTS AT THE END OF 2018

S/N	Main features of regulatory capital instrument	Ordinary Shares (A share)	Ordinary Shares (H share)	Preference Shares (Offshore)	Preference Shares (Offshore)	Preference Shares (Offshore)	Preference Shares (Domestic)
1	Issuer	The Bank	The Bank	The Bank	The Bank	The Bank	The Bank
2	Unique identifier	601398	1398	4603	4604	84602	360011
3	Governing law(s) of the instrument	Securities Law of the People's Republic of China/China	Securities and Futures Ordinance of Hong Kong/ Hong Kong, China	The creation and issue of the Offshore Preference Shares and the rights and obligations (including non-contractual rights and obligations) attached to them are governed by, and shall be construed in accordance with, PRC law	The creation and issue of the Offshore Preference Shares and the rights and obligations (including non-contractual rights and obligations) attached to them are governed by, and shall be construed in accordance with, PRC law	The creation and issue of the Offshore Preference Shares and the rights and obligations (including non-contractual rights and obligations) attached to them are governed by, and shall be construed in accordance with, PRC law	Company Law of the People's Republic of China, Securities Law of the People's Republic of China, Guidance of the State Council on Launch of Preference Shares Pilot, Trial Administrative Measures on Preference Shares, Guidance on the Issuance of Preference Shares of Commercial Banks to Replenish Tier 1 Capital/China
	Regulatory treatment						
4	Including: Transition arrangement of Regulation Governing Capital of Commercial Banks (Provisional)	Core tier 1 capital	Core tier 1 capital	Additional tier 1 capital	Additional tier 1 capital	Additional tier 1 capital	Additional tier 1 capital
5	Including: Post-transition arrangement of Regulation Governing Capital of Commercial Banks (Provisional)	Core tier 1 capital	Core tier 1 capital	Additional tier 1 capital	Additional tier 1 capital	Additional tier 1 capital	Additional tier 1 capital
6	Including: Eligible to the parent company/group level	Parent company/Group	Parent company/Group	Parent company/Group	Parent company/Group	Parent company/Group	Parent company/Group
7	Instrument type	Core tier 1 capital instrument	Core tier 1 capital instrument	Additional tier 1 capital instrument	Additional tier 1 capital instrument	Additional tier 1 capital instrument	Additional tier 1 capital instrument
8	Amount recognized in regulatory capital (in millions, as at the latest reporting date)	RMB339,126	RMB169,202	RMB equivalent 17,928	RMB equivalent 4,542	RMB11,958	RMB44,947

MAIN FEATURES OF ELIGIBLE CAPITAL INSTRUMENTS AT THE END OF 2018 (CONTINUED)

S/N	Main features of regulatory capital instrument	Ordinary Shares (A share)	Ordinary Shares (H share)	Preference Shares (Offshore)	Preference Shares (Offshore)	Preference Shares (Offshore)	Preference Shares (Domestic)
9	Par value of instrument (in millions)	RMB269,612	RMB86,795	USD2,940	EUR 600	RMB12,000	RMB45,000
10	Accounting treatment	Share capital, Capital reserve	Share capital, Capital reserve	Other equity	Other equity	Other equity	Other equity
11	Original date of issuance	19 October 2006	19 October 2006	10 December 2014	10 December 2014	10 December 2014	18 November 2015
12	Perpetual or dated	Perpetual	Perpetual	Perpetual	Perpetual	Perpetual	Perpetual
13	Including: Original maturity date	No maturity date	No maturity date	No maturity date	No maturity date	No maturity date	No maturity date
14	Issuer call (subject to prior supervisory approval)	No	No	Yes	Yes	Yes	Yes
15	Including: Optional call date, contingent call dates and redemption amount	N/A	N/A	The First Redemption Date is 10 December 2019, in full or partial amount	The First Redemption Date is 10 December 2021, in full or partial amount	The First Redemption Date is 10 December 2019, in full or partial amount	The First Redemption Date is 18 November 2020, in full or partial amount
16	Including: Subsequent call dates, if applicable	N/A	N/A	10 December in each year after the First Redemption Date	10 December in each year after the First Redemption Date	10 December in each year after the First Redemption Date	Commences on the First Redemption Date (18 November 2020) and ends on the completion date of redemption or conversion of all the Domestic Preference Shares
	Coupons/dividends						
17	Including: Fixed or floating dividend/coupon	Floating	Floating	Fixed to floating	Fixed to floating	Fixed to floating	Fixed to floating
18	Including: Coupon rate and any related index	N/A	N/A	6% (dividend rate) before 10 December 2019	6% (dividend rate) before 10 December 2021	6% (dividend rate) before 10 December 2019	4.5% (dividend rate) before 18 November 2020
19	Including: Existence of a dividend stopper	N/A	N/A	Yes	Yes	Yes	Yes
20	Including: Fully discretionary, partially discretionary or mandatory cancellation of coupons/dividends	Fully discretionary	Fully discretionary	Partially discretionary	Partially discretionary	Partially discretionary	Partially discretionary

MAIN FEATURES OF ELIGIBLE CAPITAL INSTRUMENTS AT THE END OF 2018 (CONTINUED)

S/N	Main features of regulatory capital instrument	Ordinary Shares (A share)	Ordinary Shares (H share)	Preference Shares (Offshore)	Preference Shares (Offshore)	Preference Shares (Offshore)	Preference Shares (Domestic)
21	Including: Redemption incentive mechanism	No	No	No	No	No	No
22	Including: Non-cumulative or cumulative	Non-cumulative	Non-cumulative	Non-cumulative	Non-cumulative	Non-cumulative	Non-cumulative
23	Convertible or non-convertible	No	No	Yes	Yes	Yes	Yes
24	Including: If convertible, conversion trigger(s)	N/A	N/A	Additional Tier 1 Capital Trigger Event or Tier 2 Capital Trigger Event	Additional Tier 1 Capital Trigger Event or Tier 2 Capital Trigger Event	Additional Tier 1 Capital Trigger Event or Tier 2 Capital Trigger Event	Additional Tier 1 Capital Trigger Event or Tier 2 Capital Trigger Event
25	Including: If convertible, fully or partially	N/A	N/A	Fully or partially convertible when an Additional Tier 1 Capital Trigger Event occurs; fully convertible when a Tier 2 Capital Trigger Event occurs	Fully or partially convertible when an Additional Tier 1 Capital Trigger Event occurs; fully convertible when a Tier 2 Capital Trigger Event occurs	Fully or partially convertible when an Additional Tier 1 Capital Trigger Event occurs; fully convertible when a Tier 2 Capital Trigger Event occurs	Fully or partially convertible when an Additional Tier 1 Capital Trigger Event occurs; fully convertible when a Tier 2 Capital Trigger Event occurs
26	Including: If convertible, conversion trigger(s)	N/A	N/A	The initial conversion price is equal to the average trading price of the H shares of the Bank for the 20 trading days preceding 25 July 2014, the date of publication of the Board resolution in respect of the issuance plan	The initial conversion price is equal to the average trading price of the H shares of the Bank for the 20 trading days preceding 25 July 2014, the date of publication of the Board resolution in respect of the issuance plan	The initial conversion price is equal to the average trading price of the H shares of the Bank for the 20 trading days preceding 25 July 2014, the date of publication of the Board resolution in respect of the issuance plan	The initial conversion price is equal to the average trading price of the A shares of the Bank for the 20 trading days preceding 25 July 2014, the date of publication of the Board resolution in respect of the issuance plan
27	Including: If convertible, mandatory or optional conversion	N/A	N/A	Mandatory	Mandatory	Mandatory	Mandatory
28	Including: If convertible, specify instrument type convertible into	N/A	N/A	Core tier 1 capital	Core tier 1 capital	Core tier 1 capital	Core tier 1 capital
29	Including: If convertible, specify issuer of instrument it converts into	N/A	N/A	The Bank	The Bank	The Bank	The Bank

MAIN FEATURES OF ELIGIBLE CAPITAL INSTRUMENTS AT THE END OF 2018 (CONTINUED)

S/N	Main features of regulatory capital instrument	Ordinary Shares (A share)	Ordinary Shares (H share)	Preference Shares (Offshore)	Preference Shares (Offshore)	Preference Shares (Offshore)	Preference Shares (Domestic)
30	Write-down feature	No	No	No	No	No	No
31	Including: If write-down, write-down trigger(s)	N/A	N/A	N/A	N/A	N/A	N/A
32	Including: If write-down, full or partial	N/A	N/A	N/A	N/A	N/A	N/A
33	Including: If write-down, permanent or temporary	N/A	N/A	N/A	N/A	N/A	N/A
34	Including: If temporary write-down, description of write-up mechanism	N/A	N/A	N/A	N/A	N/A	N/A
35	Position in subordination hierarchy in liquidation (specify instrument type immediately senior to instrument)	Subordinated to depositor, general creditor, creditor of the subordinated debts and preference shareholders	Subordinated to depositor, general creditor, creditor of the subordinated debts and preference shareholders	Subordinated to all liabilities of the Bank and instruments issued or guaranteed by the Bank ranking senior to the Offshore Preference Shares, pari passu with the holders of Parity Obligations	Subordinated to all liabilities of the Bank and instruments issued or guaranteed by the Bank ranking senior to the Offshore Preference Shares, pari passu with the holders of Parity Obligations	Subordinated to all liabilities of the Bank and instruments issued or guaranteed by the Bank ranking senior to the Offshore Preference Shares, pari passu with the holders of Parity Obligations	Subordinated to all liabilities of the Bank and instruments issued or guaranteed by the Bank ranking senior to the Domestic Preference Shares, pari passu with the holders of Parity Obligations
36	Non-compliant transitioned features	No	No	No	No	No	No
	Including: If yes, specify non-compliant features	N/A	N/A	N/A	N/A	N/A	N/A

MAIN FEATURES OF ELIGIBLE CAPITAL INSTRUMENTS AT THE END OF 2018 (CONTINUED)

S/N	Main features of regulatory capital instrument	Tier 2 capital bonds	Tier 2 capital bonds	Tier 2 capital bonds	Tier 2 capital bonds
1	Issuer	The Bank	The Bank	The Bank	The Bank
2	Unique identifier	1428009	Rule 144A ISIN: US455881AD47 Regulation S ISIN: USY39656AC06	1728021	1728022
3	Governing law(s) of the instrument	Securities Law of the People's Republic of China/China	The Notes and the Fiscal Agency Agreement shall be governed by, and shall be construed in accordance with, New York law, except that the provisions of the Notes relating to subordination shall be governed by, and construed in accordance with, PRC law	Governed by the Commercial Banking Law of the People's Republic of China, the Regulation Governing Capital of Commercial Banks (Provisional) and the Measures for Administration of Financial Bond Issuance in China's Inter-bank Bond Market, as well as other applicable laws, regulations and normative documents	Governed by the Commercial Banking Law of the People's Republic of China, the Regulation Governing Capital of Commercial Banks (Provisional) and the Measures for Administration of Financial Bond Issuance in China's Inter-bank Bond Market, as well as other applicable laws, regulations and normative documents
	Regulatory treatment				
4	Including: Transition arrangement of Regulation Governing Capital of Commercial Banks (Provisional)	Tier 2 capital	Tier 2 capital	Tier 2 capital	Tier 2 capital
5	Including: Post-transition arrangement of Regulation Governing Capital of Commercial Banks (Provisional)	Tier 2 capital	Tier 2 capital	Tier 2 capital	Tier 2 capital
6	Including: Eligible to the parent company/group level	Parent company/Group	Parent company/Group	Parent company/Group	Parent company/Group
7	Instrument type	Tier 2 capital instrument	Tier 2 capital instrument	Tier 2 capital instrument	Tier 2 capital instrument
8	Amount recognized in regulatory capital (in millions, as at the latest reporting date)	RMB19,994	RMB equivalent 13,626	RMB44,000	RMB44,000
9	Par value of instrument (in millions)	RMB20,000	USD2,000	RMB44,000	RMB44,000
10	Accounting treatment	Debt securities issued	Debt securities issued	Debt securities issued	Debt securities issued
11	Original date of issuance	4 August 2014	21 September 2015	6 November 2017	20 November 2017
12	Perpetual or dated	Dated	Dated	Dated	Dated
13	Including: Original maturity date	5 August 2024	21 September 2025	8 November 2027	22 November 2027
14	Issuer call (subject to prior supervisory approval)	Yes	No	Yes	Yes

MAIN FEATURES OF ELIGIBLE CAPITAL INSTRUMENTS AT THE END OF 2018 (CONTINUED)

S/N	Main features of regulatory capital instrument	Tier 2 capital bonds	Tier 2 capital bonds	Tier 2 capital bonds	Tier 2 capital bonds
15	Including: Optional call date, contingent call dates and redemption amount	5 August 2019, in full amount	N/A	8 November 2022, in full amount	22 November 2022, in full amount
16	Including: Subsequent call dates, if applicable	N/A	N/A	N/A	N/A
	Coupons/dividends				
17	Including: Fixed or floating dividend/coupon	Fixed	Fixed	Fixed	Fixed
18	Including: Coupon rate and any related index	5.80%	4.875%	4.45%	4.45%
19	Including: Existence of a dividend stopper	No	No	No	No
20	Including: Fully discretionary, partially discretionary or mandatory cancellation of coupons/dividends	Mandatory	Mandatory	Mandatory	Mandatory
21	Including: Redemption incentive mechanism	No	No	No	No
22	Including: Non-cumulative or cumulative	Cumulative	Cumulative	Cumulative	Cumulative
23	Convertible or non-convertible	No	No	No	No
24	Including: If convertible, conversion trigger(s)	N/A	N/A	N/A	N/A
25	Including: If convertible, fully or partially	N/A	N/A	N/A	N/A
26	Including: If convertible, conversion trigger(s)	N/A	N/A	N/A	N/A
27	Including: If convertible, mandatory or optional conversion	N/A	N/A	N/A	N/A
28	Including: If convertible, specify instrument type convertible into	N/A	N/A	N/A	N/A
29	Including: If convertible, specify issuer of instrument it converts into	N/A	N/A	N/A	N/A
30	Write-down feature	Yes	Yes	Yes	Yes

MAIN FEATURES OF ELIGIBLE CAPITAL INSTRUMENTS AT THE END OF 2018 (CONTINUED)

S/N	Main features of regulatory capital instrument	Tier 2 capital bonds	Tier 2 capital bonds	Tier 2 capital bonds	Tier 2 capital bonds
31	Including: If write-down, write-down trigger(s)	Non-viability of the Bank	Whichever occurs earlier: (i) CBIRC having decided that a write-down is necessary, without which the Issuer would become nonviable; or (ii) any relevant authority having decided that a public sector injection of capital or equivalent support is necessary, without which the Issuer would become non-viable	Whichever occurs earlier: (i) CBIRC having decided that a write-down is necessary, without which the Issuer would become nonviable; or (ii) any relevant authority having decided that a public sector injection of capital or equivalent support is necessary, without which the Issuer would become non-viable	Whichever occurs earlier: (i) CBIRC having decided that a write-down is necessary, without which the Issuer would become nonviable; or (ii) any relevant authority having decided that a public sector injection of capital or equivalent support is necessary, without which the Issuer would become non-viable
32	Including: If write-down, full or partial	Full write-down	Full write-down	Full write-down	Full write-down
33	Including: If write-down, permanent or temporary	Permanent write-down	Permanent write-down	Permanent write-down	Permanent write-down
34	Including: If temporary write-down, description of write-up mechanism	N/A	N/A	N/A	N/A
35	Position in subordination hierarchy in liquidation (specify instrument type immediately senior to instrument)	Subordinated to depositor and general creditor, pari passu with other subordinated debts	Subordinated to depositor and general creditor, pari passu with other subordinated debts	Subordinated to depositor and general creditor, but senior to equity capital, other tier 1 capital instruments and hybrid capital bonds; pari passu with other subordinated debts that have been issued by the Issuer and are pari passu with the present bonds; and pari passu with other tier 2 capital instruments that will possibly be issued in the future and are pari passu with the present bonds	Subordinated to depositor and general creditor, but senior to equity capital, other tier 1 capital instruments and hybrid capital bonds; pari passu with other subordinated debts that have been issued by the Issuer and are pari passu with the present bonds; and pari passu with other tier 2 capital instruments that will possibly be issued in the future and are pari passu with the present bonds
36	Non-compliant transitioned features	No	No	No	No
	Including: If yes, specify non-compliant features	N/A	N/A	N/A	N/A

Definitions

In this report, unless the context otherwise requires, the following terms shall have the meanings set out below:

Articles of Association	The Articles of Association of Industrial and Commercial Bank of China Limited
Capital Regulation	Regulation Governing Capital of Commercial Banks (Provisional) promulgated by the former CBRC in June 2012
CBIRC	China Banking and Insurance Regulatory Commission
CCXI	China Cheng Xin International Credit Rating Co., Ltd.
China Ratings	China Bond Rating Co., Ltd.
Former CBRC	Former China Banking Regulatory Commission
Global Systemically Important Banks/G-SIB	Banks undertaking key functions with global features in the financial markets as released by the Financial Stability Board
ICBC (Argentina)	Industrial and Commercial Bank of China (Argentina) S.A.
ICBC (Asia)	Industrial and Commercial Bank of China (Asia) Limited
ICBC (Canada)	Industrial and Commercial Bank of China (Canada)
ICBC (Europe)	Industrial and Commercial Bank of China (Europe) S.A.
ICBC (Macau)	Industrial and Commercial Bank of China (Macau) Limited
ICBC (Thai)	Industrial and Commercial Bank of China (Thai) Public Company Limited
ICBC (Turkey)	ICBC Turkey Bank Anonim Şirketi
ICBC International	ICBC International Holdings Limited
ICBC Investment	ICBC Financial Asset Investment Co., Limited
ICBC Leasing	ICBC Financial Leasing Co., Ltd.
ICBC Standard Bank	ICBC Standard Bank PLC
ICBC-AXA	ICBC-AXA Assurance Co., Ltd.
LH Ratings	China Lianhe Credit Rating Co., Ltd.
PBC	The People's Bank of China
Securities and Futures Ordinance of Hong Kong	Securities and Futures Ordinance (Chapter 571 of the Laws of Hong Kong)
SEHK	The Stock Exchange of Hong Kong Limited
SSE	Shanghai Stock Exchange
the Bank/the Group/ICBC	Industrial and Commercial Bank of China Limited; or Industrial and Commercial Bank of China Limited and its subsidiaries

ICBC

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