

## Global Banking Industry Outlook

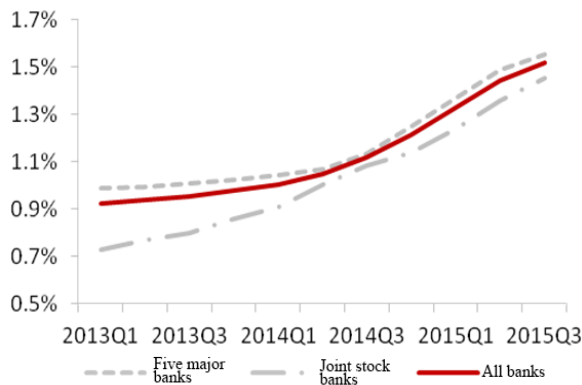
2016 Annual Report (Issue 6)

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### Highlights

- In 2016, G-SIBs will be featured by low profit growth, higher percentage of non-interest income and stronger support to the real economy. The banking industry is healthy in the US and UK, while facing significant challenges in Japan and Eurozone.
- In 2016, China's listed banks will be faced with strong operation pressure with zero growth of net profits and NPL ratios falling into the range of 2%. However, structural opportunities still exist. Defending the bottom-line and seeking improvement amid stability will be the key theme.
- This report also looks at such special subjects as adjustment of Brazilian market strategies of major international banks, new phase of interest rate liberalization, the development of green bonds in the banking industry and regulatory changes of provision coverage ratio, etc.

**NPL Ratio of 16 Chinese Listed Banks**



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## Defending Bottom-line and Seeking Improvement amid Stability

### ——Global Banking Industry Outlook (2016)

Since the global financial crisis in 2008, major international banks have changed their one-sided growth model of pursuing size expansion and have taken on the following trends: slower size growth, balanced asset allocation, stable overseas expansion, stronger cost control and improved corporate governance. Geographically, the US banking industry saw reduced interest income as a result of the possible rate hike but operations remained generally strong; the Eurozone banks were faced with challenges, as Greek crisis, terrorist attacks and the launch of QE policies; the UK banking industry was generally healthy; the Japanese banking industry was still facing challenging operating environment.

While assets and liabilities grew steadily in 2015, non-performing loans continued to rise in both amount and ratio and profit growth continued to slow down, causing strong pressure to the operation of Chinese listed banks. Faced with both greater challenges and structural opportunities in 2016, Chinese listed banks will likely experience the following changes: size will continue to grow at double digit; NPL ratio will fall into 2% range; net interest margin will narrow slightly; non-interest income will rise towards 30% of total income; net profit will see zero growth; capital adequacy will face significant pressure; traditional businesses will deeply integrate with the internet; the Belt & Road Initiative will drive major progress in the internationalization of banks; reform will accelerate the differentiation of banks; stringent regulation will force banks to improve their management level. Therefore, Defending bottom-line and seeking improvement amid stability will be the key theme.

#### I. Review and Outlook of the Strategic Adjustment of G-SIBs

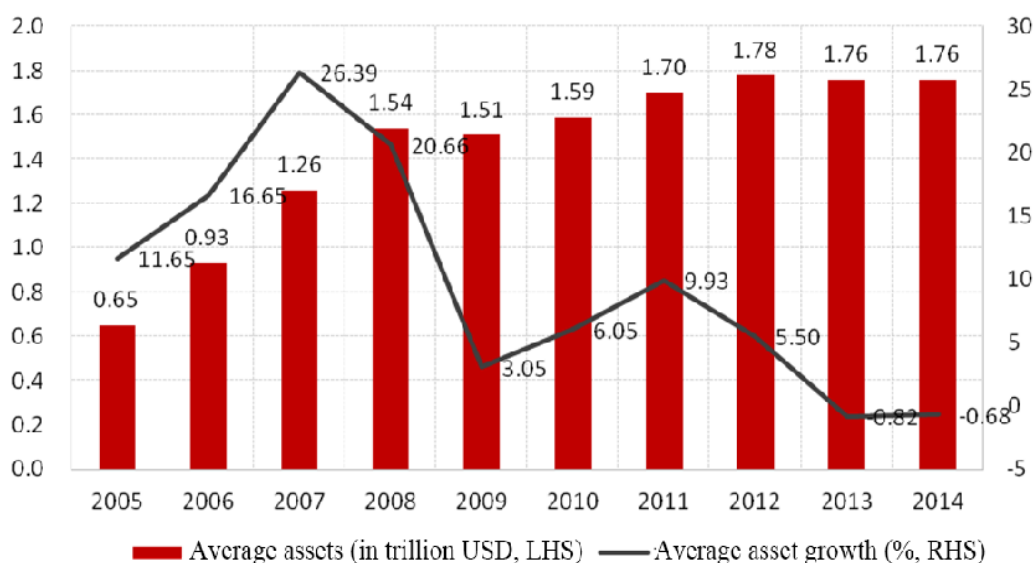
In this annual report, we have carried out a systemic analysis of the characteristics of the strategic adjustment of Global Systemically Important Banks (G-SIBs) since the global financial crisis in 2008 and provided a forecast of future trends.

##### I.1 Strategic adjustment trend of G-SIBs since the crisis

Given the zigzag global recovery and tightening regulatory environment since 2008, major international banks have changed their one-sided growth model of pursuing size expansion and have continued to adjust their growth strategies, which are characterized by the following aspects:

**First, size growth slowed and risk appetite continued to fall.** As the global economy performed well before the crisis, pursuing “large size and full service” is the growth objective widely accepted by major international banks. They continued to grow and rapidly expand their asset size through overseas acquisitions and establishments. In 2005-2007, the average asset growth of the 30 G-SIBs reached up to 18.23%. After the crisis, major banks began to consolidate their business lines and reduce their high risk assets to return their asset growth to reasonable levels. During 2010-2014, the average asset growth of the 30 G-SIBs declined to 4% (Figure 1).

Figure 1: Assets of 30 G-SIBs



Sources: Annual reports of banks, BOC Institute of International Finance

**Second, asset allocation became more balanced which is reflected in the c. 50% ratio with respect to income and business structure.** Faced with economic slowdown, G-SIBs widely adopted the balanced asset allocation which is reflected in the 50% ratio in both income and business structure:

On the one hand, the ratio of non-interest income was moving towards 50%. The ratio of the G-SIBs (excluding Morgan Stanley, Goldman Sachs, Bank of New York Mellon and State Street Bank, the same below) rose to 48.28% in 2014 from the average of 45.65% in 2009, up 2.63 percentage points. The ratio of major banks in Asia improved steadily while that of major banks in Europe and US declined: the ratio of three G-SIBs<sup>1</sup> in China rose from 21.2% to 24.3%; that of three G-SIBs in Japan increased from 38.3% to 54.4%; the four major banks in the US remained relatively balanced, falling from 49.1% to 48.1%; the ratio of four major banks in the UK declined from 52.6% to 48.9%; the remaining eight European banks saw the ratio climb from 47.5% to 50.1%. In terms of the structure of the non-interest income, the diversified income excluding fees rose rapidly. Take the four major US banks as an example, the ratio of non-fee income in the non-interest income rose from nearly 20% in 2010 to c. 30% in 2014.

On the other hand, the ratio of retail loans trended towards c. 50%. Due to the subprime crisis in 2008, the mortgage loans of major banks in Europe and US declined and the retail loans as a percentage of total loans decreased remarkably. Take the four major US banks as an example, the retail loans fell from 65.1% of the total loans in 2009 to 53.5% in 2014, down 11.6 percentage points. During the same period, the ratio of retail loans of traditional European commercial banks also fell towards the 50% level. In sharp contrast, the ratio of three G-SIBs in China gradually improved from below 20% in 2009 to 30%.

**Third, overseas expansion stabilized.** Given the severe impact caused by the crisis and the stricter regulation, the overseas profit of US and European G-SIBs fell from 49.2% of the total

<sup>1</sup> Namely Bank of China, Industrial and Commercial Bank of China and Agricultural Bank of China. China Construction Bank was included in the G-SIBs for the first time in November 2015. For statistical consistency over the past five years, CCB was not included in this analysis.

profit in 2010 to 44.8% in 2014, down 4.4 percentage points; in contrast, Chinese and Japanese major banks saw rapid growth in internationalization: the proportion of overseas profit of three G-SIBs in China increased from 8.3% in 2010 to 10.2% in 2014, while the proportion of three Japanese banks rose from 17.8% to 24.4%. In general, major global banks have kept overseas profit at an average level of about 40% in the recent decade. A number of banks are moving towards this level, which means the internationalization gap of banks is narrowing.

**Fourth, cost control has been enhanced and IT application has picked up pace.** Since the crisis, major banks have made some progress in cost control with the average cost/income ratio of G-SIBs falling from 65.5% in 2009 to 63.6% in 2014. The cost improvement was mainly reflected in the following two aspects:

Control the number of outlets and employees. In order to control cost, major banks have taken measures to withdraw underperforming outlets, for example, major international banks have exited retail business in Brazil and closed many outlets; meanwhile, the number of employees was reduced. Citigroup cut its headcount from 375,000 at end of 2007 to 251,000 at the end of 2013; Deutsche Bank proposed to cut 23,000 jobs, or about 25% of total employees.

Accelerate the IT application. Major banks have reduced operating cost through accelerating IT application to replace physical presence. This is especially the case in the retail business line. Citigroup is committed to developing digital banking through the promotion of ipad internet banking terminal in nine markets and expansion of mobile and online banking. The group encouraged its development team to carry out innovation in mobile payment and online banking through the Citi Mobile Challenge program; Nordea Bank aims to leverage digital banking to enhance its advantage in retail operation. Measures taken include increasing investment in internet and mobile banking, offering integrated e-services in the mortgage business in Denmark, promoting bid data based marketing in Sweden, and providing real time online consulting services in Finland and Sweden, etc.

**Fifth, corporate governance continued to improve and responsible finance returned.** In order to respond to more stringent regulatory situation and challenging operating environment, major banks have begun to improve corporate governance to unleash internal potential.

The performance review mechanism on senior management has been enhanced notably. As the review criteria was raised and operating performance was widely below investor expectation, major banks have seen higher frequency of management changes since the crisis and some banks even experienced repeated changes of management, which was very rare in the pre-crisis environment where star CEOs were widely seen.

The incentive and restrictive mechanism on employees have also been strengthened significantly. The percentage of variable and deferred compensation that is linked to performance has risen substantially to over 50% for foreign G-SIBs. As the incentive mechanism to support the variable and deferred compensation, G-SIBs have increased both the frequency and amount of the share-based incentive and continued to explore new incentives. For example, UBS announced the Deferred Contingent Capital Plan.

Returning to serve the economic growth and meet the needs of the real economy has become a key trend in the growth of global banking industry since the crisis. Citigroup proposed the return to Responsible Finance which in essence is back to the basic, i.e. engage in such businesses as deposit, institutional credit, personal loan and customer transaction, and comply with the highest standard of trust and integrity. Bank of America claimed that it is not only a bank but also a social contributor, a neighbor and friend to its customers. It also emphasized that it is not only dedicated

to dealing with money but also helping people and the society achieve greater objectives.

## I.2 Outlook

We expect G-SIBs to take on the following trends:

**First, the internationalization level will remain generally stable.** Major banks in Europe and US will continue to downsize their overseas operations, which will lead to reduction in the percentage of overseas profit, while Chinese and Japanese banks will continue to raise the proportion of overseas profit. Therefore, the internationalization gap among banks will gradually narrow with the proportion of overseas profit converging towards 40% level.

**Second, the proportion of non-interest income will increase slightly.** Specifically, with the introduction of QE in Eurozone and Japan, the low interest margin will have negative impact on interest income of banks, which will result in the rise of the proportion of non-interest income; due to rate cuts and interest rate liberalization, the proportion of non-interest income of Chinese G-SIBs will also increase; the US G-SIBs will improve their proportion of non-interest income possibly as a result of the Fed rate hike. In general, the proportion will increase to around 50%.

**Third, the profitability will remain at low and moderate level.** Amid global economic weakness, the profitability of G-SIBs will remain at low and moderate level. The average ROA and ROE of G-SIBs are expected to fall slightly from 2014 to c. 0.5% and 7% respectively in 2016.

**Fourth, the support to the real economy will continue to increase.** G-SIBs will continue to enhance their support to the real economy. The growth of deposits and loans is likely to rebound. We expect the overall growth of assets and liabilities to exceed 6% in 2016.

## II. Banking Industry Operation and Outlook of Major Economies

### II.1 US banking industry

#### II.1.1 Operating profile

Growth of size slowed down while percentage of deposits and loans increased. As of the end of Q3 2015, the US G-SIBs had total assets of USD10.5 trillion, down 0.4% from a year earlier with the growth basically unchanged from Q2; total liabilities was USD11.7 trillion, down 1.1% year on year with the growth rate falling by 0.1 percentage points compared with Q2. In terms of the structural change of the assets and liabilities, outstanding loans accounted for 27.6% of total assets, registering a year-on-year growth of 1.1 percentage points; deposits represented 62.4% of total liabilities, up 1.5 percentage points from a year earlier.

Profit increased while operating efficiency declined. In Q3 2015, the US G-SIBs reported on average net profit of USD25.26 billion, up 12.2% from a year earlier; ROA and ROE was 0.8% and 8.5% respectively, up 0.05 and 0.12 percentage points from a year earlier. The net interest margin was 1.7%, down 0.03 percentage points. The cost/income ratio stood at 67.2%, down 1.6 percentage points from a year earlier.

Asset quality improved and CAR edged up. As of the end of Q3 2015, the NPL ratio of US G-SIBs fell by 0.2 percentage points from a year earlier to 1.0%<sup>2</sup>. In addition to the improvement of asset quality, the CAR of US G-SIBs also increased slightly. As of the end of Q3 2015, the tier 1 CAR rose by 0.3 percentage points to 13.5%.

<sup>2</sup> Excluding Goldman Sachs, Morgan Stanley, Bank of NY Mellon and State Street Bank.

## II.1.2 Regulatory environment

In Q3 2015, the regulatory environment of the US banking industry had the following changes:

### (1) Release of the final rule on liquidity coverage ratio

In 2015, the US financial regulatory authorities jointly released the final rule to strengthen the liquidity supervision of major financial institutions. The rule for the first time established the minimum liquidity requirement for major internationally active banking institutions in the US, i.e. liquidity coverage ratio (“LCR”). The LCR equals high quality liquid assets (“HQLA”) of banks divided by forecasted net cash outflow in the future.

HQLA comprises of the reserve fund of the central bank, and government bonds and corporate bonds that can be converted to cash easily. It should not be lower than the difference between the forecasted cash outflow and cash inflow in the 30-day stress period. HQLA is categorized into class 1, class 2A and class 2B. Class 1 liquid assets include cash, government bonds and securities secured by US government unconditionally, which will sell at no discount; Class 2A liquid assets include securities issued by government supported companies, which will sell at 15% discount; Class 2B liquid assets include some corporate bonds and stocks, which will sell at 50% discount. According to regulatory rules, the combined class 2A and class 2B liquid assets should not exceed 40% of total amount of HQLA, while class 2B liquid assets alone should not exceed 15%. General obligation state and municipal bonds that have investment grade can also be used as HQLA, as long as they meet the liquidity criteria of corporate bonds.

LCR is applicable to the financial institutions with consolidated assets of over USD250 billion and overseas assets of over USD10 billion or banking subsidiaries with assets of over USD10 billion. For banks with asset size between USD50 billion and USD250 billion, the LCR requirement is less stringent. Regarding compliance timeline, major banks are required to meet the minimum requirement by January 1, 2015 and be fully compliant by January 1, 2017, while other banks are required to meet the minimum requirement by January 1, 2016.

According to the quarterly report of 2014, all major banks with assets of over USD250 billion have achieved LCR compliance mainly through reducing non-operating deposits, adjusting existing deposit products, and creating new products and services to increase high quality liquid assets. LCR compliance has significant impact on smaller banks, especially in terms of revenue deriving from interest margin.

### (2) Loosening regulatory supervision has achieved partial results

In March 2015, the Federal Reserve, OCC and FDIC jointly issued a circular, calling for review of the inappropriate regulatory burdens imposed on the deposit-taking financial institutions that are protected under the deposit insurance system and raising requirements on proposal and opinion solicitation. According to the Economic Growth and Regulatory Paperwork Reduction Act 1996, banking regulators shall review the regulatory rules at least every decade. In 2015, the US regulators have held six meetings on the above proposal. The meetings principally covered the following aspects:

In terms of simplifying regulatory reporting, the Federal Financial Institution Examination Committee (FFIEC) proposed to simplify the regulatory reporting of community banks, e.g., eliminating or amending several data in the Call Report, conducting feasibility study on short version of quarterly Call Report of community banks; The Fed also reviewed the FE regulatory reporting of bank holding companies to determine which burdens are unnecessary.

In terms of adjustment of regulatory threshold of financial institutions, the Fed raised the threshold from total assets of USD500 million to consolidated assets of USD1 billion. As such, over 700 holding companies (not engaging in complicated financial activities) will be exempted from the comprehensive regulatory capital requirement.

In terms of confidentiality and anti-money laundering, the Fed is reviewing a regulation which could reduce the review frequency of low risk banks and enable the smaller banks to share the expert resources; meanwhile, it is possible to consolidate the suspicious activity report in relation to insider trading with other suspicious activity report.

In terms of accelerating and improving the application procedure, the Fed Board began to publish the semi-annual report in 2014 to improve the transparency of the application procedure; the Board also disclosed the information on application approval, rejection and withdrawal and approval timeline, etc. The Fed is currently reviewing certain rules to explore the possibilities of designating certain authorities to the local Fed banks to accelerate approval.

In terms of capital simplification of smaller banks, given the lessons drawn from the financial crisis, the calculation of risk weighted assets was modified to improve its risk sensitivity as well as the quality and quantity of the capital. According to smaller financial institutions, the complicated risk classification and the accompanying documentation and system change will significantly increase compliance cost, which is not line with their characteristics. For smaller and less complicated community banks, the benefits brought by the rise of risk sensitivity may be offset by the burdens caused by the increase in complexity.

With regards to the stress test of smaller regional banks, the Fed has established the stress test framework based on the low risk profile of smaller banks. At present, the stress test of these institutions will not imitate the practice adopted on large and complicated financial institutions, in particular, the framework of comprehensive capital analysis and review (CCAR) will not be used.

With regards to review cycle, the Fed is considering whether to extend the review cycle for low risk community banks. For example, the Fed has recently amended the policy on consumer compliance review frequency under which the time span for consumer compliance review at branches and CRA review will be extended for low risk community banks with combined assets of less than USD1 billion. Another assessment is to extend the review cycle for sound and well managed community banks to 18 months and increase the threshold for the identification of these banks from the current USD500 million. Other than reducing the regulatory burden on community banks, the policy will also allow the federal banking regulators to allocate more resources to the larger banks.

### **II.1.3 Outlook**

We expect that the Fed is very likely to raise rate by 0.25% in the December FOMC meeting. Currently the futures market of the Fed Funds Rate is showing a 70% chance of a hike. The drivers of the rate hike in the future will include financial market conditions such as unusual surge of US dollar index and tumble of the global stock markets, as well as the sharp decline of the service sector data of US economy.

The operating income of the US banking industry will face some challenges if the Fed raises rate in December. However, banks sensitive to asset rate will benefit, such as Bank of America, JP Morgan Chase and Citibank. According to estimates, their net interest margin will rise by 10 basis points for every 100 basis points increase in rate. In addition, given the prolonged low rate and intense competition environment, the narrowing interest margin has forced US banks to strengthen cost control. Many banks focused on liability management. Therefore, we expect the operating

income, profitability and credit quality of the US banking industry will stay generally steady and the asset size will grow moderately.

Thanks to the stringent regulation in recent years, the US banking industry has broadly enhanced its capital strength and substantially mitigated its systemic risks. As the regulatory burdens of smaller banks are further reduced, we expect them to demonstrate more flexibility in financial performance than larger banks in the next few years.

## II.2 Eurozone banking industry

### II.2.1 Operating profile

Money supply slowed down and inter-bank rate continued to fall. As of the end of Q3 2015, the broad money M3 in the Eurozone increased by 6.3% (0.2 percentage points lower than Q2) from a year earlier to EUR10.7 trillion. In the same period, the 3-month and 1-year Euribor was -0.04% and 0.14% respectively, down 0.01 and 0.03 percentage points versus Q2.

Deposits and loans maintained modest expansion with the growth of deposits higher than loans. As of the end of Q3 2015, the deposit balance in the Eurozone totaled EUR8.5 trillion, an increase of 3.0% from a year earlier, but down 0.2 percentage points from Q2. By country, Malta, Estonia and Slovenia grew faster at 11.5%, 9.6% and 9.2% respectively; Greece, Luxemburg and Spain recorded substantial decrease of 26.1%, 11.4% and 1.1% respectively. In the same period, the outstanding loans in the Eurozone totaled EUR9.6 trillion, a year-on-year increase of 1.6%, and up 1.0 percentage point from Q2. Geographically, loans of Luxemburg, Slovakia and Portugal grew faster at 13.5%, 8.2% and 7.6% respectively, while Slovenia, Ireland and Portugal recorded substantial decrease of 11.6%, 10.6% and 5.9% respectively.

Profitability fell slightly and operating efficiency declined. As of the end of Q3 2015, the ROA of major banks in the Eurozone was 0.4%, unchanged from Q2; the ROE fell by 0.2 percentage points from Q2 to 7.8%; net interest margin stood at 1.5%, unchanged from Q2; cost-income ratio was 61.2%, up 5.6 percentage points.

Asset quality worsened modestly and CAR increased. As of the end of Q3 2015, NPL ratio of major banks in the Eurozone was 3.8%, up 0.2 percentage points from Q2. Tier 1 CAR stood at 14.3%, up 0.2 percentage points from Q2.

### II.2.2 Regulatory environment

#### (1) The single regulatory mechanism continued to make progress and ECB published another assessment result

In November 2015, the ECB published the result of the comprehensive assessment of European banks under the single regulatory mechanism in 2015. The assessment covered a total of nine banks<sup>3</sup>. The result showed five of the nine banks have capital problems. In the event that only asset quality is considered, the core CAR of the banks is no less than 8%. However, under the stress scenario, the core CAR of five banks will be lower than 5.5% with the capital shortage totaling EUR1,740 million.

The above banks are required to unveil capital replenishment plans within two weeks following the

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<sup>3</sup>The nine banks include the European branch of the Savings Bank of the Russian Federation in Austria, the Austrian branch of VTB, Degroof Bank in Belgium, French Development Agency, Finnish Municipal Financing Corporation, the Luxemburg branch of JP Morgan Chase Bank, the Mediterranean Bank in Malta, the New Bank in Portugal and the Slovenian branch of UniCredit.

announcement of results. The Joint Supervision Teams (JSTs) will urge the banks to implement the capital plans as early as possible and strengthen the internal system and process management to improve asset quality according to the requirements of the Supervisory Review and Evaluation Process (SREP).

## **(2) More non-performing assets are identified in the Greek banking industry with urgent need to fill in capital gap**

According to the latest assessment of the Greek banking industry conducted by the ECB, the four most important banks in Greece should convert a total of EUR7 billion assets into non-performing assets following the review of asset quality and accordingly raise the non-performing ratio from 45.1% to 48.6%. The non-performing ratio in the real estate sector should be raised from 70% to 75%. The ratio among SMEs (excluding real estate) should be raised from 61% to 66%, while the ratio among larger companies (excluding real estate) should be raised from 35% to 41%.

According to the results of the stress test, under the general scenario (the GDP for 2015, 2016 and 2017 is expected to grow by -2.30%, -1.30% and 2.70% respectively), the four banks will have capital gap of EUR4.4 billion; under the stress scenario (the GDP for 2015, 2016 and 2017 is expected to grow by -3.30%, -3.90% and 0.30% respectively), the capital gap will reach EUR14.4 billion.

### **II.2.3 Outlook**

Given the subdued economic growth in the Eurozone, weak inflation, additional banking issues and intensified terrorist attacks, the banking industry is facing more challenges. On December 3, 2015, the ECB cut its overnight deposit rate from -0.2% to -0.3% and extend the current program of buying EUR60 billion bonds per month to March 2017 (which was scheduled to end by September 2016). Banks will face higher uncertainty in the course of operation.

Recently, key rating agencies have downgraded the credit ratings of several European banks, including major banks in core countries such as Deutsche Bank and Commerzbank. In October, Deutsche Bank reported net loss of EUR6 billion in the third quarter, which casted another shadow over the growth of the Eurozone banking industry.

## **II.3 UK banking industry**

### **II.3.1 Operating profile**

Retail deposit continued to grow while wholesale deposit continued to fall. As of the end of September 2015, total M4 in the UK reached GBP2,096.45 billion, down 0.6% year-on-year, a decrease of 0.4 percentage points from August; among the M4, retail deposit and cash stood at GBP1,556.11 billion, up 4.6% year-on-year, 0.3 percentage points higher than the previous month; wholesale deposit was GBP535.56 billion, down 12.7% year-on-year, 1.9 percentage points lower than the previous month.

Retail loan grew rapidly while institutional loan continued the negative growth. As of the end of September 2015, the outstanding retail loans stood at GBP1,451.5 billion, up 2.9% year-on-year, 0.2 percentage points higher than the previous month; the real estate mortgage loans rose by 2.2% year on year to GBP1,275.3 billion while consumer credit grew by 8.2% to GBP176.3 billion; the outstanding loans of financial and non-financial institutions totaled GBP1,099.4 billion, down 2.0% year-on-year. The net loans in the construction and service sectors fell by 6.5% and 2.3% respectively.

CAR increased and asset quality improved. As of the end of Q3 2015, the tier 1 CAR of G-SIBs in

UK stood at 14.5%, an increase of 2.4 percentage points from a year earlier; NPL ratio declined by 0.9 percentage points to 3.1%. In terms of credit card delinquency, the loans delinquent for over 30 days and 90 days represented 1.4% and 0.7% respectively, down 0.7 and 0.6 percentage points from the previous quarter.

### **II.3.2 Regulatory environment**

The UK watchdogs strengthened the supervision of the banking industry. Specifically, the UK strengthened the supervision of systemically important retail/SME deposit-taking institutions to protect the taxpayers' interest from "too big to fail"; the compliance cost increased with the UK banking industry continuing to face the pressure of higher legal costs; the ring-fence policy on the retail business of larger banks will have certain impact on their operations.

The Conservatives' win in the election is positive for the banking industry. The Conservatives promised to keep the low rate of home mortgages, which will help reduce the household debt, encourage the development of the private property market and boost the loan needs of non-financial companies.

Meanwhile, challenges remain for the UK banking industry. Firstly, the increase of tax rates for banks and more stringent financial regulatory policies will have negative impact on larger banks. The increasing operating cost and higher difficulty in local operation will force UK banks to expand into emerging markets; secondly, the Conservatives promised to hold full referendum on exiting the EU in 2017. Given the importance of the EU market to the UK trade, exiting the EU will have adverse impact on the UK banking industry.

### **II.3.3 Outlook**

The steady recovery of the UK economy will provide a healthy and stable operating environment for the banking industry in 2016. Most banks in UK are expected to improve their balance sheet. The more stringent regulatory rules will help keep the asset quality stable for the banking industry. The profit of banks is likely to improve.

## **II.4 Japanese banking industry**

### **II.4.1 Operating profile**

Money supply grew steadily while lending rate continued to fall. Due to quantitative easing, the growth of monetary aggregates in Japan continued to climb. As of the end of Q3 2015, the broad money M3 totaled JPY1,227.1 trillion, an increase of 3.1% year-on-year. In the context of loose monetary and credit environment, the lending rate of financial institutions continued its downward trend. According to the latest statistics of BOJ (July), the annualized yield of short-term and long-term loans of Japanese banks was 1.1% and 0.8% respectively, down 0.1 percentage points from the previous year.

The loans and deposits grew moderately with the growth of deposits generally higher than the growth of loans. As of the end of August 2015, the outstanding loans of Japanese banks totaled JPY465.9 trillion, up 3.5% from a year earlier; the outstanding loans of major banks (five banks) totaled JPY188 trillion, up 2.6% from a year earlier; the outstanding loans of regional banks grew by 3.6% from a year earlier to JPY179.8 trillion; the outstanding loans of class 2 regional banks totaled JPY47.5 trillion, an increase of 3.1% year on year. In terms of deposit performance, the deposit balance of Japanese banks totaled JPY674.9 trillion, up 4.3% from a year earlier; the deposit balance of major banks (five banks) totaled JPY302.9 trillion, an increase of 5.6% year on year; the deposit balance of regional banks grew by 3.0% to JPY242.8 trillion; the deposit balance

of class 2 regional banks totaled JPY63.4 trillion, up 1.8% year on year.

Profit growth slowed while asset quality improved. In Q3 2015, the three G-SIBs in Japan reported total net profit of JPY2.75 trillion, up 1.3% year on year, but the growth fell by 0.17 percentage points from the previous quarter; the non-performing assets totaled JPY3,422.9 billion, a decrease of JPY139.6 billion from Q2; NPL ratio fell from 0.54% to 0.51%, down 1.6 percentage points from a year earlier; the average CAR of the three G-SIBs reached 16.3%, up 0.8 percentage points.

#### **II.4.2 Regulatory environment**

The Financial Services Agency (FSA) demanded the three financial groups to enhance their own capital base and reduce the cross shareholding with companies. Although the CAR of three major banks averaged up to 15%, the FSA required them to further increase CAR to guard against unpredictable risks at they expand their overseas business. Meanwhile, due to historic factors and the characteristics of the social and economic growth, the three financial groups have been cross holding shares with companies. In order to mitigate the risks caused by volatile share prices, the FSA explicitly required the three major banks to cut cross shareholding with companies in September. Currently the three major banks have announced their reduction plans under which an estimated JPY2 trillion will be reduced over the next 3-5 years. Though the FSA has no explicit requirement on local banks, so far at least nine local banks have set their reduction targets and 24 local banks have indicated they will clarify the selection criteria on the cross shareholding companies.

Local banks face pressure as the government continues to promote M&A. The booming stock market is currently driving up the performance of banks. However, the structural contradictions such as negative growth of population and stagnant local economy are still severe. According to FSA estimate, 80% of local banks will see performance decline in 2017 and the situation will be more challenging in the next decade. In September, FSA said that it will adopt quantitative indicators to assess the local banks and make them consider the sustainability of their business model. It will also continue to pressure the local banks to engage in M&A activities through benchmarking with peers. In addition, the FSA required the local banks to enhance financing support to local SMEs and is assessing whether banks have provided the right financing service based on corporate needs from the perspectives of companies.

The IPO of Japan Post will have impact on the landscape of the banking industry in the middle and long term. Japan Post has total deposits of JPY177 trillion, higher than JPY152 trillion of MUFG, Japan's largest commercial bank; Japan Post has over 24000 outlets across the country, while MUFG has 931 outlets. Despite all the advantages, Japan Post, as a state owned financial institution, has been lagging behind commercial banks in terms of both asset structure and business model. 51.8% of its assets are in Japanese government bonds and only 1.3% are in loans. The shareholding reform and IPO of Japan Post is set to have potential impact on the current landscape of the banking industry in Japan.

#### **II.4.3 Outlook**

Following the YoY growth of -0.7% in Q2, the growth of real GDP in Japan fell to -0.8% in Q3 2015. The equipment investment declined by 1.3% from the previous quarter, the second fall in a row. While retained profit hit new record, the investment sentiment of corporate remained subdued. As the JPY stays at low level, the banking industry will face increasing operating pressure. Given the estimated challenging operating environment of the banking industry in 2016, and in the context of aging population, weak economic recovery and low interest margin, the M&A of local banks will become more prevalent with the strong support of FSA. Japanese banks will continue to

rely on such strategies as expanding overseas business and increasing non-interest income.

### III. China's Banking Industry Review and Outlook

#### III.1 Operating situation of the banking industry in Q3 2015

In Q3 2015, listed banks<sup>4</sup> took on the following characteristics: assets and liabilities continued to grow steadily; profit growth continued to slow; non-interest income contribution rose slightly; both the NPL amount and ratio continued to rise; capital adequacy status was stable.

##### III.1.1 Assets and liabilities continued to grow steadily with diverging growth rate

At the end of Q3 2015, the assets and liabilities of listed banks were RMB117.2 trillion and RMB108.9 trillion respectively, up 12.7% and 12.1% from a year earlier, 1.4 and 1.2 percentage points higher than the growth of last year. The assets and liabilities of five major banks were RMB82.0 trillion and RMB75.9 trillion respectively, up 10.1% and 9.5% from a year earlier. The growth rate increased by 0.1 and 0.2 percentage points compared with the same period last year. The assets and liabilities of joint-stock banks were RMB32.0 trillion and RMB30.0 trillion respectively, up 18.5% and 18.3% year-on-year. The growth rate was up 4.6 and 4.8 percentage points compared with the same period last year.

Figure 2: YoY Assets Growth of Listed Banks

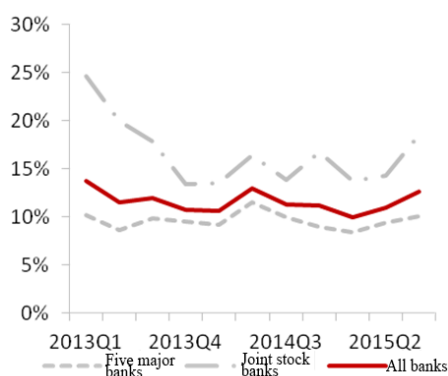
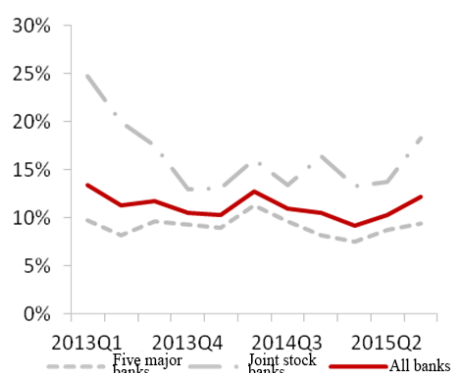


Figure 3: YoY Liabilities Growth of Listed Banks



Sources: Wind, BOC Institute of International Finance (the same below)

##### III.1.2 Profit growth continued to slow while profitability fell further

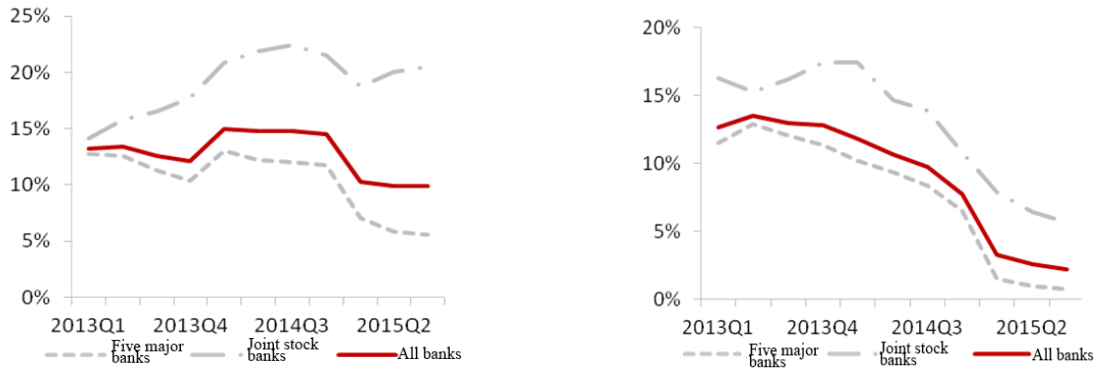
In Q3 2015, listed banks reported operating income and net profit of RMB2,741.39 billion and RMB1,038.57 billion respectively, up 9.9% and 2.2% from a year earlier. The growth rate decelerated by 5.0 and 7.5 percentage points compared with the same period last year. Five major banks reported operating income and net profit of RMB1,892.48 billion and RMB757.92 billion respectively, up 5.5% and 0.7% from a year earlier. The growth rate was down 6.5 and 7.6 percentage points compared with the same period last year. The operating income and net profit of joint-stock banks increased by 20.5% and 5.7% respectively to RMB785.2 billion and RMB255.91 billion. The growth rate was down 1.9 and 8.2 percentage points.

Figure 4: YoY Operating Income Growth

Figure 5: YoY Net Profit Growth of Listed Banks

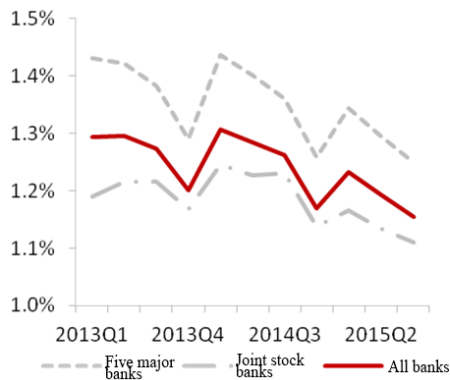
<sup>4</sup> Listed banks refer to the 16 commercial banks listed in the domestic A share market, including five major banks: ICBC, ABC, BOC, CCB, BOCOM; eight national joint-stock banks ("joint-stock banks"): Merchants Bank, SPDB, Minsheng Bank, CITIC Bank, Industrial Bank, Everbright Bank, Huaxia Bank, Ping An Bank; and three city commercial banks: Bank of Beijing, Bank of Nanjing, and Bank of Ningbo.

**of Listed Banks**

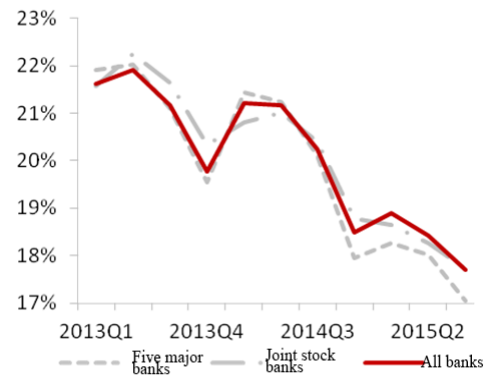


In Q3 2015, the ROA and ROE<sup>5</sup> of listed banks stood at 1.16% and 17.69% respectively, down 0.1 and 2.6 percentage points from a year earlier. For five major banks, the ROA and ROE was 1.25% and 17.04% respectively, down 0.1 and 3.1 percentage points year on year. For joint-stock banks, the ratios were 1.11% and 17.72% respectively, a decrease of 0.1 and 2.7 percentage points compared with the same period last year.

**Figure 6: ROA of Listed Banks**

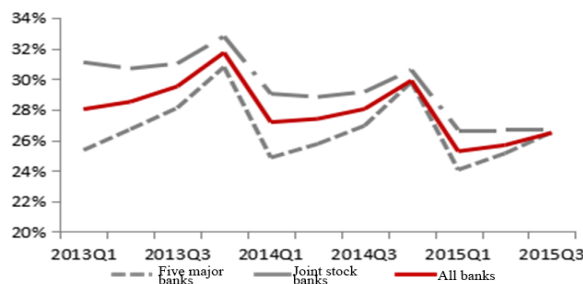


**Figure 7: ROE of Listed Banks**



In Q3 2015, the cost-income ratio of listed banks was 26.48%, down 0.6 percentage points year on year. The ratio of five major banks stood at 26.52%, down 0.4 percentage points. The ratio of joint-stock banks fell by 2.4 percentage points to 26.73%.

**Figure 8: Cost/Income of Listed Banks**



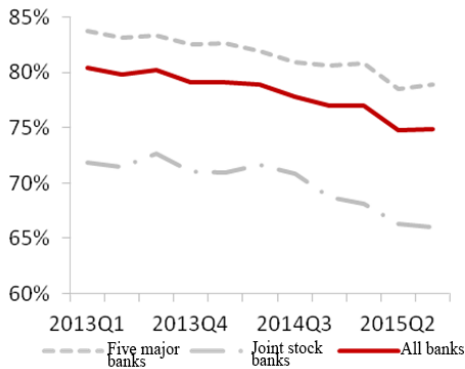
**III.1.3 The percentage of loans and deposits continued to fall while the contribution of**

<sup>5</sup>The ROA, ROE, cost/income ratio, CAR, tier 1 CAR, core tier 1 CAR and loan-to-deposit ratio are arithmetic average; the non-interest income ratio, NPL ratio and provision coverage ratio are weighted average.

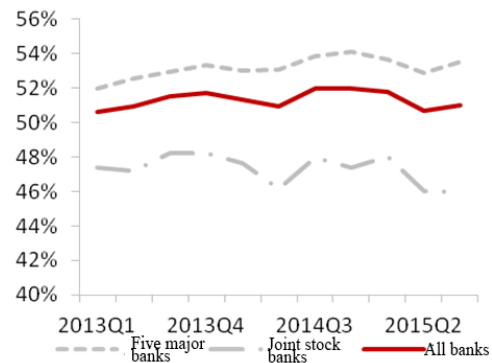
**non-interest income increased slightly**

At the end of Q3 2015, the deposit balance of listed banks represented 74.9% of the total liabilities while the loan balance represented 51.0% of total assets, down 3.0 and 1.0 percentage points respectively year on year. The two indicators of the five major banks were 78.9% and 53.5% respectively, down 2.0 and 0.4 percentage points year on year. For joint-stock banks, they were 66.0% and 46.0% respectively, down 4.8 and 2.0 percentage points year on year.

**Figure 9: Deposit Balance/Total Liabilities of Listed Banks**

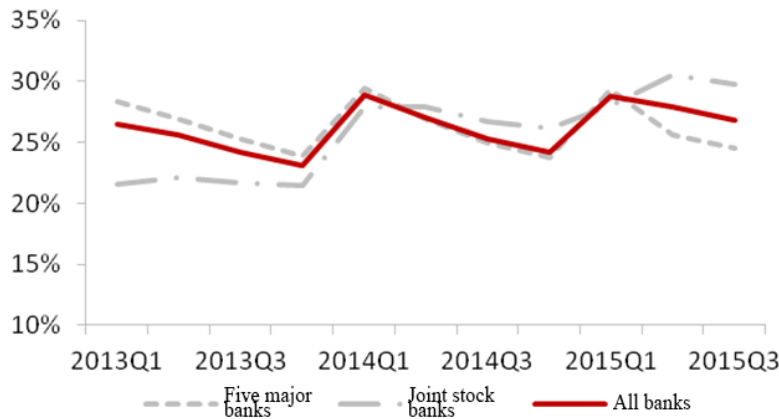


**Figure 10: Loan Outstanding/Total Assets of Listed Banks**



At the end of Q3 2015, the non-interest income of listed banks accounted for 26.8% of total income, up 1.6 percentage points from a year earlier; The ratio of the five major banks was 24.5%, down 0.5 percentage points from a year earlier; for joint-stock banks, it rose by 3.0 percentage points to 29.7%.

**Figure 11: Non-interest Income/Total Income of Listed Banks**

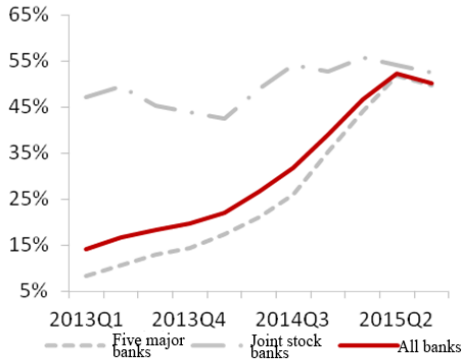


**III.1.4 Both the NPL amount and ratio continued to rise while provision coverage ratio recorded YoY decline**

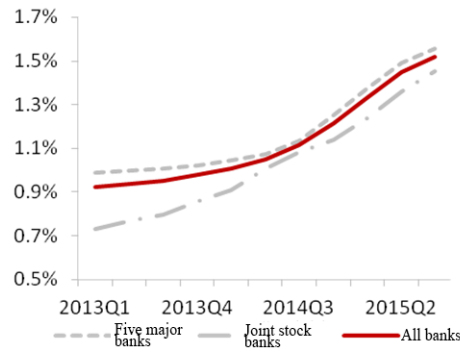
At the end of Q3 2015, the outstanding NPL of listed banks was RMB907.58 billion, up 50.1% from a year earlier, 18.4 percentage points higher than the same period last year; the NPL ratio was 1.52%, up 0.40 percentage points year on year. For five major banks, the outstanding NPL was RMB682.48 billion, up 49.7% from a year earlier, 23.8 percentage points higher than the same period last year; the NPL ratio was 1.56%, up 0.4 percentage points from a year earlier. For joint-stock banks, the outstanding NPL was RMB214 billion, up 52.5% from a year earlier, 1.6 percentage points lower than the same period last year; the NPL ratio was 1.45%, up 0.4

percentage points from a year earlier.

**Figure 12: NPL Growth of Listed Banks**

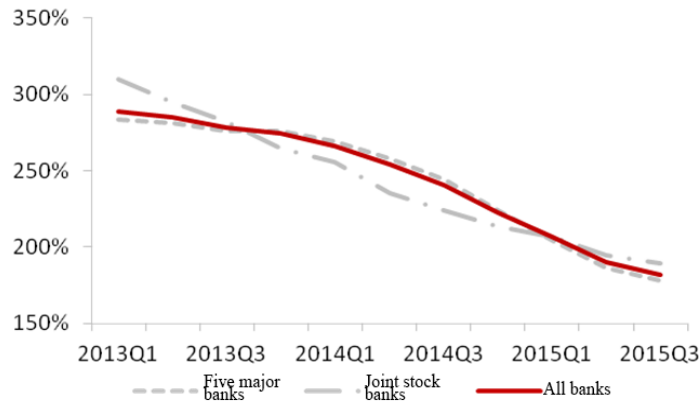


**Figure 13: NPL Ratio of Listed Banks**



At the end of Q3 2015, the provision coverage ratio of listed banks stood at 181.5%, down 59.2 percentage points compared with the same period last year. The ratio of the five major banks and joint-stock banks were 178.1% and 189.2% respectively, down 66.4 and 34.8 percentage points from a year earlier. The ratio of some listed banks is approaching the regulatory threshold of 150%.

**Figure 14: Average Provision Coverage Ratio of Listed Banks**



**III.1.5 Capital adequacy remained stable while loan-to-deposit ratio continued to rise**

In Q3 2015, the CAR, tier 1 CAR, and core tier 1 CAR of listed banks were 12.5%, 10.1% and 9.7% respectively, up 0.02, 0.4 and 0.1 percentage points from the previous year. The CAR, tier 1 CAR, and core tier 1 CAR of five major banks were 13.9%, 12.0% and 11.3% respectively, up 0.4, 1.2 and 0.5 percentage points from the previous year. For joint-stock banks, the CAR fell by 0.6 percentage points to 11.7%, the tier 1 CAR rose by 0.3 percentage points to 9.4%, while the core tier 1 CAR declined by 0.1 percentage points to 9.1%.

Figure 15: CAR of Listed banks

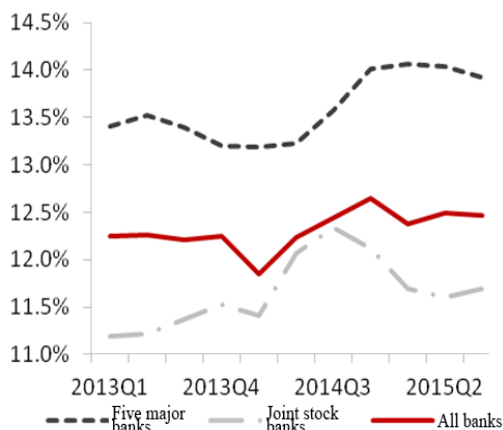
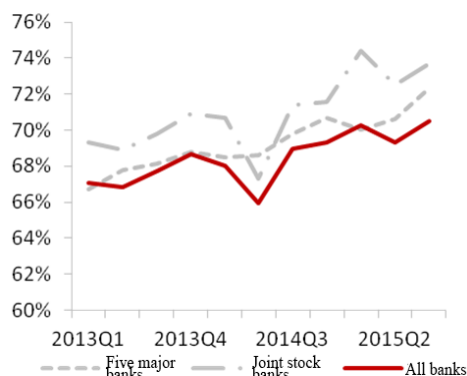


Figure 16: Loan-to-deposit Ratio of Listed banks



As of the end of Q3 2015, the loan-to-deposit ratio of listed banks was 70.5%, an increase of 1.6 percentage points from a year earlier. The loan-to-deposit ratio of five major banks averaged 72.4%, up 2.6 percentage points year on year. The ratio of the joint-stock banks rose by 2.3 percentage points from the previous year to 73.7%.

### III.2 Review of the operating performance of listed banks for 2015

In 2015, banks' operation was significantly influenced by the following four factors:

**First, economic factor.** China's economy continued to slow down in 2015 with a 7% GDP growth for the first three quarters. As the banking industry is pro-cyclical, its operating performance tends to be influenced by the economic slowdown in a number of aspects such as credit demand, non-interest business potential, pricing power and credit risk. Hence the profitability of banks will be severely impacted.

**Second, policy factor.** In 2015, PBOC implemented the prudent monetary policy. It cut the benchmark interest rate for five times in March, May, June, August and October and cut the RRR for four times in February, April, September and October. Moreover, it further cut the RRR for major commercial banks, joint-stock commercial banks, city commercial banks, non-county rural commercial banks and foreign banks that have met the threshold for ARF loans or SME loans. In addition, based on the experience of the trial program of the collateralized credit refinancing in Shandong and Guangdong, PBOC decided in September 2015 to expand the trial program to nine provinces (municipalities) including Shanghai, Tianjin, Liaoning, Jiangsu, Hubei, Sichuan, Shaanxi, Beijing and Chongqing to further increase monetary policy tools. In general, the rate cuts have narrowed the net interest margin of banks, thus causing negative impact on the profitability of banks. However, the RRR cuts have increased money supply. The M2 is expected to grow at c. 13.2% in 2015, which will provide the basis for the growth of balance sheet of banks and partly offset the negative impact of the narrowing NIM.

**Third, reform factor.** The financial reform continued to move forward in 2015. On the one hand, the interest rate liberalization has made significant progress. After raising the deposit rate ceiling by 1.5 times in May and lifting the ceiling of interest rate for deposits with maturity of one year or longer in August, PBOC decided in October not to set the deposit rate ceiling for commercial banks and rural cooperative financial institutions to enhance their independent pricing power. On the other hand, the restrictions on the market-oriented operation of banks are further lifted. In August, the Standing Committee of NPC amended the *Commercial Banks Act PRC*, deciding to remove the mandatory loan-to-deposit ratio from October 1, 2015, which would help banks to moderately increase credit supply and promote business innovation. In addition, the *Deposit*

*Insurance Regulation* took effect in May, which would further enhance the financial safety net and provide the system protection for smaller banks. These financial reform initiatives have provided more market-oriented operation potential for banks and partly contributed to the diverging business and profitability of banks.

**Fourth, competition factor.** With the development of multi-level financial market, banks faced more intense market competitions in 2015. Firstly, the steady development of the direct financing market provided a competing alternative to the traditional bank credit. According to PBOC statistics, in the first three quarters of 2015, the equity financing of non-financial corporations in China totaled RMB4.3 trillion, up 17.4% year on year, while the corporate bond financing reached RMB13.5 trillion, an increase of 20.4% from a year earlier. The funds raised through the two methods represented over 13.2% of the total financing volume. Secondly, the third-party payment grew rapidly, which dealt a shock to the payment and clearing business of banks. As of October 8, 2015, a total of 268 companies have obtained the third-party payment license granted by PBOC. Thirdly, various wealth management agencies flourished and attracted part of the funding sources of the banking industry, thus causing pressure to the capital cost of the banking industry.

In conclusion, we expect the assets and liabilities of listed banks to grow by around 12.5% and 12% respectively in 2015; the net profit is estimated to grow by around 2%, a decrease of 5.8 percentage points from last year; the NPL ratio is expected to rise by three basis points versus Q3 to around 1.55%.

### III.3 Outlook of listed banks in 2016

As the economic and financial environment undergoes profound changes in 2016, the starting year of the 13<sup>th</sup> Five-Year Plan, the listed banks in China will face both operating pressure and structural opportunities. Defending bottomline and seeking improvement amid stability will be the key theme. We expect the listed banks to operate in the following manner:

**First, size will continue to grow at double digit.** Money supply is the basis and key driver for the size growth of banks. In view of the moderate prices and mild inflation in 2016, in order to complement the proactive fiscal policy and support the growth of real economy, the monetary policy will continue to target both volume and price with more focus on the addition of volume. It is estimated that the M2 growth could reach around 13% in 2016. Based on the relationship between bank size and money supply as well as other considerations, we expect the balance sheet growth of listed banks to remain at around 12% in 2016.

**Second, NPL ratio will fall into 2% range.** According to our measurement of the panel data of the 16 listed banks in recent years, NPL ratio has a stable correlation with economic growth and may have an obvious accelerating feature, i.e., when economic growth continues to fall, the speed at which the credit risk unleashes will accelerate. This is due to the fact that the credit risk tends to spread from individual company to industry chain and then to the industry and region both horizontally and vertically. We expect the NPL ratio of listed banks to reach around 2.0% in 2016 and provision coverage ratio to approach the regulatory threshold.

**Third, net interest margin will narrow slightly.** The NIM of listed banks fell slightly in 2015 and will still face great challenges in 2016. In terms of deposit cost, the competition for capital from internet finance, asset management and capital markets will become more intensified. This, together with the growing awareness of wealth management of the public, will push deposit cost higher; in terms of loan yield, the downward trend has been established. The average loan yield of listed banks has declined from 6.7% at the end of 2012 to 6.1% in Q2 2015. Given the re-pricing of the outstanding home mortgages, weak borrowing demand as a result of economic slowdown and

the policies to reduce social financing cost in 2016, the loan yield will still face downward pressure. While banks are making efforts to adjust their strategies to allocate credit resources to the higher-yield SME and personal businesses, the overall effect will be limited. It is expected that the NIM of listed banks will narrow slightly to around 2.4% in 2016.

**Fourth, the contribution of non-interest income will rise towards 30%.** In recent years, the non-interest businesses of Chinese listed banks have grown rapidly with the income contribution rising on average by around 1.5 percentage points per annum. The income contribution is expected to reach 26% in 2015 and still has room to rise to 30%. With the development of the direct financing market, the rise of the awareness of wealth management of the public and the shift of the credit consumption concept, the non-interest businesses will grow rapidly in 2016, including investment banking, investment transaction, asset management and credit card, thus driving the contribution of non-interest income to reach 27.5%.

**Fifth, net profit will see zero growth as a whole.** According to our measurement of the panel data of the 16 listed banks in recent years, economic growth is the most important factor behind the profitability of banks. The growth of net profit will fall by around nine percentage points for every percentage point fall of the growth of GDP. The Chinese economy is currently under the transition of momentum and the upgrading of the manufacturing sector from extensive growth to intensive growth. It is also transforming from the over reliance on investment to dependence on both consumption and investment. As 2016 is at the critical period of transition, the economy will still face some downward pressure with the GDP growth estimated at around 6.8%. The listed banks as a whole will likely see zero growth of net profit.

**Sixth, capital adequacy will face significant pressure.** On the one hand, the CAR of listed banks in China is currently at around 13%, below the average level of about 15% of major banks in the US and Japan, calling for further increase in risk resistance capabilities. On the other hand, as the listed banks in China will maintain double digit growth of size and NPL ratio will continue to rise in 2016, the capital demand will increase remarkably. However, the zero growth of net profit and the basically stable dividend ratio will make the internal capital replenishment limited. Moreover, the international capital regulation on China's Big 4 has strengthened. CCB was included in the list of G-SIBs in 2015 for the first time. And the Big 4 were required to have additional capital of 1%; meanwhile the waiver granted to major banks in emerging markets by the Total Loss Absorption Capital (TLAC) in 2014 was suspended, which means the Big 4 will have to meet the additional TLAC requirement.

**Seventh, traditional banking will deeply integrate with the internet to compete for customers.** Under the current operating pressure, the traditional banks have embraced the rapid development trend of the internet finance to look for new profit growth areas. The internet finance services have been launched continuously such as mobile payment, investment and wealth management, e-commerce and online/offline integration. The direct banking has been growing especially rapidly. In less than two years starting from 2013, nearly 30 banks have introduced direct banking. Baidu partnered with CITIC Bank to establish Baixin Bank. With the implementation of the "internet plus" strategy in 2016, an increasing number of banks will ramp up their presence in the internet finance, and the integration between the traditional banking and internet will be further enhanced.

**Eighth, the "Belt & Road" initiative will drive major progress in the internationalization of banks.** The full text of the "Belt & Road" initiative was officially published in March 2015. As the first full year following the release, 2016 will play a key role in the implementation of the initiative. For the banking industry in China, various financial needs will emerge and business potential will continue to be explored. After one-year research and experiment, Chinese banks have developed a

clear strategic plan and roadmap and will take more actions in terms of outlet establishment, organizational structure, business arrangement and management mechanism along the “Belt & Road” initiative to further promote their internationalization and establish multi-level teams with clear division of responsibilities and hierarchy.

**Ninth, new round of deepened reforms will accelerate the differentiation of banks.** The banking industry as a whole will be under heavy pressure in 2016, but the impact on different banks will diverge. According to our estimation, size is a key factor to keep asset quality and profitability stable, therefore large banks have strong ability to operate in a prudent manner. On the contrary, the year of 2016 will also provide new growth areas for banks, including such strategic opportunities as accelerated urbanization, “made in China 2025”, strategic emerging industries and development of the modern services sector, in addition to the abovementioned non-interest business and internationalization. Moreover, the Recommendation for the 13<sup>th</sup> Five-Year Plan put forward reform requirements for the financial market in eight aspects. Promoting the market-based reform of the banking industry is essential. Currently, comprehensive operation of banks, mixed ownership reform and mitigation of asset quality pressure have become common concerns. The authorities are expected to announce relevant policies and measures in 2016. The banks which follow the trend to expedite business transformation and institutional reform will stand out to change the industry landscape.

**Tenth, stringent regulation will force banks to improve their management level.** In recent years, China’s banking industry has witnessed some irregularities. The occurrence of exposed and punished events continues to rise, such as unjustified charges, business loopholes and incompliant operation. As the banking industry will still face significant pressure in 2016, some banks or branches may take wrongful actions to pursue profit and market share. Therefore in the context of stringent regulatory environment such as prudential supervision and consumer protection, banks must take stronger initiatives in terms of internal reform, policy implementation, evaluation mechanism and internal control.

**Table 1: Forecast of Key Indicators of China’s Listed Banks in 2015 (%)**

		2014 (R)	2015				2016 (F)
			Q1(R)	Q2(R)	Q3(R)	Full year (E)	
Size	Asset growth	11.2	9.9	11	12.7	12.5	12.0
	Liability growth	10.6	9.2	10.3	12.1	12	11.5
Profit	Net profit growth	7.8	3.3	2.6	2.2	2.0	0
Structure	Share of loans	52.0	51.8	50.7	51.0	52.0	51.5
	Share of deposits	77.0	77.0	74.8	74.9	74.0	72.0
	Share of non-interest income	24.3	28.8	27.9	26.8	26.0	27.5
Quality	NPL ratio	1.21	1.33	1.45	1.52	1.55	2.0
	Provision coverage ratio	223	206	190	181	175	150
Capital	CAR	12.6	12.4	12.5	12.5	12.6	12.5

Source: BOC Institute of International Finance

## IV. Analysis of Hot Topics

### IV.1 Strategic adjustment of major international banks in the Brazilian market

With the heightened economic uncertainty and change of market pattern, major international banks have been adjusting their growth strategies in the Brazilian market since 2010: HSBC sold its Brazilian assets; Citigroup adjusted its presence and sold its credit card and consumer finance businesses; Societe Generale sold its consumer finance business; Bank of America sold its private banking and wealth management businesses; Santander and Chinese banks increased their investment in the Brazilian market.

#### IV.1.1 Reasons for the exit of major banks

First, Brazilian economy deteriorated. In Q2 2015, the GDP growth in Brazil fell to -2.6%, the lowest level in five years. As the economy slowed down, the YoY growth of PPI declined to 0.76% in Q1 2015, hitting the record low in recent period. However, the jobless rate spiked to 6.67%. Moreover, in the context of weakening economy, the credit in Brazil has exceeded the level at which the economic growth can afford. As of Q2 2015, the banking credit /GDP gap<sup>6</sup> in Brazil was 15.7, above the warning line of 10, ranking the third place in major countries.

Second, the financial market fluctuated widely. The exchange rate fell sharply. Since 2015, the heightened expectation of Fed hike has pushed higher the pressure for capital outflow in Brazil. The Brazilian Real slumped against the USD. As of September 2015, the Brazilian Real depreciated by 48.1% accumulatively. Compared with January 2014, the Real depreciated by 64.1%. Monetary policy continued to tighten. In order to prevent capital outflow and reduce inflation pressure, the central bank of Brazil has raised the benchmark interest rate Selic for 10 times in a row since 2014. Selic was raised from 10.5% in early 2014 to the current 14.25%. The rate hike also increased the financing cost for corporates and individuals, thus pushing down the loan demand. The capital market was sluggish. Since 2013, the stock market in Brazil has been lackluster. The Sao Paulo IBOVES index has been on a downward trend for three consecutive years with an accumulated fall of 28.8%.

Third, the regulatory policy has changed. On the one hand, the high NIM environment faced uncertainty. Since taking office in 2011, President Rosseff has been dedicated to enabling large government-controlled banks to provide loans to customers at low rate, which forced private banks to follow suit and caused the interest margin in Brazil to narrow. While the narrowing of interest margin has been eased due to the latest rate hike cycle in recent two years, it still faces uncertainty in the mid-to-long term. On the other hand, the capital regulation has been strengthened. Brazil is one of the first countries to implement the Basel III. The higher capital requirement has not only increased the operating cost of banks but also partly restricted the development of banks' operations.

Fourth, the market pattern has changed. In recent years, the market pattern of the banking industry in Brazil has experienced notable changes. The competition has intensified; the government supported banks have increased their market share while the private banks have lost significant chunk of market shares. During 2009-2014, the three major government supported banks recorded an average growth of assets and outstanding credit and lease of 46.3% and 99.3% respectively, above the industry average of 40.6% and 67.2%. However, during 2008-2014, the assets of the private banks as a percentage of total assets fell from 67.7% to 51.9%, a decrease of 15.8

<sup>6</sup> Credit /GDP gap, also the credit – output gap, refers to the degree of private sector credit against GDP deviating from its long-term trend value.

percentage points. The assets of the domestic private banks as a percentage of total assets fell by 8.9 percentage points with a contribution of 56.5%. And the contribution from foreign banks decreased by 6.9 percentage points to 43.5%.

#### IV.1.2 Implications and recommendations

At present, Chinese banks should draw on the experience of major global banks to appropriately adjust their operating strategies in the Brazilian market. The specific recommendations are as follows:

First, be prepared for the economic and financial risks in Brazil. Firstly, reasonably adjust the asset structure and increase asset allocation to the counter-cyclical industries and highly risk-resistant customers; secondly, learn the lessons from the strategic adjustment of major international banks to cautiously engage in retail and personal wealth management business in the Brazilian market; thirdly, strengthen the risk control of existing assets, prevent the rise of non-performing loans and conduct stress test on asset quality when necessary; fourthly, closely watch the exchange rate of Real and apply various options to hedge the currency risk; fifthly, formulate contingency plans for the movement of benchmark interest rate in Brazil, and based on the duration of assets and liabilities and liquidity shortage, calculate the possible impact from any rate hike and take the corresponding precautionary measures.

Second, focus on serving the “going global” companies. Based on the experience of major international banks, an overwhelming majority of banks opted to exit or downsize their operations in the Brazilian market, especially the retail business. Chinese banks should generally remain cautious on expansion and keep highly vigilant especially on retail business. Chinese banks could boost their investment in the corporate banking segment in the Brazilian market in an appropriate manner; selectively increase the asset allocation to SMEs, consider the hi-tech and environment friendly companies that are growing on a sustainable manner as the next core customers; enhance the services to Sino-Brazilian trading companies and provide the integrated financial services to them; further, Chinese “going global” companies should also be the focus of Chinese banks. In the context of the expansion wave of Chinese companies in Brazil, Chinese banks should enhance services to these “going global” companies, which could partly offset the local risks in Brazil.

Third, strengthen the cooperation with local financial institutions. As member states of BRICS, Brazil and China have the basis for cooperation in a number of fields. The Brazilian government plays a key role in promoting the local economic growth. On May 19, 2015, China and Brazil entered into 35 bilateral cooperation agreements in a wide range of sectors including production capacity, infrastructure and finance. Chinese banks should take full advantage of the cooperation relationship between the two governments to penetrate into relevant projects in such sectors as energy, electricity, infrastructure, agriculture, manufacturing and telecommunication through partnership with local government supported banks.

Fourth, adapt to the change of local financial regulatory policies. Chinese banks should also watch closely the potential impact caused by the change of financial regulatory policies in Brazil: with regards to interest margin policy, Chinese banks should prepare the contingency plan for rate changes to prevent any unexpected rate change from causing negative impact on profit, while increasing the contribution of non-interest income through structural transformation to reduce the negative impact from the decline of interest margin; regarding capital regulation, Chinese banks could meet the stricter CAR requirement through diversifying sources of funding, developing asset-lite businesses such as investment banking and optimizing asset allocation.

## **IV.2 Five issues commercial banks should focus on in the new phase of interest rate liberalization**

### **IV.2.1 New phase of interest rate liberalization**

The controls on deposit and loan rates have been fully lifted. China started the interest rate liberalization in 1996 and accelerated the process in 2012. Following the adjustment of the floating range of interest rate for eight times, the central bank decided to lift the ceiling on deposit rate in October 2015. The interest rate liberalization has since entered into a new phase.

The supporting mechanism for interest rate liberalization has been initially established. In May 2015, the *Deposit Insurance Regulation* officially became effective. The introduction of the Regulation will promote fair competition in the banking industry and enhance the soundness of the financial system by providing the banks of different sizes the equal public trust.

The interest margin between deposits and loans continues to narrow. On the one hand, the deposit rate will continue to rise in the short term. First, the deposit growth continued to fall. In Q2 2015, the deposit growth of commercial banks fell to nearly 5%, the lowest level in almost three years. Second, the deposit rate of commercial banks is still below the market rate of the same maturity. On the other hand, the loan rate still faces downward pressure, but the fall is likely to be limited. First, the loan demand weakened. According to the banker survey conducted by the central bank, the loan demand index was 56.7% at the end of Q3 2015, about 15 percentage points lower than the end of 2014. Second, the loan supply continued to increase. Since 2015, the central bank has cut the RRR for five times and released more than RMB3.5 trillion of liquidity, resulting in downside pressure on loan rate.

### **IV.2.2 Five issues of concern for commercial banks in the new phase of interest rate liberalization**

Stay alert to the contraction of balance sheet. Since 2012, the growth of assets and liabilities of 16 listed banks has been decelerating. On the assets side, the loan rate of 16 listed banks continued to fall and the loan demand was weak; on the liabilities side, 16 listed banks still face pressure to raise the deposit rate. Furthermore, in order to simultaneously deal with the slowdown in economic growth, make difficult structural adjustments, and absorb the effects of previous economic stimulus policies, China is transforming its growth pattern to rely on consumption instead of investment, therefore the growth of assets and liabilities is facing pressure to further slow or even contract. As the interest income is still the major income source of the banking industry in China, the slowdown in the growth of assets and liabilities will have a significant impact on the profitability of commercial banks.

The difficulty in managing assets and liabilities will increase. Following the liberalization of the deposit and loan rate, the interest rate will be determined by market forces and the volatility will increase. In terms of liability structure, the slowdown in deposit growth will cause the deposit taking pressure to increase, resulting in rising proportion of wholesale financing of commercial banks; in terms of asset structure, the loan contribution will decline while the contribution from securities and capital market operations will continue to rise, resulting in higher difficulty in managing assets and liabilities.

NIM still faces pressure to narrow. Due to the lingering effect of interest rate liberalization and financial disintermediation, the NIM of commercial banks has trended lower. In terms of deposit cost, the competition from internet finance, asset management and capital market will continue to push higher the deposit cost; in terms of loan yield, the average loan yield of 16 listed banks has decreased remarkably from 6.7% at the end of 2012 to 6.1% in Q2 2015. Given the weak loan

demand and the guidance of central bank to reduce the social financing cost, the loan yield will still face downward pressure. In addition, commercial banks are making strong efforts to adjust their strategies to allocate the credit resources to high yielding sectors such as SME, consumer finance and credit card.

Twofold risks pose challenge to the operation of banks. Since the lifting of the deposit and loan rate ceilings, the interest rate risk faced by commercial banks has been increasing. In order to mitigate the negative impact of narrowing interest margin, commercial banks tend to adjust the liability structure to increase the use of wholesale funds, which brings liquidity risk. For example, the Northern Rock was one of the top five mortgage lenders in the UK. It principally relied on the wholesale funds to raise its debt, and raised over 70% of the funds, mostly short-term capital, through inter-bank borrowing, bonds issuance and asset securitization. The increased liquidity risk as a result of the highly unbalanced asset and liability structure was one of the key reasons for its failure. The interest rate risk combined with the liquidity risk posed a challenge to the risk management capability of commercial banks.

The concentration of the banking industry will change. Based on the international experience, the concentration of the US and Japanese banking industry increased following the completion of interest rate liberalization. The market-based interest rate impacts the industry concentration in two aspects. First, the liberalization of deposit and loan rate will increase the systemic risk and vulnerability of the banking industry in the short term and possibly cause some smaller banks to go bankrupt, hence further enhance the concentration of the banking industry; second, the interest rate liberalization will provide new opportunities to those banks who have strong capability in risk management, balance sheet adjustment and financial innovation, hence reducing the concentration of commercial banks. Based on the practical situation in China, it still needs time for SMEs to improve their own risk management, therefore the concentration of the banking industry is likely to take on an upside trend.

#### **IV.2.3 Implications and recommendations**

Consolidate the traditional differentiation advantage to drive the growth of non-interest income via asset management operations. As the interest income still represents a large part of the operating income of commercial banks in China, it is still premature for commercial banks to shift to the profit model that relies on non-interest income. We suggest banks to strengthen the traditional business and pursue the upstream and downstream opportunities to build on the differentiation advantage. Besides, develop the asset management business to drive the growth of non-interest income. Draw on the diversified businesses to put in place a comprehensive asset management platform and expand the product coverage to provide one-stop services to customers.

Adjust the asset and liability structure while manage maturity to mitigate interest rate risk and liquidity risk. Increase the weight of non-interest income by managing the asset and liability structure while reduce the maturity mismatch by managing the maturity structure. The coordinated use of the two approaches will reduce the twofold risks of interest rate and liquidity.

Infuse the philosophy of prudent operation into financial innovation. The interest rate liberalization calls for higher requirements on the commercial banks. Banks should design various credit products and create various pricing methods based on the specific regulatory environment, supply and demand situation of credit capital and the risk status of borrowers. Meanwhile, banks should apply the philosophy of prudent operation throughout the process of financial innovation and strike a balance between risk and return.

Enhance the comprehensive operation capability and expand the coverage of mixed operation.

Based on international experience, some countries introduced a series of financial reforms to deal with the impact of interest rate liberalization. For example, the UK launched reforms in the financial sector that focused on the liberalization of the financial services in 1980s and achieved mixed operation of UK banks with many commercial banks expanding into the securities, insurance and trust sectors. We suggest further expanding the scope of mixed operation of the Chinese banking industry to the extent that risks are controllable, exploring ways to put in place the firewalls between different operations, and enhance the risk control capability in mixed operation so as to respond to the negative impact of the narrowing NIM on the profitability of commercial banks.

### **IV.3 Suggestions for promoting the development of green bonds in China's banking industry**

#### **IV.3.1 The definition and characteristics of green bond**

According to the International Institute for Sustainable Development (IISD), green bond is issued to raise capital specifically for those projects that benefit environment protection, sustainable development or climate mitigation and adaptation. The green bond is best characterized by the word “green”, i.e., it supports green projects, requires authentication from a third party and can often attract strong support from the government.

#### **IV.3.2 Rapid growth of international green bond market**

First, the market volume has grown rapidly. According to the statistics of the Climate Bonds Initiative, a total of 474 green bonds have been issued globally since 2007 and the issue size has grown from USD414 million in 2008 to USD36.59 billion in 2014; the issue size is expected to exceed USD100 billion in 2015.

Second, the participant base is diversified. In 2014, a total of USD36.59 billion worth of green bonds was issued globally. The international financial institutions and development banks are the largest issuer group, representing 44% of the total issue size. Corporates and local governments represent 33% and 13% respectively; the public institutions are the key investors, accounting for 77% of the total issue size, followed by retail investors and private institutions, which account for 14% and 9% respectively.

Third, the denominated currencies are concentrated. As of the end of 2014, the green bonds were issued in 23 currencies globally. EUR and USD are the top two denominated currencies (accounting for 39.95% and 32.82% respectively), followed by Krone (8.82%) and GBP (2.21%). In recent years, an increasing number of financial institutions have considered issuing RMB-denominated green bonds.

Fourth, green certification becomes more prevalent. It is the common practice for the issuer in the international market to obtain the green standard certification from the independent professional party on its investment project and use of proceeds. As of the end of 2014, among the over 300 green bonds issued globally, about 63% of the issuers have obtained international green certification.

#### **IV.3.3 Huge potential of the growth of green bond in China**

First, the green economy has strong demand for financing. According to the total investment in the environmental protection industry under the 12<sup>th</sup> Five-Year Plan, water and air pollution prevention and control action plan and the data provided by Renewable Energy Policy Network, it is roughly estimated that China will spend an average of no less than RMB2 trillion annually on the green industry and pollution prevention and control during 2015-2020. Government spending will

represent 10%-15% while the remaining 85%-90% has to be assumed by social funding.

Second, the bond market has expanded in size. China has become an important bond market among emerging economies in the world. In terms of offering size, the bond issuance increased by 36.47% to RMB11.9 trillion in 2014; in terms of funds under custody, as of the end of 2014, the funds under custody of the bond market grew by 20.9% to RMB35.6 trillion, ranking No.2 in Asia and No.3 in the world by absolute scale.

Third, the relevant policy frameworks are pending. Since 2007, China has successively released a series of regulations such as the *Guideline on Green Credit*, and the *Guideline on Energy Efficiency Credit*. In 2015, the State Council released the *General Plan for the Reform of Ecological Civilization System*, which further defined the green financial system framework in China.

Fourth, commercial banks actively participate in the green bond issuance. In July 2015, Bank of China, as global coordinator, successfully helped Xinjiang Gold Wind complete the USD300 million offshore bond offering. In October 2015, Agricultural Bank of China issued RMB & USD denominated green bonds simultaneously in the London market with a total size of USD1 billion.

#### **IV.3.4 The significance of green bond development for the banking industry**

First, it is in line with the fundamental requirements for the banking industry to undertake social responsibilities. In 2015, the Chinese government announced to reduce the carbon dioxide emission per unit of GDP by 60%-65% in 2030 from 2005. The *Suggestions for the 13<sup>th</sup> Five-Year Plan* proposes to benefit the economy and people through green development. The development of green bonds in the banking industry echoes the trend of green economy and aligns with the fundamental requirements to undertake social responsibilities.

Second, it will help banks to expand their businesses and seize the growth opportunities. As of the end of 2014, the debt financing facilities issued in support of green energy, public transportation and environmental technology raised a mere RMB968.58 billion of capital, much lower than the RMB35.6 trillion under custody of the bond market. Developing green bonds would help commercial banks to expand their businesses and seize the growth opportunities.

Third, it will help raise the profile of commercial banks in the international market. Besides Bank of China and Agricultural Bank of China, Industrial Bank is currently considering the issuance of specialty bonds for green finance. Issuing green bonds and driving the development of green industry would help commercial banks improve their image in the international market.

#### **IV.3.5 Suggestions for promoting the development of green bonds in China's banking industry**

First, consider the development of green bonds strategically. On the one hand, closely link the development of green bonds with the key growth strategies of the country. Priority should be given to the three key regions: Belt & Road, Beijing-Tianjin-Hebei region and the Yangtze River Economic Zone. On the other hand, focus on the innovative projects that help promote green development and ecological improvement, and design specialty green bonds if needed.

Second, establish the underlying dynamic database for green investment projects. Specifically, develop the identification criteria for green projects. Relevant regulations can be referenced such as *Green Bond Principle*, and *Guideline for Green Credit*. Select the 3<sup>rd</sup> party certification agency such as International Capital Market Association and Climate Bond Commission, etc. And then establish the database for green investment projects.

Third, design the green bonds denominated in different currencies and of different categories.

Consider RMB and USD as the key currencies and EUR and GBP as the supporting currencies, while introduce some emerging market currencies such as Rupee and Real when appropriate. Commercial banks could also develop specialty green bonds based on the characteristics of the green investment projects.

Finally, set out the policies on net proceeds allocation and tracking. For example, opening special bank account, developing the timetable for capital allocation, issuing regular report of capital usage, consolidating the green bond report into the quarterly or annual financial report, and providing re-certification of non-green projects and related punitive measures.

#### **IV.4 Suggestions regarding relaxation of regulatory requirements on provision coverage ratio**

The provision coverage ratio of several banks is currently approaching the regulatory threshold. In the context of slowdown in economic growth and the rise of NPL ratio of the banking industry, moderately reducing the provision coverage ratio would not only be helpful for the counter-cyclical control and the stable growth of the real economy but also enable financial institutions to strike balance between risk and return and maintain financial stability.

##### **IV.4.1 The urgency and necessity of reducing the provision coverage ratio**

Reducing the provision coverage ratio is now both necessary and very urgent:

First, it fits with the general thinking of counter-cyclical control. As the economic growth slows in China, the provision coverage ratio of banks has been declining, hence causing the regulatory pressure to increase. As of Q3 2015, among the 15 listed banks (excluding Bank of Beijing), the provision coverage ratio of 11 banks was below 200%, the ratio of six banks was below 170% with the lowest ratio of 153.7%, near the regulatory threshold of 150%. Meanwhile, the profit growth of commercial banks declined sharply with that of the big four banks and Bank of Communications below 2% in Q3, approaching zero growth. Currently, reducing the provision coverage ratio would help commercial banks achieve balance between profit and risk in the economic downside cycle, and fit with China's reality of slowing economic growth and increasing operating pressure.

Second, it will provide more rooms for banks to support the real economy. The provision coverage ratio of 150% means that commercial banks have to set aside 1.5 units of provisions from the profit to cover 1 unit of non-performing loan. As of Q2 2015, the outstanding non-performing loans of the banking industry totaled RMB1.09 trillion. If the provision coverage ratio is reduced by 50%, about RMB0.55 trillion in profit could be released and replenish capital by RMB0.39 trillion once 70% of the figure is counted as capital. Assuming 10x leverage, it could support about RMB4 trillion of credit. Moderately reducing the provision coverage ratio would help unleash the potential of commercial banks and enhance the support of the banking industry to the real economy.

Third, it will help commercial banks stabilize the share prices and preserve market confidence. During June-September 2015, Chinese stock market experienced a round of selloff with the Shanghai Composite Index falling up to 45%. As an important part of the A-share market, the banking sector represents 15%-20% of the market value and plays a leading role in the market trend. Currently, moderately reducing the provision coverage ratio would help ease the profitability pressure of the banking industry, provide investors with stable dividend distribution, and reverse the negative sentiment on bank's profit outlook, hence creating favorable environment for the capital market reforms.

#### IV.4.2 The rationale for cutting the provision coverage ratio

First, it conforms to the general pattern of pro-cyclical movement of the provision coverage ratio. According to the data of G-SIBs, the correlation factor between the GDP growth of home country and the provision coverage ratio is 0.53, which indicates that the provision coverage ratio tends to fall in the downside cycle due to the climb of NPL ratio. Before the crisis in 2006, the average provision coverage ratio of State Street Bank, Bank of America, JP Morgan Chase, Citibank and HSBC stayed at high level of 269%. However, with the breakout of the crisis and slowdown of the growth, the ratio fell rapidly to 117% at the end of 2009. In the current context of economic slowdown and asset quality deterioration, moderately reducing the provision coverage ratio would conform to the general rule of the banking industry, and would also help mitigate the regulatory pressure to ensure the consistent lending of banks.

Second, it accords with the micro prudential regulation standard. The regulatory requirement on provision coverage ratio is intended to ensure that banks are able to absorb the risk of non-performing loans. Compared with international peers, Chinese banks have strong risk absorption ability and sound operation, which provides favorable conditions for relaxing the regulatory requirement.

Third, capital is abundant with high quality. As of the end of Q2 2015, the average CAR of Chinese banks was 13%, 2.5 percentage points higher than the statutory requirement (statutory requirement of 8% plus retained capital buffer requirement of 2.5%). Furthermore, Chinese banks have higher proportion of premium capital with strong quality. In Q2 2015, the tier-1 CAR and core tier-1 CAR were 81.94% and 80.93% respectively, much higher than the global average.

#### IV.4.3 Implications and recommendations

Currently given the slowdown in economic growth, slide in asset quality and heavy profitability pressure, the regulators could on the one hand consider reducing the provision coverage ratio and establishing a counter-cyclical dynamic regulation mechanism, and on the other hand encourage commercial banks to diversify capital raising channels and enhance risk pre-warning and stress testing:

First, reduce the required provision coverage ratio to 100%. Under the circumstance of full exposure and precise classification of non-performing loans, the ratio of 100% could ensure full coverage of the bad loans and comply with the prudential regulation requirements. Compared with international peers, the industry average of over 100% is still at a higher level among global banks. A grace period can also be considered to avoid the negative impact from over-adjustment.

Second, establish a counter-cyclical adjustment mechanism for provision coverage ratio. The ratio has an inherent pro-cyclical movement nature, i.e., the provision coverage ratio tends to fall rapidly in the downside cycle due to the climb of NPL ratio. According to estimates, the correlation factor between the ratio and GDP growth in China was 0.77 since 2012, showing strong pro-cyclical nature. China may consider establishing a forward-looking and dynamic adjustment mechanism for the ratio. The mechanism is intended to increase (decrease) the provision requirement in the economic upside (downside) cycle, hence helping banks play a normal role in the transition of cycles and better support the real economy.

Third, encourage commercial banks to diversify capital raising channels. Major international banks tend to apply the strategies of low provision and heavy capital in the process of risk management to allow them to operate proactively. However, Chinese banks are on the contrary. Going forward, while reducing the provision requirement, commercial banks should be encouraged to press on

with innovation of capital tools and diversification of capital raising channels. In particular, banks should boost the raising of other tier-1 capital and tier-2 capital from the capital market and promote the reform of mixed ownership and fundraising from offshore market.

Fourth, enhance the risk pre-warning and stress testing. The reduction of the provision requirement will have certain impact on the risk absorption ability of banks. Commercial banks should strengthen their work in risk pre-warning and stress testing. The distressed banks for which the provision requirement should be adjusted specifically could be identified through stress tests.

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