



中國銀行  
BANK OF CHINA

Institute of International Finance

## Global Banking Industry Outlook

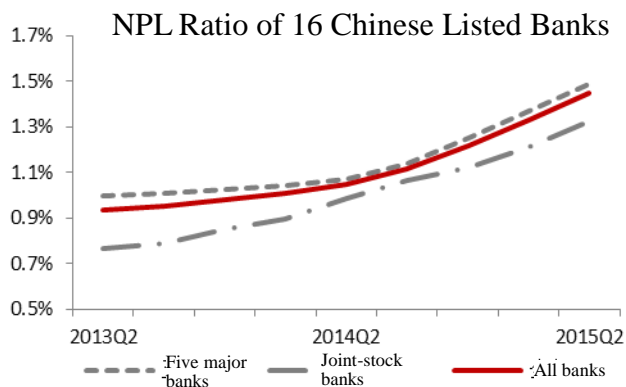
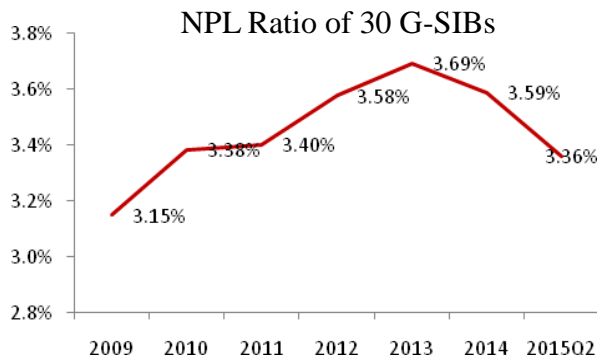
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### Highlights

● In the first half of 2015, Global Systemically Important Banks (G-SIBs) saw steady expansion of asset size, slower growth of profit and improved asset quality. The banking industry was firm in the US and UK, remained weak in Japan, and was faced with significant uncertainty in the Euro Zone.

● While balance sheet grew steadily in China's banking industry, the profit slowed down rapidly and non-performing loans continued to rise in both amount and ratio with more pressure on loan loss coverage provisions, so upholding prudent operation is especially important.



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## Slower Profit Growth Calls for Continuously Prudent Operation

### --Global Banking Industry Outlook of BOC (2015Q4)

In the first half of 2015, Global Systemically Important Banks (G-SIBs) saw steady expansion of asset size, improved operating efficiency, slightly higher capital adequacy ratio and better asset quality. The banking industry was generally strong in the US, steady in the UK while remained weak in Japan and was highly uncertain in the Euro Zone. While balance sheet grew steadily in China's banking industry, the profit slowed down rapidly and non-performing loans continued to rise in both amount and ratio with more pressure on loan loss coverage provisions, upholding prudent operation is especially important.

#### I. Operational Characteristics of G-SIBs<sup>1</sup>

In the first half of 2015, 30 Global Systemically Important Banks (G-SIBs) showed generally better performance and obviously improved valuation. Their operations were mainly characterized by: slower growth of assets and liabilities, rally in percentage of deposits and loans, slower growth of net profits, generally stable net interest margin, dramatic decline in cost/income ratio, slightly higher capital adequacy ratio and continued improvement in asset quality. Both return on asset (ROA) and return on equity (ROE) increased. China's G-SIBs outperformed their foreign peers in size growth, net interest margin, operating efficiency, asset quality, profitability and valuation, however, attention should be paid to slowdown in net profits and continued rise of NPL amount and ratio.

#### I.1 Operating situation

##### I.1.1 Growth of assets and liabilities decelerated while percentage of deposits and loans rallied

In the first half of 2015, the assets and liabilities of 30 G-SIBs were USD47.8 trillion and USD43.9 trillion respectively, up 3.3% and 3.1% respectively from the end of 2014. The growth rate was down 1.8 and 3.9 percentage points respectively compared with the end of 2014. China's G-SIBs took the lead in the growth rate of assets and liabilities with the average rate of 8.4% and 8.5% respectively.

In the first half of 2015, the deposits/liabilities and loans/assets of 30 G-SIBs averaged 53.1% and 38.5% respectively, up 1.7 and 0.9 percentage points respectively from the end of 2014. In terms of loans as a percentage of assets, 15 out of the 30 banks saw increased percentage with the highest increase of 12.9 percentage points. In terms of deposits as a percentage of liabilities, 19 out of the 30 banks saw increased percentage with the highest increase of 8.8%. The development of the percentage of deposits and loans of the G-SIBs in China differed from their foreign peers. Due to interest rate liberalization and financial dis-intermediation, the percentage of deposits fell by 3.0 percents while the percentage of loans rose by 0.2 percents for China's G-SIBs.

##### I.1.2 Net profit recorded slower growth

In the first half of 2015, the net profits of the 30 G-SIBs totaled USD163.38 billion, up 5.9% from a year earlier with the growth rate declining by 2.1 percents compared with the same period last

<sup>1</sup>As the calculation involves currency factor and discrepancies in accounting standards, all data used herein are from Bloomberg, which may differ from that in the interim reports disclosed by banks.

year. The net profit of China's G-SIBs grew by 2.9% year on year with the growth rate down 7.4 percents. Compared with international peers, China's G-SIBs saw more significant slowdown in net profits.

### **I.1.3 Net interest margin remained generally stable**

In the first half of 2015, the net interest margin of 30 G-SIBs averaged 1.6%, unchanged from last year. The net interest margin of China's G-SIBs was 2.4%, down 0.1 percentage points from the end of 2014, but remained higher compared with international peers.

### **I.1.4 Operating efficiency improved slightly**

In the first half of 2015, the cost-income ratio of G-SIBs averaged 59.6%, down 6.9 percents from the end of 2014. The ratio of China's G-SIBs was 25.6%, much lower than the average level.

### **I.1.5 CAR rose steadily**

In the first half of 2015, the average CAR of 30 G-SIBs was 16.2%, an increase of 0.3 percents versus the end of 2014, demonstrating stronger risk absorbance ability. The CAR of China's G-SIBs was 13.6%, basically unchanged from last year.

### **I.1.6 Asset quality continued to improve**

In the first half of 2015, the NPL ratio of 30 G-SIBs averaged 3.4%, down 0.2 percents from the end of 2014. The ratio of China's G-SIBs climbed up to 1.5%, an increase of 0.2 percents versus the end of 2014, but still much lower than the industry average.

### **I.1.7 Returns picked up modestly**

In the first half of 2015, 30 G-SIBs reported ROA and ROE of 0.6% and 7.9% respectively, up 0.1 and 0.6 percentage points from the end of 2014. During the same period, China's G-SIBs recorded ROA and ROE of 1.3% and 18.4% respectively, continuing their leadership globally.

### **I.1.8 Valuation recovered markedly**

In the first half of 2015, the P/B multiple of 30 G-SIBs averaged 1.0x, 0.1 times higher than the end of 2014, or an increase of 11.1%. The multiple of China's G-SIBs averaged 1.1x, higher than international peers.

## **1.2 Outlook**

In 2015 Q4, G-SIBs are likely to take on the following trends:

**Size growth will generally slow down.** Currently, the development strategies of G-SIBs are still under adjustment with diverging trend. While major banks in the West are contracting with further slowdown in size expansion, the G-SIBs in China and Japan are still expanding aggressively overseas with size growth still at higher level among G-SIBs. In general, the size growth of G-SIBs will continue to slow down.

**Narrowing margin will bring pressure on profit.** Given the lower interest margin environment caused by the loose monetary policy worldwide, the net interest margin of G-SIBs will face significant downward pressure. In the context of generally slower growth in size, the narrowing margin will cause major impact on the profit of banks. However, as G-SIBs complete their strategy adjustment, their cost will be reduced, such as wages and legal costs, thus cost-income ratio will continue to improve, which will have positive impact on the profit.

**CAR will increase steadily.** The increasingly stronger supervision of capital will further augment

the compliance pressure. This will drive G-SIBs in the Europe and US to strengthen capital management and increase capital adequacy, hence enhancing their risk resistance capability.

**Asset quality will continue to diverge.** Given the strong recovery of the US economy, the NPL ratio of its G-SIBs is expected to continue to fall from the already lower level; As the European economy remains weak as a result of the debt crisis, the NPL ratio of Europe's G-SIBs is likely to remain at high level and face more upward pressure; In the context of having to simultaneously deal with the slowdown in economic growth, make difficult structural adjustments, and absorb the effects of previous economic stimulus policies by the Chinese authorities, China's G-SIBs will still under downward pressure in asset quality. Therefore, risk prevention and mitigation are still the top priorities.

**Table 1: Operating Metrics of G-SIBs for 2015Q22 (Unit: USD100 million, %)**

	Assets	Chg	Liability	Chg	Deposits/liabilities	Chg	Loans/assets	Chg
ICBC	36166	8.7	33562	9.1	78.3	-5.7	51.9	-0.5
ABC	28167	9.3	26453	9.3	82.1	-2.8	49.9	1.0
BOC	26294	6.9	24250	6.8	76.8	-0.6	54.6	0.1
HSBC	25717	1.6	23703	0.1	56.4	1.0	37.5	-2.8
Barclays	18818	-9.0	16010	-9.5	43.1	-0.3	36.4	6.6
RBS	15170	-4.6	14198	-5.0	37.9	-4.3	35.7	-11.6
Standard chartered	6950	9.5	6456	9.4	58.5	-0.9	40.9	-3.1
Unicredit	9760	4.3	9164	4.5	45.7	0.1	56.3	-4.1
Santander	14938	12.7	13801	12.3	50.9	-0.3	61.7	-0.1
BBVA	7685	11.7	7116	11.9	53.0	1.1	57.1	-0.6
UBS	10160	-3.3	9591	-3.7	42.0	0.3	33.1	8.0
Credit Suisse	9403	-1.4	8938	-1.6	42.7	1.9	30.8	7.6
Nordea	7614	8.3	7281	8.5	28.5	-4.9	45.9	-16.4
Mitsubishi UFJ	25366	10.9	24091	10.6	67.5	-0.1	43.0	0.9
Mizuho	14914	10.0	14044	9.6	59.1	-2.7	41.5	-0.8
SMFG	14295	15.3	13510	15.1	54.3	1.2	38.7	-0.7
JP Morgan Chase	24943	-0.8	22060	-1.8	58.3	0.7	32.9	2.3
Bank of America	21519	3.0	19000	-3.8	60.6	1.9	42.2	-0.9
Citi-Group	18397	-3.3	16160	-5.2	57.7	0.6	35.2	-0.2
Wells Fargo	17293	10.6	15300	7.9	77.5	-1.5	51.4	-0.4
Goldman Sachs	8599	0.1	7716	-0.8	37.2	2.1	15.5	1.6
Morgan Stanley	8258	-0.1	7497	-0.1	42.8	3.5	16.1	2.8
New York Mellon	3953	-1.4	3558	-1.5	79.9	1.8	16.0	1.2
State Street	2946	4.4	2731	4.8	84.4	0.5	6.3	0.3
ING	9646	-10.9	9118	-11.2	61.9	8.8	63.5	12.9
BNP Paribas	23851	12.2	22779	12.3	33.7	2.2	33.9	-0.6
Credit Agricole	17086	0.9	16444	0.6	23.2	3.7	22.0	4.2
Societe Generale	15163	2.8	14498	2.7	27.2	1.6	28.6	3.2
BPCE	13040	1.5	12346	1.5	43.8	0.8	51.6	-1.3
Deutsche Bank	18859	1.7	18050	1.3	26.6	1.9	25.4	7.5
Mean	15932	3.3	14647	3.1	53.1	0.4	38.5	0.5
vs. 2014	374.4	-1.8	160.4	-3.9	1.7	1.0	0.9	1.1

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

<sup>2</sup>The data for assets, liabilities and profit in the operating metrics are converted into USD. Change refers to the change of data in 2015Q2 from the end of 2014. The three Japanese banks report annual data on a financial year basis, so the data for 2015 are those reported for the financial year as of the end of March.

Table 2: Operating Metrics of G-SIBs for 2015Q2<sup>3</sup> (Unit: USD100 million, %)

	Net profit	NIM	C/I	CAR	NPL	ROA	ROE	P/B
ICBC	240	2.3	22.3	14.2	1.4	1.4	18.9	1.2
ABC	168	2.8	29.6	12.9	1.8	1.2	19.9	1.0
BOC	146	2.2	24.9	13.7	1.4	1.2	16.3	1.1
HSBC	96.4	2.0	58.1	16.3	2.6	0.5	6.8	0.9
RBS	37.6	1.4	57.3	18.5	5.1	-0.4	-9.3	0.7
Barclays	31.2	2.3	59.1	17.4	2.0	0.1	0.6	0.8
Standard chartered	12.2	2.0	59.2	18.2	3.1	0.3	3.3	0.9
Unicredit	13.2	1.5	70.6	14.2	16.6	0.2	3.9	0.7
Santander	38.3	2.9	47.1	13.8	4.9	0.5	7.8	1.0
BBVA	16.6	2.6	49.6	15.5	6.7	0.6	8.6	1.1
UBS	33.6	1.1	75.2	24.8	0.5	0.5	9.6	1.4
Credit Suisse	21.4	1.4	78.7	20.1	0.5	0.4	8.8	1.0
Nordea	22.7	1.0	45.4	20.7	1.9	0.6	13.6	1.6
SMFG	23.5	0.8	58.0	14.6	1.4	0.3	8.6	0.8
Mitsubishi UFJ	22.9	1.0	64.5	15.2	1.4	0.4	7.4	0.8
Mizuho	22	1.3	63.5	16.6	1.5	0.4	9.2	0.8
JP Morgan Chase	119	2.4	61.8	15.5	2.5	0.5	4.5	0.8
Wells Fargo	108.2	3.0	57.8	15.2	3.0	1.4	13.1	1.7
Citi-Group	95.4	2.9	57.1	14.5	2.9	0.7	5.9	0.8
Bank of America	82.4	2.1	60.2	14.3	2.8	1.0	10.7	1.2
Goldman Sachs	49.9	0.5	79.5	16.8	—	1.0	10.5	1.2
Morgan Stanley	32.2	0.3	70.5	16.4	—	0.5	5.8	1.2
New York Mellon	8.5	1.3	69.9	12.8	—	0.9	3.8	1.3
State Street	5.5	1.0	80.3	17.0	—	0.7	9.1	1.7
ING	26.2	1.5	53.7	17.0	3.0	0.5	10.9	1.1
BNP Paribas	46.6	1.5	65.8	13.0	4.0	0.4	8.6	0.8
Societe Generale	24.7	0.9	64.8	15.2	6.2	0.3	7.3	0.7
Credit Agricole	23.9	0.8	66.1	19.2	4.5	0.2	6.6	0.7
BPCE	21.9	1.7	65.5	15.4	3.7	0.3	5.4	0.7
Deutsche Bank	43.8	1.7	70.7	16.5	2.0	0.1	2.0	0.5
Mean	54.5	1.6	59.6	16.2	3.4	0.6	7.9	1.0
vs. 2014 <sup>4</sup>	3.1	0	-6.9	0.3	-0.2	0.1	0.6	0.1

<sup>3</sup>In Table 2, ROA denotes return on asset, ROE return on equity, NIM net interest margin, C/I cost-income ratio, CAR capital adequacy ratio, NPL non-performing loan ratio, and P/B price-book value multiple.

<sup>4</sup>Except net profit data which are compared with the data at the end of 2014Q2, other indicators are compared with the data at the end of 2014.

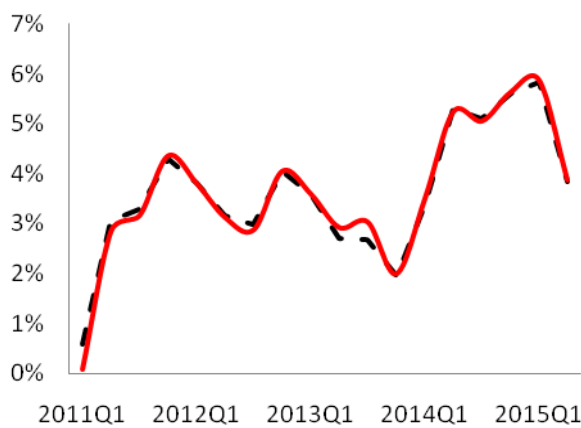
## II. Banking Industry Operation and Outlook of Major Economies

### II.1 US banking industry

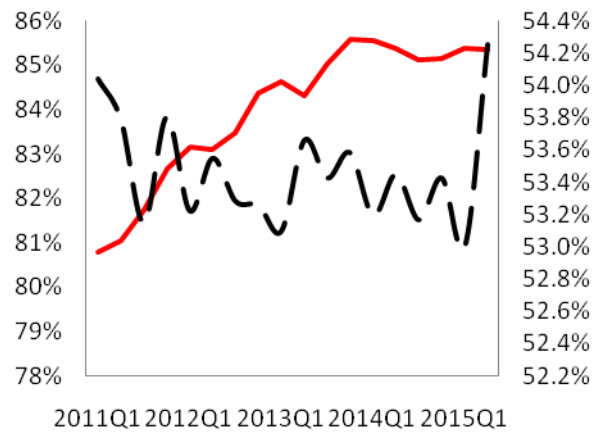
#### II.1.1 Operating profile

**Growth of size slowed down and percentage of deposits and loans diverged.** As of the end of June 2015, the US banking industry had total assets of USD15.8 trillion, up 3.8% from a year earlier with the growth rate declining by 2 percentage points compared with Q1; total liabilities was USD14.0 trillion, up 3.9% year on year with the growth rate falling by 2 percentage points compared with Q1. In terms of the structural change of the assets and liabilities, outstanding loans and leases accounted for 54.3% of total assets, registering a year-on-year growth of 0.71 percentage points; deposits represented 85.4% of total liabilities, down 0.02 percentage points from a year earlier.

**Figure 1: YoY Growth Rate of Assets and Liabilities**



**Figure 2: Development of Loans/Assets and Deposits/Liabilities**



--- Assets growth    — Liabilities growth    — Deposits/liabilities    --- Loans/assets (RHS)

Sources: Federal Reserve, BOC Institute of International Finance

**Profit rose while the percentage of interest income decreased.** In the first six months of 2015, the US banking industry<sup>5</sup> reported net profit of USD83.1 billion, up 7% from a year earlier; ROA and ROE was 1.06% and 9.45% respectively, up 0.02 and 0.2 percents from a year earlier. The net interest margin was 3.05%, down 0.11 percents. Driven by narrowing interest margin, the percentage of net interest income in total income declined slightly in the US banking industry. In the first half of 2015, the US banking industry generated net interest income of USD107.842 billion, occupying 62.4% of its total income, which was down 1.8 percents from the end of 2014.

**Asset quality improved and CAR edged up.** As of the end of 2015Q2, the US banking industry had NPLs<sup>6</sup> of USD122.11 billion, down USD26.87 billion, or 18.0%, from a year earlier. In addition to the improvement of asset quality, the CAR of US banking industry also increased. As of the end of 2015Q2, the tier 1 CAR rose by 0.01 percentage points from Q1 to 12.76%.

<sup>5</sup>The banking industry refers to all FDIC-insured deposit-taking financial institutions.

<sup>6</sup>NPL in the US banking industry is defined as the loans and leased assets that are overdue for more than 30 days.

## II.1.2 Regulatory environment

In 2015Q2, the regulatory environment of the US banking industry had the following changes:

**In terms of revision to regulations, first, ordinary municipal bonds were included in the calculation of liquidity coverage ratio.** At the end of May 2015, the Federal Reserve announced that banks may use ordinary municipal bonds to meet the requirement of liquidity coverage ratio (LCR) (i.e. as the numerator of LCR). According to the requirement, major US banks must hold high quality liquid assets in order to monetize within 30 days of the breakout of financial crisis. The applicable limit of the ordinary municipal bonds is subject to the liquidity characteristics of those bonds. **Second, regulators announced requirement for loan-to-deposit ratio in the home state.** On June 29, 2015, the US banking regulators jointly announced the requirement for loan-to-deposit ratio in the home state. The main purpose of the requirement was to check whether Article 109 of US Act on Inter-state Merges and Acquisitions 1994 had been implemented. According to the Act, inter-state acquisition of branches shall not be used principally to absorb the local deposits. The balance sheet of the bank in the home state must meet the corresponding requirement for loan-to-deposit ratio. Article 109 established a multi-step mechanism to calculate the loan-to-deposit ratio in the home state. **Third, the capital regulation rule was amended.** In June 2015, the Federal Reserve, FDIC and Office of Comptroller of Currency (OCC) made final amendments to the capital regulation rule effective since June 2013. The rule required major international banks<sup>7</sup> to use advanced method to calculate the regulatory capital, including the requirement on the calculation of risk weighted assets. **Fourth, the final version of Regulation D was released.** Regulation D in the US is mainly related to the required deposit reserve management of deposit-taking financial institutions. In mid-June 2015, the Federal Reserve released the final version of Regulation D; the most significant change is that the basis of the interest payment for required deposit reserves is calculated on a daily basis other than on previous semi-month basis. The release of the regulation would help enhance the effectiveness of the guidance of federal fund rate and mitigate the impact on banks' behavior as a result of divergence between average rate and federal fund rate. The new version took effect on July 23, 2015.

**In terms of regulatory review and enforcement, first, the regulatory burden was reviewed.** In May 2015, the Federal Reserve, OCC and FDIC jointly issued a circular, calling for review of the inappropriate regulatory burden caused by insuring deposit-taking financial institutions. According to the Economic Growth and Regulatory Paperwork Reduction Act 1996, banking regulators shall review the 12 regulatory issues publicly announced at least every decade to determine whether reassessment is needed. The latest circular focuses on consumer protection, directors, senior management, employees and money laundering, etc. **Second, regulators announced law enforcement actions on Citizens Bank.** In August 2015, Consumer Financial Protection Bureau, OCC and FDIC announced the law enforcement actions on a number of entities of Citizens Bank. These entities were found to have unfair and fraud issues as well as unsafe and inappropriate practices in the course of operation. The discrepancy between the book and actual amount was identified in their deposit transactions, which violated Article 5 of FTC Act and other applicable laws. The law enforcement actions include imposing civil penalty on Citizens Bank, ordering the entities to indemnify the customers and companies that had suffered the damage and take corporate governance, remedial and compliance actions.

## II.1.3 Outlook

In 2015Q4, as the US economy grows moderately, the job market will continue to improve and the

<sup>7</sup>The banks with over USD250 billion in consolidated assets or over USD10 billion in overseas risk exposure in the balance sheet.

inflation will remain at low level. Given the substantial volatilities of global markets recently, the normalization of the US monetary policy will slow down. But in general, short term rate will increase at the end of this year.

The operating income, profitability and credit quality of the US banking industry will remain stable. The asset size will continue to grow modestly. Due to the historical low interest margin as a result of the prolonged low interest rate environment and intensified peer competition, commercial banks will prefer to execute cost control to achieve profit target and many banks will focus on liability management.

Thanks to the stricter regulatory policies in recent years, the US banking industry has generally strengthened its capital base. It stands low possibility that the systemic risk will occur in the banking industry.

## II.2 Banking industry in the Euro Zone<sup>8</sup>

### II.2.1 Operating profile

**Monetary aggregates grew rapidly and inter-bank rate continued to fall.** As of the end of July 2015, the broad money M3 in the Euro Zone increased by 6.6% (0.4 percentage points higher than that of June) from a year earlier to EUR10.68 trillion. In the same period, the 3-month and 1-year Euribor was -0.14% and 0.16% respectively, down 0.11 and 0.01 percents versus June.

**Deposits and loans maintained modest expansion with the growth of loans higher than deposits.** As of the end of June 2015, the deposit balance in the Euro Zone totaled EUR8.5 trillion, an increase of 0.1% from a year earlier, but down 0.4 percentage points from the growth rate of May. Finland, Estonia and Portugal grew faster at 3.5%, 2.0% and 1.7% respectively; Greece, Luxemburg and Ireland recorded substantial decrease of 6.2%, 2.8% and 0.8% respectively. As of the end of June 2015, the outstanding loans in the Euro Zone totaled EUR13.2 trillion, a year-on-year increase of 0.5%, and up 0.3 percentage points from the growth rate of May. Geographically, Estonia, Slovakia and Italy grew faster at 1.9%, 1.3% and 1.2% respectively; Greece, Slovenia and Spain recorded substantial decrease of 1.1%, 1.1% and 0.7% respectively.

**Profitability and operating efficiency improved.** As of the end of 2015Q2, ROA and ROE of major banks in the Euro Zone was 0.4% and 8.0% respectively, reflecting modest increase from the end of Q1; net interest margin stood at 1.5%, up 0.1 percents from the end of Q1. Cost-income ratio was 55.6%, down 3.5 percents.

**Asset quality improved and CAR increased.** As of the end of June 2015, NPL ratio of major banks in the Euro Zone was 3.6%, down 0.9 percentage points from the end of Q1. Loan loss coverage was 54.2%, up 1.2 percentage points; tier 1 CAR stood at 14.1%, up 0.5 percents, while CAR was 17.3%, up 0.7 percents.

### II.2.2 Regulatory environment

According to the requirement of the single supervisory mechanism, the Euro Zone continued to promote the Supervisory Review and Evaluation Process (SREP); meanwhile, the Euro Zone is setting up a uniform resolution and relief mechanism, including a uniform recovery and resolution program, deposit insurance system and a common relief fund. The detailed progress includes:

**Prepare for the implementation of SREP.** SREP will become effective from January 1, 2016. The process is comprised of business model analysis, internal governance evaluation, capital and

<sup>8</sup>Refers to all monetary financial institutions in the Euro Zone under the statistics of the European Central Bank, including Lithuania which joined the Euro Zone on Jan 1, 2015. The same applies to the below.

CAR risk evaluation, and liquidity and liquidity adequacy risk evaluation. Based on the above evaluation, SSM will provide scores on financial institutions for classified regulation and as the basis for differentiated requirements on capital and liquidity supervision. Financial institutions in the Euro Zone have regarded the regulatory requirement as the key area of work.

**Minimum risk management requirement is likely to be modified.** In 2015, the minimum risk management requirement will experience a major modification, including its scope, general responsibilities, organization and operation structure, new product process, transaction business management and overall demand, etc. Furthermore, the modification will also likely focus on the risk data integration of G-SIBs and central collection of risk data for G-SIBs and non- G-SIBs via new model.

**Other progress.** As the Euro Zone raised the requirements on the analysis of credit data set, basic review of trading book and revision of the standard procedure for credit risk, financial institutions faced significantly higher pressure in regulatory information reporting and internal regulatory work.

### II.2.3 Outlook

Due to weak economy in the Euro Zone, sustained sluggish inflation and prolonged Greece crisis, it still needs time for the banking industry in the Euro Zone to recover:

**First, ECB has downgraded its forecast for economy and inflation.** The ECB has cut its GDP growth forecast of Euro Zone for 2015, 2016 and 2017 from 1.5%, 1.9% and 2% to 1.4%, 1.7% and 1.8% respectively; and cut the inflation forecast for 2015, 2016 and 2017 from 1.8%, 1.5% and 0.3% to 1.7%, 1.1% and 0.1% respectively. Amid economic slowdown and deflation, the banking industry will face significant pressure in its operation.

**Second, ECB has kept its loose monetary policy stance unchanged.** The ECB has recently kept its key refinancing rate unchanged at 0.05%; overnight deposit rate unchanged at -0.2%; and overnight lending rate unchanged at 0.3%. The ECB will fully implement its asset purchase program of EUR 60 billion per month until September 2016. The loose monetary policy environment will squeeze the interest margin of the Euro Zone banking industry. Without rapid growth of asset size, the banking industry will face more pressure on its profitability.

**Third, the Greece crisis is still uncertain.** The Standard & Poor's has recently affirmed the Greece's CCC+/C rating with a stable outlook. In 2015, the Greece economy will face remarkable downward pressure. However, possibilities are generally low that Greece will exit the European Union. The economic and political development in Greece will have some negative impact on the Euro Zone 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 July 2015 (Figure 3), total M4 in the UK reached GBP2,126.61 billion, up 0.9% year-on-year, an increase of 0.8 percentage points in addition to the growth in June; among the M4, retail deposit and cash stood at GBP1,542.14 billion, up 5.4% year-on-year, 0.1 percentage points higher than the previous month; wholesale deposit was GBP583.21 billion, down 10.7% year-on-year, 3.1 percentage points higher than the previous month.

Figure 3: M4 Growth in the UK

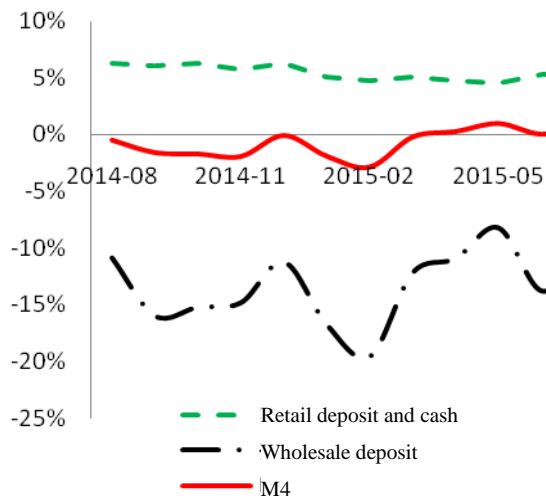
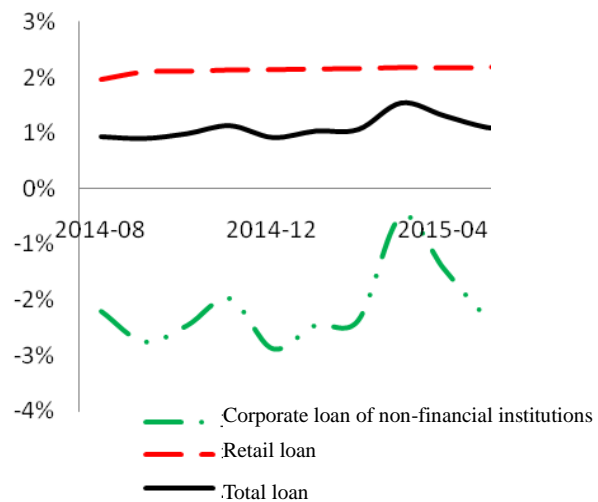


Figure 4: Loan Growth in the UK



Sources: Bank of England, BOC Institute of International Finance

**Retail loan grew rapidly while wholesale loan of non-financial institutions continued the negative growth.** As of July 2015 (Figure 4), the outstanding corporate and retail loans in the UK banking industry totaled GBP1,871.69 billion, up 0.9% year-on-year, 0.2 percentage points lower than June. The outstanding retail loans stood at GBP1,442.61 billion, up 2.2% year-on-year, 0.1 percentage points lower than the previous month; outstanding loans of non-financial institutions totaled GBP492.08 billion, up-3.3% year-on-year, 0.4 percentage points lower than June.

**Lending rate fell while deposit rate rose.** In July 2015, the average rate for personal loan and residential mortgage was 6.88% and 3.07% respectively, down 0.14 and 0.02 percentage points from the previous month; the average rate for personal term deposit rose by 0.22 percentage points to 1.80%.

**Asset quality improved.** In 2015Q2, the write-off in the UK banking industry totaled GBP1.4 billion, a decrease of GBP300 million from the previous quarter; In terms of credit card delinquency, the loans delinquent for over 30 days and 90 days represented 2.1% and 1.3% respectively, down 0.1 percentage points from the previous quarter.

### II.3.2 Regulatory environment

The UK banking supervision experienced the following changes:

**Revised the requirement on leverage ratio and tier 1 CAR.** On July 1, 2015, The Prudential Regulation Authority (PRA) revised the leverage ratio supervision framework for financial institutions. It will impose the minimum leverage ratio requirement on applicable financial institutions and put forward detailed requirement on tier 1 CAR.

**Adjusted the bank deposit insurance limit.** PRA cut the deposit insurance limit for bank customers from GBP85,000 to GBP75,000, which will take effect from January 1, 2016.

**Clarified the requirements on supervision of foreign banks.** PRA amended the *Strengthening Accountability in Banking: UK Branches of Foreign Banks* (CP9/15), which clarified the verification and code of conduct of foreign banks and required that at least one of the senior management of foreign banks must be approved by PRA.

**Major adjustment to bank tax.** First, annual bank tax will decrease gradually with the tax rate cut

from the current 0.21% to 0.1% in 2021; second, only the local assets will be taxed, while the overseas assets of the international banks headquartered in the UK will not be taxed. Clearly, the five largest banks in UK including HSBC will benefit from the tax cut; moreover, starting from 2016, UK will impose an 8% additional tax on the profit of banks.

### II.3.3 Outlook

**The Conservative's win in the general election in general will be positive for the development of the banking industry.** The pro-market economy policy of the Conservative will help UK economy and banking industry maintain a positive growth trend in the future. However, given the uncompleted financial regulatory reform and the possibility of UK's exit from EU, the UK banking industry will face uncertainty in the short term.

**UK banking industry will likely remain stable but growth will be limited.** The UK banking industry is expected to remain stable in 2015 with very low possibility of systemic risk but the growth will also be limited provided that the economic and political environment remains unchanged from the current situation. In addition, the compliance cost of the UK banking industry will continue to rise, which will have non-negligible negative impact on banks' profit.

## II.4 Japanese banking industry

### II.4.1 Operating profile

**Growth of money supply accelerated , while lending rate continued to fall.** Due to quantitative easing, the growth of monetary aggregates in Japan continued to climb. As of July 2015, the broad money M3 totaled JPY1,288.5 trillion, an increase of 3.3% year-on-year, the highest level since February 2014. Meanwhile, the outstanding loans of financial institutions took on a rapid growth. As of July 2015, the outstanding loans of major financial institutions reached JPY489.40 trillion, a periodic peak, up 2.6% year-on-year. In the context of loose monetary and credit environment, the leading rate of financial institutions continued its downward trend. As of July 2015, the annualized yield of short-term and long-term loans of Japanese banks was 1.131% and 0.771% respectively, down 0.106 and 0.069 percents from previous year.

**Profit growth fell and share of non-interest income increased.** The falling rate caused the overall profit level of the Japanese banking industry to fall. In FY 2014, 7 major banks in Japan reported net profit of JPY2.88 trillion, down JPY0.07 trillion from the previous year; 106 regional banks recorded net profit of JPY1.06 trillion, down JPY0.01 trillion from a year earlier. In terms of the structural change of the income, the share of net interest income fell significantly. In FY 2014, the share of net interest income for major banks and regional banks was 51.0% and 84.6% respectively, down 0.6 and 1.2 percentage points from a year earlier.

**Asset quality improved and CAR of major banks rose notably.** As of 2015Q1, the NPL ratio of deposit-taking financial institutions in Japanese banking industry stood at 2.1%, down 0.8 percents compared with previous year. In terms of different bank categories, the NPL ratio of 7 major banks was 1.10%, down 0.23 percentage points; that of 106 regional banks was 2.38%, down 0.34 percentage points. The fall was mainly due to enhanced efforts in write-off.

Alongside the rise of asset quality, the CAR of major banks also increased steadily. As of 2015Q1, the CAR of major banks (4 internationally active banks) reached 15.63%, up 0.45 percentage points from 2013; the CAR of international regional banks (banks with certain level of internationalization) was 14.64%, up 0.36 percentage points, while that of domestic regional banks (banks operating domestically) was 13.95%, down 0.32 percentage points compared with FY2013.

## II.4.2 Regulatory environment

The Japanese banking supervision experienced the following changes:

**Revised the capital requirement for major banks that apply international standards.** As part of the Basel III implementation, Financial Services Agency (FSA) raised the minimum tier 1 CAR from 4.5% to 7% for major banks that apply international standards on August 7, 2015. The new requirement is expected to take force from March 2016 following opinion solicitation.

**Further strengthened the breadth and depth of supervision.** In 2015, FSA will likely add the general affairs planning division which will be responsible for policy formulation and international businesses in order to strengthen the breadth and depth of financial supervision. In terms of breadth, the supervision will not only cover traditional products such as investment trust, but also extend to diversified products such as annuity insurance and bond portfolio; in terms of depth, supervision will not only cover the implementation of relevant policies by the headquarters of financial institutions, but also penetrate to the business lines and front desks to understand how internal guidelines and policies are implemented.

**Urged banks to enhance support to SMEs.** On July 30, 2015, FSA requested finance bureaus to survey the companies that borrow from local banks at the national finance officials' meeting. FSA had requested that local banks take into account the company's growth prospect and relax some security conditions to provide more support to SMEs when reviewing the companies' loan application. The survey changed the tradition of only approaching the banks. Instead it reviewed and evaluated the approval of bank loans from the perspective of the companies. Meanwhile, FSA will also assign young officials to SMEs nationwide to allow them to understand the actual situation of the local economy and loan demand from the perspective of the companies in the aim to promote the development of the local economy.

## II.4.3 Outlook

**Japanese banking industry still face challenging domestic operating environment which is unlikely to get upturn in the short term.** During April-June 2015, the actual GDP of Japan fell by 0.3% year-on-year, or at an annualized rate of 1.2%, the first fall in three quarters. The annualized fall comes after the annualized rise of 4.5% in Jan-Mar period. The fall can be attributed to weak personal consumption and slowdown in exports. The deteriorating operating environment in Japan will drive the banking industry to expand overseas.

**The trend of "going global" will continue.** At the end of March 2015, the international operation represented 33% of the total income of three major banks in Japan. The overseas expansion of local banks continues to pick up in pace. As Japanese banks are "going global", challenges emerge including how to improve corporate governance system, strengthen credit line management and ensure and train local talents. **III. China's Banking Industry Review and Outlook**

## III.1 Banking operation review

In the first half of 2015, 16 listed banks<sup>9</sup> took on the following characteristics: assets and liabilities continued to grow but at a slower pace; profit increased but slowed down remarkably; the percentage of loans and deposits recorded year-on-year decreased while the percentage of non-interest income increased; both the NPL amount and ratio continued to rise with more pressure

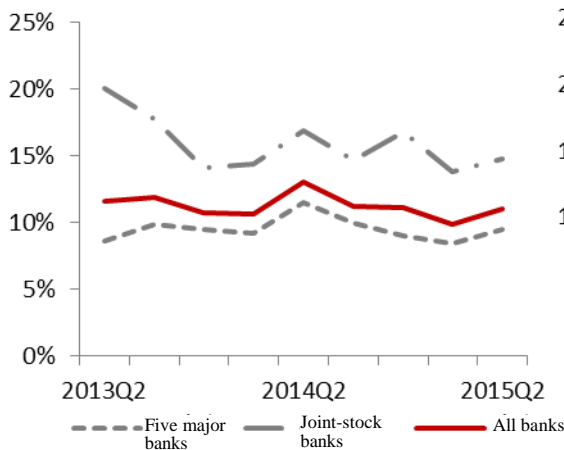
<sup>9</sup>Listed banks refer to the 16 commercial banks listed in the domestic A share market, including five major banks: ICBC, ABC, BOC, CCB, BOCOM; national joint-stock banks (joint stock bank): Merchant's Bank, SPDB, Minsheng Bank, CITIC Bank, Industrial Bank, Everbright Bank, Huaxia Bank, Ping An Bank; and three city commercial banks: Bank of Beijing, Bank of Nanjing, and Bank of Ningbo.

on loan loss coverage; CAR improved, but loan-to-deposit ratio rose slightly.

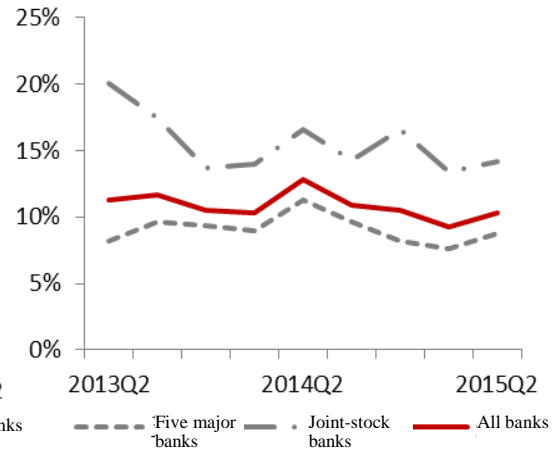
### III.1.1 Assets and liabilities continued to grow but at a slower pace

As of the end of June 2015, the assets and liabilities of commercial banks were RMB144.36 trillion and RMB133.87 trillion respectively, up 13.80% and 13.10% from a year earlier. The assets and liabilities of listed banks were RMB115.83 trillion and RMB107.87 trillion respectively, up 10.99% and 10.35% from a year earlier, 2.01 and 2.45 percentage points lower than the growth of last year. The assets and liabilities of five major banks were RMB81.52 trillion and RMB75.71 trillion respectively, up 9.47% and 8.78% from a year earlier. The growth rate was down by 2.03 and 2.53 percentage points compared with the same period last year. The assets and liabilities of joint-stock banks were RMB34.31 trillion and RMB32.16 trillion respectively, up 15.00% and 14.22% year-on-year. The growth rate was down by 1.93 and 2.43 percentage points compared with the same period last year.

**Figure 5: YoY Growth Rate of Assets of Listed Banks**



**Figure 6: YoY Growth Rate of Liabilities of Listed Banks**

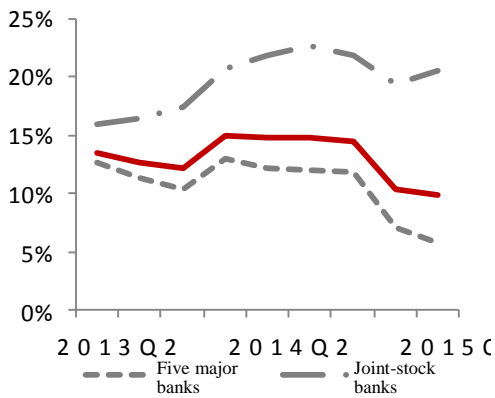


Sources: Wind, BOC Institute of International Finance (the same below)

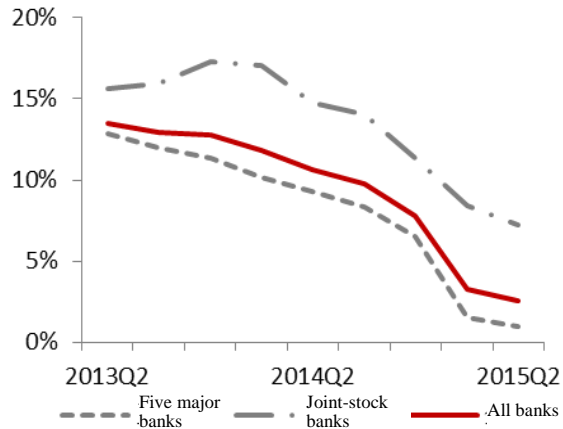
### III.1.2 Profit increased but slowed down remarkably

In the first half of 2015, commercial banks reported net profit of RMB871.5 billion, up 1.5% year on year. Listed banks reported operating income and net profit of RMB1,833.63 billion and RMB708.64 billion respectively, up 9.87% and 2.59% from a year earlier. The growth rate decelerated by 4.88 and 8.08 percentage points compared with the same period last year. Five major banks reported operating income and net profit of RMB1,277.714 billion and RMB518.726 billion respectively, up 5.81% and 0.97% from a year earlier. The growth rate was down 6.42 and 8.35 percentage points compared with the same period last year. The operating income and net profit of joint-stock banks increased by 20.47% and 7.26% respectively to RMB555.916 billion and RMB189.914 billion. The growth rate was down 1.42 and 7.50 percentage points.

**Figure 7: YoY Growth Rate of Operating Income of Listed Banks**

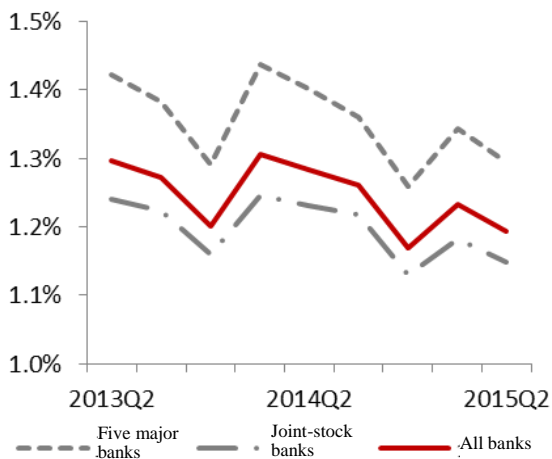


**Figure 8: YoY Growth Rate of Net Profit of Listed Banks**

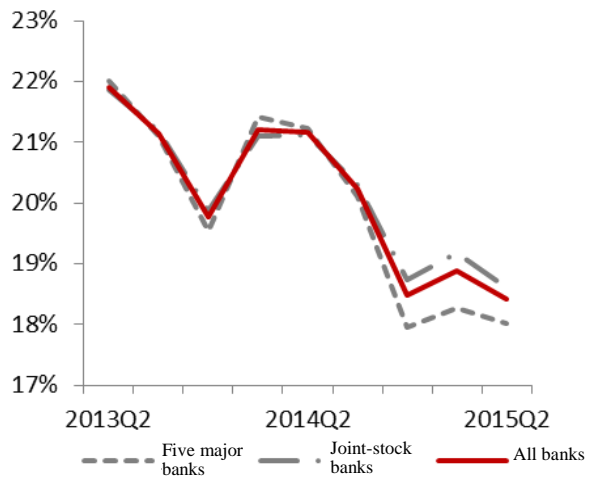


In the first half of 2015, the average ROA (annualized, the same below) of listed banks stood at 1.19%, down 9 basis points year on year; that of five major banks was 1.30%, down 11 basis points; and that of joint-stock banks fell 8 basis points to 1.15%. The average ROE (annualized, the same below) of listed banks stood at 18.42%, down 2.74 basis points year on year; that of five major banks was 18.02%, down 3.21 basis points; and that of joint-stock banks fell 2.53 basis points to 18.61%.

**Figure 9: Average ROA of Listed Banks**

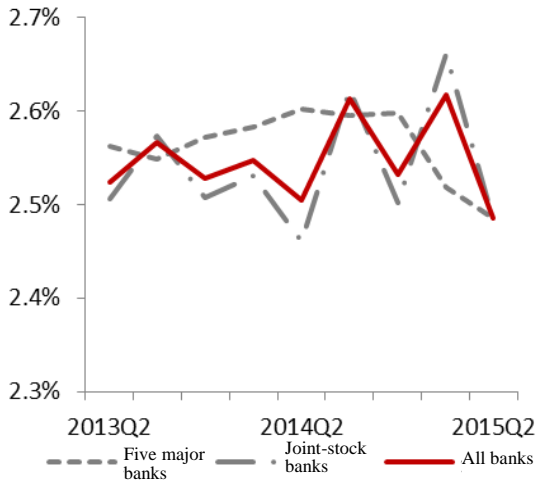


**Figure 10: Average ROE of Listed Banks**

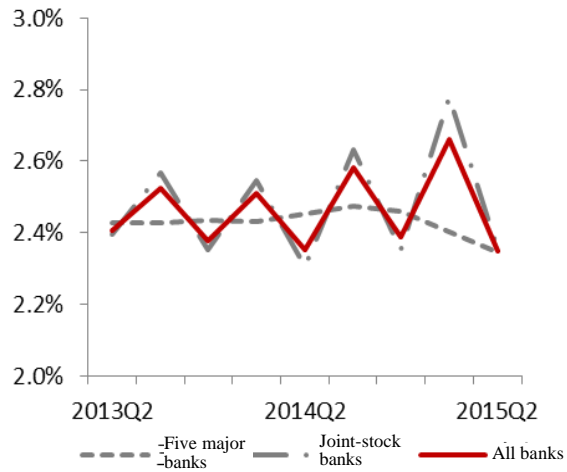


In the first half of 2015, the average net interest margin and net interest spread of listed banks was 2.48% and 2.35% respectively, down 2 and 0.2 basis points from a year earlier. The same indicators of five major banks were 2.49% and 2.34% respectively, down 11.6 and 10.9 basis points compared with the same period last year. For joint-stock banks, they were 2.48% and 2.35%, up 2.4 and 4.7 basis points from a year earlier.

**Figure 11: Average NIM of Listed Banks**

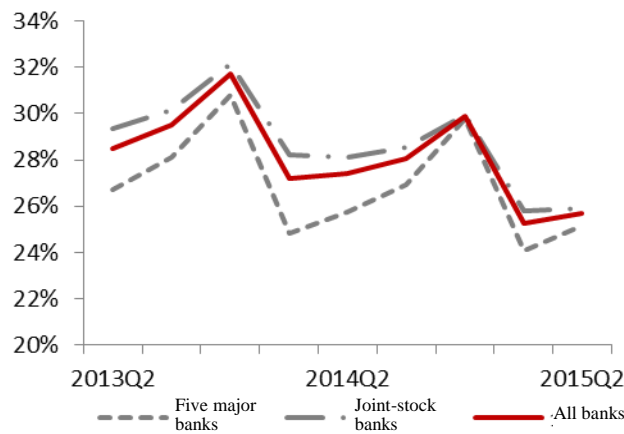


**Figure 12: Average NIS of Listed Banks**



In the first half of 2015, the cost-income ratio of listed banks was 25.67%, down 1.72 percentage points year on year. The ratio of five major banks stood at 25.13%, down 0.62 percentage points. The ratio of joint-stock banks fell by 2.22 percentage points to 25.92%.

**Figure 13: C/I of Listed Banks**

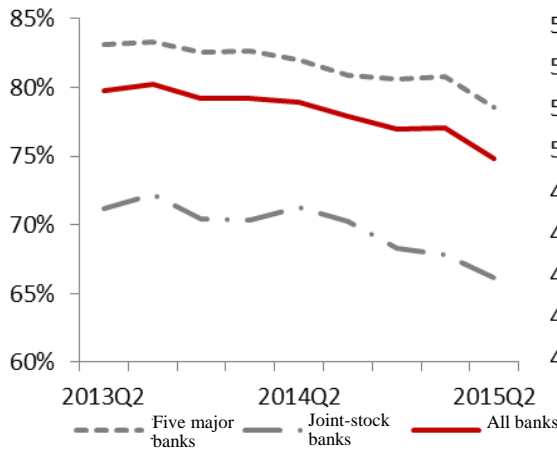


**III.1.3 The percentage of loans and deposits recorded a year-on-year decrease while the percentage of non-interest income increased**

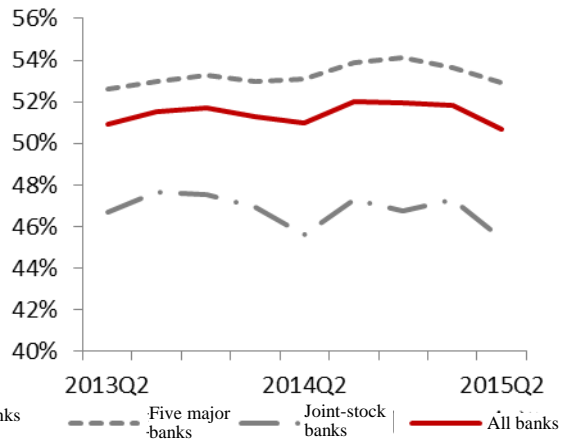
At the end of June 2015, the deposit balance of listed banks represented 74.83% of the total liabilities, down 4.70 percentage points year on year. The share of the five major banks and joint-stock banks were 78.51% and 66.15% respectively, down 3.47 and 5.13 percentage points year on year.

At the end of June 2015, the loan balance of listed banks represented 50.70% of total assets, down 0.26 percentage points from a year earlier. The share of the five major banks and joint-stock banks were 52.91% and 45.44% respectively, down 0.18 and 0.19 percentage points year on year.

**Figure 14: Deposit Balance/Total Liabilities of Listed Banks**



**Figure 15: Loan Outstandinging/Total Assets of Listed Banks**



In the first half of 2015, the non-interest income of listed banks (weighted average, the same below) accounted for 27.94% of total income, up 0.94 percentage point from a year earlier; The share of the five major banks and joint-stock banks were 27.16% and 28.26% respectively, up 0.23 and 0.38 percentage points year on year.

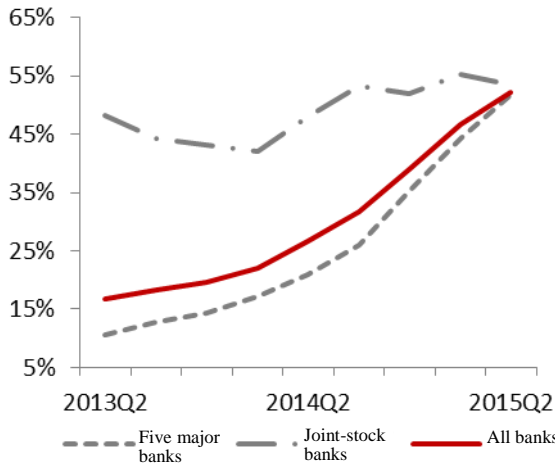
**Figure 16: Non-interest Income/Total Income of Listed Banks**



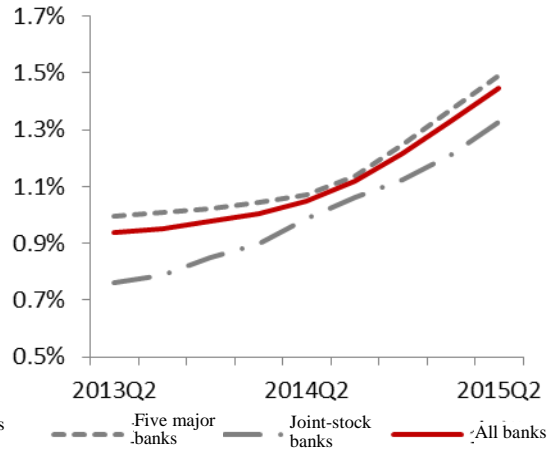
**III.1.4 Both the NPL amount and ratio continued to rise with more pressure on loan loss coverage**

At the end of June 2015, the outstanding NPL of listed banks was RMB849.383 billion, up 52.17% from a year earlier, 25.58 percentage points higher than last year; the NPL ratio (weighted average, the same below) was 1.45%, up 0.40 percentage points year on year. For five major banks, the outstanding NPL was RMB642.603 billion, up 51.74% from a year earlier, 30.71 percentage points higher than last year; the NPL ratio was 1.49%, up 0.42 percentage points from a year earlier. For joint-stock banks, the outstanding NPL was RMB206.780 billion, up 53.52% from a year earlier, 5.58 percentage points higher than last year; the NPL ratio was 1.33%, up 0.34 percentage points from a year earlier.

**Figure 17: Growth of NPLs of Listed Banks**

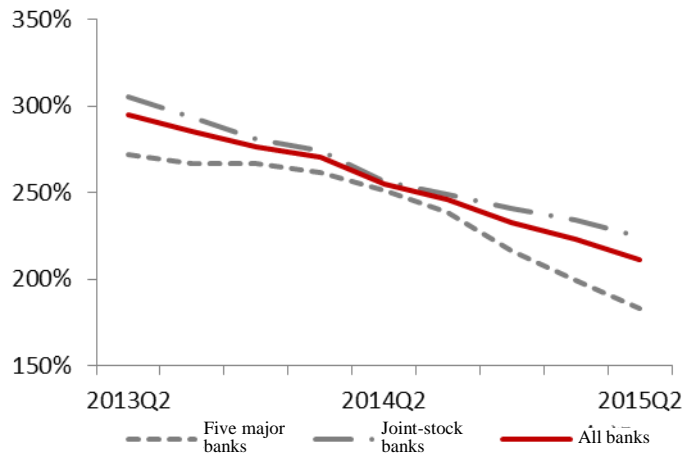


**Figure 18: NPL Ratio of Listed Banks**



In the first half of 2015, the average provision coverage ratio of listed banks stood at 211.63%, down 43.01 percentage points compared with the same period last year. The ratio of the five major banks and joint-stock banks were 183.09% and 224.60% respectively, down 67.81 and 31.74 percentage points from a year earlier.

**Figure 19: Average Provision Coverage Ratio of Listed Banks**



**III.1.5 CAR improved, but loan-to-deposit ratio rose slightly**

In the first half of 2015, the CAR, tier 1 CAR, and core tier 1 CAR of listed banks were 12.49%, 9.93% and 9.63% respectively, up 0.26, 0.59 and 0.30 percentage points from the previous year. The CAR, tier 1 CAR, and core tier 1 CAR of five major banks were 14.04%, 11.45% and 11.05% respectively, up 0.81, 1.04 and 0.65 percentage points from the previous year. Those of the joint-stock banks were 11.79%, 9.24% and 8.99% respectively, up 0.01, 0.39 and 0.14 percentage points.

In the first half of 2015, the loan-to-deposit ratio of listed banks rebounded notably from last year to 69.30%, an increase of 3.38 percentage points. The loan-to-deposit ratio of five major banks averaged 70.62%, up 2.00 percentage points year on year. The average ratio of the joint-stock banks rose by 4.01 percentage points from the previous year to 68.70%.

Figure 20: Average CAR of Listed banks

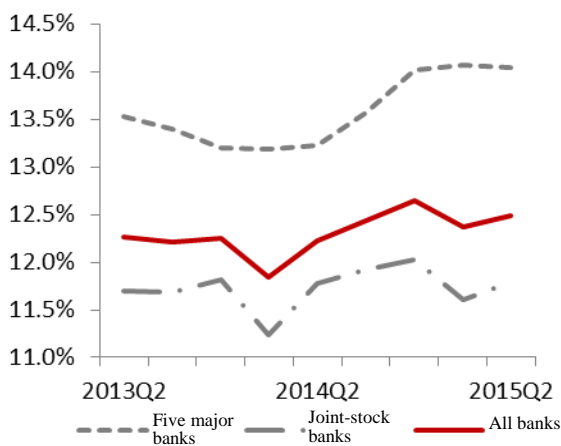
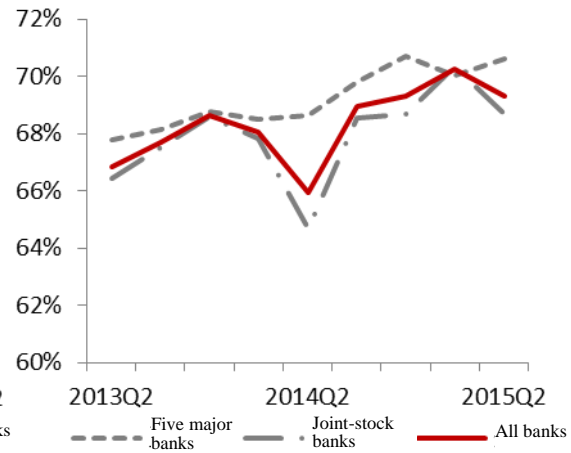


Figure 21: Loan-to-deposit Ratio of Listed Banks



## III.2 Outlook of banking industry in 2015

### III.2.1 Analysis of Q3 performance

In 2015Q3, the operational performance of the banking industry was significantly influenced by the following three factors:

First, economic growth. In 2015Q3, the economic growth slowed down but remained stable. In January through August, retail sales increased by 10.5% year on year, 1.6 percentage points lower than the previous year; fixed asset investment grew by 10.9%, 5.6 percentage points lower than a year ago; real estate investment rose by 3.5% with the rate tumbling 9.7 percentage points from the previous year; Imports and exports grew by -7.5% year on year. We expect Q4 GDP growth to remain at around 7%. As the banking industry is pro-cyclical, its operational performance will be influenced to some extent by the economic slowdown.

Second, monetary policy. In 2015Q3, PBC cut interest rate and RRR each once. On August 26, PBC cut the benchmark interest rate for RMB deposit and loan of financial institutions; on September 6, PBC cut the RRR by 0.5 percentage points and implemented extra reduction for rural financial institutions, financial leasing companies and automotive leasing companies. In the short term, the RRR cut would release bank liquidity and the rate cut would squeeze the net interest margin and drive down bank profit. The combination of both would have mixed effect on banks' operational performance.

Third, financial reform. In 2015Q3, the reform made partial progress. The interest rate liberalization continued to move forward. On August 26, when announcing the cut of interest rate and RRR, the central bank removed the upper limit of interest rate for deposits with maturity of one year or longer, putting more pressure on the interest margin of banks; the offering size of certificate of deposit continued to expand, providing more diversified funding sources for banks. On August 29, the Standing Committee of NPC voted for the decision to amend the *Commercial Banks Act PRC*. Starting from October 1, 2015, the mandatory loan-to-deposit ratio of 75% will be eliminated, which would help banks to moderately increase credit supply, enhance the support to the real economy and promote business innovation.

In conclusion, we expect the assets and liabilities of listed banks to maintain a steady growth of around 10% and 9.5% respectively in 2015Q3 compared with the same period last year; the growth

of net profit to further slow down to around 2.2%, 7.5 percentage points lower than last year; the prudent operation capability needs further attention. The NPL ratio is expected to rise at a slower pace of 5 basis points to around 1.5%.

### III.2.2 Outlook of listed banks in 2015

In 2015, the operation of listed banks is influenced by the following factors:

First, economic growth slows but remains stable. Chinese economy is currently under transition from inefficient growth of the manufacturing sector to efficient growth, and from over-reliance on investment to dependence on a combination of consumption and investment. We expect the Chinese economy to still face difficulties and downward pressure in 2015Q4 but to remain in the reasonable range. New profit growth points will emerge and financial support will be imperative, thus providing new opportunities for the banking industry.

Second, financial support is enhanced. As the funds outstanding for foreign exchange grow at a low level and the size of innovative monetary policy instruments such as Pledged Supplementary Lending (PSL) continues to expand, the basic money supply channel will be further expanded and optimized. This, along with the possibility of RRR cut, will provide the basis for scale up of banks.

Third, China is promoting financial reform gradually. Firstly, the elimination of the mandatory loan-to-deposit ratio of 75% will help release bank liquidity to support the real economy; secondly, the further materialization of such reform measures as asset securitization and SOE reforms will revitalize the commercial banks to improve operating efficiency.

Fourth, strategic opportunities bring new profit growth points for banks. Firstly, the “Belt and Road” initiative will bring new opportunities. Given that the interconnection of capital is essential for the implementation of the “Belt and Road”, the commercial banks, as the important media for keeping capital interconnected, will face new opportunities in infrastructure interconnection and international capacity cooperation and other areas. Secondly, the economic transformation calls for urgent financial support. With the deepening of economic structural adjustment, China has launched a series of support policies such as “Made in China 2025”, “Internet plus”, and “popular entrepreneurship and mass innovation”, which will bring new opportunities for the business innovation of commercial banks. Finally, the regional economic development puts new requirements on the banking industry. The integration of Beijing, Tianjin and Hebei, the Yangtze River economic belt and the establishment of free trade zones raise new requirement for credit granting, product innovation and risk management of commercial banks.

After evaluating the above factors, we expect the listed banks to face substantial operation pressure in 2015. Net profit is expected to grow by around 2% year on year, assets and liabilities to rise by around 10.5% and 10% respectively, and NPL ratio to increase to about 1.55%.

**Table 3: Forecast of Key Indicators of China's Listed Banks in 2015 (%)**

		2013 (R)	2014 (R)	2015			
				Q1(R)	Q2(R)	Q3(E)	Full year(F)
Size	Asset growth	10.8	11.2	9.9	11	10	c. 10.5
	Liability growth	10.1	10.6	9.2	10.3	9.5	c. 10
Profit	Net profit growth	12.8	7.8	3.3	2.6	2.2	c. 2
Structure	Share of loans	51.7	52.0	51.8	50.7	51.5	c. 52
	Share of deposits	79.2	77.0	77.0	74.8	74.0	c. 73
	Share of non-interest income	23.1	24.3	28.8	27.9	27.2	c. 26
Quality	NPL ratio	0.90	1.21	1.33	1.45	1.5	c. 1.55
	Provision coverage ratio	276	233	223	213	205	c. 200
Capital	CAR	12.2	12.6	12.4	12.5	12.6	c. 12.6

Source: BOC Institute of International Finance

#### IV. Analysis of Hot Topics

##### IV.1 Characteristics of the new round of overseas expansion of Japanese banking industry and implications for Chinese banking industry

Since 2008, the Japanese banking industry has embarked on a new round of overseas expansion, which showed six major characteristics: focus on the North America and Asian emerging markets; through both M&A and open a new site; serving local companies as the main purpose; interest margin as key source of profit; three largest banks as the main forces of expansion; and strictly manage overseas risk.

###### IV.1.1 Drivers behind the new round of overseas expansion of Japanese banking industry

**Economy contracted and credit growth slowed.** From 2008Q3 to 2015Q1, GDP grew at an average rate of only -0.53% year on year, much lower than the level of 1.25% in 2007. Amid economic downturn, both the supply and demand side of the credit capital contracted.

**Easing monetary policy put pressure on bank performance.** In order to ease domestic deflation pressure, Japan launched the quantitative easing monetary policy typically as “Abenomics”. The policy had the following impact on the banking industry: The interest spread of deposit and loan narrowed. The average interest spread of three G-SIBs fell from 1.27% in FY2012 to 1.09% in FY2014, a decrease of 0.18 percentage points on average; the exchange rate of JPY continued to fall. In 2013, USD/JPY entered the downward channel. In June 2015, USD/JPY climbed at one time to JPY125.58, up 39.6% from the lowest level (USD1 against JPY75.81) in November 2011.

**Overseas markets provide favorable investment environment.** Another key reason behind the overseas expansion is that the target regions have generally robust economic growth and operational performance of banks. The principal destinations of the overseas expansion of Japanese banks include Asia Pacific, North America and Latin America which offer strong attractiveness in macro economic growth (GDP growth), banks’ profitability (ROE) and asset quality (NPL).

**Major banks in Europe and US opt for strategic contraction.** Heavily hit after the financial crisis in 2008, the major banks in Europe and US were unable to maintain their pre-crisis overseas

expansion. Meanwhile, the introduction of regulatory rules such as Basel III caused major banks globally to face more rigorous regulatory environment, resulting in substantial deleveraging of major banks in Europe and US. In contrast, the Japanese banks were less hit in the financial crisis and the implementation of Basel III in Japan was slow and subdued. The strategic contraction of Europe and US banks provides the historic opportunities for Japanese banks to expand overseas and change the global banking landscape.

#### IV.1.2 Key gaps between major banks in China and Japan in overseas expansion

Compared with major banks in Japan, Chinese banks lag behind in terms of internationalization in the following aspects:

**First, Oversea infrastructure.** Japanese banks started the internationalization process earlier and have accumulated strong human capital. They have basically established sites in major countries and regions globally and have built well-established operation network and customer base in key markets. Thus their overseas expansion has moved from the phase of establishing presence to the phase of enhancing presence. In contrast, Chinese banks started the internationalization process late and are still in the phase of establishing sites along with the local companies pursuing overseas expansion. Chinese banks lag far behind in terms of the number of overseas staff, entities and countries where presence is established.

**Second, the efficiency of overseas assets.** Chinese banks also lag behind their Japanese peers in terms of overseas operation efficiency. In 2014, the overseas pretax profit of five major banks in China represented 0.58 of overseas assets on average, lower than the Japanese banks'<sup>10</sup> average of 0.69<sup>11</sup>.

**Third, the diversification of income structure and expansion approach.** With regard to income source, interest income represents an average of over 90% for five major banks in China, while interest income contributes 70%-80% on average for Japanese peers, with the ratio approaching 60% for Mitsubishi UFJ which is more diversified in income. The overseas interest income of Chinese banks derived principally from the corporate business, especially Chinese companies seeking overseas expansion; while Japanese banks focused more on meeting the capital needs of local companies except for the Japanese companies in the overseas market, and recorded fee-based income through project financing and syndicated loans, etc. In respect of expansion approach, Chinese banks prefer to establish branches and subsidiaries while Japanese peers emphasize balanced approach which combines network expansion and M&A.

**Fourth, overseas risk resistance capability.** In 2014, the overseas loan-to-deposit ratio of three Japanese banks averaged 90.2% with little difference, while the ratio of five major banks in China averaged 123.9% with large variation between banks. The overseas deposits can represent up to 60% of liabilities of three Japanese banks, while the average level of five major banks in China is less than 45%.

#### IV.1.3 Implications and recommendations

Currently in the context of China's economy entering new normal, financial market reform, construction of the "One Belt and One Road" and acceleration of RMB internationalization, the Chinese banking industry should seize the historic opportunity to push forward the

<sup>10</sup>Mizuho uses the percentage of overseas loan balance in total loan balance as reference; SMFG uses the percentage of overseas interest bearing assets in total interest bearing assets as the reference for asset share.

<sup>11</sup>Japanese banks use the data for FY2013, i.e., as of March 31, 2014. In FY2013, the overseas pretax income of Mitsubishi UFJ was hit by its loss in the US market. In FY2011 and 2012, the banks recorded the share of overseas income of 45.8% and 41.4% respectively and profit/asset efficiency of above 1.

internationalization process through capacity building, reasonable business distribution, acting realistically, creating unique strength, and government guidance.

**First, capacity building.** Chinese banks should draw on the lessons of Japanese peers to enhance operating efficiency, management level, and asset efficiency and foster their strength in the domestic market so as to provide the solid basis for overseas expansion, especially in the current context of potential reshaping of the Chinese banking industry that may derive from the financial market reform.

**Second, reasonable business distribution.** In terms of business dimension, Chinese banks should follow the general practice of overseas expansion of commercial banks to gradually move from “establishing presence” to “enhancing presence”. They should diversify their income sources by transforming the business model from relying on the Chinese companies expanding overseas to operating globally with full penetration into local markets; Geographically, Chinese banks should optimize overseas business distribution to increase the expansion in the regions that have positive economic growth prospect, close trade relationship with China, large Chinese population and generally strong banking industry and take into account the current development situation of global banking industry and national growth strategy; meanwhile, Chinese banks should follow the national strategies to increase the coverage in the countries along the “One Belt and One Road” and take into account the financial needs of the Chinese companies expanding overseas.

**Third, acting realistically.** Overseas expansion provides both opportunities and challenges. There are many cases of failure as a result of inappropriate expansion strategy, such as RBOS and Dexia. Internationalization is not the prerequisite for the success of major banks. Examples of success that focuses on local operations include Wells Fargo and Bank of America. Commercial banks should not expand overseas recklessly, but should carry out thorough research and investigation before developing their own growth strategy in a prudent way based on own strength and business characteristics.

**Fourth, creating unique characteristics.** Small and medium sized banks may also pursue their internationalization path by expanding customer base and business scope through such methods as resources sharing. In the developed financial market with weak economy, such as West Europe, banks should focus on the innovative businesses such as wealth management and financial assets trading; In the regions with robust economic growth potential and large population of Chinese descendants, such as Southeast Asia, banks could consider M&A and greenfield investment to diversify their income sources and expansion methods; In the emerging countries such as Africa and Latin America, banks should follow steps with outbound Chinese companies to expand overseas by establishing operation network.

**Fifth, government guidance.** The authorities should release guidance on the “going global” drive of major banks, and produce a roadmap for the overseas expansion of major banks that suits the Chinese conditions by taking into account the industry landscape of US, France, Japan and UK banks and the overseas expansion extent and sequence of major banks.

#### **IV.2 Stress test of financial institutions and implications for Chinese banking industry**

Since the global financial crisis in 2008, regulatory authorities have generally enhanced the financial supervision in order to foster the soundness of the operation of financial institutions. It has become the key area of attention for regulatory authorities to ascertain the risk resistance capability of major financial institutions in the extreme scenarios.

### IV.2.1 Definition of stress test

Stress test refers to a set of methods used to evaluate the vulnerability of financial system under the impact from unusual but possible macro-economic factors. In brief, it is the review process where the risk resistance capability of certain financial institution is determined under the prescribed risk scenario. In general, stress test is comprised of the following key steps: selecting risk factors; setting risk scenarios; verifying transmission path; and stress testing and result evaluation.

### IV.2.2 Comparison of the stress testing model of financial institutions in key countries

Since the global financial crisis in 2008, the banking regulators in the US, Euro Zone and UK have successively built their own stress testing system. The below compares the stress testing frameworks of the US, Euro Zone and UK from the perspective of implementation arrangement, risk scenario setting, risk transmission system and assessment of risk resistance capability.

**(1) Implementation arrangement.** In general, the stress testing frameworks of the US, Euro Zone and UK are all established after the crisis to target large and medium sized financial institutions. Their differences include:

**The governing body.** The stress testing in the UK and Euro Zone is implemented by the regulatory authorities, namely Financial Policy Committee and Prudential Regulation Authority in the UK and European Banking Authority in the Euro Zone, while in the US, it is implemented by the monetary authority Federal Reserve.

**The frequency of implementation.** The stress testing in the US and UK is implemented annually, while it is less regular in the Euro Zone with four implementations occurring in 2009, 2010, 2011 and 2014.

**The test target.** The test targets in the US include not only bank holding companies but also non-bank financial institutions; they primarily include bank groups in the Euro Zone; in the UK, one home mortgage association except for 7 bank groups are tested.

**The test duration.** Take the US for example, the stress testing uses 2014Q3 as the base period and lasts for 9 quarters; in the Euro Zone, the base period is the end of 2013 and the window period is 2-3 years; in the UK, the base period is the end of 2014 and the window period is 5 years.

**(2) Risk scenario setting.** In the course of setting risk scenario, the banking industry in the US, Euro Zone and UK take on the following characteristics:

**The focus of the risk scenario differs.** The US focuses on macroeconomic risk. The Euro Zone focuses on four types of risks: global bond yield rose; the credit quality declined in countries with weak demand; the reform stagnated and market confidence fell; the contraction of the balance sheet of banks caused financing cost to rise. The UK focuses on the deflation in the real economy and the credit risk of the exposure of domestic companies<sup>12</sup>, which are subject to the forecast of future economy.

**Non-local risks are paid strong attention.** In the stress test in the US, Euro Zone and UK, the number of risk factors in the non-local region represent 42.9%, 85% and 76.1% respectively.

**The method of risk scenario setting varies.** In terms of the basis for risk scenario setting, the US completely adopts the experts' assumption of the future economy instead of relying on the forecast of economic trend. The UK uses the historic data with long time span and designs the extreme risk

<sup>12</sup>In 2014, the stress test focused on the inflation pressure of the real economy and the credit risk from households.

scenarios based on the data's statistical rule and current trend. In addition, the inter-linked scenario is designed based on the historic correlation of the risk factors. The Euro Zone focuses more on the consistence with the forecast of future major risks by competent authorities and takes into account the estimate of the most possible future risks by the European commission based on the current situation of risk indicators. In terms of dynamic assumption of risk scenario, the US implements dynamic stress test. Each class of asset that participates in the test has an assumed growth rate. The stress test in the Euro Zone assumes all assets will remain unchanged within the duration. The UK has the similar assumption with the Euro Zone.

**(3) Risk transmission system.** The risk transmission system in the stress test is the “black box” and the core technique. Based on the information disclosed by the US, UK, and Euro Zone, the risk transmission system has the following characteristics: transparent disclosure mechanism; clearly defined risk transmission methods for various assets.

**(4) Risk resistance capability.** In the course of stress testing, the regulator will select certain indicators to measure banks' risk resistance capability. If the indicators are above threshold under the stress scenario, the banks' operation is robust; otherwise, the banks fail in the stress test and need to take remedial actions.

**Threshold setting.** All the three stress test frameworks use CAR to ascertain banks' risk resistance capability, but the thresholds are set at different level. The threshold set by the US banking industry is the highest, followed by the UK and Europe.

**Test results.** In the stress test of the US in 2014, all 31 institutions passed the quantitative stress test and 3 institutions failed in the qualitative stress test. In the UK, only the Cooperative Bank failed in the stress test. Under the stress scenario, the bank's tier 1 core CAR is only -2.6%, lower than 4.5%, and its leverage ratio is -1.2%, lower than 3%. Its vulnerability under the stress scenario is reflected in the residential mortgage and real estate sectors. Among 123 banks that participated in the stress test of the Euro Zone, 24 failed with the shortage of capital base totaling EUR 24.2 billion.

**Restraint mechanism on failed banks.** In the US, Bank of America that conditionally passed the test must submit the remedial plan before September 30, 2015 to remedy the defects. In the UK, the PRA required the Cooperative Bank to submit the new capital plan which must include the downsizing of risk assets and balance sheet in the future. In the Euro Zone, the failed banks must submit the new capital plan within two weeks of announcement of results and explain how to replenish the capital shortage within the prescribed timeframe.

#### IV.2.3 Comparison of the above bank stress tests with that in China

Compared with the bank stress test in the US, Euro Zone and UK, the differences of the bank stress test in China are reflected in the following:

**First, risk factors lean toward local risk impact and the test scenario is monotonous.** The stress test in China focused on the local risks. Among all the stress scenarios, only RMB/USD in the currency risk involves external risk factor. The scenarios are based on the survey results of the questionnaire for external experts, which is similar with the US. However, in contrast to the stress tests in the US, Euro Zone and UK, the stress test scenario in China is the single scenario without considering the interconnection of the risk factors, which could underestimate the actual risk brought by the risk factors.

**Second, the stress test process is pure static assumption without the window period of risk evolution.** The stress test in China is based on a static timing instead of the window period when

the risks deteriorate. In other words, the impact on the balance sheet and CAR of banks from the stress test is one-off. The risk deteriorating process is not considered. During the stress test in the US, Euro Zone and UK, there are window period of 9 quarters, 2-3 years and 5 years respectively for the risk factors to transmit.

**Third, China doesn't have well-established qualitative detection and information disclosure on the transmission mechanism.** The stress test in China doesn't have sufficient information disclosure on the transmission mechanism. There is also no specialized qualitative method to test if the transmission mechanism is consistent and compliant. This means the stress test methods of commercial banks may vary significantly, which could notably impact the reliability of the results.

**Fourth, the threshold setting is too monotonous and has room to improve.** The stress test in China uses CAR as the reference and sets the threshold at the higher level of 10.5%. However, as the test is conducted on each risk separately and does not consider the combined effect of all risks, the impact on the final results of the higher threshold would be partly offset.

**Fifth, the restraint mechanism on failed banks is needed.** China doesn't put in place the restraint mechanism on the failed banks which don't have specific remedial plan. This would substantially weaken the restriction effect of the stress test.

#### IV.2.4 Recommendations on improving the bank stress test mechanism in China

We recommend taking the following actions to continuously improve the stress test mechanism for commercial banks in China.

**First, optimize the selection of risk factors.** The selection of risk factors should focus on the spillover of overseas risk factors, such as the change of the monetary policy in key economies, and the fluctuation of RMB exchange rate against non-USD currencies. Meanwhile, the development of risk scenario should focus on the correlation of various risk factors and consider the inter-linked stress test scenario to comply to the largest extent with the objective law of macroeconomic and financial functioning and enable more accurate determination of the overall risk resistance capability of banks under the stress scenario.

**Second, revise the static assumption in the stress test.** The static assumption should be revised to achieve dynamic pre-forecast of the growth of various assets; Reasonable assumption should also be made on banks' distribution plan and financing plan to further align the simulated scenario with the reality; finally, the window period should be determined based on the actual situation.

**Third, set up a uniform and transparent risk transmission mechanism.** The stress test not only requires quantitative testing of such indicators as CAR and liquidity but also needs to review the compliance and consistency of various processes (qualitative testing). The results of the stress test can only be comparable and referenced if the various processes are consistent and compliant. A uniform, transparent and detailed risk transmission mechanism should be established with prudential sub-mechanisms for different categories of risks and assets.

**Fourth, adjust the evaluation mechanism of stress test.** In addition to the current stress test of single risk, China should increase research on risk scenario linking mechanism and loss aggregation skills to draw a uniform conclusion on the risk resistance capability under the risk linked scenario. Moreover, given the higher requirement on the quality of capital base from Basel III, China should add the thresholds for high quality capital, such as tier 1 core CAR, tier 1 CAR, etc. With regard to liquidity indicators, the liquidity ratio is less used in China. In the context of elimination of loan-to-deposit ratio supervision, China should gradually adopt the liquidity coverage ratio and net stable funding ratio as the barometer for the stress test of liquidity.

**Fifth, establish the restraint mechanism on failed banks.** Develop and implement the resolution plan for failed banks. The plan should include: revision of the capital plan, including change of the dividend distribution plan, financing plan and the size of risk weighted assets; completion schedule; and solution in case of failed capital plan.

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