



## Global Banking Industry Outlook

2016Q3 (Issue 8)

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### Highlights

- In 2015, overall performance of banks in the Eurozone, the UK and Japan was dragged down by the sluggish growth of their economy, fluctuations of bulk commodity prices, the Brexit and the “negative interest rate” policy. However, in relative terms, the U.S. banks showed sound operation on a whole.
- In 2016Q2, Chinese listed banks were under great operating pressure, thus their net profit is estimated to grow by 2% year on year and NPL ratio further to about 1.8%. How to further curb the asset quality deterioration and stabilize growth will become an important task in the next stage.
- The present report will specifically analyze the internationalization of China’s banking industry and leverage ratios of non-financial corporations, among other hot topics.

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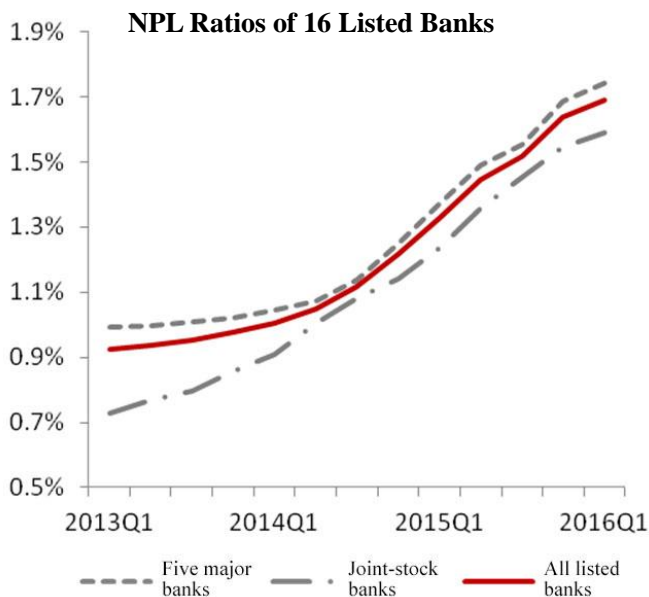
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## Controlling Risks and Stabilizing Growth to Increase Capacity for Prudent Operation

### ----Global Banking Industry Outlook (2016Q3)

In 2015, for 30 Global Systematically Important Banks (“G-SIBs”), both total assets and total liabilities downsized, the percentage of deposits in liabilities and of loans in assets picked up, net profits reported an obvious decline, net interest margin (“NIM”) remained steady, both return on assets (“ROA”) and return on equity (“ROE”) reduced, capital adequacy ratio (“CAR”) nudged up, and asset quality turned better. China’s G-SIBs outperformed their foreign counterparts in areas like growth rate of scale, NIM, asset quality and profitability, but the quicker deceleration of net profit growth and the deterioration of asset quality should merit attention. With respect to banks in different countries, the “negative interest rate” policy frustrated the banking industry in both Eurozone and Japan, and local banks showed gloomy operation; banks in the UK were faced with great uncertainties; however, the U.S. banks went on steadily at large. In 2016Q2, albeit continued pressure on asset quality of China’s banks, risks were controllable in general and rapid development of non-interest businesses warranted stable profitability. Throughout 2016, China’s economy will be pressured to decline constantly, banks will still embrace enormous challenges in their operation, while the varied capacities for asset quality control and non-interest business development will cause wider discrepancies between banks.

#### I. Operational Characteristics of Global G-SIBs

##### I.1 Operating profile

###### I.1.1 Assets and liabilities downsized, loan-to-deposit ratio rallied

As of the end of 2015, assets and liabilities of 30 G-SIBs were USD47.9 trillion and USD44.4 trillion respectively, a decrease of 7.8% and 8.4% compared with the end of 2014, and the growth rate was reduced by 3.8 and 4.0 percentage points over a year earlier respectively. China’s G-SIBs outpaced most of the G-SIBs with a growth rate of assets and liabilities at 5.0% and 4.3% on average respectively.

As of the end of 2015, deposits of 30 G-SIBs accounted for 56.0% of their liabilities and loans took a share of 39.2% in their assets, up 2.2 and 1.4 percentage points over a year earlier respectively. Specifically, 21 of the 30 G-SIBs saw their loans represent a higher percentage in assets and the highest increase reached 11.7 percentage points; and 22 banks reported a higher percentage of deposits in liabilities and the highest increase reached 11.3 percentage points. Different from the foreign counterparts, China’s G-SIBs registered a smaller percentage of deposits in liabilities and of loans in assets, down 1.5 and 0.3 percentage points respectively due to such factors as interest rate liberalization.

###### I.1.2 Net profits declined dramatically

As of the end of 2015, net profits of 30 G-SIBs declined by 13.4% compared with 2014 to USD295.38 billion, with a growth rate decreasing by 22.8 percentage points over a year earlier. And the two percentage ratios for China’s G-SIBs stood at 3.1% and 8.9 percentage points.

###### I.1.3 NIM remained steady overall

In 2015, NIM of 30 G-SIBs averaged to 1.6%, staying unchanged from 2014. NIM of China’s

G-SIBs, at 2.3%, still led a majority of the foreign counterparts, in spite of a 0.2 percentage point decrease over the end of 2014.

#### **I.1.4 Operating efficiency dropped**

In 2015, the average cost-to-income ratio of 30 G-SIBs was 67.6%, an increase of 1.5 percentage points versus the end of 2014. And the average figure of China's G-SIBs was 36.8%, far lower than the above average level.

#### **I.1.5 CAR increased steadily**

In 2015, CAR of 30 G-SIBs increased by 1.2 percentage points over the end of 2014 to 16.9% on average, indicating higher prudence. And the two figures for China's G-SIBs were 0.4 percentage points and 14.4%.

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

In 2015, average NPL ratio of 30 G-SIBs was 2.7%, down 0.3 percentage points from the end of 2014. In the context of heavier economic downturn pressure, NPL ratio of China's G-SIBs grew by 0.5 percentage points over the end of 2014 to 1.7%, which was still far lower than the average level of global banks.

#### **I.1.7 Return ratios descended**

In 2015, ROA and ROE of 30 G-SIBs stood at 0.5% and 7.0% respectively. If compared with the figures of 2014, ROA was at par, while ROE descended by 0.4 percentage points. Meanwhile, China's G-SIBs still kept their ROA and ROE at a high level of 1.2% and 16% respectively.

#### **I.1.8 Valuation level fell**

In 2015, price/book value ratio (P/B) of 30 G-SIBs averaged to 0.8x, less than the ratio at the end of 2014 by 0.1x, and the value decrement reached 11.1%. P/B of China's G-SIBs was also 0.8x.

### **I.2 Outlook**

In general, the G-SIBs will feature the following trends in the latter half year of 2016:

The size of both assets and liabilities will continue to shrink to varied degrees. Currently, the G-SIBs are strengthening their restructuring efforts, with less energy devoted to the expansion of size and physical outlets, thus banks' balance sheet is contracting. Except Chinese and Japanese G-SIBs, the rest ones are to further downsize their assets and liabilities.

Profit-earning prospect is unoptimistic. In the second half year of 2016, the international economic environment will remain sluggish, prices of bulk commodities including crude oil and natural gas will remain rocky in the international market, European and American banks which still have large exposures to connected products are expected to reap fluctuating trading revenues. The deepening of "negative interest rate" policy and the potential impacts of the Brexit and European refugee crisis, etc. will cast a shadow over the profitability of G-SIBs in the UK and the Eurozone.

CAR increased steadily. Under the increasingly stricter regulatory requirements, CAR of G-SIBs will further elevate in the second half of 2016.

Asset quality will trend discrepantly further. At present, thanks to the strong recovery of U.S. economy, the country's G-SIBs will continuously decrease their NPL ratio when the figure is already small. However, G-SIBs in Europe and Japan are being inflicted by the economic slowdown and asset quality deterioration of overseas businesses and faced with heavier pressure of NPL increase. Likewise, China's G-SIBs have also encountered the severer problem of

non-performing asset disposal.

**Table 1: Business Indicators of G-SIBs in 2015<sup>①</sup> (USD100mn, %)**

	Assets	Growth rate	Liabilities	Growth rate	Deposits/liabilities	Change	Loans/asset	Change
Industrial and Commercial Bank of China	34234.7	3.1	31459.4	2.4	80.7	-1.8	53.7	0.2
China Construction Bank	28284.4	4.9	26056.9	4.3	80.9	-2.3	57.1	0.6
Agricultural Bank of China	27424.1	6.6	25556.1	5.9	81.7	-2.0	50.1	-0.6
Bank of China	25920.0	5.5	23827.3	4.8	77.4	0.2	54.3	-1.3
HSBC Holdings	24096.6	-8.5	22121.4	-9.1	58.3	2.8	38.8	1.3
Royal Bank of Scotland	16502.3	-22.0	15531.8	-22.8	39.7	6.6	36.1	4.2
Barclays	12014.2	-26.6	11216.4	-27.3	45.1	9.3	38.4	5.0
Standard Chartered Bank	6404.8	-11.8	5919.7	-12.8	59.2	-0.5	41.2	1.5
UniCredit S.P.A.	9349.5	-8.5	8768.3	-8.4	55.7	10.1	56.8	-1.1
Banco Santander	14563.3	-5.0	13490.2	-5.2	52.0	0.5	61.0	0.8
UBS AG	9431.0	-11.8	8857.8	-12.7	44.1	3.4	33.2	3.4
Credit Suisse Group	8210.5	-11.4	7760.2	-12.0	44.2	2.1	33.4	3.7
Nordea	7028.9	-13.2	6691.7	-13.5	29.9	2.8	47.4	-5.0
Mizuho Financial Group	26508.7	11.1	24963.7	11.4	57.0	-6.0	38.0	-1.0
Sumitomo Mitsui Financial Group	17191.7	8.7	16360.6	9.1	57.0	-6.1	38.0	-1.6
Mitsubishi UFJ Financial Group	16581.0	8.4	15652.6	8.7	62.0	-4.5	40.0	-0.9
JPMorgan Chase	23517.0	-8.6	21041.3	-10.1	60.8	2.6	35.6	6.2
Wells Fargo	21443.2	1.9	18881.1	1.5	63.4	3.3	42.5	0.0
Bank of America	17876.3	6.0	15937.4	6.1	76.8	-1.0	52.4	0.1
Citigroup	17312.1	-6.0	15081.2	-7.5	60.2	5.0	37.3	0.7
Goldman Sachs Group	8614.0	0.6	7742.1	0.2	39.1	1.6	13.7	-0.7
Morgan Stanley	7874.7	-1.8	7112.8	-2.5	48.2	5.0	16.7	2.3
Bank of New York Mellon	3937.8	2.2	3548.1	2.4	78.8	2.1	16.2	0.8
State Street	2451.9	-10.6	2240.6	-11.3	85.5	2.8	7.7	1.0
ING	9146.7	-23.9	8620.0	-23.8	63.1	11.3	64.5	11.7
BNP Paribas	21668.9	-13.8	20581.5	-14.3	36.7	4.6	36.9	2.4
Societe Generale	16617.3	-13.6	15971.5	-13.9	34.1	3.9	22.1	1.7
Crédit Agricole	14499.5	-8.4	13818.5	-8.6	28.3	2.1	31.4	2.0
Groupe BPCE	12675.6	-14.4	11967.2	-14.8	42.7	4.2	54.0	3.0
Deutsche Bank	17702.1	-14.4	16967.3	-14.3	36.3	3.7	26.6	2.5
Average	15969.4	-5.8	14791.5	-6.3	56.0	2.2	39.2	1.4
Over 2014	-800.7	-3.8	-834.3	-4.0	6.0	1.9	1.4	1.6

Sources: Bloomberg, Wind, BOC Institute of International Finance

**Table 2: Business Indicators of G-SIBs in 2015<sup>②</sup> (USD100mn, %)**

	Net profits	NIM	C/I	CAR	NPL	ROA	ROE	P/B
Industrial and Commercial Bank of China	441.1	2.5	33.1	14.8	1.5	1.3	16.7	1.0
China Construction Bank	363.1	2.6	33.2	15.4	1.6	1.3	17.1	0.8
Agricultural Bank of China	287.4	2.7	41.9	13.1	2.4	1.1	16.1	0.8
Bank of China	271.9	2.1	39.1	14.5	1.4	1.1	14.0	0.7
HSBC Holdings	135.2	1.5	66.5	17.2	2.5	0.5	7.1	0.8

<sup>①</sup> The three Japan's banks disclosed annual data for a fiscal year, and their data were for the fiscal year ended March 2016. We have referred to Wind for the data about China's G-SIBs and to Bloomberg for data about G-SIBs of other countries.

<sup>②</sup> ROA: return on total assets, ROE: return on equity, NIM: net interest margin, C/I: cost-to-income ratio, CAR: capital adequacy ratio, NPL: non-performing loan ratio, P/B: price/book value ratio.

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Barclays	-0.7	1.5	81.2	18.6	1.9	0.0	-0.1	0.7
Standard Chartered Bank	-21.9	1.9	73.1	19.5	4.8	-0.3	-4.6	0.6
Royal Bank of Scotland	-24.4	1.6	128.2	24.7	3.9	-0.2	-2.9	0.7
UniCredit S.P.A.	18.8	1.4	74.4	14.4	17.0	0.2	3.4	0.6
Banco Santander	66.2	3.1	37.2	14.4	4.5	0.5	7.1	0.8
UBS AG	64.5	1.0	82.2	24.9	0.5	0.6	11.7	1.3
Credit Suisse Group	-30.6	1.5	110.7	21.3	0.7	-0.3	-6.7	1.0
Nordea	40.6	0.9	49.1	21.6	1.9	0.6	12.0	1.3
Mitsubishi UFJ Financial Group	84.5	1.0	62.4	16.0	1.4	0.3	7.6	0.5
Mizuho Financial Group	59.6	0.7	61.5	15.4	1.2	0.4	8.2	0.5
Sumitomo Mitsui Financial Group	57.5	1.2	59.9	17.0	1.2	0.4	7.2	0.5
JPMorgan Chase	244.4	2.1	62.3	15.1	0.8	1.0	10.2	1.1
Wells Fargo	228.9	3.0	57.3	15.5	1.2	1.3	12.1	1.6
Citigroup	172.4	3.0	58.1	16.7	0.8	1.0	8.0	0.8
Bank of America	158.9	2.4	68.6	13.2	1.0	0.7	6.4	0.8
Morgan Stanley	61.3	0.4	74.5	20.7	—	0.8	8.4	0.9
Goldman Sachs Group	60.8	0.4	71.9	16.1	0.2	0.7	7.2	1.0
Bank of New York Mellon	31.6	1.4	70.8	12.5	0.4	0.8	8.4	1.3
State Street	19.8	1.0	76.4	17.4	0.0	0.8	9.3	1.5
ING	44.5	1.5	57.0	16.9	2.8	0.4	8.1	1.0
BNP Paribas	74.3	1.5	68.4	13.6	5.6	0.3	7.2	0.7
Societe Generale	44.4	0.9	65.9	16.3	5.6	0.3	7.0	0.6
Crédit Agricole	39.0	0.8	70.8	17.9	4.7	0.2	6.8	0.6
Groupe BPCE	36.0	1.1	75.9	16.8	3.7	0.3	5.7	—
Deutsche Bank	-75.4	1.7	115.9	16.2	1.9	-0.4	-9.7	0.5
Average	98.5	1.6	67.6	16.9	2.7	0.5	7.0	0.8
Over 2014	-15.2	0.0	1.5	1.2	-0.3	0.0	-0.4	-0.1

Sources: Bloomberg, Wind, BOC Institute of International Finance

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

### II.1 U.S. banking industry

#### II.1.1 Operating profile

The size of assets and liabilities grew steadily. As of 2016Q1, total assets of the U.S. banking industry<sup>③</sup>. As of 2016Q1, total assets of the U.S. banking industry increased by 3.3% year on year and 2% quarter on quarter to USD16.3 trillion; their total liabilities increased by 3.2% year on year and 2.1% quarter on quarter to USD14.5 trillion; gross capital sized up 3.9% year on year and 1.7% quarter on quarter to USD1.8 trillion (Table 3).

**Table 3: Size Change of the U.S. Banking Industry (USD100 million, %)**

	2016Q1	2015Q4	2015Q1	Change from the previous quarter	Change from the previous year
Assets	162934	159679	157780	2.04	3.27
Liabilities	144532	141576	140064	2.09	3.19
Equity	18402	18103	17716	1.65	3.87
Net profit	391	408	398	-4.17	-1.76

③ Cover all deposit financial institutions protected by FDIC deposit insurance.

Sources: FDIC, BOC Institute of International Finance

Profitability edged down, and non-interest income made a smaller contribution to profit-making. As of 2016Q1, net profit of the U.S. banking industry reported at USD39.1 billion, a decrease of 1.8% and 4.2% compared with a year and a quarter earlier respectively; ROA was 1%, 0.1 percentage points less than the same period of last year and also 0.1 percentage points less than the final quarter of 2015; ROE, at 8.6%, was also in a negative territory of 0.5 percentage points year on year and 0.7 percentage points quarter on quarter; the percentage of non-interest income was 35%, down 1.2 and 2.3 percentage points over a year earlier and the prior quarter respectively; cost-to-income ratio dropped by 0.8 and 0.1 percentage points respectively on a year-on-year and quarter-on-quarter basis to 60%.

CAR remained stable and asset quality was improved. As of 2016Q1, the tier 1 CAR of U.S. banking industry was 12.7%, up 0.04 percentage points year on year and 0.02 percentage points quarter on quarter; NPL ratio was 2.2%, dropping by 0.3 percentage points from the earlier year and 0.1 percentage points lower than the earlier quarter (Table 4).

**Table 4: Change of Indicators of the U.S. Banking Industry (% , percentage points)**

	2016Q1	2015Q4	2015Q1	Change from the previous quarter	Change from the previous year
ROA	0.97	1.04	1.02	-0.07	-0.05
ROE	8.62	9.31	9.12	-0.69	-0.50
NIM	3.10	3.07	3.02	0.03	0.08
Proportion of non-interest income	34.95	36.14	37.22	-1.19	-2.27
Cost/income ratio	59.85	59.91	60.62	-0.06	-0.77
Tier 1 CAR	12.69	12.67	12.65	0.02	0.04
NPL ratio	2.24	2.29	2.56	-0.05	-0.32

Sources: FDIC, BOC Institute of International Finance

### II.1.2 Regulatory environment

Since 2016Q2, the regulatory environment of the U.S. banking industry had the following changes:

The Federal Reserve finally passed a new rule on liquidity on April 1, 2016, to allow large banking organizations count some investment grade, general obligation U.S. state and municipal bonds as (high-quality liquid assets) HQLA if they meet the same liquidity criteria that applies to corporate debt securities. This move is aimed at the regulatory requirement on Liquidity Coverage Ratio (LCR). The new rule will become effective on July 1, 2016 officially.

On May 3, 2016, the Board of Governors of the Federal Reserve System, the Federal Deposit Insurance Corporation and the Office of Controller of Currency co-published an announcement, soliciting opinions on liquidity risk-based regulatory criteria and disclosure requirements with net stable funding ratio at the core. The proposed rule asks financial institutions to keep stable funding sources to counter the market crisis in the coming year. This rule is applicable to bank holding companies with consolidated assets of USD250 billion or more or foreign exposure of USD10 billion or more, and specific savings and loan holding companies and depository institutions. It will become effective on January 1, 2018 officially.

### II.1.3 Outlook

In the second half year of 2016, the U.S. banking industry will continue to be influenced by the potential rate hike step of the Fed. Recently, the U.S. labor market data are exceptionally weak, which has impaired the expectation on the Fed's rate hike in the year. The Fed fund futures are

pricing in substantially lower probability of a July rate hike. Since the Fed is slowing its rate hike speed and the US treasury bond yield curve is further flattening, the U.S. banks have to re-adjust the interest rate sensitivity of their assets and liabilities.

In terms of regulation, the U.S. regulators are paying increasing attention to what successful regulation looks like. In their opinion, successful regulation includes the following contents at least: (1) all-around inspection; (2) sufficient information disclosure; and (3) adequate capital.

Meanwhile, the U.S. regulatory authorities are increasingly concerned with the financial regulatory cost and burden for complying with the *Dodd-Frank Act*, and they are proposing improvement opinions. A member of the Senate Banking Committee has criticized the practice that the Fed treats non-bank financial entities having assets of USD50 billion or more as systematically important financial institutions (SIFI). Besides, a member of the Financial Services Committee has proposed legislation to reform the *Dodd-Frank Act*, including removing some regulatory requirements in the Act and Basel III for banks with large capital base.

Some regulatory authorities, e.g. FDIC, are studying on how to establish a right regulatory framework for individual banks and suggest reducing the regulatory burden in view of banks' asset & liabilities characteristics instead of their asset size. For instance, FDIC suggests that banks with the following characteristics should be exempted from the capital standard, stress testing requirement and certain reporting requirements under the Basel III: (1) not having any assets or liabilities for trading purpose; (2) not holding positions of derivatives except interest rate or foreign exchange derivatives; (3) having an aggregate nominal exposure of less than USD8 billion to derivatives; and (4) keeping tangible common equity/assets ratio of no less than 10%.

Although the U.S. regulators have paid great attention to relieving the regulatory burden, there is still a long way to go before really operable legislation is made.

## II.2 Eurozone banking industry

### II.2.1 Operating profile

Deposits and loans maintained low-speed growth, with the former outpacing the latter. As of the end of 2016Q1, the deposit balance in the Eurozone totaled EUR11.6 trillion, registering an increase of 3.6% from a year earlier and the same growth rate as the last quarter. By country, Luxemburg, Malta and Slovenia grew faster at 15.1%, 10.6% and 8% respectively; Greece, Spain and the Netherlands recorded slower growth of -5.2%, 1.4% and 2.4% respectively. In the same period, the outstanding loans in the Eurozone totaled EUR10.6 trillion, a year-on-year increase of 1% and a quarter-on-quarter increase of 0.3 percentage points. By country, loans of Slovakia, Estonia and Finland grew faster at 7.6%, 6.3% and 3.3% respectively, while Greece, Ireland and Slovenia recorded substantial decrease of 12.1%, 9.8% and 8.4% respectively.

Profitability dropped, so did the cost/income ratio. As of the end of 2016Q1, ROA of major banks in the Eurozone was 0.4%, down 0.1 percentage points from 2015Q4; ROE fell by 0.6 percentage points from 2015Q4 to 7.3%; NIM stood at 1.5%, unchanged from 2015Q4; cost/income ratio was 68.5%, down 3.3 percentage points from 2015Q4.

CAR rose and asset quality became better. As of the end of 2016Q1, tier 1 CAR of major banks in the Eurozone stood at 12.8%, up 0.1 percentage points from 2015Q4; NPL ratio was 3.3%, down 0.3 percentage points from 2015Q4.

### II.2.2 Regulatory environment

(1) Latest progress on regulatory policies

In early June, the Joint Committee of the European Supervisory Authorities (ESAs) launched its dedicated website officially. The new website presents information and news about the cross-sectoral work of the three ESAs, namely the European Banking Authority (EBA), the European Securities and Markets Authority (ESMA) and the European Insurance and Occupational Pensions Authority (EIOPA). The Joint Committee is a forum for cooperation that was established on 1 January 2011, with the goal of strengthening cooperation between EBA, EIOPA and ESMA. Through the Joint Committee, the three ESAs cooperate regularly and closely to ensure consistency in their practices. In particular, the Joint Committee works in the areas of supervision of financial conglomerates, accounting and auditing, micro-prudential analyses of cross-sectoral developments, risks and vulnerabilities for financial stability, retail investment products and measures combating money laundering. In addition, the Joint Committee also plays an important role in the exchange of information with the European Systemic Risk Board (ESRB).

## (2) Implications of the “negative interest rate” policy on European banks

First, banks’ profitability is to be weakened. Under the “negative interest rate” policy, in a short term, the European Central Bank will charge a management fee at 0.4% of the approximately EUR700 billion reserve, which means an additional operating cost of almost EUR3 billion on banks in the Eurozone; in a long period of time, banks will find it hard to transfer such additional cost to their depositors, so they will receive less interest income and see further narrowed NIM.

Second, banks will charge higher fees due to interest income reduction. Since it is difficult to transfer the additional cost under the “negative interest rate” policy to residents and enterprises, banks will have to contain the profit decreasing trend by elevating corporate borrowing threshold, raising loan interest rate, and increasing transfer fee, ATM service fee and cash withdrawal fee from savings cards, etc. These measures will help banks to bail out to a degree, but will also reduce residents’ disposable income and raising enterprises’ borrowing cost.

Third, banks will become more reluctant to lend money. By releasing the “negative interest rate” policy, the ECB intends to channel banks’ funds in its account to the real economy, thus stimulating investment and consumption. In fact, low loan rate just plays a limited role in increasing the business volume of banks, and banks’ credit squeezing risk is not eliminated at all.

Fourth, banks will face higher operating risk. As the effects of easing policy are diminishing, there will be very limited space left for the central banks of European countries to further implement this policy. As far as the exchange rates and movements of international capital are concerned, opening the spigots has trapped central banks in a dilemma and made it even harder to predicate the exchange rate movements. This not only intensifies the fluctuations of asset prices in the international market but also greatly strengthens speculative motive of banks, thereby increasing the operating risk.

### II.2.3 Outlook

In a short term, both the “negative interest rate” policy and the “quantitative easing” policy will enliven the market to an extent, but their function of expanding enterprise investment scale and cultivating new growth engines is relatively limited. The initial value of Consumer Price Index (CPI) of the Eurozone for May fell by 0.1% year on year, albeit a rally of 0.1 percentage points compared with April. This figure was still far lower than the 2% medium-term target of ECB. Looking ahead, the prospect of Eurozone banks will be worrisome on a whole if this place does not carry out a structural reform effectively, the local economy is still sluggish and the “negative interest rate” policy is continued.

## 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 2016Q1, total M4 in the UK reached GBP2,114.68 billion, up 1.4% year on year, an increase of 0.9 percentage points from the end of last quarter. Among the M4, retail deposit and cash stood at GBP1,555.86 billion, up 3% year on year, 2.8 percentage points lower than last quarter; wholesale deposit was GBP577.71 billion, down 2.7% year on year, 9.8 percentage points higher than the previous quarter.

Retail loan grew rapidly while institutional loan witnessed negative growth. As of the end of 2016Q1, the outstanding retail loan stood at GBP1,246.7 billion, up 4.3% year on year, 0.5 percentage points higher than last quarter. Specifically, the real estate mortgage loan rose by 4.1% year on year to GBP1,124.1 billion while consumer credit grew by 5.9% to GBP122.6 billion; the outstanding loans of financial and non-financial institutions totaled GBP1,114.4 billion, down 18.3% year on year. The net loans in the construction and service sectors fell by 18.5% and 0.5% respectively.

### II.3.2 Regulatory environment

In May 2016, the UK Parliament officially passed the *Bank of England and Financial Services Act 2016*, which confirms the Bank of England's status at the centre of the UK's economic and financial systems. The Prudential Regulation Authority (PRA) is made a part of the Bank of England instead of the latter's subsidiary body any longer, and the Prudential Regulation Committee (PRC) is established to take over functions of former PRA. In this way, there are three committees under the Bank of England, namely Monetary Policy Committee, Financial Policy Committee and Prudential Regulation Committee. This kind of organization ensures that the Bank of England could strengthen its exercise of the financial policy and financial stability functions.

In details, the new act explicitly describes the cooperative mechanism between the central bank and the HM Treasury in a legal form, dealing mainly with crisis management measures and specific resolution plan after bank failure to tangibly protect consumers and reduce negative influence of bank failure on the economy. What's more, the new act has decided to extend the Senior Managers and Certification Regime, the first phase of which came into force in March 2016, to all persons working in the financial sector, aimed at strengthening individual supervision and enhancing credit of the financial system. The new act intends to maintain the normal operation of financial market, beef up efficient market competition and protect legitimate rights and interests of financial consumers through establishing a perfect regulatory system.

### II.3.3 Outlook

"Brexit", a major risk to the UK banks, will exert significant adverse impact on local financial industry. In a short term, "Brexit" will possibly force the Bank of England to cut down benchmark interest rate against the trend from the current 0.5% (already a historic low) to nearly 0% in order to stabilize and resuscitate its economy. So NIM of UK banks will narrow further. Over a long haul, "Brexit" will product a big impact on foreign exchange business of banks (e.g. wholesale banking/cross-border loan denominated in EUR and EUR forex transactions), and the UK-headquartered banks will face obvious constraints over their business scope in the EU countries.

## II.4 Japan's banking industry

### II.4.1 Operating profile

Profit growth continued to decelerate and the proportion of non-interest income was varied between banks. Descending interest rate dragged down overall profit of Japan's banking industry. In FY2015, seven major banks in Japan recorded net profit of JPY2.7 trillion, a reduction of JPY0.2 trillion over FY2014, the country's 106 regional banks earned net profit of JPY1.2 trillion, the same as last fiscal year. With respect to the changes in income structure, the proportion of non-interest income of major banks edged up, while that of net interest income of regional banks dropped slightly. In FY2015, major banks and regional banks scored a proportion of non-interest income at 52% and 16%, up 1.9 and down 0.4 percentage points compared with FY2014 respectively.

Asset quality turned a little bit better. As of the end of 2016Q1, NPL ratio of seven major banks decreased by 0.1 percentage points year on year to 1%, and the two figures for 106 regional banks are 0.3 percentage points and 2.1%.

CAR trended discrepantly. As of the end of 2016Q1, CAR of major banks (four internationally active banks) was 16.2%, up 0.5 percentage points over FY2014; CAR of regional banks came down, of which, the ratio of international regional banks dropped by 0.5 percentage points over FY2014 to 14.1%, and that of domestic regional banks descended by 0.3 percentage points to 10.2%.

## II.4.2 Regulatory environment

### (1) Banking Law amendment passed, easing restrictions on Japan's banks' investment in IT firms

On May 25, the House of Councilors officially passed the Banking Law amendment aimed at integrating finance with IT (Fintech) more closely. Due to regulatory restrictions, Japan's banking industry has developed Fintech quite slowly. After amendment, restrictions on banks and their holding companies when making investment in nonbank firms will be eased, facilitating banking investment in IT firms. The amended Banking Law has introduced provisions on virtual money such as Bitcoin.

Previously, a bank in the country could not own more than 5% of an IT firm, and a bank's holding company could not own more than 15% of an IT firm. But IT firms could invest in financial companies without any cap. As the integration of financial services with IT is becoming closer, more and more people have joined in the discussion on how to ease so many investment restrictions upon banks. The Financial Services Agency of Japan will perform individual review of the amendment. Then, banks' investment cap in IT firms will be lifted.

The exchange login system will be taken to regulate digital currencies like Bitcoin. To counter money laundering activities and protect customers' assets, relevant operators in the sector should put customers' assets and self-owned assets under separate management and be obligated to accept regular inspections from auditors and accountants.

### (2) FSA to introduce a new regime this summer to further strengthen regulatory requirements

Nobuchika Mori, Commissioner of the Financial Services Agency, disclosed recently that Japan will further strengthen regulation of banks. According to Mr. Mori, the regulation of banks' owned capital has been greatly enhanced after the Lehman Crisis. However, in his opinion, the soundness of banks' operation depends not only on the ratio of their owned capital but more on the "balance between risk, return and owned capital". His Agency is making a survey on the reality of bank financing among 1000 financiers. Mr. Mori said, a lot of companies did not think banks could provide the added value required by their customers.

In the future, the sustainability of banks' operating models will be highlighted in the regulation of

the FSA.

### II.4.3 Outlook

In Q3, Japan's banking industry will still bear pressure. In 2016Q1, GDP of Japan grew by 0.4% year on year in real terms, equivalent to an annual growth rate of 1.7%. However, excluding the leap-year factor that February of this year was one day longer than that of other years, GDP during this period merely grew by 0.1% year on year and by an annualized 0.5%. In addition, in January through March 2016, equipment investment and residential housing investment both declined year on year. With the April CPI at -0.3%, the country was still at the brink of deflating; and in April, real consumer spending of residents witnessed a year-on-year contraction of 0.4%, continuing the downward trend in March. All signs point to the poor effects of Abenomics since the Japanese economy remains sluggish and credit demands cannot have big increase.

Besides, the Bank of Japan may cut down the benchmark interest rate further and the "negative interest rate" policy's adverse impact on the banking industry will emerge. The "negative interest rate" policy can eat away about 1.2% of net profit of Japan's banks directly, but may deal a sharp negative shock to banks by holding down the overall yield curve. According to Mitsubishi UFJ Financial Group ("MUFG"), its net profit will be reduced by JPY100 billion in FY2016<sup>④</sup>. If counted at the prevailing level of negative interest rate, net profit of the entire Japan's banking industry will be compressed by 10%-20% in FY2016.

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

### III.1 Operating situation of the banking industry in 2016Q1

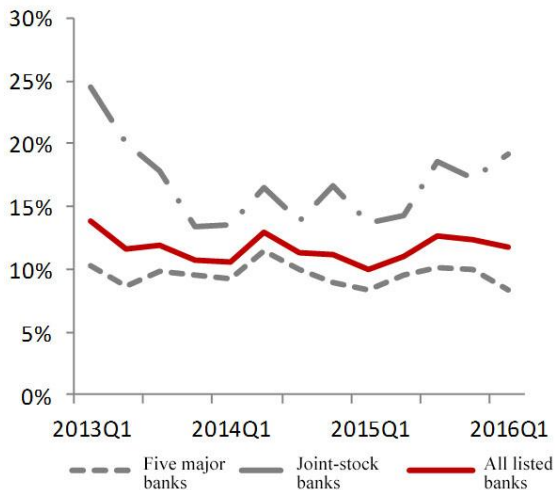
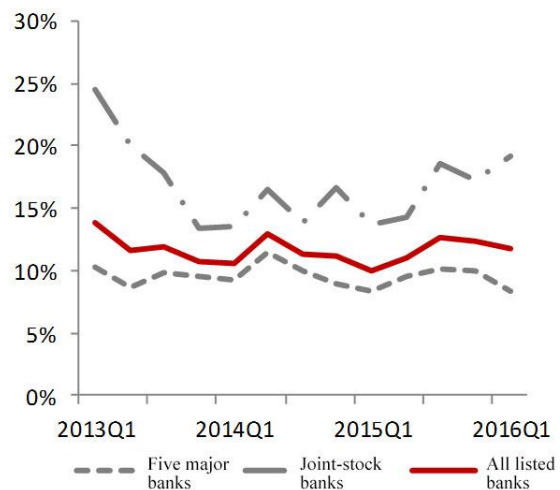
In 2016Q1, the operation of Chinese listed banks<sup>⑤</sup> was characterized as follows: total assets and total liabilities were on a rise stably, yet at obviously inconsistent speeds; profit growth rate nudged up, but the profitability still awaited improvement; deposits/liabilities ratio and loans/assets ratio continued to shrink, and the proportion of non-interest income was raised a lot; the amount/ratio of non-performing loans continued to increase, but the provision coverage ratio dropped sharply; CAR remained stable, and loan/deposit ratio rose.

#### III.1.1 Assets and liabilities rising stably, yet at obviously inconsistent speeds

At the end of 2016Q1, total assets and total liabilities of listed banks stood at RMB123.3 trillion and RMB114.2 trillion respectively, representing a year-on-year growth of 11.8% and 11.5%, 1.9 and 2.3 percentage points higher than a year earlier. The assets and liabilities of five major banks were RMB84.9 trillion and RMB78.3 trillion respectively, up 8.3% and 7.9% year on year, with a growth rate decreasing by 0.1 and increasing by 0.3 percentage points compared with the same period of previous year. The assets and liabilities of eight joint-stock banks were RMB34.7 trillion and RMB32.4 trillion respectively, up 19.2% and 19.0% year on year, with a growth rate increasing by 5.5 and 5.7 percentage points over a year earlier (Figures 1&2).

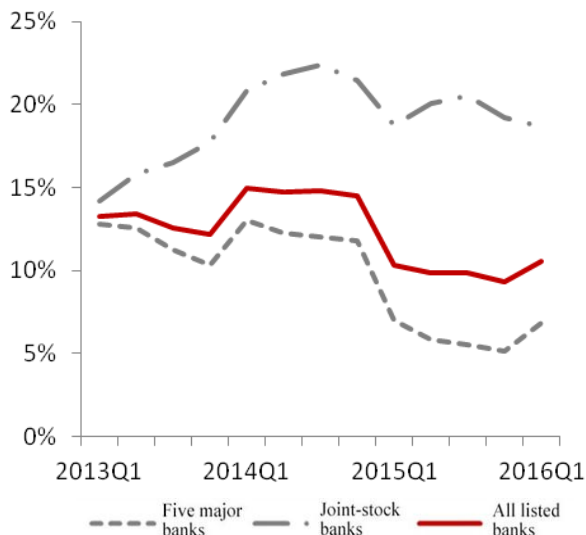
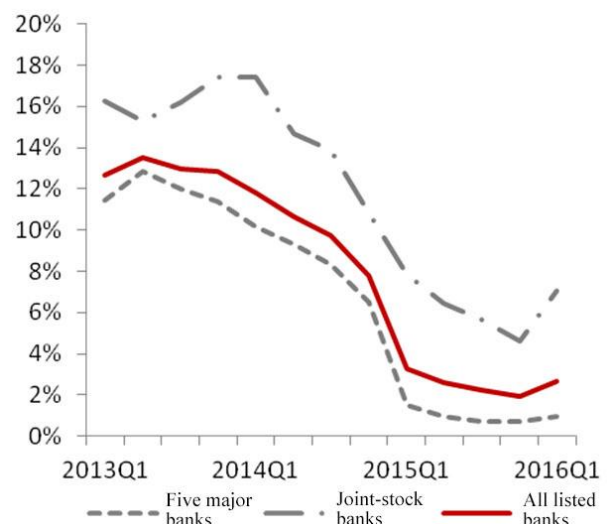
<sup>④</sup> Consolidated net profit of MUFG stood at JPY951.4 billion in FY2015 (i.e. April 2015 through March 2016).

<sup>⑤</sup> "Listed banks" herein refer to the 16 commercial banks that are listed in the domestic A-share market, including five major banks: ICBC, ABC, BOC, CCB, BOCOM; eight national joint-stock commercial 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, Bank of Ningbo.

**Figure 1: YoY Assets Growth**

**Figure 2: YoY Liabilities Growth**


Sources: Wind, BOC Institute of International Finance (hereinafter the same)  
**III.1.2 Profit growth rate nudging up, profitability to be improved**

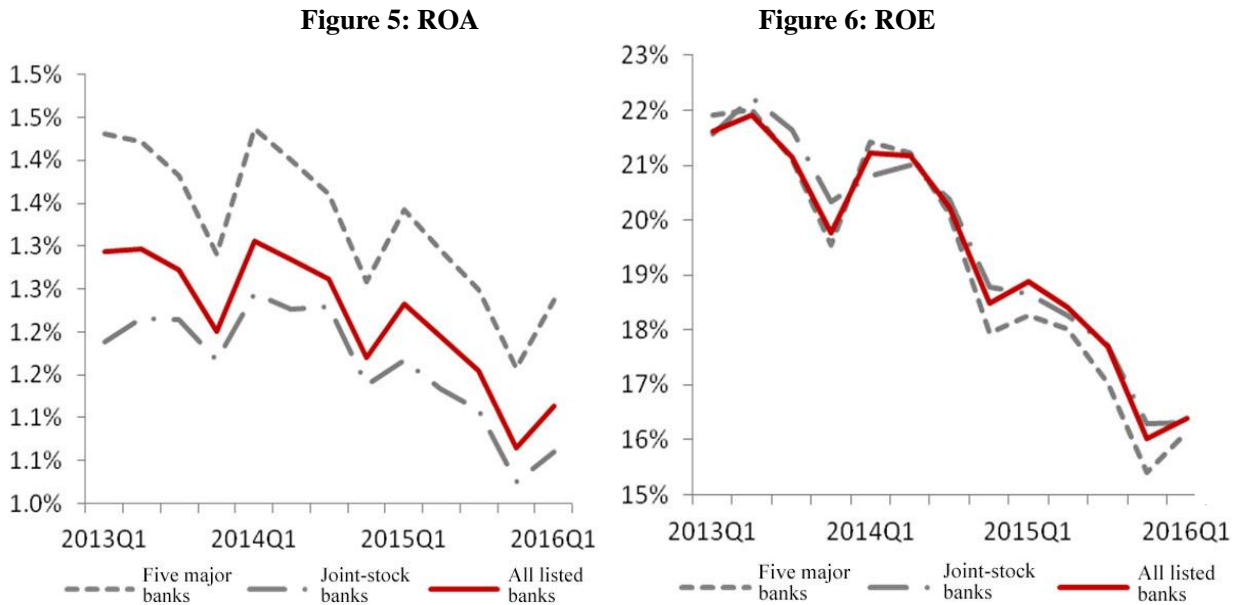
In 2016Q1, listed banks reaped operating income of RMB1.0 trillion and net profit of RMB367.13 billion respectively, representing a year-on-year growth of 10.6% and 2.7%, 0.3 percentage points higher and 0.6 percentage points lower than a year earlier. Of which, five major banks realized operating income of RMB698.73 billion and net profit of RMB265.25 billion respectively, up 6.9% and 1.0% year on year, with a growth rate decreasing by 0.2 and 0.5 percentage points compared with the same period of 2015. Eight joint-stock banks scored operating income and net profit at RMB288.16 billion and RMB92.42 billion respectively, up 18.7% and 7.0% year on year, with a growth rate decreasing by 0.1 and 0.8 percentage points over a year earlier (Figures 3&4).

**Figure 3: YoY Operating Income Growth**

**Figure 4: YoY Net Profit Growth**


In 2016Q1, ROA and ROE<sup>®</sup> of listed banks stood at 1.11% and 16.40% respectively, down 0.1 and 2.5 percentage points from a year earlier. For five major banks, the ROA decreased by 0.1 percentage points year on year to 1.24% and the ROE dropped by 2.1 percentage points to 16.14%. For joint-stock banks, after a year-on-year fall of 0.1 and 2.4 percentage points respectively, the

® The ROA, ROE, cost/income ratio, CAR, tier 1 CAR and core tier 1 CAR are arithmetic averages; the proportion of non-interest income, NPL ratio, provision coverage ratio and loan/deposit ratio are weighted averages.

ROA was 1.06% and the ROE was 16.31% (Figures 5&6).



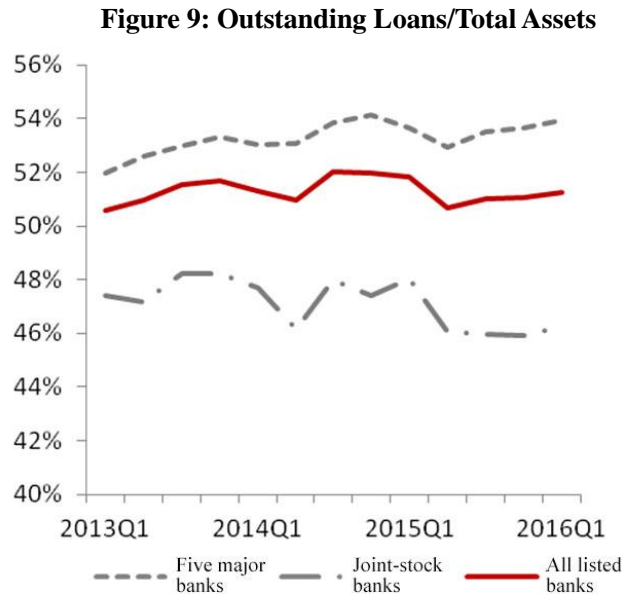
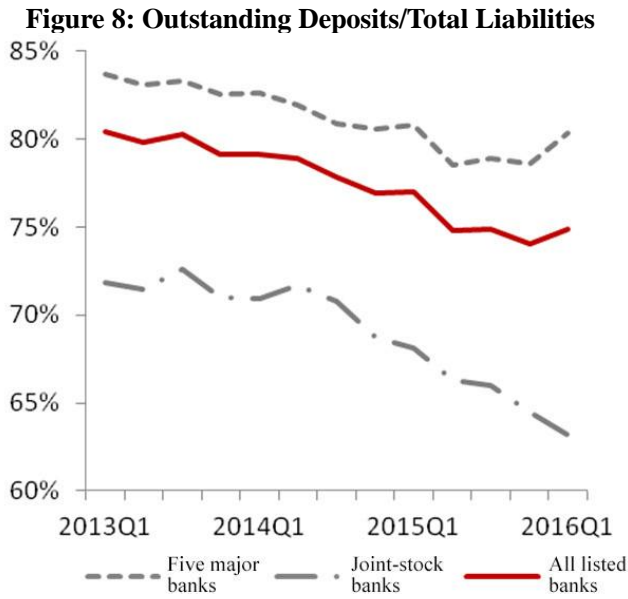
In 2016Q1, the cost/income ratio of listed banks reported at 23.99%, down 1.3 percentage points over the same period of 2015. Specifically, the ratio of five major banks was 23.15%, down 0.9 percentage points; and that of eight joint-stock banks was 24.56%, down 2.1 percentage points (Figure 7).

**Figure 7: Cost/Income Ratio**



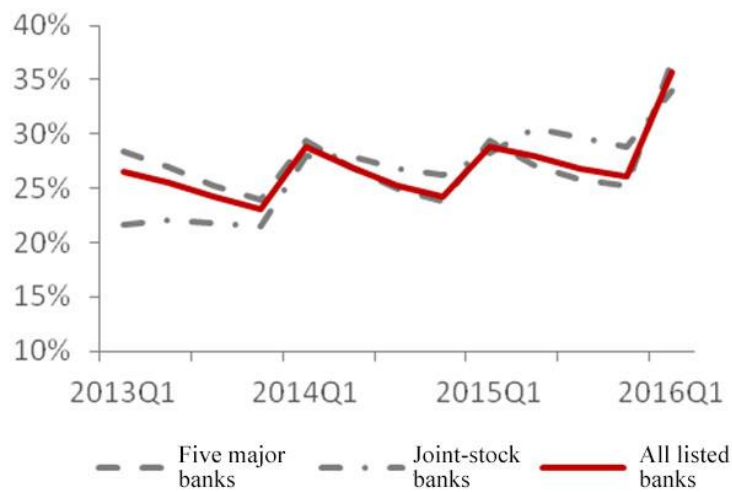
**III.1.3 Proportion of deposits/loans decreasing further, but non-interest income sizing up remarkably**

At the end of 2016Q1, outstanding deposits/total liabilities and outstanding loans/total assets of listed banks contracted by 2.1 and 0.5 percentage points year on year to 74.9% and 51.3% respectively. In details, the two indicators of five major banks, at 80.3% and 54.0% respectively, decreased by 0.5 percentage points and increased by 0.3 percentage points; and the two indicators of eight joint-stock banks, at 63.2% and 46.2% respectively, dropped by 5.0 and 1.8 percentage points (Figures 8&9).



At the end of 2016Q1, the non-interest income of listed banks accounted for 35.7%, up 6.9 percentage points from a year earlier. Specifically, the figure of five major banks was 36.8%, up 7.4 percentage points; and that of eight joint-stock banks was 34.0%, up 5.8 percentage points (Figure 10).

**Figure 10: Non-interest Income/Total Income**

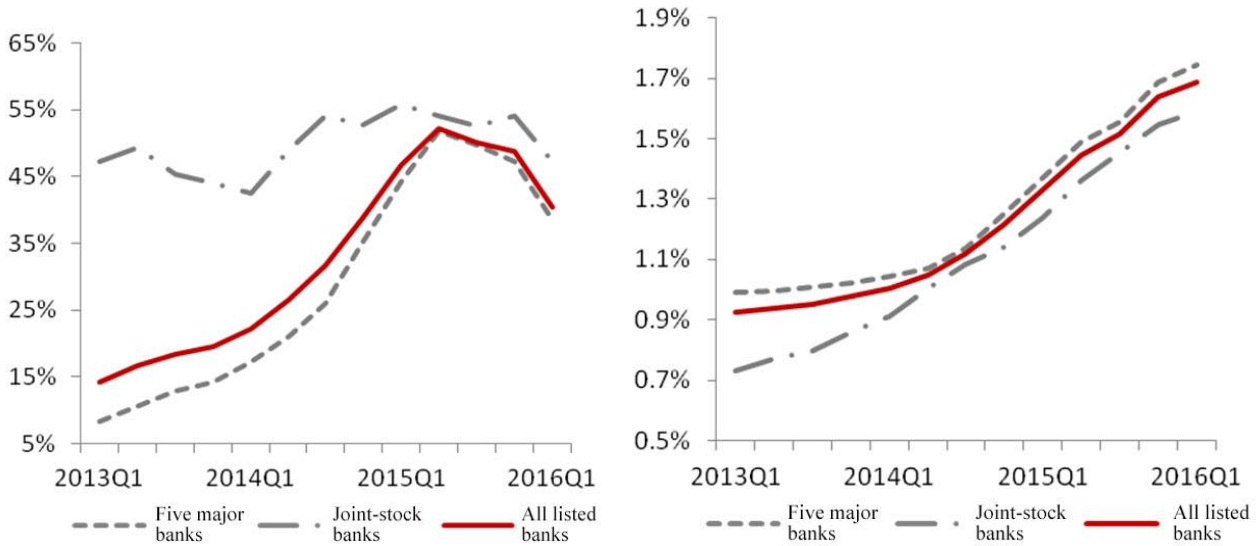


**III.1.4 NPL amount/ratio rising still, in contrast with sharp decreases of PCR**

At the end of 2016Q1, listed banks registered an NPL amount of RMB1.1 trillion (up 40.5% year on year, slower than the same period of 2015 by 6.2 percentage points) and an NPL ratio of 1.69% (up 0.4 percentage points year on year). Specifically, five major banks registered an NPL amount of RMB798.55 billion (up 38.5% year on year, slower than the same period of 2015 by 5.7 percentage points) and an NPL ratio of 1.74% (up 0.4 percentage points year on year). Eight joint-stock banks registered an NPL amount of RMB254.97 billion (up 47.3% year on year, slower than the same period of 2015 by 8.6 percentage points) and an NPL ratio of 1.59% (up 0.4 percentage points year on year) (Figures 11&12).

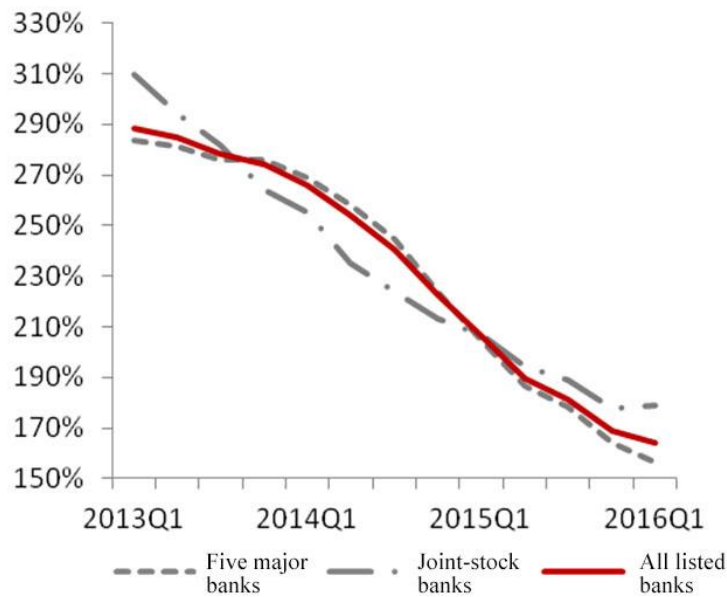
**Figure 11: Growth Rate of Outstanding NPL**

**Figure 12: NPL Ratio**



At the end of 2016Q1, provision coverage ratio of listed banks stood at 164.0%, down 42.3 percentage points compared with the same period of 2015. Specifically, the ratio of five major banks and eight joint-stock banks reported at 156.5% and 179.1% respectively, down 47.8 and 27.8 percentage points over the same period of 2015. It is noteworthy that provision coverage ratio of certain listed banks has fallen under the regulatory bottom line (150%) (Figure 13).

**Figure 13: Provision Coverage Ratio**



**III.1.5 CAR remaining stable, loan/deposit ratio rising**

At the end of 2016Q1, CAR, tier 1 CAR, and core tier 1 CAR of listed banks reported at 12.7%, 10.5% and 9.2% respectively, up 0.3, 0.6 and -0.4 percentage points from the same period of 2015. In details, the three indicators of five major banks, at 14.2%, 12.3% and 11.7% respectively, increased by 0.1, 0.7 and 0.5 percentage points; and the three indicators of eight joint-stock banks, at 11.8%, 9.7% and 9.1% respectively, rose by 0.1, 0.5 and 0.1 percentage points (Figure 14).

Figure 14: CAR

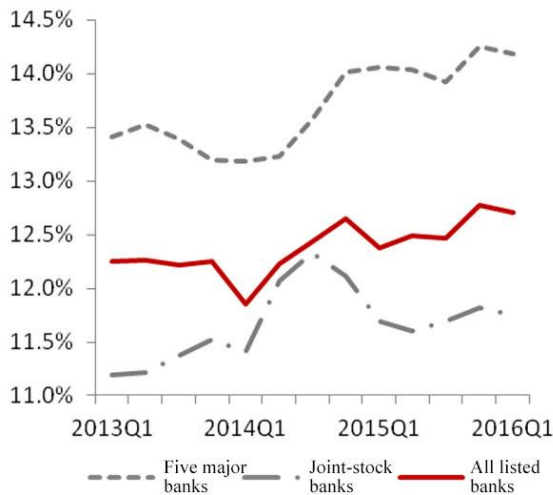
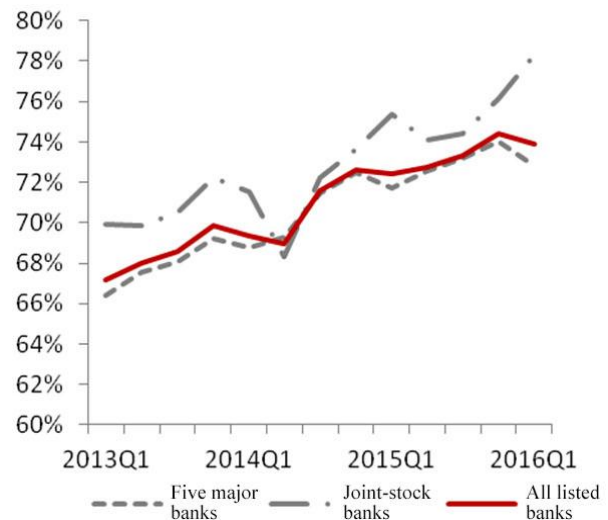


Figure 15: Loan/Deposit Ratio



At the end of 2016Q1, loan/deposit ratio of listed banks rose by 1.5 percentage points from a year earlier to 73.9%. Specifically, the ratio of five major banks was 72.8%, up 1.1 percentage points; and that of eight joint-stock banks was 78.3%, up 3.0 percentage points (Figure 15).

## III.2 Outlook

### III.2.1 Analysis of operating environment in 2016Q2

In 2016Q2, due to the macro-economic downturn and the “de-capacity, de-stocking and de-leveraging” policy, banking profit slowed and some areas were exposed to risks more quickly in China:

First, economy was under bigger downward pressure and banks still faced with operational difficulties. In Q2, China's economic growth remained subdued, with an estimated GDP growth of around 6.7% year on year. As a pro-cyclical industry, the banking industry will find its profit growth space narrowed by tardy economic growth in a fundamental way. Nevertheless, China's banks still can discover some business opportunities behind the major demand factor. For example, consumption growth remains on a fast track. In the first five months of 2016, total retail sales of consumer goods expanded by 10.2% cumulatively, spurring the development of consumption loan, bank card service, private banking and wealth management business, among others. Also in the period, with a recovery in the real estate market, completed investment in real estate development saw a year-on-year growth of 7.0%, higher than the prior year-end by six percentage points. In this context, residential housing credit is still a major battlefield of banks.

Second, banks made efforts to increase transactions to offset fee cut under a right monetary policy environment. Year to date, the keynote of China's monetary policy is to maintain prudence. In line with the macro-economic situation, the central bank has rationally adjusted the money supply and credit growth, flexibly launched open market operations and kept the liquidity of China's financial system at a reasonable level, thus offering a well-fitting monetary & financial environment for the supply-side structural reform. At the end of May, China's balance of Broad Money Supply (M2) reached RMB146.2 trillion, up 11.8% year on year, still a high growth rate. The M2 figure for Q2 is expected to grow by about 11.6%. A moderate monetary policy could help China's banking industry to sustain stable scale growth.

Third, regulatory reform accelerated, aimed at enhancing banks' capacity for addressing the challenges. As China's government advances its policy to cut overcapacity and excess inventory, deleverage, reduce costs and strengthen points of weakness, banks will rush to dispose of their

NPLs, which will bring a lot of business opportunities, e.g. NPA securitization and debt-to-equity swap. In April, the National Association of Financial Market Institutional Investors published the *Guidance on Information Disclosure of Non-performing Assets-backed Securities (Trial)*, officially unveiling the program of NPA securitization after eight years. This move will further drive the development of NPA securitization and stimulate the vitality of commercial banks. Besides, the launch of investment-lending pilot for tech start-ups and the marked expansion of banking wealth management product trusteeship, among others, will definitely broaden the business space of banks.

To sum up, we estimate that in Q2 assets and liabilities of listed banks will grow by 9.0% and 8.5% year on year respectively, net profit increase by about 2.0% and NPL ratio edge up to about 1.8%.

### III.2.2 Q3 outlook

In 2016Q3, the operation of China's listed banks is related to the following factors mainly:

First, continued steadiness of economic growth. In Q3, GDP will still grow by about 6.7%, and the economic downward pressure will remain heavy. We expect that policies about "stabilizing growth and adjusting structure" will be unveiled successively, and more efforts will be made on the proactive fiscal policy. Infrastructure, e.g. hi-speed railway, highway, port-shipping facilities, urban agglomeration transportation, intelligent transportation system, underground pipe network improvement and construction, will still be the key of government investment. So banks may strengthen relationship with local governments via treasury's cash management, local bond underwriting and PPP project, in order to secure a place in and actively follow up on related material projects at earliest time possible. Meanwhile, the steady advancement of structural reform on the supply side will bring additional pressure upon banks' asset quality and impair their business results.

Second, the keynote of prudent monetary policy. In Q3, M2 will sustain a stable growth of 12.0%, leaving room for asset increase of banks. As to deposit reserve assessment, the base number has been changed from the amount of general deposit at the end of the assessment period to the arithmetic mean of general deposit's day-end balances during the assessment period, thus eliminating the possible surge of deposit reserve at a required time point. Further, such change will help address the surge of deposits of commercial banks at the end of a year or quarter and guide banks to lend greater support to the real economy. What's more, alongside the formation of "interest rate corridor", the central bank will pay more attention to price control and make fine-tune and prior adjustment using a series of monetary policy tools, e.g. MLF, in order to maintain reasonably ample liquidity.

Third, fulfillment of reform measures. Driven by the State Council's policy measures for encouraging consumption and promoting private investment, consumption loan business will maintain a good growth momentum. In parallel with the accumulation of household wealth and diversification of asset allocations, non-interest income related businesses of banks will embrace great potentials. Right now, the "Belt and Road" initiative is being advanced orderly, while the New Eurasian Land Bridge, China-Mongolia-Russia and the other four economic corridors are seeing their key projects and constructions completed one after another, aiding China's banks to carve out their international business. After being included into the SDR basket officially in October 2016, RMB will change from a currency for international payment and settlement to a currency for investment and reserve, which will not only tamp up the global leading position of Chinese-funded banks in the RMB business sector but also create huge space for banks to develop their capital account and financial markets business.

To sum up, we estimate that in Q3 assets and liabilities of listed banks will grow by about 9.5%

and 9.0% year on year respectively, net profit increase by about 1.5% and NPL ratio edge up to about 1.9%.

**Table 5: Forecasts on Key Indicators of Chinese Listed Banks in 2016 (%)**

Type	Key indicator	2013 (R)	2014 (R)	2015 (R)	2016		
					Q1 R	Q2 E	2016 F
Scale	Asset growth rate	10.8	11.2	12.4	11.8	9.0	9.5
	Liability growth rate	10.1	10.6	12.0	11.5	8.5	9.0
Profit	Net profit growth rate	12.8	7.8	1.9	2.7	2.0	1.0
Structure	Loans/assets	51.7	52.0	51.1	51.3	51.0	51.5
	Deposits/liabilities	79.2	77.0	74.1	74.9	74.0	72
	Proportion of non-interest income	23.1	24.3	26.1	35.7	34.5	32.0
Quality	NPL ratio	0.90	1.21	1.64	1.69	1.80	2.0
	Provision coverage ratio	276	233	169	164.0	158.0	150
Capital	CAR	12.2	12.6	12.8	12.7	12.6	12.5

#### IV. Analysis of Hot Topics

##### IV.1 Analysis of international operation of large banks

China's banking industry boosted its internationalization drive in 2015. As of the end of 2015, approximately 1,300 branches were established by more than 20 Chinese-funded banking institutions in 59 foreign countries and regions, including 56 tier-1 branches of nine Chinese-funded banks in 24 countries located along the Silk Road Economic Belt and the 21<sup>st</sup> Century Maritime Silk Road. In general, large commercial banks including ICBC, ABC, BOC, CCB and BOCOM serve as the main force in the “going global” drive of Chinese-funded banks, while the “going global” business of small and medium-sized banks is still fledgling constrained by multiple factors such as operating strategy and institutional nature.

In 2015, the international development of China's large commercial banks is mainly characterized by the following points:

1. The international strategy was moved forward. Always adhering to the international development strategy, BOC managed to become the most international bank in China's banking industry. ICBC, promoting international operation and development through M&As abroad, has completed the acquisition of 92.8% shares of Tekstilbank and of 60% shares of Standard Bank PLC in 2015. CCB continued to push forward the development objective that “by 2020, the combination of foreign currency-denominated assets and overseas assets will represent over 15% of CCB Group's total assets and overseas business will make a contribution of about 7% to the Group's pretax profit”. BOCOM considered internationalization to be an important part of its strategy which aims at developing itself into a first-class public bank group focused on wealth management services by means of international expansion and universal banking platform build-up.

2. Growth rate of overseas business slowed down. At the end of 2015, overseas assets of five major banks totaled to RMB9.87 trillion, registering a growth rate of 14.2%. Although such a growth rate was obviously higher than the Group's overall speed (10%), it still decelerated by a large margin of 7.4 percentage points compared with the 21.6% figure at the end of 2014. Also at the end of 2015,

five major banks realized overseas operating income and pretax profit of RMB201.7 billion and RMB100.8 billion respectively, representing a growth rate of 17.0% and 8.5%, which far exceeded the Group's overall level (5.2% and 0.1%), but slumped by 12.5 and 27.0 percentage points if compared with the growth rate at end of 2014.

3. Overseas business made greater contribution. Overseas business contributed to overseas assets, operating income and pretax profit of five major banks at 12.0%, 8.0% and 8.3%, 0.4, 0.8 and 0.6 percentage points higher than 2014. Overseas business of BOC made the highest contribution, at about 30%, in contrast with less than 10% for other large commercial banks.

4. Earnings of overseas business dropped. In 2015, ROA of overseas operations of five major banks dropped by 0.1 percentage points over 2014 to less than 1.1%, at least 0.4 percentage points lower than the overall level. Due to the low credit cost and cost/income ratio at abroad, relevant operating income earning power was poor, resulting in lower ROA. The unsatisfactory profitability of overseas business may pull down the driving forces for five major banks to seek further development outside China.

5. Overseas business was exposed to certain risks. In 2015, overseas impaired loan of five major banks increased by 11.6% year on year to RMB14.8 billion, and the impaired loan ratio was 0.36%. At present, overseas asset quality problem is mainly caused by enterprises of the host countries. However, considering the large balance and big concentration of loans granted to "going global" enterprises, any problem in domestic operation will significantly affect the quality of their overseas assets. In this sense, domestic-overseas interactive business' risks are ignorable.

6. Overseas business became more diversified. In 2015, interest income from overseas business of five major banks accounted for 47.4% of the total, a sharp reduction of eight percentage points compared with 2014; overseas fee and commission income took a share of 15.7%, up 1.2 percentage points over 2014. Albeit greater diversification of overseas business, five major banks still failed to fundamentally correct the overt reliance upon interest spread businesses and corporate customers. In general, interest spread businesses, characterized by large scale and low threshold, can stimulate growth rapidly, but they may be very rocky. Once the operating environment is changed, their sustainability will be challenged and it is difficult to keep on the growth rate.

Currently, the new normal state of China and the all-around deepening of two-way opening have provided more possibilities for China's banking industry to boost internationalization. It ought to capture the opportunities to leap forward still.

First, stick to the international operation and development strategy. During the "13<sup>th</sup> Five-year Plan" period, China's banking industry should build a differentiated development landscape featuring division of labor and cooperation between echelons by seizing the vast opportunities of international development. The varied degrees of internationalization between banks should be tolerated, with some of them devoted to the homeland by familiarizing with local culture and customer preference and developing local business in a professional and cost-effective way.

Second, pursue diversification and interaction based on business advantages. While strengthening cooperation in financing activities, commercial banks and their non-bank affiliates, domestic and overseas branches should seek for innovative coordination in customer referral, market investigation, financial consulting and fiduciary services. Superior resources of a variety of platforms as well as domestic and overseas operations will be pooled to offer customers diversified yet integrated financial products and services.

Third, improve global risk control capability. China's banks should develop a group-unified key risk indicator (KRI) monitoring and control system and explore on how to establish a globally consistent credit management framework for overseas loan with domestic guarantee and global

credit line, etc. In the meantime, they should strengthen operational/reputational risk monitoring in an effective manner.

## IV.2 About leverage ratio of China's non-financial companies

### IV.2.1 Characteristics of change in leverage ratio of non-financial companies since 2007

At the end of 2007, with the credit to the non-financial sectors/GDP ratio at 99.3%, China ranked the 12<sup>th</sup> in the 39 countries and regions, the data of which were published by the Bank for International Settlements. When it came to the end of 2015Q2, this ratio increased by 63.8 percentage points from the end of 2007 to 163.1%, making China just behind Luxemburg, Ireland and Hong Kong. Based on the available data after 2007, we have selected more than 2,000 listed companies in the non-financial sectors as the target of our sample study out of the main considerations below: data disclosures of the listed companies are adequate and their financial statements were strictly audited; the listed companies could reflect the overall leverage issues of China's non-financial companies. Since 2007, assets and liabilities of non-financial listed companies have accounted for about 10% of the total assets and liabilities of all the non-financial companies each, with the asset ratio standing below the liability ratio in most of the years. This testifies that listed companies are representative in this aspect as their borrowing scale is not smaller than that of non-listed ones. The following conclusions are drawn from the study:

First, debt/asset ratio decreased. Quantile comparison shows that the debt/asset ratio for 2015Q3 was less than that of 2007, and the overall debt/asset ratio of listed companies did not rise at all. It is easily seen from the distribution shape that the tail end is steep and the 2007 and 2015 ratios are quite similar, symbolizing great pressure on companies at this quantile.

Second, times interest earned ("TIE") declined dramatically. In 2014, median TIE of non-financial listed companies stood at 4.37, and the figure for 2007 was 6.39, indicating weakened solvency. Third, industrial, public utility, material and energy sectors were faced with greater pressure. If debt/asset ratio increase is followed by TIE decrease in a sector, then this sector's leverage pressure is relatively bigger. According to our statistics, industrial, public utility, material and energy sectors are sectors of this kind as of 2008.

Fourth, SOE stood out if gauged by seriousness of leverage problems. As of the end of 2015Q3, structural changes have occurred to the debt/asset ratio of listed SOEs, e.g. rise of this ratio among high quantile-companies but fall among low quantile-companies.

Fifth, listed companies in northeast, northwest and southwest China were under greater debt stress. At the end of 2007, provinces with higher debt/asset ratio were mainly located in the northwest, southwest, northeast and east China, overall debt level of southwest and northwest China was high, high quantile-companies in the northeast featured high debt/asset ratio, and middle and low-quantile companies in the east had higher leverage ratio. However, at the end of 2015Q3, northwest, southwest and northeast China clustered the places with higher debt/asset ratio by hosting all the companies at any quantiles that ranked top three in terms of debt/asset ratio.

In 2007, northeast China, east China, southwest and northwest China had a low TIE mainly, coinciding with the regions that had a higher debt/asset ratio. In 2014, low-TIE provinces were still located in the above four regions, of which, low-quantile companies in northeast, southwest and northwest China featured lower TIE, indicating that "problematic" companies were mostly seen in the aforesaid three regions.

## IV.2.2 Comparison of Chinese non-financial companies' leverage ratio with that of foreign counterparts

### (1) Gross comparison

The debt/asset ratio of China's listed companies was lower than that of their counterparts in major economies. In 2014, the median debt/asset ratio of listed companies in the U.S., Germany, UK and Japan reported at 50.23%, 56.67%, 48.86% and 44.37% respectively, in comparison with the 41.88% of China (2015Q3). Under the 60%-95% quantile comparison, just higher than Japan, China was left behind by the U.S., UK and Germany; and under the 10%-50% quantile comparison, China's ratio was the lowest.

TIE figures were basically the same. China's companies featured relatively low TIE at high quantile but ranked ahead of companies in other countries at low quantile. For example, the 90% quantile shows China's companies were placed after the companies of Japan, UK, U.S. and Germany in respect of TIE; but the 10% quantile says China's companies, with a TIE of 0.68x, were ahead of their counterparts in Japan, Germany, UK and U.S. Median TIE of China's enterprises was 4.37x, higher than those in the U.S. but lower than those in Germany, UK and Japan.

China's non-financial listed companies boasted higher profitability. At 10% quantile, ROE of China's non-financial listed companies was 0.45%, higher than that of the U.S. (-64.65%), UK (-50.36%), Germany (-14.18%) and Japan (0.12%); the median ROE of China's non-financial listed companies was 7.54%, only next to Germany (9.94%); at 90% quantile, ROE of China's non-financial listed companies was 20.26%, higher than that of Japan (16.43%) but lower than that of Germany (25.16%), UK (27.50%) and the U.S. (30.82%).

### (2) Sectoral comparison

Debt/asset ratio of China's industrial companies was lower than the global level. The median debt/asset ratio of China's industrial companies, at 44.79%, was almost ten percentage points less than the global median of 54.63%. Besides, China's industrial companies were fallen behind by their foreign peers afar if measured by debt/asset ratio at any quantiles. The median TIE of global industrial companies was 8.26x. In contrast, China's was 4.38x, indicating its overall solvency does not match the rest of the world.

Leverage ratio of the material sector remained at par with the global level. The median debt/asset ratio of China's material sector was 45.44% and slightly lower than the global median (46.39%). At the 90% quantile, debt/asset ratio of China's companies stood at 74.33%, above the world's companies at the same quantile by 0.76 percentage points. Median TIE of China's material sector was 3.47x, higher than the average level of the globe. At the 10% quantile, China's TIE was -1.24x, in contrast with the global level at -8.42x.

Leverage ratio of China's energy sector was better than the global level. The median debt/asset ratio of China's energy sector was 47.61% and lower than the global median (51.26%). At the 90% quantile, debt/asset ratio of China's companies stood at 74.41%, less than the world's companies at the same quantile by 3.95 percentage points. Median TIE of China's energy sector was 4.84x, higher than the average level of the globe. At the 10% quantile, China's TIE was 0.96x, in contrast with the global level at -2.47x.

China's companies in the public utility sector outperformed their global counterparts. The median debt/asset ratio of China's public utility sector was 59.78% and lower than the global median (69.41%). At the 90% quantile, debt/asset ratio of China's companies stood at 79.47%, less than the world's companies at the same quantile by 1.88 percentage points. Median TIE of China's

public utility sector was 3.18x, slightly lower than the average level of the globe (3.47x). At the 10% quantile, China's TIE was 1.09x, while the global level was at 0.86x.

#### IV.2.3 Research conclusions

We have drawn the following conclusions on China's leverage ratio issues from research of the macro & micro data.

First of all, it is not scientific to judge on the leverage ratio of non-financial companies using the debt/GDP ratio. Except borrowing from banks, non-financial listed companies also launch debt financing through issuing bonds or via the shadow banking system, which will raise the financial leverage but not be incorporated into the debt/GDP ratio. In case that a non-financial company relies heavily on the above-mentioned two ways of debt financing, the debt/GDP ratio will be still low, but actually the enterprise has a lot of debts to repay. The U.S. and UK are typical in this aspect. At the end of 2014, the bond balance/GDP of the U.S. and UK was 225.8% and 205.8%, but China's ratio was merely 55.8%. At the end of 2015Q2, debt/GDP ratio of the U.S. and UK was 70.6% and 70.4% respectively, lower than China's ratio by 92.5 and 92.7 percentage points; but median debt/asset ratio of the two countries' non-financial companies was 50.23% and 48.86% respectively, 8.35 and 6.98 percentage points higher than China's.

Second, leverage ratio of China's non-financial companies has structural problem. China's companies with higher leverage ratio mainly engage in industrial, material, energy and public utility sectors; debt pressure of SOEs is obviously heavier than private companies; companies in the northeastern, northwestern and southwestern regions are under great stress. In comparison, companies in the consumption, telecom and medical sectors, private companies and companies in the southeast and south China are faced with smaller debt pressure.

Third, compared with international peers, China's non-financial companies do not have a large borrowing scale, with the debt/asset ratio at a low level and TIE largely the same with the international figure. So China's non-financial companies do not bear heavy leverage pressure at large, and the leverage level is acceptable.

Fourth, leverage ratio of "problematic" sectors is controllable. Energy, material, industrial and public utility sectors present relatively serious leverage problems in China. Albeit having a smaller borrowing scale (low debt/asset ratio) compared with the international counterparts, China's companies in the above four sectors have to assume great debt service pressure (low TIE). This proves that China's problematic sectors are under heavy debt burden in spite of a not-so-high borrowing scale.

#### IV.2.4 Policy recommendations

At present, China should highlight how to de-leverage for high-leverage companies probably and improve overall profitability of non-financial companies.

##### (1) Avoid "de-leveraging" totally relying on the gross policies

Policies should be tailor-made on the basis of structural characteristics of non-financial companies' leverage ratio. In particular, structural problem should not be addressed by using the gross policies such as loosing monetary policy.

First, the reasonable range of companies' leverage should be demarcated. Leverage is the basic component of modern market economy, and economic growth needs the support of leverage within a reasonable range. When the safety boundary of different sectors' leverage ratios is reasonably defined, the leverage will function effectively and prevent financial risks.

Second, the “de-leveraging” ways should be differentiated by granting higher tolerance to some sectors. For instance, government capital may intervene in the public utility sector, being public goods in nature, if companies in the sector exceed the tolerance. Centralized support should be extended to premier companies in industrial, energy and material sectors that are under great leverage pressure, while strengthened funding support should be given to medical, consumption and IT sectors that are under small leverage pressure.

Third, multi-pronged approaches should be taken to slash operating cost and improve debt serving capacity of companies. For example, companies’ composite cost may be incorporated into the macro-control framework and monitored by a designated lead department; taxes and fees may be further cut to reduce their operating cost, in parallel with the comprehensive implementation of the policy on “replacing business tax with VAT”, and the streamlining of administration & delegation of power to the lower levels in order to decrease administrative review and approval procedures; an unified, open logistics market should be established nationwide to concretely cut down relevant cost.

Fourth, “de-leverage” of “zombie companies” should be addressed well under concerted efforts. Since zombie companies do not conform to China’s industrial development direction, occupy various resources and serve as an important factor of raising leverage ratio of China’s non-financial companies, the “rationalization” policy should be rolled out, by closing down some of zombie companies to strike a balance between supply and demand of some overcapacity sectors, unleash capital tied-up for a long time and enhance operation efficiency.

### (2) Coordinate the development of direct financing and indirect financing

Debt financing and equity financing cut both ways. Direct financing and indirect financing do not have a well-defined optimal boundary. China’s indirect financing-led financing structure is closely related to historical inheritance and current social credit environment, and cannot be changed in a short while. In the context of economic downturn, China should maintain a proper growth rate of credit to secure the sources of funds that go in line with the control direction and are invested in order to expand domestic consumption.

To promote economic transformation and upgrading, China should attach high importance to the development of capital market. Listing financing should be kept at a normal rhythm to avoid halt from time to time or massive lending, which may result in irrational expectations on supply and demand in the market. Seeking stable and continued financing by listing on the stock market is a key pillar to the capital formation of real economy. Meanwhile, the sound development of multi-tiered capital market including angel fund and PE fund should be actively boosted to realize “mass innovation and popular entrepreneurship”. China should make efforts to develop a reasonable and balanced structure of direct & indirect financing by containing the excessive rise of leverage ratio.

### (3) Ensure the prudent operation of banking system

Under the indirect financing-led financing structure of China, healthy development of banking system plays a pivotal role in stabilizing the leverage ratio of society. In this regard, to strengthen risk absorbing ability of banks and ensure prudent operation of banking system is quite necessary:

First, controlling the leverage ratio of banking system. Oversight of banks’ leverage ratio,

provision coverage ratio and capital adequacy ratio should be enhanced. The regulatory criteria of provision coverage ratio should not come below 100%, or else it will impair the motivation of banks to dispose of NPLs. Coverage and calculating method of risk-weighted assets ("RWA") should be calibrated to make sure that RWA reflects on and off-sheet risk exposures of banks on a comprehensive and accurate basis and capital cover risks in full. Furthermore, monitoring and management of shadow banking should be intensified, with stricter capital management of non-banking institutions such as trust companies, asset management companies and securities companies offering a lot of businesses in the "shadow banking" nature.

Second, strengthening the capital base and quality of banking system. Banks should be encouraged to raise capital in a number of ways, e.g. implementation of a more flexible dividend policy in the cycle of economic downturn, rollout of employee stock ownership scheme and innovation of capital instruments under greater efforts. At the same time of increasing capital, banks should raise the ratio of additional tier 1 capital, explore in the offering of senior unsecured bonds that can absorb loss, optimize the capital structure and strengthen risk absorbing ability on the premise of cost control.

Third, disposing of NPLs properly. On the basis of balancing risk and profit, China should take good control of provisioning and loan writing-off rhythm, probe into the ways of mitigating NPAs via active debt-to-equity, appropriately expand the scale of NPA securitization and accelerate the development and improvement of a secondary market for NPL transfer.

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