



Appendix I

A Quantitative Analysis of the Soundness of the Banking Sector: the Case of 15 Commercial Banks

In 2007, China's banking sector continued to maintain a sound performance, with its asset scale, profit gains and risk management steadily improved, and played an important role in promoting the sound and rapid development of national economy. At present, banking sector still served as the backbone of the financial industry, and the monitoring and analysis of its operation would help to timely identify risks in the sector and contribute to the sound performance of the financial system. Therefore, we selected 15 commercial banks¹ with their assets² accounting for 53.99% of the total assets in banking institutions³, and conducted a quantitative analysis in terms of profitability, assets, liabilities, capital and liquidity.

Profitability Analysis

In 2007, the 15 commercial banks witnessed a steadily increased efficiency in the use of funds, with their profits growing by a large margin and source of income further diversified. The total net profits after tax reached RMB 267.219 billion yuan in 2007, a growth of RMB 88.982 billion yuan or 49.92% y-o-y; the ROA stood at 1.02%, up by 0.21 percentage points; and the ROE recorded

16.34%, up by 1.92 percentage points from 2006.

Breakdown Analysis of ROE

As for 2007, the ROE of the 15 commercial banks registered 16.34%, higher than that recorded in 2006. The breakdown analysis showed that the increase of ROE was primarily attributed to the drop in leverage ratio and operational risks as well as the increase in marginal profits and risk-adjusted returns (Table B1.1), indicating that the risk management and profitability of the banking sector continued to improve with a sound performance.

The comparison suggested that the ROE of the 11 JSCBs was higher than that of the big four commercial banks. However, in terms of the ROE breakdown analysis, the former banks had higher operational risks and leverage ratio but lower marginal profits and risk-adjusted returns, and hence should further enhance their operational efficiency and improve risk management.

Figure B1.1 described the fluctuations in the ROE breakdown of the 15 commercial banks from 2006 to 2007 by dividing the banks into two groups, i. e., big four commercial banks and 11 JSCBs. The vertical axis showed the changes in the items compared with that recorded in the same period of 2006. The

1 Including big four commercial banks (ICBC, BOC, CCB, and BOCOM) and 11 JSCBs (China CITIC Bank, Huaxia Bank, Guangdong Development Bank, Shenzhen Development Bank, China Merchants Bank, Shanghai Pudong Development Bank, Industrial Bank, CMBC, Evergrowing Bank, China Zheshang Bank, and Bohai Bank).

2 Source: PBC, CBRC, aggregate data at the legal person level.

3 Including policy banks, SOCBs, JSCBs, city commercial banks, rural commercial banks, rural cooperative banks, foreign banks, UCCs, RCCs, non-financial institutions (TICs, finance companies, finance leasing companies, auto finance companies and money brokerage companies), and PSBC.

Table B1.1 ROE Breakdown of the 15 Commercial Banks

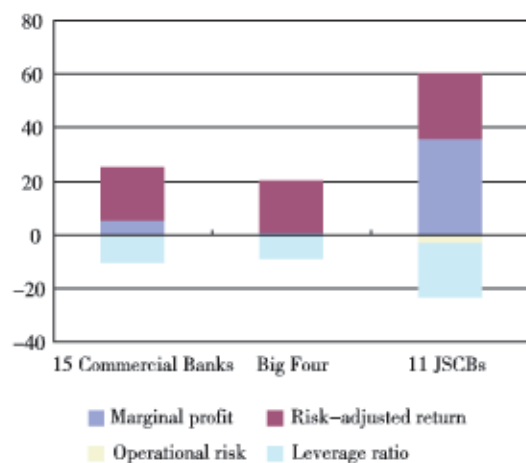
(percent)

	Marginal Profit		Risk-adjusted Return		Operational Risk		Leverage Ratio		ROE	
	2006	2007	2006	2007	2006	2007	2006	2007	2006	2007
15 Commercial Banks	29.10	30.68	4.97	5.96	56.15	55.79	17.77	16.01	14.42	16.34
Big Four Commercial Banks	31.16	31.43	5.07	6.06	55.48	55.39	16.26	14.82	14.24	15.57
11 Joint-stock Commercial Banks	20.50	27.91	4.59	5.70	58.86	57.21	28.26	22.51	15.64	20.49

$$\begin{aligned}
 \text{Note: ROE} &= \frac{\text{Net Profit After Tax}}{\text{Operating Income}} \times \frac{\text{Operating Income}}{\text{Average Risk-weighted Assets}} \\
 &\times \frac{\text{Average Risk-weighted Assets}}{\text{Average Total Assets}} \times \frac{\text{Average Total Assets}}{\text{Average Owner's Equity}} \\
 &= \text{Marginal Profit} \times \text{Risk-adjusted Return} \times \text{Operational Risk} \times \text{Leverage Ratio}
 \end{aligned}$$

Figure B1.1 Fluctuations in the ROE Breakdown of the 15 Commercial Banks

(percent)



analysis concluded that, in 2007, both the big four commercial banks and 11 JSCBs saw an increase in marginal profits and risk-adjusted returns and a fall in operational risks and leverage ratio from 2006. However, JSCBs experienced a faster growth of marginal profits and a larger decrease in leverage ratio.

Income Structure Analysis

In 2007, the net operating income of the 15 commercial banks amounted to RMB 870.945 billion yuan, increasing y-o-y by 42.19%. In particular, the net operating income of the big four commercial banks rose by 38.67% to RMB 685.084 billion yuan, while that of JSCBs grew by 56.89% to RMB 185.861 billion yuan (Table B1.2).

Table B1.2 Composition of Net Operation Income of 15 Commercial Banks

Item		15 Commercial Banks		Big Four Commercial Banks		11 Joint-stock Commercial Banks	
		2006	2007	2006	2007	2006	2007
Balance (100 million of RMB yuan)	Net interest income	3 497.03	5 004.56	2 624.50	3 675.11	872.53	1 329.45
	Net fee and commission income	485.24	1 038.17	405.74	875.70	79.50	162.47
	Investment income	2 160.89	2 837.25	1 951.30	2 515.54	209.59	321.72
	Other business income	-18.07	-170.54	-41.13	-215.51	23.06	44.98
	Net operation income	6 125.09	8 709.44	4 940.42	6 850.84	1 184.68	1 858.61
Proportion (percent)	Net interest income	57.09	57.46	53.12	53.64	73.65	71.53
	Net fee and commission income	7.92	11.92	8.21	12.78	6.71	8.74
	Investment income	35.28	32.58	39.50	36.72	17.69	17.31
	Other business income	-0.30	-1.96	-0.83	-3.15	1.95	2.42
	Net operation income	100.00	100.00	100.00	100.00	100.00	100.00

The net interest income was still the main source of net operation income in the 15 commercial banks, with its growth rate in 2007 reaching a high of 43.11%, accounting for 57.46% of the net operation income, up by 0.37 percentage points y-o-y. The investment income accounted for 32.58% of the net operation income, down by 2.7 percentage points; and the net fee and commission income accounted for 11.92%, up by 4.01 percentage points. The net interest income of the big four commercial banks and 11 JSCBs increased by 40.03% and 52.37% respectively, while the proportion of net interest income of the big four commercial banks was 17.89 percentage points lower than that of JSCBs.

The negotiable securities investment by commercial banks further expanded. Driven by the rise in inter-bank market interest rates and vibrant transactions of funds, the investment income grew rapidly. In 2007, the growth of investment income of 15 commercial banks reached 31.30%. In particular, the investment income of the big four commercial banks and 11 JSCBs rose by 28.92% and 53.50% respectively, with the big four commercial banks recording a larger share of investment income in net operation income, which was 19.41 percentage points higher than that of JSCBs.

The net fee and commission income of com-

mercial banks soared owing to good market response to the sale of funds. The net fee and commission income of the 15 commercial banks increased by 113.95% from 2006, with the growth of the big four commercial banks and 11 JSCBs reaching 115.83% and 104.36% respectively. With respect to fee-based business, large commercial banks still held the large majority of market share, and JSCBs also saw an accelerated growth. The proportion of net fee and commission income in net operation income of the big four commercial banks was 4.04 percentage points higher than that of JSCBs.

Cost Structure Analysis

In 2007, the operation cost¹ of the 15 commercial banks amounted to RMB 365.928 billion yuan, representing a y-o-y growth of 36.23%. In particular, the operation cost of the big four commercial banks increased by 35.05% to RMB 279.078 billion yuan, and that of the 11 JSCBs rose by 40.15% to RMB 86.850 billion yuan.

In 2007, the cost/income ratio² of the 15 commercial banks was 36.01%, down by 1.68 percentage points over the previous year. In particular, the cost/income ratio of the big four commercial banks decreased by 0.99 percentage points to 34.98%, while that of the 11 JSCBs fell by 5.05 percentage points to 39.80% (Figure B1.2). Due to the enhanced

efficiency in cost management, the gap between the above two ratios was remarkably narrowed. The growth of operation cost of JSCBs was 16.74 percentage points lower than the growth of net operation income, indicating a great improvement in profitability and competitiveness of JSCBs (Figure B1.3).

Figure B1.2 Cost/Income Ratio of the 15 Commercial Banks

(percent)

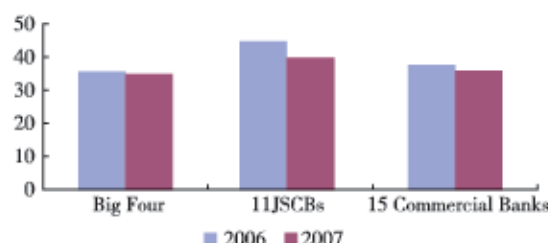
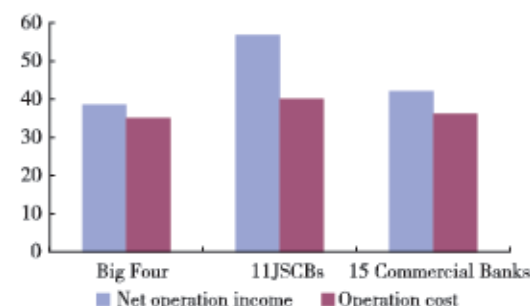


Figure B1.3 Growth of Net Operation Income and Operation Cost of the 15 Commercial Banks

(percent)



1 Operation cost includes operation expense, business tax and additions, and other operation expenditures.

2 Cost/income ratio = (operation cost-business tax and additions) / (net interest income + net fee and commission income + other business income + investment income) × 100%

Asset Analysis

The Scale and Structure of Total Assets

In 2007, the total assets of commercial banks maintained a rapid growth. As of the end of the year, the total assets of the 15 commercial banks amounted to RMB 28.68 trillion yuan, increasing by 20.96% y-o-y and accounting for 53.99% of the total assets of domestic banking institutions denominated in both domestic and foreign currencies. In particular, the assets of the big four commercial banks totaled RMB 22.13 trillion yuan, increasing by 17.34%; the assets of the 11 JSCBs totaled

RMB 6.55 trillion yuan, up by 35.02%.

In terms of the asset structure, loans and investment were still the main constituents of the total assets, accounting for above 70%. In 2007, since the central bank raised the required reserve ratio several times, the share of deposits in the central bank in total assets of the 15 commercial banks rose by 2.21 percentage points. While the share of outstanding loans in total assets remained relatively stable, declining slightly by 0.25 percentage points, the share of discount fell sharply by 2.39 percentage points, suggesting that the commercial banks reduced discount to support lending business. The growth of bond investment decelerated, and the share of investment in total assets descended by 2.1 percentage points (Table B1.3)

Table B1.3 Asset Structure of the 15 Commercial Banks

	Balance (100 million of RMB yuan)		As a percentage of total assets (percent)	
	2006	2007	2006	2007
Deposits in central bank	23 179.73	34 371.23	9.78	11.99
Inter-bank deposits	1 663.43	2 674.05	0.70	0.93
Loans	110 063.25	132 438.59	46.43	46.18
Discount	11 220.80	6 717.27	4.73	2.34
Trade finance	1 914.93	3 689.84	0.81	1.29
Inter-bank lending	5 897.54	6 469.88	2.49	2.26
Investment	73 417.84	82 411.92	30.97	28.74
Repurchase of assets	4 145.49	13 379.09	1.75	4.67
Other	5 569.49	4 610.69	2.35	1.61
Total assets	237 072.52	286 762.57	100.0	100.0

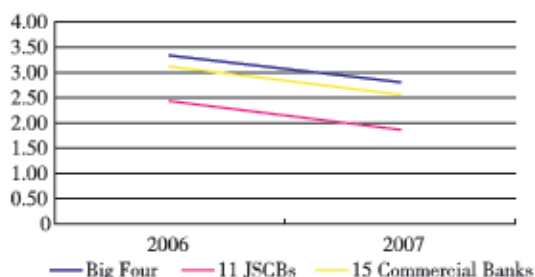
The Scale and Quality of Loans

At the end of 2007, outstanding loans of the 15 commercial banks reached RMB 14.29 trillion yuan, RMB 1.97 trillion yuan more than that in the previous year and up by 15.99%. In particular, outstanding loans of the big four commercial banks rose by 14.34% to RMB 10.69 trillion yuan, and that of the 11 JSCBs escalated by 21.03% to RMB 3.60 trillion yuan.

At the end of 2007, outstanding NPLs of the 15 commercial banks amounted to RMB 0.37 trillion yuan, decreasing by RMB 18.279 billion yuan over the previous year; the NPL ratio registered 2.57%, down by 0.56 percentage points (Figure B1.4). Among the NPLs, secondary and suspicious loans continued to decline, while loss loans increased modestly.

Figure B1.4 NPL Ratio of the 15 Commercial Banks

(percent)

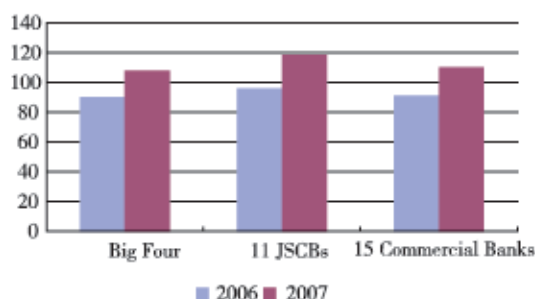


Provision Coverage Ratio¹

In 2007, the 15 commercial banks saw an overall increase in the provision coverage ratio, with the ratio elevating by 18.69 percentage points on a y-o-y basis to 110.27% at the end of 2007. In particular, the provision coverage ratio of the big four commercial banks rose by 17.83 percentage points to 108.31%, and that of the 11 JSCBs increased by 22.62% to 118.97% (Figure B1.5).

Figure B1.5 Provision Coverage Ratio of the 15 Commercial Banks

(percent)



Liabilities, Capital and Liquidity

The Scale and Structure of Liabilities

At the end of 2007, the liabilities of the 15 commercial banks totaled RMB 26.89 trillion

1. Provision coverage ratio = loan loss provision / outstanding NPLs × 100%

yuan, representing a y-o-y growth of 20.99% and accounting for 50.62% of the total liabilities of financial institutions in the banking sector. In particular, the liabilities of the big four commercial banks accounted for 38.89% of the total assets, down by 1.07 percentage points; the liabilities of the 11 JSCBs accounted for 11.73%, up by 1.13 percentage points.

Since the beginning of 2007, deposits have been diverted due to an investment boom in stock market. At the end of 2007, the proportion of corporate deposits and household savings in total liabilities decreased by 5.87 percentage points y-o-y. Part of the diverted deposits became the customers' margins deposited by securities firms, settlement companies and fund management companies in commercial banks, contributing to the rising proportion of these deposits.

Capital and CAR

By the end of 2007, only 3 of the 15 commercial banks had not yet met the requirements of CBRC on CCAR and CAR. Both the CCAR and CAR of the 15 commercial banks saw an increase, reaching 10.51% and 12.92% respectively, which were mainly fueled by the rapid growth of net capital. In 2007, the net capital of the 15 commercial banks grew by RMB 339.107 billion yuan or 20.48% y-o-y.

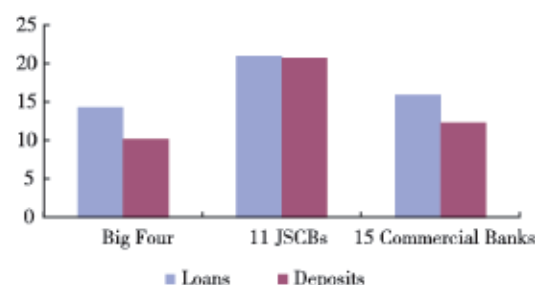
The re-listing of CCB and BOCOM in the A-share market, and the IPO of many commercial banks such as Industrial Bank and China CITIC Bank greatly enhanced the CAR of these banks.

Liquidity

In 2007, loans of commercial banks grew faster than their deposits (Figure B1.6), with the medium and long-term loans growing particularly fast, resulting in a decline in the liquidity of commercial banks. At the end of 2007, the liquidity ratio⁷ of the 15 commercial banks recorded 37.92%, down by 3.07 percentage points over the previous year but still higher than the lower limit of regulatory indicators (25%), indicating sufficient asset liquidity.

Figure B1.6 Growth of Loans and Deposits of the 15 Commercial Banks in 2007

(percent)



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1 Liquidity ratio = liquidity assets/ liquidity liabilities × 100%

