



Appendix I

A Quantitative Study of the Soundness of the Banking Sector: the Case of 16 Commercial Banks

The year 2006 witnessed a rapid development in China's banking sector. The asset quality has been improving steadily and the overall strength of banks in preventing risks has been further growing. The banking sector has maintained its key position in China's financial industry with banking assets representing over 70% of the overall assets of financial institutions. Accordingly, the comprehensive analysis and evaluation on the stability of the banking sector, especially on the soundness of larger banks, is an important endeavor for making a correct judgment on the risk standing of the financial industry as a whole, resolving the risks on a timely basis, and effectively maintaining financial stability. On the basis of significance, we have selected the 16 commercial banks¹ as the subjects of study as their assets account for 67.5% of those of the entire banking sector. The comprehensive study on the major changes in profitability, assets, liabilities, capital and liquidity of these banks will reflect the changes of their strength in preventing risks. The study will also help to make a sound judgment of the development and soundness of the entire banking sector or even the financial industry as a whole.

Profitability Analysis

In 2006, against the background of rapid economic growth and liquidity surplus, the 16 commercial banks endeavored to increase the capital usage efficiency and expanded the non-interest businesses. As a result, investment income, net interest income and net fee income witnessed a rapid growth. The income structure was further optimized.

The pre-provisioning profits of the 16 banks arising from domestic businesses in 2006 reached RMB 333.3 billion yuan, an increase of RMB 77.2 billion yuan, or 30.1% over the previous year. Average ROA before provisioning was 1.2%, 0.1 percentage point higher over the previous year. Due to the accelerated capital expansion, ROE before provisioning averaged 25.3%, 1.7 percentage points down over the previous year.

ROE breakdown analysis

The ROE of the 16 banks decreased from 27.1% in 2005 to 25.3% in 2006, 1.7 percentage points down. The breakdown analysis on ROE (Table B1.1, Figure B1.1) indicates that the overall profit margin and risk rate of return of these 16 commercial banks registered some increase and the leverage ratio

1 These 16 commercial banks include the Big Four (Industrial and Commercial Bank of China, Agricultural Bank of China, Bank of China and China Construction Bank) and 12 other commercial banks (Bank of Communications, CITIC Bank, China Everbright Bank, Huaxia Bank, Guangdong Development Bank, Shenzhen Development Bank, China Merchants Bank, Shanghai Pudong Development Bank, Industrial Bank, China Minsheng Bank, Evergrowing Bank, and China Zheshang Bank). This section focuses on the domestic business of the foregoing institutions. All data come from PBC.

and operational risk dropped obviously. These trends show the management efficiency and

risk management of the banking sector improved and the operation became more stable.

Table B1.1 ROE Breakdown of the 16 Commercial Banks

(percent)

	Profit Margin		Risk Adjusted Return		Operational Risk		Leverage Ratio		ROE	
	2005	2006	2005	2006	2005	2006	2005	2006	2005	2006
16 Commercial Banks	13.58	14.53	14.89	16.03	54.89	53.04	24.41	20.49	27.07	25.33
Big Four	12.02	13.08	16.09	17.37	53.37	51.64	24.04	19.55	24.80	22.94
Other Commercial Banks	21.36	21.33	10.84	11.80	60.72	58.02	25.95	24.68	36.47	36.06

$$\begin{aligned}
 \text{Note: ROE} &= \frac{\text{Pre-provisioning Profits}}{\text{Operation Income}} \times \frac{\text{Operation Income}}{\text{Average Risk-weighted Assets}} \\
 &\times \frac{\text{Average Risk-weighted Assets}}{\text{Average Total Assets}} \times \frac{\text{Average Total Assets}}{\text{Average Owner's Equity}} \\
 &= \text{Profit Margin} \times \text{Risk Adjusted Return} \times \text{Operational Risk} \times \text{Leverage Ratio}
 \end{aligned}$$

Figure B1.1 Changes in the ROE Breakdown of the 16 Commercial Banks

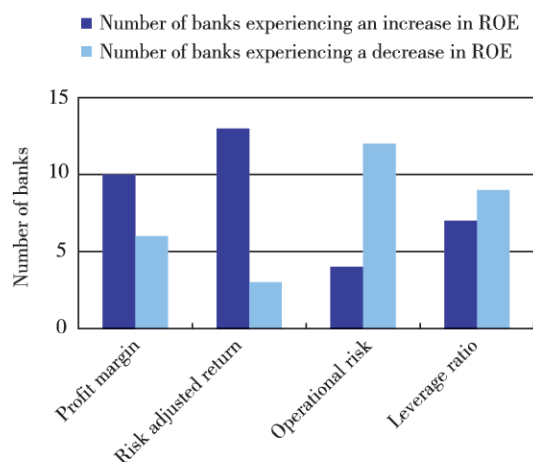
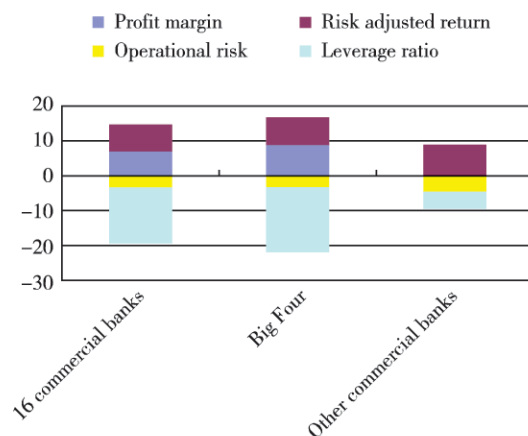


Figure B1.2 describes the fluctuations in the ROE breakdown of the 16 commercial banks from 2005 to 2006 by the Big Four and other

commercial banks. The vertical axis indicates the changes from 2005 to 2006. The analysis on the ROE breakdown indicates that both the profit margin and the risk rate of return of the Big Four drastically increased while the leverage ratio drastically dropped. The risk rate of return of other commercial banks drastically increased. The profit margin of the Big Four still lagged far behind that of other commercial banks, indicating the Big Four need to further enhance their management efficiency in the future. The profit margin, operational risk and leverage ratio of other commercial banks were higher than those of the Big Four, but the risk adjusted return was relatively low. Therefore, these banks need to improve their risk management, replenish their capital by various means, and hence improve their operation by increasing the risk adjusted return and lowering the financial risk.

**Figure B1.2 Fluctuations in the ROE
Breakdown of 16 Commercial Banks**

(percent)



Income structure analysis

In 2006, the net operation income generated from the domestic businesses of the 16 commercial banks reached RMB 724.2 billion yuan, with an increase of 25% from the previous year. More specifically, the figure for the Big Four was RMB 550.9 billion yuan, with an increase of 24.1%; and that for other commercial banks was RMB 173.3 billion yuan, with an increase of 28.1% (Table B1.2).

Table B1.2 Breakdown of Net Operation Income

Item		16 Commercial Banks		Big Four		Other Commercial Banks	
		2005	2006	2005	2006	2005	2006
Balance (100 million of RMB yuan)	Net interest income (balance)	3 625	4 347	2 653	3 099	971	1 248
	Investment income	1 655	2 294	1 375	1 960	279	334
	Fee income (net)	424	648	365	550	59	98
	Profit and loss on ex- change (net)	25	-121	-2	-155	27	34
	Others	65	74	48	56	17	18
	Net operation income	5 793	7 242	4 440	5 509	1 353	1 733
Percentage (percent)	Net interest income (percentage)	62.57	60.02	59.76	56.24	71.80	72.03
	Investment income	28.56	31.68	30.98	35.57	20.65	19.30
	Fee income (net)	7.32	8.95	8.23	9.98	4.34	5.65
	Profit and loss on ex- change (net)	0.42	-1.67	-0.04	-2.82	1.93	1.98
	Others	1.12	1.03	1.08	1.02	1.28	1.04
	Net operation income	100.00	100.00	100.00	100.00	100.00	100.00

In 2006, the net interest income of the 16 commercial banks accounted for 60% of the net operation income, a decrease of 2.6 percentage points over the previous year; the investment income accounted for 31.7%, an increase of 3.1 percentage points; the net fee income accounted for 9%, an increase of 1.6 percentage points. Net interest income still made up the majority of the net operation income while investment income and net fee income registered rapid growth.

Thanks to the rapid credit expansion during the previous years and the raise of the benchmark lending rates, the net interest income of the commercial banks registered a rapid growth. In 2006, the net interest income arising from the domestic businesses of the 16 commercial banks rose by 19.9% y-o-y. More specifically, the Big Four registered an increase of 16.8% while other commercial banks registered an increase of 28.5%. As to the share of net interest income in the net operation income, the figure of the Big Four is 15.8 percentage points lower than that of other commercial banks.

The growth in securities investment and the active proprietary trading led to the rapid increase in the investment income of the 16 commercial banks. In 2006, the investment income of these banks experienced an increase of 38.6% y-o-y. More specifically, the Big Four registered an increase of 42.5% while other commercial banks registered an increase of 19.7%. As to the share of investment in-

come in the net operation income, the figure of the Big Four is 16.3 percentage points higher than that of other commercial banks.

In the non-interest businesses, larger financial institutions still commanded the majority of the market share thanks to their advantage in funds, technology and number of business outlets. However, the growth of non-interest businesses of other institutions was picking up. In 2006, the net fee income arising from the domestic businesses of the 16 commercial banks increased by 52.8% y-o-y. More specifically, the Big Four registered an increase of 50.7% while other commercial banks registered an increase of 66.1%. As to the share of net fee income in the net operation income, the figure of the Big Four is 4.3 percentage points higher than that of other commercial banks.

Cost structure analysis

In 2006, the operation cost¹ of the 16 commercial banks was RMB 388.6 billion yuan, rising by 29.3% over the previous year. The number for the Big Four was RMB 302.5 billion yuan, with an increase of 30.9%; and the number for other commercial banks was RMB 86.1 billion yuan, with an increase of 23.7%.

Figure B1.3 indicates that the cost/income ratio of the 16 commercial banks was 53.7%, rising by 4.5 percentage points y-o-y. The figure for the Big Four was 54.9%, with an increase of 6.4 percentage points; and the figure

1 Operation cost includes operating expense, business tax and additions as well as other operating expenditures.

Figure B1.3 Cost/Income Ratio of the 16 Commercial Banks

(percent)

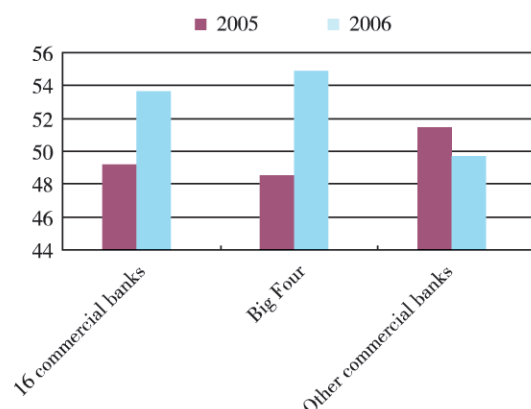
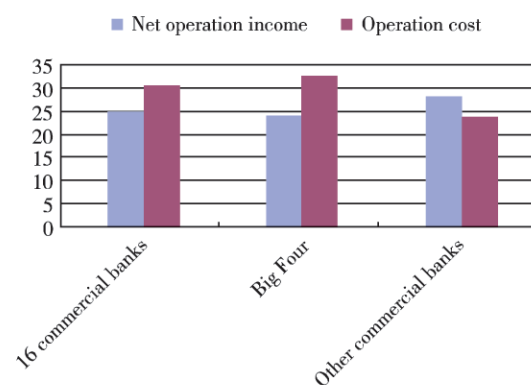


Figure B1.4 Growth Rate of Cost and Income of the 16 Commercial Banks

(percent)



for other commercial banks was 49.7% , with a decrease of 1.8 percentage points. The cost management efficiency of other commercial banks experienced some improvement and their cost/income ratio was significantly lower

than that of the Big Four. Figure B1.4 also indicates that while maintaining a rapid growth of operation income, other commercial banks effectively controlled their operation cost. The increase of their operation cost was 4.4 percentage points lower than that of operation income, which was helpful in increasing their profitability and competitiveness.

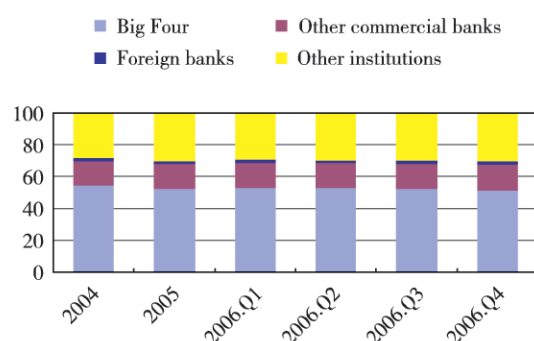
Asset Analysis

Total asset size and structure

In 2006 , the total assets of commercial banks maintained a rapid growth. As of the end of the year, the total assets (in domestic and foreign currency) of the 16 commercial banks held within the country reached RMB 29.7 trillion yuan , rising by 16.5% on the year-to-year basis , and accounting for 67.5% of the total assets (in domestic and foreign currency) of the banking sector in China. More specifically , the total assets (in domestic and foreign currency) of the Big Four held within the country reached RMB 22.5 trillion yuan , rising by 14.7% ; and accounting for 51.3% of the total assets (in domestic and foreign currency) of the banking sector in China , decreasing by 1.2 percentage points. The figure of other commercial banks was RMB 7.1 trillion yuan , rising by 22.9% ; and accounting for 16.3% of the total assets (in domestic and foreign currency) of the banking sector in China , increasing by 0.7 percentage point.

Figure B1.5 Changes of Asset Shares of All Kinds of Banking Institutions

(percent)



In terms of the asset structure, loans as well as securities and investments maintained their share (over 80%) in the total assets of the 16 commercial banks. As of the end of 2006, the share of loans in total assets of these banks dropped by 1.3 percentage points on a y-o-y basis, while the share of securities and investments in total assets increased by 1.2 percentage points. More specifically, the share of loans for the Big Four dropped by 1.4 percentage points, while their share of securities and investments increased by 1.9 percentage points. The share of loans for other commercial banks dropped by 1.6 percentage points, and the share of securities and investments dropped by 0.4 percentage point.

Table B1.3 Asset Structure of the 16 Commercial Banks

Item		16 Commercial Banks		Big Four		Other Commercial Banks	
		2005	2006	2005	2006	2005	2006
Balance (100 million of RMB yuan)	Loans (balance)	137 102	155 782	102 257	114 212	34 845	41 570
	Securities and investments	69 415	84 412	59 045	71 975	10 369	12 437
	Current account with others	8 321	7 495	6 197	5 395	2 124	2 100
	Cash and deposits in the central bank	23 166	32 225	17 281	23 055	5 886	9 170
	Other assets	16 701	16 156	11 800	10 167	4 900	5 989
	Total assets	254 705	296 656	196 580	225 390	58 125	71 266
Percentage (percent)	Loans	53.83	52.51	52.02	50.67	59.95	58.33
	Securities and investments	27.25	28.45	30.04	31.93	17.84	17.45
	Current account with others	3.27	2.53	3.15	2.39	3.65	2.95
	Cash and deposits in the central bank	9.10	10.86	8.79	10.23	10.13	12.87
	Other assets	6.56	5.45	6.00	4.51	8.43	8.40
	Total assets	100.00	100.00	100.00	100.00	100.00	100.00

Size and quality of loans

As of the end of 2006, the loan balance of the 16 commercial banks reached RMB 15.6 trillion yuan, with an increase of RMB 1.9 trillion yuan or 13.6% y-o-y. More specifically, the loan balance of the Big Four reached RMB 11.4 trillion yuan, rising by 11.7%; and the figure of other commercial banks reached RMB 4.2 trillion yuan, rising by 19.3%.

As of the end of 2006, the NPL of 16 commercial banks was RMB 1.2 trillion yuan, decreasing by RMB 49.5 billion yuan over the end of the previous year. The NPL ratio was 7.5%, decreasing by 1.9 percentage points over the end of the previous year. At the end of 2005, the NPL ratio of the 16 commercial banks dropped to a single-digit level for the first time. Since then, the ratio has maintained a downward trend in 2006.

Provision coverage

In 2006, the overall provision coverage¹ of the 16 commercial banks improved significantly. However, great differences still existed among the banks. The growth rate in provision coverage of the Big Four was evidently slower than that of other commercial banks. At the end of 2006, the provision coverage of the 16 commercial banks was 34.7%, rising by 9.4 percentage points y-o-y. More specifically, the provision coverage of the Big Four was 28.3%, rising by 6.8 percentage points y-o-y; and the ratio of other commercial banks was 92.3%, rising by 38.9 percentage points y-o-y.

¹ Provision coverage = loan loss provision/ balance of NPL × 100%.

Figure B1.6 NPL ratio of the 16 Commercial Banks

(percent)

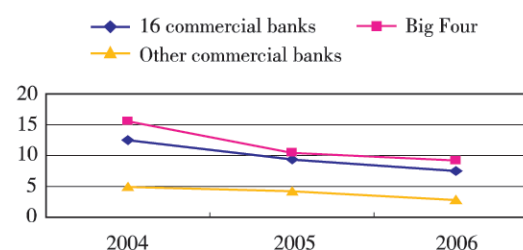
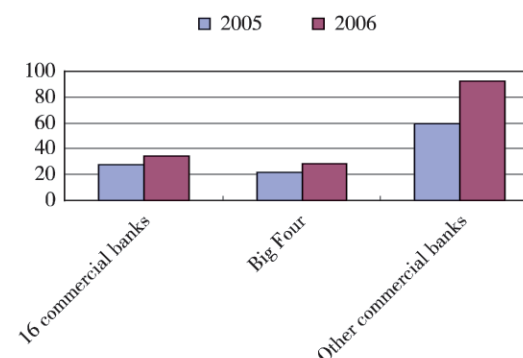


Figure B1.7 Provision Coverage of the 16 Commercial Banks

(percent)



Liabilities, Capital and Liquidity

Size and structure of liabilities

At the end of 2006, the total liabilities (in do-

mestic and foreign currency) of the 16 commercial banks held within the country reached RMB 28.1 trillion yuan, rising by 15.4% on the y-o-y basis, and accounting for 67.5% of the total liabilities (in domestic and foreign currency) of the banking sector in China. More specifically, those of the Big Four accounted for 51%, decreasing by 1.4 percentage points; and those of other commercial banks accounted for 16.5%, rising by 0.8 percentage point.

At the end of 2006, the deposit balance of the 16 commercial banks reached RMB 24.6 trillion yuan, rising by 14.1%. The growth rate decreased by 2.5 percentage points over the previous year. In 2006, the stock market attracted a significant amount of bank deposits. The decrease of y-o-y growth rate in savings deposits was the major reason for the slowdown of the rise in bank deposits. In 2006, the total new bank deposits amounted to RMB 1 238.9 billion yuan, decreasing by RMB 81.7 billion yuan on the y-o-y basis, and the growth rate was 2.7 percentage points lower

over the previous year.

Capital and CAR

Among the 16 commercial banks, the number of banks that met CBRC requirements on CCAR and CAR rose from 12 at the end of 2005 to 13 at the end of 2006. The year 2006 saw an increase in CAR. Furthermore, most banks filled the shortfall in provision of the previous year. Most banks did not have any shortfall in provision.

The major reason for the increase in both CCAR and CAR was the rapid growth in net capital. In 2006, the total increase in net capital of the 16 commercial banks was RMB 252.2 billion yuan, rising by 38.1%. The successful listing of many commercial banks in 2006 greatly increased their respective CARs.

Liquidity

At the end of 2006, the liquidity of the 16 commercial banks was higher than the standard level of 25%, indicating sufficient asset liquidity.

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