



Appendix I

A Quantitative Analysis of the
Soundness of the Banking Sector:
the Case of 17 Major Commercial Banks

In 2009, China's banking sector continued to maintain sound performance with its asset scale, profits and risk management steadily improved, and played an important role in promoting the sound and rapid economic development. In order to make analysis of the operational condition of the banking sector and identify related risks as soon as possible, we selected the 17 major commercial banks¹ (hereafter referred to as major commercial banks) with their assets accounting for 65.86 percent of the total assets in banking institutions², and conducted a quantitative analysis in terms of profitability, assets, liabilities, capital and liquidity³.

Profitability Analysis

In 2009, profits of 17 major commercial banks continued to grow steadily. The total net profits after tax reached RMB 492.612 billion yuan for the year 2009, an increase of RMB 54.25 billion yuan or 12.37 percent y-o-y; the ROA stood at 1.05 percent, down 0.09

percentage point from 2008; and the ROE recorded 19.08 percent, down 1.2 percentage points.

Breakdown Analysis of ROE

As for 2009, the ROE of the major commercial banks registered 19.08 percent, down almost 1.2 percentage points than that recorded in 2008. The breakdown analysis showed that the decrease of ROE was primarily attributed to the plunge of risk-adjusted return (Table B1.1), as well as the slight increase of profit margin, operational risk and leverage ratio, indicating that the profitability of the banking sector dropped, and the risk management and profit stability needed to be improved.

The comparison suggested that the large commercial banks' ROE was slightly higher than that of the JSCBs. In terms of the ROE breakdown analysis, the former had higher profit margin, but lower risk-adjusted returns, operational risks and leverage ratio. Hence JSCBs should further enhance their operational efficiency and large commercial banks should improve risk management and reduce financial risk.

1 Including the 5 large commercial banks (ICBC, ABC, BOC, CCB, and BOCOM) and 12 JSCBs (China CITIC Bank, Everbright Bank, Huaxia Bank, Guangdong Development Bank, Shenzhen Development Bank, China Merchants Bank, Shanghai Pudong Development Bank, Industrial Bank, China Minsheng Banking Corporation, Evergrowing Bank, China Zheshang Bank, and Bohai Bank).

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

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

Table B1. 1 ROE Breakdown of the 17 Major Commercial Banks

	Profit Margin (percent)		Risk-adjusted Return (percent)		Operational Risk (percent)		Leverage Ratio		ROE (percent)	
	2008	2009	2008	2009	2008	2009	2008	2009	2008	2009
17 Major commercial banks	23.85	28.13	8.95	6.97	53.22	54.33	17.85	17.92	20.28	19.08
5 Large commercial banks	25.86	30.26	8.60	6.91	52.15	53.19	17.24	17.30	19.99	19.25
12 Joint-stock commercial banks	17.96	21.59	10.16	7.14	57.25	58.31	20.64	20.48	21.56	18.40

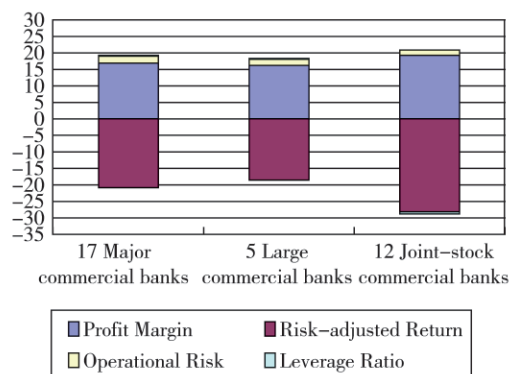
$$\begin{aligned}
 \text{Note: ROE} &= \frac{\text{Net profits after tax}}{\text{Operating income}} \times \frac{\text{Operating income}}{\text{Average risk-weighted assets}} \\
 &\times \frac{\text{Average risk-weighted assets}}{\text{Average total assets}} \times \frac{\text{Average total assets}}{\text{Average owner's equity}} \\
 &= \text{Profit margin} \times \text{Risk-adjusted return} \times \text{Operational risks} \times \text{Leverage ratio}
 \end{aligned}$$

Figure B1. 1 described the fluctuations in the ROE breakdown of the 17 major commercial banks from 2008 to 2009 by dividing the banks into two groups, i. e. , the large commercial banks and JSCBs. The vertical axis showed the changes in the items compared with those recorded in 2008. The analysis concluded that, in 2009, the large commercial

banks saw a rapid increase of profit margin, a slight increase of operational risks and leverage ratio, and a fall of risk-adjusted returns from 2008. JSCBs experienced a relative growth of profit margin, and slight increase of operational risks, while small decrease in leverage ratio, and a large decrease in risk-adjusted returns.

Figure B1. 1 Fluctuations in the ROE Breakdown of the 17 Major Commercial Banks in 2009

(percent)



Income Structure Analysis

In 2009, with the impact of the international financial crisis, operation of banks was under pressure. The net operating income fell for the first time since 2005, and the major commercial banks' net operating income amounted to RMB 1 348.045 billion yuan, decreasing by 1.54 percent y-o-y. In particular, the net operating income of the 5 large commercial banks decreased by 1.49 percent to RMB 1 065.503 billion yuan, while that of JSCBs decreased by 1.72 percent to RMB 282.542 billion yuan (Table B1. 2).

Although decreased by 4.27 percent y-o-y attributed to the decrease of net interest margin, the net interest income remained the major source of net operating income in the major commercial banks, accounting for 53.67 percent of the net operating income, down 1.53 percentage points y-o-y. In particular, the

growth rate of net interest income of the large commercial banks and JSCBs declined by 4.41 and 3.86 percentage points respectively, the proportion in net interest income of the large commercial banks and JSCBs declined by 1.53 and 1.51 percentage points respectively y-o-y.

Table B1.2 Composition of Net Operating Income of the 17 Major Commercial Banks

Item		17 Major commercial banks		5 Large commercial banks		12 Joint-stock commercial banks	
		2008	2009	2008	2009	2008	2009
Balance (100 million of RMB yuan)	Net interest income	7 557.55	7 234.82	5 567.90	5 322.06	1 989.65	1 912.76
	Net fee and commission income	1 657.84	2 055.84	1 384.64	1 754.69	273.19	301.15
	Investment income	3 837.29	3 748.05	3 388.65	3 240.37	448.64	507.67
	Other business income	639.06	441.75	475.48	337.91	163.59	103.84
	Net operating income	13 691.74	13 480.45	10 816.67	10 655.03	2 875.07	2 825.42
Proportion (percent)	Net interest income	55.20	53.67	51.48	49.95	69.20	67.69
	Net fee and commission income	12.11	15.25	12.80	16.46	9.50	10.66
	Investment income	28.03	27.8	31.33	30.41	15.60	17.97
	Other business income	4.67	3.28	4.40	3.18	5.69	3.68
	Net operating income	100.00	100.00	100.00	100.00	100.00	100.00

Following the recovery of real economy and capital market, the net fee and commission income of commercial banks grew at a faster pace. The net fee and commission income of the major commercial banks increased by 24.01 percent y-o-y, in particular, the growth of the large commercial banks and JSCBs reaching 26.73 percent and 10.23 percent respectively. The proportion of net fee and com-

mission income in net operating income reached 15.25 percent by the end of 2009, up 3.14 percentage points y-o-y, and in particular, the proportion of the large commercial banks and JSCBs increased by 3.66 and 1.16 percentage points y-o-y respectively, keeping growing in the latest 3 years.

In 2009, the inter-bank market gradually rein-

vigorated, the curve of bond yield was smooth, the commercial banks' income from both overseas and domestic investments kept stable, and the income of bond and equity investments decreased slightly. The investment income of the major commercial banks declined by 2.31 percent y-o-y, with the large commercial banks down by 4.36 percent and JSCBs up by 13.15 percent. The proportion of investment income in net operating income declined by 0.23 percentage point from 2008, specifically, the large commercial banks down 0.92 percentage point and JSCBs up 2.37 percentage points.

Cost Structure Analysis

In 2009, the operating cost¹ of the major commercial banks amounted to RMB 591.630 billion yuan, representing a y-o-y growth of 3.11 percent. In particular, the operating cost of the large commercial banks increased by 2.61 percent to RMB 451.059 billion yuan, and that of the JSCBs rose by 4.76 percent to RMB 140.571 billion yuan.

In 2009, the cost/income ratio² of the major commercial banks was 37.74 percent, up 1.95 percentage points from last year. In particular, the cost/income ratio of the large commercial banks increased by 1.67 percentage points to 36.41 percent, and that of the 12 JSCBs increased by 3.03 percentage points to 42.76 percent (Figure B1.2). In 2009, the net operating income of major commercial

banks decreased and the operating cost grew up with a large amount, in particular, large commercial banks and the JSCBs both saw a decline in net operating income, and the operating cost grew faster than the net operating income. Their profitability was weaker and the cost control needed improvement.

Figure B1.2 Cost/Income Ratio of the 17 Major Commercial Banks

(percent)

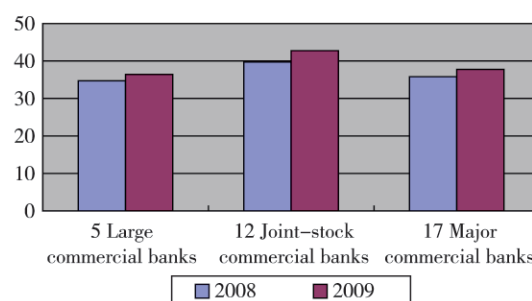
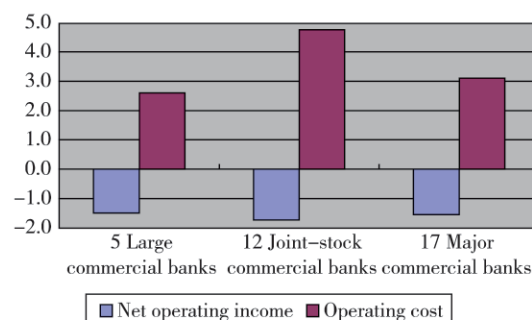


Figure B1.3 Growth of Net Operating Income and Operating Cost of the 17 Major Commercial Banks in 2009

(percent)



1 Operating cost includes operating expense, business tax and additions, and other operating expenditures.

2 Cost/income ratio = (operating 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 2009, the total assets of commercial banks maintained a stable growth. As of the end of the year, the total assets of the 17 major commercial banks amounted to RMB 52.62 trillion yuan, increasing by 27.07 percent y-o-y and accounting for 66.17 percent of the total assets of banking institutions. In particular, the assets of the large commercial banks totaled RMB 40.80 trillion yuan, increasing by 25.25 percent; the assets of the JSCBs totaled RMB 11.82 trillion yuan, up 33.78 percent.

In terms of the asset structure, loans and investment were still the main constituents of the total assets, accounting for above 70 percent. In 2009, the share of deposits in the central bank in total assets of the major commercial banks declined by 1.44 percentage points, while the share of outstanding loans in total assets rose slightly, up 2.51 percentage points. The share of trade finance increased by 0.70 percentage point. The share of inter-bank deposits increased by 0.35 percentage point. The growth of repurchase of assets was relatively fast, and its share in total assets increased by 1.12 percentage points. The share of investment in total assets decreased obviously by 2.26 percentage points (Table B1.3).

Table B1.3 Asset Structure of the 17 Major Commercial Banks

	Balance (100 million yuan)		As a percentage of total assets (percent)	
	2008	2009	2008	2009
Deposits in the central bank	63 345.36	72 946.91	15.30	13.86
Inter-bank deposits	5 942.10	9 376.38	1.43	1.78
Loans	183 970.87	246 998.56	44.43	46.94
Discount	13 882.84	16 647.50	3.35	3.16
Trade finance	4 859.55	9 849.38	1.17	1.87
Inter-bank lending	8 352.90	7 245.52	2.02	1.38
Investment	110 066.68	127 942.33	26.58	24.32
Repurchase of assets	17 625.64	28 330.51	4.26	5.38
Others	6 041.87	6 841.87	1.46	1.30
Total assets	414 087.81	526 178.96	100.00	100.00

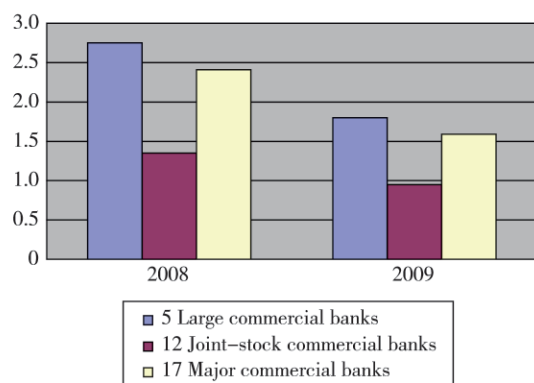
The Scale and Quality of Loans

By the end of 2009, outstanding loans of the major commercial banks reached RMB 27.35 trillion yuan, a growth of RMB 7.07 trillion yuan or 34.86 percent up y-o-y. In particular, outstanding loans of the large commercial banks rose by 34.09 percent to RMB 20.65 trillion yuan, and that of the 12 JSCBs escalated by 37.50 percent to RMB 6.71 trillion yuan.

As of the end of 2009, outstanding NPLs of the major commercial banks amounted to RMB 0.44 trillion yuan, decreasing by RMB 0.05 trillion yuan over the previous year. The NPL ratio registered 1.59 percent, down 0.82 percentage point. In particular, the NPL ratio for large commercial banks was 1.80 percent, down 0.95 percentage point, and the NPL ratio for JSCBs was 0.95 percent, down 0.40 percentage point (Figure B1.4).

Figure B1.4 NPL Ratio of the 17 Major Commercial Banks

(percent)

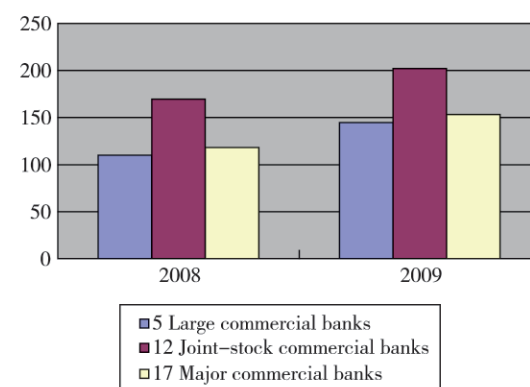


Provision Coverage Ratio¹

In 2009, the provision coverage ratio of the major commercial banks kept a substantial growth and reached 153.25 percent at the end of 2009, up 35.11 percentage points y-o-y. In particular, the provision coverage ratio of the large commercial banks rose by 34.74 percentage points to 144.89 percent, and that of the 12 JSCBs increased by 32.43 percentage points to 202 percent (Figure B1.5).

Figure B1.5 Provision Coverage Ratio of the 17 Major Commercial Banks

(percent)



Liabilities, Capital and Liquidity

The Scale and Structure of Liabilities

As of the end of 2009, the liabilities of the major commercial banks totaled RMB 49.86 trillion yuan, representing a y-o-y growth of

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

27.81 percent and accounting for 66.41 percent of the total liabilities of banking institutions. In particular, the liabilities of the large commercial banks accounted for 51.42 percent of the total liabilities, down 0.15 percentage point; the liabilities of the 12 JSCBs accounted for 14.99 percent, up 0.86 percentage point.

By the end of 2009, deposits of the major commercial banks totaled RMB 42.48 trillion yuan, rising by 27.49 percent y-o-y. In particular, corporate deposits rose by 33.53 percent, with an increase of 19.16 percentage points in its growth rate; household savings rose by 20.16 percent, with a drop of 5.10 percentage points in its growth rate. With the impact of the brisk property market and stock market, the growth of household savings slowed down, and the corporate deposits increased fast, showing that enterprises had sufficient funds as a whole. The proportion of corporate deposits and household savings in total liabilities of the major commercial banks decreased by 0.78 percentage point y-o-y.

Capital and CAR

By the end of 2009, all the 17 major commercial banks had met the CAR requirement of CBRC. Both the average CCAR and CAR of the major commercial banks saw a small decrease,

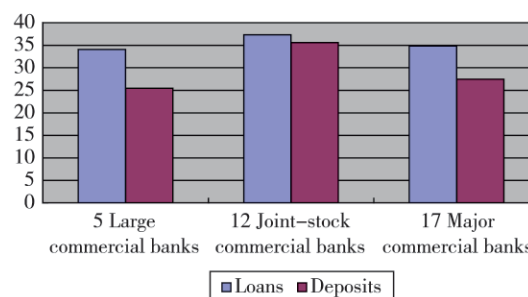
down to 8.71 percent and 11.01 percent respectively, mainly because the credit assets increased remarkable. In 2009, the net capital of the major commercial banks grew by RMB 393.296 billion yuan or 18.75 percent y-o-y.

Liquidity

In 2009, loans of major commercial banks grew faster than their deposits (Figure B1.6). At the end of 2009, the loan/deposit ratio of the major commercial banks recorded 64.39 percent, up 3.52 percentage points over the previous year; the liquidity ratio¹ was 40.73 percent, decreasing by 3.62 percentage points. Despite of that, the overall liquidity was still sufficient.

Figure B1.6 Growth of Loans and Deposits of the 17 Major Commercial Banks in 2009

(percent)



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