The Study on Bank Performance – The Example from Ping An Bank and Citigroup

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Abstract: We collect accounting data from Ping An Bank (PAB) and Citigroup (CITI) and compare their financial dates and performance from year of 2013 to 2022. Through comparison, we summarized the characteristics and differences of the two banks. By exploring these economic data, we hope to work out some rules of Ping An Bank (PAB) and Citigroup (CITI) operation in the past ten years and sum up some experience, so as to help put forward relevant suggestions and let ourselves better understand the development of banking and finance.

Keywords: Ping An Bank, Citigroup, Bank Performance, ROA & ROE, Non-performing Loan Ratio

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1 Introduction

With the continuous development of the global financial market, banks' performance is of great significance to the stability and development of the economy. Ping An Bank (PAB) and Citigroup (CITI) as two important banks in the world, their performance has attracted much attention.

As a joint-stock commercial bank, PAB has become one of the important participants in China's financial market reflecting the institutional and legal evolution of China's banking sector (Allen, Qian, & Qian, 2005). As a leading global financial services company, CITI has an extensive global business network and customer base, supporting global monetary transmission mechanisms (Cetorelli & Goldberg, 2012).

This paper aims to conduct an in-depth analysis of the banking performance of PAB and CITI. Specifically, we will look at key financial metrics such as return on assets (ROA), return on equity (ROE) and net profit margin of the two banks to assess their operating conditions and profitability. Through comparative analysis of the performance indicators of the two banks, we compare the scale of the two banks and reveal the strategic choices and suggestions on the performance of the banks^[1].

2 Basic summary of the bank

We collected data on the two banks from the stock market, accounting research and wind financial terminals. Table 1 compares the two banks' base case from 2013 to 2022.

As can be seen from Table 1, from 2013 to 2022, CITI's size (that is, total assets) is significantly larger than PAB and has higher sales. From the vertical point of view, CITI's total assets were initially stable overall, increased significantly in 2016, and then declined in 2017. Total sales increased first and then decreased after 2015 as a turning point. Both PAB's total assets and total sales have been growing steadily. This comparison reflects that PAB is more stable in its development, and its scale is slowly expanding.

From a horizontal perspective, the total sales gap between PAB and CITI has narrowed year by year. For example, in 2013, the total sales volume of CITI was 413.687 billion yuan, and the total sales volume of PAB was 52.189 billion

yuan, with a difference of 361.498 billion yuan, which reflects that the market share of PAB is small compared with CITI, but it is expanding year by year^[2-3].

	Total A	Assets	Total Sales		
Year	CITI	PAB	CITI	PAB	
2013	114,645.01	18,917.41	4,136.87	521.89	
2014	112,744.41	21,864.59	4,247.50	734.07	
2015	112,417.85	25,071.49	4,444.28	961.63	
2016	124,316.38	29,534.34	4,362.89	1,077.15	
2017	120,390.35	32,484.74	4,181.76	1,057.86	
2018	131,593.83	34,185.92	4,480.71	1,167.16	
2019	136,116.68	39,390.70	4,597.53	1,379.58	
2020	146,468.61	44,685.14	3,706.34	1,535.42	
2021	146,093.62	49,213.80	4,823.98	1,693.83	
2022	168,311.82	53,215.14	4,882.11	1,798.95	

Table 1. Total assets (size), market value (This is shown in the table as total sales) (unit: Million CNY)

In terms of the financial status of the banks, we have also obtained the data of the net profits of the two banks, which are expressed in Figure 1 as follows:



Figure 1. Net Profits (unit: Million CNY)

3 Analysis of bank profitability

Bank profitability is calculated based on three key variables: ROA, ROE and Net profit

margins, the formulas are listed as follows:

$$ROA = \frac{Net \ profits}{Total \ assets}$$

$$ROE = \frac{Net \, profits}{Total \, shareholders \, 'equity}$$

$$Net \ profit \ margin = \frac{Interest \ income \ - \ interest \ expense}{Total \ assets}$$

We report bank profitability in Table 2.

Table 2. Bank profitability (unit: %)

Year	ROE		ROA		Net pro	Net profit margin	
10.11	PAB	CITI	PAB	CITI	PAB	CITI	
2013	16.57	6.69	0.87	0.73	2.15	2.49	
2014	16.35	3.47	0.97	0.39	2.43	2.60	
2015	14.94	7.77	0.93	0.96	2.64	2.69	
2016	13.18	6.62	0.83	0.85	2.59	2.52	
2017	11.62	-3.39	0.75	-0.37	2.28	2.43	
2018	11.49	9.20	0.74	0.96	2.19	2.43	
2019	11.30	10.04	0.77	1.00	2.28	2.43	
2020	9.58	5.54	0.69	0.52	2.23	1.93	
2021	10.85	10.87	0.77	0.96	2.44	1.85	
2022	12.36	7.38	0.89	0.63	2.45	2.01	

The ROA and ROE of PAB remained relatively stable from 2013 to 2019 but showed a downward trend. ROA is around 0.9% and ROE is around 12%, which shows that PAB's asset utilization efficiency and profitability are higher. The ROE of PAB in 2019 was 9.58%, which was significantly lower than 11.30% in 2018 and decreased by 1.72 percentage points year-on-year. This may be attributed to the decline in the main revenue and net profit of PAB due to the impact of the novel coronavirus epidemic and the task of surrendering a part of profits. After 2020, it recovered due to the banks' transformation reform and the

recovery of the global economy. We can see the bank transformation data of PAB from Figure 2.

CITI's ROA and ROE have fluctuated over the past decade. ROA ranges from -0.4% to 1.0% and ROE ranges from -3% to 10%. Compared with PAB, CITI's asset utilization efficiency and profitability are relatively low. Net profit margin is comparable to PAB. The negative 2017 numbers may be due to the challenges CITI has faced over the past decade, such as the U.S. tax reform on December 2, 2017, which caused CITI to report a significant loss in the fourth quarter of 2017.

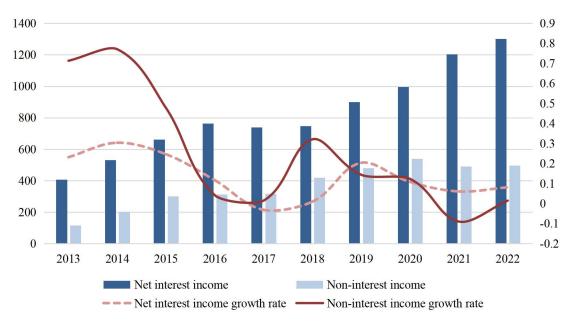


Figure 2. Income and growth rate of Ping An Bank (Unit: billion CNY)

PAB began its transformation into a retail business in 2016, and its performance has been improving over the past decade(Li & Wang, 2021). Non-interest income is mainly the fees and commission income brought by the bank's settlement of corporate customers, agent fund financing sales, credit cards and other businesses. In 2021, the PAB will adjust income from credit card installment payments to interest income at the request of the Ministry of Finance. According to the figure, interest income actually increased

by 6.1% and non-interest income by 22.4% year-on-year in 2021, which shows that non-interest income contributed more to the growth^[4-5].

After the winter in the banking industry in 2020, CITI focuses on reducing its personal banking business in the international market and improving its profitability by reducing non-core businesses. Figure 3 will show the proportion of operating income of CITI in the past five years.

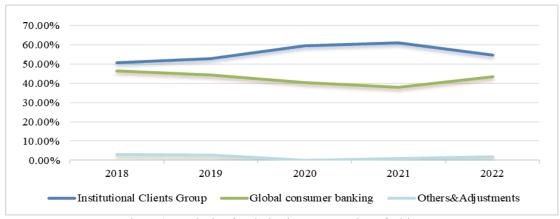


Figure 3. Analysis of main business proportion of Citigroup

As can be seen from figure 3, CITI's institutional client group accounts for the largest proportion of revenue. CITI is continuously reducing its global personal banking

business, and its corporate institutional client business will become the focus.

4 Loan performance

Table 3. Loan performance of two banks(unit: %)

	Non-performing loan		Ratio of loar	Ratio of loan-to-deposit		ital adequacy
Year	PAB	CITI	PAB	CITI	PAB	CITI
2013	0.89	1.24	86.95	84.34	9.90	19.89
2014	1.02	1.12	88.49	85.23	10.23	20.17
2015	1.45	1.03	90.9	84.67	10.59	20.84
2016	1.74	0.60	89.28	83.12	11.01	21.29
2017	1.70	0.64	93.45	82.84	11.28	22.03
2018	1.75	0.46	93.15	80.95	11.50	21.74
2019	1.65	0.45	92.59	79.12	13.22	22.10
2020	1.18	0.42	99.00	78.22	13.29	22.75
2021	1.02	0.41	102.04	76.13	13.20	22.89
2022	1.05	0.40	99.16	75.89	13.32	23.08

To study the loan status of PAB and CITI, we selected non-performing loans, loan-to-deposit ratio and capital adequacy ratio for research. The data show that the non-performing loan ratio of PAB is basically above 1.00%, and the non-performing loan ratio is higher, and the overall risk level is higher. Through the investigation of the data behind it, we found that the increase in the non-performing loan ratio of PAB came from its transformation; This figure has declined by 0.6% since 2019, due to increased loan write-offs in the processing of loans. We can see that PAB still has

hidden worries in terms of loan performance, and it has not reduced the incidence of loans turning into non-performing loans. Although CITI also maintained around 1% at the beginning, its non-performing loan ratio continued to decrease, decreasing by 0.8% in 10 years, and even significantly decreasing by 0.43% in 2015-2016. However, the data is reduced via reserving non-performing loans to solve the problem, which is the prudent performance of CITI's operation and reflects its world-class bank's ability to control loan risks.

Table 4. The date of ratio of capital adequacy(unit: billion CNY; %)

	2020	2019	2018
Ratio of capital adequacy	13.29	13.22	11.5
Tier 1 capital adequacy ratio	10.91	10.54	9.39
Core tier 1 capital adequacy ratio	8.69	9.11	8.54
Single largest customer loan to capital net ratio	1.96	3.8	5.13
The ratio of loans to net capital for the top ten customers	14.02	16.96	21.45

Ten-year loan-to-deposit ratios for both banks started at around 85%. However, in the future, the data of PAB continued to rise to more than 90%, and even exceeded

100% in 2021, and the loan-to-deposit ratio increased by nearly 13%. While CITI continued to decline, the decline reached 8.45% in ten years, and the difference between

deposit and loan ratio expanded from 2.61% at the beginning to 23.27%. From a unilateral point of view, from the reduction of the loan-to-deposit ratio, we can analyze that CITI's fund utilization efficiency has improved, but at the same time, the bank credit scale has shrunk, which is in line with the economic expansion of the United States in recent years, such as market overheating and serious

inflation. As the scale of bank lending of PAB expands, the part that can be used for loans increases, which is conducive to the development of local high-quality enterprises in need of financing. It can be seen that PAB supports China's support policies for private micro, small and medium-sized enterprises recently.

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Table	`	Loan	issuance	status	limit.	ا ۱۰/۷

	2021	2020	2019	2018	2017
Grant loans and advances	29847.5	26108.4	23289.1	20037.9	16604.2
Increase speed	14.32%	12.11%	16.23%	20.68%	15.64%
The proportion of corporate loans	37.60%	39.80%	41.60%	42.20%	50.18%
The proportion of personal loans	62.40%	60.20%	58.40%	57.80%	32.00%

Compared with the capital adequacy ratio data, CITI has been stable floating at about 21%, which can be seen that CITI's solvency and risk tolerance are relatively high(Berger & Bouwman, 2013). However, from the perspective of profit, PAB maintains a capital adequacy ratio of about 11%, which makes the amount of capital needed to support its asset business relatively small, and the cost of capital correspondingly increases. We selected part of the detailed data of PAB from 2017 to 2021 and found that the capital adequacy ratio of PAB increased continuously in these years, reaching 1.52%. But the core Tier 1 capital ratio fell in 2020. Based on the previous analysis of the loan-to-deposit ratio, we can link the fluctuation of capital adequacy ratio with the policies of PAB. On the one hand, PAB supports the real economy and increases credit supply; on the other hand, it increases the provision and write-off of non-performing assets to cope with changes in the external environment.

5 Conclusion

We compare the performance of CITI and PAB from 2013 to 2022 in terms of size, revenue, profitability, and more. CITI is larger than PAB, and its revenue and profit are also higher than PAB. But PAB's strength cannot be underestimated, in the past 10 years, it has a high growth rate in size and profitability, the gap is narrowing shows the vitality of the bank.

Compared with the capital adequacy ratio data, CITI's higher capital adequacy ratio means that its solvency and risk tolerance are higher. Due to its own transformation, PAB has a higher non-performing loan ratio and a higher overall risk level. CITI's relatively cautious operation reflects its world-class bank's ability to control loan risks. In terms of the deposit to loan ratio, CITI has improved the efficiency of capital utilization, but at the same time, the scale of bank credit has shrunk, which is in line with the economic expansion of the United States in recent years, such as market overheating and serious inflation.

When comparing the main profit indicators of the two banks, we can also find the excellent asset utilization efficiency and profitability of PAB. At the same time, A variety of external factors have made the ROA and ROE indicators of the two banks show varying fluctuations all make the ROA and ROE indicators of the two banks fluctuate in different sizes, but it's clear from the data that CITI has been hit harder. At the same time, we can also glimpse PAB's transformation of the retail business, CITI's corporate institutional customer business as a focus of initiatives.

6 Advice to banks

6.1 Suggestions for PAB

6.1.1 Adhere to retail transformation

Recently, PAB began to transform the retail industry and make loans to individuals, earning considerable net profits. In practice, PAB should adhere to the transformation concept of retail banks and pay attention to individualized services.

6.1.2 Improve risk management capabilities

In recent years, the non-performing loan ratio of PAB has increased, among which the non-performing loan ratio of real estate industry has increased the most. Therefore, PAB should continue to optimize the credit structure, balance the loan ratio of various industries, and reduce risks; Meanwhile, PAB should control risks in a more scientific and refined way like using big data, artificial intelligence and other technologies to improve risk early warning and monitoring capabilities.

6.1.3 Continue to promote the internationalization strategy

With the globalization of China's economy, the banking industry is also gradually becoming international. PAB can continue to promote the internationalization strategy, through the establishment of overseas branches, cross-border business and other ways to enhance international competitiveness.

6.2 Suggestions for CITI

6.2.1 Increase revenue and profit

As we mentioned above, CITI has generated large profits by virtue of its own savings business and excellent service business. CITI can further optimize its business structure and improve service quality and efficiency to increase revenue and profit. Additionally, CITI can increase its investment in emerging markets to seek new growth points.

6.2.2 Shoulder social responsibility

As a leading global financial institution, CITI should actively fulfill its social responsibility. CITI should strengthen corporate governance, pay attention to employee welfare and protection of rights and interests, and achieve harmonious development between enterprises and society.

6.2.3 Promoting digital transformation

With the development of science and technology, digital transformation has become an inevitable trend in the banking industry(PwC, 2022). CITI should increase its investment in fintech and promote its digital transformation strategy. CITI can use artificial intelligence, big data and other technologies to improve customer experience and service levels, while optimizing business processes and improving operational efficiency.

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