

# Analysis of Financial Statements of Banking Industry Based on Harvard Analysis

-Taking Bank of China as an Example

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**Abstract**—The globalization of the economy makes the status of the banking sector even more important. Bank of China is one of the major representatives of the banking sector, it is a financial analysis, and you can see the whole banking industry. Financial analysis is an assessment of the development of the enterprise and provides useful information for the stakeholders. This paper uses the Harvard analysis framework to analyze the Bank of China, compared with the traditional analysis of the previous strategic analysis and analysis of the prospects afterwards. The purpose of this paper is to report on the future development of the company to make a reasonable forecast, in order to investors and managers to provide some new ideas.

**Keywords**—*Bank of China; Harvard analysis framework; Financial Statements*

## I. INTRODUCTION

Harvard analysis framework is a new, strategic perspective of financial analysis, it includes strategic analysis, accounting analysis, financial analysis and foreground analysis [1]. On the basis of the traditional analysis methods, coupled with the strategic analysis and prospects analysis. Through the strategic analysis of the company in advance, and then collect and process data, finally, through the data processing to predict the future of the company, making the analysis more convincing[2]. This will be another way to analyze the financial statements later.

## II. HARVARD ANALYSIS FRAMEWORK

Harvard analysis framework put forward by Harvard University Bernard, Heili and Palip three scholars, it consists of four parts: strategic analysis, accounting analysis, financial analysis and foreground analysis [3].

Strategic analysis is the basis for the analysis of financial statements, whose main purpose is to analyze the business risk and strategic positioning, from which to profit more convenient, and how to deal with these business risks; Accounting analysis is based on strategic analysis, which is to assess whether the enterprise truthfully reflect the business situation in the accounting business and disclose the accounting information in accordance with the latest accounting policies[4]; Financial analysis is based on both

strategic analysis and accounting analysis, is to evaluate the level of business performance, in short to say, it is to detect whether the strategic analysis of enterprises to do bit; The foreground analysis is based on strategic analysis, accounting analysis and financial analysis, and is a prediction for the future of the business, and in turn can detect whether the company's strategy is effective and whether the choice of accounting policy is appropriate and provide useful information for Stakeholders [5].

In the following, the Bank of China, for example, we can try to use the Harvard analysis framework to analyze the financial statements of the banking sector, hoping to provide a new perspective on the financial statements of the banking sector.

## III. CASE STUDY OF BANK OF CHINA

### A. *The background of the Bank of China*

The bank of China was established in 1912, was founded by Sun Yat-sen in Shanghai, and is one of the most historical background of the bank. After more than 100 years of fight, and now has become the banking industry's "leader"[6].

### B. *Strategic analysis*

#### 1) *Macroeconomic analysis*

Economic environment .The world economy is showing a growing momentum, In 2016, China's economic growth is faster than the global economy, maintaining a rapid growth trend, February 2016 British Prime Minister David Cameron announced that in June will be held in Europe referendum, the cause of the uproar[7]. The impact on China is: trade and investment negotiations or limited.

Political and legal environment. In recent years, the state has also introduced a policy on credit regulation, to a large extent to encourage the transformation and upgrading of the banking sector. The CBRC has also re-emphasized three guidelines for a new approach to the banking sector [8].

## 2) *Banking environment analysis*

This paper will try to use SWOT analysis method to carry out strategic analysis of Bank of China.

### a) *Internal condition analysis*

SW analysis of the SW, that is, the advantages and disadvantages of analysis, are internal conditions. As the banking industry is a whole, we do the advantages and disadvantages of the analysis, the need to be from all aspects of the analysis.

#### Advantage

Establishing time and long history. Bank of China in the four major banks in the superior, it was established in 1912, while other banks were established in 1950[9]. Therefore, the Bank of China compared to the other three banks have the longest history, of course, the provision of services, products more mature, the first to enter the international market, becoming the first A shares and H shares listed companies.

Company image. Bank of China in the four banks do the best, which in 2015 won the "banker", the Chinese Academy of Social Sciences Institute of Finance "Best Financial Enterprise Image Award"[10]. This is inseparable from the senior management of Chinese banks and the education and training of employees.

#### Disadvantages

With the rapid development of the Internet, the main competitors of the Bank of China is no longer the competition between peers, but to pay the treasure as the representative of the Internet finance. With the rise of Internet finance, the banking industry had no small impact.

Transaction costs. In the Internet financial model, the fund supplier mainly through the Internet technology and mobile communication network technology, to achieve with the transaction between the parties, while the data through the customer credit evaluation.

### b) *External condition analysis*

SWOT analysis of the OT, that is, opportunities and threats analysis, belonging to the external environment analysis. At present, the domestic and international perspectives on the healthy and sustainable development of China's banking sector. Although the international economic situation is grim, China's banking industry is striving to transform and improve its overall strength.

#### Opportunity

At present, the profitability of the banking industry as a whole show a good picture of China's banking industry ,in 2004 - 2013 net interest margin for all years, the lowest 2.02%, higher than Japan's highest 1.37%;Cost management capacity advantage is obvious, the cost-to-income ratio fell from 63.9% in 2004 to 36.6% in 2013, while the cost-income ratio of the developed countries in the same period showed a fluctuating trend; Nonperforming loan rate China has been controlled at a relatively low level, usually 1%, while the other developed countries are 2%.

#### Threat

Now, due to the tense relationship between the economic situations, resulting in the existence of the current situation of China's banks. Deposits come from the loan does not match, the absorption of deposits and the current period of each half, However, the proportion of time deposits is declining, indicating that the stability of the funds has been threatened. Long-term loans in the loan structure have been about 40% of the total number of loans, and is still rising, such a high income will bring high risk.

Therefore, we combined with SWOT analysis, we can learn that the Bank of China should give full play to their long history and the international convergence of the advantages of a large area. More research and development of science and technology, increase services, and more to join the public welfare projects to improve the reciprocity of deposits and loans, control the rate of non-performing loans, timely replenishment of capital, the company can always be in a strategic leading position.

## C. *Accounting analysis*

### 1) *Loan business accounting and analysis*

According to the comparison between the Bank of China and the other three state-owned banks in 2011 and 2015, the lending business of the Bank of China is the highest among the four banks, which also reflects the strategic advantages of the Bank of China. Therefore, the current situation, the Bank of China's lending business to choose the accounting policy is conducive to the development of the company.

### 2) *Cash flow accounting and analysis*

According to the annual statements of the four state-owned banks from 2011 to 2015, the Bank of China's cash flow is in a relatively stable situation, but there are still insufficient. Indicating that the Bank of China has been lacking in terms of convergence with the national financial policy, the national financial institutions RMB deposit and lending benchmark rate of increase and the consumer price index changes, which have an impact on cash receipts and payments.

## D. *Financial analysis*

This link is to use the data in the financial statements to analyze the past and present performance of the company, which allows investors to have a good grasp of the status quo of the enterprise. In this paper, the Bank of China and the other three state-owned banks were compared together. All the data from the four banks 2011-2015 annual report.

### 1) *Asset situation*

#### a) *The proportion of loans*

Due to the particularity of the banking industry, the main constituent items of the assets are the total amount of loans and advances, net investment, cash and deposits with the central bank, interbank and disburse funds and buy back financial assets. In the following, putting the Bank of China and the other three banks together comparison, as shown in Table 1.

**TABLE I. THE PROPORTION OF LOANS AND ADVANCES TO TOTAL ASSETS FROM 2011 TO 2015**

	2011	2012	2013	2014	2015
Bank of China	52.44%	52.92%	53.62%	54.39%	53.14%
ICBC	49.1%	48.9%	51.2%	52.2%	52.5%
Construction Bank	51.5%	52.31%	53.42%	54.08%	52.78%
ABC	46.2%	46.4%	47.4%	48.4%	47.8%

Table 1 shows that from 2011 to 2015, the total amount of loans and advances to the total assets, the Bank of China is the highest every year, fully explain the Bank of China's lending business is done in place.

*b) Cash flow*

The cash flow of a bank can reflect the bank's operating conditions, capital status and operating income. Cash flow represents the overall strength of a bank, investors are also an important indicator of concern, and the importance of the indicator can not be ignored. Here, the Bank of China and the other three banks together for comparison, as shown in Table 2:

**TABLE II. 2011 - 2015 CASH ASSETS ACCOUNTED FOR THE PROPORTION OF TOTAL ASSETS**

	2011	2012	2013	2014	2015
Bank of China	20.2%	19.25%	18.65%	17.12%	16.6%
ICBC	17.8%	18.1%	17.4%	17.1%	13.8%
Construction Bank	19.38%	17.59%	16.11%	15.59%	13.09%
ABC	21.3%	19.7%	17.9%	17.2%	14.5%

Table 2 shows that the proportion of the cash assets to the total assets in 2011 and 2015 is the highest, and the proportion of the bank's cash assets is relatively high. This shows that the operation of the Bank of China is quite good.

*c) Operating income*

How the bank's operating income represent the bank's operating performance, can reflect the internal business of the bank and the leadership of senior managers. The comparison of the operating income of the four banks is shown in Table 3 :

**TABLE III. SUMMARY OF OPERATING INCOME FROM 2011 TO 2015**

	2011	2012	2013	2014	2015
Bank of China	328,166	366,091	407,508	456,331	474,321
ICBC	475,214	536,945	589,637	658,892	697,647
Construction Bank	397,090	460,746	508,608	570,470	605,197
ABC	377,731	421,964	462,625	520,858	536,168

From 2011 to 2015, the four banks operating income is increasing year by year, the increase is still a bit big. And then look at each bank, ICBC of the operating income has been in a leading position, followed by the Construction Bank.

*d) The cash flow*

*Analysis of cash flow from operating activities*

Bank operations are good or bad, can be measured by this indicator, and can operate the bank at a glance. Banks want to operate a good, cash flow this indicator must be considerable. Four banks compare the cash flow as shown in Table 4:

**TABLE IV. COMPARISON OF CASH FLOW FROM OPERATING ACTIVITIES FROM 2011 TO 2015**

	Bank of China	ICBC	Construction Bank	ABC
Operating cash flow per share	7.55	8.45	6.83	5.95
Main business cash ratio	0.17	0.29	0.16	0.13
Structural analysis	2.37	4.56	1.97	3.34
Quality of business activities	2.89	3.21	2.24	3.07

As can be seen from Table 4, compared to the four banks, ICBC's operating activities, the highest cash flow, Bank of China followed. Bank of China needs to take measures to increase the cash flow of operating activities.

e) *Analysis on Cash Flow of Investment Activities*

TABLE V. COMPARISON OF CASH FLOWS FOR INVESTMENT ACTIVITIES FROM 2011 TO 2015

Unit: thousand dollars

project	Bank of China	ICBC	Construction Bank	ABC
Construction of fixed assets, intangible production and other long-term cash paid	2298563	5874213	3479210	2137589
Equity, credible investment to pay the cash	576324	1890256	375402	286371
Total cash outflow from investing activities	2975887	7784569	3954812	2433860
Construction of fixed assets, intangible assets production and other long-term proportion	0.77	0.75	0.88	0.68
Equity, the proportion of debt investment	0.19	0.24	0.09	0.11

As can be seen from Table 5, Construction Bank has done a good job in investing activities. Bank of China also needs to learn its advantages.

f) *Analysis on Cash Flow of Financing Activities*

TABLE VI. TABLE OF THE AMOUNT OF FUNDS RAISED BY THE BANK OF CHINA FROM 2011 TO 2015

Unit: thousand dollars

project	2011	2012	2013	2014	2015
Share capital	279147	279147	279365	288731	294388
Liabilities to customers	8817961	9173995	10097786	10885223	11729171
Inter bank borrowing	784240	790366	882374	1041018	1205045
total	9881348	10243508	11259525	12214972	13228604

As can be seen from Table 6, the funds for the financing activities of the Bank of China from 2011 to 2015 increased year by year, indicating that the financing activities of the Bank of China were proceeding smoothly.

E. *Foreground analysis*

1) *Prospects*

China's current stage is still in developing countries, economic construction is still very important, but the development of the banking industry determines the general development trend of the country, China's banking industry needs to continue to promote the reform system, the development of the banking industry can not wait. The future of the Bank of China needs from the external corporate image

to the internal management and control, need to have a substantial increase in order to be able to win in the fierce competition.

2) *Future development trend*

First of all, the Bank of China's rules and regulations will be more stringent, requiring staff in strict accordance with the process of work, strict self-discipline, meticulous work; Second, the state of the Bank of China's regular inspection work will increase the intensity of the bank will always check; Finally, the Bank of China in the future will introduce more derivative products so that banks can provide more comprehensive services to meet more customers.

#### IV. CONCLUSION

Harvard analysis framework is very logical, strategic analysis and accounting analysis is equivalent to the financial statements of the left arm, the former is through the analysis of macroeconomic and industry competition, which is the analysis of accounting policies, they together form a financial statement, Down financial analysis, in turn, financial analysis can evaluate the effectiveness of strategic analysis and accounting policy is appropriate, the last is the foreground analysis, the future forecast, but also on the strategic analysis and accounting analysis recommendations.

This paper analyzes the financial statements of the Bank of China through the Harvard analysis framework, and can understand the advantages and disadvantages of the Bank of China. It can be better for the managers to strengthen the management and provide some basis for some decision-making.

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