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Performance Evaluation of Commercial Banks Based on EVA—— Take ICBC for Example

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ARTICLE INFO

Article history

Received: 6 March 2020

Revised: 13 March 2020

Accepted: 9 April 2020

Published Online: 16 April 2020

Keywords:

EVA model

ICBC

Management

ABSTRACT

In order to further improve the enterprise performance evaluation system, it is necessary to study the application value of EVA management system in China's listed companies. Based on the data of ICBC from 2016 to 2018, this paper uses EVA method to evaluate and analyze it.

1. Introduction

The bank is one of the most important financial institutions in the economy, and the commercial bank is a kind of financial enterprise. For a long time, the state-owned commercial bank occupies the main position in the financial industry of our country, and plays an important role in serving the economic construction and promoting the reform of the financial industry. Due to the particularity of the business and assets of commercial banks, performance analysis is an important means to improve the management level of modern commercial banks. Scientific and reasonable performance evaluation method can not only improve the management level of banks, but also for government investors and creditors and other stakeholders to provide important basis for decision-making. The introduction of EVA performance evaluation

index makes the target management of commercial banks simpler, the enterprise value and the value of employees maximize, and guide the healthy and sustainable development of commercial banks from the perspective of value management.

2. The Application of EVA Method in Commercial Banks

At present, China's commercial banks are developing rapidly, but they are also facing many management problems, which affect the normal operation of commercial banks. Domestic scholars are also exploring more suitable methods for the practical application of domestic enterprises in the study of EVA theory. Ouyang Chunhua combines the provisions of China's accounting standards and the main ways of earnings management in accounting practice, and puts forward a detailed and unified adjustment method

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for the accounting adjustment needed to be carried out in the implementation of EVA indicators for the financial expenses, R&D expenses, various reserves, goodwill and other subjects of enterprises. EVA has been widely used in commercial banks and promoted the development of commercial banks.^[1]

3. An empirical analysis on the performance evaluation of industrial and Commercial Bank of China

3.1 Sample Selection

This paper selects the behavioral research of ICBC from 2016 to 2018. The sample data mainly comes from the annual report disclosed by ICBC.

3.2 Parameter Determination

3.2.1 Adjusted Net Operating Profit After Tax (NOPAT)

After tax net operating profit refers to the amount of the company's operating profit excluding interest income and expenditure after deducting the paid in income tax plus non-cash expenses, such as depreciation and amortization, and then deducting the additional working capital and investment in property, plant, equipment and other assets.

The basic formula of NOPAT is: after tax net operating profit = NOPAT = net profit + accrued asset impairment loss - (non-operating income - non operating expenditure) (1 - tax rate) + deferred income tax liabilities - deferred income tax assets.

Table 1. NOPAT calculation results of industrial and Commercial Bank of China (Unit: million Yuan)

TIME	2016	2017	2018
Net profit	279,106	287,451	298,700
assets impairment loss	87,894	127,769	161,600
Non-operating income	3,601	3,805	2,530
Non-operating expenses	637	1,006	1,300
Net non-operating income	2,223	2,099	1,230
Increase in deferred income tax liabilities	(391)	(171)	784
Increase of deferred income tax assets	7,332	19,994	10,000
NOPAT	357,480.32	392,961.87	450,013.9

Recourses: Data from the annual report of industrial and Commercial Bank of China.

3.2.2 Total Invested Capital (TC)

Total capital invested (refers to the sum of the book value of all the capital invested by the owners and creditors of the enterprise. Among them, the capital invested by shareholders is called equity capital, including common owner's equity and minority shareholders' equity; the capital invested by creditors is called debt capital, which includes long-term loans, short-term loans and long-term loans due within one year provided by creditors to enterprises, as well as interest payment bonds issued by enterprises, etc. TC = debt capital + shareholders' equity + balance of provision for impairment of assets at the end of the year - Construction in progress + deferred income tax liabilities - deferred income tax assets^[2].

Table 2. TC calculation results of ICBC (Unit: million Yuan)

TIME	2016	2017	2018
Debt capital	1,516,692	1,214,601	1,328,246
Shareholders' rights and interests	1,981,163	2,141,056	2,345,000
Balance of provision for impairment of assets at the end of the year	901	39,875	33,825
Balance of deferred income tax liabilities	604	433	1,217
Balance of deferred income tax assets	28,398	48,392	58,392
Construction in progress	22,958	29,531	35,080
TC	3,448,004	3,318,042	3,614,816

Recourses: Data from the annual report of industrial and Commercial Bank of China.

3.2.3 Weighted Average Cost of Capital (WACC)

Used in financial activities to measure the cost of capital of a company. Because financing cost is regarded as a logical price tag, it used to be used by many companies as the discount rate of a financing project. Its general expression is

$$(1) WACC = (E / V) \times re + (D / V) \times Rd \times (1-TC) \text{ or}$$

(2) WACC = risk free rate of return + β × market risk premium.

Where, re = cost of equity in (1) is the necessary rate of return for investors; RD = cost of debt; E = market value of the company's equity; d = market value of the company's debt; v = e + D is the market value of the company; E / v = percentage of equity in total financing, capitalization ratio; D / v = percentage of debt in total financing, asset liability ratio. TC = enterprise tax rate

When the components of the weighted average cost

capital method are determined, they can be substituted into $RWACC = (s / B + s) \times RS + (B / B + s) \times RB \times (1 - TC)$ one by one, then the capital cost of specific investment projects can be calculated to make financing decisions.

From the above conclusion, we can get the basic formula $EVA = NOPAT - TC \times WACC$ to determine the final value.

Table 3. WACC calculation results of industrial and Commercial Bank of China (Unit: million Yuan)

TIME	2016	2017	2018
Risk coefficient	0.998	0.998	0.998
Risk free rate of return (%)	2.270	3.310	4.310
Market risk premium (%)	5	5	5
WACC (%)	7.26	8.3	9.3

Resources: Data from wind database.

According to the formula, the EVA / Reva (Reva = EVA / total capital) value of ICBC in 2016-2018 is calculated as shown in Table 4.

Table 4. EVA / Reva calculation results of industrial and Commercial Bank of China (Unit: million Yuan)

time	2016	2017	2018
EVA	107,155.23	117,564.384	113,836
REVA (%)	3.108	3.543	3.149

3.3 Index Analysis

Through data analysis, it can be seen that the net profit of ICBC has been rising in 2016-2017, and the EVA index has also been improving. It can be seen that ICBC has been improving its enterprise value and comprehensive ability. However, after 2017, the EVA index has declined significantly, and the change range of EVA is larger than the net profit. The shareholders' wealth is in the state of impairment based on the shareholder's position analysis, while the management blindly believes that the business operation is in good condition. The reasons are as follows: the traditional net profit index only adds and subtracts accounting operations, ignoring the economic meaning of the corresponding index. The calculation of EVA index takes into account the risk coefficient of the financial environment in which the bank is located, market risk premium and other factors. Here, it also reflects the advanced nature, feasibility and scientificity of EVA method. Introducing EVA is beneficial for commercial banks to create and improve their own value.

4. Summary and Suggestions

4.1 Summary

This paper takes industrial and Commercial Bank of China as the research object, compares the EVA index with the traditional performance index, and finds that the EVA index can reflect the performance level of the banking industry more objectively and comprehensively by analyzing the operation status of the bank from the economic level, taking into account the opportunity cost of occupying shareholder capital and market risk and other factors. As a scientific indicator to measure the performance of enterprises, EVA will be used more and more widely in commercial banks, which is not only conducive to improving the core competitiveness of commercial banks, but also conducive to the overall governance and system improvement of enterprises. Under the current market economy system and economic trend, commercial banks need to establish a perfect EVA management system to achieve the comprehensive optimization of management and maximize the interests of shareholders.

4.2 Relevant Suggestions

In the new era and new environment, industrial and Commercial Bank of China should analyze the business performance from the economic level, pay attention to improving the economic added value of commercial banks, and realize the maximization of shareholders' ability to create value.

4.2.1 Establish a Perfect Management System

First of all, we should improve the overall financial and financial environment, from the establishment of a suitable talent application mechanism to the improvement of the overall quality of employees, and then to the improvement of corporate governance, to create a good corporate and social environment.

Most commercial banks in China have completed the reform of joint-stock system and established a modern corporate governance structure, but the governance structure has not fundamentally solved the problem of "insider control" in commercial banks. It is difficult for the board of supervisors to effectively supervise the financial situation of directors, senior management and the company, for the board of directors to effectively monitor senior managers and other operators, and for the senior management to effectively restrict the operation of branches. Therefore, the establishment of an effective risk management organization structure of commercial banks in China must be matched with the overall operation and management

structure of banks. The functional departments of banks should be divided into risk management line, business development line, operation support line,^[3] separation of rights and responsibilities of each department and management, effective and retrograde governance, and risk management should be strengthened.

4.2.2 Development and Innovation Need to Be Improved

In the past, China's commercial banks have accumulated a lot of basic experience in the construction of the Internet. With the development of the trend of the times, commercial banks should enhance the basic experience of financial business and build.

A set of relatively perfect risk management system, with a group of talents who are familiar with finance and Internet technology application, and store a large number of "big data" in the system. At the same time, traditional financial institutions also have the advantages of capital, customers, etc. in the future, as long as commercial banks continue to actively explore to meet the new challenges brought by the development of the Internet and continue to innovate, it will still become a driving force and guide Leading the main force of Internet finance development and innovation. Therefore, under the current new competition pattern, it is of great significance to study the development status of Internet Finance and commercial banks' use of Internet technology innovation, re-examine the advantages and disadvantages of banks, and take this opportunity to promote the development of traditional banking business and the thorough innovation and transformation of business management mode.^[4]

5. Conclusion

As China's economy changes from high-speed growth to medium high-speed growth, the high-speed growth of banking assets and profits for many years will also be

adjusted to medium high-speed growth. In the past, the convenience for the development of banking industry is no longer available, and a stable growth rate will become a long-term trend of banking industry.^[5] The core of EVA is to calculate the "real economic profit" of an enterprise, that is, the profit of an enterprise after considering the return on investment of shareholders, the long-term development of the enterprise, the financial value of the enterprise and the value that cannot be reflected by the financial data. The application of EVA in commercial banks is undoubtedly a method that is conducive to corporate governance and long-term sustainable development.

China's commercial banks should introduce EVA value management system in an all-round way, conscientiously analyze the new normal characteristics of banking industry, actively face the trend of financial wave, actively innovate, meet challenges and risks, and take EVA as the strong endogenous power of enterprises.

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