

# The Factors that Affect the Profitability of Banks Listed on the Indonesia Stock Exchange

Muhammad Bayu Aji Sumantri  
Vincentia Wahyu Widajatun  
Neneng Susanti  
Nugi Mohammad Nugraha,

DOI: <https://doi.org/10.37178/ca-c.23.1.064>

---

**Muhammad Bayu Aji Sumantri**, Faculty of Economy and Business, Widyatama University

Email: [muhammad.bayu@widyatama.ac.id](mailto:muhammad.bayu@widyatama.ac.id)

**Vincentia Wahyu Widajatun**, Faculty of Economy and Business, Widyatama University

Email: [vincentia.wahyu@widyatama.ac.id](mailto:vincentia.wahyu@widyatama.ac.id)

**Neneng Susanti**, Faculty of Economy and Business, Widyatama University

Email: [neneng.susanti@widyatama.ac.id](mailto:neneng.susanti@widyatama.ac.id)

**Nugi Mohammad Nugraha**, Faculty of Economy and Business, Widyatama University

Email: [nugi.mohammad@widyatama.ac.id](mailto:nugi.mohammad@widyatama.ac.id)

---

## Abstract

*This study aims to study the factors that affect the profitability of banking sector companies listed on the Indonesia Stock Exchange. The object of this research is banks listed on the Indonesia Stock Exchange in the 2015-2019 period. The factors used in this study are financial factors in the form of financial ratios reported by the company in its annual report. In this study, the dependent variables used are Earning Per Share (EPS), Debt to Equity Ratio (DER), and Price to Book Value (PBV). For the independent variable used is Return on Equity (ROE). This study uses multiple linear regression analysis with panel data analysis techniques. This study found that Earning Per Share (EPS), Debt to Equity Ratio (DER) and Price to Book Value (PBV) significantly influence Return on Equity.*

**Keywords:** Banks, EPS, DER, PBV, ROE

## Introduction

During its development, the financial system in Indonesia has always been changing from time to time. In Indonesia, the history of government financial management has existed since ancient times. Every government, from the time of the kingdom until now, has a financial manager to ensure the implementation of development in its government. In principle, the financial system is an order in a country's economy that has a major role in the provision of financial service facilities

by other supporting financial institutions, such as the capital market and money market. The financial system in Indonesia is basically divided into two types, including the banking financial system and the financial system for non-bank institutions. This financial institution has the main objective of receiving money from the public and channeling it back in the form of loans, so banking institutions can also be referred to as depository financial institutions. This institution consists of Commercial Banks and Rural Banks. Meanwhile, non-bank financial institutions are financial institutions whose main business is not savings and loans activities. In its journey, Indonesia has always experienced significant changes in the financial system. The system of financial institutions in Indonesia underwent a very fundamental change when it entered the era of deregulation, the policy package on October 27, 1988 which led to the enactment of several laws in the financial and banking sector since 1992 including the Banking Law, Insurance Law, Pension Fund Law, Capital Market Law and Bank Indonesia Law.

As a result of the issuance of this law, there has been a change in the structure of financial institutions in Indonesia. In addition, from the aspect of regulation and guidance, the position of financial institutions is clearer and stronger because they have legal force. The banking system in Indonesia is a procedure, rules and pattern for a bank to conduct its business in accordance with the rules and regulations made by the government. The banking system in Indonesia is built on the foundation of the existing economic system in our country.

Banking has an important role in the economy of a country where banking has an impact on existing investment by directing savings to productive projects. In carrying out this role, the bank aims to get the maximum profit in order to ensure its growth and maintain customer trust. Furthermore, bank profitability will attract more customers and increase company value in the capital market [1].

There are many factors that affect the profitability of a bank. In general, these factors consist of factors specifically related to banks, factors specifically related to industry and macroeconomic factors. For factors that are specifically related to banks, we are often known as internal factors, for example, such as bank performance as a whole and other factors. [2] in their research examined the internal and external impacts that can have an influence on the financial performance of the banking industry. Many studies have been conducted to study the influence of external and internal factors on profitability for banks. [3] in their research used Net Interest Margin in measuring bank profitability. Meanwhile, [4] uses the Cost to Income Ratio (CIR) in measuring bank profitability. [5] examines the effect of company size and capital on company financial performance such as ROA, ROE, NIM and LIQ.

In Indonesia, banks have a very important role in the country's economic growth. Thus, it is very important for researchers to find answers to what factors affect bank profitability. From the phenomena previously presented, it has become the author's attention that many factors can affect the profitability of a bank, so that we cannot be fixated on certain factors. Although research on profitability has been widely carried out, this does not detract from the intention of researchers to conduct this research in order to achieve answers that provide benefits to our country. Therefore, the researcher tries to explore in this research, where the researcher tries to study the effect of Earning Per Share (EPS), Price to Book Value (PBV) and Debt to Equity Ratio (DER) on Return on Equity (ROE) in banks in Indonesia. listed on the Indonesia Stock Exchange (IDX) in the 2015-2019 period.

## ***Literature Review***

### ***Bank Profitability***

Bank profitability can be measured through several ratios reported by the company in its annual report. Profitability, as in companies in general, is a very important element. Especially for banks that have become public companies, profitability is the main key in maintaining customer trust and especially in investors. Profitability can generally be measured through several financial ratios such as Return on Equity (ROE), Return on Assets (ROA), Return on Investment, and others. ROE and ROA both have good values in measuring profitability, but in this study, researchers chose Return on Assets on the grounds that ROE can show the company's profitability in terms of capital investment so it is very important for shareholders [6]. Apart from that, ROE can also provide a better view for the company owner.

### ***Earning Per Share (EPS)***

Earning Per Share is a comparison between net income and the number of shares outstanding [7]. Earning Per Share describes the profit from each share. A high Earning Per Share value will increase investor interest in the company's shares which in turn will lead to increased company profitability. In general, profitability will increase as the company's share price increases [8].

### ***Debt to Equity Ratio (DER)***

Debt to Equity Ratio is a ratio that compares the debt owned by a company with its own capital. The higher the value of this ratio, the higher the debt used by the company compared to its own capital. [9] states that DER is a firm's attempt to describe another format, the relative proportion of lender claims to ownership rights and is used in measuring the role of debt. In short, DER is the ratio of long-term and short-term debt to equity. From an investor's point of view, the Debt to Equity Ratio does not appear to be directly related to the company's profitability. However, DER will be an important factor for investors in assessing a company, whether the company has too large a debt that will affect the company's future profitability or not.

### ***Price to Book Value (PBV)***

Price to Book Value is a ratio that has a function to assess the stock price of a company compared to the company's book value. This ratio aims to determine whether the price of a share is too expensive or not [9]. The undervalued PBV value for investors will be able to attract the attention of other investors to buy the company's shares. PBV is one of the financial ratios that are of major concern even though in fact there is no guarantee that undervalued share prices will certainly provide profits in the future. However, companies that have a good PBV value are believed to be able to produce good financial performance in the future.

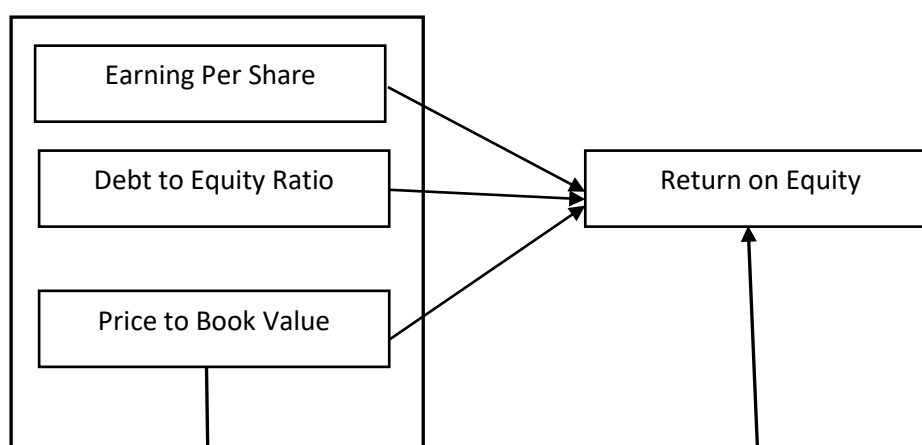
## ***Research Framework***

Various studies have been conducted to be able to examine the factors that can affect the company's profitability. For the company, it is important to continue to maintain its profitability in order to maintain the sustainability of the company. It is also important so that the company can provide the maximum benefit to the owners of the company's shares. In Indonesia, research on bank profitability has been

carried out using a variety of variables. [10] examines the effect of company size, capital, efficiency and risk on financial performance where the variables used are Return on Assets, Return on Equity, Net Interest Margin and Liquidity. This study found that there is a positive and significant effect between efficiency and risk on Return on Assets and Return on Equity, a significant negative effect between efficiency and risk on Net Interest Margin and Liquidity, a significant positive effect between inflation and the business cycle on Return on Assets and Return on Equity, a significant negative effect between inflation and the business cycle on Net Interest Margin and Liquidity. Apart from Indonesia, research on bank profitability was also conducted by [11] in Latvia. In this study, it was found that the profitability of banks in Latvia is largely influenced by macroeconomic factors such as the economic environment, inflation, interest rates and competition in the banking sector. For the profitability variable, this study uses Return on Equity as the dependent variable. In addition, research related to profitability was also carried out in Sri Lanka by [12] where this study studied the effect of Bank Size, Capital, Deposit and Liquidity on Return on Assets. In this study it was found that the Bank Size, Capital and Deposit Ratios have a significant effect on Return on Assets.

Based on the description above, the framework of this study can be described as follows:

Figure 1.1 Research Framework



So, the hypotheses formed from the framework above are:

H1: There is a significant influence between EPS on ROE

H2: There is a significant influence between DER on ROE

H3: There is a significant influence between PBV on ROE

H4: There is a significant influence between EPS, DER and PBV on ROE

### **Research Methodology**

#### **Population and Sample**

The population of this study were all companies in the banking sector listed on the Indonesia Stock Exchange during the data collection period. In taking the sample, a purposive sampling technique was used with the following conditions:

The company is listed on the Indonesia Stock Exchange at least in 2014

The company always reports its annual report during the 2015-2019 period

Trading in the company's shares has never been suspended during the 2015-2019 period

Research Scope

The focus of this study is to determine the effect of Earning Per Share (EPS) (X1), Debt to Equity Ratio (DER) (X2) and Price to Book Value (PBV) (X3) on Return on Equity (ROE) (Y1) in the company. banking sector listed on the Indonesia Stock Exchange during the 2015-2019 period.

#### Data Gathering Method

The data used in this study is secondary data taken from financial reports and annual reports published by companies and can be accessed through the official website of the Indonesia Stock Exchange.

#### Data Analysis Method

This research uses quantitative methods. The method of analysis in this study is multiple linear regression analysis. In analyzing the data used in this study, researchers used the Least Square Panel (Panel Data) method. This method is used because the data used is in the form of a time series and cross section. The stage of analysis using panel data begins with the selection of the panel data regression model. Model selection is done to determine which model is best for use in data analysis. The model that will be used consists of 3 models, namely the Common Effect Model, Fixed Effect Model, and Random Effect Model. Model Selection (Estimation Technique) Panel data regression consists of the F statistical test (Chow test), Hausman test and Lagrange test. After the regression analysis is carried out, the hypothesis will be tested using the T test, F test, and the coefficient of determination.

### Results and Discussion

After processing the data, the effect of EPS on ROE, DER on ROE and PBV on ROE can be determined based on the panel data regression model using the Fixed Effect Model which is processed through the Eviews computer program. The results of processing this data can be seen in the table below:

Table 4.1

| Variabel              | Coefficient | Std. Error | t-Statistic | Prob.  |
|-----------------------|-------------|------------|-------------|--------|
| C                     | 12.05373    | 3.080004   | 3.913545    | 0.0002 |
| EPS                   | 0.017341    | 0.002813   | 6.163957    | 0.0000 |
| DER                   | -0.968493   | 0.399240   | -2.425840   | 0.0168 |
| PBV                   | -1.977521   | 0.947254   | -2.087635   | 0.0390 |
| RSquared              | 0.273287    |            |             |        |
| P-Value (F-Statistic) | 0.000000    |            |             |        |

From the results of the panel data regression analysis, the regression equation obtained is as follows:

$$Y = 12.05373 + 0.017341 \text{ EPS} - 0.968493 \text{ DER} - 1.977521 \text{ PBV}$$

Hypothesis testing is carried out to determine whether X affects Y.

#### 1) The effect of EPS on ROE

From the results of the regression analysis carried out, it was found that the P-value of EPS was 0.0000, which was less than the  $\alpha$  value (5%). This means that Earning Per Share (EPS) has a significant effect on Return on Equity (ROE). Judging from the estimated coefficient of ROE of 0.017341, it can be ascertained that EPS has a positive impact on ROE.

## 2) The effect of DER on ROE

From the results of the regression analysis carried out, it was found that the P-value of DER was 0.0168, which was smaller than the  $\alpha$  value (5%). This means that the Debt to Equity Ratio (DER) has a significant effect on Return on Equity (ROE). However, looking at the estimated coefficient of ROE of -0.968493, it can be ascertained that EPS has a negative impact on ROE.

## 3) The effect of PBV on ROE

From the results of the regression analysis carried out, it was found that the P-Value of the PBV was 0.0390 which was smaller than the  $\alpha$  value (5%). This means that Price to Book Value (PBV) has a significant effect on Return on Equity (ROE). However, looking at the PBV estimation coefficient value of 0.017341, it can be ascertained that EPS has a positive impact on ROE.

## 4) The effect of EPS, DER, and PBV on ROE

Judging from the P-Value (F Statistic) of 0.0000, it can be determined that simultaneously Earning Per Share (EPS), Debt to Equity Ratio (DER) and Price to Book Value (PBV) have a significant effect on Return on Equity (ROE).

## Conclusion

In this study, it can be concluded that of all the factors used as research objects such as Earning Per Share (EPS), Debt to Equity Ratio (DER), Price to Book Value (PBV) have a significant effect on Return on Equity (ROE). EPS in particular has a positive effect on ROE, so that every time there is an increase in EPS, there will be an increase in ROE. Meanwhile, DER and PBV have a negative effect on ROE. Specifically for DER, this is in line with the prevailing theory in general that a decrease in DER will have a good impact on ROE and profitability in general.

## References

1. Al-Abedallat, A.Z., *Factors affecting the profitability of banks: A field study of banks operating in Jordan*. European Scientific Journal, 2017. **13**(22): p. 141-162. DOI: <https://doi.org/10.19044/esj.2017.v13n22p141>.
2. Nouaili, M.A., E. Abaoub, and A. Ochi, *The determinants of banking performance in front of financial changes: Case of trade banks in Tunisia*. International Journal of Economics and Financial Issues, 2015. **5**(2): p. 1-8.
3. Ben Naceur, S. and M. Goaid, *The determinants of commercial bank interest margin and profitability: evidence from Tunisia*. Frontiers in finance and economics, 2008. **5**(1): p. 106-130.
4. Jočienė, A., *Scandinavian bank subsidiaries in the Baltics: Have they all behaved in a similar way?* Intelektinė ekonomika, 2015. **9**(1): p. 43-54. DOI: <https://doi.org/10.1016/j.intele.2015.09.002>.
5. Taani, K., *Capital structure effects on banking performance: A case study of Jordan*. International Journal of Economics, Finance and Management Sciences, 2013. **1**(5): p. 227-233. DOI: <https://doi.org/10.11648/j.ijefm.20130105.13>.
6. Neves, M.E., C. Proença, and A. Dias, *Bank profitability and efficiency in Portugal and Spain: A non-linearity approach*. Journal of Risk and Financial Management, 2020. **13**(11): p. 284. DOI: <https://doi.org/10.3390/jrfm13110284>.
7. Khairani, I., *The Effect of Earning Per Share (EPS) and Dividend Per Share on the Share Price of Mining Companies Listed on the Indonesia Stock Exchange (IDX) in 2011-2013*. Jurnal Manajemen dan Keuangan, 2016. **5**(2): p. 566-572.
8. Idawati, W. and A. Wahyudi, *Effect of earning per shares (EPS) and return on assets (ROA) against share price on coal mining company listed in Indonesia stock exchange*. Journal of Resources Development and Management, 2015. **7**: p. 79-91.
9. Sumantri, M.B.A., *The Factors that Affect the Profitability of Banks Listed on the Indonesia Stock Exchange*. Turkish Journal of Computer and Mathematics Education (TURCOMAT), 2021. **12**(8): p. 1456-1460.

10. Basu, S., *Investment performance of common stocks in relation to their price-earnings ratios: A test of the efficient market hypothesis*. The journal of Finance, 1977. **32**(3): p. 663-682. DOI: <https://doi.org/10.1111/j.1540-6261.1977.tb01979.x>.
11. Bojare, K. and I. Romanova, *The factors affecting the profitability of banks: The case of Latvia, 5(4)*, 78-95. 2017. DOI: <https://doi.org/10.35808/ersj/753>.
12. Panditharathna, K. and H. Kawshala, *The Relationship between Corporate Governance and Firm Performance*. Management and Administrative Sciences Review, 2017. **6**(2): p. 73-84.