

# Effect of Price Earnings Ratio, Price to Book Value, and Loan to Deposit Ratio on Stock Return (Empirical Study on Banking Companies Listed on the Indonesia Stock Exchange)

Suriany

Perbanas Institute, Indonesia

Phing86@gmail.com

## Abstract

*The purpose of this study is to analyze effect of price earnings ratio, price to book value, and loan to deposit ratio on stock return in Banking Companies listed on the Indonesia Stock Exchange. This type of research is quantitative research. The population in this study are Banking Companies on the Indonesia Stock Exchange as many as 44 companies for the period 2013-2017. The sample in this study was 125 consisting of 25 Banking Companies listed on the Indonesia Stock Exchange for 5 periods, namely the period 2013-2017. In this study, the researcher first removed the outlier data, so that the number of samples became 61 samples. This study uses multiple linear regression. The results showed that price earnings ratio has no significant effect on stock return in Banking Companies Listed on the Indonesia Stock Exchange. Price to book value has a significant effect on stock return in Banking Companies Listed on the Indonesia Stock Exchange. Loan to deposit ratio has no significant effect on stock return in Banking Companies Listed on the Indonesia Stock Exchange. Price earnings ratio, price to book value, and loan to deposit ratio have a significant effect on stock return in Banking Companies Listed on the Indonesia Stock Exchange.*

## Keywords

price earnings ratio; price to book value; loan to deposit ratio; stock return



## I. Introduction

Shares are a form of capital participation made by a person or certain business entity by placing their capital in the company and obtaining their rights to the company (Abi, 2016). Shares are a form of investment that are in demand by the public because shares can be purchased by the whole community without restrictions, while from a company perspective they can be used for funding purposes. Shares are evidence of a person's participation in a particular company.

In buying shares, potential investors will perform calculations to compare the intrinsic value of the shares with the market price. If the market price of a stock is lower than its intrinsic value, potential investors may consider buying and holding the stock with the aim of obtaining capital gains if the stock price rises later. If the market price shows the same value as the intrinsic value, then potential investors will usually delay the purchase of the shares. Conversely, if the stock market price is higher than the intrinsic value of the stock, potential investors will decide to sell the stock to avoid losses.

Every investor expects a return from the capital invested in stocks, they will try to avoid risk (Wiyono and Kusuma, 2017). The high rate of return from stocks has resulted in stocks becoming one of the most popular investment products (Abi, 2016). Stock return is an expectation of the rate of return from investing in stocks (Wiyono and Kusuma, 2017). Stock return can be divided into two, namely positive stock return that occur when

investors experience profits and negative stock return when the company experiences losses.

One of the factors that influence stock return is the price earnings ratio. Price earnings ratio is a comparison between stock prices and earnings per share (Basiang, 2016). Another understanding states that the price earnings ratio is a comparison between the market price per share and earnings per share (Hery, 2015). If the potential investor already knows the value of the price earnings ratio, then the potential investor can weigh whether the price of a share is reasonable or not in accordance with current conditions, not based on future predictions. The formula used in calculating the price earnings ratio is by dividing the stock price by the company's earnings per share shown in the company's latest financial statements.

When viewed from the investor's perspective, a price earnings ratio that is too high is not desirable because the stock price may not increase again so that the probability of getting capital gains is low. Thus, the price earnings ratio can be used as one of the considerations for potential investors to see the probability of return of the shares to be purchased. This is because every increase in the price earnings ratio indicates a decrease in stock return and conversely a decrease in the price earnings ratio indicates an increase in stock return.

Another factor that also influences stock return is price to book value. Price to book value is the comparison between the stock price and the book value of the stock (Abi, 2016). In every company, it is expected that the price to book value of the company is at least one or in other words above the book value. If the company's price to book value is below one, it is indicated that the share price is below the book value (Sugiono and Untung, 2016).

Price to book value is basically the same as the price earnings ratio. The difference is that the price earnings ratio focuses on the net profit generated by the company, the price to book value focuses on the company's equity value. Price to book value is the value of shares compared to the value of equity per share. For investors, if the price to book value is high, it is expected that investors will get a high stock return, whereas if the price to book value is low, it is difficult for investors to get a high stock return.

The loan to deposit ratio is the ratio between the total volume of loans disbursed by the bank and the amount of funds received from various sources. The loan to deposit ratio provides an overview of the company's liquidity conditions. The loan to deposit ratio is a comparison between the loans disbursed by the bank and the total funds received (Sujarweni, 2017). An increase in the loan to deposit ratio means an increase in interest income earned by banks. With the increasing loan to deposit ratio, it means that profitability increases which indicates greater profit growth, on the contrary, it will have an impact on decreasing stock prices if this ratio is smaller.

The phenomenon of stock return can be seen from the data on price earnings ratio, price to book value, and loan to deposit ratio in several banking companies listed on the Indonesia Stock Exchange in the 2013-2017 period, which are presented in Table 1 below:

**Table 1.** Phenomenon of Price Earnings Ratio (PER), Price to Book Value (PBV), Loan to Deposit Ratio (LDR), and Stock Return (RS) Banking Companies Listed on the Indonesia Stock Exchange in 2013-2017

Issuer	Year	PER	PBV	LDR	RS
PT Bank Mandiri (Persero) Tbk	2013	10.06	2.04	3.65	(0.03)
	2014	12.65	2.37	3.95	0.37
	2015	10.61	1.79	3.28	(0.14)

	2016	19.56	1.74	3.30	0.25
	2017	15.77	1.90	3.34	(0.40)
PT Bank Negara Indonesia (Persero) Tbk	2013	8.13	1.53	0.86	0.07
	2014	10.55	1.85	0.88	0.54
	2015	10.25	1.17	0.88	(0.18)
	2016	9.06	1.14	0.90	0.11
	2017	10.62	1.42	18.90	0.40
PT Bank Rakyat Indonesia (Persero) Tbk	2013	8.38	2.23	0.83	0.04
	2014	11.87	2.91	0.77	0.61
	2015	11.09	2.47	0.82	(0.02)
	2016	10.90	1.94	0.82	0.02
	2017	13.87	2.40	0.82	(0.72)

Source: [www.idx.co.id](http://www.idx.co.id) (2013-2017)

Based on the data above, it can be seen that there is an inconsistency of the relationship between price earnings ratio, price to book value, and loan to deposit ratio with stock return. In 2015 the price earnings ratio of PT Bank Rakyat Indonesia (Persero) Tbk decreased from the previous year and stock return also decreased. In contrast to the situation in 2016 where when the price earnings ratio decreased, stock return actually increased.

The inconsistency of the relationship between variables can also be seen in 2014 at PT Bank Negara Indonesia (Persero) Tbk where when the price to book value increased, stock return also increased. This situation is contrary to 2016 where the price to book value decreased, but stock return actually increased.

The inconsistency of the relationship between the loan to deposit ratio and stock return can be seen in 2014 at PT Bank Mandiri (Persero) Tbk which experienced an increase and stock return also increased. This situation is contrary to 2017 where the loan to deposit ratio has increased while stock return have decreased.

The purpose of this study is to analyze effect of price earnings ratio, price to book value, and loan to deposit ratio on stock return in Banking Companies listed on the Indonesia Stock Exchange.

## II. Review of Literature

### 2.1 Effect of Price Earnings Ratio on Stock Return

The price earnings ratio is obtained from the market price of ordinary shares divided by the company's profit, the higher this ratio will indicate that the company's performance is also getting better (Sugiono and Untung, 2016).

This price earnings ratio calculation uses income data reported in the last year or projected income for the coming year, to assess the profit performance of a particular public company (Basiang, 2016). Price earnings ratio measures the comparison between the company's stock price and the profits that will be obtained by shareholders (Kariyoto, 2017).

For investors, the higher the price earnings ratio, the expected profit growth will also increase. That way the price earnings ratio is a comparison between market price share and earnings per share (Fahmi, 2014).

## 2.2 Effect of Price to Book Value on Stock Return

Price to book value describes how much the market appreciates the book value of a company's stock. The higher this ratio means the market believes in the company's prospects (Sugiono and Untung, 2016).

The ratio of price to book value is a ratio that shows the results of a comparison between the market price per share and the book value per share (Hery, 2017). The ratio of price to book value is a ratio that shows the results of the comparison between the market price per share and the book value per share. This ratio is used to measure the level of stock prices whether overvalued or undervalued. The lower the price to book value of a stock, the stock is categorized as undervalued, which is very good for long-term investment (Hery, 2015).

## 2.3 Effect of Loan to Deposit Ratio on Stock Return

The higher the loan to deposit ratio, the better the intermediation function and productivity of the bank. However, in terms of liquidity, the higher the loan to deposit ratio, the tighter the bank's liquidity. So that banks are required to optimize their resources to get the expected return without ignoring the liquidity risk that arises as a result of asset liability management errors (Liembono, 2016).

Loan to deposit ratio is a financial ratio of banking companies related to liquidity aspects. The loan to deposit ratio is a traditional measurement that shows time deposits, current accounts, savings, and others used to fulfill customer loan applications (Ikatan Bankir Indonesia, 2017).

## III. Research Method

This type of research is quantitative research. Quantitative research is a systematic scientific study of the parts and phenomena and the causality of their relationships (Octiva et al., 2021; Pandia et al., 2018; Pandiangan, 2015). The purpose of quantitative research is to develop and use mathematical models, theories and/or hypotheses related to natural phenomena (Asyraini et al., 2022; Octiva et al., 2018; Pandiangan et al., 2018).

The population in this study are Banking Companies on the Indonesia Stock Exchange as many as 44 companies for the period 2013-2017. The sample used in this study was determined using a purposive sampling technique. Purposive sampling technique is done by taking samples from the population based on certain criteria (Octiva, 2018; Pandiangan, 2018). The criteria used to select the sample are as follows:

1. Banking Companies listed on the Indonesia Stock Exchange during the period 2013 to 2017.
2. Banking Companies that provide complete and audited financial statement data for the period 2013 to 2017.
3. Banking Companies that were not delisted from the Indonesia Stock Exchange during the 2013 to 2017 observation period.

The sample in this study was 125 consisting of 25 Banking Companies listed on the Indonesia Stock Exchange for 5 periods, namely the period 2013-2017. In this study, the researcher first removed the outlier data, so that the number of samples became 61 samples.

This study uses multiple linear regression. Multiple linear regression is a regression model that involves more than one independent variable (Jibril et al., 2022; Pandiangan, 2022; Pandiangan et al., 2022). Multiple linear regression was conducted to determine the

direction and how much influence the independent variable has on the dependent variable (Pandiangan et al., 2021; Tobing et al., 2018).

## IV. Results and Discussion

### 4.1 Descriptive Statistics Results

**Table 2.** Descriptive Statistics Results

Variable	N	Minimum	Maximum	Mean	Std. Deviation
Price Earnings Ratio	61	3.38	201.59	25.8079	35.99129
Price to Book Value	61	0.28	15.75	2.9500	3.08402
Loan to Deposit Ratio	61	0.33	18.90	1.2464	2.38625
Stock Return	61	0.01	2.98	0.3736	0.45715
Valid N (listwise)	61				

Source: Research Results

Based on the data, it can be seen that the amount of data used is 61 consisting of 25 Banking Companies listed on the Indonesia Stock Exchange for 5 periods, namely the period 2013-2017. Price earning ratio has a minimum value of 3.38 owned by BVIC Company (PT Bank Victoria International Tbk) in 2013, a maximum value of 201.59 owned by NOBU Company (PT Bank National Nobu Tbk) in 2017, average value is 25.8079 and standard deviation is 35.99129. Price to book value has a minimum value of 0.28 owned by INPC (PT Bank Artha Graha Internasional Tbk) in 2017, a maximum value of 15.75 owned by AGRO (PT Bank Rakyat Indonesia Agroniaga Tbk) in 2016, average value is 2.95 and standard deviation is 3.08402. Loan to deposit ratio has a minimum value of 0.33 owned by NOBU (PT Bank National Nobu Tbk) in 2016, a maximum value of 18.90 owned by BBNI (PT Bank Negara Indonesia Tbk) in 2017, average value is 1.2464 and the standard deviation of 2.38625. Stock return has a minimum value of 0.01 owned by BBKA (PT Bank Central Asia Tbk) in 2015, a maximum value of 2.98 is owned by AGRO (PT Bank Rakyat Indonesia Agroniaga Tbk) in 2016, average value is 0.3736 and a standard deviation of 0.45715.

### 4.2 Multiple Linear Regression Results

**Table 3.** Multiple Linear Regression Results

Hypothesis	t <sub>count</sub>	Significance	Conclusion
H <sub>1</sub> Price Earnings Ratio->Stock Return	-1.864	0.068	H <sub>1</sub> Rejected
H <sub>2</sub> Price to Book Value->Stock Return	5.021	0.000	H <sub>2</sub> Received
H <sub>3</sub> Loan to Deposit Ratio->Stock Return	0.385	0.701	H <sub>3</sub> Rejected
H <sub>4</sub> Price Earnings Ratio, Price to Book Value, Loan to Deposit Ratio->Stock Return	8.540	0.000	H <sub>4</sub> Received

Source: Research Results

Based on Table 3 shows that price earnings ratio has no significant effect on stock return in Banking Companies Listed on the Indonesia Stock Exchange. Price to book value has a significant effect on stock return in Banking Companies Listed on the Indonesia Stock Exchange. Loan to deposit ratio has no significant effect on stock return in Banking Companies Listed on the Indonesia Stock Exchange. Price earnings ratio, price to book



value, and loan to deposit ratio have a significant effect on stock return in Banking Companies Listed on the Indonesia Stock Exchange.

## V. Conclusion

The results showed that price earnings ratio has no significant effect on stock return in Banking Companies Listed on the Indonesia Stock Exchange. Price to book value has a significant effect on stock return in Banking Companies Listed on the Indonesia Stock Exchange. Loan to deposit ratio has no significant effect on stock return in Banking Companies Listed on the Indonesia Stock Exchange. Price earnings ratio, price to book value, and loan to deposit ratio have a significant effect on stock return in Banking Companies Listed on the Indonesia Stock Exchange.

## References

- Abi, Fransiskus Paulus Paskalis. (2016). *Semakin Dekat dengan Pasar Modal Indonesia*. Yogyakarta: Deepublish.
- Asyraini, Siti, Fristy, Poppy, Otiva, Cut Susan, Nasution, M. Hafiz Akbar, & Nursidin, M. (2022). Peningkatan Kesadaran Protokol Kesehatan di Masa Pandemi Bagi Warga di Desa Selamat Kecamatan Biru-biru. *Jurnal Pengabdian Kontribusi (Japsi)*, 2(1), 33-36.
- Basiang, Martin. (2016). *The Contemporary Law Dictionary*. Jakarta: Gramedia Pustaka Utama.
- Fahmi, Irham. (2014). *Pengantar Manajemen Keuangan*. Bandung: Alfabeta.
- Hery. (2015). *Pengantar Akuntansi*. Jakarta: Grasindo.
- Hery. (2017). *Auditing and Asurans*. Jakarta: Grasindo.
- Ikatan Bankir Indonesia. (2017). *Manajemen Resiko 2*. Jakarta: Gramedia Pustaka Utama.
- Jibril, Ahmad, Cakranegara, Pandu Adi, Putri, Raudya Setya Wismoko, & Otiva, Cut Susan. (2022). Analisis Efisiensi Kerja Kompresor pada Mesin Refrigerasi di PT. XYZ. *Jurnal Mesin Nusantara*, 5(1), 86-95.
- Kariyoto. (2017). *Analisa Laporan Keuangan*. Malang: UB Media.
- Liembono, RH. (2016). *Analisis Fundamental 2*. Surabaya: Menuju Insan Cemerlang.
- Otiva, Cut Susan. (2018). *Pengaruh Pengadukan pada Campuran Limbah Cair Pabrik Kelapa Sawit dan Tandan Kosong Kelapa Sawit terhadap Produksi Biogas*. Tesis. Medan: Fakultas Teknik, Program Studi Teknik Kimia, Universitas Sumatera Utara. <https://repositori.usu.ac.id/bitstream/handle/123456789/12180/157022002.pdf?sequence=1&isAllowed=y>.
- Otiva, C. S., Irvan, Sarah, M., Trisakti, B., & Daimon, H. (2018). Production of Biogas from Co-digestion of Empty Fruit Bunches (EFB) with Palm Oil Mill Effluent (POME): Effect of Mixing Ratio. *Rasayan J. Chem.*, 11(2), 791-797.
- Otiva, Cut Susan, Indriyani, & Santoso, Ari Beni. (2021). Effect of Stirring Co-digestion of Palm Oil and Fruith for Biogas Production to Increase Economy Benefit. *Budapest International Research and Critics Institute-Journal*, 4(4), 14152-14160. DOI: <https://doi.org/10.33258/birci.v4i4.3521>.
- Pandia, S., Tanata, S., Rachel, M., Otiva, C., & Sialagan, N. (2018). Effect of Fermentation Time of Mixture of Solid and Liquid Wastes from Tapioca Industry to Percentage Reduction of TSS (Total Suspended Solids). *IOP Conference Series: Materials Science and Engineering*, 309, 012086. DOI: 10.1088/1757-899X/309/1/012086.

- Pandiangan, Saut Maruli Tua. (2015). *Analisis Lama Mencari Kerja Bagi Tenaga Kerja Terdidik di Kota Medan*. Skripsi. Medan: Fakultas Ekonomi dan Bisnis, Program Studi Ekonomi Pembangunan, Universitas Sumatera Utara. [https://www.academia.edu/52494724/Analisis\\_Lama\\_Mencari\\_Kerja\\_Bagi\\_Tenaga\\_Kerja\\_Terdidik\\_di\\_Kota\\_Medan](https://www.academia.edu/52494724/Analisis_Lama_Mencari_Kerja_Bagi_Tenaga_Kerja_Terdidik_di_Kota_Medan).
- Pandiangan, Saut Maruli Tua. (2018). *Analisis Faktor-faktor yang Mempengaruhi Penawaran Tenaga Kerja Lanjut Usia di Kota Medan*. Tesis. Medan: Fakultas Ekonomi dan Bisnis, Program Studi Ilmu Ekonomi, Universitas Sumatera Utara. <http://repositori.usu.ac.id/bitstream/handle/123456789/10033/167018013.pdf?sequence=1&isAllowed=y>.
- Pandiangan, Saut Maruli Tua, Rujiman, Rahmanta, Tanjung, Indra I., Darus, Muhammad Dhio, & Ismawan, Agus. (2018). An Analysis on the Factors which Influence Offering the Elderly as Workers in Medan. *IOSR Journal of Humanities and Social Science (IOSR-JHSS)*, 23(10), 76-79. DOI: 10.9790/0837-2310087679. <http://www.iosrjournals.org/iosr-jhss/papers/Vol.%2023%20Issue10/Version-8/K2310087679.pdf>.
- Pandiangan, Saut Maruli Tua, Resmawa, Ira Ningrum, Simanjuntak, Owen De Pinto, Sitompul, Pretty Naomi, & Jefri, Riny. (2021). Effect of E-Satisfaction on Repurchase Intention in Shopee User Students. *Budapest International Research and Critics Institute-Journal*, 4(4), 7785-7791. DOI: <https://doi.org/10.33258/birci.v4i4.2697>.
- Pandiangan, Saut Maruli Tua, Oktafiani, Fida, Panjaitan, Santi Rohdearni, Shifa, Mutiara, & Jefri, Riny. (2022). Analysis of Public Ownership and Management Ownership on the Implementation of the Triple Bottom Line in the Plantation Sector Listed on the Indonesia Stock Exchange. *Budapest International Research and Critics Institute-Journal*, 5(1), 3489-3497. DOI: <https://doi.org/10.33258/birci.v5i1.4016>.
- Pandiangan, Saut Maruli Tua. (2022). Effect of Packaging Design on Repurchase Intention to the Politeknik IT&B Medan Using E-Commerce Applications. *Journal of Production, Operations Management and Economics (JPOME)*, 2(1), 15–21. <http://journal.hmjournals.com/index.php/JPOME/article/view/442>.
- Sugiono, Arief & Untung, Edi. (2016). *Panduan Praktis Dasar Analisa Laporan Keuangan*. Jakarta: Grasindo.
- Sujarweni, Wiratna. (2017). *Analisis Laporan Keuangan*. Yogyakarta: Pustaka Baru Press.
- Tobing, Murniati, Afifuddin, Sya'ad, Rahmanta, Huber, Sandra Rouli, Pandiangan, Saut Maruli Tua, & Muda, Iskandar. (2018). An Analysis on the Factors Which Influence the Earnings of Micro and Small Business: Case at Blacksmith Metal Industry. *Academic Journal of Economic Studies*, 5(1), 17-23. <https://www.cceol.com/search/article-detail?id=754945>.
- Wiyono, Gendro & Kusuma, Hadri. (2017). *Manajemen Keuangan Lanjutan*. Yogyakarta: UPP STIM YKPN.