Jurnal Ekonomi Syariah Teori dan Terapan p-ISSN: 2407-1935, e-ISSN: 2502-1508. Vol. 10 No. 1 Januari 2023: 16-26; DOI: 10.20473/vol10iss20231pp16-26

Analysis of Sharia Banking Share Valuation Using Intrinsic Value and Margin of Safety Method Graham Number

Analisis Valuasi Saham Perbankan Syariah dengan Metode Intrinsik Value dan Margin of Safety Graham Number

Fajriyatul Abadiyah, Hikmah Endraswati
Magister Ekonomi Syariah, Faculty of Islamic Economics and Business, UIN Sunan Kalijaga, Yogyakarta, Indonesia
fajriyatulabadiyah@gmail.com*, 197705072000032001@uinsuka.ac.id

ABSTRACT

This study aims to analyze the valuation of Islamic banking stocks using the intrinsic value method and the margin of safety Graham number and determine whether Islamic banking stocks are undervalued or overvalued. This research is included in the descriptive quantitative research. The data source used is secondary data obtained from www.idx.co.id and www.Indopremier.com, while the research sample selection technique uses a purposive sampling method with the criteria of companies that have been IPOs for more than five years and the number of samples found consists of three Islamic banking stocks, namely BRIS, BTPS, and PNBS shares. Based on the results of the valuation of Islamic bank stocks using the intrinsic value method and margin of safety, graham numbers are obtained if the three Islamic bank stocks experience an overvalued/expensive condition above the criteria set by Benjamin Graham, the cause is because investor euphoria is quite high regarding the news of the merger of Bank Syariah Indonesia so that it can be concluded that the three Islamic banking stocks have considerable investment risks. Therefore, investors need to wait and see until the position of the Islamic bank's stock price is close to its fair price.

Keywords: Graham Number, Intrinsic Value, Margin of Safety, Market Share, Islamic Banking.

ABSTRAK

Penelitian ini bertujuan untuk menganalisis valuasi saham perbankan syariah dengan metode intrinsik value dan margin of safety graham number, serta menentukan apakah saham perbankan syariah dalam kondisi undervalue atau overvalue. Penelitian ini termasuk kedalam penelitian kuantitatif deskriptif. Sumber data yang digunakan adalah data sekunder yang diperoleh dari www.idx.co.id dan www.indopremier.com, sedangkan teknik pemilihan sampel penelitian menggunakan metode purposive sampling dengan kriteria perusahaan yang telah IPO lebih dari lima tahun dan diperoleh jumlah sampel yang ditemukan terdiri dari tiga saham perbankan syariah, yakni saham BRIS, BTPS, dan PNBS. Berdasarkan hasil valuasi saham bank syariah dengan menggunakan metode intrinsik value dan margin of safety graham number diperoleh jika ketiga saham bank syariah tersebut mengalami kondisi overvalue/mahal berada diatas kriteria yang ditetapkan oleh Benjamin Graham, penyebabnya dikarenakan euforia investor cukup tinggi mengenai kabar merger Bank Syariah Indonesia sehingga dapat disimpulkan ketiga saham perbankan syariah memiliki risiko investasi yang cukup besar. Maka dari itu, investor perlu wait and see sampai posisi harga saham bank syariah mendekati harga wajarnya.

Kata Kunci: Graham Number, *Intrinsic Value, Margin of Safety, Market Share*, Perbankan Syariah.

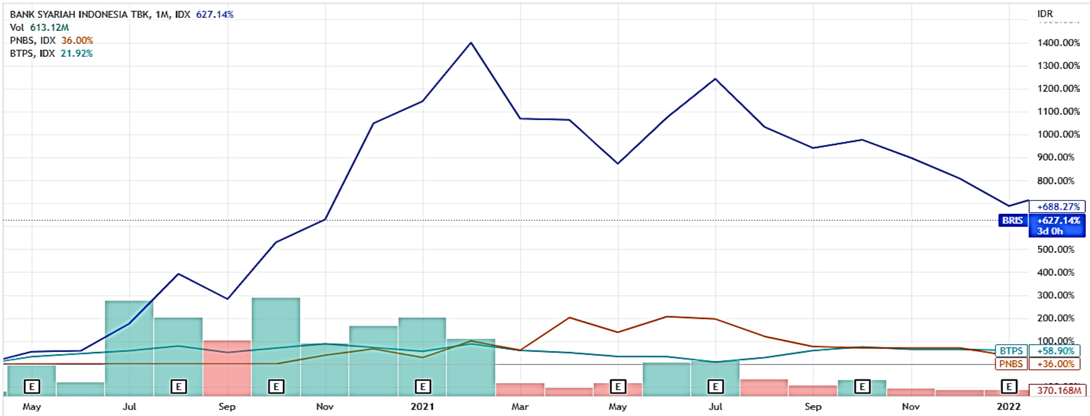
Article History
Submitted: 10-01-2023
Reviewed: 19-01-2023
Accepted: 30-01-2023
Published: 31-01-2023

**Correspondence:*
Fajriyatul Abadiyah

I. INTRODUCTION

Indonesia has long been known as a country with the largest Muslim population in the Asian region and even in the world, this should be a great potential opportunity for the development of the Islamic economy in that country. However, until now the development of the Islamic economy is still stagnant and is still below that of Malaysia's allied country. According to CNBC Indonesia data, in 2022 Indonesia can only project the development of its sharia market share to reach 2.6% even though it has received support from the merger of three state-owned sharia banks on February 1, 2021. The presence of PT Bank Syariah Indonesia Tbk can be a great representation of the rules and commitment of the Government of Indonesia in increasing the share of the sharia market in Indonesia, starting from sharia financial institutions as the main actor in developing sharia market share which is supervised by the government.

Not as a competitor, the merger of Indonesian Islamic banks also has a positive impact on other Islamic banks. In addition to improving the company's financial performance (Puspaningtyas & Intan, 2021), it also increases the share price of Islamic banks on the capital market. This is because investors have high hopes, therefore they begin to decide to invest in Islamic banking stocks. Sourced from the trading view that during the merger process, there was a movement in the price of Islamic bank shares, the cumulative percentage of BRIS shares increased very significantly to reach 688.27%. Furthermore, the share prices of BTPS and PNBS also upwards by 36.00% and 58.90%, respectively. The high share price is reflected in the trading volume activity of the three Islamic banking shares, especially since the Conditional Merger Agreement (CMA) was first announced in October 2021.



Source: Tradingview.com, 2022.

Figure 1. Stock Comparison BRIS, BTPS, PNBS following merger Bank Syariah Indonesia.

Investment is not only about investing in a company solely with the hope of getting a return on profits in the future. Because the real goal of investing is how to maximize profits by minimizing losses (Budiman, 2020). One type of investment that is in great demand by various groups, including the millennial generation, is investing in stocks in the capital market. According to CNBC data, throughout 2021 it was recorded that the number of new investors reached 7.48 million, where millennial investors dominated as much as 80 percent (Sidik, 2021). The potential for high yields is a special attraction, although it is not uncommon to find cases of investors experiencing large losses in stock investments, in general, these mistakes are caused by the investors themselves making the wrong investment decisions. Those who are generally young and have minimal knowledge and experience in investing in the world of investment often suggest that they can get rich quickly and instantly in the capital market, but they forget the key that the stability of the real profits obtained in stock investment is for the long term, not short-term speculators.

Figures such as Benjamin Graham, Warren Buffet, Peter Lynch, Phil Town, to Lo Kheng Hong are often used as examples of people who are successful in investing in stocks. Although they have their strategies written in their books, the strategy they do is to sort and choose companies with good fundamentals (Wirawan & Sumirat, 2021). This strategy is often referred to as the stock valuation method or value investment (intrinsic value) which was first introduced by Benjamin Graham in his book The Intelligent Investor and Security Analysis (Graham & Dood, 2014). In investment science, value investing strategy is an analytical method to find cheap stocks, namely choosing stocks at prices that are far below the intrinsic value of the company or other terms discounted stocks (Budiman, 2020), by screening company stocks which are later expected to provide returns according to what is expected, especially in the stock market whose movements are unpredictable (Kusmayadi et al., 2020). The main advantage of the Graham method is the focus on the fundamental analysis of the company and the intrinsic value of stocks. This method focuses on financial ratios such as the ratio of stock price to profit (PER), stock price to book value (PBV), and dividend ratio. In addition, Graham's method also emphasizes the importance of portfolio diversification and avoiding stocks that are considered too risky (MOS).

In theory, the stock market price is determined by the supply and demand in the stock market. The price offered by buyers and the price offered by sellers will move toward the equilibrium market price. The market price of a stock can also be affected by other factors such as a company's financial performance, industry prospects, and interest rates. MOS (Margin of Safety) is a ratio used to measure how expensive or cheap a stock is compared to earnings per share (EPS) and book value per share (BVPS). A high MOS indicates that stock prices tend to be expensive compared to earnings per share, while a low MOS indicates that stock prices tend to be cheap compared to earnings per share. The undervalued condition of the stock price occurs when the stock price in the market is lower than the actual intrinsic value of the company. This can occur due to various factors, such as lack of information or market ignorance about the company, and conversely, an overvalued condition of the stock price occurs when the stock price in the market is higher than the actual intrinsic value of the company. This is due to market euphoria or speculative conditions. In general, stock market prices, margin of safety, and undervalued and overvalued conditions are interrelated and influence one another. Therefore, fundamental and technical analysis is needed in evaluating companies and market conditions so that they are not mistaken in choosing between cheap stock and gimcrack stocks.

In the world of capital markets, there are the terms cheap stocks and gimcrack stocks. Cheap stocks are a term used for stocks that are considered undervalued or stocks whose prices have been discounted (down/correction) and have the potential to rebound, while gimcrack stocks are stocks that are considered overvalued or stocks whose volume and bid-offers are illiquid and movements are inconsistent (Budiman, 2020). Important for investors to know whether a stock is cheap or expensive and whether it is worth investing in. Benjamin Graham recommends using the value investing method and the margin of safety Graham number to be able to assess the fair price of a company's shares and estimate future business prospects (Srivastava & Kulshrestha, 2020). According to Graham, a value investor must be able to find the right company at the right price, namely by analyzing the company as a whole (screening) and combining the company's financial performance as well as the stock market performance so that investors know the fair value of shares and to minimize losses. The value investing method is perfect for investors who have a high level of patience because the key to getting the maximum profit in the capital market will be obtained when the shares are held and sold several years later. While the margin of safety is used to determine the security risk limit that investors will face, if the MOS is negative then the stock has a greater risk, and if the MOS is positive then the stock has a smaller risk (Lin & Sung, 2014).

The Graham formula or Graham number is the upper limit of the price range that a defensive investor should pay for the stock. According to theory, any stock price below the limit set by the Graham number is considered undervalued and therefore it is appropriate to buy/invest in that stock. The Graham number method is often used as a general test when trying to identify stocks that are currently selling at good prices. The figure of 22.5 is included in the calculation to take into account Graham's belief that the price-to-earnings ratio or PER cannot exceed 15x and the PBV cannot exceed 1.5x. This means that if the stock value is above the set limit then the stock is overvalued or expensive, and vice versa if the stock value is below the set limit then the stock is undervalued or cheap (Sitorus & Hutasoid, 2017).

There are several previous studies related to evaluating the value/fair price of shares and calculating the intrinsic value of companies using various methods. Such as the research conducted by Sitorus and Hutasoid (2017), regarding the effect of EPS and stock returns on the IHSG by using Benjamin Graham's value investing in 20 companies that meet Graham's criteria. The results through the Pooled Lead Square test method found that changes in the EPS value did not significantly affect changes in the IHSG, but changes in the value of stock returns significantly affected changes in the IHSG, while the IHSG variable was simultaneously influenced by two variables, namely EPS and stock returns (Sitorus & Hutasoid, 2017). Research by Yulita and Rahayu (2019) found that the performance of the hotel and tourism industry in Indonesia based on Benjamin Graham's perspective, the results are ratios of EPS, PER, PBV, ROE, CR, and DER simultaneously influencing stock prices, and partially EPS, PER, PBV and DER which affect stock prices (Yulita & Rahayu, 2019).

Research by Ervian (2015) showed that utilizing Benjamin Graham's value investing method can be used to achieve capital gains. As a result, 5 stocks meet Benjamin Graham's undervalued stock criteria, namely MFIN, CFIN, PJAA, ANTM, and FAST stocks. While the comparison of the average return on stocks that fall under the criteria of undervalued stocks from Benjamin Graham with the average return on stock portfolios selected randomly shows that the returns from stocks included in the criteria for undervalued stocks from Benjamin Graham have a higher average return than the average return on stock portfolios selected randomly. Thus, Benjamin Graham's value investing method can provide capital gains for investors who wish to invest their capital in the long term (five years) compared to random capital gains from portfolios (Ervian, 2015).

Meanwhile, Rakim et al (2022) analyzed investment strategies using Benjamin Graham's approach as alternative consideration in making investment decisions. Because applying the Graham Number combination has been proven to produce an excess return that exceeds the Index (Rachmattulah & Faturohman, 2016). Apart from using the graham number method, other studies have found that analyzing value investing can also use the Phil Town method as Hutabarat did on eight stocks owned by Anthony Salim (Hutabarat, n.d.). Wirawan and Sumirat (2021) even compared the performance of the IHSG portfolio using the strategies of Warren Buffet, Benjamin Graham, and Peter Lynch. The result is that the three types of portfolios have a beta almost equal to 1, which means they have a lower risk compared to market risk (Wirawan & Sumirat, 2021).

Doing a stock valuation analysis is very important before deciding to buy a stock, the calculations in determining it vary widely with various methods (Alhazami, 2020). Especially for the defensive type of investor, value investing is the essence and way of finding lower than the value of its assets (Petrova, 2015). This is in line with research from Antoni et al (2020) that by assessing the fair price of shares, investors can choose stocks that fall into the overvalued or undervalued category before deciding on an investment (Antoni et al., 2020). In general, intrinsic value is the basis of value investing developed by Benjamin Graham, who suggested that investors should focus on the intrinsic value of stocks and buy stocks priced below that value with a sizable margin of safety. However, Lin and Sung (2014) considered that Graham's formula can be used actively to outperform the market with sufficient safety margins, but there are still doubts about using this method as investors because of how simple this method is, so it needs to be combined with further analysis, this formula can provide a sizable return for individual investors so that they can invest comfortably and safely.

From some of the literature, it was found that the intrinsic value and margin of safety Graham number methods are still rarely used by Indonesian investors in choosing stocks that are undervalued or overvalued, especially Islamic stocks. So, this study aims to assist investors in evaluating stocks in the Islamic banking sector using the intrinsic value method and the margin of safety Graham number. Where the object of research was carried out on shares of Islamic banking companies listed on the Indonesia Stock Exchange, namely PT Bank Syariah Indonesia (BRIS), PT Bank BTPN Syariah (BTPS), and PT Bank Panin Dubai Syariah (PNBS).

II. LITERATURE REVIEW

Graham Number Intrinsic Value Method

According to the book by Benjamin Graham and David Dodd entitled The Intelligent Investor and Security Analysis, the key to successful and safe investment is to apply the right strategy in finding stocks that are in "wrongly priced" conditions, namely using the concepts of value investing and margin of safety (Graham & Dood, 2014). Value investing is used to analyze a company by looking at several aspects, namely business, management, financial, and company value to see long-term prospects (Hutabarat, n.d.). Benjamin Graham feels that the simplicity of the model allows investors to identify companies easily, quickly, and accurately with expensive/overvalued or undervalued stock valuations.

The Graham number is a way of determining the highest price (ceiling) investors must pay for a particular stock. This calculation was developed by Benjamin Graham for defensive or cautious investor types. Defensive investors usually prefer to invest in conservative stocks that are stable and not easily affected by current economic conditions, the goal is to have stocks that have minimal management and can be relied upon to provide consistent returns. Defensive investors prefer to wait for the right moment to invest so they are free from risk (Widyawinata, 2022).

The Graham number method can help investors know which stocks have good fundamentals and are cheaply priced by the capital market, this is because this calculation is only based on the value of earnings per share (EPS), price earnings ratio (PER), book value per share (BVPS), and the company's price book value (PBV) which is assumed to have the same performance on an annual basis (Lin & Sung, 2014). The criteria for the Graham Screen approach in choosing a stock, namely the EPS value must be positive for the last five years, the PER ratio cannot be more than 15 times because if the PER is high it indicates that the stock is a speculator stock, the desired PBV ratio is 1.5 which when multiplied by with a PER of not more than 22.5 (Sitorus & Hutasoid, 2017).

Meanwhile, according to Kurniawan, there are at least three central elements in value investing; 1) oriented towards a bottom-up strategy which involves identifying certain undervalued investment opportunities. 2) oriented towards absolute performance, not relative performance. 3) an approach that aims to avoid risk (Kurniawan, 2020). Halim put forward several specific criteria on how to make investment decisions at the fair price of a share/intrinsic value, which can be done as follows (Halim, 2005).

Table 1. Criteria for Making Investment Decisions

Information	Share Price Conditions	Investment decision
If intrinsic value > market price	The stock price is too cheap (undervalued)	Buy, because there is a possibility the price will go up (buy)
If intrinsic value < market price	The stock price is too expensive (overvalued)	Sell, because there is a possibility the price will fall (sell)
If intrinsic value = market price	Fair or normal share price (fair valued)	Hold, do not sell or buy until there is a time when the estimated earnings for investors (hold/wait & see)

Source: (Halim, 2005)

Intrinsic value is the true value of a stock or asset that is calculated using fundamental analysis. Benjamin Graham developed the concept of intrinsic value and suggested that investors should buy stocks that are valued below their intrinsic value (Graham & Dood, 2014). However, Graham also suggested that investors should not only rely on one ratio but should combine several other ratios to get a more comprehensive picture of intrinsic value. Graham also recommended that investors should buy stocks that are valued below their intrinsic value with a large enough margin of safety which can help reduce the risk of investment failure (Kaniati et al., 2020).

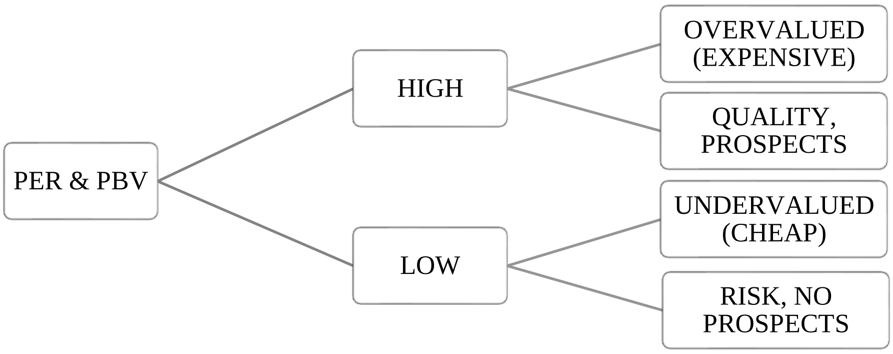
A company is said to have good performance (undervalued) if it meets the intrinsic value criteria of the Graham number or better known as the Graham Screener, namely;

1. Price book value (PBV) maximum 1.5 times
2. Price earnings ratio (PER) maximum 15 times
3. Earnings per share (EPS) must be positive and grow more than 30% for the last 5 years
4. Debt to equity ratio (DER) is less than 2, except for financial sector shares which can be less than 230%
5. Current ratio is greater than 2
6. Always profitable in the last 5 to 10 years
7. Always consistently distribute dividends in a row in the last 5 to 10 years

Several studies say that the criteria set for Benjamin Graham's value investing method, also known as the Graham screening, are using ten criteria (Ervian, 2015), (Rachmattulah & Faturohman, 2016), (Rakim et al., 2022), or nine criteria (Sitorus & Hutasoid, 2017), (Srivastava & Kulshrestha, 2020), as well as seven criteria (Wirawan & Sumirat, 2021). Nonetheless, in general, the intrinsic value graham number method focuses on earnings ratios such as EPS, PER, BVPS, and PBV. While the margin of safety (MOS) is used to assess the amount of risk that investors will get on undervalued or overvalued stocks.

Margin of Safety (MOS)

The Margin of Safety, or safety margin, is the percentage resulting from the difference between the market price of the stock and the company's intrinsic value (Islami, 2020). Benjamin Graham emphasized the importance of MOS in value investing because MOS serves as a safety device for investors so that investors do not rely too much on accurate estimates in the future. If the margin is large, it is sufficient to assume that future profits will not fall too deep below past earnings so that investors feel quite protected from the market sentiment which often occurs out of control. MOS is often called discount stocks, namely buying stocks that have a lower market value than their intrinsic value, meaning that companies that have small PER and PBV are called undervalued/cheap stocks, or conversely buying stocks that have a higher market value than their intrinsic value, meaning companies those with high PER and PBV are called overvalued/expensive stocks (Budiman, 2020).



Source: (Kurniawan, 2020)

Figure 2. Cheap/Expensive Company Stock Criteria

According to research by Kusmayadi et al, the margin of safety can show the value of the opportunity to gain from purchasing shares by comparing the current stock price with the fair price of shares or fair value (Kusmayadi et al., 2020). Meanwhile, the results of Islamic research state that the greater the MOS value of a stock, the smaller the risks it faces, and vice versa (Islami, 2020). And it can be concluded, the margin of safety can be used in predicting the prospects for a company's stock by comparing market performance with company performance as a safe limit in stock portfolio management.

Evaluation of stocks using intrinsic value and margin of safety (MOS) developed by Benjamin Graham can provide several benefits for investors and the development of the Indonesian capital market:

1. Helping investors in determining the fair price of shares: Intrinsic value and MOS can be used as tools to determine the fair price of a share. Investors can use these two concepts to determine whether a stock is valued at a fair price or not.
2. Lowering the risk of investment failure: Using MOS in stock evaluation can assist investors in reducing the risk of investment failure. When buying stocks with a large MOS, investors will have better guarantees if there is a mistake in assessing the intrinsic value of the stock.
3. Assist in finding undervalued stocks: Evaluation of stocks using intrinsic value and MOS can assist investors in finding stocks that have a difference between the current market price and their intrinsic value, investors can consider these shares as a good investment choice.
4. Assist in measuring company performance: Evaluation of shares using intrinsic value and the Graham Number can assist investors in measuring company performance in the long term. Both of these concepts measure company performance based on company fundamental data and not just based on stock price movements in the short term.
5. Assist in improving portfolio quality: Evaluation of stocks using intrinsic value and the margin of safety Graham number can assist investors in improving portfolio quality. Investors can look for stocks that are valued with a large MOS and are projected to provide optimal returns in the long term.

III. RESEARCH METHOD

This research is included in quantitative research using a descriptive approach (Sekaran & Bougie, 2017). The data source used is secondary data obtained from www.idx.co.id and www.rti-business.com in the form of company financial reports from 2018-2022 and stock closing price data for the observation period on June 3, 2022. Data collection method This is done by collecting and identifying data which then examines the company's financial performance (fundamental analysis) and observes the stock market performance (technical analysis) of Islamic banking to conclude which stocks are undervalued/cheap and overvalued/expensive. The population of this study is company shares that are included in Islamic stocks and operate in the Islamic financial sector, while the research sample selection technique uses a purposive sampling method with the criteria of companies that have been IPO (Initial Public Offering) for more than five years. And the samples chosen were 3 Islamic banking stocks consisting of shares of PT Bank Syariah Indonesia (BRIS), PT Bank BTPN Syariah (BTPS), and PT Bank Panin Dubai Syariah (PNBS).

Research Variable

Table 2. Variable Operational Definition and Variable Measurement

Variable	Meaning	Formulas
Earning Per Share (EPS)	Namely the net profit earned by the company per share outstanding, where the profits and losses obtained by the company will be directly reflected in the EPS value	$EPS = \frac{EAT}{Total\ Share}$
Price to Earning Ratio (PER)	That is the ratio to determine the fair price of a share by comparing the share price with earnings per share	$PER = \frac{Price}{EPS} \leq 15$
Book Value Per Share (BVPS)	That is the value of the equity owned by the company per share outstanding	$BVPS = \frac{Equity\ Total}{Total\ Share}$
Price to Book Value (PBV)	That is the ratio to assess how expensive/cheap a stock is by comparing the stock price with the company's book value	$PBV = \frac{Price}{BVPS} \leq 1{,}5$
Intrinsic Value Graham Number	That is the investment formula for calculating the intrinsic value of a company recommended by Benjamin Graham. Where the constant value of 22.5 is obtained from PER multiplied by PBV, that is, the PER of a good stock cannot be more than 15 times, and the PBV of a good stock cannot be more than 1.5 times.	$Intrinsic\ Value\ Graham\ Number = \sqrt{22{,}5\ x\ EPS\ x\ BVPS}$
Margins of Safety (MOS)	Namely the difference between the stock price (*market value*) and the intrinsic *value* of the stock. According to Benjamin Graham, the MOS criterion or minimum investment risk limit is 33%	$MOS = \frac{(Intrinsic\ Value - Price\ Stock)}{Intrinsic\ Value} x100\%$

Source: (Kurniawan, 2020).

The data analysis procedure used in the discussion of this research is to analyze the financial ratios and stock market performance of Islamic banking with the following steps: a) Calculating earnings per share, price earnings ratio, book value per share, and price to book value. b) Calculating the fair price of shares/intrinsic value graham number. c) Comparing the margin of safety/MOS with stock intrinsic to determine the value of the opportunity to gain from buying shares, then evaluate whether the shares are in the category of undervalued/cheap or overvalued/expensive.

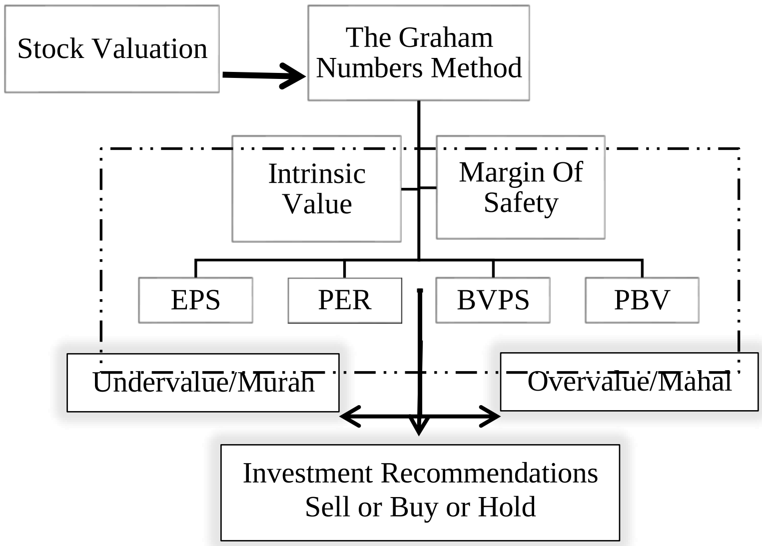


Figure 3. Thinking Framework

IV. RESULTS AND DISCUSSION

The Graham number method is a basic and fairly simple method that novice investors can learn before choosing stocks to invest in a company by taking a stock valuation approach to the company's earnings ratio. Namely comparing earnings per share, price to earnings ratio, book value per share, and price to book value. Where the graham number criterion is a maximum PER ratio of 15 times and a maximum PBV ratio of 1.5 times. The following table compares the earnings ratios of the three Islamic banking stocks from 2018 to 2022.

Table 3. Comparison of Sharia Banking Stock Ratios for 2018-2022.

		2018	**2019**	**2020**	**2021**	**2022**
BRIS	EPS	11,1	7,71	223,23	74,4	78,75
	PER	47,3	42,8	10,08	23,92	16,76
	BVPS	522,58	528,96	2217,93	614,32	676,41
	PBV	1,00	0,62	1,01	2,9	1,95
BTPS	EPS	127,01	184,16	112,45	192,76	174,69
	PER	14,13	23,08	33,35	18,57	15,23
	BVPS	524,07	707,17	770,82	930,28	1042,59
	PBV	3,43	6,01	4,86	3,85	2,55
PNBS	EPS	0,88	0,56	-21,31	5,87	4,4
	PER	56,82	89,29	-3,99	10,57	14,09
	BVPS	70,34	71,44	81,08	59,91	61,72
	PBV	0,71	0,7	1,02	1,42	1,00

Based on one of the Graham number criteria, a company that includes good performance is a company that has an EPS of more than 30%. Based on the table above, it can be seen that BTPS shares meet the Graham number criteria during the 2018-2022 timeframe. Meanwhile, BRIS shares have caught up in the last three years. But different results have been obtained for PNBS shares, which are far from the limit set by Graham's number, even in 2020 or the year when the Covid-19 pandemic started, PNBS shares recorded a negative 21,31. A high EPS ratio is considered better because it can reflect that the company is more efficient in generating profits compared to similar companies.

The PER size limit set by the Graham number is a company that has a PER value of less than 15 times, and the result is that among the three Islamic banking shares, PNBS shares meet the Graham number criteria from 2021 to 2022. Meanwhile, BRIS and BTPS shares are classified as overvalued/expensive, although in terms of overall in 2022 the PER ratio of the three Islamic bank shares is only a slight difference from the graham number limit. In theory, the higher the PER value indicates that the stock price is more expensive, and conversely, the lower the PER ratio, the cheaper the stock (Budiman, 2020). But keep in mind that the PER ratio only measures stock price compared to earnings per share / EPS, where movements and changes can be influenced by several stock market factors.

The PBV size limit set by the Graham number is a company that has a PBV value of less than 1.5 times, where for the last five years only Bank Panin Dubai Syariah (PNBS) shares have met the Graham number criteria. Even so, the PBV value of BRIS shares is still relatively small except in the last two years which exceeded the limit set by the Graham number, but this is different from the case with BTPS shares which are too overvalued or in the expensive category. In theory, the higher the PBV indicates that the stock price is more expensive, and vice versa, the smaller the PBV ratio, the cheaper the stock (Budiman, 2020). However, keep in mind that the PBV ratio only measures stock price compared to the book value per share / BVPS, where movements and changes can be influenced by several stock market factors.

Table 4. Intrinsic Value and Margin of Safety

Indicator	BRIS	BTPS	PNBS	Benjamin Graham
Price Stock (June 3, 2022)	Rp 1490	Rp 3100	Rp 67	<22.5 = undervalued >22.5 = overvalued
Intrinsic Value Graham Number (Normal price)	Rp 1197	Rp 2233	Rp 71	
Margin of Safety (%)	-24%	-39%	7%	<33% = big risk >33% = small risk
Category	Overvalued (Expensive)	Overvalued (Expensive)	Undervalued (Cheap)	

Likewise, in the valuation of the fair price of shares or intrinsic value, the graham number method is calculated by multiplying the last annual EPS and BVPS by 22.5. If you look at the table above, the price of PNBS shares is lower than the intrinsic value of the Graham number, meaning that the shares are considered undervalued or cheap, even though the value of the profit that investors will get or the margin of safety is quite small, namely only 7% compared to the risk safety limit set by the Graham number. less than 33%, in conclusion, PNBS shares have quite a big risk. While the other two stocks, BRIS and BTPS, are both in overvalued or expensive conditions, even the percentage of MOS that investors get reaches negative 24% for BRIS and negative 39% for BTPS. This can happen because the share prices of the two Islamic banks have been highly valued by the market, where this situation can generally be caused by trading volume activity that is so significant that it can affect the movement of BRIS and BTPS stock prices to a greater extent than their fair price/intrinsic value. The decision to buy or sell shares is entirely in the hands of the investor, but the researcher recommends holding back until the MOS value is positive so as not to experience a large risk of loss.

Broadly speaking, the findings of this study are in line with the research of (Rakim et al., 2022), (Yanuarsyah, 2021), (Wirawan & Sumirat, 2021), (Sari et al., 2020), (Yulita & Rahayu, 2019), and (Sitorus & Hutasoid, 2017). That strategy for valuing stock portfolios by implementing the Benjamin Graham number investment strategy can assist investors in making investment decisions, so they can find maximum returns in the long term by minimizing potential risks. Even so, this method can be rejected by the research of (Lin & Sung, 2014), that the Graham number method is considered too simple because it is only focused on earnings ratios and stock price ratios, where changes can occur depending on market conditions so that the returns that investors get do not change. can be optimal (Lin & Sung, 2014). Therefore it is necessary to have a combination with other stock valuation methods that can support and strengthen the determination of companies that are undervalued or overvalued and prospects for company performance in the future (Jahan et al., 2016).

The method put forward by Benjamin Graham or the graham number is indeed very suitable when applied to foreign stock markets such as America (Dow Jones Index) and the Indian stock market (Nifty Index) (Srivastava & Kulshrestha, 2020) as international stock exchange trading centers. with a level of market movement that is quite active and massive, but it is not wrong if we as investors can implement this method on Indonesian stocks as anticipation of investors in minimizing the risk of losses in the capital market, where stock movement activity is not only influenced by internal or external factors alone but can also be influenced by micro and macroeconomic factors of the world.

V. CONCLUSION

Based on the results of the discussion, the shares of sharia bank fall into the graham number category, the first category in the EPS index should be above 30% for the past five years and only the BTPS shares fall into the exceed. In addition, the maximum PER ratio category is 15 times, obtained by the PNBS shares that met it in the last two years. Then the PBV ratio is less than 1.5 times, it is obtained that the PNBS shares are included in the Graham number criterion. Meanwhile, the graham number intrinsic value assessment category of PNBS shares is higher than the market price of PNBS shares, which means that these shares are considered undervalued or cheap, even though the value of the profit to be made by investors or the margin of safety is quite small, namely, only 7% compared to the safety risk limit. Graham's number is set to less than 33%, in conclusion, PNBS stock can be put on the stock recommendation buy wish list even though it carries no small risk. While the other two stocks, BRIS and BTPS, are in overvalued or overpriced condition, even the percentage of MOS that investors get reaches negative 24% for BRIS and negative 39% for BTPS. The three Islamic bank stocks experience an overvalued/expensive condition above the criteria set by Benjamin Graham, the cause is that investor euphoria is quite high regarding the news of the merger of Bank Syariah Indonesia so it can be concluded that the three Islamic banking stocks have considerable investment risks. Therefore, investors need to wait and see until the position of the Islamic bank's stock price is close to its fair price.

REFERENCES

Alhazami, L. (2020). Valuasi saham yang masih layak untuk dikoleksi di bursa efek Indonesia (BEI) pada Saat pandemik covid-19. *Jurnal Ilmiah Akuntansi Dan Keuangan, 9*(2), 139–149. https://doi.org/10.32639/jiak.v9i2.526

Antoni, Juwita, R., & Wijayanti, A. P. (2020). Penentuan nilai harga wajar saham menggunakan metode gordon growth model. *Co-Value: Jurnal Ekonomi, Koperasi & Kewirausahaan*, *11*(3), 77–82.

Budiman, R. (2020). *Investing is easy*. PT Elex Media Komputindo.

Ervian, P. (2015). *Pemanfaatan metode value investing Benjamin Graham untuk meraih capital gain di bursa efek Indonesia*. Universitas Kristen Satya Wacana.

Graham, B., & Dood, D. L. (2014). *Security analysis: Principles and techniques*. McGraw Hill.

Halim, A. (2005). *Analisis investasi*. Salemba Empat.

Hutabarat, F. (2022). Value investing analysis: A look at Anthony Salim portfolio. *8ISC Proceedings: Business*, 58–65.

Islami, R. G. (2020). *Valuasi nilai wajar saham dengan metode DCF (Discounted Cash Flow) dalam pengambilan keputusan investasi pada perusahaan pertambangan tahun 2015-2019*. Unpublished thesis. Universitas Semarang.

Jahan, N., Chehb, J. J., & Kim, I. (2016). A comparison of Graham and Piotroski investment models using accounting information and efficacy measurement. *Journal of Economic & Financial Studies*, *04*(01). https://doi.org/http://dx.doi.org/10.18533/jefs.v4i1.219

Kaniati, R., Prakoso, R., Ateniyanti, Sopiani, M., & Siahaan, F. L. W. (2020). *Peluang investasi saham dalam pandemi covid 19 melalui pendekatan price earning rasio, price book value dan margin of safety di bursa efek Indonesia*. Unpublished thesis. Universitas Pancasila.

Kurniawan, R. (2020). *Multibagger: Cara Meraih Profit > 100% Dari Pasar Saham*. PT Elex Media Komputindo.

Kusmayadi, I., Ahyar, M., Muhdin, & Oktaryani, G. (2020). Prospek saham perbankan di Indonesia. *Jurnal Magister Manajemen Universitas Mataram, 9*(2), 175–185. https://doi.org/10.29303/jmm.v9i2.547

Lin, J., & Sung, J. (2014). Assessing the Graham's formula for stock selection : Too good to be true? *Open Journal of Social Science*, *2*(3), 1–5. http://dx.doi.org/10.4236/jss.2014.23001

Petrova, E. (2015). Value investing - Essence and ways of finding undervalued assets. *International Conference Knowledge-Based Organization, 21*(2), 344–348. https://doi.org/10.1515/kbo-2015-0057

Puspaningtyas, L., & Intan, N. (2021). *Mantapnya kinerja 2 bank syariah, ungguli bank konvensional*. Retrieved from https://www.republika.co.id/berita/qsr4uy440/mantapnya-kinerja-2-bank-syariah-ungguli-bank-konvensional-part1

Rachmattulah, M. F., & Faturohman, T. (2016). The implementation of Benjamin Graham criteria (A case in Indonesia market). *Journal of Business and Management*, *5*(6), 773-782.

Rakim, A. A., Iqbal, M., & Misra, I. (2022). Analysis of investment strategy in Indonesian consumer goods industry: Benjamin Graham's approach. *Diponegoro International Journal of Business*, *5*(1), 57–69. https://doi.org/10.14710/dijb.5.1.2022.57-69

Sari, P. S., Ghozi, S., & Rakim, A. A. (2020). Analisis harga wajar saham sektor perbankan pada bank Buku IV dengan metode Benjamin Graham. *Jurnal Tugas Akhir Mahasiswa Akuntansi Poltekba (JMAP)*.

Sekaran, U., & Bougie, R. (2017). *Metode penelitian untuk bisnis*. Salemba Empat.

Sidik, S. (2021). *Tumbuh pesat, Investor pasar modal RI tembus 7,48 juta*. Retrieved from https://www.cnbcindonesia.com/market/20211230160504-17-303338/tumbuh-pesat-investor-pasar-modal-ri-tembus-748-juta

Sitorus, F. Y., & Hutasoid, P. S. J. K. (2017). Pengaruh EPS dan return saham terhadap IHSG BEI menggunakan value investing dari Benjamin Graham. *Fundamental Management Journal*, *2*(1), 16–21. https://doi.org/10.33541/fjm.v2i1.426

Srivastava, V. K., & Kulshrestha, N. (2020). Portfolio selection and performance evaluation through Benjamin Graham's value investing. *Indian Journal of Finance and Banking*, *4*(2), 11–16. https://doi.org/10.46281/ijfb.v4i2.688

Widyawinata, R. (2022). Graham number: Apa itu, rumus, perhitungan dan pengaruhnya. Retrieved from https://glints.com/id/lowongan/graham-number-adalah/#.Yp7Mr6hBzIU

Wirawan, G. H., & Sumirat, E. (2021). Performance analysis of investment portfolio strategy using Warren Buffett, Benjamin Graham, and Peter Lynch method in Indonesia stock exchange. *European Journal of Business and Management Research*, *6*(4), 394–401. https://doi.org/10.24018/ejbmr.2021.6.4.1040

Yanuarsyah, I. (2021). *Pengaruh rasio keuangan terhadap harga dan valuasi saham berdasarkan kriteria Benjamin Graham dengan analisis regresi*. Unpublished Thesis. Institut Teknologi Sepuluh Nopember.

Yulita, I. K., & Rahayu, C. W. E. (2019). Hospitality and tourism industry performance in Indonesia based on Benjamin Graham's perspective. *Jurnal Ilmu Manajemen Dan Bisnis*, *10*(1), 9–16. https://doi.org/10.17509/jimb.v10i1.14485