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Comprehensive Analysis of Indonesian Retail Stocks Valuation in 2023

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ABSTRACT

Modern retail businesses in Indonesia are growing rapidly thanks to open market opportunities, manufacturing businesses that support product supply, and government support for economic growth through retail development. The purpose of this study is to determine the intrinsic value of shares of companies engaged in the food and staples retail sub-sector which in this case is represented by PT. Sumber Alfaria Trijaya, Tbk. (AMRT), PT. Diamond Food Indonesia, Tbk. (DMND), PT. Midi Utama Indonesia, Tbk. (MIDI), PT. Enseval Putera Megatrading, Tbk. (EPMT), and PT. Millenium Pharmacon Internatioanl, Tbk. (SDPC) listed on the Indonesia Stock Exchange (IDX). This research uses historical data for 2018-2022 which will be used as the basis for projections for 2023-2027. The results showed that by using the Discounted Cash Flow (DCF) method, specifically the Free Cash Flow to Firm (FCFF) approach, under an optimistic scenario, the intrinsic values of AMRT, SDPC, and DMND were undervalued. EPMT and MIDI stocks are overvalued. In the moderate scenario, the intrinsic values of AMRT, MIDI, EPMT, and DMND are overvalued, while SDPC is undervalued. Calculations on a pessimistic scenario, all companies studied are overvalued. In this study, the valuation of stocks was also conducted using the Relative Valuation (RV) method with the Price to Earnings Ratio (PER) and Price to Book Value (PBV) approaches. In an optimistic scenario, the stocks of AMRT, MIDI, and SDPC are considered expensive, while EPMT and DMND are seen cheap. In a moderat scenario, the stocks AMRT, EPMT, and SDPC are considered undervalued, while MIDI and DMND are seen expensive. In a pessimistic scenario, it is observed that AMRT, EPMT, and SDPC are undervalued, whereas MIDI and DMND are considered overvalued. This research aims to provide an objective assessment of the company, which investors can use to consider investments and by companies to enhance corporate value.

Introduction

The economy of Indonesia is predicted to increase by 5.31 percent in 2022. Several business areas will experience this increase. Transportation and industry will grow at the highest rate, at 19.87 percent. Following closely were the sectors for accommodation and beverage providers, which had an increase of 11.97 percent, and other services, which saw growth of 9.47 percent. The processing sector will rise by about 4.89 percent in the meantime. The areas of wholesale and retail commerce, automobile and motorcycle maintenance, agriculture, forestry, and fishing will all see growth of 2.25 percent and 5.52 percent, respectively (Ministry of Finance of the Republic of Indonesia, 2023).

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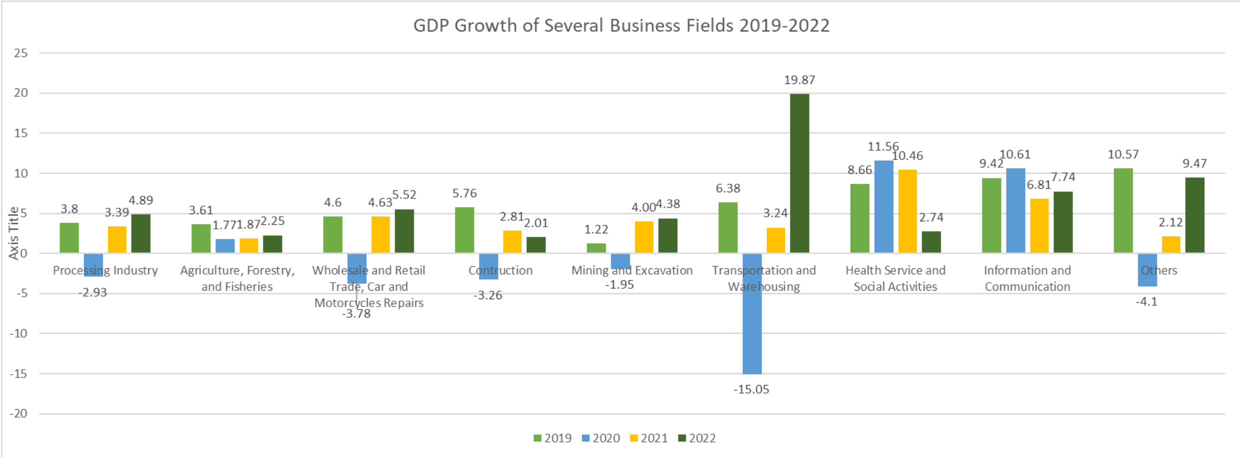

Figure 1: GDP Growth of Several Business Fields 2019-2022

Due to the trade sector's importance on gross domestic growth over the past four years, it has evolved into one of the crucial sectors that decide Indonesia's economic growth. (GDP). The large and retail industries consistently contribute to GNP growth between 4.6 percent and 5.52 percent, according to data on GDP growth from numerous enterprise sectors, while in 2020 there will be a decrease as severe as 3.78 percent (BPS, 2023). The following provides details on large- and small-scale trade, as well as auto repairs, for the years 2018 through 2022:

Table 1: Value of Wholesale and Retail Repair Subsector, Automobiles and Motorcycles 2018–2022 (In millions)

Sector	2018	2019	2020	2021	2022
Wholesale and Retail Trade, Repair of Cars and Motorcycle	**1,931,813.00**	**2,060,269.00**	**1,994,126.00**	**2,199,935.20**	**2,516,591.00**
Car, Motorcycle Trade and Repair	386,620.00	416,437.00	360,036.00	407,988.20	439,166.00

The capital market serves two tasks simultaneously the economic function and the financial function making it a key indicator of a nation's economic progress as well as a support for the national economy (Immanuel et al., n.d.) The Jakarta Composite Index (JCI) has had large monthly changes during the previous ten years. On March 9, 2020, the return on the whole share price reached its lowest point, returning -6.58 percent. The extensive spread of the coronavirus conflicts over oil prices, and interest rate reductions by the US Federal Reserve are the three primary external variables that have an impact on this volatility, according to OJK Deputy Commissioner for Capital Market Supervision II (Rully M. Ramli, 2020).

The stock price index rebounded after achieving a maximum return of 10.19% on March 26, 2020. The phenomenon of ups and downs in stock returns can be seen below:

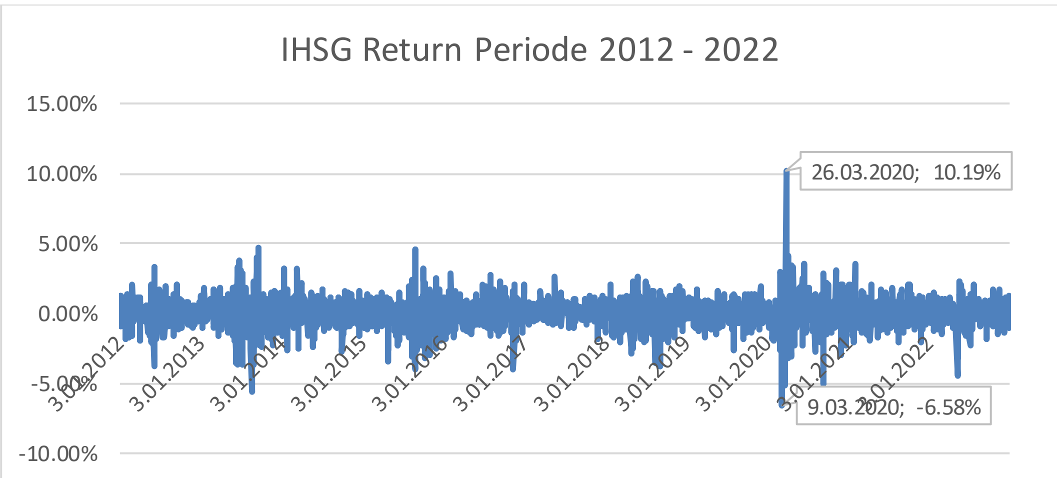

Figure 2: IHSG return movement for the period 2012 – 2022

The Consumer Non-Cyclicals subsector of the food and staples retail industry is one of the trade sectors. There are five of them with profitable operational patterns during the last five years: EPMT, DMND, SDPC, AMRT, and DMND. (idx.co.id, n.d.)

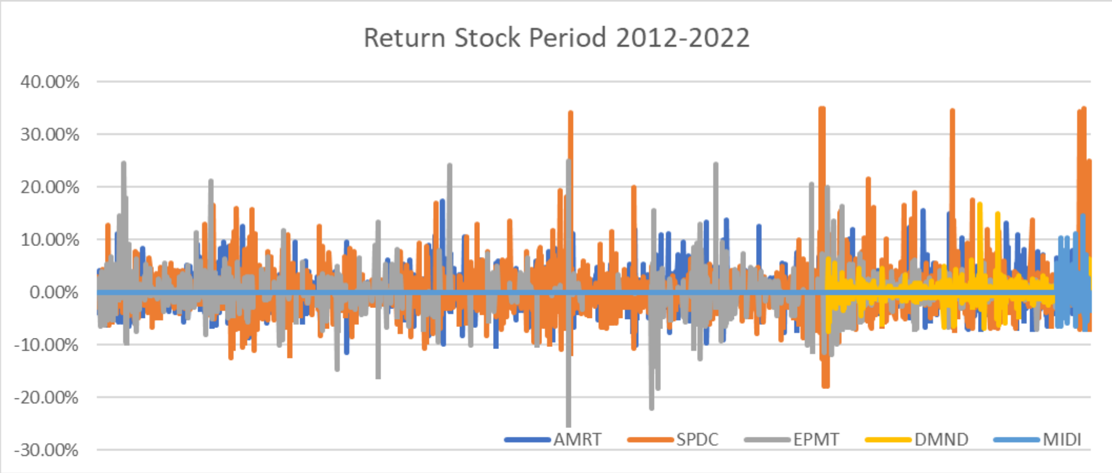

Figure 3: Stock Return Movement for the Period 2012 – 2022

Staples Retailing and corporations in the food industry both experience extremely high stock return volatility. The volatility of the return movement of the five equities is higher than the return movement over the previous 10 years when compared to the return movement of IHSG. The discrepancy between IHSG results and the fifth component of the return, which is the subject of this study, is seen in Table 2 below.

Table 2: Stock Return Volatility Comparison

	Minimum Return	**Maximum Return**
IHSG	-6,58%	10,19%
AMRT	-11,40%	17,31%
SDPC	-17,86%	34,88%
EPMT	-25,00%	24,89%
MIDI	-18,00%	25,00%
DMND	-18,89%	16,77%

Stock returns that fluctuate greatly reveal the risk associated with the security; if a stock is very volatile, investors may assume that it will increase in value quickly. However, extreme volatility will also lead to significant losses (Dalilah & Hendrawan, 2021).

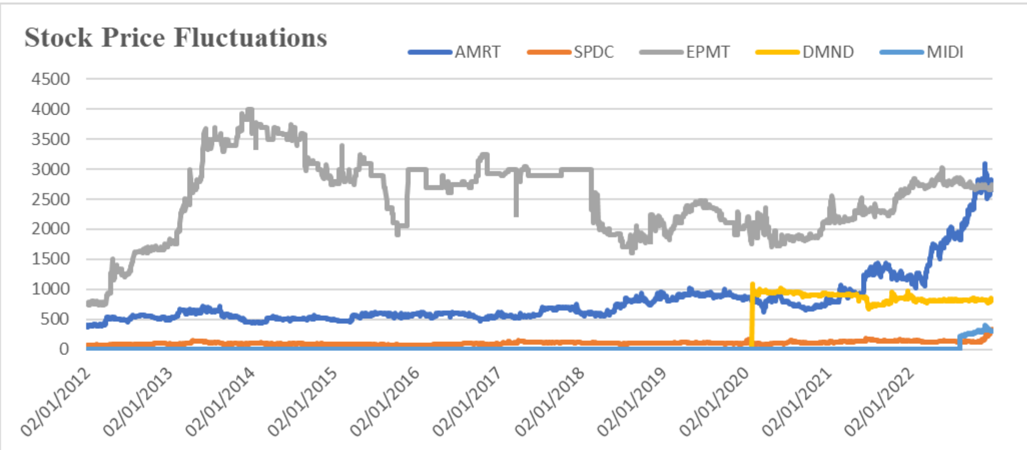

Figure 4: Stock Price Fluctuations for the Period 2012 – 2022

Several elements contribute to movements in stock prices that are difficult to anticipate. Additionally, incorrect stock values exist (too expensive or too cheap). (Hendrawan & Permadi, 2019) To prevent any losses, investors should do a more thorough investigation before making a purchase. Asymmetric information theory, also known as signal theory, contends that internal stakeholders like investors, creditors, underwriters, and other stakeholders have less access to information about a company's activities and future than external parties like management. Companies are frequently more prone to issue additional shares when their prospects are less favorable. This is because the issue of additional shares has the potential to send the market the wrong signals, which might ultimately cause the value of shares to decline. Consequently, as the stock price rises, shareholders might profit financially since it is thought that the rising stock value is a sign that the firm is worth more. (Bergh et al., 2014) (Przepiorka & Berger, 2017) (Nguyen, 2018).

The performance and financial health of the firm must also be evaluated by investors using a variety of metrics, one of which is valuation. Therefore, a stock valuation study must be done to ascertain the intrinsic worth of the stock before an investor agrees to invest. The basic study of businesses, especially publicly traded ones, is the basis of intrinsic value. (Julia & Hendrawan, 2021) (Damodaran, 2012) (Jeffrey C. Hookie, 1998).

Literature Review

Valuation Theory

An asset's worth is assessed through valuation, which is done in comparison to other assets of a similar type or the context of an expected return on liquidation. In contrast, valuation is a mix of expertise and originality required in the business and investing worlds to determine the true worth of a certain stock. (Pinto & Henry, 2015) (Damodaran, 2012). The worth of the present cash flows that will be acquired during the shareholder company's lifespan is what is referred to as the stock's intrinsic value. (Damodaran, 2011)

Discounted Cash Flow (DCF)

By modifying the predicted future cash flow at an interest rate that represents the amount of risk associated with it, the discounted cash flow (DCF) approach determines the present value of an asset based on its projected future cash flow. (Damodaran, 2006). The basic formula for calculating the cash flow that can be generated by this method is as follows:

$$\textbf{Value of a firm} \sum_{t=1}^{t=n} \frac{CF_t}{(1+k_c)^t}$$

Free Cash Flow to the Company (FCFF)

All parties with a stake in the company, including common shareholders, bondholders, and preferred shareholders, may utilize the entire cash flow known as "free cash flow to a firm" (FCFF). The general calculation formula to get Free Cash Flow to Firm (FCFF) is as follows:

FCFF
- EBIT*(1-tax)
- (Capital expenditures – Depreciation – Amortization)
- (Change in Non-Cash Working Capital)

In this method, the weighted average cost of capital (WACC) is used as a multiplier to calculate the present value of free cash flow to the firm (FCFF). In this way, the value of the enterprise will be obtained by the following formula: (Damodaran, 2006)

$$\textbf{of firm} = \sum_{n=t}^{t} \frac{FCFF_t}{(1+WACC)^t}$$

Information:
FCFF = Free cash flow to the company
WACC = Weighted Average Cost of Capital
t = Period in years

Terminal Value (TV)

The current worth of all predicted future cash flows following the period taken into account in the scenario analysis is known as terminal value. Value terminals' key idea is to take a consistent growth rate over a longer period of analysis. The use of a straightforward discounted dividend model to calculate terminal value is made possible by the constant growth rate and the discount rate established by the Weighted Average Cost of Capital (WACC). In light of this, the terminal value can be expressed as follows. (Damodaran, 2012):

$$\textbf{Terminal value}_t = \frac{\text{Cash flow}_{t+1}}{(r - \text{Stable growth})}$$

Relative Valuation (RV)

Due to its various benefits, including calculating techniques based on comparable factors from several reference firms, a relative valuation is a valuation approach that is frequently employed by investors. For investors, the RV technique is simpler and easier to grasp than DCF. Finally, since the RV approach is used relativistically rather than intrinsically, it may display market circumstances. With the DCF approach, the value produced is also more in line with market pricing circumstances.

Price to Earnings Ratio (PER)

The Price Earning Ratio (PER) is a metric that evaluates how earnings per share compare to market price per share. (Damodaran, 2012). In this PER idea, calculations are done to calculate how much a company's revenue is worth about the value of its stock price. P/E, to put it simply, is a ratio between the stock price and the company's profit. The formula for computing PER is shown below. (Damodaran, 2006):

$$\textbf{PER} = \frac{\textbf{Market Price per share}}{\textbf{Earning Per Share}}$$

Price to Book Value (PBV)

By comparing the stock price with the book value per share, a technique known as price-to-book value (PBV) can be used to calculate the asset's worth. Another method of determining stock value is to look at the correlation between stock price and book value per share. The formula used to calculate PBV is:

$$\textbf{PBV} = \frac{\textbf{Market price per share}}{\textbf{Book value per share}}$$

In addition, this study also uses several previous research results as a reference in determining the methodology and calculation method:

Dalilah & Hendrawan, (2022), conducted research entitled: "Stock Valuation in Pharmaceutical Subsector Companies using the Discounted Cash Flow and Relative Valuations Methods in 2013-2020". The results of this analysis show that when using the DCF-FCFF technique, KLBF shares are overvalued by about 7,897 percent, while KAEF shares are valued too much overall at about 57,817 percent. PYFA shares were overpriced at roughly 16,662 percent, while DVLA shares had a low valuation of about 370,865 percent. Both the DC F and RV techniques are covered by these findings.

Hariyanto & Kristanti, (2021) conducted research entitled: "Equity Valuation of Cement Companies on the Indonesia Stock Exchange". The predicted value of INTP, SMGR, SMCB, and SMBR shares in 2019 was shown to be excessive in all cases by using the DCF technique. In an optimistic scenario, the PBV technique determines that the stocks of INTP and SMCB are cheap, while the stocks of SMB and SMBR are overpriced. The estimated share values of INTP, SMGR, SMCB, and SMBR are likewise deemed excessive under a realistic and gloomy scenario.

Natalia et al., (2019), In consumer products firms, examine stock price valuation utilizing the Dividend Discount Model, Price Earnings Ratio, and Price Book Value methodologies. Historical data from 2013 to 2017 were used in the study. Companies GGRM, HMSP, ICBP, INDP, KLBF, MERK, and UNVR were among those polled. According to the findings of this study, seven consumer goods businesses' share prices are generally undervalued. The best financial move is to purchase shares of the firms listed b elow: GGRM, HMSP, ICBP, INDP, KLBF, MERK, and UNVR.

Liu (2019) asserts that analyzing the automobile sector is a difficult undertaking that calls for rigorous analytical thought. This study used the Free Cash Flow to Firm (FCFF) approach to the Discounted Cash Flow (DCF) technique and the Price-to-Earnings Ratio (PER), Price-to-Book Value (PBV), and Price-to-Sales (P/S) methods to the Relative Valuation method. Additionally, the appropriate discount rate is determined using the Capital Asset Pricing Methodology (CAPM) model. According to th e study's conclusions, Ferrari and Tesla are overpriced while Ford is undervalued.

Laitinen (2019), "Valuation of Equity Securities, Private Companies, and StartUp" study was undertaken. Discounted Cash Flow, often known as DCF, is generally the most popular technique of evaluation in StartUp valuation, followed by Internal Rate of Return (IRR) and Payback Period approaches. The findings demonstrated that the adoption of DCF encouraged StartUps' slower development and had shorter payback times, but also had a high IRR rate. IRR plays a bigger part in the DCF technique the lon ger the StartUp time series is employed in the study

Research Methods

The positivist philosophy-based quantitative approaches were used in this study. This approach is used to look at several people inside a specific population or sample. Research instruments are used to gather data, and statistical methods and a quantitat ive approach are used to analyze the findings. Researchers utilize the purposive sampling approach, which is a purposeful sample selection procedure when it comes to sampling techniques. This is carried out because only specific samples are thought to re flect or offer pertinent data to address the study issue. The information utilized in this study came from secondary data, or information that was gathered by third parties for reasons outside of research. The subject of this study is a variable called the intrinsic v alue of shares, which is examined in light of the company's core values. (Sugiyono, 2022) (Indrawati, 2018) (Bougie &; Sekaran, 2020)

Twelve businesses that are active in the food and staples retail sub-sector will be taken into account for this study's population. (idx.co.id, n.d.) Positive examples of five businesses with five (five) years of positive growth on average are provided. Be cause investors should anticipate receiving returns on assets kept for a specific amount of time, these criteria is chosen. (Damodaran, 2012a).

Technical Data Analysis

This study combines the Free Cash Flow to Company (FCFF) technique with the Cash Flow Discount (DCF) method. Application of the DCF-FCFF and RV techniques can serve as a roadmap to aid in future decision-making. (Damodaran, 2012). (Deddy Firdaus, 2023) Several phases make up the research process, including combining historical data to serve as a foundation for forecasts, assembling projections, and examining financial statement ratios and revenu e growth figures. The following phase entails calculating free cash flow, cost of capital, terminal value, firm value (EV), and intrinsic value of shares. Additionally, relative valuation methods like the price-to-earnings ratio (PER) and price book value approach are used to analyze the intrinsic value of stocks (PBV). The last step is to assess the stock's fair worth by contrasting it with its current market price. After determining if the company is cheap, fairly priced, or overvalued, the comparison's findings will lead to recommendations for investors on whether to purchase, hold, or sell the stock. (Soelistyo & Hendrawan, 2022).

Results

PT Sumber Alfaria Trijaya Tbk.

On December 31, 2008, the company entered the IDX with an initial offering of IDR 395 per share. The closing price of AMRT's shares as of December 30, 2022, was IDR 2,650 per share with an outstanding share of 41,524,501,700 shares. (Alfamart, Minimarket Indonesia - Shop Satisfied Exact Price - Alfamart , n.d.)

From the calculation, AMRT's WACC score is 9.1%. By defining AMRT's growth projections across scenarios, the projections of AMRT's FCFF, Terminal Value, Company Value, and Equity Value for 2023-027 are as follows:

Table 3: FCFF AMRT Projections 2023-2027 (Million IDR)

Scenario	Growth Projection	2023	2024	2025	2026	Terminal Value	Enterprise Value	Equity Value
Pessimistic	6.3%	2,632,501	2,791,241	2,959,553	3,138,014	37,523,102	46,775,727	44,286,609
Moderate	9.6%	2,720,930	2,981,913	3,267,929	3,581,379	61,604,586	71,648,942	69,159,824
Optimistic	13.3%	2,812,216	3,185,354	3,608,000	4,086,726	2,812,216	135,853,122	133,364,004

The following are the results of calculating the intrinsic AMRT value using the DCF-FCFF, RV-PER, and RV-PBV methods:

Table 4: AMRT Assessment Results

<table>
<tr><td colspan="7">DCF FCFF</td></tr>
<tr><td>Scenario</td><td>Intrinsic Value (IDR)</td><td colspan="3">Market Price January 2, 2023 (IDR)</td><td>Analyst</td><td>Deviation</td></tr>
<tr><td>Pessimistic</td><td>1.193</td><td colspan="3" rowspan="3">2.660</td><td>Overvalued</td><td>-55%</td></tr>
<tr><td>Moderate</td><td>1.757</td><td>Overvalued</td><td>-34%</td></tr>
<tr><td>Optimistic</td><td>3.304</td><td>Undervalued</td><td>24%</td></tr>
<tr><td colspan="7">Industrial RV-PER</td></tr>
<tr><td>Scenario</td><td>Intrinsic PER</td><td>Minimum</td><td>Middle</td><td>Maximum</td><td>Analysis</td><td>Condition</td></tr>
<tr><td>Pessimistic</td><td>17</td><td rowspan="3">-14,1</td><td rowspan="3">21,12</td><td rowspan="3">112,9</td><td>Undervalued</td><td>Legitimate</td></tr>
<tr><td>Moderate</td><td>25,1</td><td>Overvalued</td><td>Legitimate</td></tr>
<tr><td>Optimistic</td><td>47,2</td><td>Overvalued</td><td>Legitimate</td></tr>
<tr><td colspan="7">RV-PBV</td></tr>
<tr><td rowspan="2">Scenario</td><td rowspan="2">Intrinsic PBV</td><td colspan="3">PBV Industry</td><td rowspan="2">Analysis</td><td rowspan="2">Condition</td></tr>
<tr><td>Minimum</td><td>Middle</td><td>Maximum</td></tr>
<tr><td>Pessimistic</td><td>4,32</td><td rowspan="3">0,89</td><td rowspan="3">4,90</td><td rowspan="3">32,75</td><td>Undervalued</td><td>Legitimate</td></tr>
<tr><td>Moderate</td><td>6,36</td><td>Overvalued</td><td>Legitimate</td></tr>
<tr><td>Optimistic</td><td>11,96</td><td>Overvalued</td><td>Legitimate</td></tr>
</table>

Based on the data in Table 4, AMRT shares are deemed to have an excessively high value in a realistic and moderate scenario since their intrinsic value is less than the market price of IDR 2,660 on January 2, 2023. In contrast, in the most optimistic scenario, AMRT shares are deemed to have low value because their intrinsic value, which equals Rp 3,304 is higher than the market price. In the worst-case scenario, AMRT's intrinsic value is estimated to be Rp 1,193, down from the market price by 55%. In contrast, in the moderate scenario, AMRT's intrinsic value is Rp 1,757, a 34 percent decline from the market price. In the most optimistic case, its intrinsic value rises by 24 percent from the market price to Rp 3,304 in the optimistic scenario. Prior research indicated that the intrinsic value of AMRT, which rose to Rp 8,473.99 under the optimistic scenario, was excessively high. (Julia & Hendrawan, 2021)

Because AMRT's intrinsic value of 4.32 percent is lower than the industry average of 4.90, it is seen as an undervalued company in the Value Book Valuation (PBV) and Value Ratio (RV) techniques. However, given that it is above the industry average, AMRT stock is viewed as being overly costly under a reasonable and optimistic situation. The inherent value of AMRT's PBV is 6.36 times in a reasonable scenario, whereas it is 11.96 times in an optimistic one. Because AMRT's intrinsic PER value of 17.0 is less than the sector average of 21.12, the Earnings Ratio (PER) Valuation Method also demonstrates that AMRT stock is undervalued in a negative scenario. However, given that it is above the industry average, AMRT stock is viewed as being overly costly under a reasonable and optimistic situation. The inherent value of AMRT PER is 25.1 times under normal circumstances and 47.2 times with an optimistic assumption. P/E is a measure of how the market values a firm; the higher the price-earnings ratio, the better the company's performance. Different parties and investors base their stock buying choices on the price-gain ratio. (Pasukodewo & Susanti, 2020)

All AMRT shares are now trading below their fair value, which is Rp 3,304 per share. Even in the most f avorable scenario with the lowest resistance rate of 24%, this result is still true. Because the Price-to-Earnings (PER) and Price-to-Book Value (PBV) of the AMRT shares fall within the typical range in the sector, this is acceptable. Consequently, the suggested investment is to purchase AMRT stock.

PT. Diamond Food Indonesia Tbk.

On January 15, 2020, the Company launched its first public offering, for IDR 915 per share. As of December 30, 2022, DMND's shares closed at IDR 815 per share, and there were 9,468,359,000 shares outstanding. (Diamodfoodindonesia.com 2023) WACC rating of 4.1 percent was obtained by the computation. The estimated FCFF, Terminal Value, Company Value, and DMND Equity Value for 2023–2027 are given by specifying DMND's growth predictions across scenarios:

Table 5: FCFF DMND Projections 2023-2027 (Million IDR)

Scenario	Growth Projection	2023	2024	2025	2026	Terminal Value	Enterprise Value	Equity Value
Pessimistic	6.03%	54,527	57,815	61,301	64,998	5,333,870	5,549,444	5,338,029
Moderate	10,39%	56,772	62,672	69,187	76,378	6,267,767	6,506,681	6,295,266
Optimistic	14,87%	59,075	67,862	77,955	89,550	7,348,642	7,613,568	7,402,153

The following are the results of calculating the intrinsic DMND value using the DCF-FCFF, RV-PER, and RV–PBV methods:

Table 6: DMND Assessment Results

<table>
<tr><td colspan="7">DCF FCFF</td></tr>
<tr><td>Scenario</td><td>Intrinsic Value (IDR)</td><td colspan="3">Market Price January 2, 2023 (IDR)</td><td>Analyst</td><td>Deviation</td></tr>
<tr><td>Pessimist</td><td>678,3</td><td colspan="3" rowspan="3">815</td><td>Overvalued</td><td>-16,8%</td></tr>
<tr><td>Keep</td><td>773,2</td><td>Overvalued</td><td>-5,1%</td></tr>
<tr><td>Optimistic</td><td>890,2</td><td>Undervalued</td><td>9,2%</td></tr>
<tr><td colspan="7">Industrial RV-PER</td></tr>
<tr><td>Scenario</td><td>Intrinsic PER</td><td>Minimum</td><td>Middle</td><td>Maximum</td><td>Analysis</td><td>Condition</td></tr>
<tr><td>Pessimistic</td><td>16,81</td><td rowspan="3">-14,1</td><td rowspan="3">21,12</td><td rowspan="3">112,9</td><td>Undervalued</td><td>Legitimate</td></tr>
<tr><td>Moderate</td><td>19,16</td><td>Undervalued</td><td>Legitimate</td></tr>
<tr><td>Optimistic</td><td>22,06</td><td>Overvalued</td><td>Legitimate</td></tr>
<tr><td colspan="7">RV-PBV</td></tr>
<tr><td rowspan="2">Scenario</td><td rowspan="2">Intrinsic PBV</td><td colspan="3">PBV Industry</td><td rowspan="2">Analysis</td><td rowspan="2">Condition</td></tr>
<tr><td>Minimum</td><td>Middle</td><td>Maximum</td></tr>
<tr><td>Pessimistic</td><td>1,19</td><td rowspan="3">0,89</td><td rowspan="3">4,90</td><td rowspan="3">32,75</td><td>Undervalued</td><td>Legitimate</td></tr>
<tr><td>Moderate</td><td>1,35</td><td>Undervalued</td><td>Legitimate</td></tr>
<tr><td>Optimistic</td><td>1,56</td><td>Undervalued</td><td>Legitimate</td></tr>
</table>

By using the data in Table 6 and the DCF approach, it can be determined that DMND shares are overpriced in a realistic and reasonable scenario since their intrinsic value is less than the market price on January 2, 2023, which will be close to IDR8 15. In a positive scenario, the intrinsic value of DMND shares is more than the market price of IDR 815 making them appear cheap. The intrinsic value of DMND under the pessimistic scenario is IDR 678.3 a loss of almost -16.8% from the market price. The intrinsic value of DMND in the mild scenario is around IDR 773.2 down approximately -5.1 percent from the market price. In a positive scenario, the stock's intrinsic value increased by IDR 890.2 increase of around 9.2% from the market price.

The Price/Earnings Ratio (RV PER) and Value Book Valuation (PBV) techniques value DMND shares below their real value in all circumstances. This is due to the fact that based on PBV, the intrinsic value of DMND shares is less than the industry average of about 4.90 percent. DMND shares are likewise undervalued in moderate and pessimistic scenarios according to the RV-PER approach, as the intrinsic value of DMND PER in both cases is less than the sector average PER of around 21.12. However, DMND stock is viewed as being overly costly in an optimistic scenario since the intrinsic value of DMND PER in this scenario exceeds 22.06 times the industry average.

The intrinsic value of DMND shares is IDR 773.2, with the lowest allowable depreciation in a mild scenario reaching -5.1 percent. Overall, the valuation of DMND shares is overpriced. Because the intrinsic value of the PER (Price-to-Earnings Ratio) and PBV (Price-to-Book Value) of DMND shares in each scenario is within a range that meets with industry norms, this conclusion may be regarded as legitimate. Consequently, the best financial advice is to sell DMND shares.

PT. Enseval Putera Megatrading Tbk.

The IDX has this organization listed as of December 31, 2019. As of December 30, 2022, EPMT has 2,708,640,000 outstanding shares, with a closing price of IDR 2,750 per share. (Enseval.com 2023). The calculation yields a WACC value of 15.9%. By determining the projected EPMT growth across all scenarios according to Table 4.8, the projections of FCFF, Terminal Value, Company Value, and EPMT Equity Value for 2023-2027 are as follows:

Table 7: EPMT FCFF Projections 2023-2027 (Million IDR)

Scenario	Growth Projection	2023	2024	2025	2026	Terminal Value	Enterprise Value	Equity Value
Pessimistic	6.03%	395,301	419,138	444,412	471,210	2,095,445	3,295,941	3,292,231
Moderate	7,42%	400,488	430,209	462,136	496,433	2,349,690	3,588,298	3,584,589
Optimistic	8,9%	406,104	442,359	481,851	524,869	4,808,029	6,088,985	6,085,275

The following are the results of calculating the intrinsic value of EPMT using the DCF-FCFF, RV-PER, and RV-PBV methods:

Table 8: EPMT Assessment Results

DCF FCFF						
Scenario	Intrinsic Value (IDR)	Market Price January 2, 2023 (IDR)			Analyst	Deviation
Pessimistic	1.601	2.750			Overvalued	-41,8%
Moderate	1.688				Overvalued	-38,6%
Optimistic	2.611				Overvalued	-5,0%
Industrial RV-PER						
Scenario	Intrinsic PER	Minimum	Middle	Maximum	Analyst	Condition
Pessimistic	5,2	-14,1	21,12	112,9	Undervalued	Legitimate
Moderate	5,4				Undervalued	Legitimate
Optimistic	8,4				Undervalued	Legitimate
RV-PBV						
Scenario Pessimistic	Intrinsic PBV	PBV Industry			Analyst	Condition
		Minimum	Middle	Maximum		
Pessimistic	0,9	0,89	4,90	32,75	Undervalued	Legitimate
Moderate	0,95				Undervalued	Legitimate
Optimistic	1,0				Undervalued	Legitimate

Based on the information in Table 8, using the DCF method, EPMT shares are overvalued in all scenarios because their intrinsic value is less than their market price of IDR 2,750 on January 2, 2023. For example, in a pessimistic scenario with a counter-market price of -41.8 percent, EPMT's intrinsic value is IDR 1,601. The intrinsic value of EPMT in a reasonable scenario is IDR 1,688 which represents a decline of -38.6% from the market price. While in the more hopeful scenario, its intrinsic worth is Rp 2,611 and the market price would only decline by 5%.

Because its EPMT intrinsic value is less than the 4.90 percent industry average, EPMT stock is deemed to have the potential to be undervalued in a number of situations by the Company's Comparative Valuation to Real Value (PPV) technique. The inherent value of EPMT's PBV is similarly 5.2 times in the pessimistic scenario, 5.4 times in the moderate scenario, and 8.4 times in the optimistic scenario. Given that its intrinsic PER EPMT value is less than the industry average of 21.12, the Earnings Comparison Assessment (PER RV) approach also identifies EPMT stock as being undervalued in a number of situations. More particularly, under the pessimistic, medium, and optimistic scenarios, the intrinsic value of PER EPMT is 0.9 times, 0.95 times, and 1.0 times, respectively.

In all scenarios taken into consideration, it is generally thought that EPMT shares are valued excessively. The bottom limit of resistance in the most optimistic scenario would be -5.0 percent, with the intrinsic value of EPMT shares projected to be approximately IDR 2,611. The fact that the Price-to-Earnings Ratio (PER) and Price-to-Book Value (PBV) values of EPMT shares in all circumstances fall within the range corresponding to comparable industries lends credence to this conclusion. Consequently, it was suggested that these shares be sold.

PT. Midi Utama Indonesia Tbk.

The Company has been listed on the Indonesia Stock Exchange since November 15, 2010, with an initial price offering of IDR 275. The closing price of MIDI shares as of December 30, 2022, was IDR 297 per share with 2,882,353,000 shares outstanding. (Alfamidi , n.d.) The calculation results in a WACC rating of 4.0%. By determining MIDI growth projections across scenarios as per table 4.8, the projections of FCFF, Terminal Value, Enterprise Value, and MIDI Equity Value for 2023-2027 are as follows:

Table 9: MIDI FCFF Projections 2023-2027 (Million IDR)

Scenario	Growth Projection	2023	2024	2025	2026	Terminal Value	Enterprise Value	Equity Value
Pessimistic	6.03%	489,615	519,139	550,443	583,635	36,767,295	38,706,636	36,714,664
Moderate	9.88%	507,400	557,540	612,633	673,171	42,407,812	44,531,621	42,539,649
Optimistic	13.9%	525,717	598,519	681,403	775,765	44,054,245	46,382,434	44,390,462

The following is the result of calculating the intrinsic value of MIDI using the DCF-FCFF, RV-PER, and RV-PBV methods:

Table 10: MIDI Assessment Results

DCF FCFF						
Scenario	Intrinsic Value (IDR)	Market Price January 2, 2023 (IDR)			Analyst	Deviation
Pessimistic	130	297			Overvalued	-56,2%
Moderate	149				Overvalued	-49,8%
Optimistic	155				Overvalued	-47,7%
Industrial RV-PER						
Scenario	Intrinsic PER	Minimum	Middle	Maximum	Analyst	Condition
Pessimistic	94,05	-14,1	21,12	112,9	Overvalued	Legitimate
Moderate	107,63				Overvalued	Legitimate
Optimistic	112,26				Overvalued	Legitimate
RV-PBV						
Scenario	Intrinsic PBV	PBV Industry			Analyst	Condition
		Minimum	Middle	Maximum		
Pessimistic	18,89	0,89	4,90	32,75	Overvalued	Legitimate
Moderate	21,62				Overvalued	Legitimate
Optimistic	22,55				Overvalued	Legitimate

Based on the information in Table 10, the DCF method indicates that MIDI shares are overvalued in all scenarios because their intrinsic value is less than their market price on January 2, 2023, which is IDR 2,750. In a pessimistic scenario with a counter-market price of -56.2 percent, the intrinsic value of MIDI is IDR 130. In a more reasonable scenario, the intrinsic value of MIDI decreased by -49.8 percent from the market price to IDR 149. In a more upbeat setting, however, its intrinsic worth is IDR 155 and its market price has decreased by -47.7 percent.

The employed Price-Earnings Ratio (PER) Based Valuation (PER) and Book Value Based Valuation (PBV) techniques show that MIDI equities are consistently overpriced in all scenarios examined. This is so because the PBV method's intrinsic value for MIDI shares is higher than the sector average of 4.90. The intrinsic value of MIDI PBV reached 18.89 times in the pessimistic scenario, whereas it was 21.62 times and 22.55 times in the moderate and optimistic scenarios, respectively.

MIDI equities are likewise expensive in all situations when using the Price-Earnings Ratio (PER)-based valuation technique. This is as a result of PER MIDI's intrinsic value being below the sector average of 21.12. The intrinsic PER MIDI reached 94.05 times in the pessimistic scenario, 107.63 times in the intermediate scenario, and 112.26 times in the optimistic scenario.

Overall, the numerous scenarios taken into account deem the valuation of MIDI shares to be high. In this study, it can be observed that even in the best-case scenario, with the lowest deficit level reaching -47.7 percent, the intrinsic value of MIDI shares is IDR 155. The PER (Price-to-Earnings Ratio) and PBV (Price-to-Book Value) values of MIDI shares, in all scenarios taken into account, stay within the range corresponding to similar industries, therefore this conclusion may be regarded as being legitimate. Therefore, from the standpoint of the advised investment, selling shares is the proper course of action

PT. Millennium Pharmacon International Tbk.

The company has been listed on IDX since June 7, 2000, with an offering price of IDR 500 per share. The closing price of SDPC's shares as of December 30, 2022, was IDR 332 per share with 2,882,353,000 shares outstanding. (mpi-indonesia.co.id 2022). The calculation yields a WACC of 7.4%. By determining the SDPC growth projections for the entire scenario according to Table 4.8, the FCFF projections, Terminal Value, Company Value, and Equity Value for 2023-2027 are as follows:

Table 11: FCFF SDPC Projections 2023-2027 (Million IDR)

Scenario	Growth Projection	2023	2024	2025	2026	Terminal Value	Enterprise Value	Equity Value
Pessimistic	6.03%	26,627	28,233	29,935	31,740	847,779	944,986	376,928
Moderate	8.89%	27,344	29,774	32,420	35,300	924,321	1,028,206	460,148
Optimistic	11.9%	28,090	31,421	35,146	39,313	1,050,038	1,161,254	593,196

The following is the result of calculating the intrinsic value of SDPC using the DCF-FCFF, RV-PER, and RV-PBV methods:

Table 12: SDPC Assessment Results

<table>
<tr><td colspan="7">DCF FCFF</td></tr>
<tr><td>Scenario</td><td>Intrinsic Value (IDR)</td><td colspan="3">Market Price January 2, 2023 (IDR)</td><td>Analyst</td><td>Deviation</td></tr>
<tr><td>Pessimistic</td><td>324</td><td colspan="3" rowspan="3">332</td><td>Overvalued</td><td>-2,5%</td></tr>
<tr><td>Moderate</td><td>381</td><td>Undervalued</td><td>14,9%</td></tr>
<tr><td>Optimistic</td><td>486</td><td>Undervalued</td><td>46,3%</td></tr>
<tr><td colspan="7">Industrial RV-PER</td></tr>
<tr><td>Scenario</td><td>Intrinsic PER</td><td>Minimum</td><td>Middle</td><td>Maximum</td><td>Analyst</td><td>Condition</td></tr>
<tr><td>Pessimistic</td><td>17,77</td><td rowspan="3">-14,1</td><td rowspan="3">21,12</td><td rowspan="3">112,9</td><td>Undervalued</td><td>Legitimate</td></tr>
<tr><td>Moderate</td><td>20,94</td><td>Undervalued</td><td>Legitimate</td></tr>
<tr><td>Optimistic</td><td>26,67</td><td>Overvalued</td><td>Legitimate</td></tr>
<tr><td colspan="7">RV-PBV</td></tr>
<tr><td rowspan="2">Scenario</td><td rowspan="2">Intrinsic PBV</td><td colspan="3">PBV Industry</td><td rowspan="2">Analyst</td><td rowspan="2">Condition</td></tr>
<tr><td>Minimum</td><td>Middle</td><td>Maximum</td></tr>
<tr><td>Pessimistic</td><td>1,59</td><td rowspan="3">0,89</td><td rowspan="3">4,90</td><td rowspan="3">32,75</td><td>Undervalued</td><td>Legitimate</td></tr>
<tr><td>Moderate</td><td>1,88</td><td>Undervalued</td><td>Legitimate</td></tr>
<tr><td>Optimistic</td><td>2,39</td><td>Undervalued</td><td>Legitimate</td></tr>
</table>

The SDPC stock has various values depending on the scenario considered, according to analysis using the Discounted Cash Flow (DCF) approach based on the data in Table 12. The shares of SDPC are deemed overvalued in a gloomy scenario since their intrinsic value is less than the market price on January 2, 2023, which was IDR 332.-. In a reasonable and hopeful situation, however, these companies would be considered cheap since their intrinsic worth would be greater than their market value. Under specifically, in the mild scenario, SDPC's intrinsic value is IDR 381, with a decline in market value of almost 14.9%. Under contrast, in the optimistic scenario, SDPC's intrinsic value rises to IDR 486, - with a 46.3 percent decline in value relative to the market price.

Due to SDPC's intrinsic Present Value (PV) exceeding the industry average of 4.90, the company is deemed to be overvalued in all scenarios using the Present Value to Residual Value (PPV RV) valuation approach. Particularly, in the pessimistic, moderate, and optimistic scenarios, the intrinsic Price-to-Book Value (PBV) value of SDPC is 1.59 times, 1.88 times, and 2.39 times, respectively. In contrast, according to the RV Price-to-Earnings Ratio (PER) technique, the intrinsic P/E value of SDPC stock is lower than the industry average of 4.90 in both the pessimistic and optimistic scenarios. The intrinsic value of SDPC's PER under the pessimistic and moderate scenarios, respectively, is 17.77 and 20.94. But in a more positive situation, SDPC stock is overpriced with an intrinsic value of PER SDPC reaching 26.67 times.

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With a price per share of IDR 324 the valuation of SDPC shares is generally thought to be higher than its intrinsic value, even under the worst scenario, which would see a loss of -2.5 percent. The PER and intrinsic PBV of SDPC both remain within levels that are compliant with industry norms, making this study credible. Therefore, selling the stock would be the best financial advice to take into account.

Discussion

The DCF-FCFF and RV-PER approaches provide useful suggestions and tools to promote future decision-making that is more logical. This method gives a more accurate image of a stock's genuine value by reflecting the intrinsic value of a stock based on the fundamental information about the firm. On the other hand, because it is impacted by outside variables that are out of the company's control, the stock price that is displayed in the market does not necessarily correspond to its true worth.

According to the findings of this study, EPMT and MIDI stocks were overpriced whereas AMRT, SDPC, and DMND stocks were undervalued when the DCF-FCFF approach was used in an optimistic scenario. Shares of AMRT, MIDI, EPMT, and DMND were determined to be overpriced in the light of the mild scenario, while SDPC remained undervalued. In a gloomy scenario, however, all of the tested corporations are viewed as being overpriced. As long as the complicated PER and PBV are within a range of values that reflect the pertinent industry averages, the results of these computations are trustworthy. Each company's financial performance and growth estimates in three strategies pessimistic, moderate, and optimistic have a significant impact on whether outcomes are overpriced, fair-valued, or undervalued.

Conclusion

Using the Free Cash Flow Discount (DCF-FCFF) method, the Relative Valuation (RV) method with a Price to Earnings Ratio (PER) and Price to Book Value (PBV) approach, and other factors, an objective value evaluation of stocks in the food and staples retail sub-sector of companies listed on the Indonesia Stock Exchange in 2023 was conducted, the following conclusions can be drawn:

To calculate and analyze the intrinsic value of stocks in order to make informed investment decisions in the future, the Discounted Cash Flow (DCF) method with the Free Cash Flows to Firm (FCFF) approach and the Relative Valuation (RV) method with the Price-to-Earnings Ratio (PER) and Price-to-Book Value (PBV) approaches can be helpful tools. The research results using the DCF-FCFF method indicate that the intrinsic value of AMRT is undervalued in an optimistic scenario, overvalued in a moderate scenario, and overvalued in a pessimistic scenario. The intrinsic value of SDPC is undervalued in an optimistic scenario, undervalued in a moderate scenario, and overvalued in a pessimistic scenario. The intrinsic value of DMND is undervalued in an optimistic scenario, overvalued in a moderate scenario, and overvalued in a pessimistic scenario. The intrinsic value of EPMT is undervalued in an optimistic scenario, overvalued in a moderate scenario, and overvalued in a pessimistic scenario. The intrinsic value of MIDI is undervalued in an optimistic scenario, overvalued in a moderate scenario, and overvalued in a pessimistic scenario.

In a pessimistic situation, relative valuation (RV) utilizing the PER shows that EPMT and DMND are undervalued while AMRT, MIDI, and SDPC stock price approaches are expensive. In the mild scenario, MIDI and DMND are viewed as overpriced while AMRT, EPMT, and SDPC are undervalued. In contrast, AMRT, EMPT, and SDPC are undervalued in the gloomy scenario. MIDI and DMND, on the other hand, are overpriced. In the PBV technique, SDPC was consistently undervalued whereas MIDI was overpriced in every scenario. In realistic and pessimistic situations, the stocks of AMRT, EPMT, and DMND are undervalued. While it is overpriced in the optimistic scenario. The aforementioned computation is accurate since the intrinsic values of the PER and PBV of the stocks of AMRT, DMND, EPMT, MIDI, and SDPC all fall within the acceptable range for the sector.

Based on the findings of this study, investors are advised to purchase AMRT shares or hold onto their existing holdings. While it is advised to sell the stocks of DMND, EPMT, MIDI, and SDPC since their present stock prices exceed their real worth.

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