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"Investment in Marine Industry"

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Jl. Raya Meruya Selatan, No.1 - Kembangan - West Jakarta - 11650
Phone : +6221.5840816 ext. 5302, 5311, 5313, Fax : +6221.5871312
Website : http://ismb.mercubuana.ac.id
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BENJAMIN GRAHAM’S STOCK VALUATION FORMULA
(CASE STUDY OF PT. WINTERMAR OFFSHORE MARINE)

International Business Management, Ciputra University
Cliff Kohardinata., SE., MM.,Ak.,CA
ckohardinata@ciputra.ac.id

Abstract

Before making investment decision in stock or company, Investors must do the deep analyze to find the company with durable competitive advantage, but after they have found it, usually question is “how much is it worth? Is it undervalue? Benjamin Graham is Father of value investing, and He is the mentor of the best investor in the world is Warren Buffet. Benjamin Graham creates a simple formula to find under value Company. In this paper, we will value PT. Wintermar Offshore Marine Tbk and PT. Trada Maritime Tbk use Benjamin Graham’s formula adjusted with Indonesia condition, both companies specialized in marine industry that have the same focusing on serving the offshore marine industry.

Keywords: Value, Investing, Benjamin Graham’s Formula
Benjamin Graham's Stock Valuation Formula
(Case study of PT. Wintermar Offshore Marine)

Before making investment decision in stock or company, Investors must do the deep analyze to find the company with durable competitive advantage, but after they have found it, usually question is “how much is it worth? Is it undervalue? Benjamin Graham is Father of value investing, and He is the mentor of the best investor in the world is Warren Buffet. Benjamin Graham creates a simple formula to find under value company. In this paper, we will value PT. Wintermar Offshore Marine Tbk and PT. Trada Maritime Tbk use Benjamin Graham’s formula adjusted with Indonesia condition, both companies specialized in marine industry that have the same focusing on serving the offshore marine industry.

Keywords: Value, Investing, Benjamin Graham’s Formula

1. Research Background

The best investor is investor could find company with durable competitive advantage and buy it in or under fair price, therefore investor must have at least two questions are: first, how to find company with durable competitive advantage? Second, how much to spend money to invest in that company? This study will focus in second question that will be answered by valuation of the company. “Accounting is the language of business. Those who wish to value companies and invest successfully in the long term have to be able to understand and interpret financial statements” (Schmidlin, 2014, p. 159), Warren Buffet says that “Financial statements are where Warren mines for companies with the golden durable competitive advantage” (Buffet & Clark, 2008, p. 18). In this study will use earning per share to value companies, the method that will use to value is formula that created by Benjamin Graham, He is one of the great investors and He is lecturer of the legendary investor is Warren Buffet. Case for valuation will use companies in the marine industry is PT. Wintermar Offshore Marine Tbk and PT. Trada Maritime Tbk.

2. Valuation & Benjamin Graham Stock’s Valuation formula

In this study will focus on valuation therefore we have to know about valuation, “Company valuation is concerned with deriving the fair value of company”, the value of companies could determine by different ways. In this study will use Benjamin Graham’s stock
valuation formula, Benjamin Graham’s approach was far from glamorous seems aimed at the defensive investors, “According to Graham, the defensive (or passive) investor’s main aims were the avoidance of serious mistakes or losses” (Reese, 2009, p. 42).

Basic Benjamin Graham stock’s valuation formula will find the intrinsic value of the company with a formula: “Intrinsic value = current earnings x (8.5 plus twice the expected annual growth rate)” (Graham, 2003, p. 295). According to http://www.joshuakennon.com/benjamin-graham-intrinsic-value-formula/, “The formula needs to be modified, though, because all intrinsic value calculations and formulas are based upon the opportunity cost relative to the risk-free interest rate”. Therefore, adjust Ben Graham’s formula as follows:

\[ IV = \frac{EPS \times (8.5 + 2g) \times 4.4}{Y} \]

IV = Intrinsic Value
EPS = Earnings Per Share
8.5 = Fair Price to Earnings Ratio
G = Estimated growth in EPS
4.4 = Risk free rate
Y = The Current Yield of AAA Rated Corporate Bonds

The Benjamin Graham formula has to adjust to the Indonesia condition as follows:
Risk free rate using the BI rate for April 2015 that be announced at www.bi.go.id is 7.5%, the current yield on AAA rated corporate Bonds around 8.25% - 9.6%, for safety could use 10%, therefore adjusted formula in Indonesia condition is:

\[ IV = \frac{EPS \times (8.5 + 2g) \times 7.5}{10} \]

Estimated growth in EPS using CAGR (Compound annual growth rate), with formula:

\[ CAGR_{\text{year } 1; \text{ year } n} = \left( \frac{\text{earnings year } n}{\text{earnings year } 1} \right)^{\frac{1}{n-1}} - 1 \]

Figure 1. CAGR Formula (Schmidlin, 2014)
2.1. Margin Of Safety

Benjamin Graham used a margin of safety to buy shares, it means that “He buying shares of a company only when they traded at a large discount” (Greenblatt, 2010), “You also have to have the knowledge to enable you to make a very general estimate about the value of the underlying businesses. But you do not cut it close. That is what Ben Graham meant by having a margin of safety. You don’t try and buy businesses worth $83 million for $80 million. You leave yourself an enormous margin. When you build a bridge, you insist it can carry 30,000 pounds, but you only drive 10,000-pound trucks across it. And that same principle works in investing” (Graham, 2003, p. 547).

“Margin of safety’s formula is (Intrinsic value - share price) : Intrinsic value x 100%” (Ang & Chng, 2013), but at what price we have to buy shares? “The margin safety, as Graham described, is always dependent on the price paid. He sometimes suggested that it should be at least 50 percent more. This concept gives assurance that stocks bought were invested wisely” (Dave, 2014), therefore we will buy shares if discount around 50%.

3. Result

3.1. Intrinsic value of PT Wintermar Offshore Marine Tbk

3.1.1. Estimated EPS Growth for PT Wintermar Offshore Marine Tbk

Table 1 is EPS (earning per share) from PT Wintermar Offshore Marine Tbk for the period 2011-2014, historical EPS used for preparing growth estimation.

<table>
<thead>
<tr>
<th>Year</th>
<th>EPS</th>
</tr>
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<tbody>
<tr>
<td>2011</td>
<td>$0.0046</td>
</tr>
<tr>
<td>2012</td>
<td>$0.0057</td>
</tr>
<tr>
<td>2013</td>
<td>$0.0072</td>
</tr>
<tr>
<td>2014</td>
<td>$0.0055</td>
</tr>
</tbody>
</table>


The Calculation for estimation of EPS growth using CAGR:

\[
CAGR = \left( \frac{0.0055}{0.0046} \right)^{\frac{1}{3}} - 1 = 6.14\%
\]

Estimated growth (G) that use for PT Wintermar Offshore Marine Tbk to find intrinsic value is 6.14%
3.1.2. Intrinsic value for PT Wintermar Offshore Marine Tbk

The following is calculated of intrinsic value using Benjamin Graham stock’s valuation formula:

\[
\text{Intrinsic value} = \text{EPS} \times (8.5 + 2G) \times 7.5
\]

\[
Y = 0.0055 \times (8.5 + (2 \times 6.14)) \times 7.5 = 0.09
\]

Intrinsic value of PT. Wintermar Offshore Marine Tbk is $0.09, Figure 2 is exchange rate between IDR and USD among Apr 09 until Apr 21’2015, Figure 2 shown that $1 equal to around 12,900 -13,000, this study will convert US$ to rupiah with worst case that the exchange rate is 12,000 per US$, therefore intrinsic value in Rupiah is $0.09 \times 12,000 = \text{Rp 1,029}.

Figure 2. Exchange rate Apr 09 – Apr 21’2015 (www.bi.go.id)

3.1.3. Margin of Safety for PT Wintermar Offshore Marine Tbk’s Intrinsic value

The Intrinsic value of PT Wintermar Offshore Marine Tbk is Rp 1,029, and market value or share price using the closing price at Apr 22’ 2015 is Rp 505, Margin of Safety = (1,029-505) /1,029x100% = 50.92%. According to Benjamin Graham rule, PT Wintermar Offshore Marine Tbk share price is undervalued.
3.2. Intrinsic value of PT Trada Maritime Tbk

Table 2 is earning per share from PT Trada Maritime Tbk for the period 2011-2014, historical EPS used for estimate future growth.

Table 2. EPS from PT Trada Maritime Tbk for year 2011-2014

<table>
<thead>
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<th>2011</th>
<th>2012</th>
<th>2013</th>
<th>2014</th>
</tr>
</thead>
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<tr>
<td>EPS</td>
<td>$0.0014</td>
<td>$-0.0033</td>
<td>$0.00017</td>
<td>$-0.0072</td>
</tr>
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Source: Financial statement PT Trada Maritime Tbk for year 2011-2014

CAGR for estimate EPS growth:

\[ \text{CAGR} = \left( \frac{-0.0072}{0.0014} \right)^{\frac{1}{3}} - 1 = -272.61\% \]

Estimated growth (G) for PT Trada Maritime Tbk really bad is -272.61%, the basic principle as an investor is we should neglect company with performance like this, Benjamin Graham has criteria that should be fulfilled as value investor that “no negative EPS in the past five years” (http://www.valuewalk.com/benjamin-graham/). Nevertheless, if we still want to make a valuation, we have an alternative solution for calculating growth estimation, that we could use the absolute value for negative EPS, but According to Aswath Damodaran
that “When earnings are negative, the growth rate is meaningless. Thus, while the growth rate can be estimated, it does not tell you much about the future” (http://people.stern.nyu.edu/adamodar/pdfiles/ovhds/dam2ed/growthandtermvalue.pdf). Therefore, if we still continue to valuate, the result of this valuation is useless because it does not give an estimated or information about the future growth. But in this study, we will calculate growth use the absolute value.

For estimated growth, we will use CAGR with absolute value for EPS 2014 as follows:

\[
CAGR \ (G) = \left(\frac{0.0072}{0.0014}\right)^{\frac{1}{3}} - 1 = 72.61\%
\]

\[
\text{Intrinsic value} = \text{EPS} \times (8.5 + 2\ G) \times 7.5
\]

\[
Y = -0.0072 \times (8.5 + (2 \times 72.61)) \times 7.5 = \$ - 0.83
\]

Intrinsic value of PT. Trada Maritime Tbk is negative, therefore investors should ignore this company until PT. Trada Maritime Tbk do progress consistently.

**Conclusion:**

PT. Wintemar Offshore Marine Tbk is undervalue stock, because this company has margin of safety is 50.92%, in which current share price is Rp 505 and Intrinsic value is Rp 1,029, but even this company is cheap, we still have to considerate and analyze about the oil industry prospect, we have to beware with shale oil booming that will give pressure for oil price or causing declining oil price, it will have effect for oil companies to reduce their production that affect decrease for using offshore Marine Industry. PT Trada Maritime Tbk has negative intrinsic value, therefore this company is not recommended to invest until this company improve performance consistently.
Reference:


http://www.idx.co.id

http://www.bi.go.id

http://www.joshuakennon.com/benjamin-graham-intrinsic-value-formula/

http://www.valuewalk.com/benjamin-graham/