

FAIR VALUE VALUATION OF PT PERTAMINA INTERNATIONAL SHIPPING IN FACING THE INITIAL PUBLIC OFFERING PLAN AS THE FIRM'S STRATEGIC OBJECTIVE IN 2023

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ABSTRACT

The study mainly focuses on the valuation of PT Pertamina International Shipping (PT PIS) which one of its strategic objectives to conduct Initial Public Offering (IPO) related to company's business expansion in 2023 which is aligned with PT Pertamina (Persero)'s shareholder's aspiration that targeted the valuation for US\$100 Miliar. The purpose of this study is to calculate the valuation of the company which also related to determining the initial share price of PT PIS at the time of IPO. This study uses top-down analysis including macroeconomic conditions, industrial analysis, and microeconomic conditions related to company analysis. Within the company analysis this study uses financial ratio analysis based on companies' financial report year 2017-2020 to evaluate the historical performance. Financial ratio analysis conducted in this project included profitability ratio, liquidity ratio, activity ratio, solvency ratio and financial health check assessment according to BUMN Financial Scoring Framework decree of Ministry of SOE No. KEP-100/MBU/2002. Furthermore, PT PIS' company value was analyzed using the Free Cash Flow to the Equity (FCFE) method using Two Stage Discounted Free Cash Flow to Equity model. From the study, it is concluded that both PT PIS has good financial performance recognized as Healthy in BUMN financial scoring framework in 2017 to 2020. In contrary, for the year 2021 PT PIS experiencing moderate level of health considered as unwell in the criteria. Finally, the PT PIS' fair value using FCFE, and Relative Valuation is accounted for Rp 877.55 and Rp 1,890.34 respectively.

Keywords: Free Cash Flow to Equity, Initial Public Offering, Shipping company, Valuation

INTRODUCTION

Development and expansion of a business has become the main objective for certain companies. A company would need a lot of funds in order to pursue growth financially as well as non-financially. However, the amount of funds injected in a company would not be enough for the concern of internal issues. Other alternatives in reaching the targeted amount of funding is through the Initial Public Offering (IPO) scheme in the stock market. Public stock company is essential business arrangement in modern and free market economies. In funding the future growth companies frequently need to go public in the stock market. The consequences for IPO also for emitten are required to disclose its financial statements while private companies are not. This means that regarding to the consequences all the companies that going to publicly offered its stocks would need to deep dive in analyzing essential factors before conducting IPO.

One of the PT Pertamina International Shipping ("PT PIS") as one of the subholding in PT Pertamina (Persero) included the strategic objectives to conduct IPO scheme in 2023. The goal of the IPO scheme is that as Pertamina (Persero) also has its long-term strategic objective which is market value beyond USD 100 billion in 2027. This requires all the Subholding of Pertamina to be more agile and accelerating towards funding scheme spesifically for IPO including PT Pertamina International Shipping (PT PIS). The most important variables to consider prior to public offering is to determine the company's initial stock price. If the share price on primary market is lower than the closing stock price on the first trading day, it is known as underpriced company. In contrary, if the current IPO price is greater than the price on secondary market or stock market it is called overpricing.

Another information regarding IPO in Indonesia, from 284 companies that have conducted IPO in the last 10 years from 2018, around 85% of the company is underpriced. This will result in the funds gathered by the company is not effective and not maximized. Therefore, it is important to determine stock price prior to the time of IPO or stock offering in the primary market. From an investor's perspective, higher price will lower investor's interest to buying company's shares and in opposite the lower the price, the higher investor's interest towards buying company's shares.

Therefore, it is important for PT PIS in conducting and planning the selling price of shares to be traded on the primary market in order to avoid underpricing or overpricing issues through determining its fair value. Other than that, according to the study by Klova V (2017), particularly for shipping company has its unique characteristics and low level of underpricing compared to other sectors.

Based on the above explanation, this study aims to determine the valuation of the company using Free Cash Flow to Equity and Relative Valuation method. Besides, the study also uses macroeconomic conditions that affect the company, shipping industry analysis and company analysis of PT PIS. In regards of the selection towards research method, the FCFE method is chosen by the author as it could obtain company's equity value in assessing stock price.

RESEARCH OBJECTIVES

Based on the business issue explanation, the objective of this study is:

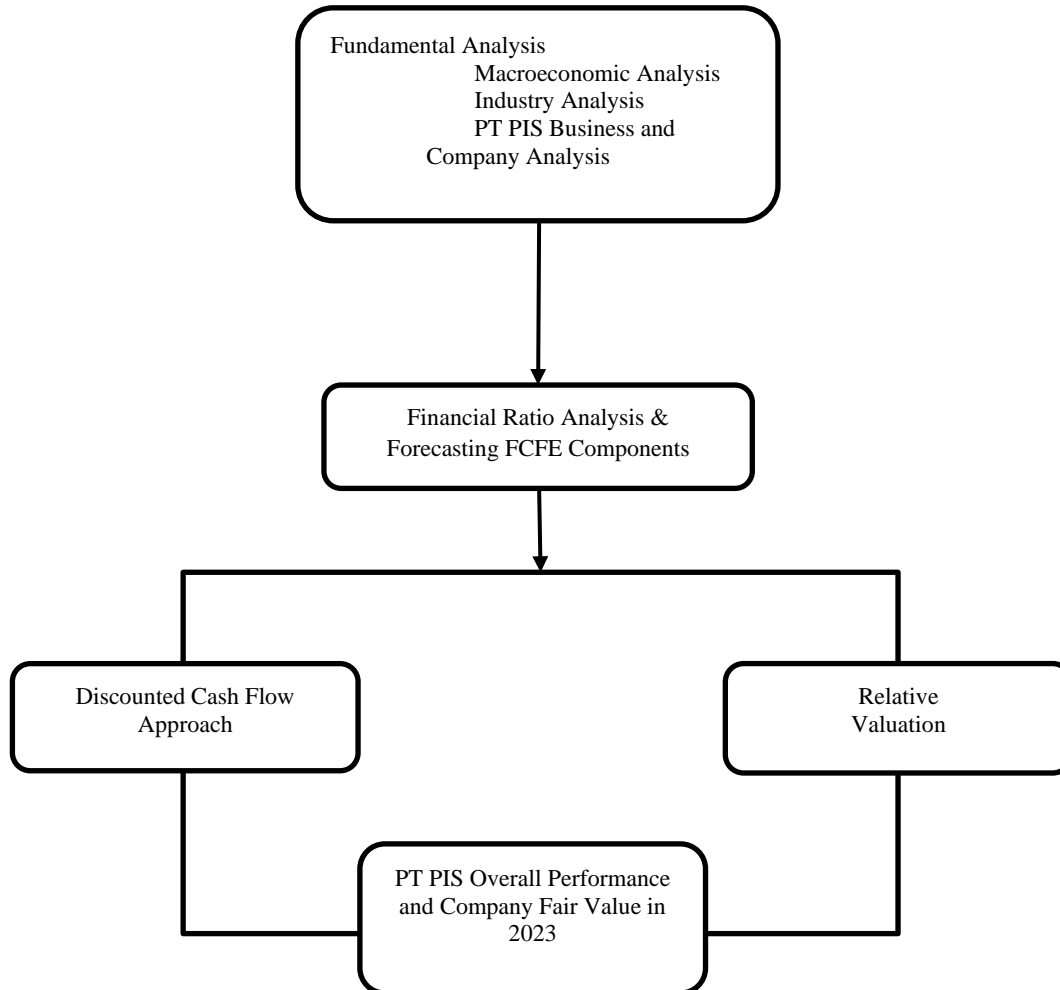
1. To determine the level of PT PIS' financial health in year 2017-2021 based on BUMN criteria
2. To investigate the right stock price range for PT PIS' IPO initial stock prices in 2023 using FCFE discounted cashflow and relative valuation method.

RESEARCH LIMITATIONS

The limitation of this research including:

1. There is other available type of company valuation methods that can be applied and compared in calculating the fair value of share prices of PT Pertamina international Shipping.
2. The company’s IPO plan will be conducted in 2023 as included in its strategic objectives. However, the research was conducted in 2022 which the latest audited financial statements data of PT PIS that is available is in year 2021.

CONCEPTUAL FRAMEWORK



RECENT LITERATURE REVIEW

Author (s)	Title	Method	Results	Analysis
Wahyudi. A. dan Surya A. B. (The Indonesian Journal of Business Administration Vol. 2, No. 4, 2013:385-395)	Company Valuation Analysis on PT Dayamitra Telekomunikasi In Preparation Of IPO	Using Discounted Cashflow (DCF) and Relative Valuation. For DCF using model Free Cashflow to Equity (FCFE).	The results of this study is fair value of the company and recommendation towards ideal initial stock price range. In this study also recommends that the PT Dayamitra Telekomunikasi should postpone conducting the IPO plan.	<ul style="list-style-type: none"> - This study only conducted valuation of the company without conducting the qualitative analysis of top-down analysis prior to valuation - The research object of this study is telecommunication industry
Sasongko A & Tanujaya. E. (Proceedings of the 2nd International	Valuation Analysis of PT XYZ's Initial Share Value	Using DCF Free Cashflow to Firm (FCFF),	The result of this study is recommendation to the company regarding initial stock price based on	<ul style="list-style-type: none"> - Using Free Cash Flow to the Firm (FCFF) method that generate enterprise value rather than the FCFE method

Conference of Business, Accounting and Economics, ICBAE 2020, 5 - 6 August 2020)	Regarding the 2020 IPO Plan with Discounted Free Cash Flow and Relative Valuation Method	sensitivity analysis, dan relative valuation	various scenario on different discount rate.	- The study is not conducting the macroeconomy, industry analysis, and microeconomy analysis known as top-down analysis
Bunga Mareti Permatasari et al (Yudishtira Journal : Indonesian Journal of Finance and Strategy Inside Vol. 1 No. 3 September - Desember 2021)	Valuasi Bisnis Perusahaan PT Jaminan Pembiayaan Askrindo Syariah Dalam Rangka IPO Di Tahun 2022	Using the method of DCF FCFE dan Relative Valuation	This study resulted in determining stock price through FCFE valuation method.	- Different research object which is financial services industry

SHIPPING INDUSTRY PROFILE

The international shipping industry globally is accounted for the carriage of 90% of world trade. Shipping as the heart of global economy since it is used for international trade, bulk transport of raw materials and especially for oil and gas industry shipping. Shipping industry recognized as one of the most capital intensives among other industries. According to Alexandridis. G. et al (2020), shipping industry sector is the top 8th percentile of all sectors for having CAPEX to Assets ratio around 8% from 1990 to 2018. Furthermore, the industry characteristic known for its asset tangibility and equity risk environment has shifted into a debt-driven industry. The debt driven industry also showed from having a \$286.90 billions of total shipping industry borrowing to the world's top 40 banks (Petrofin, 2020).

PT PERTAMINA INTERNATIONAL SHIPPING

PT Pertamina International Shipping (PT PIS) as Subholding Integrated Marine Logistics (SHIML) conducted its inauguration ceremony in 2021 initially formed to support fuel business of PT Pertamina (Persero). As a national and international shipping company, PT PIS seized its opportunity through providing professional shipping management business, competitive prices and committed to provide excellent services. With the total ships of PT PIS is 750 ship and other e-chartering ship: and its 6 strategic terminals of PT PIS namely Integrated Terminal Tanjung Uban, BBM Terminal Pulau Sambu, LPG Terminal Tanjung Sekong, BBM Terminal Kotabaru, BBM Terminal Baubau, and LPG Terminal Tuban. PT PIS has its vision to become Asia's leading shipping company and championing economic development of Indonesia. PT PIS missions are creating value for stakeholders, Reliable and trustworthy maritime partners, Safe and sustainable operation, economic growth agent for Indonesia. Indonesia as a maritime country made the existence of PT PIS become very essential in fulfilling energy supply needs across Indonesia. Moreover, it is supported with the existence of Tol Laut as one of the Government's Program to support product distribution across the country which positively impact to an even distribution of logistic prices throughout Indonesia. Since its establishment in 2016, PT PIS businesses expansion has continued to grow. One of them is establishing a subsidiary of PT Pertamina International Shipping Pte Ltd in Singapore with its subsidiary companies including PIS Polaris Pte Ltd and PIS Paragon Pte Ltd, which are also operated in Singapore. Going forward, with its business strategy matured along the way, PIS will continue to develop other business lines that support the core shipping business with its vision to become the leading Integrated Marine Logistics Company in Asia as well as being a worldclass PT Pertamina (Persero) Subholding.

Financial Ratio Analysis

The BUMN Financial Scoring framework announced by the government and based on the decree of the Ministry of State-Owned Enterprises No. KEP-100/MBU/2002. The financial ratios within the decree as follows:

1. Return on Equity
2. Return on Investment
3. Cash Ratio
4. Current Ratio
5. Collection Period
6. Inventory Turnover
7. Total Asset Turnover
8. Total Equity to Total Asset

The above ratios can be categorized into profitability ratios, liquidity ratio, activity ratio, growth ratio and valuation ratio. It could define the company's strength and weakness through the profitability, liquidity, activity, and solvency (Hempel et al, 1994).

PROFITABILITY PERFORMANCE

One of the common measures to determine financial performance of a firm is through the using profitability ratios including Return on Equity and Return on Investment.

RETURN ON EQUITY (ROE)

Return on Equity is an important ratio for investors as well as the company to measure the efficiency of shareholder's capital in generating profits and the objective to grow the company (Anthony et al, 2011). The equation shown in is for the ROE measurement.

$$ROE = \frac{Net\ Income}{Shareholder's\ Equity}$$

Table 1 BUMN financial scoring for ROE

ROE (%)	Score
15 < ROE < 20	20
13 < ROE <= 15	18
11 < ROE <= 13	16
9,0 < ROE <= 11	14
7,9 < ROE <= 9	12
6,6 < ROE <= 7,9	10
5,3 < ROE <= 6,6	8.5
4,0 < ROE <= 5,3	7
2,5 < ROE <= 4,0	5.5
1,0 < ROE <= 2,5	4
0 < ROE <= 1	2
ROE < 0	0

Source: The decree of Ministry of SOE No. KEP 100/MBU/2002

RETURN ON INVESTMENT

Other profitability ratios used in this study calculates the profit of an investments to its original cost as a percentage. This also measures how effective the management in rolling out the investment. The equation of ROI can be expressed as:

$$ROI = \frac{(EBIT + Depreciation)}{Capital\ Employed}$$

Earnings before income tax or known as EBIT could be measured first in revenue deducted by expenses without concerning tax and interest. The capital employed is related to the amount of capital expenses of a company used to operate or could be measured through total assets minus current liabilities.

Table 2 BUMN financial scoring for ROI

ROI (%)	Score
18 < ROI	15
15 < ROI <= 18	13.5
13 < ROI <= 15	12
12 < ROI <= 13	10.5
10,5 < ROI <= 12	9
9 < ROI <= 10,5	7.5
7 < ROI <= 9	6
5 < ROI <= 7	5
3 < ROI <= 5	4
1 < ROI <= 3	3
0 < ROI <= 1	2
ROI < 0	1

Source: The decree of Ministry of SOE No. KEP 100/MBU/2002

LIQUIDITY PERFORMANCE

The company's ability to pay its short-term debt is called as the liquidity performance including cash ratio, current ratio and collection period.

CASH RATIO

In cash ratio if the company amounted its value of one thus the indication is that the company has the equal amount between cash and debt. However, if the firm has the value exceeds one then it indicates that the company able to pay in cash for the debt. In the

other way around the company valued less than one then the company has less cash to pay its debt. The following equation is for the cash ratio formula used in this research.

$$\text{Cash Ratio} = \frac{(\text{Cash} + \text{Cash Equivalents})}{\text{Current Liabilities}}$$

Table 3 BUMN financial scoring for Cash Ratio

Cash Ratio (%)	Score
X >= 35	5
25 <= X < 35	4
15 <= X < 25	3
10 <= X < 15	2
5 <= X < 10	1
0 <= X	0

Source: The decree of Ministry of SOE No. KEP 100/MBU/2002

CURRENT RATIO

The current ratio is the financial ability of a firm in repaying current liabilities with its current assets. If the company has a greater ratio than in the industry, it indicates a problem related to managing its assets. Equation below showcases on how the current ratio is measured.

$$\text{Current Ratio} = \frac{\text{Current Asset}}{\text{Current Liabilities}}$$

Table 4 BUMN financial scoring for Current Ratio

Current Ratio (%)	Score
125 <= X	5
110 <= X < 125	4
100 <= X < 110	3
95 <= X < 100	2
90 <= X < 95	1
X < 90	0

Source: The decree of Ministry of SOE No. KEP 100/MBU/2002

COLLECTION PERIOD

Another indicator in monitoring a firm's cashflow as well as the ability to pay company's debt on deadline is so-called collection period ratio. The equation can be expressed as follows.

$$\text{Average collection period} = \frac{\text{Account Receivable}}{\frac{\text{Net Sales}}{365}}$$

Table 5 BUMN financial scoring for Collection Periods

Collection Periods (Days)	Adjustment (days)	Score
X <= 60	35 < X	5
60 < X <= 90	30 < X <= 35	4.5
90 < X <= 120	25 < X <= 30	4
120 < X <= 150	20 < X <= 25	3.5
150 < X <= 180	15 < X <= 25	3
180 < X <= 210	10 < X <= 15	2.4
210 < X <= 240	6 < X <= 10	1.8
240 < X <= 270	3 < X <= 6	1.2
270 < X <= 300	1 < X <= 3	0.6
300 < X	0 < X <= 1	0

Source: The decree of Ministry of SOE No. KEP 100/MBU/2002

ACTIVITY RATIO

INVENTORY TURNOVER

This particular ratio will indicate on how the inventory performance in over a period. The following equation is the specific formula measuring the inventory turnover ratio.

$$Inventory\ Turnover = \frac{Total\ Inventory}{Net\ Sales} \times 365$$

Table 6 BUMN financial scoring for Inventory Turnover

Inventory Turnover (Days)	Adjustment (days)	Score
X <= 60	30 < X	5
60 < X <= 90	30 < X <= 35	4.5
90 < X <= 120	25 < X <= 30	4
120 < X <= 150	20 < X <= 25	3.5
150 < X <= 180	15 < X <= 25	3
180 < X <= 210	10 < X <= 15	2.4
210 < X <= 240	6 < X <= 10	1.8
240 < X <= 270	3 < X <= 6	1.2
270 < X <= 300	1 < X <= 3	0.6
300 < X	0 < X <= 1	0

Source: The decree of Ministry of SOE No. KEP 100/MBU/2002

TOTAL ASSET TURNOVER

Further activity ratios will embrace the efficiency of a company in using its assets to generate sales called total asset turnover.

$$Total\ Asset\ Turnover = \frac{Revenue}{Capital\ Employed}$$

Table 7 BUMN financial scoring for Total Asset Turnover

Total asset turnover (%)	Adjustment (days)	Score
120 < X	20 < X	5
105 < X <=120	15 < X <= 20	4.5
90 < X <= 105	10 < X <= 15	4
75 < X <= 90	5 < X <= 10	3.5
60 < X <= 75	0 < X <= 5	3
40 < X <=60	X <= 0	2.5
20 < X <= 40	X < 0	2
X <= 20	X < 0	1.5

Source: The decree of Ministry of SOE No. KEP 100/MBU/2002

SOLVENCY RATIO

TOTAL EQUITY TO TOTAL ASSET

The total equity to total asset ratiio is similar to other ratio called debt to equity ratio. The intepretation will begin if the company has less value, indicating the company is funding its asset in non efficient way. It can also be perceived that a company giving low net value to the investors below are shown how the ratio is calculated.

$$Total\ Equity\ to\ Total\ Asset = \frac{Total\ Equity}{Total\ Asset}$$

Table 8 BUMN financial scoring for Total Equity to Total Asset

Total Equity to total asset (%)	Score
X < 0	0
0 <= X < 10	4
10 <= X < 20	6
20 <= X < 30	7.25
30 <= X < 40	10
40 <= X < 50	9
50 <= X < 60	8.5
60 <= X < 70	8

70 <= X < 80	7.5
80 <= X < 90	7
90 <= X < 100	6.5

Source: The decree of Ministry of SOE No. KEP 100/MBU/2002

DISCOUNTED FREE CASH FLOW TO EQUITY

Ross et al (2018) stated that discounted cashflow valuation method is calculating the present value of a future cashflow in determining the today's worth of a firm. The discounted cashflow itself is using the terms so called discount rate which is the rate that used to calculate the present value of future cashflow.

The discount rate is used to represent the risk of an asset. The higher the risk of an asset the value amounted for the discount rate will be also higher. In terms of valuating a company from actual return and expected return as the so-called Cost of Equity. There are several models or approaches that can be used in measuring the expected return of an asset. In this study, the models that will be used is the Capital Asset Pricing Model (CAPM). The following equation for the CAPM formula.

$$E(r) = R_f + \beta \times (R_m - R_f)$$

Consequently, as it is obtained the value of FCFE and Terminal Value. It can be concluded that the valuation of a company can be measured by calculating the present value from cashflow which will be received by the shareholders. Specifically in this study will use the two-stage discounted FCFE model. This model will assume that the cash flow to the shareholders will grow occasionally high in a particular period. Hence, the growth rate will decrease and remain constant in continually. The Two Stage Discounted FCFE Model is shown below.

$$Value = \sum_{t=1}^{t=n} \frac{FCFE_t}{(1 + k_e)^t} + \frac{Terminal Value}{(1 + k_e)^n}$$

Whereas:

N = Period
K_e = Cost of Equity

In stage two where the growth is constant, will be using the formula as in the following equation.

$$Value = \frac{Cashflow_{t+1}}{r - g_{stable}}$$

Whereas:

r = Cost of Equity
g_{stable} = Stable growth rate

RELATIVE VALUATION

Other method of valuating a company is using comparable ratio of price-to-earnings ratio or P/E ratio. A simple calculation of P/E ratio according to Damodaran (2016) becoming more attractive choice for the companies. Whenever the company needs to valuate the company in preparing initial public offering or IPO to benchmark relatively to other shares. There are pricing calculation that is commonly used is the P/E ratio and PBV ratio. The formula of respective ratio shown as follows.

$$PE = \frac{Market Price per Share}{Earnings per Share}$$

$$EPS = \frac{Net Income}{Shares outstanding}$$

METHODOLOGY

TYPES AND SOURCES OF DATA

The methods used in this study is mainly library research. According to Kothari (2009), the library research divided into two categories which is analysis of historical records and analysis of documents. The data used in this research is the 4-year financial statements, annual report, websites' information of PT PIS. Other data used also derived from other reliable sources such as Wood Mckaenzie, Drewry, Mckinsey, and so on.

DATA PERIOD

During the research was conducted the author uses data period of PT PIS audited financial statements which is available in the company website from 2017-2021.

DATA PROCESSING METHODS

This study will be conducted using the fundamental analysis method with a top-down analysis approach and quantitative methods. This approach is carried out by macroeconomic conditions, industry analysis, and calculating the value of the company's equity in terms of stock market company offering. Finally, the fair value is calculated using the free cash flow to equity method. In addition, the data to be collected in this study is audited annual report (2017-2021) of PT Pertamina International Shipping. Other additional supporting data to analyze the macroeconomics, shipping industry and microeconomic analysis derived from other reliable sources.

RESULT AND DISCUSSION

GLOBAL AND REGIONAL ECONOMIC CONDITION

In 2022, it is also forecasted that the growth will be decelerate to 4.1% reflecting the continuous of COVID-19 pandemic outbreak. The outlook on short term the global economic growth is somewhat decreasing or weakening. For the notes, the other macroeconomic analysis based on World Bank (2022), the inflation rate towards global market will be higher than previously projected. This issue will impact the essential market such as higher food as well as energy prices, thus the disruption towards supply flow. COVID-19 omicron spread with the cause of low vaccination rollouts impacted to the EMDE countries, struggling to reach its trend back to 2019 prior to pandemic. In contrary, for the advanced economies based on Figure 16 it is forecasted that the growth will continue moderately return to the state of pre pandemic trends. For Indonesia, the growth rate is projected to rebound into 5.2% in 2022 supported by strengthened domestic demand and greater elevated commodity prices. However, in 2023 Indonesia will face decelerating growth rate to become 5.1 %. Other than that, the growth of Indonesian market has surpassed its pandemic level in 2021 supported by the rebound of global commodity prices.

SHIPPING INDUSTRY OUTLOOK

According to Moody's report (2021), global shipping industry will face a changing environment especially its growth rate into a stable manner for the next 12 to 18 months due to the demand that slightly exceed its supply. The overall industry cashflow got stronger in this year despite frustrating business environment. Regarding the goods and commodities in overall will stay high and robust in the next year. The growth rates most likely will peaked and starting to decelerate in 2022. Other than that, for shipping companies it is expected that in general there will be increasing level of capital spending. By that Moody's expected those orders for newer and energy-efficient vessels will continue to be the essential topic in 2022 as shipping companies starting to aware in transforming to a stricter environmental regulation that is going to be started in 2023 in phase

Another outlook reported by Fitch Ratings (2021) stated that in global shipping industry sector will maintain its neutral state of business due to a strong market condition in container shipping and dry bulk segments. Thus, it is forecasted that the tanker segment which PT PIS dominantly embrace in 2022 is facing a stronger segment and improving from previous year. Regarding global economic recovery, it is projected that all shipping segments could maintain its favorable business environment and balancing supply and demand in 2022. However, there is a downside risk facing this situation which is the resurgence of COVID-19 new cases that leads to a collapse in cargo owner demand.

COMPANY ANALYSIS

PT PIS financial ratio analysis in this study is evaluated through BUMN scoring framework. Profitability, liquidity, activity, and solvency performance measurement is using the data of 2017-2020 PT PIS audited financial statements derived from the company websites. Each of the BUMN financial scoring indicator is calculated based on the decree of Ministry of SOE formulas. Thus, to obtain the total weight percentage value, the overall score of each year is divided by the maximum score each BUMN indicators. The total weight percentage value is in reflecting to PT PIS financial health of each year based on the mentioned BUMN criteria ranging from healthy, unwell, and unhealthy. Below is the summary of PT PIS financial ratio analysis.

Table 1 PT PIS Financial Ratio Analysis

No	BUMN Financial Scoring Framework Indicators	2017		2018		2019		2020		2021	
		Ratio	Score	Ratio	Score	Ratio	Score	Ratio	Score	Ratio	Score
1	ROE	10.34%	14	26.77%	20	25.26%	20	24.09%	20	7.54%	10
2	ROI	7.51%	6	19.61%	15	19.69%	15	5.21%	5	-11.81%	1
3	Cash Ratio	54%	5	11%	2	22%	3	66%	5	21.84%	1
4	Current Ratio	151%	5	148%	5	144%	5	125%	5	35.25%	0
5	Collection Period (CP)	189.37	2.4	71.12	4.5	111.87		57.03	5	122.79	
	CP - adjustment			-118.25	0	40.75	5	-54.84	0	65.76	5
6	Inventory Turnover (ITO)		5	3.87	5	1.23	5	6.06	5	4.34	5
	ITO - Adjustment					-2.64		4.83		-1.72	
7	Total Asset Turnover	65%	3	184%	5	177%	5	163%	5	77.96%	3.5
	TATO - adjustment			119%		-7%		-13%		-85.54%	
8	Total Equity to Total Asset	69%	8	67%	8	63%	8.5	63%	8.5	55.48%	7
	Total Score	48.4		64.5		70.5		58.5		32.5	
	Total Weight	69%		92%		101%		84%		46%	
	Level	A		AA		AA		AA		BB	
	Category	Healthy		Healthy		Healthy		Healthy		Unwell	

Source: Author's processed data

It can be seen from the table that PT PIS from 2017-2020 is categorized as a healthy company. In the first year of 2017, the level of PT PIS financial health is on level A. The PT PIS financial performance calculated in 2017 is lower than the rest of 2018-2020 as PT PIS as a newly formed company that came from a spin-off of PT Pertamina Group's business unit. The overall financial performance implied that this performance by is a good starting point to move forward for PT Pertamina International Shipping in achieving sustainable competitive excellence. Thus, in the following year, it is recorded that PT PIS' financial performance is in healthy state except on the latest year which is 2021. In 2021, the company recorded an unwell financial health based on BUMN scoring due to PT PIS is in high investment state of company and year 2021 perceived as PIS starting point as the Subholding Integrated Marine Logistic having great amount of depreciation towards assets from PT Pertamina (Persero).

Discount rate

The first assumption that used to calculate the discount rate is the risk-free rate obtained from <http://www.market-risk-premia.com/id.html> of 6.51% and the market risk premium for 3.31%. Besides, for the beta assumption the unlevered beta of PT PIS is using the data of unlevered beta of oil and gas distribution industry according to Damodaran obtained from <https://pages.stern.nyu.edu/> accounted for 0.85. Thus, it can be calculated through of beta leverage formula. The tax rate used is 25% as the marginal tax rate for Indonesia based on damodaran on <https://pages.stern.nyu.edu/>

Consequently, based on above explanation the beta leverage of PT PIS is accounted for 1.187. Using the datas that already obtained, it can be calculated the expected return of PT PIS using CAPM method as follow:

$$k_{PT\ PIS\ (IDR)} = 6.51 + 1.187 \times (3.31\%) = 10.44\%$$

After the discount rate is achieved, in order to obtain the equity value of PT PIS initially it needs to build projection model on free cash flow to the equity. The approach used in this study is to calculate each component within the free cash flow to the equity, which is Net Income, Changes in Non-Cash Working Capital, Capital Expenditures and Net Debt.

FCFE

On FCFE, it is assumed that the company is funding its capital expenditures and working capital with debt the formula of free cash flow to equity can be inferred as follow:

$$FCFE = NI - Net\ CapEx(1 - \delta) - \Delta NCWC(1 - \delta)$$

δ reflected the percentage of Capital Expenditure and delta non-cash working capital that is funded with debt. For the projection it is already obtained the value of debt ratio for 36.54%. The following table 15, 16 and 17 is the detailed calculation of Net Capex (1-o), Delta NCWC (1-o) as well as FCFE projection for PT PIS respectively.

Year	NI	Net Capex (1-o)	Delta NWC(1-o)	FCFE Projection
2021	131,745,017	242,483,817	- 300,552,446	189,813,646
2022	201,823,232	89,964,427	14,652,602	97,206,203
2023	309,177,668	120,071,005	17,823,331	171,283,332
2024	473,636,405	160,252,745	21,680,185	291,703,475
2025	725,574,541	213,881,297	26,371,637	485,321,608
2026	1,111,524,387	285,456,633	32,078,289	793,989,465

Terminal Value

The terminal value in this study is calculated using constant growth model as follow:

$$\text{Terminal Value}(t) = \frac{\text{Cash Flow}(t + 1)}{r - g \text{ (stable)}}$$

Besides, the assumption on the terminal value in this study is related to the value of g stable. The stable growth rate in this study after 2026 using the global economic growth rate according to Statista (2022) retrieved from <https://www.statista.com/statistics/273951/growth-of-the-global-gross-domestic-product-gdp/> amounted for 3.28%.

Based on the data, calculation of Terminal Value for the above assumption as follow:

$$\text{Terminal Value} = \frac{793,989,465}{16.79\% - 3.28\%} = \text{USD } 11,086,399,146$$

	2023	2024	2025	2026	Terminal Value
FCFE	171,283,332	291,703,475	485,321,608	793,989,465	11,086,399,146
NPV 2023 (USD)	1,910,370,942				
NPV 2023 (IDR)	27,555,668,053,113				

From the Table above, we can conclude that the value of equity of PT PIS accounted for Rp 27,555,668,053,113 using the assumptions of after 2026 there will be constant growth in terminal value for 3.28%.

Share Price

Calculating Price per Share

$$\text{Price per Share} = \frac{\text{PT PIS Value of Equity}}{\text{Number of Shares}} = \frac{\text{Rp } 27,555,668,053,113}{31,046,794,548.13} = \text{Rp } 887.55$$

From the above calculation the price per share of PT Pertamina International Shipping using FCFE two stage discounted cashflow method is Rp 887.55. The above calculation is to seek the price per share of a company using Discounted Cashflow (DCF) method and Free cash flow to equity. Besides that, this study uses the relative valuation method which uses the Price to Earnings Ratio or known as PER company's comparison. In this particular study, it is assumed that the average PER of the industry is accounted for 13.16 derived from <https://www.idx.co.id/> The detailed calculation of the share price shown in Table below.

Relative Valuation Method

Outstanding shares	31,046,794,548.13
Net Income (IDR)	4,459,655,975,452.66
Expected EPS	143.643
Share Price (IDR)	1,890.34

Source: Author's processed data

It can be concluded from the table above that the PT PIS' company value reflected in share prices using the method of relative valuation is accounted for 1,890.34. Consequently, the result of PT Pertamina International Shipping's valuation using FCFE discounted cashflow method and relative valuation is slightly different. Valuation of FCFE method produces the stock price per share of Rp 887.55 whilst the relative valuation method in this study come up with Rp 1,890.34. If the relative valuation method is reflecting the benchmark for other stock prices, then the share price of PT PIS calculated using FCFE discounted cashflow model is considered as undervalued. Therefore, of two calculation methods, this study conducted taking the average of the two methods. The average of PT PIS share price is for Rp 1,388.95 that become the initial price of PT Pertamina International Shipping in IPO.

CONCLUSION

- Based on the BUMN financial scoring framework, from 2017-2020 PT Pertamina International Shipping is considerably a healthy firm. However, in 2021 PT PIS experienced unwell state of financial health as there is an exception due to the restructuring group of PT Pertamina (persero) and PT PIS act as the Subholding of Integrated and Marine Logistic causes PT PIS to have large depreciation of Pertamina (Persero) assets.

- b. In overall, we can conclude that in using the Free Cash Flow to Equity (FCFE) and relative valuation method resulted the fair value of PT Pertamina International Shipping that is accounted for Rp 877.55 and Rp 1,890.34 respectively. Thus, the average of share price resulted for Rp 1,388.95.

RECOMMENDATIONS

Based on the results of this study, the author recommends that:

- a. PT Pertamina International Shipping and the underwriter could use the pricing that has been calculated in this study as a reference in determining the initial price of PT PIS IPO.
- b. For investors, this study could be beneficial for the investors as a baseline for investor in making stock investment decision
- c. Besides, for academics and next stdy could use other kind of valuation method and projection analysis as well as ratios in evaluating the PT PIS financial performance. Other type of valuation such as Divident Discount Model, Contingent Claim Valuation and others.

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