Lisbon School of Economics & Management
Universidade de Lisboa

MASTER OF SCIENCE IN
FINANCE

MASTERS FINAL WORK
PROJECT

EQUITY RESEARCH:
MATSON INC

OUYANG SIYAN

SUPERVISOR:

PEDRO NUNO RINO CARREIRA VIEIRA

OCTOBER 2021

Lisbon School of Economics & Management
Universidade de Lisboa

MASTER OF SCIENCE IN
FINANCE

MASTERS FINAL WORK
PROJECT

EQUITY RESEARCH:
MATSON INC

OUYANG SIYAN

SUPERVISOR:

PEDRO NUNO RINO CARREIRA VIEIRA

OCTOBER 2021

Abstract

Matson Group is a shipping company with more than 100 years of history officially listed in 2014. Matson is the largest shipping company in the United States and has a good reputation globally. As of August 2021, Mason owns 3163 million's market capital.

The shipping industry connects the world economy, physically connects trades of all countries. Effectively helps companies reduce costs and provides employment opportunities for backward countries and developing countries in the world. In 2020, the global economy was affected by the COVID-19 Pandemic, and countries that shut down the borders caused substantial economic losses. The first to bear the brunt is the shipping industry, which is also why I study it. Matson is listed in a mature financial market in this industry, and Matson has relatively close cooperation with Chinese companies. I am very interested in the impact of increasingly tense Sino-US trade relations on American enterprises.

The report format is recommended by the CFA Institute. In this report, I use DCF, DDM, APV and Price multiple to estimate the enterprise value. I recommend to HOLD the stock of Matson Inc., with 2021YE target price of $84.01. This means the potential of upside is up to 16% with high risk.

JEL classification: G10 ; G12; G15; G31; G32; G34; G35

Keywords: Matson Inc.; shipping industry; Equity Research; Valuation; DCF; Sino-trade; Covid-19; Oil price

Resumo

O Grupo Matson é uma empresa de navegação com mais de 100 anos de história oficialmente listada em 2014. Matson é a maior companhia de navegação dos Estados Unidos e tem uma boa reputação a nível mundial. A partir de Agosto de 2021, Mason tem possuído 3163 milhões de capital de mercado.

A indústria naval liga a economia mundial, ligando fisicamente o comércio de todos os países e ajudando eficazmente as empresas a reduzir custos e oferecer oportunidades de emprego a países atrasados e países em desenvolvimento do mundo. Em 2020, a economia global foi afectada pela Pandemia da COVID-19, e os países que fecharam as fronteiras causaram perdas económicas substanciais. O primeiro a sofrer as consequências é a indústria naval. Esta também foi a razão pela qual eu estudo. A Matson está cotada num mercado financeiro maduro desta indústria, e a Matson tem uma cooperação relativamente estreita com empresas chinesas. Estou muito interessada no impacto das relações comerciais Sino-EUA cada vez mais tensas nas empresas americanas.

O formato do relatório é recomendado pelo Instituto CFA. Neste relatório, utilizo múltiplos DCF, DDM, APV e Pirce para estimar o valor da empresa. Recomendo a HOLD o stock da Matson Inc., com preço alvo de 2021YE de $84,01. Isto significa que o potencial de lucro é de até 16% com alto risco.

Classificação JEL: G10 ; G12; G15; G31; G32; G34; G35

Palavras-Chave: Matson Inc.; indústria marítima; Equity Research; Valorização; DCF; Sino - Comércio; Covid - 19; Preço do Petróleo

Acknowledgements

I will never forget the day that visited ISEG for the first time. I came with my parents. I was standing on the garden and imaging I was a student in ISEG. Fortunately, all those imaginations are come true. In the end of the first semester, I was struggling and doubt myself if I can finish the Master's classes. Now I have finished my Master's Final Work. When you work hard, time goes by.

Studying abroad and live alone, I faced many challenges during these two years. I am so glad that I have the courage to step out of the comfort zone. I learned new things that broaden my horizons. I made new friends and met some kind people.

The pandemic make me loss the chance to travel around the Europe. But it would not become my regret. I will still do that some time in the future.

星辰大海，未来可期。[1]

My deepest appreciation,

My parents, Ouyang Cong and Huang Xiuqun

My lovely cousins, Zhuo Qianwen, Huang Ziqi and Huang Zitao

All my friends…

Professor Pedro Rino Vieira, for the splendid lectures and guidance

[1] The stars and the sea, the future can be expected.

Index

List of Figures

Current Price: $72.61 **Target Price**: $84.01 **Upside potential**: 16%

Research Snapshot

I recommend to **HOLD** the stock of Matson Inc., with **31th December of 2021** the target price is $84.01. Currently, the price is $72.61/share. This means the potential of upside is up to 16% (figure 1) and the annulize upside potential is 5.88%. However, the risk is **HIGH** (figure 2).

Figure 1 Target price

Target price	**$84.01**
Current share price	$72.61 (10 August)
Protential increase	16%
	quoted from Yahoo
Market Cap	3163.05M
Beta	0.96
Dividend	1.20
Yield	0.02
Share Volume	43.44M

Source: self-made

Figure 2 Investment recommondation system

investment recommendation	**upside potential**
sell	< -10%
reduce	>-10% & <15%
hold	<15% & 30%
buy	>30%

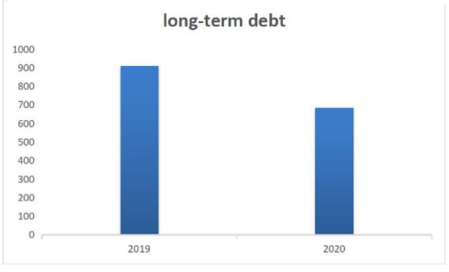
Matson is the leader in American shipping companies. The main business is maritime transport, supplemented by inland logistics. Transportation is provided mainly in Hawaii, Guam, and the Central Pacific region. In 2005, they started a cooperation trip with China to open up the Chinese market for the company. With the development of China, the freight volume has increased, and it has become one of the important markets of Matson. They only use one year to reach the highest efficient in the same period: the shortest time to arrive and the minimum time error. Matson has about 19700 containers, 11000 container vehicles, 700 car frames and other equipment. All of Mason's operations have passed the ISO(International Organization for Standardization)14001 environmental management system standard certification. At the same time, the company's automotive operations and customer support centers have also passed the strict ISO 9001 quality management system certification.

The current undervalue of the MATX Can be explained by i) The virus pandemic led to the closure of national borders. Although the situation is getting better, the social uncertainty still exists; ii) The oil black swan incident in June 2020 dealt a heavy blow to shipping companies; iii) Under the new IMO(International Maritime Organization)2020 sulfur limit regulations, the cost of the global shipping industry increased;

As the **Pandemic** has been happening for some time, the epidemic response plans of various countries have been issued one after another. The countries that originally blocked the border have reopened ports to continue import and export business, and MATX began to pick up business income in the third quarter and fourth quarter of 2020. After 2021, the growth rate would match the industry rate – 3.4%

MATX has a **heavy long-term liability** based on the 2019 final report. However, the long-term liability with the floating rate was getting down in 2020. In this case, the market rate will not cause a big impact. The current assets cover neither short-term liability nor long-term liability. The company is facing a high risk of cash flow (figure 3).

Figure 3 long-term debt of 2019 and 2020



Source: self-made

Other risks – World Oil returned to normal after a black swan incident in 2020. However, people are still worried about the repeated epidemic and the exploitation of oil fields, resulting in high volatility of oil prices. Under the influence of the Pandemic, the company's operational efficiency has been reduced, and there are problems such as workforce vacancies at the American wharf and the inability of executives to travel in time. Matson said there was no serious impact.

Business Description

Founded in 1882, Matson is the first company in history to provide pan-Pacific container liner services. Now it has become one of the leading US ocean shipping operators in the shipping industry. (Figure 4)

In 1882, Captain William Matthieson shipped supplies to Hawaii on the Emma Cladina, starting a long-standing cooperation between Matthieson and Hawaii. The company was involved in transportation and exploration during the two world wars, and even briefly in the aviation business. But Matthieson has been committed to the shipping industry.With more and more visitors to Hawaii, Matson has also expanded its luxury cruise passenger services and hotel services, adding diversity to the company's business. From beginning to end, Matson's ambition and development focus has always been on freight transportation. In 2002, matson invested more than $500m to build new container ships to make freight services more modern and efficient. MATSON's ambition to expand into the world market is clear. Matson has been planning to expand its business in Asia, mainly in China. In 2006, Matthieson opened the first China-US route China Long-beach Express (CLX). In 2009, Matson set up a logistics company in Shanghai. This business expansion has been very successful, allowing Matson to open up brand awareness in Asia. In 2012, Matson spun off from its parent company, Atom B, to form Matson Inc. The stock is traded on the New York Stock Exchange (NYSE) under the symbol MATX.

So far, Matson's main service routes are Hawaii, Alaska, Guam, Micronesia, Asia and the South Pacific (figure 5).

The main department of Matson is divided into two. One is Ocean Transportation Segment, the other is Logistics Segment

Strategy

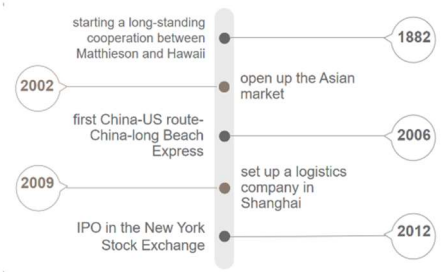
Matson focuses on delivering the goods to the destination quickly and on time. For example, Matson's CLX route provides a minimum voyage of 11 days in the unloading industry from Shanghai Port to long Beach Port in the United States, which is at least 2-4 days less than the industry level of 13-15 days; the AMS(America manifest system) time of Meissen's CLX route in Shanghai Port is 1-3 days later than that of the industry average; and the waiting time for containers to be unloaded from the US terminal to the final pick-up is at least 2-3 days faster than the industry level. Compared with the average transportation time of the industry, the efficient, fast and stable Meissen CLX route saves customers about 5-10 days and gives the seller sufficient time to prepare goods. In order to ensure the punctual delivery of goods, Meissen has been expanding its private terminals in recent years to ensure the efficient handling of goods.

As the leader of the cargo industry in the United States, Matson has long realized that they should bear social responsibility. As early as 2016, Matson began to replace old ships, which are more environmentally friendly and reduce emissions. This move gives investors more confidence in the continued operation of the company, as the US government is encouraging investors and financial investment institutions to support and pay more attention to such companies. The cost of ship replacement is huge, but fortunately, Matson started the project a long time ago, gradually investing money to avoid the break of the daily operating capital chain, and already had a large number of efficient and environmentally friendly cargo ships before 2020.

Ocean Transportation Segment:

Statistics at the end of 2020, the freight volume of Hawaii container is the largest, reaching 145700 units, accounting for 34.67% of the total shipping volume. This was

Figure 4 Matson's history

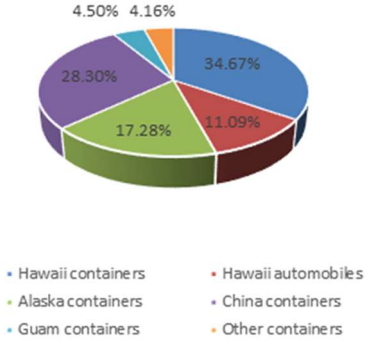


Source: self-made

Figure 5 Matson's route

Source: Matson

Figure 6 Percentage of turnover



Source: self-made

followed by 118900 units, the volume of freight to and from China, accounting for 28.30% of the total shipping volume.(Figure 6)
Ocean Transportation revenue increased $187.3 million, or 11.2 percent during 2020.

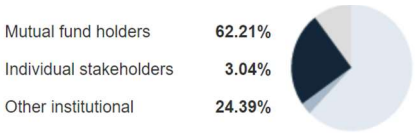
On a year-over-year basis, Hawaii container volume decreased 0.6 percent primarily due to lower volume as a result of the Pandemic. However, China's volume was 85.8 percent higher primarily due to volume from the CLX+ service and higher volume on the CLX service due to Matson's increased capacity in the trade lane.

Operating income for the year ended December 31, 2020 increased $151.2 million, or 117.1 percent, compared to the prior year. The increase was due to an increase in Ocean Transportation's operating income of $154.0 million which was partially offset by a decrease in Logistics operating income of $2.8 million.

Ocean Transportation's operating income increased $154.0 million, or 169.6 percent, during the year ended December 31, 2020, compared with the year ended December 31, 2019. The increase was primarily due to a higher contribution from the China service, including the contribution from the CLX+ service, and lower vessel operating costs, including the impact of one less vessel operating in the Hawaii service, partially offset by a lower contribution from the Hawaii service.

Logistics Segment:
Logistics revenue decreased $7.1 million, or 1.3 percent, during the year ended December 31, 2020, compared with the year ended December 31, 2019. The decrease was primarily due to lower transportation brokerage and freight forwarding revenue.
Logistics operating income decreased $2.8 million, or 7.3 percent, for the year ended December 31, 2020, compared with the year ended December 31, 2019. The decrease was due primarily to a lower contribution from freight forwarding.

Figure 7 Shareholder structure



Source: CNN Business

Figure 8 Top 10 owners

Top 10 Owners of Matson Inc

Stockholder	Stake
BlackRock Fund Advisors	16.25%
The Vanguard Group, Inc.	10.24%
ArrowMark Colorado Holdings LLC	9.95%
T. Rowe Price Associates, Inc. (I...	5.80%
Fuller & Thaler Asset Management,...	5.09%
Dimensional Fund Advisors LP	4.85%
Capital Research & Management Co....	4.57%
SSgA Funds Management, Inc.	3.45%
Geode Capital Management LLC	1.67%
Northern Trust Investments, Inc.(...	1.25%

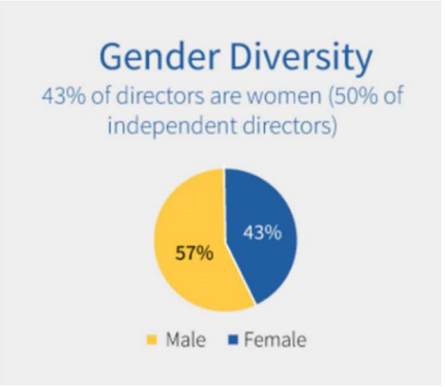
Source: CNN Business

Management and Corporate Governance

Matson currently has 43.44 million tradable shares, of which 86.60% are held by institutions, only 3.04% are held internally (Figure 7). The shareholding of Top10 institutions reached 63.12% (Figure 8).

The company has a good governance system. Six of the seven directors are independent directors, and female nominees account for nearly half of them (three). There are different races and genders in management, which can bring a good reputation to the company. This also proves the enlightened attitude of the company. When each group is represented, it will reduce the malicious reduction of the interests of vulnerable groups because of race or gender. The vote of independent directors is held every year and is voted by a majority of votes plus director voting and has the Chief Independent Director. Independent directors are conducive to better strive for the due return for the majority of shareholders. The company has a sound supervision system to prevent management staff from ignoring the rights and interests of a small number of shareholders and paying too much attention to short-term performance while neglecting long-term development. The following table shows the number of shares of Matson common stock beneficially owned as of February 26, 2021 by each director and nominee, by each Named Executive Officer (as defined below), and by directors nominees and executive officers as a group. They own a total of 2% equity of the company (Appendix 11).

Figure 9 Gender Diversity



Source: Matson's 2020 annual report

Board of Directors – Is composed of 7 members (6 independent),3 of them are women (Figure 9). The Board periodically receives various reports on risk-related matters, including presentations by senior management with an overview of the risk management program and that include risk management perspectives from each of Matson's business segments in the company-wide strategic plan.

Compensation committee – The Compensation Committee has general responsibility for the compensation and benefits of the company's executive officers and other salaried employees, including incentive compensation and stock incentive plans, and for making recommendations on director compensation to the Board. The Compensation Committee may form subcommittees and delegate such authority as the Compensation Committee deems appropriate, subject to any restrictions by law or listing standard。No member of the Compensation Committee is an officer during or prior to fiscal 2020 or employee of the company or any of its subsidiaries. The Compensation Committee met four times during 2020.

Audit Committee- Each member is an independent director under the applicable NYSE listing standards and SEC(Securities and Exchange Commission) rules. The duties and responsibilities of the Audit Committee are set forth in a written charter adopted by the Board of Directors, and are summarized in the Audit Committee Report, which appears in this Proxy Statement. The Audit Committee met six times during 2020.

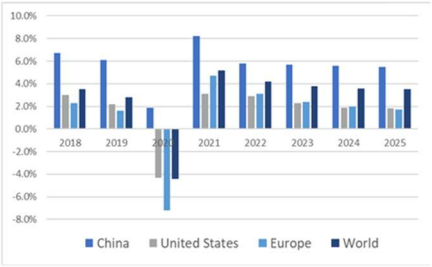
Nominating and Corporate Governance Committee- Each member is an independent director under the applicable NYSE listing standards. The functions of the Nominating and Corporate Governance Committee include recommending to the Board individuals qualified to serve as directors. Recommending to the Board the size and composition of committees of the Board and monitoring the functioning of the committees; advising on Board composition and procedures; reviewing corporate governance issues; overseeing the annual evaluation of the Board; and ensuring that an evaluation of management occurs. The Nominating and Corporate Governance Committee met three times during 2020.

Social responsibility- The chairman of Matson believes that as a leading company in the cargo industry, the company has been very concerned about ethics and social responsibility in recent years. Especially for environmental protection, Effective January 1, 2020, the International Maritime Organization ("IMO") has imposed regulations that generally require all vessels to burn fuel oil with a maximum sulfur content of 0.5 percent (reduce from 3.5% in "IMO 2020").This regulation forces the entire shipping industry to develop towards environmental protection and emission reduction. Because the Matson has taken environmental concerns into account earlier, and the new ships also meet the new regulations, there will be no break in the funding chain caused by the massive replacement of old ships (figure 10).

Figure 10 ESG Ranking

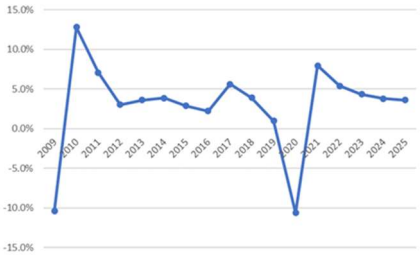
Source: CSRHUB

Figure 11 Global GDP



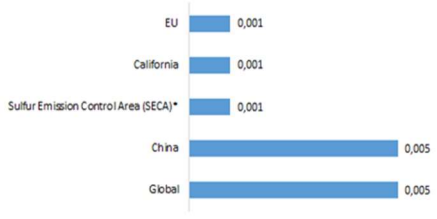
Source: IMF 2020

Figure 12 Global trade volume (Annual percent change)



Source: WTO 2020

Figure 13 Limit on fuel sulfur content for the shipping industry by region 2020



Source: Statista

Industry Overview and Competition

Economic Outlook

Global GDP

The economic activity contracted dramatically in Q1 of 2020, because of the COVID-19 Pandemic. Since many countries have slowly reopened, the world economy is climbing out from the depths to which it had plummeted during the lockdown in April.

The real GDP growth rate is likely to be -4,4% in 2020 a little bit higher than in 2019, China being the only major economy with positive GDP growth. This drop is much higher than that disclosed in 2008–09 financial crisis when GDP growth was -0,1%.

Both US and Europe economies have contracted at a historic pace in the beginning of 2020, since those were the regions most affected by the Pandemic. However, until the end of the year, US and Europe are expected a significant upgrade to -4,3% and -7,2% respectively.

Global growth is projected at 5,2% in 2021, and will moderate to 3,5% after 2021, since IMF(International Monetary Fund) projection assumes that social distancing will continue into 2021 but will subsequently fade over time as vaccine coverage expands. (Figure 11).

Figure 14 World fleet by vessel type, 2018-2019

Principal types	2018	2019	Percentage change 2019/2018
Oil tanker	562035	567533	0,98%
Bulk carriers	818921	842438	2,87%
General cargo ships	73951	74000	0,07%
Container ships	253275	265668	4,89%
Other types	218002	226854	4,06%
Gas carriers	64407	69078	7,25%
Chemical tankers	44457	46297	4,14%
Offshore vessels	78269	80453	2,79%
Ferries and passenger ships	6922	7097	2,53%
Other/not available	23946	23929	-0,07%
World	1926183	1976491	2,61%

Source: Review of Maritime Transport 2019

Industry Analysis Outlook

Global Trade

The world trade started recovery in June from the drop suffered in Q1 of 2020, as lockdowns were eased. Nevertheless, the trade growth is expected to contract by over 10% in the end of this year. This contraction reflects a particularly sharp decrease in contact-intensive sectors. In addition, trade policy uncertainty could increase due to ongoing disputes between the US and China, and Brexit.

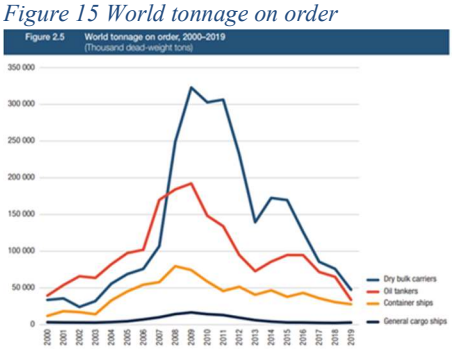
Trade volumes are projected to grow by about 8% in 2021 and by slightly more than 4%, on average, in subsequent years. (Figure 12)

Regulation

On January 1, 2020, the IMO's new regulation on sulphur emissions came into force. Globally, ships will be allowed to use fuel types with a sulphur content of under 0.5%, down from 3.5% applied since 2012. Certain areas, such as the EU and California, are subject to more stringent standards (Figure 13).

However, COVID-19 has softened the impact of the shipping industry's move to a low sulphur fuel.

Figure 15 World tonnage on order



Source: Review of Maritime Transport 2019

Supply Sea Transport

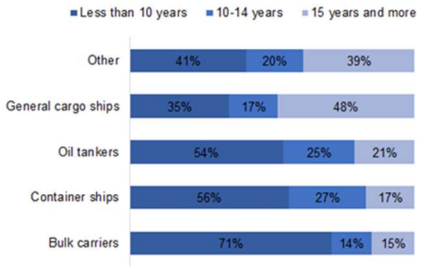
World Fleet

In early 2019, the total world fleet stood at 95,402 ships, accounting for 1.97 billion dwt of capacity. Bulk carriers and oil tankers maintained the largest market shares of vessels in the world fleet (dwt), at 42.6% and 28.7%, respectively. Carrying capacity grew by 2.6%, compared with the beginning of 2018 (Figure 14 and 15).

The average age of the world merchant fleet was 21 years in 2019. However, this is not uniform across vessel types. Ships below 10 years represent a high proportion of the carrying capacity of bulk carriers (71%), followed by container ships (56%) and oil tankers (54%). On the other hand, only 35% of the carrying capacity of general cargo ships and 41% of "other types" of vessels correspond to ships below 10 years, suggesting that these two segments are not undergoing fleet renewal. A young fleet makes up most of the carrying capacity of the world fleet. (Figure 16).

World tonnage on order for all main vessel types further decreased in the 12 months to January 2019, reflecting a drop in orders since 2016. The reduction is particularly marked for dry bulk carriers and oil tankers.

Figure 16 Age distribution of world fleet by vessel type, 2019



Source: Review of Maritime Transport 2019

Freight Rates

In 2018, container freight rates showed mixed results. Weak trade growth and the sustained delivery of container ships in an overly supplied market exerted further pressure on fundamental market balance, resulting in lower freight rates in general. However, towards the second half of the year, a temporary surge in seaborne trade was triggered by an increase in shipments from China to the US before the potential

Figure 17 Container freight rates

Source: Review of Maritime Transport 2019

application of higher tariffs on Chinese imports and more effective capacity management from carriers. The container fleet supply capacity increased in 2018 by 6%, compared with 4% in 2017. Such capacity surpassed expansion in global seaborne container trade, which increased by 2.6%. (Figure 17)

It is expected that container freight rates will remain elevated up to the end of 2020 due to COVID-19 related uncertainties. It is expected in 2021 a more normalized market, where freight moves along the lines that used to be recognized.

Group of Peer Companies

According to the Sea Transportation Industry classification provided by Thomson Reuters Business Classification (TRBC), the definition of peer, is a group of companies that present the same type of characteristics.

As relevant peers, the work is focused on the Cargo Transport of containers, with several of them also operating on logistics, and as irrelevant the ones that focus exclusively or mostly on the transport of passengers, primarily on the transport of NGL(Natural Gas Liquids), OIL and other dangerous substances.

In order to define, the peer group of companies that operates on Cargo Transport, it was took into account the market capitalization (top 20 world highest quoted Market Cap) and the similarity of their main activities (Figure 18), and 9 of them were considered as relevant peers.

Figure 18 Sea transportation peer companies

Ranking	Company Name	Relevant Peer
1	**AP Moeller - Maersk**	**YES**
2	Hapag Lloyd	**YES**
3	COSCO SHIPPING	**YES**
4	China Merchants Energy Shipping	NO
5	COSCO Shipping Energy	NO
6	SITC International Holdings	**YES**
7	Nippon Yusen KK	NO
8	Orient Overseas (International)	**YES**
9	**Evergreen Marine**	**YES**
10	Mitsui OSK Lines Ltd	NO
11	Shanghai Zhonggu Logistics	NO
12	Kirby Corp	NO
13	Atlas Corp (Canada)	NO
14	Hainan Strait Shipping	NO
15	Dfds AS	NO
16	HMM Co Ltd	**YES**
17	**Matson Inc**	**YES**
18	Qatar Navigation QPSC	NO
19	Transcoal Pacific Tbk PT	NO
20	Wan Hai Lines Ltd	**YES**

Source: Thomson Reuters and team analysis

In order to perform the comparative analysis of the industry, there were chosen 3 companies, each one representing one of the most influence continents of the industry. Maersk, from Europe (Denmark); Evergreen from Asia (Taiwan, China) and Matson from Hawaii, Pacific Ocean (USA).

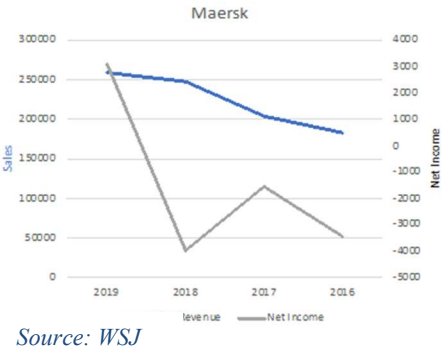
Companies Main Strategies

Maersk

Maersk is the world biggest Sea Transportation company, operating global on shipping. They focus their activity mainly on container transport, terminal activities, logistics and transport of oil.

The company strategy is to become the global integrator of container logistics, connecting, and simplifying the customers supply chains. The vision of becoming the global integrator of container logistics rests on three pillars: create a portfolio end-to-end products/service, seamless customer engagement and superior delivery network end-to-end. (Figure 19)

Figure 19 Maersk sales and net profit (in millions)



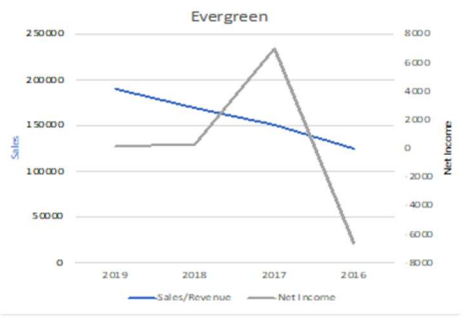
Source: WSJ

Evergreen

Evergreen is mainly engaged in the cargo container shipping business and logistics, operating in Taiwan, Americas, Europe, and Asia Markets.

Company's strategy is mainly focused in continuing to upgrade the fleet, reduce operating costs, make good use of advantages of the Alliance, provide customers with quality services, actively create profits to achieve the goals and develop a foundation for a sustainable global container transportation system – environmentally, socially and economically responsible. The sales of Evergreen keep increasing in these years. (figure 20)

Figure 20 Evergreen sales and net profit (in millions TWD)



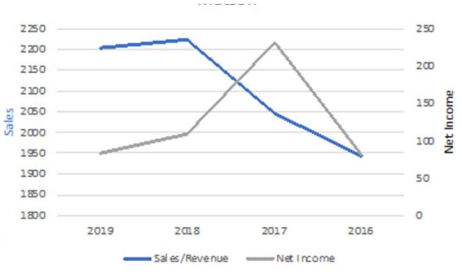
Source: WSJ

Matson

Matson is leader in Pacific Shipping, operating on Cargo transport and logistics. The company has specialized in shipping to Hawaii and other islands at the Pacific Ocean, as well to Asia, North America, and Oceania.

Matson Strategy for the following years, is to become an environmental leader in the industry and also leveraging their core strengths to drive growth and increase profitability, focusing on the Pacific Ocean, where they are already leaders. The sales is increasing but the net income decreased due to the environmental production improve. (figure 21)

Figure 21 Matson sales and net profit (in millions USD)

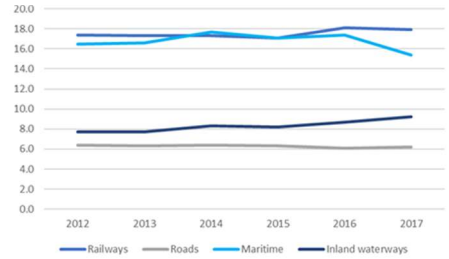


Source: WSJ

SWOT of the Group

It is an analysis of three companies: Evergreen, Matson and Maersk, which are the top companies in the sea transport industry (Appendix 10). Aggrading to these SWOTs, it is possible to assess that the firm's scale and expert services are the most common in what concerns their strength. All of them are having a high qualification in these two aspects. Maersk and Evergreen had joined an alliance, that can make them even stronger by sharing the resources from the group member. Against Evergreen, who has old vessels that cause low transportability, Maersk's surplus capacity is also a weakness. The companies are dealing with reduction in cost of fuel and cost of docking. As opportunities, all of them are developing online platforms, and at the same time, digitalization of the business has become unavoidable. Furthermore, with COVID-19 outbreak, some countries decided to close the border to get control over Pandemic, which had impact on shipping companies.

Figure 22 Unitization in the different modes of transport - tonne-kilometer for gross weight of goods (in EU)



Source: Eurostat

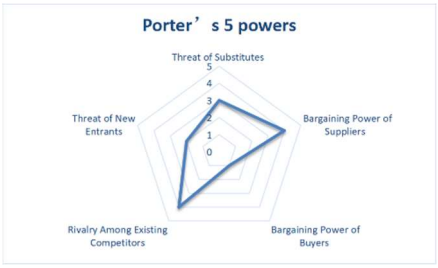
Porter 5 Forces

Considering the Porter's 5 Forces Framework, the highest threat in this industry is the bargaining power of buyers (Figure 23).

Threat of Substitutes (3)

For the shipping industry, substitution includes not only competitors with the same services but also different forms of transportation, such as airplanes and Rail or trucks. This leads to huge opportunities for each company to benefit from an overall poor performance of their competitors. Although there are different forms of transportation, as mention above, their cost per TKM (Tonne-kilometre) is still much higher than Sea transport. Sea transportation is still the most popular mode of transport (figure 22). As long as Sea Transport can keep their Leadership in Price, the threat of substitute products is Medium (3) in this Industry. (Figure 23)

Figure 23 Porter's 5 forces

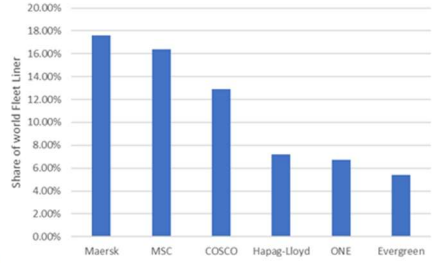


Source: Michael E. Porter Framework and team analysis

Bargaining Power of Suppliers (4)

Suppliers mainly include fuel suppliers, marine spare parts suppliers and port agents. Fuel prices are directly affected by international oil and gas prices, and no company has bargaining power on fuel prices. Larger companies may anticipate the rise and fall of oil prices and make corresponding fuel reserves to reduce fuel costs as much as possible. In particular, the IMO's mandatory requirement for all ships around the world to use fuel with a sulphur content of less than 0.5 per cent by 2020 has further increased the cost of fuel for ships. The requirements for marine spare parts are not special. Leading enterprises have strong bargaining power. Port agents are mainly divided into monopoly canal agents and general port agents. Because of its monopoly position, any shipowner has no bargaining power. In general, the price of the port agent is directly linked to the size of the fleet. the larger fleet or transport group can have a certain bargaining power in the port agent and reduce part of the cost. However, in some special countries or ports, there is also the possibility of monopoly in agency fees, and there is almost no room for bargaining.

Figure 24 Share of world fleet liner by company (2019)



Source: Statista

Bargaining Power of Buyers (1)

Customers are mainly construction companies and retail enterprises. The goods are mainly bulk spot and non-oil goods, such as a large number of consumables, large steel structures and so on. The requirement of this customers is the ship suit the goods and loading capacity, and the main concern is the shipping price. Shipping resumed and a large number of goods accumulated during the pandemic. Plus, the fact that countries around the world need more basic goods produced by Asian factories than ever before, there is a phenomenon of "big volume of goods and a little number of ships" in the market. This makes shipping companies have greater bargaining power to customers.

Rivalry Among Existing Competitors (4)
Shipping consultants report that Maersk, ONE(Ocean Network Express) and MSC(Mediterranean Shipping Company) are losing market share to other top 10 container companies. (figure 24)
Competition among the world's top 10 container shipping companies has intensified over the past four years, with Maersk and ONE losing some market share to several other large shipping companies(Sea-Intelligence 's analysis) .
This firm studied the changes in the market share of the top ten shipping companies from April 2017 to April 2021. According to the data, since April 2017, compared with other shipping companies in the top 10 only China's COSCO, Germany's Hapag-Lloyd and South Korea's HMM(Hyundai Merchant Marine) have increased their market share.
From 2006 to 2017, HHI(Herfindahl-Hirschman Index) competition was more or less stable. However, since 2017 the index has shown a downward trend, with less integration, including 2021. "HHI is now lower than at any time since 2006," Sea-Intelligence reported.
Since the outbreak of pandemic at the beginning of last year, the shipping industry has been picking up, demand is growing, freight rates are rising and carriers are making huge profits.
The competition is fiercer than ever.

Figure 25 Expected price in 2021YE

Source: self-made

Threat of New Entrants (2)
Since shipping industry requires large amounts of capital the threat of new entrants is low. In line with large amounts of capital, profit margins are also high for this industry. Switching costs are high for customers due to lack in experience of new entrants, which makes them be low for already established companies. Economies of scale are achievable; a good example might be the same ship transporting more containers. On the other hand, there can be absolute cost advantages in the market, for example, in the form of ship's size, available for one company but not available for others. The threat of new entry is Low (2) in this industry.

Figure 26 DCF

DCF	2021YE
WACC	5.31%
g	3.40%
FCFF	
FCF	79.46
terminal value	4311.96
PV of Terminal value (€)	$3,329.82
PV of explicit period of free cash flow to the firm (€)	$319.48
valuation	$3,649.30
estimated price per share	$84.01
current share price	$72.61
protential increase	15.70%

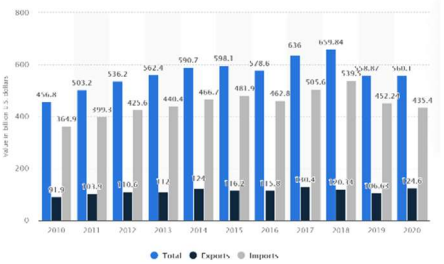
Source: self-made

Investment Summary

I recommend to **HOLD** the stock of Matson Inc., with 2021YE target price of $84.01 . This means the potential of upside is up to 15.70% (figure 25). However, the risk is **high**.

The current undervalue of the MATX Can be explained by i) The virus pandemic led to the closure of national borders. Although the situation is getting better, the social uncertainty still exists; ii) The oil black swan incident in June 2020 dealt a heavy blow to shipping companies; iii) Under the new IMO2020 sulfur limit regulations, the cost of the global shipping industry increased;

Figure 27 Sino-trade volume



Source: self-made

Valuation
I used the discount cash flow (DCF) model, DDM(Dividend Discount Model) approach, FTE(flow-to-equity) approach, APV(Adjusted Present Value) approach and price multiple approach to calculate the firm's value through the firm's free cash flow. Estimate the WACC(weighted average cost of capital) of the MATX is 5.31%, and the growth rate is 3.4% based on estimating it will match the industry growth in the future. The outcome of this DCF model, also is the target price, is $84.01/share (figure 26).

Figure 28 WACC

WACC	5.31%
cost of equity	5.80%
risk free rate	1.27%
CPR	0.00%
market risk premium	4.72%
beta	0.96
cost of debt after tax	3.47%
cost of debt	4.63%
tax rate	25%
capital structure	
value of equity	78.71%
value of debt	21.29%
market cap	3163.05
value of debt	855.6948472

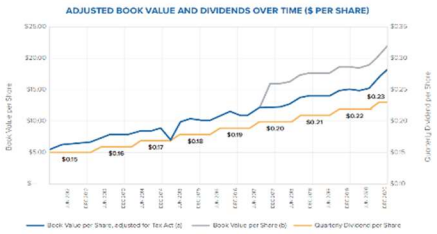
Source: self-made

Investment risk
The sea transport industry is very affected by the fluctuation of oil prices. The recent fluctuation of oil price is relatively large, and the prospect is ambiguous. Investing in this company's share needs to pay close attention to the fluctuation of oil price. Once

there is large volatility due to the pandemic, it will seriously affect the company's income and then the stock price.

Secondly, the cargo shipping industry is globalized, which is very dependent on the economic cooperation of various countries. Whether it is a pandemic or a deterioration in Sino-US trade relations, it will be a potential threat to the company and the industry as a whole.

Figure 29 Dividend policy



Source: Matson's 2020 ANNUAL REPORT

Valuation

DCF Approach: Free Cash Flow to the Firm

I used the discount cash flow (DCF) model through the free cash flow of the firm to calculate the firm value. The target price will reach to $84.01/share 31th of December in 2021(figure 26). The upside potential is 15.70 %. Free Cash Flow to the Firm (FCFF) is based on Operating Income and then adjusted for NOPAT. The valuation of the model is affected by the following factors.

The Pandemic- In 2020, the shipping industry was seriously affected by the virus pandemic, and the rapidly decreasing freight volume caused serious damage to the revenue. Since the vaccine is already in the market, people are being vaccinated. I assume that the Pandemic will no longer cause countries to close their borders.

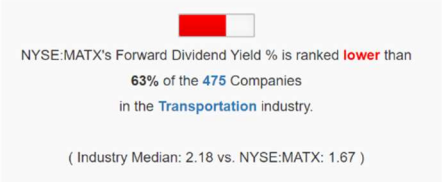
Sino-US trade- In recent years, the trading relationship between China and the United States is still in an unstable state. Although the two countries often have some unfriendly policies, it is undeniable that China has become the second-largest economy in the world, and cooperation between the two countries is inevitable. In circumstances of the bilateral trade war in 2020, the trade volume between China and the United States increased by 8.8% instead of decreasing (figure 27). China's import and export trade will continue to rise in 2021 due to a variety of factors. So in this model, I assume that the Sino-US trade war will not significantly impact Matson.

CAPEX- currently, Matson expects to invest money to expand CLX in the future, as this route is Matson's main revenue route. In 2021, another inter-island barge will be added to the Hawaiian route. After the end of the investment cycle in Hawaii, the company is looking forward to the significant cash flow generation in the coming years, which provides flexibility and opportunity in how they grow the business to create shareholder value. Since Matson does not give the investment plan and direction for the next five years, the CAPEX is determined by the average of the company's investment in the past six years.

WACC assumptions- WACC (weighted average cost of capital) consists of the cost of equity and the cost of debt after tax, which are calculated by the weighted average of both. When asking for the cost of equity, I chose the CAPM(Capital Asset Pricing Model). According to the data published by US DEPARTMENT OF THE TREASURY, the current risk-free rate- yield of T-bond is 1.27%, which is referenced as the risk-free rate in this model. According to Yahoo Finance, the company's beta is 0.96. In addition, the Country premium risk is 0, and the market risk premium is 4.72% which is quoted from "Equity Risk Premiums (ERP): Determinants, Estimation and Implications – The 2020 Edition" by Aswath Damodaran. In the 2020 annual report, Matson claimed that the effective tax rate of 2020 was 25%, and I assumed it won't change in the future. Using the market cap to estimate the weight of equity will have a result of 75.95% in 2021. To sum upon, the WACC will be quoted as 5.31% (Figure 28).

Terminal value assumption- The shipping industry is the sustainable development industry until 2050. According to the report "Global Freight Demand to Triple by 2050" in "THE MARITIME EXECUTIVE", the Global demand for transport will keep increasing dramatically in the coming decades. Matson is the leading company in

Figure 30 Dividend yield



Source: Gurufocus

Figure 31 FTE Approach

FTE	2021YE
Re	5.80%
g	3.40%
FCF	
FCFE	94.40
terminal value	4065.20
PV of Terminal value	$3,066.40
PV of explicit period of free cash flow to the firm	$388.44
valuation	$3,454.84
estimated price per share	$79.53
current share price	$72.61
protential increase	9.53%

Source: self-made

Figure 32 DDM Approach

DDM	2021YE
WACC	5.3%
payout ratio	27.00%
growth in 5 years	19.05%
dividend in 2022 (PV)	1.18
dividend in 2023 (PV)	1.26
dividend in 2024 (PV)	1.43
dividend in 2025 (PV)	1.62
dividend in 2026 (PV)	1.83
permanent g	3.40%
value in 2027(PV)	76.55
valuation	$83.86
estimated price per share	$83.86
current share price	$72.61
protential increase	15.50%

Source: self-made

the American shipping industry. It is investing actively and has a tendency to expand in the future, so I expect the sustainable growth will match the growth rate of global freight of the company. A perpetuity growth rate of 3.4% is assumed for the terminal period.

Dividend policy Assumption- Since Matson went public in 2012, it has paid dividends at a steady dividend of $0.04 a year, with a quarterly frequency. Matson has 100% Payout Stability and Payout Growth Stability, but the average annual dividend yield is the industry average yield(Figure 29 and 30).

Other assumptions- the market risk premium will not changed in the future. The Beta and the tax rate also keep stable in the future. (All details are in Appendix 8)

FTE Approach: Flow-to-Equity Model

After using the Free Cash Flow to Firm , I also use Free Cash Flow to Equity (FCFE) to calculate the free cash flow for shareholders, thus calculating the value of the company. (Figure 31 & Appendix 8)

Different from FCFF, Flow-to-Equity Model use FCFE and cost of equity to estimate the value of the company is $79.53/share in the end of 2021. This price is close to the result from FCFF model.

DDM Approach: Discounted Dividend Model

Besides the DCF approach, I also add Discounted Dividend Model to valuated the share price.

The WACC was the same as the DCF model. This is a 2-tage-model that in 5 years the growth rate would be 19.05%,was calculated from dividend growth of 2019 to 2020.The long-term growth rate is also the same as before, 3.4%. In this model, the result is $83.86/share. (Figure 32)

The short-term growth rate- the growth rate was calculated from the dividend paid growth of 2020. Since the company keep paying dividend stable, I would like to use that rate as the 5-year growth rate in dividend

APV Approach: Adjusted Present Value

The unleverd beta of MATX was 0.58, then the result of the unleverd cost of equity would be 4.02%. Market risk primum and tax rate is not changed. In APV approach, we need to add present value of interest tax shield. Basing on the tax rate, 25%, the PV of interest tax shield is $585.25. The final outcome is $272.18/share.(Figure 33)

In this approach, the price seem too high for MATX, but I think just shows the potential room for appreciation of MATX.

Price Multiple Approach

Price to Earnings (P/E) leading: share price divided by earnings per share of next year. I got 15.81, can be explaining as the investor will pay $15.81 (Figure 34) to ear n $1 profit. The P/E ratio of Matson is a bit lower than the setor medium. This is a positive sign.

Price to sales (P/S): share price divided by revenue per share of the same year. 1.28 is very close to sector medium 1.54 but still better. (Figure 35)

Price to Book Value (P/BV): share price divided by book value of equity per share. What it means is the ratio of market price to net assets per share. The lower the ratio, the lower the risk. Indicating the higher the safety factor of the stock. But it is not entirely reliable. Generally speaking, the price-to-book ratio is a bankruptcy indicator, that is, it is useful when it is bankrupt.

Figure 33 APV Approach

APV APPROACH	
unleverd cost of equity	4.02%
risk free rate	1.27%
CPR	0.00%
market risk premium	5%
beta	0.96
tax rate	25%
unleverd beta	0.58
FCF	79.46
terminal value	13284.43
PV of Terminal value	$10,909.13
PV of explicit period of free cash flow to the firm	$329.20
PV of interest tax shield	585.25
interest paid in 2022 (PV)	21.91
interest paid in 2023 (PV)	22.01
interest paid in 2024 (PV)	21.45
interest paid in 2025 (PV)	19.93
interest paid in 2026 (PV)	19.31
terminal value in interest paid	585.29
PV of Terminal value	480.63
valuation	$11,823.58
estimated price per share	$272.18
current share price	$72.61
protential increase	274.85%

Source: self-made

Figure 34 Price Multiple Approach

PRICE MULTIPEL APPROACH		sector medium
Price to Earnings (P/E) leading	15.81	20.29
Price to Earnings (P/E) trailing	16.33	20.98
Price to Sales (P/S)	1.28	1.54
Price to Book Value (P/BV)	3.68	3.23
Price to Cash Flow (P/CF)	18.84	15.01
Enterprice Value to EBITDA (EV/EBITDA)	10.40	12.39

Source: self-made

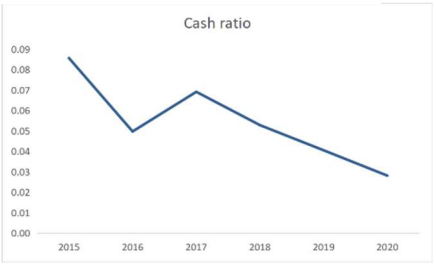
Figure 35 Chart of Price Multiple Approach

Source: self-made

Figure 36 EV/EBITDA in past 10 years

Source: gurufocus

Figure 37 Cash ratio

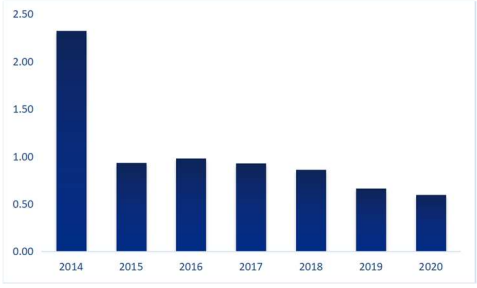


Source: self-made

Price to Cash Flow (P/CFO): Matson's price-to-cash ratio is slightly higher than the market median. Indicating that its operation is under a little pressure and its cash flow is not very abundant. This is a potential problem worthy of attention.

Enterprice Value to EBITDA (EV/EBITDA): the result of matson's EV/EBITDA is 10.40, which is lower than the sector medium. This is a very good performance. The ratio excludes the impact of leverage on corporate valuations. Hepling investors understand the true value of the enterprise directly. Matson's ratio exceeds half of the companies in the industry. (Figure 36)

Figure 38 Current ratio



Source: self-made

Financial Analysis

Liquidity ratio

Liquidity ratio refers to the ratio of liquid assets to current liabilities which is more conservative than current ratio is. It is a measure of the ability of an enterprise's current assets to be immediately realizable to repay current liabilities.

The cash ratio measures only the most liquid items of all assets relative to current liabilities, reflects the ability of the company to meet current obligations without relying on inventory sales and receivables. The cash ratios of Matson are nearly 0 in the past 6 years and keep a downward trend countinuously. (Figure 37)

Current ratio- Matson's current ratio has been at a relatively low level since 2014, It indicates that the company may have difficulty meeting its current obligations. Low values, however, do not indicate a critical problem. If Matson has good long-term prospects, it may be able to borrow against those prospects to meet current obligations. (Figure 38)

Profitability ratio

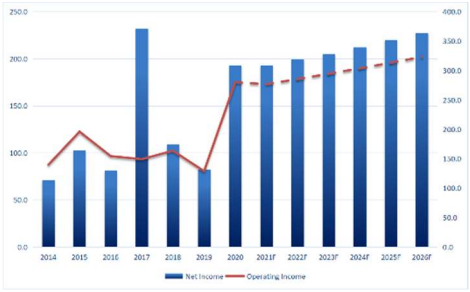
Steadily rising revenue and volatile net Income- In the past seven years, the total operating revenue increases steadily year by year (Figure 39 & 40). From 2014 to 2020, revenue grew at an average rate of 3.4 percent. Matson is a freight company that earns most of its revenue from sea freight. The sales cost, that is, the shipping cost occupies the dominant position of expense. Because of the alternation of old and new ships, a certain amount of income can be obtained when the old ships are scrapped and realized. When IMO2020 officially announced the implementation date on its website in October 2016, Matson began to upgrade its ships, which led to a 1.5-fold increase in Equity income from 2017 to 2020 compared with previous years. Matson's net income fluctuated significantly between 2014 to 2019, mainly because 2017 includes a non-cash income tax benefit of $155.0 million related to the remeasurement of the company's deferred assets and liabilities and other discrete adjustments of applying the Tax Cut and Jobs Act during the year-end. Net income rebounded in 2020 as revenue rose sharply in the fourth quarter of 2020 as the epidemic improved, driving up full-year turnover. Because after the fourth quarter of 2020, the investment cycle of the Hawaiian route ends, and new ships will be put into use.

Gross profit margin- In the past 7 years, the highest Gross Margin of Matson was 20.10%. The lowest was 14.76%. And the average was 17.08%. After 2020, the number of ships on the Hawaiian route will increase and the new vessels will be environmentally friendly fuel vessels, which will reduce fuel consumption and reduce costs, so it is assumed that the gross profit margin will remain at 20.10% in the next five years (Figure 41).

Figure 39 Income and cost

Source: self-made

Figure 40 Net income & Operating Income

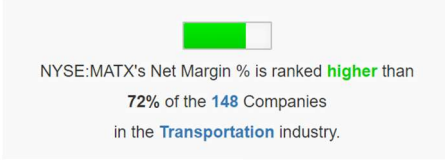


Source: self-made

Figure 41 Gross profit margin

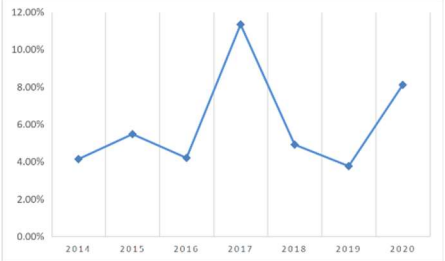
Source: self-made

Figure 42 Net margin rank



Source: gurufocus

Figure 43 Net Profit Margin



Source: self-made

EBITDA Margin- removing the influence of leverage and depreciation on the the company, explains a comparison of one company's real performance to others in its industry. Matson has a stable EBITDA Margin. In 2020, it rise to the highest level. However, it still lower than the industry benchmark which is 21.25% provid by CSIMarket.

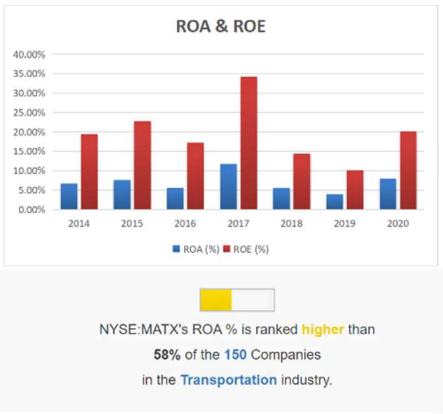
Net Profit Margin- measures how much net income or profit is generated as a percentage of revenue. Matson's net profit margin fluctuated wildly from 2014 to 2020. Compared with the benchmark 1.84% of the market, the ratio of Magi Maston is excellent. It is higher than that of most of its peers. (Figure 42 & 43)

Return on Asset- ROA measures the rate of return on the total assets. It measures a firm's efficiency at generating profits from shareholders' equity plus its liabilities. The trend of this ratio is very similar to that of Net Profit Margin. Maston's ROA ranks middle in the industry. (Figure 44)

Return on Equity- which count in denominator is not include debt and other liabilities, shows the profit can be made by a company. In this case, the company is getting 0.2 dollar in every one dollar.It has the same reason that the trading volume during the fourth quoter in 2020 increased cause the ROE increased. (Figure 44)

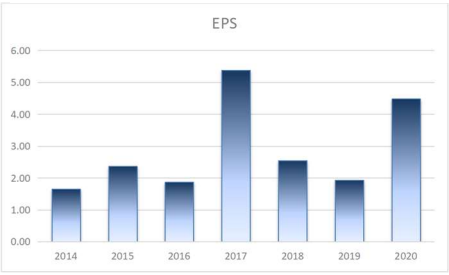
Earning per Share- Earnings per share (EPS) is calculated as a company's profit divided by the outstanding shares of its common stock. MATSON's EPS is also very volatile, with a low level of operating due to pandemics in 2019 and the first three quarters of 2020. But everything began to recover in the fourth quarter of 2020. The volume of trading in 2021 has rebounded beyond previous levels and is likely to continue to be strong. (Figure 45)

Figure 44 ROA &ROE



Source: self-made & gurufocus

Figure 45 EPS



Source: self-made

Efficiency Ratios

Total asset turnover- The total asset turnover ratio is that the net sales income to the average total assets of an enterprise in a certain period of time, and it is an index to measure the proportion between the asset investment scale and the sales level. The higher the total asset turnover rate, the stronger the enterprise's sales ability and the better the benefit of asset investment. Although the asset turnover of Matson shows a downward trend, it is always close to 1. This is a very reassuring performance. The company's Asset is used efficiently. (Figure 46)

Accounts Receivable turnover- is the ratio that reflects the turnover speed of accounts receivable of a company. It indicates the days it takes for a company from the right to receive accounts receivable to the time it takes to collect the money and turn it into cash. Compared with the average level of the industry, 50 days (provided by Ready Ratio) Matson has made excellent performance. Matson's average return turnover is much higher than the industry benchmark. (Figure 47)

Collection period- is the amount of time it takes for a business to receive payments owed by its clients in terms of accounts receivable. The target company has almost 39 days to receive the payments and keep flat fluctuating in the past 6 years. However, having a long period receive can make it has a chance to attracting more clients.

Figure 46 Total asset turnover

Source: self-made

Figure 47 Accounts receivable Turnover

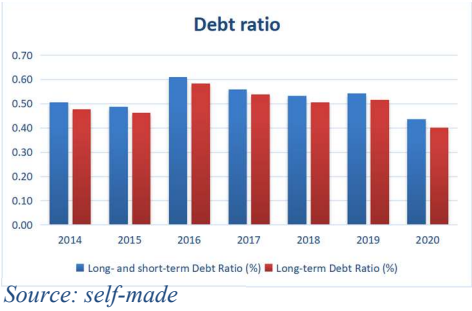
Source: self-made

Solvency Ratio

Long- and short-term Debt Ratio- Debt ratio shows the weight of debt on total capital, displaying the weight of debt on total operating capital. It also reflect the financial leverage of a company. The debt ratio of Matson is up to 44% and it is increasing in the past 3 years. Contrasting of the debt and equity, the company makes more debt instead of getting money from investor. High debt ratio can lead the firm face to a higher risk of financing and higher costs of financing. (Figure 48)

Long-term Debt Ratio- Long-term debt ratio is a ratio which compares the amount of long-term debt to the value of total assets on the books of a company. In other words, it gives a sense of financial leverage of a company. In this case, the long-term debt ratio is close to the total debt ratio, the company has heavy weight debt on long-term. However, it decreased in 2020. According to the annual report of the company, they will continuing decreasing long-term debt to hedge the interest rate risk. (Figure 48)

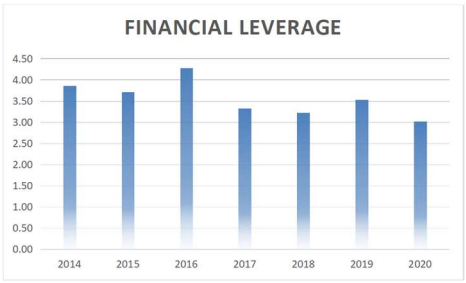
Figure 48 Debt ratio



Source: self-made

Financial Leverage- This ratio is a capital structure ratio that shows the extent to which a company depends on debt. That is, an assets-to-equity ratio above 1.0 is an indication it has gone into debt. Matson's financial leverage is very high. But it began to fall back after 2016. As I mentioned earlier, the company is trying to reduce its debt. (Figure 49)

Figure 49 Financial leverage

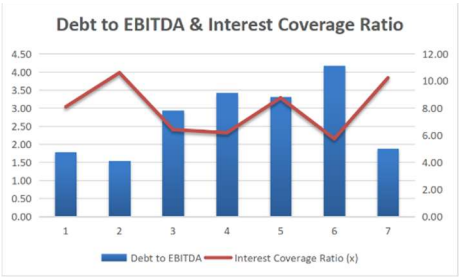


Source: self-made

Debt to EBITDA- A high Debt-to-EBITDA ratio generally means that a company may spend more time to paying off its debt. According to Joel Tillinghast's BIG MONEY THINKS SMALL: Biases, Blind Spots, and Smarter Investing, a ratio of Debt-to-EBITDA exceeding four is usually considered scary unless tangible assets cover the debt. Matson's Debt-to-EBITDA was 1.88 in 2020, and will back up to 3 in the estimated 5 years. MATX is a shipping company with a lot of tangible assets. And in the same industry, the ratio of Matson is lower than that of 79% of enterprises in the industry (Figure 50 & 51) .

Interest Coverage Ratio- Interest coverage is almost the same as times interest earned ratio but using EBITDA as numerator in order to use the data that more realistic to reflect the cash flow of operating. in 2020, the EBIT can cover 10.23 times of the finance expenses.(Figure 50)

Figure 50 Debt to EBITDA & Interest Coverage Ratio



Source: self-made

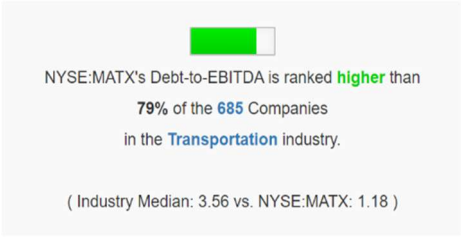
Value Creation and Cash Flow Ratios

Economic Value Added (EVA)- Economic value added (EVA) is a measure of a company's financial performance based on the residual wealth calculated by deducting its cost of capital from its operating profit, adjusted for taxes on a cash basis. This indicator can help investors judge whether the company will continue to operate. If the ratio is too low, the company manager may give up the operation because of the low economic benefit. (Figure 52)

Cash to Income- Cash to income ratio is a cash flow ratio which measures dollars of cash flows from operating activities per dollar of operating income. It is calculated by dividing cash flows from operations by the operating income. In 2020, Matson's cash to income is 3.33. This means that for every $1 invested in operations, matson will get an operating return of 3.33. (Figure 53)

All ratio above can be found in Appendix 8.

Figure 51 Debt-to-EBITDA ranking



Source: Gurufocus

Investment Risks

In this investment, there are 7 main factors should be mention and 3 of them are defined as high risk. (figure 54)

MARKET RISK

Figure 52 Economic value added

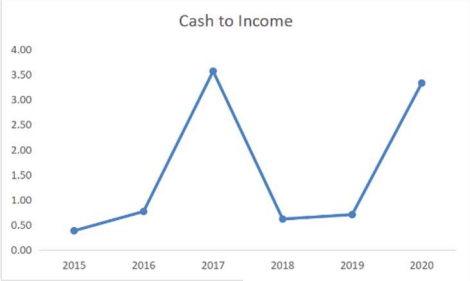
Source: self-made

Foreign Currency Risks (MR1): The Company has no material exposure to foreign currency risks, although it is indirectly affected by changes in currency rates to the extent that changes in rates affect tourism in Hawaii, Guam, Alaska and other locations. Transactions related to the Company's China service are primarily denominated in US dollars, and therefore, a one percent change in the Chinese Yuan exchange rate would not have a material effect on the company's results of operations. Transactions related to the Company's South Pacific service are primarily denominated in New Zealand dollars. However, a one percent change in

the New Zealand dollar exchange rate is not expected to have a material effect on the company's results of operations.

Investment Risks (MR2): The company will put money into the short-term money market. These money market funds and deposits maintain a weighted average maturity of fewer than 90 days, and accordingly, a one percent change in interest rates is not expected to have a material impact on the fair value of these investments or on interest income. The company had a nominal amount on deposit in money market funds as of December 31, 2020 and 2019.

Figure 53 Cash to Income

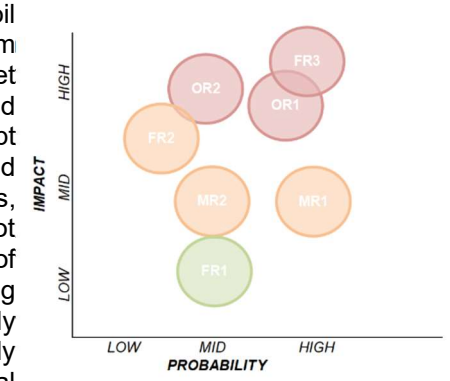


Source: self-made

OPERATING RISK

Oil price risk (OR1): Oil prices continue to rise from May to July 2021, said as "as the market continued to be supported by strong oil market fundamentals, primarily driven by robust oil demand growth outlooks and expectations of slow global oil supply growth, which point to a significant oil supply/demand deficit in 2H21." From OPEC (Organization of the Petroleum Exporting Countries) Monthly Oil Market Report-August 2021. Rising supply and demand, China, the United States and Europe have gradually recovered, and investment data in the oil industry have kept investors optimistic. This also brings more uncertainty to oil prices. Repeated outbreaks in the world's major economies, a widespread sell-off in the United States, and increased production by OPEC and Non-OPEC producers from 2021 will not necessarily lower crude oil prices but will lead to higher oil volatility. The effects of COVID-19 are primarily a short-term demand-side shock. Uncertainty surrounding post-pandemic expectations for oil demand translates to uncertainties in supply through prices. “Starting in 2023, oil and natural gas production remain at historically high levels through 2050.” EIA(Energy Information Administration) reported in annual energy outlook 2021 (Figure 55).

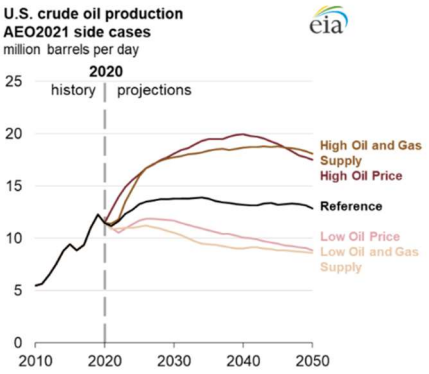
Figure 54 RISK MATRIX



Source: self-made

Pandemic risk (OR2): As covid-19 Pandemic recedes in China, the economy begins to recover and supply/demand gradually returns to normal. The current high volume and high rates are unstable and will change with the global epidemic. At the same time, after the resumption of transportation at Chinese terminals, a large amount of freight has led to a shortage of containers in the entire shipping industry, and ports on the west coast of the United States are also very congested. At present, there is a labor shortage in American ports, and customers' requirements for transporting goods can not be met in time. After novel coronavirus appeared, the travel of the company's personnel was affected, and the shipyard may not be able to deliver the ship because it was unable to obtain spare parts, resulting in a decline in transport capacity.

Figure 55 Oil price forecast by EIA

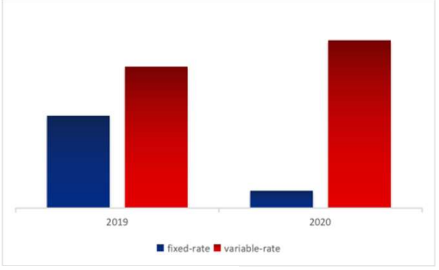


Source: EIA, annual energy outlook 2021

FINANCIAL RISK

Debt risk and floating rate risk (FR1): Except in the case of extreme default, the company does not need to repay its debt in advance. As of December 31, 2020, the company has outstanding floating rate debt of 71.8 million dollars and outstanding fixed interest rate debt of 688.3 million. Compared with 2019, Matson has significantly reduced its floating-rate debt. Fixed-rate debt is not affected by market interest rate fluctuations. It is expected that the floating rate will be stopped using LIBOR(London Interbank Offered Rate) as the benchmark in 2023, which may have some impact on Matson's debt, but they will reduce the negative impact of this change on the company as the company reduces its floating rate debt by a large proportion (Figure 56).

Figure 56 Debt

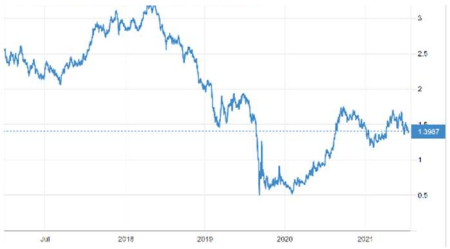


Source: self-made

Financing risk (FR2): Although Matson is trying to reduce its debt, its debt ratio is still high. This will make it difficult for companies to borrow or have high-interest rates. When a company encounters financial problems, its huge debt will make it difficult to raise funds to tide over the difficulties. The related credit rating will also be downgraded.

Risk free rate risk (FR3): Changes in the risk-free interest rate will have a significant impact on the company's share price. From 2019, risk-free rates have fallen for two years.It fell from 3% to 1.5% (figure 57). It was even less than 1% in 2020.At present, although the interest rate fluctuation is small, it has an upward trend, which is not a good effect on the company's stock price.

Figure 57 Risk free rate



Source: tradingeconomics

SENSITIVITY ANALYSIS

I applied the investment recommendation system as figure 58. The shipping industry is affected by many factors. There are not only economic factors, but also political factors. At present, in the context of a pandemic, many countries have issued relevant measures to restrict the flow of people or trade volume. This brings a lot of uncertainty to the shipping industry where Maston belongs to. So, I define risk of the company is high. (Figure 58)
According to this matrix and basing on DCF model, Sell is recommended when target price is below $75.61, reduce is recommended when target price is between $75.61 and $83.50 and hold (neutral) between $83.50 and $94.39. If the price is over $94.39 then the stock of Matson would be recommended as Strongly Buy.
In this case, the target price $84.01/share I estimated is a Hold recommendation.

Figure 58 Investment recommendation

investment recommendation	upside potential
sell	< -10%
reduce	>-10% & <15%
hold	<15% & 30%
buy	>30%

Source: self-made

Risk free rate impact the price

For more than two years, risk free rate in the United States has fluctuated between 0.5% and 2%. So I chose the floating range of interest rate from 0.27% to 2.27%, with change of 0.2%. The range of beta I chose is 0. 96 ±0. 1, and the range of change is 0. 02.
As can be seen from the table below, Matson's share price is very sensitive to risk-free interest rates, and every 0.2% change changes investment advice. According to the analysis of relevant people, the United States will raise the risk-free interest rate slightly in the near future. But it will fall back at 1.6% and fluctuate at 1.5%. To invest in this company, you need to keep an eye on changes in interest rates. (Figure 59)

Figure 59 Change in risk free rate

change in risk free rate										
0.27%	0.47%	0.67%	0.87%	1.07%	1.27%	1.47%	1.67%	1.87%	2.07%	2.27%
143.09	125.44	111.67	100.62	91.57	84.01	77.61	72.11	67.35	63.17	59.49

Source: self-made

Dividend paid impact the price through the DDM model

Dividend is very stable during the past. In 2020 Matson's annual report, they pointed out that the future dividend will rise steadily. This information is good news for long-term investors. The company has been looking at investment in fixed assets in the past two years and striving to upgrade and transform, in this situation the dividend payout as before and even increased in 2020. This makes investors more confident in the company.

When the basic value of payout ratio is 27%, the range of variation is 27% ±5%, and the range of variation is 1%. Stock prices were not as sensitive as risk-free interest rates changes and did not fall into the Sell range until the payout ratio fell by 3 percentage points. (Figure 60)

Figure 60 Change in dividend paid

change in dividend paid											
22%	23%	24%	25%	26%	27%	28%	29%	30%	31%	32%	33%
68.33	71.44	74.55	77.65	80.76	83.86	86.97	90.08	93.18	96.29	99.39	102.50

Source: self-made

Risk free rate VS dividend paid

Figure 61 Risk free rate VS dividend paid

When the risk-free rate changes at the same time as dividend paid, as shown in figure. When interest rates rise and dividend falls, it is more likely to fall into the Sell range.

The impact of interest rate on stock price is major, and the change of dividend paid does not obviously cause the sensitivity of stock price to interest rate. But when interest rates rise, share prices become more sensitive to dividend payout ratio.(Figure 61)

change in dividend paid \ change in risk free rate	0.27%	0.47%	0.67%	0.87%	1.07%	1.27%	1.47%	1.67%	1.87%	2.07%	2.27%
22%	121.56	105.62	93.2	83.25	75.12	68.33	62.6	57.69	53.44	49.72	46.45
23%	127.08	110.42	97.44	87.04	78.53	71.44	65.44	60.31	55.87	51.98	48.56
24%	132.61	115.22	101.67	90.82	81.94	74.55	68.29	62.93	58.3	54.24	50.68
25%	138.13	120.02	105.91	94.61	85.36	77.65	71.14	65.56	60.72	56.5	52.79
26%	143.66	124.82	110.14	98.39	88.77	80.76	73.98	68.18	63.15	58.76	54.90
27%	149.18	129.62	114.38	102.18	92.19	83.86	76.83	70.8	65.58	61.02	57.01
28%	154.71	134.42	118.62	105.96	95.6	86.97	79.67	73.42	68.01	63.28	59.12
29%	160.24	139.22	122.85	109.74	99.02	90.08	82.52	76.04	70.44	65.54	61.23
30%	165.76	144.03	127.09	113.53	102.43	93.18	85.36	78.67	72.87	67.81	63.34
31%	171.29	148.83	131.33	117.31	105.84	96.29	88.21	81.29	75.3	70.07	65.46
32%	176.81	153.63	135.56	121.1	109.26	99.39	91.05	83.91	77.73	72.33	67.57
33%	182.34	158.43	139.8	124.88	112.67	102.5	93.9	86.53	80.16	74.59	69.68

Source: self-made

Risk free rate VS beta

Figure 62 Risk free rate VS beta

The base value of the risk-free interest rate is 1.27%, the same as before, the range is 0.2%, and the range is 0.27% to 2.27%. The basic value of beta is 0.96, the range of variation is 0.86 to 1.08, and the range of variation is 0.02.

Stock prices are also sensitive to changes in beta, especially when interest rates are lower, and they are more sensitive to beta than when risk-free interest rates are high. (Figure 62)

change in beta \ change in risk free rate	0.27%	0.47%	0.67%	0.87%	1.07%	1.27%	1.47%	1.67%	1.87%	2.07%	2.27%
0.86	214.26	176.97	150.73	131.27	116.26	104.34	94.64	86.58	79.80	74.00	68.99
0.88	194.88	163.53	140.87	123.73	110.31	99.52	90.66	83.24	76.95	71.55	66.85
0.90	178.71	151.99	132.23	117.01	104.94	95.13	87.00	80.15	74.30	69.25	64.85
0.92	165.02	141.97	124.58	110.99	100.07	91.11	83.63	77.28	71.83	67.10	62.96
0.94	153.27	133.20	117.77	105.55	95.63	87.42	80.50	74.61	69.52	65.08	61.17
0.96	143.09	125.44	111.67	100.62	91.57	84.01	77.61	72.11	67.35	63.17	59.49
0.98	134.18	118.54	106.17	96.14	87.84	80.86	74.91	69.78	65.31	61.38	57.90
1.00	126.31	112.36	101.18	92.03	84.40	77.94	72.40	67.60	63.39	59.68	56.39
1.02	119.32	106.79	96.65	88.27	81.22	75.22	70.05	65.55	61.59	58.08	54.95
1.04	113.06	101.75	92.50	84.80	78.28	72.69	67.85	63.62	59.88	56.56	53.59
1.06	107.42	97.17	88.70	81.59	75.54	70.32	65.78	61.80	58.27	55.12	52.30
1.08	102.32	92.98	85.19	78.62	72.98	68.10	63.84	60.08	56.74	53.75	51.06

Source: self-made

Risk free rate VS change in tax

Figure 63 Risk free rate VS change in tax

In this case, the tax rate was set up changed in 20% to 31%, and the variation is 1%. We can see the sensitivity of change in tax rate is very low. The price get more sen sitive o f tax rate when the risk free rate goes up.
So the changes in tax rate will not impact the price hard and will not impact the recommendation. (Figure 63)

change in tax rate \ change in risk free rate	0.27%	0.47%	0.67%	0.87%	1.07%	1.27%	1.47%	1.67%	1.87%	2.07%	2.27%
20%	137.04	120.77	107.95	97.60	89.06	81.89	75.80	70.55	65.98	61.97	58.42
21%	138.21	121.67	108.67	98.19	89.55	82.31	76.15	70.85	66.25	62.21	58.63
22%	139.39	122.59	109.41	98.78	90.04	82.73	76.51	71.16	66.52	62.45	58.84
23%	140.60	123.52	110.15	99.39	90.54	83.15	76.87	71.48	66.79	62.69	59.06
24%	141.83	124.47	110.90	100.00	91.05	83.58	77.24	71.79	67.07	62.93	59.27
25%	143.08	125.43	111.66	100.62	91.56	84.01	77.61	72.11	67.35	63.17	59.49
26%	144.35	126.41	112.43	101.25	92.08	84.44	77.98	72.43	67.63	63.42	59.71
27%	145.65	127.40	113.22	101.88	92.61	84.89	78.35	72.76	67.91	63.67	59.93
28%	146.97	128.41	114.01	102.52	93.14	85.33	78.73	73.08	68.19	63.92	60.15
29%	148.31	129.43	114.82	103.17	93.68	85.78	79.12	73.41	68.48	64.17	60.37
30%	149.68	130.47	115.64	103.83	94.22	86.24	79.50	73.75	68.77	64.42	60.59
31%	151.07	131.53	116.47	104.50	94.77	86.70	79.89	74.08	69.06	64.68	60.82

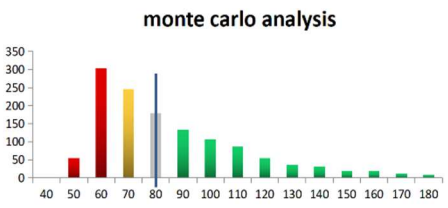
Source: self-made

MONTE CARLO ANALYSIS

Figure 64 Monte carlo analysis

According to the above sensitivity analysis, I have also done a MONTE CARLO simulation here as a supplement. In order to explore the changing trend of stock price under the influence of many factors. In this model, the variable factors I selected are 1) risk free rate; 2) tax rate; 3) beta; 4) long-term growth rate.

The final result of the Monte Carlo simulation is shown in figure 50. The average value is $81.10, which belongs to the range of hold. The probability of buying recommendation is 39%, which is consistent with the previous forecast. (Figure 64)



Source: self-made

Appendices

Appendix 1: Common size of Balance sheet

Years Ended December 31, (In millions)	Historical statements							Forcast statements					
	2014	2015	2016	2017	2018	2019	2020	2021F	2022F	2023F	2024F	2025F	2026F
Assets													
Fixed tangible assets	755.60	926.70	1031.60	1258.90	1453.60	1674.30	1738.60	1767.40	1767.40	1766.58	1763.83	1761.65	1760.91
Intangible assets	2.50	139.10	236.60	225.20	214.00	202.90	192.00	182.23	172.96	164.16	155.81	147.88	140.36
Good will	27.40	241.60	323.70	327.80	327.80	327.80	327.80	327.80	327.80	327.80	327.80	327.80	327.80
Marketable securities	27.5		31.2										
Other noncurrent assets	69.30	26.90	29.10	84.50	49.50	37.80	33.00	46.78	50.32	43.48	42.28	43.17	45.20
Deferrals	0.00	57.60	89.10	89.20	67.10	56.90	51.90	70.84	67.19	62.79	61.92	62.93	65.13
Total noncurrent assets	882.30	1391.90	1741.30	1985.60	2112.00	2299.70	2343.30	2395.05	2385.66	2364.81	2351.64	2343.43	2339.40
Trade receivables	197.60	192.80	189.50	194.60	223.70	205.90	253.40	250.18	258.69	267.48	276.58	285.98	295.71
Prepaid	20.50	59.60	70.80	51.60	75.10	62.50	38.10	59.62	59.62	59.62	58.02	58.94	56.63
Deferrals	8												
Cash & cash equivalents	293.4	25.5	13.9	19.8	19.6	21.2	14.4	14.4	14.4	14.4	14.4	14.4	14.4
Total current assets	519.50	277.90	274.20	266.00	318.40	289.60	305.90	324.20	332.71	341.50	349.00	359.32	366.74
Total Assets	1401.80	1669.80	2015.50	2251.60	2430.40	2589.30	2649.20	2719.25	2718.37	2706.31	2700.64	2702.75	2706.14
Liabilities													
Other noncurrent liabilities	154.10	203.20	208.90	178.20	177.30	157.40	165.80	177.52	171.24	169.85	168.36	170.56	171.51
Long-term debt	352.00	407.90	707.10	826.30	814.30	910.00	685.60	788.66	804.97	800.71	797.99	775.59	793.58
Deferred tax	308.40	310.50	348.80	283.60	312.70	337.60	389.60	334.46	331.59	341.19	346.89	348.75	340.58
Total noncurrent liabilities	814.50	921.60	1264.80	1288.10	1304.30	1405.00	1241.00	1300.64	1307.81	1311.75	1313.24	1294.89	1305.66
Trade payables	201.90	275.60	247.40	255.50	328.70	321.70	283.10	362.13	374.44	387.17	400.34	413.95	428.02
Short-term debt	21.60	22.00	31.80	30.80	42.10	48.40	59.20	67.03	75.91	85.95	97.33	110.21	124.79
Other financial liabilities						152.6	169.2						
Total current liabilities	223.50	297.60	279.20	286.30	370.80	522.70	511.50	429.17	450.35	473.13	497.67	524.16	552.82
Total Liabilities	1038.00	1219.20	1544.00	1574.40	1675.10	1927.70	1752.50	1729.81	1758.16	1784.88	1810.91	1819.05	1858.48
Shareholder's Equity													
Common stock	32.40	32.60	32.10	31.90	32.00	32.20	32.40	32.12	32.12	32.17	32.20	32.20	32.16
Retained Earnings	109.80	177.00	195.70	380.50	460.00	504.20	658.10	667.72	630.10	586.70	548.81	536.20	490.82
Revaluation surplus	-53.30	-46.90	-46.10	-24.90	-34.50	-36.90	-50.80	-38.64	-37.15	-39.60	-40.62	-41.36	-39.47
Additional paid in capital	274.90	287.90	289.80	289.70	297.80	306.20	321.50	328.24	335.13	342.16	349.34	356.67	364.15
Total Shareholder's Equity	363.80	450.60	471.50	677.20	755.30	805.70	961.20	989.45	960.21	921.43	889.73	883.71	847.66
Total Liabilities & Shareholder's Equity	1401.80	1669.80	2015.50	2251.60	2430.40	2733.40	2713.70	2719.25	2718.37	2706.31	2700.64	2702.75	2706.14

Appendix 2: Common size of Income sheet

Years Ended December 31, (In millions, except per share amounts)	Historical statements							Forcast statements					
	2014	2015	2016	2017	2018	2019	2020	2021F	2022F	2023F	2024F	2025F	2026F
Net sales	1714.20	1884.90	1941.60	2046.90	2222.80	2203.10	2383.30	2464.33	2548.12	2634.76	2724.34	2816.96	2912.74
Cost of sales	1426.90	1493.60	1601.90	1689.00	1838.20	1857.20	1878.00	1947.47	2014.42	2083.65	2155.22	2229.23	2305.76
Gross profit	287.30	391.30	339.70	357.90	384.60	345.90	505.30	516.86	533.70	551.11	569.11	587.73	606.98
Selling, general and administrative	147.30	195.00	185.10	208.50	220.80	216.80	225.00	239.99	248.15	256.59	265.31	274.33	283.66
Operating income	140.00	196.30	154.60	149.40	163.80	129.10	280.30	276.86	285.54	294.52	303.80	313.40	323.32
other Interest income					2.60	1.20	6.10	3.30	3.30	3.30	3.30	3.42	3.79
Interest expense	17.30	18.50	24.10	24.20	18.70	22.50	27.40	22.57	22.79	23.81	24.14	23.33	23.52
Income (loss) before taxes	122.70	177.80	130.50	125.20	145.10	106.60	252.90	254.30	262.75	270.71	279.66	290.07	299.80
Income taxes	51.90	74.80	49.10	-106.80	38.70	25.10	65.90	64.40	66.51	68.50	70.74	73.37	75.90
Net income (loss)	70.80	103.00	81.40	232.00	106.40	81.50	187.00	189.90	196.24	202.20	208.92	216.70	223.90

Appendix 3: Common size of Cash Flow

INCOME STATEMENT	Historical statements							Forcast statements					
	2014	2015	2016	2017	2018	2019	2020	2021F	2022F	2023F	2024F	2025F	2026F
Operating Activities		53.9	151.0	551.3	92.4	115.9	429.80	167.40	165.41	163.53	162.48	162.54	162.68
+Net income	70.80	103.00	81.40	232.00	109.00	82.70	193.10	193.20	199.54	205.50	212.22	220.11	227.69
+D&A	69.7	83.4	97.1	101.2	94.4	100.4	114.9	108.30	102.09	96.23	90.70	85.49	80.59
+Deferred income tax	51.90	74.80	49.10	-106.80	38.70	25.10	52.10	64.40	66.51	68.50	70.74	73.37	75.90
–ΔNWC	26.7	57.7	-21.6	-111.3	72.3	42.1	69.7	69.70	69.70	69.70	69.70	69.70	69.70
Investment Activities	-50.5	-63.8	-320.7	-276.9	-260.3	-306.9	-177.00	-234.27	-262.68	-253.01	-249.03	-247.15	-237.19
-CAPEX	27.9	21.3	94.5	252.0	338.6	219.1	87.8	168.88	193.48	209.98	202.97	180.37	173.91
+-Other Inv.	-22.6	-42.5	-226.2	-24.9	78.3	-87.8	-89.20	-65.38	-69.20	-43.03	-46.05	-66.78	-63.27
Financing Activities		-467.00	127.20	35.40	-58.70	39.50	-270.40	-169.95	-101.85	-85.08	-90.10	-73.24	-117.58
-Interest paid	17.3	18.5	24.1	24.2	18.7	22.5	27.4	22.57	22.79	23.81	24.14	23.33	23.52
-Dividends	28.7	30.8	32.2	33.8	35.4	37.2	39.2	36.49	53.88	55.49	57.30	59.43	61.48
–ΔDebt	-92.4	417.7	-183.5	-93.4	4.6	-99.2	203.8	110.89	25.18	5.78	8.66	-9.52	32.58
Change in Cash		-476.90	-42.50	309.80	-226.60	-151.50	-17.60	-236.81	-199.12	-174.56	-176.64	-157.85	-192.09

Appendix 4: Statement of Financial Position

Years Ended December 31, (In millions)	Historical statements							Forcast statements					
	2014	2015	2016	2017	2018	2019	2020	2021F	2022F	2023F	2024F	2025F	2026F
ASSETS													
Current Assets:													
Cash and cash equivalents	$ 293.40	$ 25.50	$ 13.90	$ 19.80	$ 19.60	$ 21.20	$ 14.40	$ 14.40	$ 14.40	$ 14.40	$ 14.40	$ 14.40	$ 14.40
Accounts receivable, net	197.6	192.8	189.5	194.6	223.7	205.9	253.4	250.18	258.69	267.48	276.58	285.98	295.71
Deferred income taxes	8.0												
Prepaid expenses and other assets	20.5	59.6	70.8	51.6	75.1	62.5	38.1	59.6	59.6	59.6	58.0	58.9	56.6
Total current assets	519.5	277.9	274.2	266.0	318.4	289.6	305.9	$ 324.20	$ 332.71	$ 341.50	$ 349.00	$ 359.32	$ 366.74
Long-term Assets:													
Investment in Terminal Joint Venture	64.4	66.4	82.4	93.2	87.0	76.2	48.7	77.5	77.5	76.7	73.9	71.8	71.0
Property and equipment, net	691.2	860.3	949.2	1,165.7	1,366.6	1,598.1	1689.9	1689.90	1689.90	1689.90	1689.90	1689.90	1689.90
Operating lease right of use assets						256.1	251.4						
Goodwill	27.4	241.6	323.7	327.8	327.8	327.8	327.8	327.8	327.8	327.8	327.8	327.8	327.8
Intangible assets, net	2.5	139.1	236.6	225.2	214.0	202.9	192.0	182.23	172.96	164.16	155.81	147.88	140.36
Capital Construction Fund - cash on deposit	27.5	0	31.2										
Deferred dry-docking costs, net		57.6	89.1	89.2	67.1	56.9	51.9	70.8	67.2	62.8	61.9	62.9	65.1
Other long-term assets	69.3	26.9	29.1	84.5	49.5	37.8	33.0	46.8	50.3	43.5	42.3	43.2	45.2
Total long-term assets	882.3	1391.9	1741.3	1,985.6	2,112.0	2,555.8	2594.7	2395.1	2385.7	2364.8	2351.6	2343.4	2339.4
Total Assets	$ 1,401.80	$ 1,669.80	$ 2,015.50	$ 2,251.60	$ 2,430.40	$2,845.40	$2,900.60	$2,719.25	$2,718.37	$2,706.31	$2,700.64	$2,702.75	$2,706.14
LIABILITIES AND SHAREHOLDERS' EQUITY													
Current Liabilities:													
Current portion of debt	$ 21.60	$ 22.00	$ 31.80	$ 30.80	$ 42.10	48.4	59.2	67.03	75.91	85.95	97.33	110.21	124.79
Accounts payable, other liabilities and accruals	201.9	275.6	247.4	255.5	328.7	321.7	283.1	362.1	374.4	387.2	400.3	414.0	428.0
Operating lease liabilities					0	66.6	72.4						
Other liabilities						86.0	96.8						
Total current liabilities	223.5	297.6	279.2	286.3	370.8	436.7	511.5	429.17	450.35	473.13	497.67	524.16	552.82
Long-term Liabilities:													
Long-term debt	352.0	407.9	707.1	826.3	814.3	910.0	685.6	788.66	804.97	800.71	797.99	775.59	793.58
Long-term operating lease liabilities						198.0	186.9						
Deferred income taxes	308.4	310.5	348.8	283.6	312.7	337.6	389.6	334.5	331.6	341.2	346.9	348.7	340.6
Other long-term liabilities	154.1	203.2	208.9	178.2	177.3	157.4	165.8	177.5	171.2	169.9	168.4	170.6	171.5
Total long-term liabilities	814.5	921.6	1,264.8	1,288.1	1,304.3	1,603.0	1,427.9	1300.6	1307.8	1311.7	1313.2	1294.9	1305.7
Commitments and Contingencies													
Shareholders' Equity:													
Common stock	32.4	32.6	32.1	31.9	32.0	32.2	32.4	32.1	32.1	32.2	32.2	32.2	32.2
Additional paid in capital	274.9	287.9	289.8	289.7	297.8	306.2	321.5	328.2	335.1	342.2	349.3	356.7	364.1
Accumulated other comprehensive loss, net	(53.3)	(46.9)	(46.1)	(24.9)	(34.5)	(36.9)	-50.8	(38.6)	(37.1)	(39.6)	(40.6)	(41.4)	(39.5)
Retained earnings	109.8	177.0	195.7	380.5	460.0	504.2	658.1	$667.72	$630.10	$586.70	$548.81	$536.20	$490.82
Total shareholders' equity	363.8	450.6	471.5	677.2	755.3	805.7	961.2	989.4	960.2	921.4	889.7	883.7	847.7
Total Liabilities and Shareholders' Equity	$ 1,401.80	$ 1,669.80	$ 2,015.50	$ 2,251.60	$ 2,430.40	$ 2,845.40	$ 2,554.90	$2,719.25	$2,718.37	$2,706.31	$2,700.64	$2,702.75	$2,706.14

Appendix 5: Income Statement

Years Ended December 31, (In millions, except per share amounts)	Historical statements							Forcast statements					
	2014	2015	2016	2017	2018	2019	2020	2021F	2022F	2023F	2024F	2025F	2026F
Operating Revenue:													
Ocean Transportation	$ 1,278.40	$ 1,498.00	$ 1,541.10	$ 1,571.80	$ 1,641.30	$ 1,666.60	$ 1,853.90						
Logistics	435.8	386.9	400.5	475.1	581.5	536.5	529.4						
Total Operating Revenue	1,714.2	1,884.9	1,941.6	2,046.9	2,222.8	2,203.1	2383.30	2464.33	2548.12	2634.76	2724.34	2816.96	2912.74
Costs and Expenses:													
Operating costs	1,433.5	1,510.1	1,617.7	1,717.2	1,875.0	1,878.0	1904.30	1969.05	2035.99	2105.22	2176.79	2250.81	2327.33
Equity income of SSAT	6.6	16.5	15.8	28.2	36.8	20.8	26.30	21.57	21.57	21.57	21.57	21.57	21.57
Selling, general and administrative	147.3	195.0	185.1	208.5	220.8	216.8	225.00	239.99	248.15	256.59	265.31	274.33	283.66
Total Costs and Expenses	1,574.2	1,688.6	1,787.0	1,897.5	2,059.0	2,074.0	2,103.0	2,187.5	2,262.6	2,340.2	2,420.5	2,503.6	2,589.4
Operating Income	140.0	196.3	154.6	149.4	163.8	129.1	280.3	276.9	285.5	294.5	303.8	313.4	323.3
Interest expense	17.3	18.5	24.1	24.2	18.7	22.5	27.4	22.6	22.8	23.8	24.1	23.3	23.5
Other income (expense), net					2.6	1.2	6.10	3.30	3.30	3.30	3.30	3.42	3.79
Income before Income Taxes	122.7	177.8	130.5	125.2	147.7	107.8	259.0	257.60	266.05	274.01	282.96	293.48	303.58
Income taxes	51.9	74.8	49.1	-106.8	38.7	25.1	65.9	64.40	66.51	68.50	70.74	73.37	75.90
Net Income	70.8	103.0	81.4	232.0	109.0	82.7	193.1	$ 193.20	$ 199.54	$ 205.50	$ 212.22	$ 220.11	$ 227.69
Other Comprehensive Income (Loss), Net of Income Taxes:													
Net Income	$ 70.80	$ 103.00	$ 80.50	$ 231.00	$ 109.00	$ 82.70	193.1						
Other Comprehensive Income (Loss):	(31.4)	5.1	0.7										
Net gain in prior service cost	(1.3)	(1.3)	(1.3)	0.8	—	—	—						
Amortization of prior service cost	2.5	1.8	1.2	(4.0)	(4.7)	(4.5)	(4.7)						
Amortization of net loss	0.4	0.7	0.1	1.7	1.1	2.7	(9.4)						
Other adjustments	—	0.1	0.1	0.2		(0.6)	0.2						
Total Other Comprehensive (Loss) Income	(29.8)	6.4	0.8	(1.3)	(3.6)	(2.4)	(13.9)						
Comprehensive Income	$ 41.00	$ 109.40	$ 81.30	$ 229.70	$ 105.40	$ 80.30	$ 179.20						
Basic Earnings Per Share	$ 1.65	$ 2.37	$ 1.87	$ 5.38	$ 2.55	$ 1.93	$4.48	$4.45	$4.59	$4.73	$4.89	$5.07	$5.24
Diluted Earnings Per Share	$ 1.63	$ 2.34	$ 1.85	$ 5.35	$ 2.53	$ 1.91	4.44						
Weighted Average Number of Shares Outstanding:													
Basic	43.0	43.5	43.1	42.9	42.7	42.8	43.1						
Diluted	43.4	44.0	43.5	43.2	43.0	43.3	43.5						

Appendix 6: Key Financial Ratios

Key Financial Ratios	Historical statements							Forcast statements					
	2014	2015	2016	2017	2018	2019	2020	2021F	2022F	2023F	2024F	2025F	2026F
Liquidity Ratios													
Current Ratio (x)	2.32	0.93	0.98	0.93	0.86	0.66	0.60	0.76	0.74	0.72	0.70	0.69	0.66
Quick Ratio (x)	2.20	0.73	0.73	0.75	0.66	0.52	0.52	0.62	0.61	0.60	0.58	0.57	0.56
Cash Ratio (x)	1.31	0.09	0.05	0.07	0.05	0.05	0.03	0.03	0.03	0.03	0.03	0.03	0.03
Efficiency Ratios													
Total Assets Turnover (x)		1.23	1.05	0.96	0.95	0.84	0.83	0.88	0.94	0.97	1.01	1.04	1.08
Accounts Receivables Turnover (x)		9.78	10.25	10.52	9.94	10.70	9.41	9.85	9.85	9.85	9.85	9.85	9.85
Collection Period (days)		37.33	35.62	34.70	36.73	34.11	38.81	37.06	37.06	37.06	37.06	37.06	37.06
Inventory Turnover (x)	/	/	/	/	/	/	/	/	/	/	/	/	/
Days in Inventory (days)	/	/	/	/	/	/	/	/	/	/	/	/	/
Payables Turnover (x)	/	/	/	/	/	/	/	/	/	/	/	/	/
Payables Period (days)	/	/	/	/	/	/	/	/	/	/	/	/	/
Operating Cycle (days)	0.00	37.33	35.62	34.70	36.73	34.11	38.81	37.06	37.06	37.06	37.06	37.06	37.06
Cash Cycle (days)	0.00	37.33	35.62	34.70	36.73	34.11	38.81	37.06	37.06	37.06	37.06	37.06	37.06
Assets Turnover		2.43	2.15	1.94	1.76	1.49	2.58	2.54	1.51	1.56	1.61	1.67	1.72
Profitability Ratios													
Gross Profit Margin (%)	16.37%	19.88%	16.68%	16.11%	15.65%	14.76%	20.10%	20.10%	20.10%	20.10%	20.10%	20.10%	20.10%
EBITDA Margin (%)	12.23%	14.84%	12.96%	12.24%	11.62%	10.42%	16.58%	15.63%	15.21%	14.83%	14.48%	14.16%	13.87%
EBIT Margin (%)	8.17%	10.41%	7.96%	7.30%	7.37%	5.86%	11.76%	11.23%	11.21%	11.18%	11.15%	11.13%	11.10%
Net Profit Margin (%)	4.13%	5.46%	4.19%	11.33%	4.90%	3.75%	8.10%	7.84%	7.83%	7.80%	7.79%	7.81%	7.82%
ROA (%)	6.72%	7.66%	5.65%	11.75%	5.52%	3.97%	7.93%	8.23%	8.47%	8.78%	9.06%	9.31%	9.59%
ROCE (%)	18.99%	22.29%	12.77%	9.74%	10.16%	7.32%	16.43%	15.01%	15.51%	16.29%	17.02%	17.71%	18.31%
ROE (%)	19.46%	22.86%	17.26%	34.26%	14.43%	10.26%	20.09%	19.53%	20.78%	22.30%	23.85%	24.91%	0.27
EPS (x)	1.65	2.37	1.87	5.38	2.55	1.93	4.48	4.45	4.59	4.73	4.89	5.07	5.24
SG&A/Sale (%)	8.59%	10.35%	9.53%	10.19%	9.93%	9.84%	9.44%	9.74%	9.74%	9.74%	9.74%	9.74%	9.74%
Solvency Ratios													
Long- and short-term Debt Ratio (%)	0.51	0.49	0.61	0.56	0.53	0.54	0.44	0.46	0.48	0.49	0.50	0.50	0.52
Long-term Debt Ratio (%)	0.48	0.46	0.58	0.54	0.51	0.52	0.40	0.43	0.44	0.44	0.45	0.44	0.45
Debt to Equity Ratio (x)	1.03	0.95	1.57	1.27	1.13	1.19	0.77	0.86	0.92	0.96	1.01	1.00	1.08
Equity Multiplier/Financial leverage (x)	3.85	3.71	4.27	3.32	3.22	3.53	3.02	2.75	2.83	2.94	3.04	3.06	3.19
Debt to EBITDA	1.78	1.54	2.94	3.42	3.32	4.18	1.88	2.22	2.27	2.27	2.27	2.22	2.27
Interest Coverage Ratio (x)	8.09	10.61	6.41	6.17	8.76	5.74	10.23	12.27	12.53	12.37	12.58	13.43	13.75
Value Creation and Cash Flow Ratios													
Economic Value Added (EVA)	51.88	80.88	36.27	15.71	20.96	-9.68	91.68	82.07	87.93	95.51	102.77	109.83	116.46
Cash to Income		0.39	0.77	3.57	0.62	0.71	3.33	0.60	0.60	0.57	0.55	0.54	0.52
Earnings Quality: CFO/(NP+D&A+ΔNWC)		0.28%	0.43%	0.67%	0.26%	0.24%	0.13%	0.17%	0.16%	0.16%	0.15%	0.15%	0.14%

Appendix 7: Free Cash Flow

Cash flows	Historical statements							Forcast statements					
	2014	2015	2016	2017	2018	2019	2020F	2021F	2022F	2023F	2024F	2025F	2026F
Operating income	140.00	196.30	154.60	149.40	163.80	129.10	280.30	276.86	285.54	294.52	303.80	313.40	323.32
Tax rate	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25
(-) Income taxes on operating profit	35.00	49.08	38.65	37.35	40.95	32.28	70.08	69.22	71.39	73.63	75.95	78.35	80.83
NOPAT (Net Operating Profit After Taxes)	105.00	147.23	115.95	112.05	122.85	96.83	210.23	207.65	214.16	220.89	227.85	235.05	242.49
(+) D&A	69.70	83.40	97.10	101.20	94.40	100.40	114.90	108.30	102.09	96.23	90.70	85.49	80.59
(-) Increase in WCR		57.70	-21.60	-111.30	72.30	42.10	69.70	69.70	69.70	69.70	69.70	69.70	69.70
(-) CAPEX	27.90	21.30	94.50	252.00	338.60	219.10	87.80	168.88	193.48	209.98	202.97	180.37	173.91
Free cash flow		151.63	140.15	72.55	-193.65	-63.98	167.63	77.37	53.06	37.44	45.88	70.47	79.46
(-) (1-t)* Interest payment	12.98	13.88	18.08	18.15	14.03	16.88	20.55	16.93	17.09	17.86	18.11	17.50	17.64
(+) Δdebt	-92.40	417.70	-183.50	-93.40	4.60	-99.20	203.80	110.89	25.18	5.78	8.66	-9.52	32.58
Free cash flow to equity	-105.38	555.45	-61.43	-39.00	-203.08	-180.05	350.88	171.34	61.15	25.36	36.43	43.45	94.40

Appendix 8: Forecasting Assumptions

Income statement	2021F	2022F	2023F	2024F	2025F	2026F	Assumptions
Sales growth rate	3.40%	3.40%	3.40%	3.40%	3.40%	3.40%	the sales growth rate will match the market growth rate
GDP growth rate	6.40%	3.50%	1.40%	1.50%	1.60%	1.60%	IMF forcast 2021(September)
Market growth	3.40%	3.40%	3.40%	3.40%	3.40%	3.40%	"Global Freight Demand to Triple by 2050" published by THE MARITIME EXECUTIVE in
market share (constant)	2.69%	2.69%	2.69%	2.69%	2.69%	2.69%	CSImarket 2020
gross margin	20.00%	20.00%	20.00%	20.00%	20.00%	20.00%	calculated from the gross margin of 2020, assuming that it would constant in 5 years
SG&A	9.74%	9.74%	9.74%	9.74%	9.74%	9.74%	average of SG&A persentage of operating renvenue from 2014 to 2020
tax rate	25.00%	25.00%	25.00%	25.00%	25.00%	25.00%	assumption from MATX annual report 2020
common share #	43.44mil	43.44mil	43.44mil	43.44mil	43.44mil	43.44mil	2020 final report, assuming it will constant in 6 years
Operating costs	1969.05	2035.99	2105.22	2176.79	2250.81	2327.33	assuming the gross margin is constantly in 5 years about 20%
Equity income of SSAT	21.57	21.57	21.57	21.57	21.57	21.57	average of the equity income from 2014 to 2020
Selling, general and administrative	239.99	248.15	256.59	265.31	274.33	283.66	average rate of history rate of SG&A from 2014 to 2020
Interest expense	22.6	22.8	23.8	24.1	23.3	23.5	avrage of past 6 years data
Other income (expense), net	3.30	3.30	3.30	3.30	3.42	3.79	average of past 6 years data
Balance sheet	**2021F**	**2022F**	**2023F**	**2024F**	**2025F**	**2026F**	**Assumptions**
collection period	37.06	37.06	37.06	37.06	37.06	37.06	average of collection period from 2014 to 2020
D&A	6.41%	6.04%	5.69%	5.37%	5.06%	4.77%	Average increase rate from 2014 to 2020, we have the growth rate is -5.74%.
Goodwill	327.80	327.80	327.80	327.80	327.80	327.80	assumming the goodwill will not decrease and increase
Property and equipment, net	1689.90	1689.90	1689.90	1689.90	1689.90	1689.90	Assuming the fProperty and equipment will not change in 5 years, since the investment project will be done in 2020 which was writed in the annual report of 2020
growth of intangible asset	-5.09%	-5.09%	-5.09%	-5.09%	-5.09%	-5.09%	the in crease rate from 2016 to 2020. since 2014 to 2015 ramp up repidly, because the company just gone public.
growth of current portion of debt	0.13	0.13	1.13	1.13	2.13	2.13	multiple invrease rate from 2016 to 2020
payable outstanding	53.64	53.64	53.64	53.64	53.64	53.64	assuming the payable outstanding keep average of 2014 to 2020 in the future 5 years
growth of additional paid in capital	0.02	0.02	0.02	0.02	0.02	0.02	Averaging the growth rate from 2016 to 2020
dividend pay	52.13	53.87	55.60	57.34	59.08	60.82	assuming the dividend will increase 0.04 per year
common share #	43.44	43.44	43.44	43.44	43.44	43.44	assuming the sommon share will not change in the future
CAPEX	168.88	193.48	209.98	202.97	180.37	173.91	assumption：averaging the CAPEX in past 6 years
Other Inv.	-65.38	-69.20	-43.03	-46.05	-66.78	-63.27	assumption：averaging the other investiment in past 6 years

Model assumptions		
long-term growth	3.40%	According to THE MARITIME EXECUTIVE, global shipping demand will triple by 2050. "The projected compound annual growth rate of freight is anticipated to be 3.4 percent through 2050. " Matson, as the leading enterprise of HNA freight transport, can keep up with the development of the industry, the GROWTH of the Match industry. So I take 3.4% as its long-term growth rate.
Dividend policy	27%	Since Matson went public in 2012, it has paid dividends at a steady dividend of $0.04 a year, with a quarterly frequency. Matson has 100% Payout Stability and Payout Growth Stability, but the average annual dividend yield is the industry average yield(Figure 25 and 26).The company revealed in its annual report that it will increase dividend paid in the future, so I assume that the company's payout ratio will reach 27%.
market risk premium	4.72%	source from report "Country Default Spreads and Risk Premiums“， keep stable
beta	0.96	source from Yahoo Finance, keep stable.
risk free rate	1.27%	source from the US treasury government, keep stable
cost of debt	5%	everage all cost of debt, keep stable
dividend growth rate in 5 years	19.05%	growth rate of 2020, keep stable in 5 years

Appendix 9: Business and Corporate Structure

Stanley M. Kuriyama
Age: 67
Lead Independent Director and Chair of the Nominating and Corporate Governance Committee
Director Since: 2016

- Chairman of Alexander & Baldwin, Inc., Honolulu, Hawaii (NYSE:ALEX) (real estate investment trust) ("A&B") from June 2012 to September 2020; and
- Chief Executive Officer of A&B from January 2010 to December 2015; Director of A&B from January 2010 through June 2012; and executive Chairman of A&B from January 2016 to December 2016.

Director Qualifications

As the former Chairman and Chief Executive Officer of A&B, Mr. Kuriyama brings to the Board an in-depth knowledge of Hawaii and Matson's operating markets. From September 2009 to June 2012, he also served as a Director and Chairman of the Board of the Company's subsidiary, Matson Navigation Company, Inc., prior to the Company's separation from A&B, and is knowledgeable about all aspects of the Company's operations. Mr. Kuriyama also has extensive involvement in the Hawaii business community and local community organizations.

Matthew J. Cox
Age: 59
Chairman and CEO
Director Since: 2012

- Chairman of the Board of Matson since April 2017 and Chief Executive Officer since June 2012;
- President of Matson from June 2012 to April 2017;
- Chairman and CEO of Matson's subsidiary, Matson Navigation Company, Inc. ("MatNav") since June 2012;
- President of MatNav from October 2008 to April 2017;
- Variety of positions, including Vice President, Refrigerated Containers, at American President Lines ("APL") (global container transportation company) from 1987 to 1999; and
- Director of First Hawaiian, Inc. (Nasdaq:FHB) (bank holding company) ("First Hawaiian") since 2016.

Director Qualifications

As a member of Matson's senior management team for over 19 years and with more than 33 years of transportation and logistics experience, Mr. Cox brings to the Board an in-depth knowledge of all aspects of the Company's operations, and is knowledgeable about Matson's operating markets through his Matson, APL and other experience and his involvement in the Hawaii business community and local community organizations.

Meredith J. Ching
Age: 64
Director Since: 2020

- Executive Vice President, External Affairs of A&B since March 2018;
- Senior Vice President, Government & Community Relations of A&B from June 2007 to March 2018; and
- Director of Cincinnati Bell Inc.[1] (NYSE:CBB) (telecommunications provider) ("Cincinnati Bell") since July 2018 and former director of Hawaiian Telcom Holdco, Inc. from May 2015 to June 2018.

Director Qualifications

As Executive Vice President of External Affairs at A&B and through her extensive involvement in the Hawaii business community and local community organizations, Ms. Ching brings to the Board deep understanding about Hawaii and Matson's operating markets. She also has public company board experience via her service on the boards of Hawaiian Telcom and Cincinnati Bell Inc.

Mark H. Fukunaga
Age: 65
Chair of the Compensation Committee
Director Since: 2018

- Chairman and Chief Executive Officer of Servco Pacific Inc., Honolulu, Hawaii (automotive distribution and retailing) ("Servco") since March 1994.

Director Qualifications

As the Chairman and Chief Executive Officer of Servco, a company with operations in automotive distribution and retailing, musical instruments and e-learning, and investments in venture capital and private equity, Mr. Fukunaga brings to the Board extensive operating experience and leadership skills. He is knowledgeable about Hawaii and Matson's operating markets through his involvement in the Hawaii business community and local community organizations. In addition, Mr. Fukunaga has extensive business experience in the U.S. Pacific Northwest, Asia and the Pacific Rim.

Constance H. Lau
Age: 68
Chair of the Audit Committee
Director Since: 2004

- President, Chief Executive Officer and Director of HEI since May 2006;
- Chairman of the Board and Director of American Savings Bank, F.S.B. ("American Savings Bank"), a subsidiary of HEI, since May 2006; and
- Director of HECO from May 2006 to May 2019.

Director Qualifications

As President, Chief Executive Officer and director of HEI, the largest publicly-traded corporation in Hawaii, and as Chair of the Board of HEI's banking subsidiary, Ms. Lau brings to the Board experience with capital intensive infrastructure and regulated industries as well as in managing complex business organizations. She also serves as Chair, National Infrastructure Advisory Council, which advises the President of the United States on the security of critical infrastructure sectors, including transportation, and their information systems. In addition, Ms. Lau has extensive experience in the banking industry and has been designated by the Board of Directors as an Audit Committee Financial Expert. She also is knowledgeable about Hawaii and Matson's operating markets through her involvement in the Hawaii business community and local community organizations.

Thomas B. Fargo
Age: 72
Director Since: 2011

- Chairman of the Board of Hawaiian Electric Industries, Inc., Honolulu, Hawaii (NYSE:HE) (electric utility/banking) ("HEI") since May 2020 and a director since March 2005;
- Commander, U.S. Pacific Command, from May 2002 to March 2005;
- John M. Shalikasvili Chair in National Security Studies at the National Bureau of Asian Research from 2010 to March 2016;
- Owner of Fargo Associates, LLC (defense and homeland/national security consultancy) since 2005;
- Lead Director of The Greenbrier Companies, Inc. (NYSE:GBX) (transportation equipment and services) since January 2021 and a director since July 2015; and
- Non-Executive Chairman of the Board, Huntington Ingalls Industries, Inc., Newport News, Virginia (NYSE:HII) (military shipbuilder) from March 2011 to April 2020; and director of Hawaiian Electric Company, Inc. ("HECO"), a subsidiary of HEI, from March 2005 to January 2017.

Director Qualifications

Through his various executive and leadership roles, Admiral Fargo brings to the Board experience in maritime and military operations and in managing complex business organizations. He is knowledgeable about Hawaii and Matson's operating markets through his involvement in the Hawaii business community and local community organizations. Admiral Fargo also has extensive diplomatic, business and policy experience in Asia. As the senior military commander in East Asia and the Pacific, he was responsible for U.S. security arrangements and engagement with the respective governments of the region.

Jenai S. Wall
Age: 62
Director Since: 2019

- Chairman and Chief Executive Officer of Foodland Super Market, Ltd. (grocery retailer) ("Foodland"), Food Pantry, Ltd., Kalama Beach Corporation and Pacific Warehouse, Inc., Honolulu, Hawaii since 1998;
- Director of First Hawaiian since August 2018; and
- Director of A&B from April 2015 to April 2019.

Director Qualifications

As Chairman and Chief Executive Officer of Foodland, the largest locally-owned grocery retailer in Hawaii, and other entities in the Sullivan Family of Companies, Ms. Wall brings to the Board experience in managing complex business organizations and real-time logistics expertise. She is knowledgeable about Hawaii and Matson's operating markets through her involvement in the Hawaii business community and local community organizations. She also has public company board experience via her service on the board of First Hawaiian.

Appendix 10: SWOT of Group peer

SWOT OF MATSON

Strengh

- ***Pacific Expertise***
  Key located in the middle of the Pacific Ocean, in Hawaii, between China and the USA West Coast. And also is a leader in these shipping lines.Matson is the largest player, expert of shipping and logistics on the Honolulu port in Hawaii.
- ***Direct Shipping line from China to Southern California is distinguished by its low transit times compared to the competitors.***
- ***It is Industry leading on-time arrivals and a high level of customer satisfaction.***
  It has Award-winning customer service, including shipment tracking online.
- ***High Skilled Workforce***
  Matson invests huge resources in the training and development programs of its employees.
- ***Customer Concentration***
  Matson serves customers in numerous industries and carries a wide variety of cargo, mitigating its dependence upon any single customer or a single type of cargo.

Weakness

- ***Not a Global player***
  Matson is only playing on the Pacific Ocean, while the main players have lines linking all Continents. It doesn't operate with the European Market.
- ***Low quote of operations on most parts of the West Coast (USA) comparing to the competitors.***
- ***Focus only on two segments***
  Logistics and shipping, while the main players also focus on other segments as the transport of NGL, OIL.
- ***Seasonality***
  Matson's Ocean Transportation services typically experience seasonality in volume, generally following a pattern of increasing volumes starting in the second quarter of each year, culminating in a peak season throughout the third quarter, with a subsequent decline in demand during the fourth and first quarters.
- ***The company's terminals in Hawaii and Alaska require modernization.***
- ***Inexistency of ports and shipping lines with the Pacific West Coast of Central and South America.***

Opportunity

- ***Hawaii Terminal Expansion and Modernization Program***
  Terminal expansion and modernization of Matson´s Sand Island Terminal can permit to increase operations and reduce the time of loading and unloading of Containers.
- ***New Costumers from the online platform***
  In the last years, Matson's has invested in its online platform, which can lead to new sales in the next years,
- ***Increase the frequency of the Shipping line between China and California West Coast*** .
  Matson provides low transit times on this route. It has more advantages in this way than other companies.
- ***Entering in the new emerging market of South and Central America ports.***
- ***New technology and investments in research***
  This strategy can drive the company to start operating in new segments.
- ***Decreasing costs of transportation***
  It will bring the opportunity to boost profitability or pass on the benefits to the customers (reducing prices) to gain market share.
- ***Establish alliances with bigger players to increase the market share of both companies.***

Threaten

- ***Currency exchange rate fluctuations and the ability to manage these fluctuations***
- ***The cost of local distributors is growing.***
  The growing strengths of local distributors also present a threat in some markets as the competition pays higher margins to the regional distributions.
- ***New entrance players.***
  It is Increasing of Rivalry in the shipping lanes between the Pacific Islands and Asia, with new players' entrance at these lines.
- ***The volatility of the tariffs***
  There are dynamics involving U.S. trade relations with other countries, including measures such as the imposition of tariffs at varying levels.
- ***Lawsuits in various markets***
  The company can face different laws and continuous fluctuations regarding product standards in those markets. New Environmental and Maritime Laws can severely impact the company and Industry.
- ***There are Risks related to actual (COVID-19) and futures pandemics.***
  The virus could significantly disrupt the business .

SWOT OF EVERGREEN

Strengh	Weakness
➢ ***The Evergreen joint in OCEAN Alliance in April 2017, it was in CKYHE Alliance before. OCEAN is larger than CKYHE; there are advantages expect to Evergreen.*** The OCEAN Alliance was officially kicked off in April 2017, which comprises the French CMA CGM, China Ocean (COSCO), Hong Kong Orient Overseas (OOCL), and Evergreen. ➢ ***The only shipping company in Taiwan has terminal assets that can improve ships' operational efficiency and reduce operating costs.*** Evergreen owns wharves in Kaohsiung, Taiwan, Taichung Port, Taiwan; Panamanian Lang; Italian Tarando; Busan, Korea, and the Chinese mainland. ➢ ***Diversified routes. It is Serving over 80 counties with more than 240 service points around the world*** . ➢ ***Launch the online trading platform, provide online inquiry, booking, and payment functions, creating an online Shanghai transportation ecosystem.***	➢ ***The cost of fuel is rising because of change it to low-sulfur fuel, required by IMO2020.*** With effect from January 1, 2020, low-sulfur fuel must be used in the world's oceans except vessels equipped with scrubbers. At the beginning of the year, the price of low-sulfur fuel in the fuel market rose sharply due to limited supply. In early March, OPEC and Russia broke down in production-limiting talks, causing fuel prices to shift drastically in fuel markets around the world. Since fuel cost is one of the most important cost items for shipping companies, the drastic changes in the fuel market make it more challenging to control the company's related costs. ➢ ***The ability to transport goods is low because of the old vessel.*** With the growing demand for freight, The freight capacity of old ships can not meet the market, resulting in the company's interests can not be maximized. In addition, fuel costs are also higher than other companies. Based on the new requirement of low-sulfur fuel, the company has to phase-out its old vessel quickly. ➢ ***The cost of shipbuilding is high, and Evergreen itself does not have shipbuilding skills.***
Opportunity	**Threaten**
➢ ***Ships can call directly at docks in Taiwan and the Chinese mainland*** ➢ ***Relations between Taiwan and CHINA-mainland have eased, and cooperation has been gradually established.*** Although Sino-Taiwan relations have been somewhat tense in the Sino-US trade war, Sino-Taiwan cooperation has become a long-term development goal. The two sides will reach a deeper cooperative relationship in the foreseeable future.	➢ ***The increase in tariff barriers affects the original mode of trade.*** In 2020, the global economy is suffering from an ever-increasing tariff barrier, and there is uncertainty in the local political climate. Heavily damage to the regular operation of global supply. ➢ ***Political factors affect financial markets, causing shipping prices to be depressed.*** In the context of uncertainties over the Sino-US trade war, international trade protectionism, Brexit, geopolitical tensions, and the COVID-19 incident, the global container transport market still faces considerable challenges.

SWOT OF MAERSK

Strength	Weakness
➢ ***The largest company in the world*** Maersk is the largest company in the world in the sea transport industry. And some of its strengths come from this position, with over 80000 employees and present in more than 130 countries. This allows the company to have a very diversified and dynamic workforce. ➢ ***Offers end to end solutions*** Relating to Customer service, Maersk is very well equipped to excel. Providing excellent end to end solutions to its clients and provide help with services such as cargo insurance, among others. ➢ ***Belong to a big alliance with MSC*** They have a lot of negotiation power and can put pressure on different ports to create more favorable conditions for all members of the alliance. This bargaining power leads to better tariffs and higher volume discounts, which enables everyone involved to remain competitive. Moreover, these cost-savings can be passed along to their customers	➢ ***Difficulties in integrating large companies' trough M&A*** Maersk still struggles with integrating some companies it acquired over the years such as Safmarine or Hamburg-Sud. ➢ ***Lots of available capacity*** Although being a large company with large vessels gives a strong advantage when business is booming when a downturn hits, Maersk stays with very high capacity vessels that don't get full, and this creates a problem – high fixed costs. Maersk also has big liabilities in the form of leasing. Being these vessels or containers may allow some flexibility but leaves the company in the hands of others.
Opportunity	**Threaten**
➢ ***Growth of the intermodal sector*** The growth in intermodal logistics can allow Maersk to be in every step of the way, and that's why the company has been investing in complementary logistics companies to offer better and more complete options to its clients. ➢ ***Investment in internet platform*** Maersk has been investing in its internet presence, offering its clients a platform with lots of options and information. If a platform is easy to use and access leads to better customer service and thus help Maersk streamline its operations, complementing its core business. ➢ ***Investment in new vessels with less polluting engines*** Although new environmental laws are being implemented, if Maersk invests in new types of vessels and means of transport, it can have an edge over its competitors.	➢ ***Trade Wars*** The USA-China Trade War can create difficulties for shipping companies with an increase in tariffs or more requirements to be able to trade. ➢ ***Covid*** Covid-19 Pandemic may also bring more difficulties to trade with more companies trying to bring manufacturing "home." ➢ ***M&A regulations*** Since Maersk is also the largest company of its kind in the world, some government agencies may cause some problems if the company decides to buy one of its competitors. This type of regulatory hurdles can make some types of deals vanish. ➢ ***Environments regulations*** The New fuel regulation is coming into force, such as Sulphur 2020 that aims to limit the use of fuels with a high concentration of Sulphur starting January first, 2020. This will lead to higher costs since the fuel needed to substitute a higher cost. The Paris agreement for the lowering of emissions can further increase this type of restriction that some governments or organizations impose on shipping companies.

Appendix 11: 20 Current directors and Executive officers owned share

Name or Number in Group	Number of Shares Owned[a]	Restricted Stock Units[b]	Total	Percent of Class
Meredith J. Ching	23,255	3,664	26,919	*
Matthew J. Cox	273,127	–	273,127	*
Thomas B. Fargo	28,809	–	28,809	*
Mark H. Fukunaga	13,432	3,664	17,096	*
Stanley M. Kuriyama	32,475	3,664	36,139	*
Constance H. Lau	59,375	3,664	63,039	*
Jenai S. Wall	2,627	3,664	6,291	
Joel M. Wine	159,072	–	159,072	*
Ronald J. Forest	71,151	–	71,151	*
Peter T. Heilmann	42,441	–	42,441	*
John P. Lauer	34,266	–	34,266	*
20 Current Directors and Executive Officers as a Group	854,497	18,907	873,404	2.0%

Appendix 12: Abbreviations

AMS	America manifest system
APV	Adjusted Present Value
CLX	China Long-beach Express
DCF	Discount Cash Flow
DDM	Dividend Discount Model
EIA	Energy Information Administration
EPS	Earnings Per Share
EVA	Economic Value Added
FCFE	Free Cash Flow to Equity
FCFF	Free Cash Flow to Firm
FTE	Flow-To-Equity
HHI	Herfindahl-Hirschman Index
HMM	Hyundai Merchant Marine
IMF	International Monetary Fund
IMO	International Maritime Organization
ISO	International Organization for Standardization
LIBOR	London Interbank Offered Rate
MATX	Matson Inc.
MSC	Mediterranean Shipping Company
NGL	Natural Gas Liquids
NYSE	New York Stock Exchange
ONE	Ocean Network Express
OPEC	Organization of the Petroleum Exporting Countries
SEC	Securities and Exchange Commission
TKM	Tonne-kilometre
TRBC	Thomson Reuters Business Classification
WACC	Weighted Average Cost of Capital

Disclosures and Disclaimer

This report is published for educational purposes by Master students and does not constitute an offer or a solicitation of an offer to buy or sell any security, nor is it an investment recommendation as defined by Article 12º A of the Código do Mercado de Valores Mobiliários (Portuguese Securities Market Code). The students are not registered with Comissão de Mercado de Valores Mobiliários (CMVM) as financial analysts, financial intermediaries or entities/persons offering any service of financial intermediation, to which Regulamento (Regulation) 3º/2010 of CMVM would be applicable.

This report was prepared by a Master's student in Finance at ISEG – Lisbon School of Economics and Management, exclusively for the Master's Final Work. The opinions expressed and estimates contained herein reflect the personal views of the author about the subject company, for which he/she is sole responsible. Neither ISEG, nor its faculty accepts responsibility whatsoever for the content of this report or any consequences of its use. The report was supervised by Professor Pedro Rino Vieira, who revised the valuation methodologies and the financial model.

The information set forth herein has been obtained or derived from sources generally available to the public and believed by the author to be reliable, but the author does not make any representation or warranty, express or implied, as to its accuracy or completeness. The information is not intended to be used as the basis of any investment decisions by any person or entity.

Recommendation System

Level of Risk	SELL	REDUCE	HOLD	BUY
High Risk	<-10%	>-10% & <15%	>15% & <30%	>30%
Medium Risk	<-10%	>-10% & <10%	>10% & <20%	>20%
Low Risk	<-10%	>-10% & <5%	>5% & <15%	>15%