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Valuation of Frontline Ltd.

Bachelor's thesis in Business Administration
Supervisor: Egil Matsen
April 2024

Bachelor's thesis

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Preface

This bachelor thesis on the valuation of Frontline Ltd. represents the culmination of our academic journey at NTNU Business School, specializing in financial management. The choice of Frontline Ltd., a prominent participant in the highly uncertain and volatile crude oil shipping market, allows us to apply and demonstrate the comprehensive strategic and accounting knowledge we have acquired over three years. This thesis not only reflects our deep engagement with these crucial business areas but also highlights our intent to merge theoretical frameworks with practical industry analysis.

Early in our research, we recognized the extent and complexity involved in valuing a company. Such an endeavor is inherently marked by uncertainty due to the assumptions it necessitates; it is, by its nature, not an exact science. Thus, our projections may not precisely predict the future but are intended to provide insight into the company's current standing. Finally, we would like to thank Professor Egil Matsen for his valuable guidance and supervision during the writing of this thesis.

Thomas Hagestuen   Joakim H. Westbyn

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Abstract

This bachelor thesis aims to determine the value of Frontline Ltd. as of December 31, 2023. Given the company's strategic maneuvers within the volatile shipping and oil tanker industry - marked by recent acquisitions, fleet expansions, and proactive environmental initiatives - this valuation assesses its current and projected market position. The guiding problem statement for this thesis is therefore:

«What is the value of Frontline Ltd. as of December 31, 2023?»

The valuation process begins with a detailed analysis of Frontline Ltd. and its industry context. A comprehensive strategic analysis using tools such as VRIO, Porter's Five Forces, and PESTEL frameworks identifies the company's unique strengths and challenges within the global market. These findings are then somewhat integrated into a SWOT analysis, emphasizing the company's adaptability in a sector driven by regulatory changes and market volatility.

Financial performance from 2018 to 2023 is scrutinized, focusing on financing, profitability, solidity, and liquidity. The recent years, marked by strategic investments and market adaptations, have shown noticeable trends that influence the company's financial health.

The valuation primarily relies on the discounted cash flow (DCF) method, although a comparative market analysis was also conducted. The focus on the DCF approach was determined to be the most appropriate for deriving a precise equity valuation for Frontline Ltd. This method provided a fair market price per share, calculated to be $29.90. The comparative market analysis, while initially considered, was ultimately not utilized in the final valuation decision.

Sammendrag

Denne bacheloroppgaven har som mål å bestemme verdien til Frontline Ltd. per 31. desember 2023. Gitt selskapets strategiske manøvrer innenfor den volatile skipsfarts- og oljetankerindustrien – preget av nylige oppkjøp, flåteutvidelser og proaktive miljøinitiativer – vurderer denne verdsettelsen dets nåværende og forventede markedsposisjon. Problemstillingen som leder denne oppgaven, er derfor:

"Hva er verdien til Frontline Ltd. per 31. desember 2023?"

Verdsettelsesprosessen starter med en detaljert analyse av Frontline Ltd. og dens bransjekontekst. En omfattende strategisk analyse ved bruk av verktøy som VRIO, Porters fem krefter og PESTEL-rammeverket identifiserer selskapets unike styrker og utfordringer i det globale markedet. Disse funnene blir deretter til en viss grad integrert i en SWOT-analyse, som understreker selskapets tilpasningsevne i en sektor drevet av regulatoriske endringer og markedsvolatilitet.

Finansiell ytelse fra 2018 til 2023 blir nøye gransket, med fokus på finansiering, lønnsomhet, soliditet og likviditet. De siste årene, preget av strategiske investeringer og markedsadaptasjoner, har vist tydelige trender som påvirker selskapets finansielle helse.

Verdivurderingen støtter seg hovedsakelig på diskontert kontantstrøm (DCF) metoden, selv om en sammenlignende markedsanalyse også ble utført. Fokuset på DCF-tilnærmingen ble ansett som mest hensiktsmessig for å utlede en nøyaktig egenkapitalverdi for Frontline Ltd. Denne metoden ga en rettferdig markedspris per aksje, beregnet til $29.90. Den sammenlignende markedsanalysen, selv om den opprinnelig ble vurdert, ble til slutt ikke brukt i den endelige verdifastsettelsen.

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1. Introduction

1.1 Motivation

We aimed to choose a project that not only deepens our educational experience but also engages us practically. Thus, we decided on performing a detailed valuation of a company, leveraging our cumulative knowledge in strategic analysis and financial accounting.

We chose to study Frontline Ltd., a key player in the volatile crude oil shipping industry, to explore its complexities and economic significance. This sector, filled with uncertainties from global economic pressures and geopolitical tensions, offers a unique challenge for financial analysis and valuation. Our thesis aims to illuminate the intricacies of assessing such a dynamic entity, reflecting our deep engagement with the critical facets of finance and strategy.

1.2 Limitations

This valuation is constrained to the information available as of December 31, 2023. While the analysis is contemporaneous with the year-end, it incorporates insights from Frontline Ltd.'s Q4 report released on February 29, 2024, which includes select operational details from January 2024. The inclusion of this early 2024 data serves to enhance the accuracy of our forecasts by providing a more updated reflection of the company's strategic activities, such as fleet adjustments and sales.

1.3 Assignment Structure

In our assignment on Frontline Ltd., we will undertake a comprehensive evaluation of the company's strategic positioning in the shipping and oil tanker industry. We will analyze Frontline's business operations, industry dynamics, and conduct a strategic analysis using frameworks like VRIO, Porter's Five Forces, PESTEL and SWOT. Financial metrics will be examined to assess profitability and liquidity. We'll employ valuation techniques such as discounted cash flow (DCF) and market-based analysis, concluding with a critical review of these methodologies and a summary of Frontline Ltd.'s estimated value.

2. Company and Industry Analysis

2.1 About Frontline Ltd.

2.1.1 Introduction of the Company

Frontline Ltd., established in 1985 by John Fredriksen and headquartered in Bermuda, is an international shipping company specializing in the transportation of crude oil. The company operates a fleet that includes 33 VLCC (Very Large Crude Carriers), 25 Suezmax, and 18 Aframax tankers, underscoring its key role in the global oil movement. Throughout his tenure, Fredriksen's leadership has significantly shaped the company's development within the shipping industry.

A recent notable strategic development for Frontline occurred on October 9, 2023, when the company acquired 24 modern VLCCs from Euronav, a major competitor, for $2.35 billion. This acquisition expanded Frontline's fleet from 64 to 88 vessels, positioning it as the largest pure-play tanker owner in the public market by deadweight tonnage (DWT) (The Maritime Executive, 2023) The purchase was aimed at addressing a stalemate regarding control and direction at Euronav. The transaction was structured through a mix of methods, including the sale of Frontline shares in Euronav, cash reserves, credit facilities, and new loan agreements, demonstrating Frontline's financial strategy and capacity for efficiently conducting sizable transactions (The Maritime Executive, 2023).

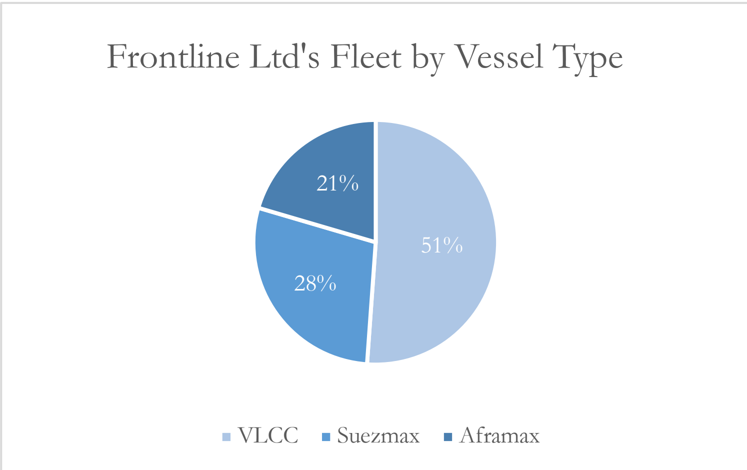

Figure 1 - Fleet by Vessel Type

2.1.2: Management, Shares and Ownership

Frontline Ltd. is managed by a board comprised of seven individuals with backgrounds in maritime and finance, chaired by John Fredriksen, who has substantial experience in the shipping industry. The company's shares are traded on both the New York Stock Exchange (NYSE) and Oslo Børs (OSEBX), under the ticker symbol FRO, attracting a variety of shareholders from around the globe.

The shareholder structure of Frontline is varied, with Fredriksen as the primary shareholder, possessing around 35.55% of the company's shares. The other shares are held by a diverse group of investors, including institutional firms such as BlackRock, Inc., and DNB Asset Management AS. The Norwegian Government Pension Fund (Folketrygdfondet) also holds a stake in the company, indicating its role in both the Norwegian and broader international markets (Frontline, 2024). This variety of shareholders may reflect Frontline's reach and the level of investor interest in the company.

	Name	Equities	%	Type	Country
1.	John Fredriksen	79 145 793	35,55%	IND	CY
2.	Folketrygdfondet	10 564 980	4,747%	COMP	NOR
3.	Arrowstreet Capital LP	6 448 852	2,897%	COMP	USA
4.	BlackRock Fund Advisors	3 982 528	1,789%	COMP	USA
5.	Two Sigma Advisers LP	3 867 580	1,737%	COMP	USA
6.	Two Sigma Investments LP	3 534 210	1,588%	COMP	USA
7.	DNB Asset Management AS	3 459 504	1,554%	COMP	NOR
8.	STATE STREET CORPORATION	1 926 633	0,8654%	COMP	USA
9.	UBS Group AG	1 625 954	0,7304%	NOM	CH
10.	Barclays Bank Plc	1 563 081	0,7021%	NOM	GB

Table 1 - Shareholder Structure

2.2 The Shipping Industry

2.2.1: Introduction to Shipping

The shipping industry is crucial to today's interconnected global economy. It enables the efficient movement of goods and raw materials across borders, laying the foundation for the massive scale of international trade that modern societies rely on. Without the capabilities of this sector, the widespread availability of diverse, affordable products - from food items to materials and manufactured goods, would be significantly diminished. The industry not only caters to the daily consumer demands of fast fashion and next-day deliveries but also supports intricate supply chains that benefit consumers worldwide. Furthermore, shipping is a broad term that encompasses various transportation methods, including marine, air, rail, and road transport. However, marine shipping stands out due to its unmatched ability to move large volumes over long distances in an economically favorable manner, making up the majority of international cargo transport (Clarksons, 2024).

Marine shipping requires substantial financial investments for several reasons. Firstly, constructing new vessels demands significant capital, sometimes amounting to hundreds of millions of dollars per ship. Additionally, the operational costs in the maritime industry are considerable. These costs encompass not only routine operational expenses and maintenance but also the salaries of crew members and insurance premiums. Shipbroker fees, which facilitate the buying, selling, and leasing of ships, also represent a noteworthy expense. Although smaller, these fees are crucial for completing maritime transactions. Moreover, the shipping market is known for its volatility, heavily influenced by fluctuations in supply and demand for freight capacities, which generally align with broader economic cycles. This natural uncertainty is one of the main factors that makes the shipping industry a high-risk yet critical component of global trade.

2.2.2: Crude Oil Shipping

The first tanker designed for oil transport was the Glückauf, built in 1886, which marked a significant innovation in the shipping industry. Previously, oil was usually transported in barrels that were loaded into the cargo holds of conventional cargo ships. This new ship featured multiple tanks integrated into its hull, significantly enhancing the efficiency and safety of oil transport (Visser, 2023). Since then, the crude oil shipping sector has evolved remarkably, adapting to changes in global energy markets and environmental regulations. Over the decades, as global demand for oil increased, more technologically advanced oil tankers have been developed to meet this growing demand.

Crude oil, often referred to as the "black gold," is a critical resource for a broad range of industrial applications, from fueling vehicles and heating homes to serving as the base for producing products like plastics and fertilizers. It is a complex hydrocarbon found within sedimentary rocks and remains in liquid form under normal surface conditions (Wisconsin K-12 Energy Education Program, 2024). As one of the leading players in the crude oil shipping market, Frontline Ltd. has capitalized on this demand by managing their large fleet of modern tankers. However, the environmental impact of shipping crude oil is a significant concern, leading to stringent regulations primarily aimed at reducing spill risks and lowering greenhouse gas emissions.

2.2.3: Today's Market

Crude oil prices are influenced by a variety of factors that interact in complex ways. Key drivers include geopolitical events, economic growth, and market expectations, all of which can lead to fluctuations in supply and demand. For instance, as illustrated in "Figure 3" below, historical events such as wars or economic crises have directly impacted global oil supply and demand, leading to price volatility. Economic growth in major countries can increase oil demand, pushing prices upward, while expectations about future economic performance can also influence prices. Additionally, supply disruptions, whether unplanned or due to strategic decisions by major oil-producing nations, can tighten markets and elevate prices (U.S. Energy Information Administration, 2024). This intricate balance of factors shows that oil prices are sensitive to both immediate news and long-term trends.

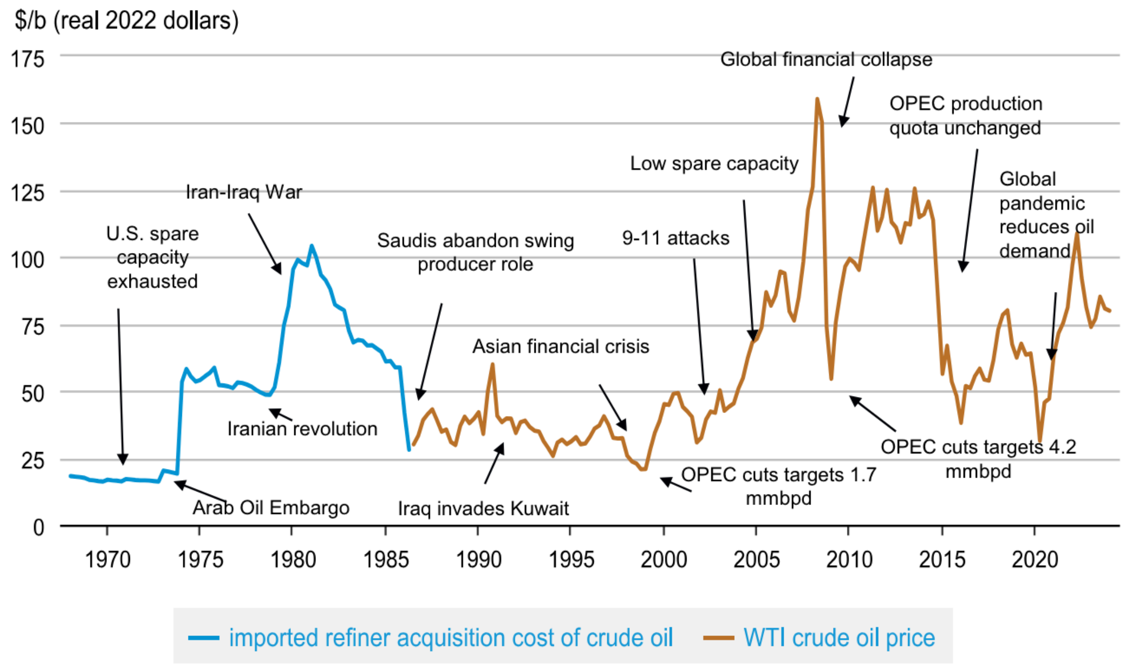

Figure 2 - Crude Oil Price (Eia 2024)

In the same manner as oil prices, today's shipping market is influenced by a complex variety of geopolitical and economic factors that affect oil production and consumer patterns. The industry faces pressures from fluctuating oil prices, regulatory changes, and the transition towards more sustainable energy sources. Despite these challenges, the fundamental demand for crude oil transportation remains robust, driven by the energy needs and the ongoing reliance on oil as a primary energy source globally.

In “Figure 4”, the volatile nature of freight rates is clearly displayed, as it shows noticeable shifts in oil tanker earnings (the average amount of income that a tanker ship earns for transporting crude oil, after taking out the costs it takes to operate). The graph reflects a trend where earnings experience both peaks and lows over the yearly periods. For instance, there is a noticeable decline in earnings in the most recent weeks of 2024, which could be attributed to several factors. This volatility is typical in the crude oil shipping industry and is a crucial factor in the revenue of companies that operate within it.

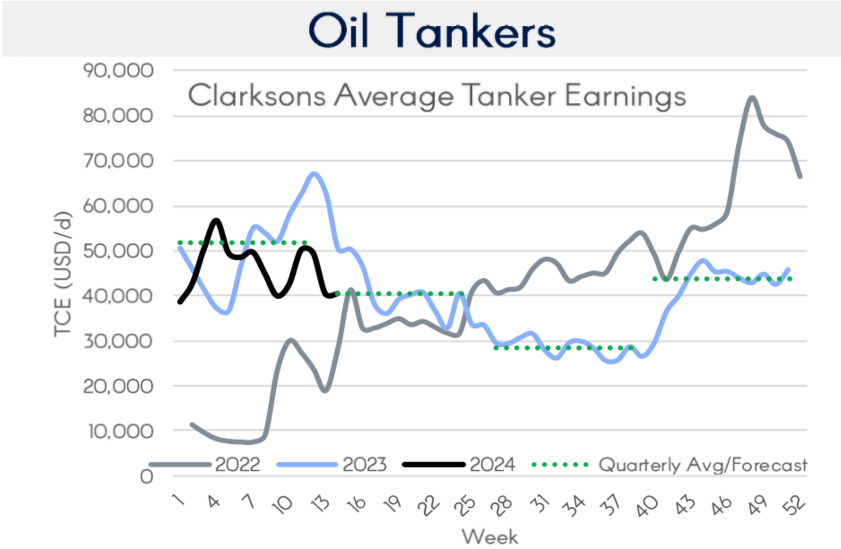

Figure 3 - Average Tanker Earnings (Cleaves Securities 2024)

The income for companies like Frontline Ltd. primarily comes from freight rates, which are influenced by the supply and demand dynamics in the global shipping market. These rates will vary significantly, also reflecting broader economic conditions and shifts in the oil market. Companies in this sector often engage in both spot market contracts, which can provide higher returns during peak demand periods, and longer-term charters that offer more stable income streams. Regarding the future of the crude oil sector, it is likely to continue being shaped by innovations in tanker design, increased efficiency, and stricter environmental regulations.

3. Strategic Analysis

A strategic analysis is key for Frontline Ltd. as it helps identify the most impactful external and internal elements affecting its operations in a fluctuating market, enabling informed, strategic decision-making for future success. In the following, we will perform such an analysis.

3.1 External Factors

In a strategic analysis, understanding external factors is essential as they deeply influence the environment in which a business operates, affecting its strategic decisions and overall success.

Figure 4 - PESTEL

3.1.1. PESTEL

The PESTEL analysis is a strategic tool that assesses the external environment in which a company like Frontline operates by examining Political, Economic, Social, Technological, Environmental, and Legal factors (Peterdy, 2023). It helps companies and their investors understand the broader forces at play that can impact their operations and strategic direction.

For Frontline, the use of PESTEL analysis is beneficial as it provides a comprehensive view of the environment in which they operate. This analysis allows the company to identify potential risks and opportunities by understanding changes in government policies, economic shifts, social trends, technological advancements, environmental concerns, and legal frameworks. Recognizing these factors could help Frontline adapt its strategies to mitigate risks and leverage opportunities.

Additionally, by staying informed about the external factors, Frontline can better align its operations with current and future market demands and regulatory requirements. This proactive approach not only helps in navigating complex environments but also enhances its competitiveness and long-term sustainability.

Political Conditions

Shipping is a global industry, and geopolitical conditions have a significant impact on Frontline PLC. In particular, the operational activities of the company are affected and are therefore of great importance. Changes in political stability can affect everything from shipping routes to security in the maritime market. This was exemplified by Russia's invasion of Ukraine, which led to major strains on the international oil and gas market. Factors such as closed gas pipelines and political concern typically contribute to a sense of uncertainty in the industry (Andresen & Hove, 2014).

The trade policy will also have a significant impact on Frontline's business. Adapting to factors such as trade agreements, tariffs, trade restrictions, and environmental regulations will be important for the company to maintain a sustainable business model.

Economic Conditions

Economic downturns or upswings will affect the demand and price of oil. A potential decrease in oil demand will lead to a reduction in oil transportation, and vice versa.

Furthermore, they will be particularly exposed to currency exchange rate fluctuations. As an international shipping company, changes in exchange rates will affect the company's revenues and costs, something Frontline PLC has benefited from in recent years with a weak Norwegian krone (NOK).

Variations in oil prices are also conditions that Frontline will have to watch out for. The company must adapt to the fluctuations by adjusting freight rates, investment strategies, and managing operational costs.

Social Conditions

It is important for Frontline to closely monitor and understand social trends that affect energy consumption in various sectors. Changes in energy needs in private households, the transport sector, and industrial production all play a significant role in the future demand for oil.

For private households, an increasing awareness of environmental friendliness can lead to increased use of renewable energy sources and energy-efficient technologies. This can reduce the need for fossil fuels, including oil, in homes.

Within the transport sector, an increase in electric vehicles and other alternative fuel technologies can reduce the dependence on conventional fuels such as oil. The company must keep an eye on these technological changes and evaluate the consequences it has for crude oil shipping.

Industrial production, especially within sectors that are heavily dependent on oil as a raw material, will also affect demand. Changes in production methods, technological advances, and regulations can all play a role in shaping the use of oil in industrial processes.

Technological Conditions

New technology is expected to play a major role in the future of the shipping market, and Frontline should recognize the importance of staying ahead in this rapidly evolving industry. As part of its strategic approach, the company can identify the development of autonomous vessels for shipping as a key area of focus. These autonomous vessels have the potential to revolutionize the industry not only by reducing operational costs but also by significantly improving safety at sea.

Environmental Conditions

The shipping industry is experiencing growing pressure to adopt more sustainable practices in the future. Frontline is positioning itself as a competitive player in the market with its commitment to sustainability. The company has invested in technology aimed at enhancing the environmental performance of its vessels. According to Frontline, 64% of its fleet has been equipped with scrubbers, pollution control devices installed on large ships to mitigate emissions (PLC, 2023).

Legal Conditions

Since Frontline operates in an international market, complying with the different laws and regulations in the different countries around the world is crucial for their operations. The International Maritime Organization (IMO), defined as the "United Nations specialized agency with responsibility for the safety and security of shipping and the prevention of marine and atmospheric pollution by ships" (IMO, 2024), plays a vital role in setting general rules for navigation at sea, ensuring ship quality, and enforcing regulations related to emissions and pollution. These regulations are particularly important due to the increasing emphasis on sustainable maritime operations.

As mentioned earlier, Frontline is listed on both Oslo Børs and the New York Stock Exchange. They are headquartered in Cyprus, with operational offices in Bermuda. This necessitates compliance with local laws and regulations for the company. Additionally, being located in Bermuda means that Frontline operates with a corporate tax rate of less than 1%, a practice that is questionable but not uncommon in the shipping market.

3.1.2. Porter's Five Forces

Porter's Five Forces is a framework that examines the competitive environment within an industry. It focuses on five key aspects: the bargaining power of suppliers, the bargaining power of buyers, the threat of new entrants, the threat of substitutes, and the rivalry among existing competitors (CFI Team, 2023). By evaluating these forces, we can gain insights into the competition and market dynamics that affect a company's profitability and strategic decisions.

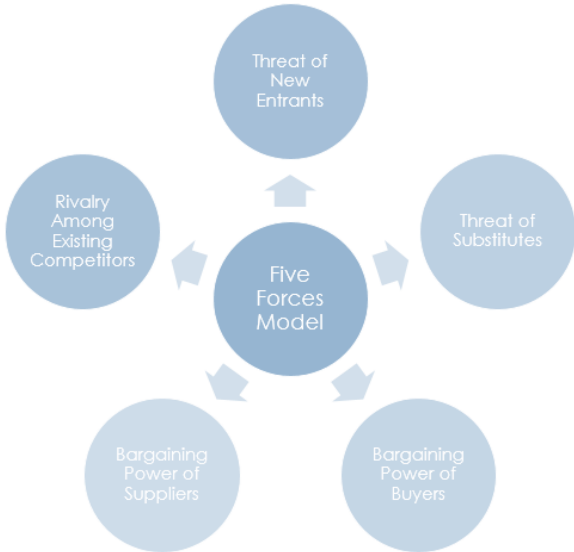

Figure 5 - Porter's Five Forces

When assessing a company like Frontline, this framework is helpful for several reasons. It helps identify where competitive pressures are most intense, allowing us to understand which factors might impact profitability. By analyzing the bargaining power of suppliers and buyers, we can gauge how much influence they have over pricing and terms. This information can point to areas where Frontline might have to negotiate or differentiate itself.

Examining the threat of new entrants and substitutes sheds light on the barriers to entry in the industry. If barriers are low, the industry could become more crowded, affecting Frontline's market position. Conversely, high barriers might protect the company from new competitors. Understanding the intensity of rivalry helps assess the current level of competition and the potential for future market shifts.

Using Porter's Five Forces, we can develop a deeper understanding of Frontline's competitive environment, offering insights into strategic decisions and industry dynamics. This framework can guide our analysis, highlighting areas where the company has strengths, faces threats, or could find new opportunities.

Threat of New Entrants

Entering the tanker shipping industry requires significant capital investment in vessels, technology, and compliance with international maritime regulations, creating a substantial barrier to new entrants. Frontline, with its established fleet and operational efficiencies, benefits from economies of scale that pose challenges for new players to compete effectively in terms of cost and pricing. The shipping industry is highly regulated, requiring adherence to safety, environmental, and international shipping standards, further discouraging new entrants. Notably, Frontline also has the advantage of being part of a larger portfolio of shipping companies controlled by John Fredriksen, potentially providing financial advantages and operational assistance. This suggests that the company would likely face only a low level of threat from new entrants.

Bargaining Power of Suppliers

A limited number of shipbuilders and fuel suppliers can potentially increase Frontline's bargaining power. However, long-term contracts and relationships can mitigate this to some extent. The company's substantial size in its industry may allow them to negotiate more effectively with suppliers who manufacture ships and provide fuel. Nevertheless, because of their large scale, they cannot simply switch suppliers at will, as they require stability and reliable partners. This situation may potentially give suppliers more bargaining power in negotiations with Frontline.

As technological advancements become integral to shipping operations, suppliers of these technologies also gain bargaining power. However, Frontline's investment in technology may mitigate and moderate this power by potentially fostering partnerships and collaborations. Therefore, the threat from suppliers can ultimately be classified as moderate.

Bargaining Power of Customers

The customer base in the shipping industry is often concentrated among a few large global participants, giving them considerable bargaining power. This is particularly evident in their ability to negotiate freight rates and contract terms. Although alternatives to shipping are limited for large-scale oil transportation, customers still hold some leverage. This leverage is due not only to the competitive nature of the shipping industry but also to factors like the critical dependency on timely and reliable delivery, which can influence contract negotiations. Furthermore, the necessity for shipping companies to maintain high utilization rates of their fleets can further enhance customers' negotiating power. Ultimately, these factors classify the bargaining power of customers as moderate-to-high.

Threat of Substitutes

For the transportation of crude oil and oil products, there are limited viable substitutes to tanker shipping. Pipelines serve as a substitute but are geographically constrained and involve significant infrastructure investment. Advancements in alternative energy sources might long-term reduce the demand for oil transportation. Frontline's fleet of VLCC and Suezmax ships is tailored for this type of transport, which remains critical for global energy distribution. Ultimately, this leads to the conclusion that in the short to medium term, the threat posed by substitutes would likely be at a low level.

Rivalry Among Existing Competitors

The tanker shipping industry is characterized by intense competition, with several large shipping companies, such as Scorpio Tankers and DHT Holdings, competing on freight rates, fleet size, and operational efficiency. The industry's fluctuating patterns, influenced by global oil demand and supply, lead to periods of intense competition, especially during downturns when excess capacity pressures freight rates. Frontline's fleet management strategy, including the age profile and onboard technology of their ships, as well as their approach to market cycles, are crucial factors in how they withstand competition. Nonetheless, the level of rivalry among existing competitors is unquestionably high.

3.2. Internal Factors

Internal factors in strategic analysis are those elements within a company that can be directly controlled and managed to influence its performance and strategic direction. These factors are crucial for understanding the strengths and weaknesses of a business.

3.2.1. VRIO

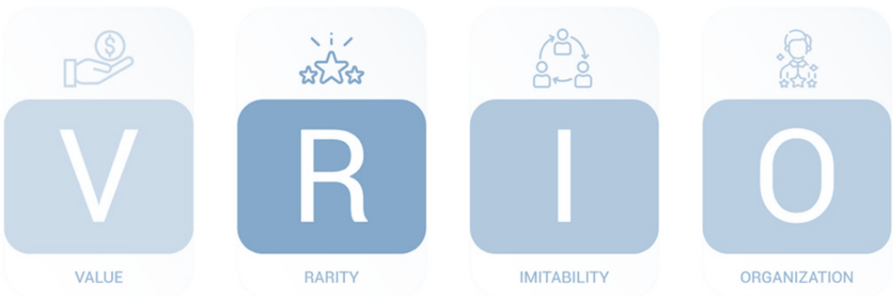

Figure 6 - VRIO

The VRIO framework serves as a critical tool for strategic analysis, focusing on evaluating the internal strengths of a company (Walton, 2023). It is an acronym that stands for four key elements: Value, Rarity, Imitability, and

Organization. The essence of VRIO analysis lies in investigating whether a company's resource or capability is valuable, rare, not easily imitated, and if the organization is structured to exploit these attributes. Through a detailed VRIO examination, Frontline could identify key internal factors that contribute to its competitive stance. This process is vital for shaping strategies that not only provide a competitive advantage but also aim to bolster the company's performance in the highly competitive global shipping industry.

This section will explore how Frontline Ltd.'s distinct resources and capabilities align with the VRIO parameters, thereby assessing their contribution to the company's competitive strategy and market positioning. Our objective is to highlight the unique aspects that empower Frontline to sustain its market relevance and possibly elevate its industry status, focusing on leveraging sustainable competitive advantages in line with strategic business objectives.

Value Elements of Frontline Ltd.

Frontline has developed a brand reputation and trust within the shipping industry. This includes the company's perceived reliability and credibility. These elements play a role in maintaining customer loyalty and building business relationships.

The company emphasizes technological advancements and fleet modernization. This strategy involves having a sizable and updated fleet while focusing on operational efficiency, compliance with environmental standards, and cost control. This approach can offer advantages in terms of effectiveness and sustainability.

Frontline's management team has demonstrated strategic vision and risk management skills. This involves navigating market shifts and adapting to regulatory changes. The company's long-term planning reflects a level of understanding of industry trends and future challenges.

Frontline is also known for having an advanced and diversified fleet in the tanker industry. Their fleet includes very large crude carriers (VLCCs), Suezmax tankers, and LR2/Aframax tankers. The advanced nature of their fleet, particularly in terms of size and technology, allows Frontline to offer a range of services that few competitors can match. This diversity and modernity in their fleet composition are rare in the industry, enabling Frontline to operate in a wider range of market conditions and geographic areas.

Imitability

Frontline's fleet operations involve complex logistics, route planning, and fleet deployment. This requires expertise in handling regulatory compliance, optimizing fleet use, and maintaining safety and environmental standards. Although this complexity can be an advantage, it also poses challenges in terms of coordination and adaptability. New entrants or smaller competitors might find these complexities difficult to navigate, creating a potential barrier to imitation. The company has established a brand reputation and built relationships within the oil and shipping industry. This involves maintaining client trust, developing strategic partnerships, and demonstrating reliability. However, maintaining these relationships and reputation requires consistent performance and effective networking. Changes in market conditions or shifts in industry dynamics could affect the stability of these relationships, presenting challenges for long-term sustainability.

Organizational Structure

Frontline's organizational structure is designed to support its business model and fleet operations. It includes specialized departments focused on operations, safety, and environmental management. This structure aims to optimize decision-making and enable the company to adapt to market changes and operational challenges. However, maintaining a complex organizational framework can also require substantial resources and coordination.

The company integrates its supply chain processes, covering vessel acquisition, crewing, and maintenance. This integrated approach can lead to improved operational efficiency and service quality. Yet, such integration might also pose risks related to supply chain disruptions, maintenance issues, or resource shortages.

Frontline invests in its workforce through training and development, recognizing the need for skilled personnel in managing a complex fleet. The commitment to technology in both fleet operations and other systems is another aspect of their approach. However, continuous investment in human capital and technology requires ongoing resources and may present challenges in terms of keeping up with industry trends and technological advancements.

Summary of the VRIO analysis

In the VRIO analysis of Frontline Ltd., the focus was on examining the company's internal strengths and capabilities through the lenses of Value, Rarity, Imitability, and Organization. This analysis helps to identify the elements that contribute to Frontline's position in the global shipping industry.

Frontline has gained significant brand recognition and trust within the shipping industry. Its investment in fleet modernization and technology aligns with an emphasis on operational efficiency and environmental compliance, providing a competitive edge. The company's leadership has demonstrated strategic foresight and risk management expertise, which supports their ability to navigate industry fluctuations and changing market conditions.

A notable feature of Frontline is its advanced and diversified fleet composition, consisting of VLCCs, Suezmax tankers, and LR2/Aframax tankers. This range of fleet capabilities allows Frontline to offer specialized services and enhances its operational flexibility and market reach. However, maintaining a complex and diverse fleet requires ongoing resources and coordination.

The operational complexity and management expertise at Frontline have developed over many years, presenting a challenge for competitors to imitate. The established brand reputation and industry relationships serve as barriers to new entrants, though they require consistent performance to maintain. Any disruption in these factors could impact Frontline's market position.

Frontline's organizational structure is designed to support efficient fleet operations and includes specialized departments for operations, safety, and environmental management. The integration of supply chain processes, coupled with investment in human capital and technology, contributes to the company's operational strength. However, these integrated systems may also face risks from supply chain disruptions or resource constraints.

Overall, the VRIO analysis indicates that Frontline Ltd.'s internal resources and capabilities align with the framework's parameters of value, rarity, imitability, and organization. These factors enable Frontline to maintain a competitive stance in the shipping industry, although ongoing challenges require continuous attention to sustain its competitive advantages. These factors collectively empower Frontline to maintain a strong competitive stance in the shipping industry, leveraging sustainable competitive advantages aligned with its strategic business objectives.

3.3 SWOT-Analysis

A SWOT analysis serves as a structured approach to assessing a company's market position by identifying its strengths, weaknesses, opportunities, and threats. This analysis is a critical component of strategic planning, offering a comprehensive view of both internal and external factors affecting the business:

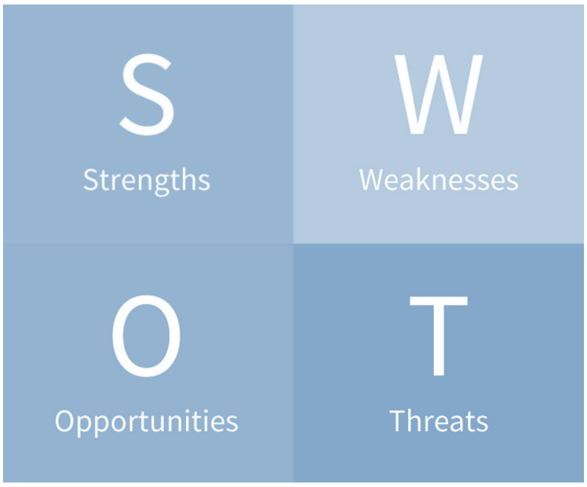

Figure 7 - SWOT

The strengths highlight the internal attributes and resources essential for the successful execution of various strategies and for building and leveraging competitive advantages. Weaknesses refer to internal factors that might weaken the company's ability to achieve its goals. Recognizing and addressing these weaknesses is vital for mitigating competitive disadvantages. Moving on, opportunities refer to external prospects that the company can capitalize on to expand, enhance profitability, and solidify its market position. Finally, threats are external challenges that could endanger the company's success.

3.3.1. Strengths:

Frontline Ltd.'s internal strengths represent a solid foundation that underpins its strong market position in the global oil shipping industry. One of the company's strengths lies in its diverse fleet, equipped with technology that aims to enhance operational efficiency and comply with current environmental regulations. While the shipping industry, particularly oil transportation, faces inherent environmental challenges, Frontline's investment in updating its fleet, including VLCCs, Suezmax, and Aframax tankers, reflects an effort to mitigate some of these impacts. This modernization supports the company's operational capabilities, allowing for a degree of flexibility in navigating global market conditions.

Additionally, Frontline benefits significantly from its seasoned leadership and extensive operational network. Under the guidance of John Fredriksen, the company has developed a strategy that leverages its global presence to secure a diversified customer base. This not only provides resilience against regional fluctuations in demand but also supports a steady revenue stream, contributing to the company's robust position in the market. Frontline's manage.,ment team plays a crucial role in executing this strategy, navigating the complexities of the maritime shipping sector effectively.

A final strength is Frontline’s financial stability and the capacity for strategic acquisitions. The company's ability to engage in significant transactions, like the acquisition of 24 modern VLCCs from Euronav, showcases its strategic planning and financial management capabilities. These acquisitions not only expand Frontline's fleet but also potentially increase its market share and operational scope. The financial prudence and strategic vision required to navigate such deals underscore Frontline's position as a competent player in the shipping industry, ready to adapt and grow in response to market opportunities.

3.3.2. Weaknesses:

Frontline's strategy of maintaining a modern and technologically advanced fleet requires significant capital investment. While this positions the company well for the future, especially in terms of aligning with environmental regulations, it also means a great portion of their cash flow is tied up in capital expenditures. Managing this alongside existing debt obligations, particularly in a fluctuating market, can strain financial resources, impacting flexibility and potentially leading to higher financial leverage.

While Frontline boasts a diverse and modern fleet, maximizing the utilization of this asset base is a continuous challenge. Operational inefficiencies, whether due to vessel downtime, maintenance issues or other problems, can reduce profit margins. Ensuring high fleet utilization rates in an industry characterized by cyclical demand patterns requires not just strategic foresight but also nimble operational management, an area where any lapse can become a significant weakness.

Lastly, Frontline may face internal challenges related to operational efficiency, such as inefficient processes or technology weaknesses. These inefficiencies can result in higher operating costs, decreased productivity, and potential disruptions to service delivery.

3.3.3. Opportunities:

With the world increasingly prioritizing sustainability, Frontline has the opportunity to lead the way by adopting and integrating greener technologies within its fleet. Such initiatives could potentially not only reduce operational costs in the long run but also establish Frontline as a leader in environmental stewardship within the shipping industry, attracting new business opportunities from eco-conscious clients.

Moving on, Frontline can explore opportunities to expand its operations into new or underserved markets. Emerging economies, particularly in Asia and Africa, may see an increase in oil demand as they continue to industrialize. Establishing a stronger presence in these regions could open new routes and increase market share, offering Frontline a competitive edge in tapping into burgeoning markets. Beyond traditional oil shipping, Frontline could also explore diversification into related areas such as offshore support services, or even considering transporting other goods. Diversification could mitigate risks associated with the cyclical nature of the crude oil market, with the company's large fleet providing opportunities.
Lastly, the shipping industry is increasingly utilizing digital technologies to optimize operations. Frontline could further invest in digitalization, such as AI and data analytics for improving daily operations. These technologies could not only enhance operational efficiency, but also improve safety and reliability, thereby reducing costs and enhancing service offerings.

3.3.4. Threats:

The oil shipping industry is directly influenced by the global prices of oil, which could provide potential threats. Significant fluctuations here can lead to reduced shipping volumes and impact freight rates, directly affecting Frontline's revenue. Longer periods of low oil price could potentially decrease exploration and production activities, reducing the demand for transportation. On the other hand, high oil prices can reduce the global demand for oil, similarly affecting shipping opportunities.

Additionally, the shipping industry's increasing reliance on digital technologies for daily operations exposes it to several cybersecurity risks. Cyber-attacks can disrupt operational capabilities, compromise sensitive information, and in the worst-case lead to financial losses. Also, Frontline's global operations expose it to geopolitical risks and regional instabilities, potentially disrupting shipping routes and affecting oil supply chains. While geographical diversification across shipping routes offers some mitigation, the company remains prone to sudden geopolitical shifts or targeted economic sanctions.

Lastly, shipping industry faces intense competition, with existing participants and potential entrants drawn by high freight rates. This competition can lead to price wars and shrinking profit margins. Additionally, the sector faces mounting pressure to reduce its environmental impact, resulting in stricter regulations. Meeting these standards requires significant investments to achieve low emission targets. Operating in the oil tanker industry exposes Frontline to criticism over environmental issues, such as oil spills and greenhouse gas emissions. Despite the company's efforts to improve sustainability and efficiency, its involvement in fossil fuel transportation may affect its reputation among stakeholders prioritizing environmental concerns. This perception, warranted or not, presents a vulnerability, especially as environmental considerations increasingly influence investment and partnership decisions. Furthermore, while Frontline is upgrading its fleet, transitioning to sustainable alternatives is complex and costly, posing financial and operational challenges.

4. Financial Analysis

A thorough financial analysis is crucial in valuing a company because it provides a detailed examination of the company's financial health. By analyzing balance sheets, income statements, and cash flow statements, we can determine the company's profitability, financing, and operational sustainability. It also allows for a comparison with industry benchmarks and peers to assess performance and potential. Moreover, financial analysis helps forecast future performance through trend analysis and projections. In the following, we will conduct such an analysis using data gathered from Frontline's annual reports over the past five years.

4.1: Financing

Financing includes the strategies a business employs to secure capital and the way this capital is deployed, centering on an analysis of the asset composition of the company (Kristoffersen, 2016) The financing of assets is categorized into long-term and short-term, with the former comprising long-term debt and equity investments. This discussion will focus specifically on the financial leverage, debt ratio and debt-to-equity ratio.

4.1.1: Financial Leverage

Financial Leverage is the concept of using borrowed capital as a funding source. Companies use leverage to invest in growth strategies or to increase their buying power in the market (Hayes, 2024).

The formula to calculate this ratio is as follows:

$$\underline{\text{Financial Leverage}} = \frac{\text{Long-Term Assets}}{\text{Long-Term Capital}}$$

Equation 1 - Financial Leverage

By obtaining data from the last 5 fiscal years, we obtained the following data and ratios:

	2019	2020	2021	2022	2023
Long-Term Assets	3 249,30	3 539,90	3 784,40	3 887,30	5 154,80
Long-Term Capital	2 840,90	3 629,40	3 820,80	4 375,20	5 473,70

Table 2 - Financial Leverage Input

2019	2020	2021	2022	2023
1,14	0,98	0,99	0,89	0,94
		0,99		

Table 3 - Financial Leverage Output

Frontline's financial management practices are exemplified by their financial leverage ratio, a key indicator of the company's strategic financing approach. The ratio provides a clear window into the company's use of financing for growth and stability. Over the past half-decade, the financial leverage ratio has shown a remarkable level of stability, indicating that Frontline has managed its balance of equity and debt with precision.

The financial leverage ratio hovers around a mean of 0.99, which points to a nearly equal distribution between the company's long-term assets and the long-term capital employed to finance them. Such a consistent ratio suggests that Frontline's financial planning is robust, taking into account the cost of capital, the risks of leverage, and the expectations of shareholders.

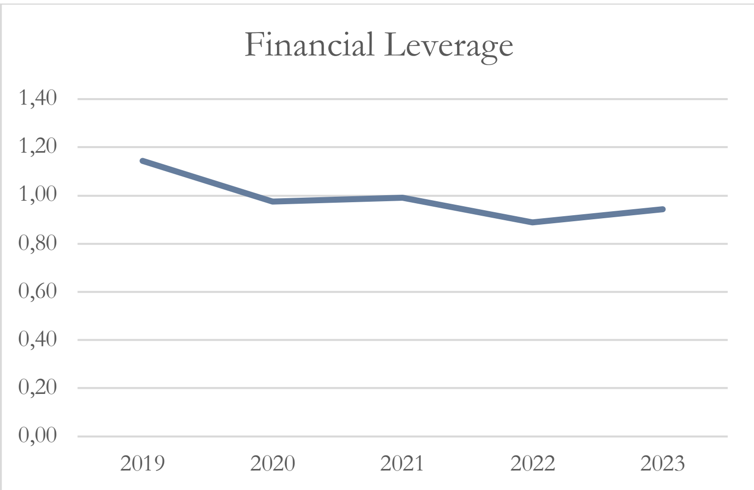

Figure 8 - Financial Leverage

4.1.2. Debt Ratio

The debt ratio is a financial metric that quantifies the extent of a company's leverage by comparing its total debt to its total assets (Hayes, 2023). A debt ratio greater than 1 indicates that a company has more debt than assets, signaling a greater reliance on borrowed funds. Conversely, a ratio below 1 suggests that a company has more assets than debt, which may indicate a more conservative approach to leverage. Acceptable debt ratio thresholds vary by industry, but investors typically favor ratios between 0.3 and 0.6 (Ross, 2024). From a risk management perspective, ratios at or below 0.4 are often deemed more prudent. To calculate the debt ratio, the following formula is used:

$$\underline{\text{Debt Ratio}} = \frac{\text{Total Debt}}{\text{Total Assets}}$$

Equation 2 - Debt Ratio

We obtained the following data and ratios, using data from the last five fiscal years:

	2019	2020	2021	2022	2023
Total Debt	2 187,80	2 306,20	2 464,10	2 508,10	3 605,41
Total Assets	3 697,80	3 918,20	4 117,10	4 768,40	5 882,80

Table 4 - Debt Ratio Input

2019	2020	2021	2022	2023
0,59	0,59	0,60	0,53	0,61
0,58				

Table 5 5 - Debt Ratio Output

The debt ratio of Frontline has shown slight variability from 2019 to 2023, with figures ranging narrowly from 0.58 to 0.61. Notably, there was a minor dip in 2022 when the ratio decreased to 0.53, suggesting a decrease in debt relative to assets for that year. However, the ratio returned to its earlier trend in 2023, indicating that the company's proportion of debt to assets is generally consistent over time.

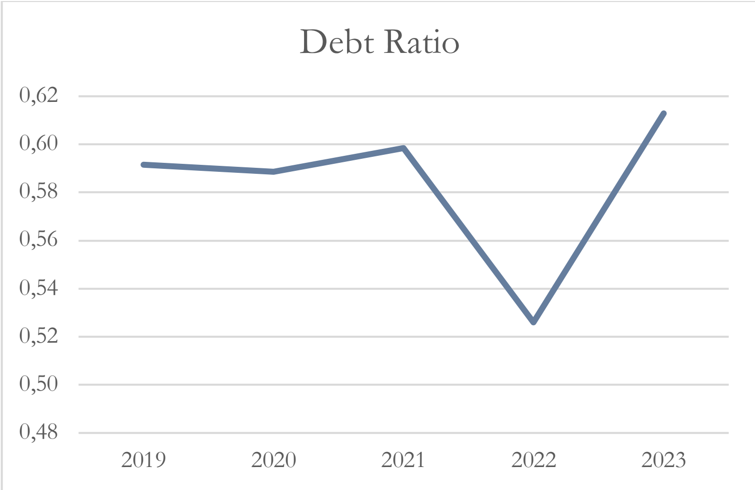

Figure 9 - Debt Ratio

4.2: Profitability

A profitability analysis of Frontline is carried out to understand the company's proficiency in profit creation. The ability to generate a surplus is crucial for the company's ability to thrive in the long run and is equally important for securing new investments and capital contributions. It is of particular interest to investors and shareholders to assess how their injected capital is being utilized to yield profits. This examination will focus on several financial ratios, including operating profit margin, return on assets, return on equity and operating margin to concretely measure profitability.

4.2.1: Operating Profit Margin

Operating profit margin represents how efficiently a company can generate profits through its core operations. Higher margins are considered better and can be compared between similar companies but not across different industries (Investopedia, 2022). To calculate the operating profit margin, the following formula is used:

$$\underline{\text{Operating Profit Margin}} = \frac{\text{Operating Income}}{\text{Revenue}}$$

Equation 2 - Operating Profit Margin

We obtained the following data and ratios:

	2019	2020	2021	2022	2023
EBITDA	353 950	616 663	159 990	593 450	848 656
Revenue	957 322	1 221 187	749 381	1 430 208	1 802 184

Table 6 - Operating Profit Margin Input

2019	2020	2021	2022	2023
36,97%	50,50%	21,35%	41,49%	47,09%
		39,48%		

Table 7 7 - Operating Profit Margin Output

While benchmarks for financial ratios such as the operating profit margin can vary by industry, it is generally accepted that a margin around 10% is indicative of a healthy company (Murphy, 2022). Frontline's performance in this regard is particularly noteworthy, as its operating profit margin not only exceeds the 10% benchmark but does so with a significant margin, underscoring the company's operational efficiency and stability. This is evident in the data presented, where Frontline's margin stands well above the industry standard. The five-year average for the company is an impressive 39.48%, which speaks to its sustained profitability over a considerable period. However, it's important to note that the fiscal year 2021 has exerted a downward pressure on this average, suggesting that despite a generally robust financial standing, the company did face challenges that impacted its operating efficiency during that year. This anomaly not withstanding, the company's overall profit margin paints a picture of a solid financial foundation and effective cost management strategies that have yielded above-average returns.

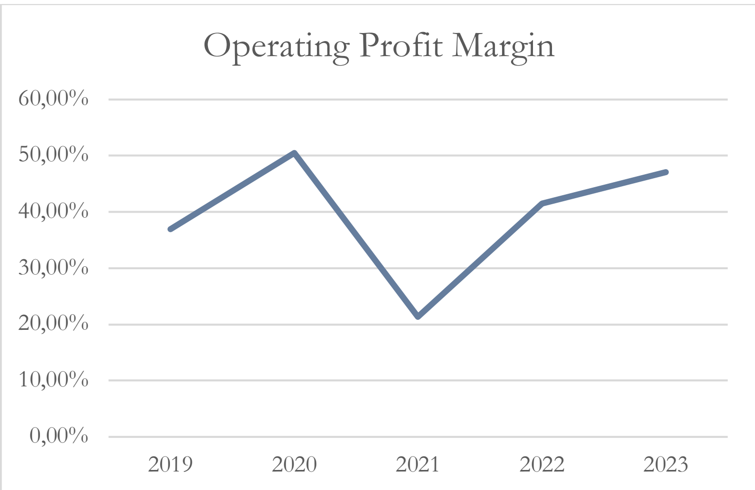

Figure 10 - Operating Profit Margin

4.2.2: Return on Assets (ROA)

Return on assets is a metric that indicates a company's profitability in relation to its total assets (Hargrave, 2024). This ratio can be calculated using the following formula:

$$\underline{\text{Return on Assets (ROA)}} = \frac{\text{Net Income}}{\text{Total Assets}}$$

Equation 3 - ROA

We obtained the following data and ratios:

	2019	2020	2021	2022	2023
Net Income	140,00	412,90	-11,10	475,50	656,41
Total Assets	3 697,80	3 918,20	4 117,10	4 768,40	5 882,80

Table 8 8 - ROA Input

2019	2020	2021	2022	2023
3,79%	10,54%	-0,27%	9,97%	11,16%
		7,04%		

Table 9 9 - ROA Output

For the fiscal year of 2021, the Total Operating Revenues concluded at $749,381,000. This represents a notable decline when compared to the $1,221,187.000 reported in the preceding year, a fact that stands out as one of the principal factors impacting the company's Return on Assets (ROA) for the year. In the realm of financial performance metrics, a ROA exceeding 5% is often viewed as a hallmark of a financially sound and efficiently managed enterprise. The graphical data presented alongside the text reveals that, despite the downturn in 2021, the company's average ROA over a five-year span has consistently remained above this 5% benchmark. This trend is indicative of the company's underlying financial health and its adept management of assets over a more extended period.

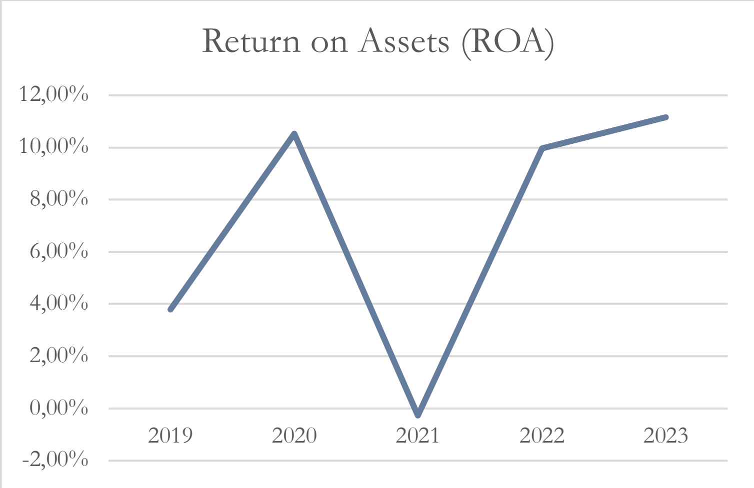

Figure 11 - ROA

4.2.3: Return on Equity (ROE)

Return on Equity (ROE) is the measure of a company's profitability and how efficient in generates profit. The higher the ratio, the better the performance in this regard (Fernando, 2024). ROE, as many other ratios, varies significantly from industry to industry.

Return on Equity is calculated using the following formula:

$$\text{Return on Equity} = \frac{\text{Net Income}}{\text{Average Shareholder's Equity}}$$

Equation 4 - ROE

We obtained the following data and ratios:

	2019	2020	2021	2022	2023
Net Income	140,00	412,90	-11,10	475,50	656,41
Average Shareholder's Equity	1 510,00	1 612,00	1 653,00	2 260,40	2 277,30

Table 1010 - ROE Input

2019	2020	2021	2022	2023
9,27%	25,61%	-0,67%	21,04%	28,82%
16,81%				

Table 11 11 - ROE Output

Reflecting on the financial performance articulated in the preceding section, the year 2021 emerges as an outlier, primarily due to a substantial 38% decline in operating revenues, from the previous year. Despite this setback, Frontline has maintained an impressive average return on equity (ROE) of 16.81% over the five-year span, which underscores the company's efficacy in generating profits. Common benchmarks suggest that an ROE between 5-15% is typical for sound financial health; thus, even with 2021's anomalous data point, Frontline's ROE remains robust, further cementing its status as a financially healthy enterprise.

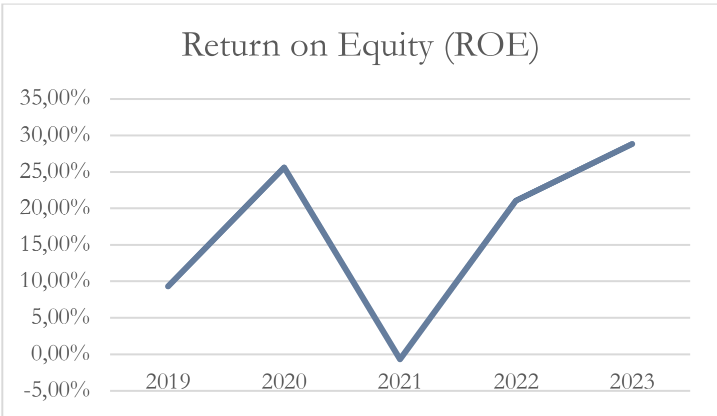

Figure 12 - ROE

4.3: Solidity

A company's financial robustness reflects its capacity to absorb losses, closely intertwined with how it's financed. The center of financial robustness involves assessing the ratio of the company's equity to its overall capital. A high level of financial health is indicated by a significant portion of equity. (Investopedia, 2022) In discussions of financial robustness, the equity and debt ratio metrics are pivotal. When evaluating Frontline's financial health, we will focus on these crucial indicators.

4.3.1: Equity ratio

The equity ratio measures the extent of a company's assets financed by shareholders' equity, highlighting its financial leverage and stability. While there's no universally agreed-upon "good" equity ratio, context and industry standards heavily influence its interpretation. Generally, a higher equity ratio is viewed favorably because it suggests a company relies more on equity than debt for financing, indicating financial conservatism and potentially lower risk. According to Wall Street Prep (WallStreetPrep, 2024), most companies target an equity ratio around 50%, with those achieving 50% to 80% considered conservative. Meanwhile, ratios below 50% may signal a more leveraged position, potentially indicating higher risk due to greater reliance on debt. However, it is important to also keep in mind that the cost of debt is considered "cheaper" than the cost of equity. This ratio can be calculated using the following formula:

$$\underline{\text{Equity Ratio}} = \frac{\text{Total Equity}}{\text{Total Assets}}$$

Equation 5 - Equity Ratio

Year	**2019**	**2020**	**2021**	**2022**	**2023**
Equity	1,510	1,612	1,653	2,268	2,278
Total capital	3,698	3,918	4,117	4,776	5,883
Equity Ratio	**40,83%**	**41,14%**	**40,15%**	**47,49%**	**38,72%**

Table 12 12 - Equity Ratio

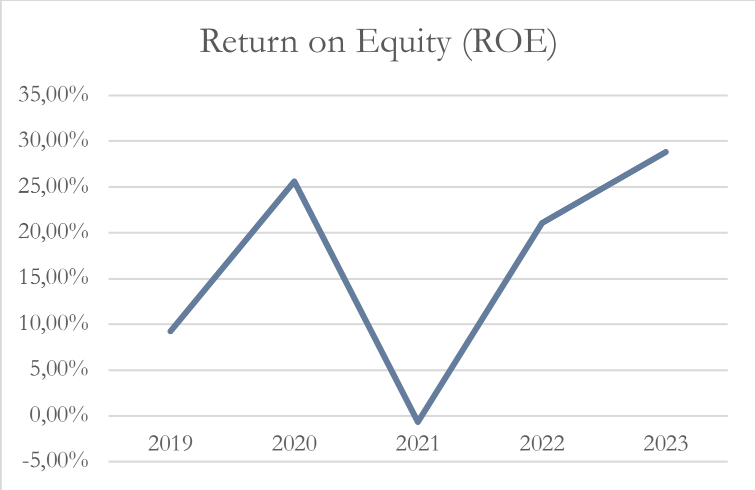

Figure 13 - Equity Ratio

As indicated by the table and figure, Frontline Ltd.'s equity ratio has varied over the years from 2019 to 2023. By 2023, the equity ratio had fallen to 38.72%, the lowest in the observed five-year range, signifying an increase in debt over this period. Although it was earlier mentioned that an equity ratio lower than 50% may be viewed negatively, it is not inherently negative. It may suggest aggressive growth strategies, such as expanding operations, investing in new projects, or acquiring assets, which could potentially generate higher returns in the future. A significant factor that may have contributed to this increase in debt in 2023 is the company's investment in a large portion of ships from their competitor, Euronav, this year.

4.3.2: Debt-to-Equity Ratio

The debt ratio and the debt-to-equity (D/E) ratio are essential metrics for understanding a company's financial health and capital structure. The debt ratio measures the portion of a company's assets funded by debt, highlighting the extent of external lenders' contribution to the company's operations. A lower debt ratio indicates a healthier financial status, suggesting a smaller burden of debt obligations relative to assets. In contrast, the D/E ratio compares a company's total liabilities to its shareholders' equity, offering insight into the balance between creditor financing (debt) and investor financing (equity). A higher D/E ratio signals a more aggressive growth strategy with greater reliance on debt, potentially increasing risk. Conversely, a lower ratio indicates a more conservative approach, with lesser dependence on debt and potentially lower risk of financial distress. (Wallstreetprep, 2024)

Debt-to-Equity is calculated using the following formula:

$$\underline{D/E\ Ratio} = \frac{\text{Total Debt}}{\text{Total Equity}}$$

Equation 6 - D/E Ratio

Over the last five fiscal years, analysis of Frontline's financial data reveals that its leverage ratio has shown remarkable stability, with the exception of a notable increase in the D/E ratio in 2023. As earlier mentioned, this rise can be primarily attributed to strategic investments aimed at growth, particularly through fleet expansion and the acquisition of new vessels.

	2019	2020	2021	2022	2023
Total Debt	**2 187,80**	**2 306,20**	**2 464,10**	**2 508,10**	**3 605,41**
Total Equity	**1 510,00**	**1 612,00**	**1 653,00**	**2 260,40**	**2 277,30**

Table 13 13 - Debt-to-Equity Ratio Input

2019	2020	2021	2022	2023
1,45	1,43	1,49	1,11	1,58
		1,41		

Table 14 14 - Debt-to-Equity Ratio Output

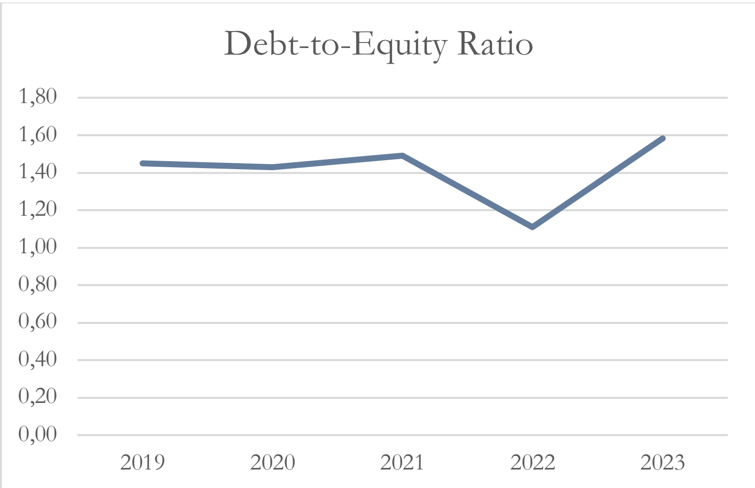

Figure 14 - Debt-to-Equity Ratio

4.4: Liquidity

An examination of liquidity is conducted to evaluate a company's capacity to fulfill its financial commitments. This examination draws upon data from the company's financial standings, specifically its balance sheet and cash flows. Maintaining a healthy level of liquidity is essential for a company, enabling it to manage unforeseen costs as well as meet regular expenses efficiently. In undertaking this assessment, particular attention will be given to critical financial indicators, specifically the current and quick ratios. These metrics will provide insight into Frontline's financial health, particularly its ability to liquidate assets rapidly to cover its liabilities.

4.4.1: Current ratio

The current ratio is a measure of a company's ability to pay off its short-term liabilities with its short-term assets (Fernando, 2024). This ratio is an indicator of financial health, with a higher ratio implying better liquidity and lower financial risk.

$$\underline{\text{Current Ratio}} = \frac{\text{Total Current Assets}}{\text{Total Short-Term Debt}}$$

Equation 8 - Current Ratio

Analyzing the data from the past five years, we observe a fluctuating trend in the company's current ratio. In 2019, the ratio was quite low at 0.53, indicating a potential liquidity issue, as the company's short-term assets were significantly less than its short-term liabilities. However, the situation improved in 2020, with the ratio climbing to a healthier 1.34, suggesting the company had more than enough current assets to cover its short-term obligations.

	2019	2020	2021	2022	2023
Total Current Assets	**448,50**	**378,30**	**332,70**	**881,10**	**727,90**
Total Short-Term Debt	**848,10**	**281,40**	**292,70**	**391,70**	**409,05**

Table 15 15 - Current Ratio Input

2019	2020	2021	2022	2023
0,53	1,34	1,14	2,25	1,78
		1,41		

Table 1616 - Current Ratio Output

The upward trend continued modestly in 2021, with the ratio slightly decreasing to 1.14 but still reflecting sufficient short-term asset coverage. A notable spike in 2022 to a ratio of 2.25 indicated a substantial increase in current assets relative to short-term debt. The ratio in 2023, while lower than in 2022, remains at a strong 1.78, suggesting the company maintains a good level of liquidity.

This overall trend suggests the company has been successful in managing its liquidity position, with particular success in the year 2022. Such a trend is indicative of potentially strong management practices and operational efficiency in terms of managing working capital and short-term financial commitments.

4.4.2: Quick Ratio

$$\underline{\text{Quick Ratio (Likviditetsgrad 2)}} = \frac{\text{Most Liquid Current Assets}}{\text{Total Short-Term Debt}}$$

Equation 7 - Quick Ratio

The quick ratio measures a company's ability to meet its short-term obligations with its most liquid assets (Seth, 2023). It's a stringent test of liquidity, excluding inventory and other less liquid current assets.

	2019	2020	2021	2022	2023
Most Liquid Current Assets	**381,80**	**320,40**	**251,90**	**774,00**	**720,49**
Total Short-Term Debt	**848,10**	**281,40**	**292,70**	**391,70**	**409,05**

Table 1717 - Quick Ratio Input

2019	2020	2021	2022	2023
0,45	1,14	0,86	1,98	1,76
		1,24		

Table 18 18 - Quick Ratio Output

From the provided data, we see an initial concern in 2019 with a quick ratio of 0.45, indicating a lack of sufficient liquid assets to cover short-term debts, a point also reflected in the current ratio analysis. In 2020, the quick ratio improved significantly to 1.14, signifying a much better liquidity position, echoing the improvements mentioned in the current ratio discussion.
In 2021, the ratio decreased slightly to 0.86, still below the preferable threshold of 1.0 but indicating that the most liquid assets nearly covered the short-term debts. This ratio aligns with the earlier analysis, suggesting a minor liquidity contraction.

The year 2022 stands out with a quick ratio jump to 1.98, paralleling the current ratio's notable increase. This remarkable growth can be attributed to a substantial increase in the company's most liquid assets to 774.00, ensuring that the company could quickly cover its short-term liabilities more than adequately.

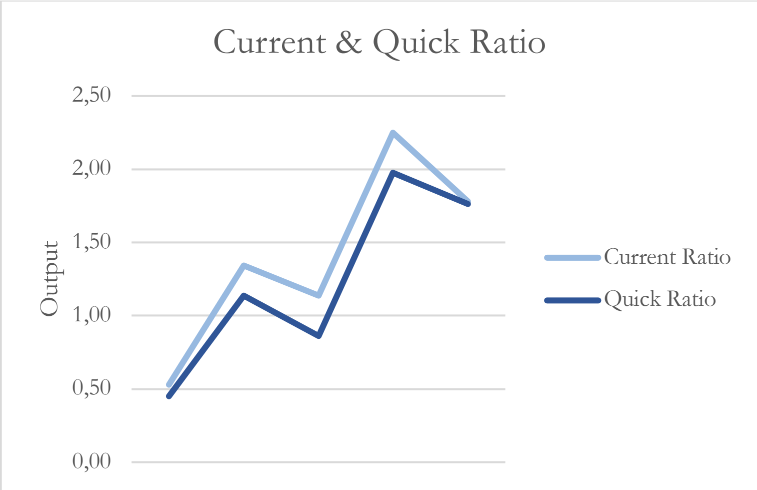

Figure 15 - Current & Quick Ratio

In 2023, the quick ratio slightly decreased to 1.76 but remained well above the threshold of 1.0, indicating strong liquidity. As previously mentioned, this robust liquidity in consecutive years suggests effective cash and asset management strategies, likely reflecting well-calibrated financial decisions to maintain liquidity without sacrificing growth opportunities.

5. Valuation

5.1 Valuation Overview

In the assessment of Frontline PLC's intrinsic value, this thesis employs the Discounted Cash Flow (DCF) method, a fundamental valuation technique widely recognized for its thoroughness in financial analysis. (Amazon DCF Valuation Model (Built From Scratch By Former J.P. Morgan Investment Banking Analyst!) , 2023). The DCF method involves forecasting the free cash flows that a company is expected to generate in the future and then, using an appropriate discount rate, calculating their present value. This comprehensive evaluation of the company's potential for wealth generation is based primarily on empirical data from Frontline's full-year reports for the years 2018-2022 and the fourth quarter report of 2023, reflecting operational performance independent of current market conditions or temporary fluctuations. (Frontline, 2023).

Given the inherent challenges of forecasting future financial performance, our analysis adopts a multi-scenario approach. To account for various possible future states of the economy and the company's operational performance, we have developed three scenarios: a conservative case, a base case, and an optimistic case. Each scenario reflects different assumptions about growth rates, cost structures, and external economic conditions, providing a range of possible outcomes. This approach ensures a robust analysis by incorporating a spectrum of potential futures, thereby reducing the risk associated with any single forecast path.

Further enhancing the reliability of our valuation, a sensitivity analysis will be conducted as the final step. This analysis will test the robustness of our valuation against changes in key assumptions, such as the Weighted Average Cost of Capital (WACC) and terminal growth rates. By varying these inputs within plausible limits, we will demonstrate how changes in assumptions impact the valuation, offering insights into the most sensitive drivers of Frontline PLC's value.

This structured approach allows us to present a well-rounded valuation, grounded in empirical data and reflective of the company's future cash flow potential under various scenarios. The following sections will delve into the specifics of the DCF methodology, including the calculation of the cost of capital and the estimation of future cash flows.

5.2 Cost of Capital

5.2.1 Cost of Equity

Investors who provide capital to a company inherently take on risk and, consequently, anticipate a return that compensates for this risk. This return is the required rate of return, which is essential for discounting future cash flows to their present value to assess the company's valuation. The Cost of Equity is initially calculated using the Capital Asset Pricing Model (CAPM), and this rate contributes to determining the overall Weighted Average Cost of Capital (WACC).

5.2.1.1 Capital asset pricing model (CAPM)

The capital asset pricing model is a model that calculates the expected rate of return for an asset or an investment. The model establishes a linear relationship between the required rate of return and the risk associated (Investopedia, 2023). Hence, it is important to consider risk factors and market returns to estimate expected returns. A key principle in the model is that greater risks are typically associated with higher expected returns. The model (formula) looks like this:

$$RE = Rf + \beta * [Rm - Rf]$$

Equation 8 - Required Rate of Return on Equity

Where:

RE = The Required Rate of Return on the Equity

Rf = Risk-Free Rate

β = The Systematic Risk of an Investment Relative to the Overall Market

Rm = Expected Return in the Overall Market

The risk-free rate is deemed the return of an investment with no risk of financial loss. We have selected the 10-year U.S. Treasury bonds' yield as our risk-free rate, standing at 3,8660% as of December, 29 2023 (CNBC, 2024)

The market risk premium (Rm – Rf) represents the additional return expected by investors for taking on the higher risk associated with equity investments compared to risk-free assets. We initially calculated a premium of 5,694% based on historical market data (9,56%-3,8660%).

	2019	2020	2021	2022	2023
OSEBX Per Year	15,95%	8,04%	21,18%	-3,18%	5,81%
Average			**9,56%**		

Table 19 19 - Market Return

However, given the industry standard and recent reports, we have adjusted this figure to 5%, aligning with PWC's analysis of the Norwegian market (PWC, 2024)

The beta coefficient is a value that measures the volatility, or systematic risk, of a stock in relation to the market (Liberto, 2024). Simply put, it tells us how much the stock moves compared to the market. If a stock's beta is 1, it means the stock's performance matches that of the market. By monitoring the beta of all stocks in a portfolio, one can diversify the portfolio and reduce a significant portion of the systematic risk. We need to calculate the beta for Frontline PLC to understand how the stock moves relative to the market. We use beta to determine the cost of equity. The formula for beta is as follows:

$$B = \frac{COV(Rj,Rm)}{VAR\ (Rm)}$$

Equation 9 – Beta

Where:

- Rj *represents the average return on the stock.*
- *Rm represents the average expected return in the market.*

We performed the calculation of the beta, using data from the last 5 fiscal years to obtain covariances and variance. However, the results obtained from calculating the beta was lower than what is typical in this market. According to Dragsund, there are few shipping companies that meet the requirements for calculating a beta. Therefore, an approximate beta of 1.4 - 1.5 would be more representative (Dragsund, 1997).

The reason our beta deviates from the normal levels in this industry is likely because we used Oslo Børs (OSEBX) as our market benchmark. OSEBX is heavily influenced by companies involved in the oil and energy sector, so the index is strongly affected by market fluctuations in energy. Since Frontline's operational activities heavily rely on the shipping of oil, these fluctuations will affect Frontline and produce an artificially low beta. Another reason for the deviation might be due to the short time horizon we obtained the data from.
In the following calculations, we choose to use a beta of 1.5.

5.2.1.2 Cost of Equity Calculation

Having established all necessary parameters, the cost of equity for Frontline PLC is calculated by plugging these values into the CAPM formula. This calculated cost of equity will subsequently be used to compute the WACC, which is vital for our overall DCF analysis.

Rf:	3,866%
B:	1,5
Rm-Rf:	5,00%
RE:	**11,37%**

Equation 10 - Cost of Equity

5.2.2 Cost of Debt

Frontline PLC's approach to debt management has recently navigated a shift from the London Interbank Offered Rate (LIBOR) to the Secured Overnight Financing Rate (SOFR). LIBOR, once the benchmark interest rate at which major global banks lend to one another, has been phased out due to concerns over its reliability and the representativeness of the transactions it is based on. In contrast, SOFR is a more stable rate based on actual transactions in the Treasury repurchase market, reflecting the cost of borrowing cash overnight collateralized by U.S. Treasury securities. The transition to SOFR reflects a broader market trend towards more transparent and risk-free rates. (Morgan, 2022)

When calculating Frontline's cost of debt, we initially considered using historical finance expenses relative to the company's interest-bearing debt ($3,457,563,000). However, given the recent spike in interest rates, this approach yielded rates that appeared outdated and too low. Instead, we examined Frontline's specific loan agreements, which typically add a margin of 170 to 180 basis points to the SOFR rate. Consequently, for a more accurate and current reflection of Frontline's borrowing costs, we adopted an average margin of 175 basis points over the SOFR rate.

With the SOFR rate standing at 5.38% on December 28 2023, and adding the average margin, we arrive at a cost of debt of 7.13%. It's important to note that Frontline PLC operates with negligible tax liabilities, so we apply this cost of debt directly into our WACC calculation without tax adjustments.

5.2.3 Weighted Average Cost of Capital (WACC)

To calculate the WACC, we use the market value of equity and debt. The following details are incorporated:

Market Value of Equity: $4,463,591,150 (calculated from the share price 29/12/2023 multiplied by the total shares outstanding. 20,05 usd*222,623,000)
Market Value of Debt: $3,457,563,000 (from the last report balance sheet)
Total Market Value (V): $4,463,591,150 + $3,457,563,000 = $7,921,154,150

Given these values, we calculate:
Weight of Equity (E/V): $4,463,591,150 / $7,921,154,150 = 0.5635
Weight of Debt (D/V): $3,457,563,000 / $7,921,154,150 = 0.4365
Cost of Equity (Re), from CAPM: 11.37%
Cost of Debt (Rd): 7.13% (not adjusted for taxes)

The WACC is then calculated as follows:

D	43,65%
E	56,35%
K_D	7,13%
K_E	11,37%

Table 20 20 – Weights used for calculating WACC

$$\frac{43{,}65\%}{100\%} * 7{,}13\% + \frac{56{,}35\%}{100\%} * 11{,}37\% = \mathbf{9{,}52\%}$$

Equation 11 - WACC

We have established three scenarios to accommodate varying market conditions and company performance forecasts: a conservative case, a base case, and an optimistic case. We will be using our calculation of 9,52% as our base case.

Conservative Case: For the conservative case, which accounts for potential adverse market conditions or increased financial costs, we adjust the WACC upwards by 1% to 10,52%. This adjustment provides a buffer, representing a higher perceived risk and thus a higher discount rate for valuing the company's future cash flows.
Optimistic Case: Conversely, the optimistic case assumes improved market conditions or more favorable financial terms, reducing the WACC by 1% to 8,52%. This scenario reflects a lower risk environment where investors require less return for their investment in the company.
These scenarios enable us to explore a range of outcomes in our valuation model, ensuring that our analysis remains robust across different potential futures.

5.3 Revenue and Expense Projections

5.3.1 Revenue Projections

Revenue forecasting stands as one of the most critical yet complex components of financial analysis, especially in the cyclical shipping industry where fluctuations are driven by macroeconomic trends and market demand. Reflecting on recent favorable market conditions that elevated spot rates, detailed earlier in this thesis, we project future revenues under three scenarios: conservative, base, and optimistic. This structured approach accommodates the inherent volatility of the shipping sector and anticipates various market conditions.

Frontline PLC, predominantly operating in the spot market, bases its revenue significantly on the prevailing spot rates. With the recent strategic expansion in fleet size, especially the doubling of VLCC (Very Large Crude Carriers) from 21 to 42 ships in 2024, Frontline's revenue capacity is poised for substantial growth. We expect this expansion trend to continue at a steady rate of 4% annually across all types of vessels.

Operational efficiency, which includes metrics like ship utilization and fuel efficiency, is assumed to remain constant based on historical performance and industry benchmarks. This assumption allows us to focus our projections on changes driven primarily by fleet expansion and rate fluctuations.

For our revenue projections, we utilize spot rate forecasts from Cleave's industry reports as a reliable indicator for our base case scenario (Cleaves Securities, 2024). To address potential extremes in market conditions, we adjust the total projected revenues by ±5% for the conservative and optimistic scenarios, respectively. This adjustment reflects possible scenarios where market conditions could either deteriorate or improve significantly, influenced by factors such as geopolitical tensions or global economic shifts.

To quantify these projections, we started by calculating an average spot rate for 2023 for each vessel type, using Time Charter Equivalent (TCE) rates from Frontline's quarterly reports. By analyzing these rates alongside reported revenues, we estimated effective spot rates and corresponding margins for 2023.

Revenue	1 802 184

Voyage Expenses	618 595
Other Non-Vessel Items	13 524
Total TCE	1 170 065

TCE rate (of total revenue)	64,9%

Table 21 - TCE Rate

	Average TCE 2023	TCE rate	Estimated Average Spot Rate
VLCC	50 300	64,9%	77 474
Suezmx	52 600	64,9%	81 017
LR2/Aframax	46 800	64,9%	72 083

Table 22 – Estimated average spot rate for 2023

With these foundational figures, we applied annual rate changes in spot rates projected by Cleaves up to 2027.

Spot Rate Forecast					
		VLCC			
	2023	2024E	2025E	2026E	2027E
	77474,2046	69482	78147	75891	62193
Growth		-10%	12%	-3%	-18%
		Suezmax			
	2023	2024E	2025E	2026E	2027E
	81016,7627	57837	63682	61808	50511
Growth		-29%	10%	-3%	-18%
		LR2/Aframax			
	2023	2024E	2025E	2026E	2027E
	72083,3554	49340	53875	52291	42917
Growth		-32%	9%	-3%	-18%

Table 23 - Spot Rate Forecast

The comprehensive revenue increase for Frontline PLC was calculated by weighting the revenue changes of each vessel type according to their share of the total fleet. This methodically combines the impacts of rate changes and fleet expansion to forecast total revenue growth accurately. We lacked specific spot rate forecasts from Cleaves for the year 2028. Given the notable decline in rates during the preceding two years, we have conservatively estimated a 4% increase in spot rates for 2028 as our base case. This projection is based on a moderate recovery scenario, which aligns with historical market recovery patterns following significant downturns.

Fleet		**Percentage of the whole fleet**
VLCC	42	49%
Suezmax	25	29%
LR2/Aftamax	18	21%
Total	85	

Table 24 - Fleet Composition

	2024E	2025E	2026E	2027E	2028E
VLCC					
-Increase fleet	100%	4%	4%	4%	4%
-Increase spot rate	-10%	12%	-3%	-18%	4%
Total increase	79,37%	16,97%	1,00%	-14,77%	8,16%
Suezmax					
-Increase fleet	-5%	4%	4%	4%	4%
-Increase spot rate	-29%	10%	-3%	-18%	4%
Total increase	-32,18%	14,51%	0,94%	-15,01%	8,16%
LR2/Aframax					
-Increase fleet	0%	4%	4%	4%	4%
-Increase spot rate	-32%	9%	-3%	-18%	4%
Total increase	-31,55%	13,56%	0,94%	-14,64%	8,16%
Weighted Averege Total Increase In Revenue	23,07%	15,52%	0,97%	-14,81%	8,16%

Table 25 - Weighted Average Increase in Revenue

DCF	2018	2019	2020	2021	2022	2023
Revenue	742,3	957,3	1221,2	749,4	1430,2	1802,2
% Growth		28,96%	27,57%	-38,63%	90,85%	26,01%

DCF	2024	2025	2026	2027	2028
Revenue	2217,982472	2562,303184	2587,127629	2203,865041	2383,700428
% Growth	23,07%	15,52%	0,97%	-14,81%	8,16%
Bear case	18%	11%	-4%	-20%	3%
Base case	23%	16%	1%	-15%	8%
Bull case	28%	21%	6%	-10%	13%

Table 26 - Revenue projections

5.3.2 Expense projections and EBIT calculation

For Frontline PLC, we project EBIT by averaging the historical margins, which have fluctuated from 1% to 40% due to the shipping industry's cyclical nature. Looking ahead, we anticipate EBIT margins to stabilize between 25% and 30%, drawing from the last six years' average. This simplifies our expense forecast and provides a solid foundation for our revenue-based EBIT projections.

Market conditions inform our adjustments to EBIT margins across the conservative, base, and optimistic scenarios, with a 5% margin shift reflecting potential changes in operational costs or efficiency. This approach keeps our model adaptable and aligns our profitability forecasts with varying economic climates.

The model's responsiveness to changing market conditions ensures a robust projection of Frontline's profitability. By anchoring our EBIT margins to revenue, we directly connect Frontline's operational performance to its financial outcomes.

DCF	2018	2019	2020	2021	2022	2023
EBIT	82,7	239,5	239,5	507,8	445,6	746,7
% Margin	11,14%	25,02%	41,58%	1,63%	31,16%	41,43%

DCF	2024	2025	2026	2027	2028
EBIT	561,74	709,52	727,92	570,69	713,67
% Margin	25,33%	27,69%	28,14%	25,90%	29,94%
Bear case	20,33%	22,69%	23,14%	20,90%	24,94%
Base case	25.33%	27,69%	28,14%	25,90%	29,94%
Bull case	30,33%	32,69%	33,14%	30,90%	34,94%

Table 27 - EBIT projections

5.4 Tax, D&A, and CapEx Considerations

5.4.1 Tax Considerations

Frontline PLC enjoys a very low effective tax rate due to its incorporation in Bermuda, known for its favorable tax environment. After reviewing historical data and excluding the anomaly of 2021, we've determined a conservative average effective tax rate of 0.12% for our financial model.

In our scenario analysis, this rate holds steady in the optimistic case, reflecting the already minimal tax impact. For the conservative scenario, we've increased the tax rate to 3.12% to account for potential regulatory changes that could introduce environmental or ESG-related taxes.

DCF	2018	2019	2020	2021	2022	2023
Taxes	0,3	0,3	0	4,6	0,4	0,2
% of EBIT	0,36%	0,13%	0,00%	37,70%	0,09%	0,03%

DCF	2024	2025	2026	2027	2028
Taxes	0,68	0,86	0,88	0,69	0,86
% of EBIT	0,12%	0,12%	0,12%	0,12%	0,12%
Bear case	3,12%	3,12%	3,12%	3,12%	3,12%
Base case	0,12%	0,12%	0,12%	0,12%	0,12%
Bull case	0,12%	0,12%	0,12%	0,12%	0,12%

Table 28 - Tax Considerations

5.4.2 Depreciation and Amortization

For Frontline PLC, we project depreciation and amortization (D&A) costs as a percentage of sales, reflecting the correlation between the company's revenue and its asset base. We use the average of the 5 last years, and add 1%, because this seemed reasonable, considering the big increase in fleet size. This method proved to provide a more consistent margin than percentage of capex and aligns with the capital-intensive nature of the shipping industry.

With the fleet's expansion, notably the doubling of VLCC vessels, we anticipate a rise in D&A proportional to increased sales, effectively capturing the costs associated with a growing number of ships.

Cash Flow Items	2018	2019	2020	2021	2022	2023
D&A	122,6	117,9	138,8	147,8	165,2	230,9
% of Sales	16,52%	12,32%	11,37%	19,72%	11,55%	12,81%
% of CapEx	56,68%	60,15%	72,82%	31,96%	49,20%	14,15%

Cash Flow Items	2024	2025	2026	2027	2028
D&A	334	379	394	350	363
% of Sales	15,05%	14,80%	15,22%	15,86%	15,21%
% of CapEx	33,37%	74,01%	76,08%	105,72%	101,43%

Table 29 - Depreciation and Amortization

5.4.3 Capital Expenditures

Frontline PLC's capital expenditures in 2024 are expected to be substantial, largely due to the completion of payments for newly acquired vessels. Including routine maintenance and upgrades, we estimate CapEx at approximately $1,000 million for the year. As the company matures and scales, we project that CapEx as a percentage of sales will gradually decrease from this peak, reflecting a more stabilized growth phase and the capital intensity typical of the shipping industry's lifecycle.

Cash Flow Items	2018	2019	2020	2021	2022	2023
CapEx	216,3	196	190,6	462,4	335,8	1631,4
% of Sales	29,14%	20,47%	15,61%	61,70%	23,48%	90,52%

Cash Flow Items	2024	2025	2026	2027	2028
CapEx	1000	512,46	517,43	330,58	357,56
% of Sales	45,09%	20,00%	20,00%	15,00%	15,00%

Table 30 - Capital Expenditures

5.5 Working Capital and Cash Flow Analysis

5.5.1 Changes in Net Working Capital

Net Working Capital (NWC) is a crucial financial metric that reflects the liquidity position of a company by comparing its current assets to its current liabilities. (www.wallstreetprep.com, 2024) Changes in NWC, therefore, indicate shifts in the short-term financial health of the company, which can be influenced by changes in operational policies, sales cycles, or payment practices.

In our analysis of Frontline PLC, we observed that changes in NWC have varied significantly in recent years, ranging from 3.6% to -10% of sales. This variability underscores the dynamic nature of working capital management within the shipping industry, which can be impacted by factors such as timing of receivables, inventory levels, and payment terms with suppliers.

Given the historical data, we've opted to use an average figure for projecting future changes in NWC, estimating that it will range between -2% and -4% of sales. This approach, while somewhat simplified, offers a pragmatic means of incorporating working capital changes into our financial model based on past trends.

Cash Flow Items	2018	2019	2020	2021	2022	2023
CapEx	-38,7	-3,9	44,9	-35,4	-142,1	-8,5
% of Sales	-5,21%	-0,41%	3,68%	-4,72%	-9,94%	-0,47%
% of Change In Sales		-1,81%	17,01%	7,50%	-20,87%	-2,28%

Cash Flow Items	2024	2025	2026	2027	2028
Change in NWC	-63,12	-62,81	-72,23	-85,29	-88,86
% of Sales	-2,85%	-2,45%	-2,79%	-3,87%	-3,73%
% of Change in Sales	-15,18%	-18,24	-290,97	22,25%	-49,41%

Table 31 - Net Working Capital

5.5.2 Free cash flow calculation

Central to our Discounted Cash Flow analysis for Frontline PLC is the computation of Free Cash Flow (FCF), which is the cash available to the company's investors after reinvestment in maintaining or expanding the business's assets. We calculate FCF by taking the Earnings Before Interest After Taxes (EBIAT), adding back Depreciation and Amortization (D&A), and then subtracting both Capital Expenditures (CapEx) and the changes in Net Working Capital (NWC).

For clarity, the calculations that follow are based on our base case scenario, which uses averaged historical data and reasonable projections for revenue, costs, and capital expenditure growth.

$$Unlevered\ FCF = EBIAT + D\&A - CapEx - Change\ in\ NWC$$

	2024	2025	2026	2027	2028
EBIAT	561,06	708,66	727,04	570,00	712,81
D&A	333,74	379,28	393,68	349,50	362,67
% of sales	15,05%	14,80%	15,22%	15,86%	15,21%
CapEx	1000,00	512,46	517,43	330,58	357,56
% of sales	45,09%	20,00%	20,00%	15,00%	15,00%
Change in NWC	-63,12	-62,81	-72,23	-85,29	-88,86
% of sales	-2,85%	-2,45%	-2,79%	-3,87%	-3,73%
Unlevered FCF	-42,08	638,29	675,52	674,22	806,78
Time period	1	2	3	4	5
Present value of FCF	-38,43	532,34	514,51	468,97	512,49

Table 32 - Unlevered FCF

To arrive at the present value of these cash flows, we discount each year's FCF by the corresponding time period using our calculated Weighted Average Cost of Capital (WACC) of 9.52% for the base case. This discounting reflects the time value of money, recognizing that cash flows in the future are worth less today.

The negative Free Cash Flow (FCF) for 2024 reflects Frontline PLC's substantial capital expenditures, presumably for fleet expansion, which exceeds the year's non-cash benefits from depreciation and amortization and the changes in net working capital. Despite this negative FCF for 2024, it's expected that these investments will foster future revenue growth.

5.6 Terminal Value and Valuation Synthesis

5.6.1 Terminal Value Calculation

The Terminal Value (TV) is a critical component of the DCF analysis, representing the business's continuing value beyond the explicit forecast period. For Frontline PLC, we estimate the terminal value using the perpetuity growth model, which assumes that cash flows will continue to grow at a steady rate indefinitely.

In estimating the Terminal Value, we use the final year of projected cash flows as a starting point and apply a Terminal Growth Rate (TGR) to capture the company's growth potential beyond the forecast horizon. We've selected a TGR of 2.5% for our base case, which reflects a conservative yet positive long-term outlook, slightly above the global inflation target, suggesting that the company is expected to grow slightly faster than the economy in perpetuity. (wallstreetprep, 2024)

This rate is deliberately set between our conservative estimate of 2%, which would represent the scenario of lower growth reflecting potential economic downturns or increased competition, and our optimistic estimate of 3%, symbolizing an environment with favorable market dynamics and successful company expansion strategies. The chosen rate of 2.5% balances these considerations, aligning with realistic long-term expectations without veering into overly optimistic territory.

The Terminal Value formula we use is:

$$TV = \frac{FCF(2028) * (1 + TGR)}{WACC - TGR}$$

Equation 12 - Terminal Value

Applying our FCF for 2028 of $806.78 million and the base case TGR of 2.5%, the calculation ends up like this:

$$11779{,}93\,M = \frac{806{,}78\,M * (1 + 0{,}025)}{0{,}0952 - 0{,}025}$$

This shows our Terminal Value ending up at 11 779,93 M dollars.

We then need to calculate the present value:

$$7474{,}108619\,M = \frac{11779{,}93}{(1 + 0{,}0952)^{\wedge}5}$$

5.6.2 Valuation Summary and Scenario Analysis

Lastly, we add up the present value of the terminal value with the present value of the cash flows from 2024-2028 and end up with an enterprise value of 9464,71 M dollars.

Enterprise value		9464,71
´+ cash		315,754
´-debt		3457,563
Equity value		6322,904
Shares		222,622889
Share Price		USD 28,40

Table 33 - Enterprise value

We then add cash, less debt and end up with an equity value. After dividing this with the number of outstanding shares we end up with our final implied share price of 28,4 USD.

Upon completing the valuation, we deduce Frontline PLC's implied share price by integrating comprehensive scenarios that span the spectrum of potential future states. Each scenario reflects a unique combination of revenue growth, EBIT margin, taxes, WACC, and Terminal Growth Rate (TGR). The conservative case assumes all variables at their lowest, suggesting a cautious view of the company's future. Conversely, the optimistic case sets each variable at its highest, presenting a scenario of favorable market conditions and company performance. The base case, however, is grounded in more moderate and likely assumptions as per our analysis.

Given the extremity of both the optimistic and conservative scenarios, we allocate a modest weight of 10% to each. This recognizes their possibility without overstating their likelihood. The base case, embodying our primary expectations, commands an 80% weight, indicating our confidence in these projections as the most representative of Frontline PLC's potential trajectory.

	Most conservative case	Base case	Most optimistic case
Implied share price	8,97	28,4	62,84
Implied upside/downside	-55%	42%	213%
Weighted scenarios	10%	80%	10%
Total weighted share price		29,901	
Total implied upside/downside		49,1%	

Table 34 - Total weighted share price

Combining these weighted scenarios yields a nuanced view of the company's valuation. The result is an implied share price of $29.901, which indicates a significant implied upside of 49.1% from the share price on December 29, 2023 ($20.05). This balanced weighting approach allows us to capture the full breadth of possible outcomes while anchoring our valuation in the most probable scenario.

5.7 Sensitivity Analysis

The sensitivity matrix presents the implied share prices across a range of WACCs from 8.02% to 11.02% and TGRs from 1.75% to 3.25%. We observe that the implied share price increases as the TGR rises and decreases with a higher WACC, underscoring their inverse relationship with valuation.

For our base case, with a WACC of 9.52% and a TGR of 2.5%, the implied share price is $28.402, indicating a potential upside from the current price of $20.05. The analysis reveals the robustness of the valuation against these inputs, and how sensitive the share price is to changes in the cost of capital and growth expectations.

			Current price:	USD 20,05			
USD 28,402	8,02%	8,52%	9,02%	9,52%	10,02%	10,52%	11,02%
1,75%	35,254	31,303	27,900	24,938	22,338	20,038	17,988
2,00%	37,017	32,783	29,157	26,016	23,270	20,850	18,701
2,25%	38,932	34,381	30,506	27,168	24,263	21,712	19,455
2,50%	41,022	36,112	31,959	28,402	25,321	22,628	20,253
2,75%	43,309	37,993	33,528	29,727	26,452	23,602	21,100
3,00%	45,825	40,044	35,227	31,154	27,664	24,641	21,999
3,25%	48,604	42,289	37,074	32,694	28,965	25,752	22,956

Table 35 - Sensitivity matrix

6. Comparative Valuation

After evaluating the discounted cash flow, a logical progression is to undertake a comparative valuation. This phase will scrutinize the Price-to-Book (P/B), Price-to-Earnings (P/E), and Enterprise Value-to-EBITDA (EV/EBITDA) ratios. Essentially, this involves applying a multiples approach to valuation, utilizing Frontline's equity as a benchmark for direct comparison with industry contemporaries.

The primary benefit of this approach is its efficiency; it is less time-consuming and enables a straightforward benchmarking against companies of comparable status. However, one notable challenge is the difficulty in pinpointing peers that are closely matched or share a consistent array of key characteristics. After a thorough review, we have decided to use the following companies as Frontline's peers in the proceedings: Scorpio Tankers, DHT Holdings, and Teekay Tankers.

6.1 P/B

The P/B ratio, short for Price to Book value, serves as a gauge for the relationship between a firm's market capitalization and its book value of equity (Fernando, 2024). It's calculated by taking the stock price at a specific point in time, such as on December 31, 2023, and multiplying it by the number of shares outstanding. This ratio is a staple in valuation analyses, employed to discern if a stock is undervalued or overvalued in the market.

When the P/B ratio falls below the threshold of 1, it could signal that the market perceives the company as inefficient in profit generation relative to its equity capital, potentially eroding shareholder value. On the flip side, a ratio exceeding 1 typically reflects positive market expectations about the company's ability to enhance value from its assets.

Despite its widespread use, the P/B ratio isn't foolproof and can be subject to misjudgment. Its effectiveness is predicated on the assumption of comparability across companies in terms of their profitability, growth trajectories, and associated risks, an alignment that is rare in practice. Businesses that appear similar financially may differ significantly in their operations and risk profiles, which can skew the accuracy of valuation outcomes when using this ratio in isolation. Therefore, it's crucial to take a holistic approach, integrating multiple financial indicators to capture an entity's valuation with greater fidelity.

The formula for P/B is the following:

$$\frac{P}{B} = \frac{Price}{Book} = \frac{Equity\ Market\ Value}{Equity\ Book\ Value}$$

Equation 13 - P/B

To determine the market value of equity, we multiplied the share price as of December 31, 2023, by the total number of outstanding shares at the same date. The book value can be found in the company's balance sheet.
Following up on the multiples approach, we calculated the following P/B-ratios for some of Frontline's peers:

	Frontline PLC	Scorpio Tankers	DHT Holdings	Teekay Tankers
Price Per Share (31.12.23)	19,73	60,44	9,62	49,74
Market Value	4 392 349 600	3 209 968 400	1 551 994 600	1 467 330 000
Book Value	2 277 346 000	2 553 706 000	1 031 667 000	1 800 346 000
P/B	**1,93**	**1,26**	**1,50**	**0,82**

Table 36 - P/B Comparison

Frontline PLC's P/B ratio of 1.93 signals that the market values it almost twice as much as its book value, possibly indicating optimism about its future profitability or unrecorded assets. Scorpio Tankers, with a P/B of 1.26, is also valued above its book value, suggesting a moderate expectation of growth or hidden value. DHT Holdings' ratio at 1.50 positions it in the middle, with the market recognizing value beyond just the book value, hinting at potential profitability. Teekay Tankers stands out with a P/B ratio of 0.82, valued below its book value, which may imply market concerns about its prospects or potential challenges that it faces.

6.2 P/E

P/E, which stands for price-to-earnings, is a commonly used financial metric that gauges the price investors are willing to pay for every krone of a company's earnings (Fernando, 2024). The P/E ratio is employed to assess the relative value of a company's shares in relation to its net income. A high P/E suggests that the market is prepared to pay a premium for the stock's earning potential. Conversely, a low P/E may be interpreted by investors as an indication of uncertain future earnings and growth prospects.

The advantage of using the P/E ratio as a valuation tool is that it provides a straightforward and comprehensible measure of a company's earning power. A high P/E ratio could signal optimistic future prospects and expected growth. However, it is important to consider that this is just one of several multiples used to evaluate a company's future outlook and should not be used in isolation.

Although the P/E ratio is a useful instrument, it has its limitations. For instance, the ratio can be distorted by one-time events significantly affecting earnings for a particular quarter or year, leading to a misleading representation of reality. Additionally, the P/E ratio does not account for the capital structure and cash flow, which are crucial factors in company valuation.

The formula for calculating P/E is the following:

$$\frac{P}{E} = \frac{Price}{Earnings} = \frac{Market\ Value\ per\ Share}{Earnings\ per\ Share}$$

Equation - P/E

Following up on the multiple approach, we obtained the following P/E-ratios for Frontline and its peers:

	Frontline PLC	**Scorpio Tankers**	**DHT Holdings**	**Teekay Tankers**
Market Value per Share	19,73	60,44	9,62	49,74
Earnings per Share	3,52	10,03	0,99	14,86
P/E	**5,61**	**6,03**	**9,72**	**3,35**

Table 37 - P/E Comparison

Frontline PLC has a P/E ratio of 5.61, which is lower than Scorpio Tankers (6.03) and DHT Holdings (9.72), but higher than Teekay Tankers (3.35). This suggests that, relative to Scorpio Tankers and DHT Holdings, the market perceives Frontline as less speculative with potentially more stable earnings, reflecting a lower level of growth priced into the stock. Compared to Teekay Tankers, however, Frontline's higher P/E ratio could indicate that investors are willing to pay more for Frontline's earnings, possibly due to better growth prospects, perceived stability, or confidence in management, among other factors.

6.3 Enterprise Multiple

The enterprise multiple is the most commonly used in connection with the buying and selling of companies, and this method allows for comparison of the underlying operations of the company (Kaldestad & Møller, 2016).

A drawback of this method is that EV/EBITDA overlooks important aspects such as differences in risk and future capital expenditure needs. For example, if two companies have the same EBITDA, but one has a higher degree of operational leasing while the other owns its machinery, the latter should be valued higher (Kaldestad & Møller, 2016). In the shipping industry, varying capital expenditure needs can affect the outcome when using the EV/EBITDA method.

The enterprise multiple is calculated using the following formula:

$$Enterprise\ Multiple = \frac{Enterprise\ Value}{EBITDA}$$

Equation - Enterprise Multiple

Following up on the multiple approach, we obtained the following Enterprise Multiple for Frontline and its peers:

	Frontline PLC	Scorpio Tankers	DHT Holdings	Teekay Tankers
Enterprise Value	6,9300	4,9800	2,2000	1,8000
EBITDA	0,9557	0,8563	0,3020	0,5991
Enterprise Multiple	**7,25**	**5,82**	**7,28**	**3,00**

* In billion $

Table 38 - Enterprise Multiple Comparison

In this figure, Frontline PLC shows an Enterprise Multiple of 7.25. This multiple is a valuation metric that indicates how many times the EBITDA investors are willing to pay for the company. Compared to its peers, Frontline has a higher multiple than Scorpio Tankers and Teekay Tankers but lower than DHT Holdings. This suggests that the market might perceive Frontline as having better growth prospects or operational efficiency than Scorpio and Teekay, but not as favorable as DHT Holdings.

For Teekay Tankers, with a notably low Enterprise Multiple of 3.00, the market may be pricing it as undervalued or expecting lower growth or potential in comparison to the others. DHT Holdings, with the highest multiple of 7.28, may be seen as the one with the highest growth expectations or potentially possessing some premium assets or market positions not reflected in the EBITDA alone.

6.4 NAV

Net Asset Value is the net value of an investment fund's assets less its liabilities, divided by the number of shares outstanding. (Chen, 2024). NAV is calculated by subtracting the total liabilities from the total assets of a company and then dividing this by the number of outstanding shares.

	Frontline PLC	Scorpio Tankers	DHT Holdings	Teekay Tankers
Assets - Liabilities	2 277 346	2 553 706	1 031 666	1 800 346
Outstanding Shares	222 620	53 110	161 330	29 500
NAV	**10,23**	**48,08**	**6,39**	**61,03**

* In thousands $

Table 39 - NAV Comparison

Overall, Teekay Tankers has the highest NAV per share, which suggests that their shares are the most valuable in terms of assets minus liabilities per share, whereas DHT Holdings has the lowest. However, NAV is just one metric to consider when evaluating a company. A high NAV does not necessarily mean the company is a good investment as it does not account for future earnings potential, market conditions, or the quality of the assets. Conversely, a low NAV does not automatically indicate a poor investment, as the company might have high growth potential or other positive attributes not captured by this measure.

6.5. Comparative Valuation Summary

Frontline PLC shows robust investor confidence with a high P/B ratio of 1.93, indicating a market valuation well above its book value. Teekay Tankers' lower P/B ratio suggests it may be undervalued by the market. Frontline's moderate P/E ratio of 5.61 reflects balanced market expectations for its earnings, contrasting with DHT Holdings' higher P/E ratio, which signals higher growth expectations. The enterprise multiples further echo this sentiment, with Frontline viewed favorably for growth and efficiency. DHT Holdings tops the group, suggesting it's seen as the growth leader.

	Frontline PLC	Scorpio Tankers	DHT Holdings	Teekay Tankers
P/B	1,93	1,26	1,50	0,82
P/E	5,61	6,03	9,72	3,35
Enterprise Multiple	7,25	5,82	7,28	3,00
NAV	10,23	48,08	6,39	61,03

**Per 31.12.23*

Table 40 - Comparative Valuation Summary

7. Conclusion

Based on our strategic analysis, Frontline Ltd. demonstrates several strengths as a company but operates within a highly volatile and cyclical industry with uncertain prospects. The strategic insights suggest that while the company has a solid operational structure, it faces inherent risks due to the unpredictable nature of the shipping sector and market fluctuations.

From a financial perspective, the company has a high level of debt, which, although common in the industry, represents a significant risk, especially in volatile economic conditions. Despite this, Frontline shows signs of resilience with for example a robust operating profit margin, indicating that the company can generate profits despite its debt levels.

In terms of fundamental analysis, the data reveals a degree of sensitivity, yet the overall figures suggest a positive outlook for the company's future. This sensitivity is a typical characteristic of the shipping industry, influenced by global economic trends and changes in demand. However, Frontline's performance metrics indicate a generally positive trajectory.

The valuation primarily relies on the discounted cash flow (DCF) method, with a fair market price per share calculated to be 29.90 USD. Although a comparative market analysis was performed, it was the DCF method that was deemed most suitable and was therefore predominantly used to determine our final valuation of Frontline Ltd.

As of December 29, 2023, Frontline's share price stood at 20.05 USD, with the DCF analysis supporting a total weighted share price of 29.901 USD, suggesting an upside of 49.1%.

While there are notable risks and uncertainties associated with Frontline Ltd., the company appears to be on a positive course for the future. The strategic, financial, and fundamental analyses collectively point towards a cautiously optimistic outlook, with the understanding that the shipping industry's inherent volatility could impact Frontline's trajectory.

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