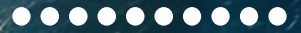




OCEAN FREIGHT HEDGING

- *A Master's Mate*



AN AVALON PERSPECTIVE



A Master's Mate

The history of ocean freight is a saga of resilience, innovation, and adaptation. From the humble wooden ships of antiquity to the behemoth container vessels of today, this industry has always faced the unpredictable whims of the sea and the ever-shifting currents of global trade. However, recent events have posed unprecedented difficulties, threatening the smooth flow of global commerce. The 2023 grounding of the Evergreen in the Suez Canal, the ongoing war in Ukraine, climate-related issues in the Panama Canal, and rising tensions in the Red Sea, have created a complex and volatile landscape, demanding proactive strategies for businesses to navigate these uncertainties.

This paper presents a case study exploring how a tailor-made ocean freight hedging strategy proved instrumental for a large steel firm, enabling them to navigate volatile market conditions and secure crucial deals. By analysing the success of this real-world application, the paper aims to demonstrate the broader potential of hedging as a tool for other companies in the maritime industry to overcome similar challenges and ensure the continued efficiency of global trade.

What and why of ocean freight hedging

Ocean freight hedging is a strategic practice designed to counteract the potential adverse impacts of price fluctuations within the freight market. Through hedging, businesses can proactively mitigate the risks posed by unpredictable shifts in freight rates. This involves the proactive step of securing a predetermined rate for forthcoming shipments, independent of subsequent alterations in the overall market landscape. By adopting this approach, companies can effectively shield themselves from the unfavourable fluctuations in freight costs. While hedging doesn't entirely eradicate volatility, it does provide a mechanism for managing the associated risks, acting as a buffer against the uncertainties of the market. It's important to note, however, that hedging comes with its own set of intricacies, costs, and potential risks. Rather than functioning as a tool to outperform the market, using hedging instruments to lock in freight rates is akin to an insurance policy against market volatility and erratic fluctuations. As such, it is not advisable to view it as a means of market speculation. Given the notably high volatility inherent in the freight market and the multitude of macro and microeconomic factors influencing price dynamics, the effectiveness of a hedge can vary—sometimes in the money and sometimes out of it—in accordance with market realities (a concept known as "Mark to Market").

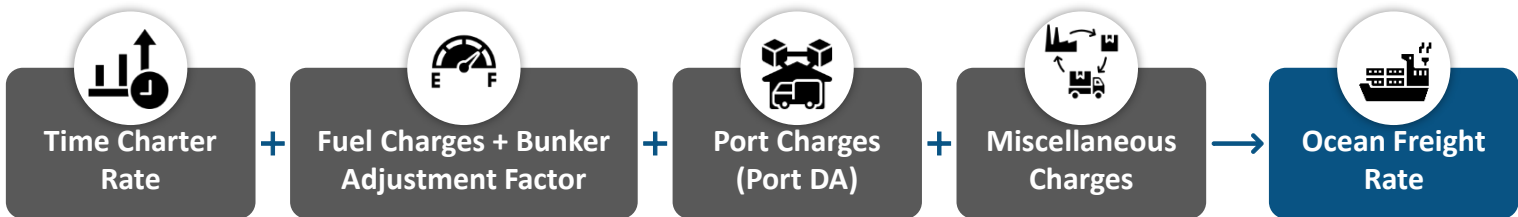


What influences ocean freights?

Ocean freight rates are intricately influenced by various factors shaping the shipping industry dynamics.

-  **Global trade patterns**, including trade agreements, political tensions, and economic disparities among nations, drive fluctuations in demand for shipping services, profoundly impacting freight rates.
-  **Seasonal variations** play a vital role, with high shipping volumes and rates in peak seasons, while low demand periods lead to oversupply and reduced rates.
-  **Fuel charges** also significantly impact freight rates, with oil price fluctuations directly affecting operational costs for shipping companies.
-  **Availability** of shipping containers and equipment is another crucial factor, with shortages during peak demand or disruptions like the COVID-19 pandemic leading to capacity constraints and higher rates.
-  **Regulatory changes**, such as environmental standards and trade policies, further contribute to industry complexity, necessitating operational adjustments and potentially affecting shipping costs. Additionally, speculative paper trade in derivative markets can introduce volatility to charter hire rates, adding unpredictability to market trends.

Components of Time Charter Ocean Freight



Time Charter Rate:

The time charter rate is the agreed payment for using a vessel over a specific period, considering factors like ship characteristics and market conditions. It represents the cost of leasing the ship's services during the agreed time.

Fuel Charges + Bunker Adjustment Factor (BAF):

Ships use bunker fuel, and its prices vary. The Bunker Adjustment Factor (BAF) is an extra charge added to the time charter rate to accommodate fuel price changes. It adjusts based on fluctuations in bunker fuel costs, sharing expenses with the charterer.

Port Charges:

Port charges are fees for using port facilities and services, covering docking, pilotage, and mooring. Shipowners or operators pay these fees when their ships use a specific port.

Miscellaneous Charges:

Shipping incurs various additional charges, such as terminal handling, documentation, security, and special cargo handling fees. These charges contribute to smooth shipping operations, covering various aspects like cargo movement, paperwork, security, and special handling requirements.

HEDGING STRATEGIES



Businesses can work with a range of strategic tools to manage the risks associated with the unpredictable nature of ocean freight rates. Whether through fixed agreements, flexible options, or more rigid futures contracts, each method offers a distinct approach to hedging, tailored to the specific risk management needs and market outlook of an organization.



Contracts of Affreightment (CoAs) involve agreements directly with shipping carriers or freight forwarders to secure fixed freight rates for future shipments, providing predictability and aiding accurate cost planning.



Freight rate options offer versatility, granting the right to buy or sell freight contracts at a predetermined price within a set timeframe. This allows hedging against unfavourable rate shifts while retaining flexibility to capitalize on favourable market movements.



Freight futures entail contractual arrangements to secure future freight rates, binding both parties to fulfil agreements at agreed rates and dates. This approach offers a more locked-in hedge against price volatility, beneficial in a fluctuating market.

HEDGING – A REAL WORLD EXAMPLE

Let's delve into the case of Company X, a prominent global steel conglomerate operating extensive ocean freight services in the APAC region.

A robust hedging strategy begins with a clear definition of objectives tailored to the company's specific needs and circumstances. For Company X, given its substantial export volume, the **hedging objectives** can be outlined as follows:

- **Locking in Future Freight Costs:** Ensuring stability and predictability by securing freight costs for forthcoming shipments, shielding the company from potential price fluctuations.
- **Improving Cost Position:** Aim to secure costs that outperform previous exit rates, thereby enhancing the company's financial position and competitiveness.
- **Alignment with Business Planning:** Aligning hedging strategies with the Latest View cost assumptions in the Business Planning process to maintain coherence and consistency within the overall operational framework.

Moving forward, it's imperative to understand the risk exposure associated with any hedging strategy. This involves identifying and evaluating various risks, including fluctuations in fuel prices, currency exchange rates, geopolitical events, and shifts in supply and demand dynamics. For instance, in the case of time charter freight, effective hedging necessitates addressing both time charter hire costs and bunker costs. Furthermore, given the volatility prevalent in commodity markets and freight rates, it's judicious for Company X to hedge its exporting iron ore sales price, thereby mitigating the risk of potential margin squeezes arising from divergent market movements.

Subsequently, understanding the financial implications of the hedging strategy is paramount. This involves a structured approach encompassing several key steps:

- ✓ **Determining Voyage Days:** Identifying the number of voyage days along commonly utilized routes to gauge the scope and scale of potential hedging activities.
- ✓ **Assessing Freight Charges:** Calculating freight charges on these routes based on prevailing spot market rates to ascertain baseline costs.
- ✓ **Evaluating Forward Rates:** Assessing forward rates for various scenarios, spanning the next quarter(s) or the upcoming calendar year, to anticipate potential cost fluctuations and plan accordingly.
- ✓ **Analysing Historical Spot Rates:** Delving into historical time charter spot rates to establish an average spot rate over a specified duration, serving as a benchmark for assessing the financial impact of hedging strategies.
- ✓ **Conducting Scenario Analysis:** Undertaking scenario analyses to forecast the annual opportunity derived from hedging, considering factors such as spot rates and the percentage of voyage days hedged, to gain insights into potential outcomes and optimize decision-making.

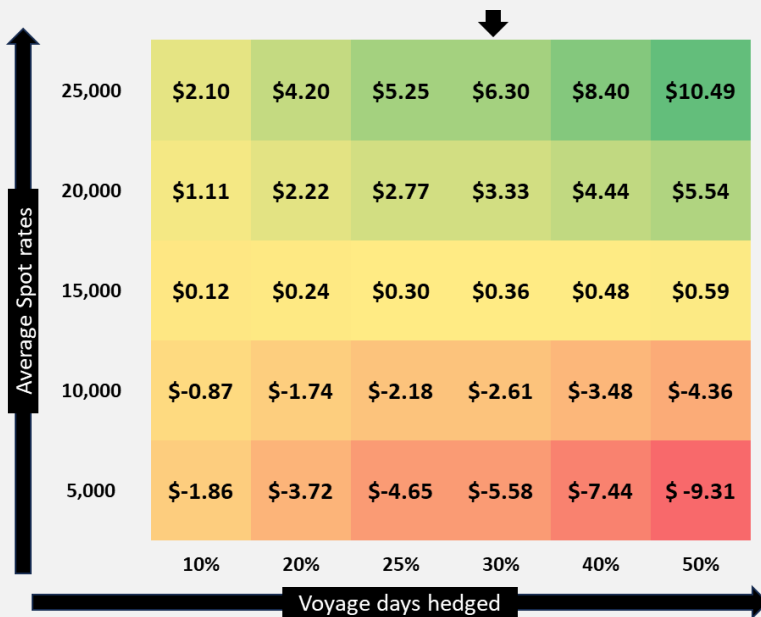
For a common 1,980 days long route “R” taken by Company X, the strategy can be to take a spot rate contract, a forward contract for the next month, a forward contract for the coming quarter or a forward contract for the whole year.

Contract Type	Rates
Spot	\$12,000/day
Forward for the next month	\$14,900/day
Forward for the next quarter	\$16,600/day
Forward for the year	\$14,400/day

Sample rates given for Route R

Additionally, Company X should decide how much percentage of its voyage days it wants to hedge. The potential financial impact of a hedging policy can be illustrated through a two-by-two matrix, with the y-axis as average spot rates and x-axis as % of voyage days hedged. Basis this, and other factors, an informed decision on Hedging % and Hedging period for Forward contracts can be decided.

Opportunity from Hedging, annual, in \$ Mn



- CY20-CY22 (Average spot rate) - \$20,860
- CY18-CY22 (Average spot rate) - \$19,427
- CY22 (Average spot rate) - \$16,177

For example, given that the 5-year average spot price of about \$19,000, the potential gain by hedging at 10% would be \$1.0 Mn and at 50% would be \$5.5 Mn.

The maximum opportunity would lie at \$10.5 Mn at an average spot rate of \$25,000 with 50% hedging.

The above chart is for illustrative purposes only

Lastly, establishing a governance framework is crucial. Company X should form a hedging committee and collaborate with experts to ensure effective risk management. Company X should leverage tools such as voyage estimators and ocean freight price assessment platforms like Plat for accurate data. It should also identify suitable exchanges for obtaining and executing hedging quotes, enhancing operational efficiency and risk management effectiveness.

Other Optimization Levers of Ocean Freight

While our focus in this paper has been on hedging strategies, it's crucial to view hedging as just one facet of a comprehensive Ocean Freight Optimization Strategy. Such a strategy should be crafted through meticulous planning, strategic decision-making, and continuous monitoring. Beyond hedging, organizations should consider other critical aspects, including cost management, schedule reliability, network optimization, and supply chain visibility. Managing ocean freight costs involves navigating fluctuating rates for vessel leasing, fuel, and additional surcharges while maintaining service levels. Ensuring schedule reliability amidst various disruptions such as weather conditions and port congestion demands robust contingency planning. Network optimization entails selecting optimal routes, ports, and cargo consolidation strategies, considering factors like transit times and trade regulations. Enhancing supply chain visibility is crucial for proactive decision-making, requiring improved data accuracy and communication among stakeholders, facilitated by technological solutions offering real-time insights.



In conclusion, while ocean freight hedging plays a significant role in mitigating market volatility and securing crucial deals, hedging should be part of a broader Ocean Freight Optimization Strategy, which encompasses cost management, schedule reliability, network optimization, and enhanced supply chain visibility. By embracing these facets and establishing a robust governance framework, companies can effectively manage risks and optimize their ocean freight operations in an ever-changing landscape, ensuring the continued efficiency of global trade.

Our Values- The Avalon EDGE

E

ENTREPRENEURSHIP

Enterprising ownership to transform ideas into pragmatic and profitable solutions

D

DEDICATION TO EXCELLENCE

Commitment to premier quality and highest standards in everything we do

G

GREAT VALUE CREATION

Focus on delivering maximum client impact through innovation and collaboration

E

ETHICAL APPROACH

Respect, fairness, and transparency in all our interactions

Contact Us:



Shabal Goel | Vice President

shabal.goel@consultavalon.com +91 8447642336



Akanksha Kaul | Consultant

akanksha.kaul@consultavalon.com +91 9871849961

MUMBAI

WeWork, Embassy 247 Park, 13B107, 13th Floor,
Lal Bahadur Shastri Rd, Gandhi Nagar,
Vikhroli West, Mumbai – 400079,
Maharashtra

Phone : +91 73045 29720 / 21

E-mail : mumbai@consultavalon.com

WeWork, Raheja Platinum, Sag Baug Road, off,
Andheri – Kurla Rd, Marol,
Andheri East, Mumbai,
Maharashtra 400059

Phone : +91 73045 29720 / 21

E-mail : mumbai@consultavalon.com

BANGALORE

WeWork, Prestige Atlanta,
80 Feet Main Road, Koramangala 1A Block,
Bengaluru 560034

Phone : +91 9886348187

E-mail : bangalore@consultavalon.com

DELHI

WeWork, Eldeco Centre, Block A,
Shivalik Colony, Malviya Nagar,
New Delhi – 110017

Delhi

Phone : +91 74286 24664

E-mail : delhi@consultavalon.com

WeWork, 5th Floor Two Horizon Centre DLF,
DLF Phase 5, Gurugram,
Haryana 122002

Phone : +91 74286 24664

E-mail : delhi@consultavalon.com

SINGAPORE

65 Chulia Street,
#38-02/03 OCBC Centre
Singapore 049 513

Phone: +65 3138 2042

Email : admin@apex-avalon.sg

CHENNAI

Spaces Olympia, Olympia Technology Park,
9th Floor, Citius Block, 1-SIDCO Industrial
Estate, Guindy, Chennai - 600 032,
Tamil Nadu

Phone : +91 7305152869 / +91 7305189261

E-mail : chennai@consultavalon.com



www.consultavalon.com



www.consultavalon.com

Disclaimer: Any views or opinions represented in this paper are personal and belong solely to the author and do not represent those of people, institutions, or organizations that the author may be associated with in a professional capacity unless explicitly stated.