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A Primer on Leasing Transactions in the International Maritime Sector

By Basil M. Karatzas

Leasing in the maritime industry in the United States has mostly been focused on Jones Act assets: vessels that are built in the United States, fly the U.S. flag, and are controlled and crewed by U.S. citizens. The Merchant Marine Act of 1920 (Jones Act) grants exclusive cabotage privileges to such vessels to trade within the waterways and port system of the United States and its territories. Such vessels also have the exclusive privilege (with a few exceptions) to carry cargoes on behalf of the U.S. government.

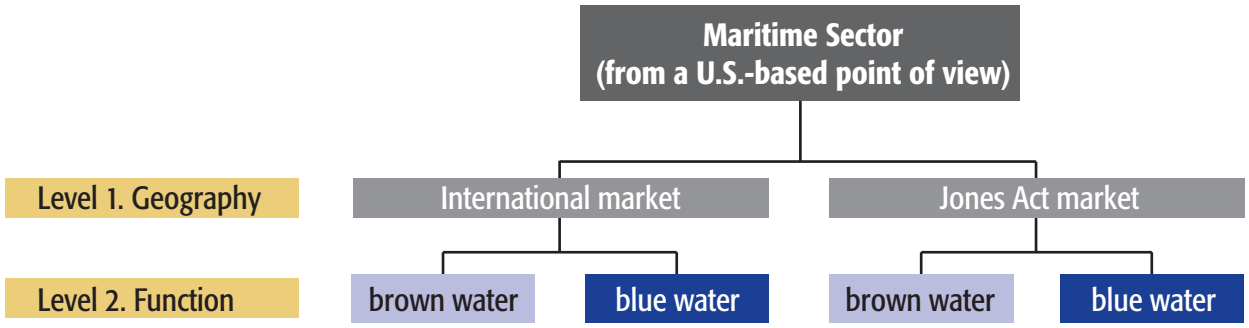
The majority of the Jones Act trade is concentrated inland, in the river and lake waterways (such as the Mississippi River and Great Lakes), and along the continental and gulf coastal trade (such as in the U.S. Gulf region and the Atlantic Coast). A smaller part of the Jones Act market includes oceangoing vessels to serve Hawaii, Puerto Rico, and other U.S. territories worldwide.

By comparison, the international maritime industry is a significantly larger market. At a time of lionized management principles of outsourcing and just-in-time inventory, international trade has spurred a constant, incremental demand for maritime transportation. This is especially true when raw material deposits lie so far from their major consumer markets (such as iron ore and coal imports to China and oil imports to the United States).

The international maritime industry typically is referred to as "blue-water" or "deep-water" shipping, as opposed to "brown-water" shipping for inland and coastwise trade (Fig. 1). The differences between these two markets can be as deep and distinct as the depth

Figure 1.

The Maritime Sector From a U.S. Perspective



Editor's note: A related Equipment Leasing and Finance Foundation study, "Marine Equipment Finance Market," is available at www.store.leasefoundation.org/product/marine. Published in February 2009, the report was written by Global Insight as part of the Foundation's 2009–2011 Transportation Outlook Series.

and color of the water that distinguishes them. As Figure 2 shows, those differences include the legal environment (international maritime law for foreign vessels versus U.S. jurisdiction for Jones Act vessels); minimal taxation for most international shipping; and lower barriers to enter and exit the markets. On the other hand, both the domestic and international maritime industries share certain common characteristics such as capital intensity, long commercial lives of shipping assets, comparable types of employment of shipping assets, exposure, and to a certain extent, the same macroeconomic factors.

This article aims to serve as a primer for leasing transactions in the international maritime market. It will underline the differences between leasing in the Jones Act and international markets in terms of asset differentiation and residual value, sources of capital, the legal environment, and industry practices. In assuming that the reader has passing knowledge of leasing practices in the domestic maritime industry, the article accordingly focuses on the different practices of the international market.

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VESSEL EMPLOYMENT

From a logistical point of view, the most straightforward form of an asset's employment in leasing is the triple net lease, where the lessee is responsible for all operational, insurance, and maintenance (technical) matters related to the asset. A vessel's employment, however, typically is more complicated than this, especially since the lessee might opt to

Figure 2.

The Jones Act and International Maritime Markets

Statutory qualifications	**Jones Act market**	**International market**
Vessel ownership	U.S. nationality	Any
Vessel registration/flag	USA	Any
Shipyard	U.S. located	Any
Vessel crew	U.S. citizens	Any
Market information	**Jones Act market**	**International market**
Vessel type	Mostly brown water	Mostly blue water
Vessel variation	Mostly inland and offshore assets	Great variation
Vessel trading privilege	Cabotage (exclusive trade within USA)	None
Trading area	Mostly within USA	Mostly internationally
Freight volatility	Low to moderate	Moderate to very high
Vessel price volatility	Low to moderate	Moderate to very high
Vessel price	Usually small (US$5–20 mil.)	Can be high (US$40–200 mil.)
Vessel economic life	Usually long (20–40 years)	Shorter (15–30 years)
Vessel residual value	Less volatile, holds better	More volatile, can depreciate fast
Legal jurisdiction	U.S. federal courts	Country of vessel's flag
Vessel classification society	Mostly, American Bureau of Shipping (ABS)	Any
Vessel daily operating expense	High, due to crewing costs	Medium, comparatively to Jones Act
Secondhand market (liquidity)	Fairly limited	Fairly liquid
Secondhand market (strength)	Fairly strong	Varies widely
Taxation	U.S. corporate taxation system	Mostly offshore jurisdictions, tax-free
Barriers to enter/exit market	Very high	Minimal
Competition	Statutory protection against foreign players	Perfect competition

sublease (charter) the vessel to a third entity.

Normally in the brown-water industry, the lessee crews and employs the vessels mostly on the spot market, where value can be added due to the lessee's trade and market expertise. However, there is one instance in the Jones Act products tanker market (tankers suitable for the trade of refined petroleum products such as gasoline) where the lessor took ownership of 10 tanker vessels. Subsequently, the Overseas Shipholding Group (OSG) undertook a 10-year bareboat charter ("bareboat" means a boat chartered without a crew). It then provided crew, insurance, and certificates for the vessels and then time-chartered the vessels to oil companies and refiners trading petroleum products within the United States.

In strictly maritime terms, vessel employment on a period charter basis is either by bareboat charter (BBC) or time charter (TC). Under the bareboat charter, the lessee is responsible, besides the rent (freight) to the lessor, for undertaking the administration and management of the vessel, and paying for the vessel's crewing, insurance, inspections, and maintenance expenses (including dry-docking). Under the time-charter employment arrangement, the owner of the vessel (or lessor in the case of a lease) is responsible for all such administrative and operational tasks.

In general, time-charter employment is an undesirable option for a financial owner since it requires shipping expertise and in-house operations staff. Another negative feature of time-charter employment to a financial owner is that the charterer (lessee) has the right to take the vessel "off hire" and legitimately stop paying rents under certain circumstances (routine maintenance, delays due to inspections by authorities, and so on), whereas bareboat employment is always payable 100% of the time. Obviously, bareboat charters are most suitable for long-term (financially priced) transactions where there is financial ownership (by the lessor), while time charters are more common as commercial types of employment, where the traditional shipowner provides a ready-to-go vessel.

In terms of trading flexibility, the lessee usually has full commercial control of the vessel. The lessee can charter the vessel to third parties either on the spot market (short term/voyage charter) or for a substantial amount of time—up to the same period of the lease.

In other situations, a time charter might have two parts: a financial component payable 100% of the time (bareboat part) and an operating component to reflect commercial reality and earning revenue. These situations could occur, for example, due to tax considerations in certain jurisdictions (such as the KG limited partnership structure in Germany) or when the lessee and the vessel manager are two different entities.

In terms of trading flexibility, the lessee usually has full commercial control of the vessel. The lessee can charter the vessel to third parties either on the spot market (short term/voyage charter) or for a substantial amount of time—up to the same period of the lease. Charterers (lessees) operate the vessels under different business models, and their trading preferences depend on the markets they serve and their strategic advantage. However, charterers with their own captive cargoes (such as major oil companies) are perceived as stronger performers with lower chances of default, while traders are perceived as less desirable charterers.

As is typical in leasing, the vessel itself is used as collateral to obtain a vessel mortgage, and the rent stream is subordinated for additional assurance. In certain cases, the subcharter of a third, creditworthy party might be required in order to meet the credit requirements of the debt covenants. Such tripartite transactions can easily escalate to a play for motivated and experienced players. A variation of using a third-party subcharter can be the arrangement of an artificial charter by selling a freight forward agreement (FFA) for a period of time to cover the lease period.

In reality, the easiest leasing transaction to originate in shipping is the sale-leaseback transaction, whereby the shipowner sells the vessel to the lessor and immediately enters into a long-term employment agreement to employ the vessel on a bareboat basis for a certain period of time. In such a bilateral transaction, where the seller-cum-lessee-cum-charterer is already intimately familiar with the asset (both from a technical and commercial

point of view), both transaction costs and risks are minimized. Usually such transactions are the most competitive from an economical point of view.

DEBT FINANCING

A cardinal element of leveraged leases is the availability of debt financing both in sufficient amounts and competitive terms. However, lending in the maritime sector is as unique a proposition as the industry itself, and this is primarily because of the collateral's ability to move between jurisdictions to potentially avoid arrest. For Jones Act assets, such considerations are rather limited: to be legally registered in a foreign jurisdiction, the owner of the asset must get special permission from the U.S. Coast Guard and the Department of Transportation's Maritime Administration (MarAd). In addition, the jurisdiction of the U.S. court system is well known and established; therefore, for lenders in the Jones Act market the biggest hurdle becomes their familiarization with the collateral asset in the shipping sector and the quality of the borrowers in the Jones Act maritime industry.

With several shipowning companies publicly listed, growth of their fleets can only be achieved with massive vessel acquisitions and significant leverage, and therefore loan syndication and bond issuing have proven the optimal ways to access the debt markets.

For lending in the international maritime industry, one has to look for traditional shipping centers and for institutions that have knowledge and exposure to the shipping markets. A thorough understanding of the shipping cycles, shipping assets, market drivers, and quality of the borrowers is mandatory. In addition, a lender has to be well aware of the limitations of taking action worldwide in case of default and possibly the lack of viable options in taking action against a vessel's owner in unfriendly jurisdictions.

The traditional international shipping finance centers have been located in London, Oslo, and Hamburg, with major satellite offices in Singapore, Hong Kong, New York, Dubai, and Athens; this is where the banks' traditional shipowners/clients were based, who historically financed acquisitions of new vessels with 35% equity and first preferred mortgage with five- to eight-year amortization at about 8% interest per annum. However, in the age of modern finance with several shipowning companies publicly listed, growth of their fleets can only be achieved with massive vessel acquisitions and significant leverage, and therefore loan syndication and bond issuing have proven the optimal ways to access the debt markets.

ASSET IDENTIFICATION

Broadly speaking, mainstream shipping assets comprise three types of vessels: (1) tankers (tanker vessels for crude oil, refined petroleum products, or industrial chemicals), (2) dry-bulk vessels, and (3) containership vessels. Figure 3 shows the biggest vessels in each sector. Naturally, within each category the vessel sizes vary, with smaller vessels serving local markets and players and bigger vessels serving multinational companies or countries. (Think of oil companies transporting oil on supertankers at increments of two million barrels at a time.) Complement-

Figure 3.

A Comparison of Vessels by Deadweight and Length

Vessel type	Deadweight (DWT)	Length (feet)
MT Jahre Viking (biggest vessel ever built)	560,000 DWT (in tons)	1,470
Containership (Maersk Line, biggest containership ever)	Apx. 14,000 TEU (20-foot equivalent units)	1,250
Very large crude carrier (VLCC; supertanker)	300,000 DWT	1,100
Capesize dry-bulk	170,000 DWT	925
Jones Act tanker	142,000 DWT	870

Note: By comparison, the Empire State Building is 1,453 feet high.

ing these three primary markets are maritime assets that serve niche markets related to (1) geography (such as Great Lake vessels and ice-class tankers, (2) type of cargo (such as heavy lift vessels, car carriers, and livestock vessels), (3) industry (such as offshore, inland, and dredgers), and (4) business model (cruise ships, ferries, and so on, based on the retail model).

Identifying an asset class as a leasing candidate is crucial from several points of view:

- purchase price (both in absolute and in historical terms),
- tonnage dynamics (in terms of size of the whole sector and the subsector under consideration, such as worldwide fleet in existence, new building contracts and orderbook, demolitions),
- trade dynamics (present and projected demand to charter such vessels),
- regulatory regime (tankers are typically more closely regulated than any other maritime sector due to the potential for environmental pollution),
- breadth and depth of the second-hand market (ease to exit the transaction with low transaction costs and an orderly liquidation value as close as possible to fair market value, and
- asset price volatility and expectations of residual value. (As a rule of thumb, bigger vessels experience higher price volatility than smaller ones.)

Each of these factors acts as a double-edged sword. As an example, although higher regulation in the tanker sector leads to additional red tape and higher operating expenses than other shipping segments, the heavy regulatory hand can act as additional safeguards for proper maintenance and adherence to good industry practices. This in turn ensures a better-holding residual value, all else being equal, and thus provides the lessor with a safety net in protecting its interests in the asset.

Two noteworthy differences underline brown-water and blue-water shipping assets. First, blue-water assets depend heavily on statutory certificates such as the registry ("flag"). Those certificates indicate the port of registry for the vessel and ensure acceptance by charterers, insurers, bankers, and port authorities worldwide and can guide change of vessel ownership and jurisdiction venue in case of litigation. Jones Act vessels by definition list a port of registry within the United States, while foreign vessels typically fly "open registry" flags, such as the Bahamas or Panama, to minimize registration costs and taxation.

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The significance of the flag is that it controls the jurisdiction of the mortgage, management, and crewing matters of the vessel as well as certain trade matters and boycotts. (As an example, Israeli-flagged vessels may be prohibited from entering ports of Arab countries.) More importantly, based on accident records, authorities may deem that certain flags are associated with lax standards, so those vessels with "blacklisted" flags might be subject to additional inspections, delays, and possible loss of hire.

The second difference between brown-water and blue-water shipping assets concerns the determination of seaworthiness. Vessels require certificates by a classification society, an independent body that ascertains the seaworthiness of the vessel. Jones Act vessels receive their class certificates from the American Bureau of Shipping (ABS), whereas international vessels may choose among a number of societies. Not all classification societies are created equal, but as long as they are accredited members of the International Association of Classification Societies (IACS), their classed vessels usually are treated uniformally by regulatory bodies (in terms of inspections) and by protection and indemnity (P&I) clubs for coverage (in terms of insurability and premiums).

TRANSACTION DRIVERS

Asset Price

Comparatively, high asset prices in the maritime industry make for larger transactions than found in most of the equipment leasing and finance sectors. In the brown-water class there are assets (such as barges) that may cost

less than US$1 million. However, for the international maritime industry in general, the entry fee might be as low as a few million dollars for older (but marketable) assets. At the high end of the spectrum, there were cases in 2008 when brand-new containerships were leased at US$160 million (by Danaos Corp.). Even higher, in the offshore drillship market, there was an example of a sale-leaseback transaction in 2008 for two ultradeep drillships at US$1.7 billion for a 15-year period (by Seadrill).

Residual Value

Assessing the expected residual value of an asset at redelivery is usually the secret to correctly pricing the revenue streams. Besides the standard accounting and historical guidelines, such as the vessel's original construction cost and total economic life, the lessor must consider supply and demand, and breadth and depth of the secondhand market. Seemingly lesser details, such as the maintenance level and the condition of the asset at redelivery, can end up being of paramount importance.

Although such accounting and historical approaches are still applicable in the maritime industry, estimating the residual value of a vessel can be more esoteric than in other industries, due to a number of variables that can affect the asset price. One parameter of note is the state of the freight market and the vessel's perceived earnings potential in the freight environment at redelivery. Therefore, estimating residual value in the international maritime industry is always contingent on one's opinion on the trend of the freight markets. International freight rates are highly volatile, as evidenced by the asset prices of foreign-flagged vessels. (See Fig. 4 for an assessment of asset prices and freight rates for five- and 10-year-old very large crude carrier tankers.) Since Jones Act vessels are protected against foreign competition, their freight rates are smoother. Jones Act prices vary less, and thus residual values are more predictable, which is one of the great differentiating factors between Jones Act vessels and oceangoing vessels.

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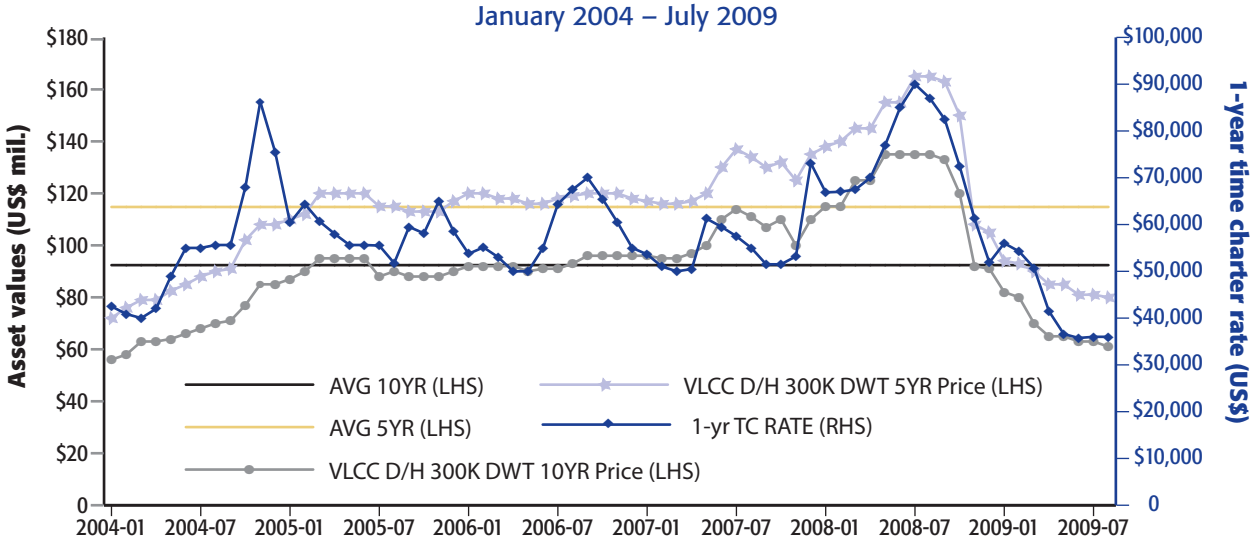
As a corollary, the asset class itself can exhibit a different behavior in projecting future asset prices (residual

Figure 4.

Asset Values and Freight Rates for VLCC Tankers

January 2004 – July 2009



TC: Time charter

VLCC: Very large crude carrier (supertanker)

D/H: Double-hulled (tanker); after the EXXON Valdez accident, tankers have to have two hulls to prevent pollution in case of collision

DWT: Deadweight (in tons); the weight of the vessel when it is fully laden with cargo, crew, provisions, fuel, and water

LHS: Left-hand scale

RHS: Right-hand scale

values). Usually, in the case of bigger-sized vessels such as supertankers and capesize vessels that can only carry large amounts of cargo economically over long distances, freight rates are most volatile and thus asset prices can fluctuate widely. Smaller-size vessels can find employment through smaller operators and can carry different types of cargoes to smaller ports; thus their earnings are more stable and accordingly their valuations are as well.

Residual values are more volatile for dry-bulk vessels, for which the barriers to entry and exit are relatively lower than any other segment of the international shipping market. Asset prices seem to be the least volatile for containership vessels, which usually are employed long term by few operators with logistical infrastructure. Again, in general, bigger containerships vary most in residual value in this sector.

During the total economic life of approximately 25 to 30 years for oceangoing vessels, residual values are not behaving uniformly: modern vessels not only are the most capital intense but they also have the most to lose in the event of a market correction. However, a modern tanker is definitely more desirable for charter by oil companies and thus can better hold its residual value, while in general, charterers of dry-bulk vessels are indifferent regarding the age of the vessel—all else being equal—thus, older dry-bulk vessels may provide a better value proposition.

The unique and volatile nature of the shipping industry is reflected in leasing transactions that were terminated in the last couple of years, a period of extreme variation in the shipping market.

Redelivery Terms—Physical and Contractual

Aside from the state of the market, the residual value of the vessel positively depends on its maintenance and physical condition. Since it is difficult to objectively define the quality standards under which the vessel must be maintained and delivered back to the lessor, the strategy by consensus has been to adhere to the technical standards of the classification society of a seaworthy vessel. The standard stipulation calls for vessels at redelivery to have all class certificates valid and free of any class recommendations for mandatory repairs and maintenance. Since the standards are those of the classification society, it is clearly important to choose to affiliate with a classification society with a good reputation.

In addition to the condition of the vessel, the contractual terms of the delivery, such as the location of the physical redelivery of the vessel, will affect the value of the asset. (For example, if the vessel is redelivered in a remote location, a buyer will discount for the fuel expense to reposition the vessel.) Experience has taught that at redelivery, the lessee/charterer of the vessel, no longer having a vested interest, on occasion may not be fully cooperative in assisting the beneficial owners (lessors) in remarketing the vessel.

CASE STUDIES

The unique and volatile nature of the shipping industry is reflected in leasing transactions that were terminated in the last couple of years, a period of extreme variation in the shipping market. For transactions that originated during the super-cycle years of 2004–2008, it is still too early to calculate returns.

In 1999, at a time of anemic shipping markets, Tsakos Energy Navigation (TNP) acquired a brand-new, 107,000 deadweight ton (DWT) Aframax tanker at US$38 million and entered into a sale-leaseback transaction for eight years with Dr. Peters, a tax-oriented limited partnership in ship leasing in Germany. At the end of the lease in summer 2007, TNP exercised its option to acquire the asset at US$31.1 million and immediately sold the vessel in the open market to a third party at approximately US$61 million. Although the lessors satisfied their investment requirements on this transaction, it is abundantly clear that the "lottery" potential of the residual value could be significantly different from the asset's book value. In a volatile industry such as shipping, on occasion vessels may be valued more at the termination than at the origination of the lease; thus purchase options, as "out of the money" as they may seem, might end up having significant value.

AP Moller, with its U.S.-based subsidiary, Maersk Line, is the biggest operator of containerships in the world, with many of them under the beneficial ownership of leasing companies. In summer 2007, upon termina-

tion of a charter for five vintage 2,800 20-foot equivalent (TEU) containership vessels, the lessors were able to sell the vessels to third-party entities at a profit of 20% above the residual value of the vessels (about US$1 million per vessel). Fast forward to the abysmal freight market of 2009, when the lessor of two vintage 4,600-TEU containership vessels to Maersk sold the vessels for scrapping, experiencing a 50% loss over the value of the investment. (That is approximately US$10 million per vessel, in nominal terms.) In both cases, the lease ended well because of the timing of the redelivery of comparable vessels, the state of the freight markets, and likely the different assessment of the vessels' residual values by the lessors.

Lack of financing is a more pressing issue for shipowners than most leasing companies, so leasing may become an appealing finance alternative in the shipping sector.

CONCLUSION

The international maritime industry is an indispensable conduit for international trade but subject to a high number of variables. Not surprisingly, though, many players in the market have been successful and profitable throughout market cycles, peaks, troughs, tidal waves, and all. If one were to hazard a guess at the reason of their success, it may be because they have built a business strategy to get exposure only to the variables that they understand and can control optimally. For instance, certain shipping companies have opted to be active in the Jones Act market, where volatility is low and barriers to entry are higher than in the international maritime market. As a result, a shipping finance market, including equipment leasing, has developed to service this particular part of the shipping market.

The breadth of the international shipping markets provides numerous opportunities for those who are keen to analyze variables (risks), identify the variables that they are best equipped to undertake, and quantify the amount of risk they can handle. Much like owners in the market that have carved out a market where they can compete successfully, there are finance and leasing companies that have discovered their competence sphere, with the Jones Act being the most prominent. In the international markets, there are lessors that specialize in certain market sectors or that structure deals involving additional aspects of the maritime industry. For example, in the leasing deal, besides the shipping asset itself, the third-party charter can be subordinated. Another example is a leasing deal where the residual exposure or the market exposure can be the focus.

Since the financial turmoil, few leasing transactions have taken place in the international maritime sector, mostly because of the lack of debt financing at competitive terms in the present market environment. However, lack of financing is a more pressing issue for shipowners than most leasing companies, so leasing may become an appealing finance alternative in the shipping sector. Because shipping assets are presently valued close to their historical average prices (by a 40% to 70% decline in most mainstream asset classes in the last year), this might be a good entry point for lessors interested in dipping their toes in blue waters.

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