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ANNALS OF FINANCE: What's a Ship Worth?

By Basil M. Karatzas

How do you value an asset? To quote the poet, "Let me count the ways." In shipping, as in any other industry, there are subjective factors (such as goodwill) and – predominantly – objective factors (such as condition of the vessel, charter status, availability of financing, and economic profit). In a highly cyclical industry like shipping, valuations can vary wildly over a relatively short period of time.

Take, for example, the case of two sistership Capesize vessels that sold seven months apart in 2008. The first went for north of $130 million, the second for $27 million – a swing of more than $100 million! The discrepancy was so extraordinary that it became the subject of two Harvard Business School case studies published last year, which this author helped prepare. And while there is no right or wrong answer to the question, "What is the real value of the vessel – the first or the second price," it does highlight the importance of the issue. For asset players like shipowners and private investors, such "disconnects" between price and perceived value spell opportunity.

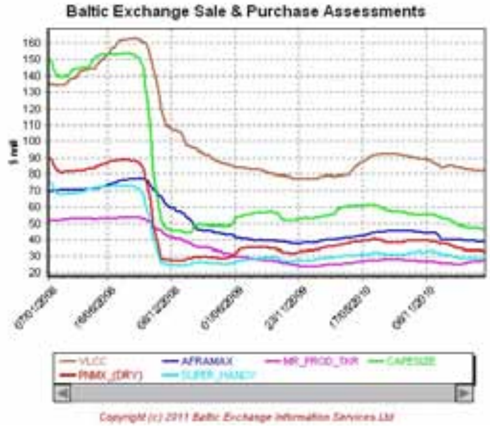
VALUATION TECHNIQUES

In general, there are three established valuation methods:

- **Market Approach –** What someone paid recently for a similar asset sets the benchmark, whether in a hot, cold or simply lukewarm market. Also known as "last done" in shipping, it's a representative way of assessing price as long as assets as fairly marketable and there is a liquid market.
- **Replacement Cost Approach –** What it would cost to replace the asset and depreciate it to present value. Replacement cost is usually handy for custom-made assets that were built for a unique application (in one instance, the author had to value a vessel with a quarter-ramp, ro-ro capacity, helipad, accommodation facilities for 120 people, containership capacity, four cranes, cargo holds for dry bulk and ammunition, and coated cargo tanks for petroleum products). The main criticism of this method is that it may be more relevant to history than the marketplace.

An expert on purchase and sales agreements shares his views on the direction of asset values.

Figure 1: BSPA Since January 2008



- **Income Approach –** The net present value of the future cash flows the buyer of the asset expects to earn over the asset's remaining economic life or the life of the project. Under most circumstances, the income approach is the most reliable way to assess economic benefit; however, as this method projects in the future, it can be heavily subjected to input manipulation such as estimates of future earnings potential, cost of capital, and – most dreaded of all – the residual value of the asset. Variations of this approach may include the value of an asset with employment attached ("valuation with charter attached," where the differential of the charter to market conditions has to be assessed) or valuing the vessel on the methodology and inputs suggested by the Hamburg Shipbrokers Association ("Hamburg Rules").

Valuing vessels can be a science, but it is also – to a certain extent – an art. For potential buyers, what seems to matter most (aside from price) is the direction of freight rates – or at least the buyer's perception of the direction of freight rates, from which he can estimate the type of return to expect on his investment.

"BLACK SWAN" AND THE AFTERMATH

The Baltic Exchange, a London-based industry body, produces the weekly Baltic Exchange Sale & Purchase Assessment Index (BSPA) for five-year-old vessels (VLCC, Aframax and MR2 Products in the tanker market, and Capesize, Panamax and Supramax vessels in the drybulk markets). It presently estimates a five-year-old VLCC at approximately $82 million and a five-year-old Capesize vessel at $46 million while similar vessels at the top of the market in early 2008 were valued in excess of $160 million and $150 million, respectively, as per Figure 1.

Of course, the second half of 2008 and the first part of 2009 were unusual times in many respects, a sort of "Black Swan" series of events that occur so rarely that few believe their existence beforehand. Freight rates were in free-fall due to the financial turmoil and the "subprime crisis," the lack of trade financing, and the great degree of uncertainty and exacerbated systemic risk to the worldwide financial system. When there were doubts about the survival of long-established financial institutions, trade was severely impacted, a sizable part of the world fleet remained unemployed, and there was little demand for the purchase of vessels.

Since the second half of 2009 world trade has slowly been returning to normal ("reverting to the mean" as we statisticians would say) as the demand for cargoes has improved. Furthermore, the most prominent central banks worldwide acted in an orchestrated manner to create excess liquidity and maintain a very lenient and accommodating monetary policy (Quantitative Easing I & II, historically super-low interest rates, etc.). It can be said that, since the beginning of 2010, the focus in shipping markets has again been on trade and freight rates and the extent of the financial carnage has been limited to the lack of debt financing, higher standards in terms of covenants, and lower leverage in loan agreements.

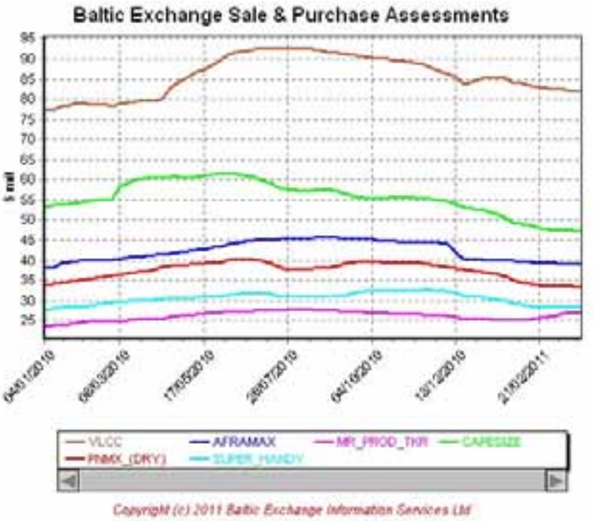
In the first half of 2010 there was a more or less V-shaped recovery as the markets bounced off the bottom and maximum impact was felt from the stimulus packages worldwide. The BDI caromed ferociously from below 700 at the worst point of the cycle in November 2008 to more than 4,000 in May 2010. The tanker indices, both dirty and clean, recovered from the bottom achieved in April/May 2009 (about six months after the dry market bottomed) to triple in the following year and reach a peak at about the same time the drybulk markets did. Since the market peaks in late spring and early summer 2010, the drybulk market has dropped by one-half; however, the tanker indices have been fluctuating within a trading range with the clean tankers (BCTI) showing the most signs of promise and improvement.

STABILIZATION

In a weaker freight market, or for that matter in a market with no direction at all, one would expect that vessel asset prices would be deteriorating. After all, the prospects for higher earnings are not clearly visible or especially enticing, and therefore investors (and shipowners) would opt for investments in alternative assets/industries with better prospects. Figure 2 depicts the BSPA index for five-year-old vessels since January 2010. With the exception of Capesize vessels, asset prices for five-year-old vessels are currently at approximately the same or even better levels compared to January 2010 data (but slightly lower than the peak achieved somewhere in the summer of 2010 for most asset classes).

Vessel asset prices have, in fact, been holding up well, espe-

Figure 2: BSPA Since January 2010.



cially for modern vessels or assets with forward delivery (such as newbuilding contracts) as, in the mind of many investors, they act as a physical hedge against inflation concerns. When central banks worldwide had been trying to outdo each other in terms of quantitative easing (i.e., printing fiat money), inflation concerns were paramount in the minds of investors, especially shipowners and funds, as they had the most to lose in an inflationary environment. Ownership of vessels, "steel" as some owners have expressed, provided a physical hedge against inflation worries, especially to an owner with in-house shipping expertise who could acquire and maintain the "steel" with the least amount of expense.

INCENTIVES

A corollary to inflation worries – and an additional incentive to invest – is that commodity prices are set to increase both in the foreseeable future and also from a long-term, strategic perspective. It is obvious to everyone by now that there is currently a struggle in full swing for global control of natural resources, and the financial turmoil since 2008 has provided opportunities to certain companies and countries to strategically align themselves for better and less expensive access to commodities. In a restructured world economy and new global trading order where commodities are so much sought after, the underlying assets (vessels) provide a natural hedge in terms of construction/replacement cost and also as the vehicle for transporting commodities, and their value should increase as the global economy fully recovers.

In addition, a byproduct of the low-interest-rate policy of many a central bank is that savings accounts provide minimal returns (negative returns in certain instances), and therefore the opportunity cost of buying a shipping asset is low. Furthermore, the policy of low interest rates is doubly attractive to owners/buyers with strong balance sheets since they can borrow at historically low rates or otherwise obtain competitive financing to take over projects or assets under default.

THE IMPACT OF PRIVATE EQUITY

At certain times the market may be significantly impacted by the influx of new entrants. While traditionally there were standard players/owners whose actions and timing could set the market, since the collapse of asset prices in late 2008 several new parties have closely followed the shipping markets. Among these are private equity or hedge funds, which have steadily invested in shipping assets in the last year. In preliminary calculations, a few billion dollars have already been invested in existing shipping assets and newbuilding contracts, and there is a multifold amount of money committed on the sidelines and seeking opportunities to invest. These new investors bring fresh inflows to the shipping markets with the direct impact of (a) minimizing the fall in asset prices during a market downturn, such as we are currently experiencing, (b) maintaining strong prices and momentum in a period of average rates, and (c) magnifying asset price increases during a market upturn.

Of course, not all asset classes/market segments in shipping behave uniformly, with some sectors better than others some or most of the time. Furthermore, within the same asset class, certain types or vintages of vessels might react quite differently to the markets. For instance, while asset prices for modern tankers have fared well given the circumstances, first-generation double-hull tankers have seen their values fall more as they have a hard time competing with modern vessels in a weak freight environment. And with a weak freight environment as the main driver of asset prices, many market participants are wondering whether asset prices may have to soften more in order to properly reflect the market. A challenging time, indeed, for asset players! **Mar**Ex

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