Vessel Values

Hamburg formula for ship valuations is gaining acceptance

The appropriately named *Cosco Hamburg* sailing into the port of Hamburg: the city's approach to valuing ships is based on their long-term earning potential.

German approach could change the way calculations are made to determine what a vessel is really worth

Michelle Wiese Bockmann

WHEN it came to making money out of the boxship crisis, few judged it better than Dynacom's George Procopiou, who made a cool $20m in 15 months on one ship sale.

The Greek owner astutely flipped the 1995-built, 4,914 teu *Swan*, buying at $9m in June 2009 from a distressed Japanese buyer, then selling for $29m in November 2010 to Technomar Shipping.

Such asset plays are the lifeblood of global shipping, where vessels are bought and sold based on their market price.

But a controversial new method developed in early 2009 by Hamburg's shipping sector to value vessels based on their long-term earnings potential is now gaining acceptance. The German approach could change the way calculations are made to determine what a ship is really worth.

Some 15 months after it was endorsed by Pricewaterhouse-Coopers, auditors and banks have increasingly turned to the Hamburg Ship Evaluation Standard valuation formula, say its developers.

"It's pretty widely accepted, first and foremost in Germany, and we want to have it more accepted internationally, and that is our big job in the future," says Jan Bartels, vice-chairman of the board of the Hamburg Shipbrokers Association and managing director of Hansa Chartering.

"We think a lot of people use it, but not as a primary source but as a secondary source, and with some regulatory issues going on in Germany, that might actually prompt the need for a discounted cashflow-based evaluation, which is essentially what a long term asset valuation is."

Shipowners and banks in Germany, home to the largest number of investors in the containership sector, worked to develop and finetune the Hamburg formula when the trade crisis turbulence of 2009 saw containership values plunge by as much 70% in less than six months.

Owners and banks feared that distressed sales in an illiquid market had skewed values, with implications for collateral lent, loan-to-value bank covenants and restructuring of troubled KG companies.

Hamburg shipbrokers faced a barrage of criticism, especially from other sale and purchase brokers outside Germany, who provide the majority of the world's evaluations using a market-based approach. Brokers said that under the Hamburg formula, vessels that had sold in early February 2009 for $10.5m would be valued at $60m.

However, this week the committee of auditors, owners, shipbrokers, KG funds and bankers who developed the Hamburg formula will meet to review and refine the new method, and push ahead with its promotion.

A recovery in boxship time charter rates during 2010 has narrowed the gap between the market price and the price determined by the Hamburg formula, underpinning its credibility.

"It's being used by both shipowners and accountants and banks — everybody is using it to a different extent," says Thomas Rehder, a fourth-generation shipowner and chief executive of Carsten Rehder Shipping, who was instrumental in establishing the Hamburg formula.

"We think a lot of people use it, but not as a primary source but as a secondary source"
Jan Bartels, vice-chairman of the board of the Hamburg Shipbrokers Association

"It's not by far the only way of evaluating, as obviously for regulatory purposes there are many ways which have to be done for legal requirements for bank refinancing. Mark-to-market evaluations still play the dominating role. But the discounted cash flow standard is widely used as a second benchmark."

After initial wariness, Mr Rehder says German banks are using the Hamburg formula, "especially when it comes to restructuring". The discounted cash value forms part of banks' evaluation and rating process but this varies from each bank, he says.

Bernd Holst has a better picture about the banking sector. He is managing director of Weselmann, a Hamburg-based engineering company, marine surveyor and ship valuation provider that Mr Rehder says provides about 80% of all evaluations done based on the Hamburg formula.

Mr Holst says that he completed about 300-400 vessel evaluations last year, and that about 80% of his clients were banks.

"This means that banks are asking for it [the HSES evaluation] but how they are using it internally I don't know," Mr Holst says.

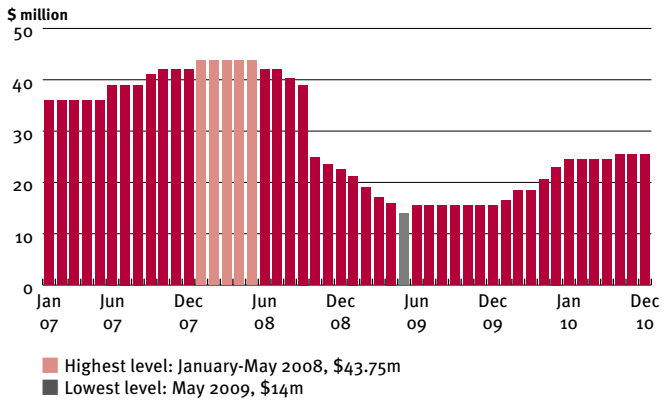
Weselmann has prepared evaluations not just for German companies, but also businesses from Canada, Greece and Italy. Most were for containerships — although not the very large sizes — as well as bulk carriers and multipurpose vessels.

"In all other asset classes, if you have a factory or whatever, traditionally already you have a market value as well as an earning value, this is in all other asset classes as well," says Mr Holst. Banks usually determine the value of assets they lend against based on a mixture of spot market and long term values, except in shipping.

"Only in shipping the earnings value has not been taken into consideration, due to the fact that the banks always want to have a value that they can get if they immediately put the vessel on the market," says Mr Holst.

"Therefore the banks are looking at the case very much from the risk side and the market value is the spot evaluation. The long term asset value or earnings value is as the name says, long term, it's like what an owner is calculating if he wants to buy a vessel."

CONTAINERSHIP SECONDHAND PRICES
Five-year-old vessel, 1,850-2,100 teu



Source: *Clarkson Research Services*

Mr Holst also demonstates how containership values derived using the Hamburg formula are now closer to the market price.

He gives the example of a 1994-built, 1,700 teu containership that sold in November 2010 for $11m, while the Hamburg formula valued it at $14m.

This narrowing in the gap between the two prices reflected the rise in charter rates for smaller vessel types, Mr Holst says, which were $8,000-$8,500 daily for a vessel of that size and age.

So will the Hamburg formula change the traditional way that the market looks at ship values?

"That's a difficult call to make," says Mr Rehder. "I think it will play a role simply because banks will be more cautious when they lend. When you lend you will naturally look at what is the potential of the asset to pay back the loan that you hand out."

But the Hamburg formula does provide banks with a uniform way to use a discounted cash flow analysis on vessels, Mr Rehder says, where previously there was no established standard.

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Thomas Rehder, chief executive of Carsten Rehder Shipping

Other brokers report that the Hamburg formula has yet to become widely used outside Germany. Basil Karatzas, director of projects and finance at Compass Maritime, says the US-based shipbroker has done several evaluations at the request of owners and banks. But banks do not limit their approach to Hamburg parameters, he says, and focus on the income the ship is earning.

The formula has also been criticised for the discount rate it uses, of 6.6%, which some believe is too low, and should be higher for a risk industry like shipping.

Marine auditors in Germany now use the formula for impairment tests if companies are classified as a going concern when signing off full-year accounts and did so in March 2010. The formula complies with standards set by German association of certified public auditors.

Mr Rehder says it is right to draw an analogy with real estate when discussing ship values. Real estate values are normally evaluated by a multiple of annual earnings: "There's no reason why this should be any different for a ship, as that is actually the commercial consideration that shipowners make when they buy and sell a ship."

The Hamburg formula was never intended to replace the way ships are sold, based on 'last done' or comparable levels. However, two years since the idea was first floated, it has made small inroads in the valuation metrics used by banks, insurers, and accountants .

With the boxship sector recovering, those who developed the formula are now determined that it survives beyond the crisis from which it was born. ■

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Estimating value the Hamburg way

PARTLY determined by estimated future time charter earnings, the Hamburg Ship Evaluation Standard price is based on the long-term asset value, or what accountants call a discounted cash flow analysis, *writes Michelle Wiese Bockmann*.

The formula takes into account a vessel's current time charter rate, based on proven spot market indices, such as the ConTex for boxships, or the Baltic Exchange for bulk carriers and tankers.

Earnings from any existing longer-term time charter deal attached to a ship would be factored in until it expired, if the charterer had a reliable credit rating. Income for the remaining life of the ship would be calculated on the 10-year average charter rate for that given vessel type.

A charter free ship would see future time charter rates based on forecasts over the next two years.

Other considerations include the average operating costs, the residual value of vessel, its age and scrap price upon demolition.

Parameters also set the cost of debt and internal rate of return, based on average operation costs. ■

LONG TERM ASSET VALUE

$$LTAV = \sum_{t=1}^{T} \frac{(C_t - B_t)}{(1+i)^t} + \frac{RW_t}{(1+i_{i=T})^T}$$

C = Current Net-TC-Rate in running year (Base: ConTex; Baltic Dry Index (BDI); other proven data etc.)
$C_{2\text{-}T}$ = Average-Net-TC-Rate of the past 8-10 years (if possible, otherwise shorter)
B_t = Average-OPEX of the last 8-10 years (if possible, otherwise shorter)
i = Discount rate
t = period (t_1 current year; t_{2-T} : period end)
T= Remaining period until age 20/25 Years
RW_T = Residual value, based on ldt, average $ scrap price/ldt and multiple (ldt in long tons, 1t= 0.9842 lt)