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BROKERS AND APPRAISERS TO THE MARSHAL OF THE ADMIRALTY

The Science of Ship Valuation By Paul Willcox

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Ship valuations (or appraisals, as they are also known) are issued by shipbroking firms with extensive experience of the ship sale and purchase markets. They usually take one of two forms, a simple letter of a few lines, or a more detailed certificate including more particulars of the vessel and the valuer's disclaimers. There is little difference in law in the validity of the two formats: both are understood to be professional expressions of opinion. A detailed exposition of underlying assumptions, however, can better protect the interests of both the valuer and any party relying upon the valuation, as will be discussed in further detail below.

Occasionally brokers are asked to put in writing a quick opinion of value, for example by email. Prudent disclaimers are not always included, and care should be taken to distinguish these 'off the cuff' initial estimates from formal valuations.

Reasons for valuations

There are several common reasons for valuations being required, including

- security for a proposed mortgage: banks will require independent appraisals of value to accompany a loan application
- security for an existing mortgage: banks need to keep abreast of the underlying value of their security
- Reserve price for a court sale: courts require an indication of what a vessel will achieve at auction in order to advise creditors
- Insurance or general average
- Investment prospectus: stock market flotations will require valuation of assets; recently a number of owners have raised finance by issuing 'junk bonds' in the USA.
- Annual accounts/audit: companies need to report to shareholders on asset values
- Accounting for vessels which are under shared or family ownership
- Legal disputes: the values of vessels are regularly germane across a range of legal cases
- Government regulations

It can be appreciated that the perspective and expectations of parties commissioning valuations under the above headings can vary greatly: the insured value, for example, would not be expected to be the same as the value achievable at a forced sale. Independence and objectivity may be an absolute requirement in some circumstances, and will be discussed in greater detail below, but should not be taken for granted. Different perspectives, and different subjective values, might be put on the same vessel by

- A serious seller, who will want to maximise its value
- A serious buyer, who will want to buy as cheaply as possible
- A prospective lender, who will want adequate security over the term of a loan
- A prospective investor, who will want an adequate return and may or may not be willing to speculate
- A current lender/mortgagee, who is already committed to the vessel
- A current investor/owner, who is likewise already committed to the vessel
- Assessors of replacement value
- Courts administering a forced sale, e.g. by auction

Parties commissioning valuations should be aware of these differing perspectives, and that unless given other specific instructions the valuer will be seeking to find an objective middle line between the perspectives of willing buyers and willing sellers, in much the same way that, as broker, he will try to bring about sale and purchase transactions.

At times valuers are criticised by those with particular perspectives for distorting the market: banks, for example, may not be pleased in a weak market to be told that they are running portfolios with 'negative equity', and that the value of their security does not cover their outstanding loans: they point out that low valuations can trigger a downward spiral of foreclosures. However, the decision as to whether to continue to run loans should rest with the banks themselves,

on a case by case basis. Shooting the messenger is hardly reasonable, especially when there is an equally loud clamour for absolute objectivity.

Market characteristics

The difference between values of ships and those, for example, of paintings, is that whereas the art market rests entirely on sentiment (a mixture of aesthetic appreciation and gambling, in which the gamblers elbow out the aesthetes as values rise), the shipping market is founded on commercial pragmatism. However, one of the pitfalls ready to trap the inexperienced is the dichotomy between ships as commodities and ships as machinery.

At its simplest, a ship is just a piece of machinery which can be hired out; it has a very finite life. In the smallest niche trades (for example a ferry service with purpose built vessel) a ship's value is dictated by what it is projected to be able to earn. Most banks would like to be able to treat all vessels in the same way, and require prospective borrowers to 'justify' intended purchases with predictions of future earnings.

However, almost all shipping is exposed to international economic forces: demand can at some times drive up the rates of hire, and values follow: at others over-supply can drive rates and prices down. It is at this point that the sentiment factor does play a part: not the aesthetic variety (it is not unknown for owners to hold on to vessels named after family members, but rarely do they buy them for sentimental reasons), but the distillation of the spectrum of opinions, from shrewd investment analysis to thinly veiled gambling, which characterises any commodities market.

Many shipowners consider that the real money in shipping is to be made not from operating but from buying and selling at the right time. This philosophy influences especially heavily the price movements of conventional bulkcarriers and tankers, where vessels change hands in sufficient numbers to give the market liquidity.

Expectation is invariably optimistic even in an apparently hopelessly depressed market, and a ship is always worth more than it can be demonstrated to be able to earn.

Fees

Until recently, valuations were underpriced, for reasons explored further below. The shipping industry is now moving towards a wider acceptance of a price structure which more accurately reflects the expertise and responsibilities involved, and prices charged per vessel by the more reputed broking houses are currently in the region of £500 in London or US\$1,000 in New York for straightforward cases. (For comparison with another industry, in the London residential real estate property market the rule of thumb is to charge 0.01% of the value, with a minimum charge of £500).

Method

The most notable difference between ship valuations and, for example, real estate valuations, is that in almost all cases the ship valuer does not inspect the ship. It is seldom, indeed, that he even sees a recent surveyor's report. If instructed to do so, the valuer will be able to arrange for the vessel to be surveyed, and the resultant report can greatly enhance the accuracy of a valuation, bringing to light information which would not otherwise be available to the valuer. Unless stated otherwise, however, it is the custom of the trade that valuation certificates are issued on the assumption that vessels are in good working order and free of charter. The actual condition of the vessel is usually ignored unless specific instructions are given to the valuer that they should be taken into account, and attention drawn to particular circumstances (which may be either defects, e.g. unrepaired damage, or enhancements, e.g. having undergone a formal Life Extension certified by a classification society). Most valuers include wording in their certificates along the following lines:

'...assuming the vessel to be in good working order and in the sound seagoing condition in hull and machinery which is to be expected of a vessel of its age, size and type, undamaged, fully equipped, with class fully maintained and with valid certificates, free from all conditions, charterfree...'

Although they take account of when the next special survey and/or drydocking is due, which affects how long the vessel can be traded internationally before the cost of passing surveys is next incurred, valuers do not inspect classification society records nor do they usually have access to reports on such records.

How then do valuers know what they are assessing if they do not see the vessel itself? They work on the paper description of the vessel, which they prefer to receive in detail from the party commissioning the valuation, who then have the opportunity to supply particular information on condition etc, which would not be available from routine sources. If a detailed description is not available, the valuer will gather as much as he is able from reference books (of which the most widely used is Lloyds Register) and from his own database (which may supply useful additional detail particularly if the vessel has been marketed for sale in the past). He may at this stage ask the party commissioning the valuation to obtain particular information which is not openly available, e.g. on the classification survey status of the vessel. If significant detail is still missing he might make a reasoned assumption (for example on the lightweight of an older ship of which the value for demolition is an important factor), and note the fact in the certificate.

Willing buyer, willing seller

It is another well established custom that valuations should reflect the price at which a deal would be struck were a sale to take place between a 'willing buyer and a willing seller'. It will reflect the gross price, as payable by the buyer, before deductions for commissions, if any, and other delivery costs payable by the seller.

Armed, therefore, with a description of the vessel, the valuer will begin to make comparisons with the sales of similar ships which have been reported sold. The ideal would be that the valuer should have had personal experience of a sale on the open market of an exact sister vessel that very day. Although such a happy coincidence would be extraordinary, the volume of sales of conventional types such as bulkcarriers and tankers makes it usually possible to find a number of fairly similar vessels which have been recently reported sold: these and the valuer's market experience and knowledge will swiftly establish an approximate range within which a more precise appraisal can then be undertaken.

Quantitative factors

At this point the valuer will compare the 'quantitative' attributes of the similar vessels which have been sold with those of the vessel to be valued. 'Quantitative' attributes are mainly embodied in the outline specification of a vessel, including the tonnage, dimensions, speed, cargo gear or pumping capacities, and compliance with current legislation (e.g. in respect of double hull tankers) but also encompass the age of the vessel and when the next special survey is due. These are all factors upon which direct quantitative comparisons with other vessels can be made, and adjustments made on an almost mathematical basis: a larger vessel is usually worth more than a smaller one, a younger vessel more than an older.

Not that strict adherence to formulae is feasible. Size, for example, may restrict a vessel's trading range: an 80,000 dwt vessel may be too large to pass through the Panama Canal, and thus be worth less than a 60,000 dwt. The valuer's experience and market knowledge come into play here.

Formulaic comparisons are more useful when it comes to considering age. After making assumptions about the likely life of a vessel (perhaps 20-25 years), and its residual scrap value, it is possible to estimate by how much the value should be depreciated for each extra year of age. In practice this will be about 6% of a younger vessel's total value, increasing significantly as it gets older and as the proportion of the value which is in excess of the scrap value diminishes.

Qualitative factors

Having exhausted the mathematical approach, the valuer will have refined his comparisons up to a point. He will not yet, however, have taken into account the reputation of the shipbuilder, the type of the main engine, the flag of the vessel and its classification society. All these can have significant effects on values.

To take motor cars as an analogy, a Rolls-Royce and a large Ford are superficially very similar: they both have an engine and 4 wheels, and carry the same number of people at approximately the same speed: but few would deny that the reputation and quality of the Rolls Royce commands a higher value.

Examples of the many 'prejudices' which exist include:

- Vessels built in the former Soviet bloc were of substantially lower quality (although often strongly built and with a higher lightweight) than vessels built in western Europe.
- Spares for Doxford engines are expensive and difficult to obtain.
- Although some owners swear by the efficiency of Pielstick engines, they require engineers with specific experience, and strict adherence to maintenance schedules.
- Some classification societies and flags are considered less stringent in their statutory requirements.
- Newly established shipbuilding nations require time to build up experience and expertise: China is rapidly closing the gap on its Far Eastern neighbours, as Korean shipyards did on Japan 15 years ago, and as before that Japan did on Western Europe.

Owners' prejudices are not mere whims but have sound commercial foundations. There is also an element of 'fashion': although vessels built with High Tensile Steel were for a while widely mistrusted by buyers, resistance to this example of new technology has now waned.

The variables here are almost infinite, and the valuer's experience must be given full rein. Drawing on his knowledge of owners' current preferences, he will be able to assess the relative merits of similar vessels built in neighbouring countries or operated by different owners. He will know the trades in which various types of vessel are likely to have been engaged, and their potential effects on the condition and life expectancy of the vessel. And most importantly, he will know from experience by how much each of these variables has affected values in the past, and can be expected to do so now.

The valuer will be bringing all this experience to bear not only on the vessel that he is valuing, but also on the reported sales with which he is making comparisons. He will have noted particular circumstances surrounding sales as they are reported, and recorded in his database for example if and for what reason a price achieved might not be fully representative of the market.

At this point, the valuer will be ready to give an accurate valuation of the vessel according to the usual assumptions, set out above, that the vessel is charterfree and in sound condition for its age and type.

Specific factors

It is up to the party commissioning the valuation to raise matters to which the valuer would not otherwise be privy, for example the condition of the vessel, its trading history or its current employment. They should bear in mind that the actual condition of a vessel can have a very substantial effect on its value, and that, of two vessels of the same age and description, one can have several years' profitable trading life ahead of it while the other is ready to be scrapped.

If the valuer's attention is drawn to specific damage to the vessel he will ask for details and the cost of these repairs, and take account of them in his valuation: if they are not available he may offer an assumption and make a note to that effect in the certificate. Not that he simply reduces the value by the cost of repairs: the vessel may be able to continue to trade, albeit for a limited period or with restricted range, and the valuer will assess the impact of the damage on the undamaged value. To take another analogy from the motor trade, a roadworthy car with a dented body panel is worth less than a car which is unmarked: but, particularly in the case of an older vehicle, the cost of repairing the dent may be substantially more than the diminution in value arising from it.

Another significant change in the value of a vessel can occur if it is committed for a long period of charter. If the period is longer than about 6 months, depending on whether the charter rate is higher or lower than what might be obtainable if the same employment were fixed on the date of the valuation, such employment can enhance or detract from a vessel's value. When asked to do so a valuer will take a charter rate and period into account, and should make a note accordingly in the certificate. The usual method is to discount the amount by which the rate differs from what is obtainable on the market at the date of valuation, and adjust the charterfree valuation by the discounted amount. The valuer will not, however, assess the other terms of the charterparty, nor the reliability of the charterer.

Other guides

As we have seen, where there have been comparable vessels recently sold, the principle of 'willing buyer, willing seller' can be applied with confidence. However, there are many categories of more specialised vessels where reported sales are few and far between, and no similar vessels may be sold for months on end. The reefer market, for example, can be active only at particular points in the year: prices can shift from one season to the next: with long fallow periods of inactivity in between, the sale of a vessel some months previously when the reefer market may have been at its seasonal height is no sure guide as to what the same vessel is worth now.

The valuer will not be afraid to consult colleagues and others in the market for advice and opinions. A wide circle of contacts is essential to keep abreast of market sentiment and reported sales. Informal outside consultation is not an abrogation of a valuer's duty, but an important means by which he can refine and crystallise his own opinions.

Similar ships which are being advertised for sale on the market can be a useful guide, especially as to the upper limit of a value range: a vessel is unlikely to be marketed at sale for less than it is worth. Equally, however, asking prices are usually higher than the figure at which a seller is willing to conclude. If no actual sales have been reported, the valuer must look elsewhere for data.

Earnings

We have already shown, above, that ships tend to be worth more than they can be demonstrated to be able to earn. In niche markets, however, where there is little turnover in the sale of vessels, earning potential can be a useful measure to the valuer. If he can work his way back to a sale of a comparable vessel at some point in the past, observe what the vessel was earning then and what the same vessel would earn now, he can thus arrive at a value. Or he can calculate as a bank will calculate, discounting the projected operating surplus over the remaining life of the vessel, and its projected residual value. In both these last two cases, however, the valuer will still fine tune his final opinion with a close evaluation of market sentiment.

Demolition and newbuilding

Demolition prices are useful pointers to a vessel's ultimate residual value, and the valuer especially of older vessels will be aware of their lightweight and of prices being offered for ships by demolition yards in various parts of the world. The demolition value net of the cost of delivering the vessel to the demolition yard is, in all but the most unusual circumstances, the lowest possible value of a vessel at any time, and is a datum upon which a valuer can build his analysis of further trading potential and market sentiment.

Similarly, newbuilding prices will guide the valuer of modern tonnage in respect of replacement cost. This is not to say, however, that the contract price of a vessel dictates its second-hand value the day after it is delivered. Such vessels are as exposed to the markets as older vessels. Although it is already a quarter of a century since the heady days of the tanker boom, when newbuilding contracts were being resold at substantial premiums, values can still go up as well as down. These principles apply equally to the appraisal of newbuilding contracts themselves.

Historical valuations

Especially in relation to legal disputes, valuations may be required as at specific dates in the past. Although the mechanical processes of comparing similar vessels is the same in such cases, it will be difficult for the valuer to recall the precise market sentiment prevailing at the particular date. He will have access to records of ships sold at the time, and freight market movements, and he will be able to read contemporary reports on the market at the time. What is important in such cases is to block out the influence of hindsight and to try to see the market as it was before subsequent events unfolded. It must be accepted that, however diligent the valuer, rather less precision is possible for historical valuations.

Fleet valuations

It is common for valuers to be asked to consider fleets of vessels under the same ownership. Unless otherwise directed they will value each vessel individually, in the manner already described. If the values are totalled, however, to arrive at an overall 'Fleet Valuation', the prudent valuer should add a note to the effect that this does not necessarily reflect the value of the fleet if it were all to come on the market at the same time.

Art or science

It can be seen from the above that ship valuation is firmly rooted in scientific analysis of the shipping markets. However, although a portrait, too, can be painted by numbers, it takes human art and inspiration to make it satisfactorily convincing. So it is with ships: mechanistic deduction on its own will not reflect the shades of value which overall market sentiment and the characteristics of specific ships engender: a good valuer will harness his feeling for market sentiment to sales and other more or less comparable guides and formulate an opinion which is professional, well-informed, and as accurate and possible with the number of variables involved.

Qualities and qualifications

Shipping is an industry in which professional qualifications are not mandatory for valuation work. Commercial probity and experience are almost taken for granted, and the motto of the Baltic Exchange, 'Our Word Our Bond', still carries weight.

It has become customary for valuations to be issued in the name of shipbroking firms, signed by a director or partner. Many of these firms are long established, and have reputations to protect, but there is nothing to prevent any organisation connected with shipping (or indeed unconnected) drawing up a 'certificate': it is, after all, as the small print of the document will usually mention 'a statement of opinion only, and anyone intending to rely upon the valuation should satisfy themselves as to its correctness'. While such disclaimers do not relieve a valuer of a duty of care, and while courts are likely to hold them liable if they can be shown to have been negligent, nevertheless a great number of valuations continue to be issued which the valuers, if required to do so, would be hard pressed to explain and justify. Valuations are challenged and come before the courts only if transactions in which they are relied upon turn sour.

The courts are becoming familiar with the pressures which can be brought to bear on valuers. These arise from conflicts of interest within the profession. To be effective, a ship valuer must have deep experience of the ship sale and purchase market: it is only as a broker that he will have achieved such experience. By far the most common question asked of a ship sale and purchase broker is 'How much is she worth?', and if he cannot express an opinion quickly and confidently he will be hard pressed to succeed in the profession.

Broking, however, is competitive, and owners often ask their brokers to provide formal valuation certificates as part of their routine service, sometimes free of charge against the hope or expectation of future business. The broker/valuer is not naïve: he will know that, whatever may be said about it being 'only for internal purposes', in many cases the client will be presenting the valuation to third parties: his bankers, for example. He should also know that he does have a duty of care to those third parties, which is not absolved simply by waiving a valuation fee.

Sadly, sharp practice is by no means unknown. Most valuers of integrity will have startling tales to tell of fending off clients' threats to withdraw business unless certificates are issued at figures which meet their approval. The less forthright have given in to such blackmail. The really unscrupulous have been willing to inflate certificates against similarly inflated fees.

How has this rather unsatisfactory and unregulated state of affairs arisen? The blame must rest to a certain extent with parties commissioning valuations: they have been too willing both to accept at face value certificates issued by companies not properly experienced or with conflicts of interest, to shop around for the cheapest, quickest or most palatable, rather than the most reliable, opinion, and to avoid the cost of having vessels' condition surveyed. Too often valuers are asked to consider the particulars of a vessel, only to be told, having arrived at an opinion of value, that only an 'off the cuff' figure is required, without a certificate: in other words without payment of a fee. Equally common is to be told that the figure arrived at does not suit the purposes of the party requesting it. Particularly dismaying is when a party prefers to bury its head in the sand rather than receive a certificate setting out an opinion which would be awkward for them.

All this has created a culture in which responsible valuation work has become regarded by some established firms as a troublesome and uneconomical distraction from their main shipbroking business, while firms less concerned with their reputations step in to take what they regard as easy pin-money. Firms in both categories might consider that their main loyalties lie with their shipowner clients, for whom some free valuations form part of their service.

Guidelines for banks

Lenders, in particular, have stood too far back from the valuation process, and allowed borrowers to supply certificates from their own (presumably friendly) contacts in the industry. In recent years a number of legal cases have been taken out against valuers by banks who had 'relied upon' the valuations which they had been handed, and subsequently found them to be erroneous. Naturally enough they argued that the firms issuing the certificates owed them a duty of care, and that they had been negligent in not ensuring their accuracy.

Valuers' insurers, however, have often been able to show that the banks themselves have been less than diligent in their enquiries, and that in effect they should have known better than to have the wool pulled over their eyes. The effects of conflicts of interest can be minimised if third parties enquire more closely into the relationship between owner and valuer, and satisfy themselves that certificates have been supplied on a professional arms length basis, with a proper fee paid for careful consideration of all the facts. And a surprising amount of disillusionment can be avoided if care is taken to read the wording in certificates and to understand the criteria upon which the valuers were working: a recent case involved a certificate which had been issued in relation to the cost of *replacement* of a specialised vessel, and clearly stated the fact, but which had been used to justify *asset value*.

These lessons, learnt the hard way, are bringing changes to the profession. More banks are realising that for a small (relative to the size of their exposure) investment they can protect themselves far better. They are commissioning survey reports on vessels' condition, paying for more rigorous specification of the valuation process, and forming their own long term relationships with trusted valuers, rather than relying on certificates supplied by the owners. They are beginning to ask valuers to declare for example

- conflicts of interest
- the experience of the valuer in relation to the type of vessel
- details of their P&I insurance cover
- the assumptions upon which the valuation is based

and to insist that details of the valuation may not be discussed with the owners, and only released to them for reference purposes once a certificate has been issued. Parties commissioning valuations in future, and intending to rely upon them, are well advised to follow this example.

Guidelines for valuers

Valuers, too, have learnt from the litigation fired at colleagues and competitors in recent years. They know that their own reputations and livelihoods are at stake; that they must stand by their own opinions and not allow themselves to be swayed by those of other valuers or by pressure from clients. Some brokers now decline to undertake valuations at all, or have priced the service at a level intended to discourage. Most have increased their fees to levels which better reflect the time and application required to perform the task properly, and the heightened expectations of an increasingly litigious industry.

Valuers should always seek to establish the purpose to which the valuation will be put. Whatever the outcome of these enquiries, they should assume that it may come to be relied upon by persons who have no knowledge of the shipping markets, and they should make clear

- The physical assumptions upon which the valuation is based, and in particular
 - that no inspection of the vessel has been undertaken, nor the classification records examined
 - that the vessel is assumed to be in good sea-worthy condition, free from recommendations
 - that a certain description of the vessel's particulars has been received or assumed
 - that these assumptions and the information which they have been given should not be relied upon without verification by physical inspection.

- The commercial assumptions they are using, e.g.
 - that the valuation is based upon what might be achieved between a willing buyer and a willing seller, and does not reflect what might be achieved in a forced sale; nor does it guarantee that the figure can be realised in an actual transaction.
 - that the vessel is free of charter; or if the valuation includes a period charter that the valuer's brief does not extend to consideration of the terms of the charterparty nor the standing of the charterers.
 - that the vessel is available for early delivery at a reasonably convenient port.
- That the valuation is made at a certain date, and that there is no assurance that the value will remain the same thereafter.
- That the valuation has been given solely for the use of the client to whom it is addressed (although this clause may not be enforceable under certain jurisdictions and should not give the valuer a false sense of security).

A fairly common ruse is for an owner to obtain a high valuation from his own broker on the basis that it is for 'internal' or 'insurance' purposes. He will then approach other valuers with a story about needing certificates from several sources, show them the certificate already obtained, and ask them to match it. The temptation is to earn a quick fee without looking too hard at the vessel's particulars. The trick is for the owner to discard the original valuation from his friendly broker, and to present just the 'independent' certificate. Conscientious valuers, however, know that, even if they are not to be left stranded in this manner, safety does not lie in numbers, and that they stand or fall by their own opinions.

Valuers are more aware than ever that they may be called upon, perhaps after a period of several years, to justify the figures which they have given. It is as important as it has always been that as a matter of routine they should keep their contemporary working notes of the comparisons and other processes through which they arrive at their opinions.

Ship valuations are not mysteries from which the uninitiated are excluded: they do, however, need experience and expertise, carefully applied. Reliable valuers will always be ready to discuss how they reached their opinions, and to demonstrate that they undertake their obligations diligently and professionally.