

Behind the Screens

The Data of VesselsValue

VesselsValue COO, Adrian Economakis, explains what data lies behind vessel valuations and how it is collected, validated and managed.

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A ship's value is dependent on its type, size, age, features and freight earnings. These factors must be known for the ship being valued and for all the sales used in the valuation. Therefore, a complete and accurate database of ship and sales details is essential for an automated valuation service.

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This document describes the data used by VesselsValue, how it is collected and how its validity is tested and assured.

The Ships Database

The ships database comprises of all bulkers over 20,000 DWT and tankers over 1,000 DWT, containerships over 500 TEU, Gas, LNG/LPG over 100 CBM. AHTs over 100 BHP and PSVs over 100 DWT. This includes all live ships on the water and those under construction ("newbuildings") that have an assigned IMO number. Other specialised types will be included in future releases of the service. Currently, the specific data for each ship comprises of:

- IMO number
- Ship's name and ex-names
- Ship's size (DWT, TEU, CBM and BHP)
- Year of build
- Ship type (Bulkers, Small Dry, Containers, LNG, LPG, Tankers, Small Tankers and Offshore)
- Shipyard and location
- Classification society
- Operator (and pool if applicable)
- Specific ship features (lifting gear, coating, heating, engine, ice class, bollard pull, BHP, deck space and stainless steel tanks)
- AIS location and captain's report information

In the case of some newbuildings (mostly those with delivery dates beyond a year in the future), the full specification of the ship may not be known as construction has not started. In these cases, the most common specification is assumed and the valuation is calculated using the known size, build year and yard and the standard features.

Once the designs are finalised and the construction is underway the specifications are collected, checked and updated.

The Sales Database

VesselsValue maintains a database of all known and confirmed ship sales and negotiations. The information recorded for the sales includes:

- The ships details as per the ships database
- Buyer and seller of the ship
- Price achieved
- Date of sale
- Sale specific conditions (e.g. sale and lease back, en bloc sales and attached time charters)
- Additional comments and considerations (i.e. distressed or internal sales)

All the specifications of the sold or negotiating ships are fixed at the time of sale to represent the exact state of the ship when it was sold. This prevents the possibility of valuation errors due to conversions or other alterations to the ship after the date of sale.

Where sales have attached conditions or considerations that may affect the price achieved in the sale (e.g. attached time charters), careful consideration is given as to how they are used. We have developed a set of criteria to determine whether they represent the competitive price achievable in the market and can therefore be used in valuations.

Ship Data Collection

Ship data is collected by a team of data analysts from a variety of primary and secondary sources. These include, but are not restricted to:

- Existing Seasure Shipping database derived from 18+ years of S&P and chartering correspondences
- Direct research with operators, brokers and other industry experts
- Industry recognised surveys for detailed tanker information
- A global vessel tracking service for accurate information on number of ships on the water and corresponding IMO and MMSI numbers
- Class records where publicly available
- Publicly accessible owner or operator websites and fleet lists
- News publications and press releases
- VesselsValue sales database for timely and accurate change of operator information
- AIS Supplier

This ship data, along with the sales data, is analysed, categorised and collated into a relational database allowing for advanced search and retrieval capabilities.

The database is updated on a daily basis to reflect changes to existing ships and to add new orders to the new building list. This includes:

- Identification of when newbuildings are launched into active service (e.g. changes in ship status)
- Continuous updating of ship names, ex-names classification society
- Identification of conversions and other changes in ship features
- Removal of scrapped ships and total losses
- AIS updates

Sales Data Collection

The accurate capturing of sales as soon as they happen is a critical element in providing up to the minute valuations. VesselsValue's team of analysts, working closely with a network of brokers, identifies sales and active negotiations through a multitude of sources. These include:

- Direct and indirect broker involvement in the sale
- Seasure e-mails and other forms of communication with the S&P market
- S&P broker weekly reports
- News publications and press releases
- Formal and informal statements from operators, brokers and other market participants
- Public websites and other sources of record

This process ensures that sales are captured and recorded as early as possible. The sales are checked regularly to ensure that price and status of any failed sales or renegotiations are updated accordingly. Broker involvement is critical to this as their direct involvement in the market and network of contacts allows them to effectively advise if a sale should or should not be included in the sales used for valuations.

Freight Earnings Collection

A variety of freight earnings and market sentiment data across the different ship types is collected, analysed and recorded on a daily basis. These are used by VesselsValue algorithms to adjust valuations for changing market conditions.

Significant analysis has been conducted to ensure that the freight earnings used in the valuations best represent the earnings of each ship type.

Data Verification

All our ship and sales data are analysed, categorised and put through a rigorous series of daily, weekly and spot checks to ensure completeness and accuracy. This entails:

- Categorising the ship types according to the most commonly used industry definitions taking into account size (e.g. DWT, length and width), age, coating (tankers), lifting gear (bulkiers), AHTS (bollard pull/BHP) and PSV (DWT/deck space)
- Detailed cross checking using multiple data sources
- Analysis by yard, owner, operator and ship type to identify and eliminate inconsistencies and contradictions
- Detailed ship specification outlier analysis
- Automated potential error identification reports
- Confirmation of sales and ships specifications with primary sources such as owners and brokers.
- Regular outlier analysis of the value of every ship in the database

Broker involvement and deep market knowledge play a critical part in these checks. This, along with the processes described above, ensures that VesselsValue uses the most up to date, accurate and complete data possible for its ship valuations.