

## Attachment 1: Marsoft Forecast Accuracy

December 2008

Marsoft provides forecasts for major market segments in the dry bulk, tanker and containership markets. These forecasts span a period of five years (on a quarterly basis) and cover a specific spot rate for each market segment as well as one-year time charters, newbuilding and secondhand prices. We have published forecasts since 1985, although the statistics herein refer to the period from 1990 for our dry bulk and tanker forecasts and from 1999 for our container forecasts. In addition to our Base Case (or most likely scenario), we also provide High and Low Case scenarios to capture selected elements of market risk.

The statistical models we use to forecast rates and prices based on input supply and demand factors generally explain 80% - 95% of the historical variation in rates and prices (given the supply and demand inputs). The models are re-estimated every few years to account for changes in market structure or the availability of new data. The model details are described in the technical documentation available under separate cover.

Providing a single simple measure of forecast accuracy covering all those markets, at all horizons, and for different forecast variables is challenging. We believe the attached summary of the performance of our Base Case forecast of one-year time charter rates, focusing on the accuracy six months after the forecast is published, is representative of Marsoft's track record.

A key issue with regard to interpreting forecast accuracy is to use the right benchmark. While it is important to compare the forecasts to actual market developments, it is also worthwhile to consider how the accuracy of the Marsoft Base Case forecast compares to the accuracy of alternative forecasts available at the time.

Of course this comparison is made difficult by the fact that we do not have access to a historical database of alternative forecasts. One alternative benchmark that is available, however, is to assume that rates are simply equal to the historical average of rates prior to the date of the forecast. This kind of moving average outlook does not account for any fundamental analysis, but it can be interpreted as a kind of "judgment free" forecast.

The attached figures compare the performance of Marsoft's Base Case forecast to the performance of a forecast that sets future rates equal to the ten-year average of rates prior to the date of the forecast. The following page evaluates the accuracy of each forecast across the dry bulk, tanker, and container markets combined, and the subsequent pages examine each market individually. We compare each forecast on two different measures of accuracy; distribution of forecast errors and turning point accuracy. The first measures the percentage deviation of each forecast from the actual TC rate six months later, while the latter is a measure of how precisely each forecast is able to predict the direction of the market on a 6-month ahead basis.

On both of these measures, the accuracy of Marsoft's Base Case forecast clearly dominates that of alternative technical forecasts based on historical rates. This is particularly relevant for credit rating purposes, as typical rating exercises rely upon an assumption that markets in the future will, on average, match markets in the past.

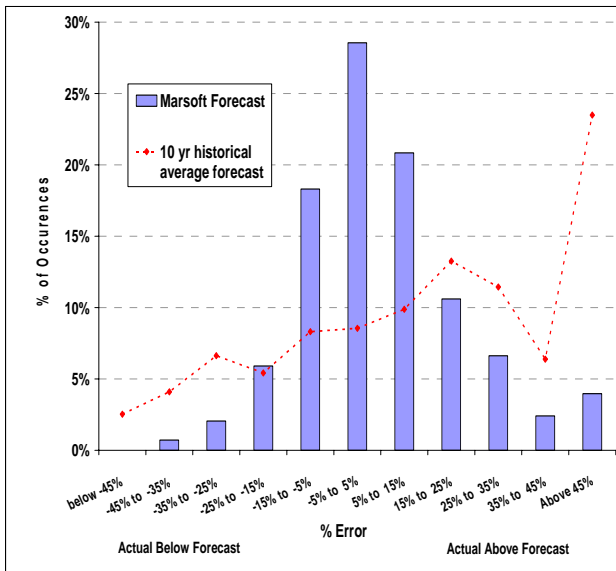
# Marsoft Track Record for Dry Bulk, Tanker and Containership Markets

December 2008

The graph below plots the distribution of errors of Marsoft’s 6-month ahead TC rate forecasts against that of the 10-year historical average. Over the period 1990 – Q3 2008, our forecasts fell within 15% of the actual TC rate 68% of the time, compared with just 27% of the historical average forecasts. Similarly, in 84% of our forecasts we predicted the TC rate to within 25% of the actual value. The historical average achieved that level of accuracy just 45% of the time. In addition, our forecasts are much more powerful in times of extreme rates, such as the last couple of years. As the graph below demonstrates, the historical average is much more likely to substantially underestimate rates than are our forecasts. In fact, 23% of the historical average forecasts underestimated future rates by more than 45%. This figure falls to just 4% for Marsoft’s forecasts.

Table 2 illustrates the accuracy with which each forecast was able to predict rising or falling rates over a 6-month forecast horizon. Marsoft accurately anticipated the direction of the market 73% of the time, while the historical average correctly predicted the direction of the market just 49% of the time. Remarkably, increasing the forecast period does not diminish the ability of our forecasts to predict future market trends. On a 1-year ahead basis, our forecasts achieved a turning point accuracy of 69%, while the historical average correctly projected the direction of the market 50% of the time.

**Distribution of 6-mo. Ahead TC Rate Forecast Errors for Dry Bulk, Tanker and Container Markets**  
Marsoft Base Case vs. 10-Yr Historical Average



**Table 1:**  
**Percentage of Errors Within +/- 15% of Actuals**  
Marsoft Base Case vs. 10-Yr Historical Average

	Marsoft	Historical Average
6 Mo.	68%	27%
1 Yr.	40%	26%
2 Yr.	27%	22%

**Table 2:**  
**6-mo. Ahead Turning Points Accuracy**  
Marsoft Base Case vs. 10-Yr Historical Average

	Marsoft	Historical Average
Tanker	77%	47%
Dry Bulk	72%	51%
Containership	71%	50%

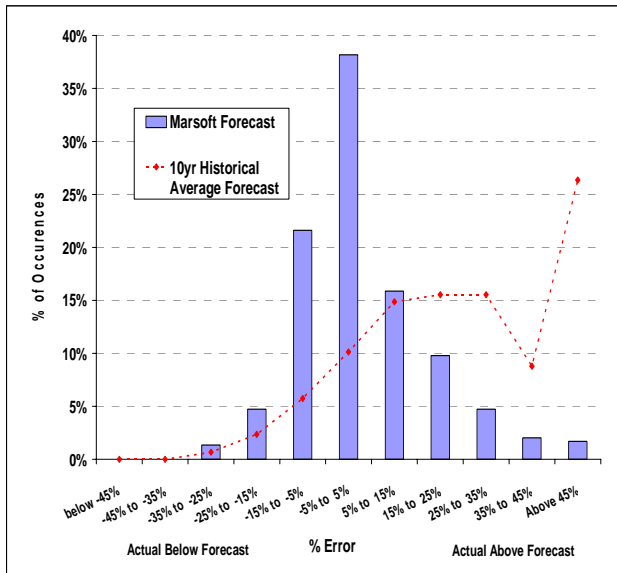
## Marsoft Track Record for the Tanker Market

December 2008

The graph below plots the distribution of errors of Marsoft’s 6-month ahead tanker TC rate forecasts against that of the 10-year historical average. Over the period 1990 – Q3 2008, our forecasts were more than twice as likely to be within 15% of the actual TC rate compared to the historical average. As Table 1 indicates, 76% of our forecast values were within this range, compared with just 31% of the historical average errors. Similarly, 90% of our tanker forecasts were concentrated within 25% of the actual TC rates, while only 49% of the historical average forecasts were this accurate. In addition, Marsoft’s forecast errors have remained low even as rates in some tanker segments have deviated from historical averages by upwards of 100% in the last couple of years.

Table 2 illustrates the accuracy with which each of our tanker forecasts was able to predict rising or falling rates over a 6-month forecast horizon. On average, 77% of our tanker forecasts accurately anticipated the direction of the market, while the historical average was accurate just 47% of the time. On a 1-year ahead basis, 73% of our forecasts were correct, compared with 49% of the forecasts based on historical rates.

**Distribution of 6-mo. Ahead TC Rate Forecast Errors for the Tanker Market**  
Marsoft Base Case vs. 10-Yr Historical Average



**Table 1:**  
**Percentage of Errors Within +/- 15% of Actuals**  
Marsoft Base Case vs. 10-Yr Historical Average

	Marsoft	Historical Average
6 Mo.	76%	31%
1 Yr.	52%	28%
2 Yr.	28%	25%

**Table 2:**  
**6-mo. Ahead Turning Points Accuracy**  
Marsoft Base Case vs. 10-Yr Historical Average

	Marsoft	Historical Average
Product	67%	47%
Aframax	78%	44%
Suezmax	80%	44%
VLCC	83%	51%

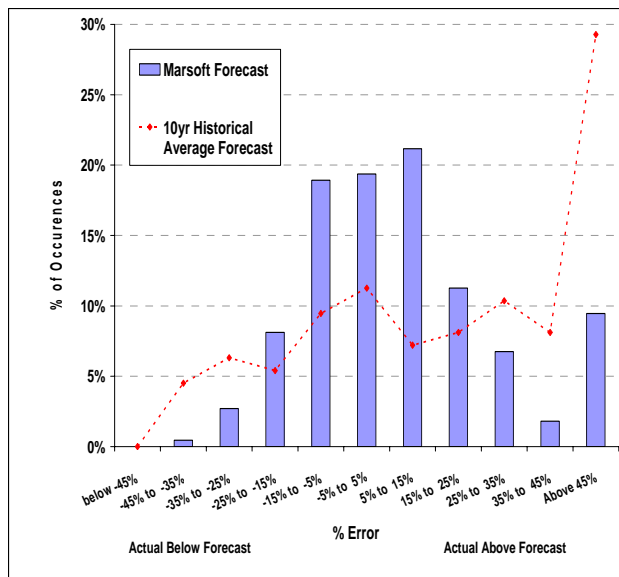
## Marsoft Track Record for the Dry Bulk Market

December 2008

The graph below plots the distribution of errors of Marsoft’s 6-month ahead dry bulk TC rate forecasts against that of the 10-year historical average. From 1990 – Q3 2008, 59% of our forecasts deviated by less than 15% from the actual TC rates, and 79% of our forecast errors were within 25% of the actual rates. In contrast, only 28% of the forecasts based on historical rates were within 15% of the actual values, while 41% were within 25% of the actual rates. Thus, both of these parameters indicate that our forecasts were twice as accurate as a forecast based purely on historical rates.

Table 2 illustrates the accuracy with which each of our dry bulk forecasts was able to predict rising or falling rates over a 6-month forecast horizon. On average, 72% of our dry bulk forecasts accurately predicted the direction of the market, while the historical average was accurate just 51% of the time. Extending the forecast period to 1 year, we maintained a turning point accuracy of 64%, while the historical average correctly projected the direction of the market 50% of the time.

**Distribution of 6-mo. Ahead TC Rate Forecast Errors for the Dry Bulk Market**  
Marsoft Base Case vs. 10-Yr Historical Average



**Table 1:**  
Percentage of Errors Within +/- 15% of Actuals  
Marsoft Base Case vs. 10-Yr Historical Average

	Marsoft	Historical Average
6 Mo.	59%	28%
1 Yr.	32%	25%
2 Yr.	35%	25%

**Table 2:**  
6-mo. Ahead Turning Points Accuracy  
Marsoft Base Case vs. 10-Yr Historical Average

	Marsoft	Historical Average
Handymax	64%	48%
Panamax	77%	50%
Cape	76%	55%

## Marsoft Track Record for the Containership Market

December 2008

The graph below plots the distribution of errors of Marsoft's 6-month ahead containership TC rate forecasts against that of the 10-year historical average. From 1999 – Q3 2008, 66% of our forecasts deviated by less than 15% from the actual TC rates, and 82% of our forecast errors were within 25% of the actual rates. These percentages are based on fewer forecasts and are therefore influenced more heavily by the recent extreme rates. However, our forecasts still performed much better than the historical average, which predicted rates within 15% of the actual values only 22% of the time, and within 25% of the actual values just 45% of the time. It is also clear from the graph that, aside from the spike in rates over the past couple of years, the historical average tended to overestimate rates over this period, while our forecasts did not exhibit this bias.

Table 2 illustrates the accuracy with which we predicted rising or falling rates two quarters in advance for several of our benchmark containerships. On average, 71% of our containership forecasts accurately predicted the direction of the market, while the historical average was accurate just 50% of the time. Our 1-year ahead forecasts correctly anticipated the direction of the market 70% of the time, compared with just 50% of the forecasts based on historical rates.

**Distribution of 6-mo. Ahead TC Rate Forecast Errors for the Containership Market**  
 Marsoft Base Case vs. 10-Yr Historical Average

**Table 1:**  
**Percentage of Errors Within +/- 15% of Actuals**  
 Marsoft Base Case vs. 10-Yr Historical Average

	Marsoft	Historical Average
6 Mo.	66%	22%
1 Yr.	33%	23%
2 Yr.	20%	17%

	Marsoft	Historical Average
650 teu	69%	51%
1000 teu	72%	47%
2000 teu	73%	51%

**Table 2:**  
**6-mo. Ahead Turning Points Accuracy**  
 Marsoft Base Case vs. 10-Yr Historical Average

