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TANKERS
INDUSTRY NOTE

No. 4 – TANKER MARKET OUTLOOK – FORECAST DEVELOPMENT
JANUARY 29, 2014

This is the first of a four part series of Industry Notes regarding McQuilling Services 2014-2018 Tanker Market Outlook.

McQuilling Services recently released its 2014-2018 Tanker Market Outlook, which forecasts spot freight rates across eight tanker classes and 13 major trading routes. This year's edition also includes an upgraded forecasting methodology for asset prices over the same period for newbuilding, 5-year old and 10-year old tankers in these eight classes.

Forecasts are estimations of future activities based on models designed to mimic reality. As such they are abstractions that are highly dependent on data, analytical methodologies and specific assumptions. Whether complex mathematical formulations or simple projections based on experience and observation are used, forecasting the future in most industries is an imprecise and inaccurate activity. The spot market for tanker freight rates is no exception; however, our methodology has steadily yielded results within 10% of market actuals.

This note discusses an important element of McQuilling's forecasting process: the development of the final forecast.

We use a multi-dimensional approach for producing forecasts which combines analysis with experience and observation. The resulting forecasts are based on a combination of results from analytical regression models and experiential observations. Our Outlook is synthesized from the following six components:

- *Quantitative Modeling*
- *Sensitivity (reference, high and low cases)*
- *Experiential Adjustments*
- *Tonnage Supply & Demand Bias (Capacity index)*
- *Previous Outlook & Market Performance*
- *Seasonality*

Quantitative Modeling - The analytical process is based on many assumptions concerning economic growth rates, oil prices, oil demand, fleet additions and exit velocities, just to name a few. We used regression modeling to evaluate the utility of many different possible explanatory variables in estimating spot market rate behavior in each sector.

Four primary observations emerged from these efforts regarding vessels that transport crude and dirty products. The first was that the historically strong relationship between monthly OPEC production and VLCC monthly average spot rates between 2005 and 2010 had disappeared. This is because this relationship did not consider changes in tonnage supply which have a significant effect on rates in the VLCC sector.

The second observation was that the interaction of tonnage supply and demand, described by a capacity index, in the recent past had provided a great deal of utility in explaining the behavior of the spot freight market for VLCC tankers on an annual basis. We believe this was due to the sector emerging from a condition of chronic tonnage surplus to one where supply and demand for tonnage was becoming more balanced. However, the utility of capacity index as the independent variable has performed poorly as of late. This is due to the renewed oversupply of VLCCs during an environment of tepid demand.

The third observation was that VLCC ton-mile demand has developed a strong relationship recently with spot freight rates on primary trades for VLCC tankers on an annual basis.

The final observation is that the results of our evaluations clearly indicate that the spot market freight rate behavior in the smaller tanker sectors continues to be heavily influenced by rates in the VLCC sector. This relationship has been demonstrated in each successive market analysis cycle that we have undertaken.
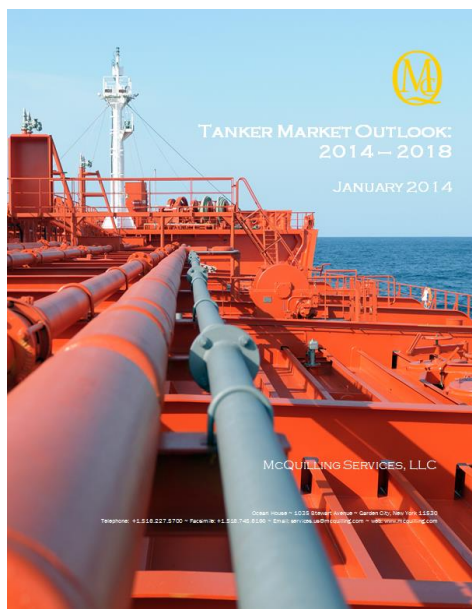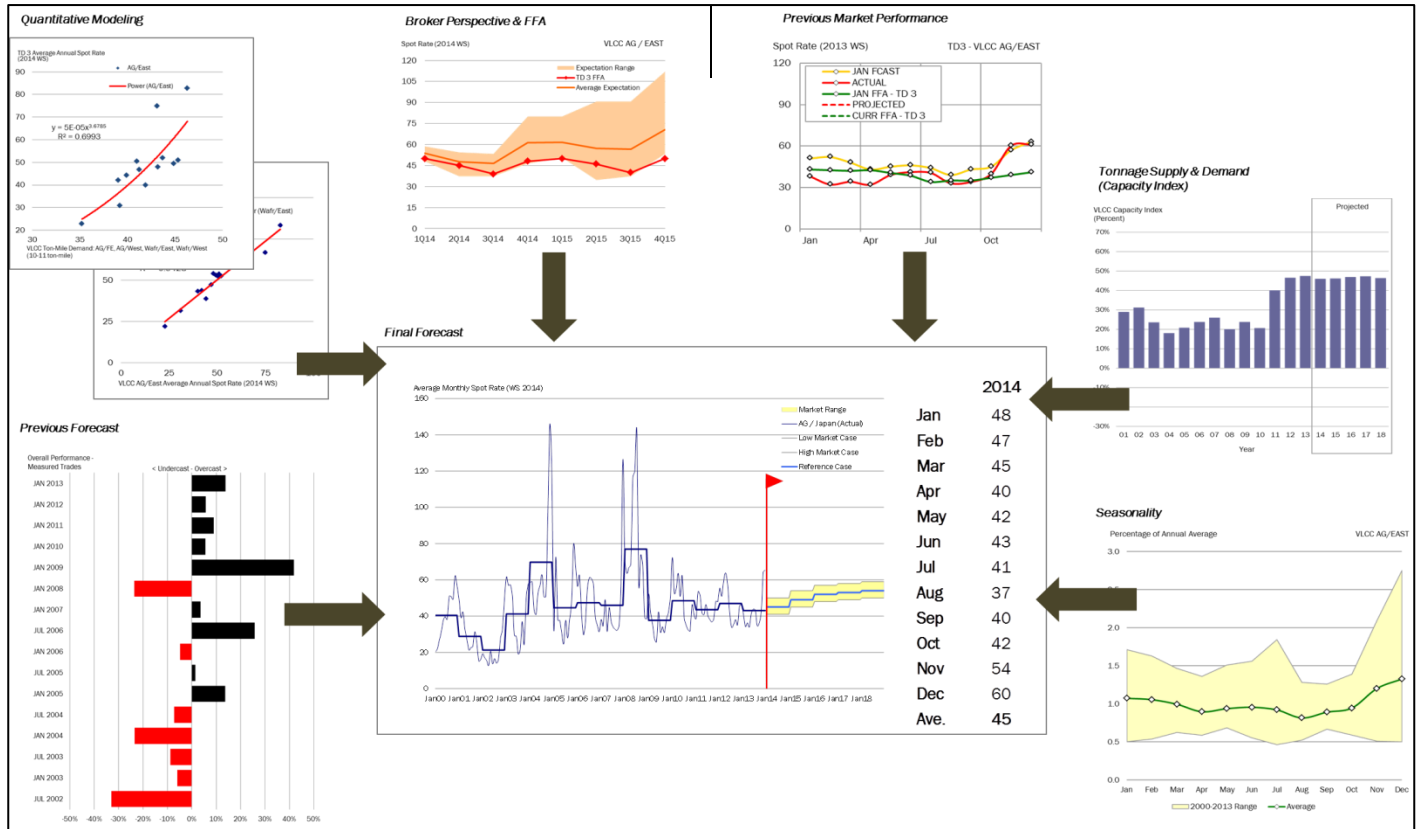
We establish the baseline for the freight forecast in each sector and trade using the quantitative model developed. We then evaluate the perspectives of McQuilling brokers and the forward market assessment provided by FFA brokers, GFI/McQuilling. We review tonnage supply and demand, previous market performance and our previous performance forecasting the market. We synthesize all of these inputs to create a 5-year forecast for each of the 13 trades considered. To this result, we apply historical seasonality factors to produce a monthly forecast estimate.

An illustration of these elements, taken from the Tanker Market Outlook Appendix is on the next page.

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January 29, 2014

Since the inception of this process, it has proven to be a reasonably predictive gauge of spot market freight rates. Over the last 16 market forecasting cycles, we produced forecasts that were within +/-10% of actual levels observed nine times. We were within +/-30% of actual market levels in 13 cycles.

Visit www.mcquilling.com or contact us to obtain your copy of the McQuilling Services 2014-2018 Tanker Market Outlook publication.

The 120+ page report also includes:
- *Global Economic Outlook*
- *Tanker Market Fundamentals*
- *Previous Freight Market Performance*
- *5-Year Outook for 13 Major Trades/8 Vessel Classes*

- *Asset Market Outlook*
- *Investment Attractiveness*
- *Operating Cost Structure*
- *Comprehensive Analytical Appendix*
- *80+ Figures/20+ Tables*

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