Maritime Strategies International Ltd.

Dry Bulk Shipping Planning Service (DSPS)

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I. Introduction

The Dry Shipping Planning Service (DSPS) is a fully interactive Excel based econometric modelling system, used primarily to forecast dry bulk earnings and vessel values. It incorporates three major functions:

- MSI's **Comprehensive database** of the dry bulk commodity and bulk carrier markets, consisting of over 3,000 historical and forecast timeseries from 1980 to 2020, updated every quarter to MSI's latest forecast scenario.

- A **Market Analysis and Forecasting Model** built on sophisticated econometric relationships and explicit macroeconomic and industry assumptions, enabling users to generate alternative forecast scenarios based on their own world view and to test the sensitivity of MSI's quarterly Base Case Scenario to key market risks.

- A **Vessel Valuation** tool, enabling users to translate above forecast scenarios into cash flow, re-sale values and key financial return ratios for a specific dry bulk vessel, from 20,000 Dwt upwards.

Along with our quarterly scenario updates, MSI provides our in-depth DSPS market report to support our data adjustments, detailing the latest dry bulk industry developments.

II. Data Coverage and Sources

The DSPS provides historical and forecast timeseries data from 1980 to 2020 for:

- Macroeconomic variables including:
  - Annual GDP growth rates by region
  - Industrial production
  - Population Growth
  - Inflation and interest rates
  - Commodity prices
  - Vessel operating days

- Industry/market variables including:
  - Steel use intensity & Electric Arc Furnace share
  - Electrical Power Generation
  - Grain yield trends and Per Capita Use

- Bulk commodity consumption, production and trade, including:
  - Port/Canal infrastructure and Regional trading efficiencies
  - Cargo volumes and deadweight employment on 36 iron ore, 28 coal, 32 grain and 36 minor bulk bilateral trades

- Fleet capacity and composition developments, including:
  - Contracting, orderbook, deliveries, scrapping, cancellation and slippage

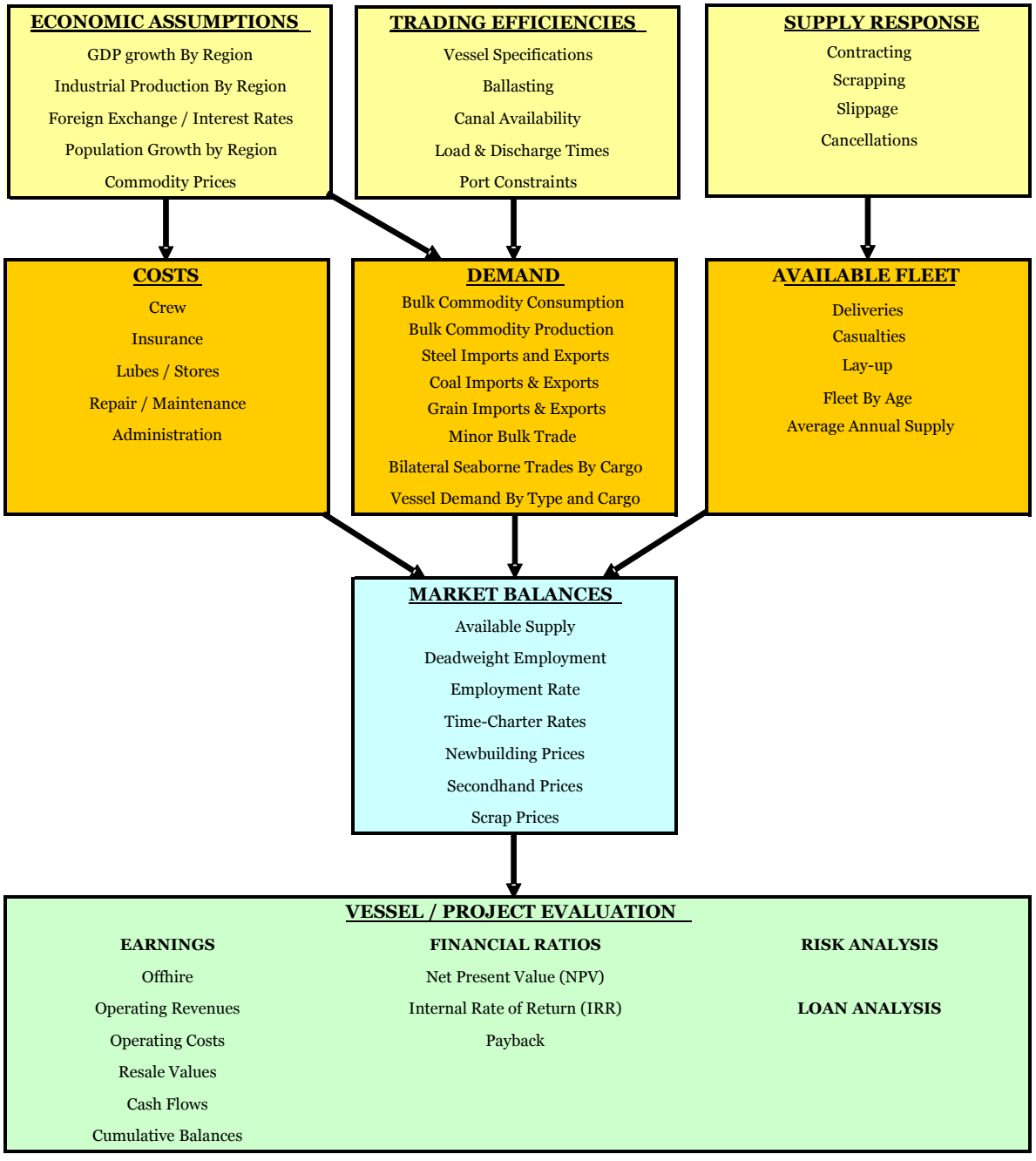
- Sector-specific supply/demand balances and fleet employment rates

- Timecharter rates and vessel operating costs

- Newbuilding, secondhand (0 to 20 years) and scrap prices for standard bulk carrier sizes

III. Model Structure

Below is a schematic overview of the Dry Shipping Planning Service model structure.

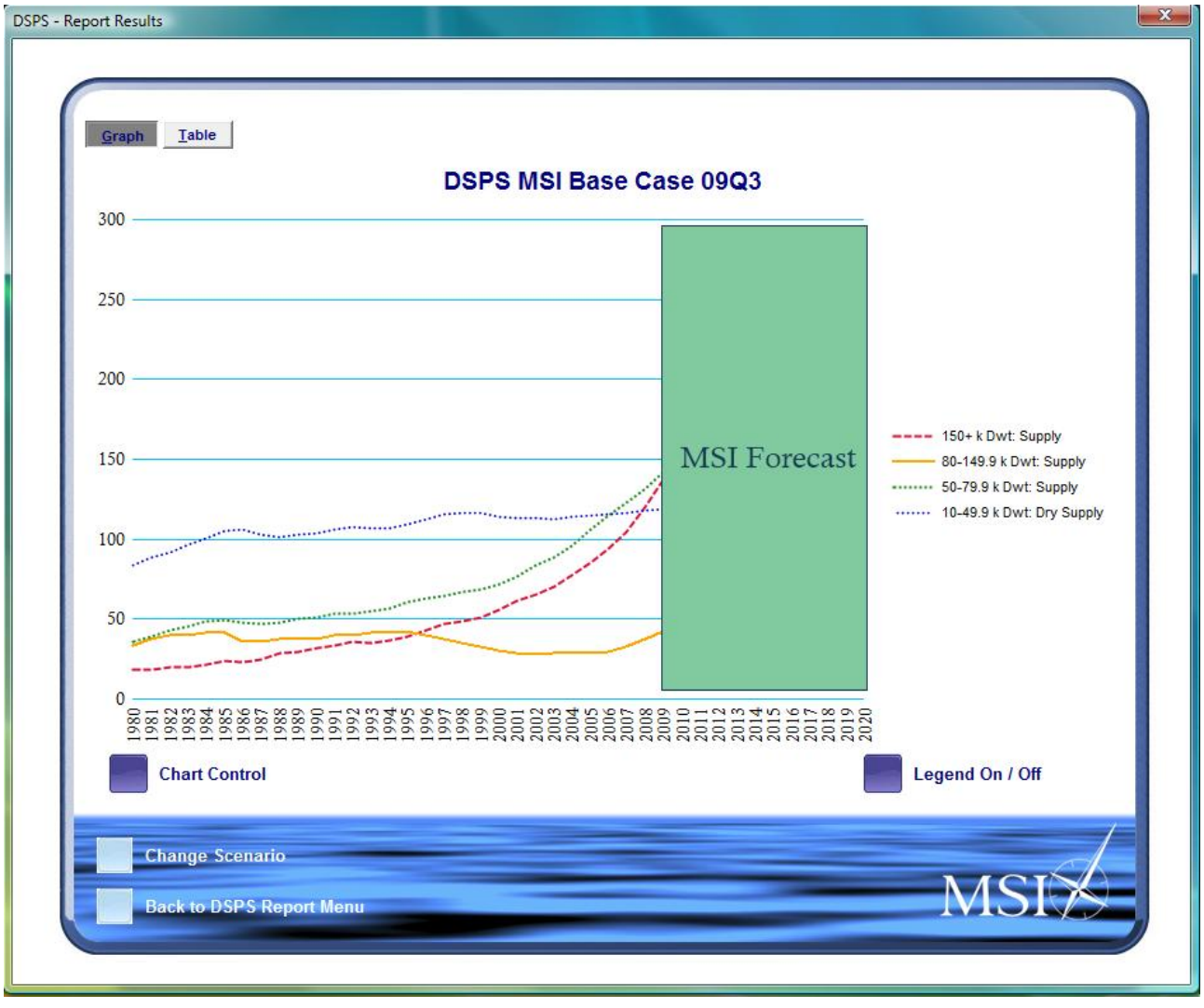


The DSPS model allows the user to modify and simulate alternative scenarios to the MSI Base Case. A wide selection of variables are available for modification by the user including GDP growth, commodity prices, infrastructure constraints, fleet productivity, operating costs and vessel supply responses.

Once an alternate simulation is complete this can be saved and then compared with either the MSI Base Case or another alternative scenario created by the user. Comparisons of variables can be made either graphically or in table format. The model also incorporates a step-simulation function allowing the user to view how a change in any given variable cascades through the layers of the model and ultimately affects market balances.

IV. Sample Screenshot

The user is able to compare the dynamics of different variables. The screenshot below shows this functionality for four variables used within the model to analyse the dry bulk market.



V. Vessel Valuation

The Vessel Valuation component is a tool to assess the performance outlook for specific Bulker vessels.

Users have the ability to input specific details such as the vessel's size, age, flag, acquisition cost, and financing terms and use MSI's base case scenario (or a user-generated scenario) to forecast cash flows and key investment return ratios such as NPV and IRR.

The robustness of these results can be tested using statistical techniques such as Monte Carlo Simulation, as can their sensitivity to project assumptions as:

- The timing of investment/disposal decisions
- Fixed versus spot employment
- The capital structure of the project

VI. Deliverables

A standard Dry Shipping Planning Service package can include any combination of the following:

- Modelling software
- Quarterly Market Reports
- Reference Guide
- Equations Book
- Up to 2 days on-site training
- On-site market presentation

Each quarterly model update is supported by a comprehensive written report containing extensive analysis of the international economic and trading environment, forecast sensitivities and industry insights. The report also provides reasoning behind our Base Case forecast as well as any changes made to it. Detailed data extracts from the DSPS model are included in each report.

The Reference Guide provides detailed instructions on set up, installation and use of Dry Shipping Planning Service software, a description of the forecast methodology and a complete listing of data sources.

DSPS is written on a Microsoft Excel® platform, and updates containing MSI's latest forecasts are distributed quarterly via an easily installable Microsoft Windows® installation package.