Vision:

Our vision is to offer unbounded thought and analysis to create safe, reliable and cost effective bulk shipping and logistics solutions, putting us at the forefront of the industry's best practice.

Services:

- GLOBAL SHIP BROKING
- MARKET RESEARCH
- CONSULTANCY
- INTEGRATED LOGISTICS SOLUTIONS
- GENERAL AGENCY
CONTENTS

Part 1. GDP Growth / Product Flows / Fleet Growth

Part 2. Freight Trends

Part 3. Industry Issues:
- Impact of 18-22,999 Dwt (SS)
- Why Fewer Segregations
- Charter Party Terms
Global Economic conditions are weak, with Europe facing a sovereign debt crisis, political polarization in the US impeding implementation of reforms, coupled with a slowing Chinese economy, where authorities have instituted austerity measures to curb rising inflation.
In 2012 regional volume flows in Asia saw an increase of 4.4%, with Chinese imports improving 5.8%, rising from 38.5M tons in 2011 to 40.2M tons moved in 2012. Of the 4 main export countries in Asia, all trended higher, apart from Japan which saw a slight drop of 1.7% over the year. China has also increased its imports from other developing Asian countries such as Malaysia, Thailand and Indonesia.

Saudi exports are expected to grow 10.8% in 2012. 55% of Saudi volumes moved eastbound to Asia plus another 8.3% to India, the latter of which is actually a drop from 11% in 2011.

While one might have expected eastbound shipments from Iran to grow following the implementation of EU sanctions, the on-going impact on freight markets still needs to be assessed. At present, an inability to secure ships to carry Iranian product has stifled all exports, with Owners unable to secure P & I cover in the international insurance market.
Market Demand: US Chemical Flows

- US Chemical imports increased considerably in 2011 by 26.3% before coming off slightly to stabilise around 14.3M tons in 2012.

- US Chemical exports increased significantly in 2011 by 16.2% with volumes stabilising around 15.1M tons in 2012.

USA Chemical Import/Export 2009-2012

- US Chemical Imports
- US Chemical Exports
The global chemical fleet grew by 25% between 2008 and 2011.

Newbuildings peaked in 2008, with 10,600,137 DWT added to the global fleet.

The rate of fleet growth continues to slow with 4,651,058 DWT and 3,358,465 DWT added in 2011 and 2012 respectively. If everything is delivered this year and scrapping continues at the current rate, the fleet will increase slightly by 1,335,168 DWT.

Scraping increased in 2010 with 2,787,290 DWT exiting the market. An additional 2,151,302 DWT was scrapped in 2011 and a further 2,023,297 DWT left the fleet in 2012.

As at the end of 2012 5.9 million DWT or 8% of the global fleet was 20 years or older. This leaves scope for further scrapping to take place if steel prices remain firm. If scrapping remains at similar levels to the past 2 years, the global chemical fleet will grow slightly through 2013, but it could potentially shrink from the end of 2014.
During the ‘boom years’, where cash was readily available, Owners and shipyards became ‘irrationally exuberant’, embarking on ambitious fleet expansion programmes. Rising prices of stainless steel, tightness in yard availability as well as the emergence of increasing shipyard capacity in Korea and China, which do not have the capability to construct sophisticated vessels, led to almost 62% of newbuildings delivered from 2008 being simple coated tankers. A large proportion of these vessels were delivered to western Owners.

This was coupled with a trend towards larger ships to achieve better economies of scale. As a result, fewer small ships have been added to the fleet, which will lead to tighter supply of vessels to service short sea regional trade lanes.

Overall, there will be fewer sophisticated ships to service smaller multi-grade parcels shipped by Chemical / Oil Producers on various trade-lanes. Once the demand/supply balance for tonnage tips, the uptrend in the freight curve to lift smaller grades will be steeper than for large lots of commodity chemicals.

**Global Fleet by Size in 2005**
(by number of ships)

- Under 10k: 47%
- 10-18k: 8%
- 18-28k: 23%
- 28-35k: 9%
- 36-54k: 13%

**Global Fleet by Size in 2012**
(by number of ships)

- Under 10k: 40%
- 10-18k: 28%
- 18-28k: 3%
- 28-35k: 9%
- 36-54k: 20%
**Freight Trends: Asian Trade Routes**

**Intra SE Asia Freight Trend**
- Jan. 2013 vs Dec. 2012 + 3.31%
- Jan. 2013 vs Jan. 2012 + 22.45%

**SE Asia Northbound Freight Trend**
- Jan. 2013 vs Dec. 2012 + 2.03%
- Jan. 2013 vs Jan. 2012 + 16.08%

**Singapore to WC India Freight Trend**
- Jan. 2013 vs Dec. 2012 + 0%
- Jan. 2013 vs Jan. 2012 + 13.0%

**Middle East Eastbound and Westbound Freight Trend**
- Westbound:
  - Jan. 2013 vs Dec. 2012 + 0%
  - Jan. 2013 vs Jan. 2012 + 2.0%
  - Jan. 2013 vs Dec. 2012 + 0%
  - Jan. 2013 vs Jan. 2012 + 5.0%
Downward Market Pressure:

- The global economy remains weak and analysts project the world is unlikely to return to the rate of economic activity seen before the financial crisis until 2014 or possibly later.

- China has overtaken Japan as the second largest economy in the world. However, China put in place measures to avoid overheating at the beginning of the year (although we do expect to see stimulus to the Chinese economy in 2013). According to the International Monetary Fund, Developing Asia is forecast to grow by 6.7% in 2012, down from 8.2% last year, not least because of falling demand from key export markets, such as the US and Europe.

Upward Market Pressure:

- Global demand for petrochemicals continues to grow, especially in emerging markets, which are advancing at a faster pace than other regions. Globally, demand for chemical shipping is expected to increase by 5% in 2012 and 5.7% in 2013, compared to a fleet growth of 2.3% and 2% in these two years.

- China’s chemical demand is expected to increase annually by 1.5 times China’s GDP growth. Based on current GDP expectations, demand is likely to increase by around 12% in 2013, drawing ships from the Intra SE Asia trade.

- During the last peak cycle, cheap debt and plentiful bank liquidity led to an order-book for chemical tankers stretching into 2012. However, almost no newbuilding activity has taken place in the past 3 years. As Owners and ship finance players contend with over-priced assets ordered during the last peak cycle, we are unlikely to see a pick-up in newbuilding activity in the near term, despite significantly reduced values.

- As a result, the Asian Fleet Growth could shrink from 2012, while global fleet growth will likely shrink only from 2013.

- Operating costs remain at historically high levels, leading to a strong inducement for Owners to aggressively seek freight improvements.
Freight Market Outlook: Demand versus Supply

Conclusion:

- While rates are likely to remain subdued during the 1H of 2013, despite an uncertain demand outlook, we expect freight rates will continue to recover into 2013, as the number of newbuilding deliveries dwindle, while scrapping picks up.

- Despite slowing GDP growth in Asia overall, we have continued to see volumes growing year-on-year, which has allowed the market to absorb the glut of newbuildings that entered the market over the past 3 years, with little negative impact on freight rates.

- While freight rates have remained subdued over the seasonally slower summer months of 2012, despite an uncertain demand outlook, we expect Asian freight rates to continue to show a steady recovery from the end of 2012 and into 2013.

- As the number of newbuilding deliveries dwindle, while scrapping picks up, the freight market is expected to emerge from the down-cycle that started in 2008.

- Once the demand/supply balance for chemical tankers tips and the global economy recovers, we are likely to see freight rates increase strongly as current time-charter equivalent returns remain well below levels needed for investments made during the peak years to become profitable. Due to relatively fewer smaller/sophisticated ships, the trend is likely to be steeper for short sea shipments and for shipments of smaller grades or products with special handling requirements.

- The coming 12 months will remain very challenging for Owners, who will have to rely on the support of banks to survive and, given recent examples (Dorval, BLTC and EOS), it is reasonable to assume that some may not.
Potential Swing factors, could pull the market in different directions:

- **Demand**
  - Threat of a double dip or further economic decline in Europe and the US due to high debt, unemployment and reduced consumption in the developed world.
  - High oil and commodity prices could harm a sustainable economic recovery
  - War/unrest in the Middle East ‘Arab Spring’ or Natural disasters like Japan’s Earthquake
  - Slowing growth and weakness in the Chinese banking system, as propagated by the ‘Chinese Bears’

- **Supply**
  - Rebalancing of tonnage: If freight demand in Asia picks up, while markets in other regions remain dull, tonnage may be drawn to the region.
Freight Forecast: Supply/Demand Cycles

- Boom times are depicted by an increase in demand for trade that increases the demand for tonnage, which is supported by bank financing. This leads to an increasing order book during market upturns, resulting in an oversupply of vessels, which in turn ushers in the next market down cycle.
- As shown in the Global Freight Trend Index, we have been in a down cycle, although freight rates have started to recover slowly. We are likely to continue to see this uptrend take hold, with seasonal peaks and troughs, as the fleet starts to balance out, with the number of newbuildings reducing.
- Once the global financial crisis turns its way towards a recovery and demand for chemical shipping picks up, the upward curve is likely become steeper.
- This will eventually be followed by another upturn in the order-book, as faith is restored to the global shipping markets.

![Graph showing freight forecast cycles](image-url)
Freight Market Outlook: Time Charter Rates

- Time charter rates have been holding steady since 2011, when rates for a one year period charter for a 20,000 DWT stainless steel tanker stood at $12,400/d. This has increased very slightly by 1.6% to $12,600/d in 2012 according to SPI data. However, under current market conditions, Owners are shying away from committing to anything over a 12 month period, especially as time-charter rates are expected to follow an upward curve over the next three years.

- But even a 15% increase would bring time-charter rates of a 20,000 DWT stainless steel vessel from $12,400/d in 2012 to $14,260/d, still far below the rates of just under $20,000/d seen during the market peak in 2007-08 and well below levels needed for Owners, who built at the top of the market, to become profitable.
Freight Market Outlook: Chemical Tanker Operating Costs

- While the supply of tankers has outstripped demand for freight in recent years, high bunker prices have helped to keep freight rates propped up.

- Bunkers, which trend crude prices, remain at historical highs however from last summer bunkers came off quite dramatically allowing Owners room for negotiation, but they have since picked up, although they have not returned to the highs seen at the beginning of last year.

- With freight earned in US Dollars, weakness of the US Dollar versus other currencies has further squeezed ship owner margins.

- OPEX costs for chemical tankers rose by over 21.8% from 2008 to 2012 and remain high.
  - Continued high fuel costs – 2013 average costs expected to be higher than 2012
  - Dry dock costs up 61.2%
  - Crewing up 20.5%
  - P and I premiums up 15%
  - Increases in port costs and canal dues

- When the supply/demand balance shifts in favour of Owner/Operator we will likely see an aggressive surge to move freight rates up.
Intercontinental Fleet

15,000-53,500 DWT
1,915 Ships/68 Million DWT
Intercontinental Fleet
Existing Fleet (18-22,999 DWT) – 283 Ships

Number of 18-22,999 Ships by Build Year

<table>
<thead>
<tr>
<th>Build Year</th>
<th>No. of Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>1980s</td>
<td>10</td>
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<tr>
<td>1990s</td>
<td>30</td>
</tr>
<tr>
<td>2000-2005</td>
<td>70</td>
</tr>
<tr>
<td>2006-2010</td>
<td>140</td>
</tr>
<tr>
<td>2010-2012</td>
<td>40</td>
</tr>
<tr>
<td>2013-2014</td>
<td>10</td>
</tr>
</tbody>
</table>
Intercontinental Fleet
Existing Fleet (18-22,999 DWT) – 283 Ships

- 86% of existing ships in this size range built between 2000-2012
- 70% Stainless Steel – 30% Coated
- 55 ships in this size range were built 1980s through to 1990s. Assuming this size ship was a optimum size for trading and allowing for a generous growth of 7.5% in the number of ships built each year from 2000 through 2012 the fleet should have grown to about 141 ships
- With 283 existing units, this suggests considerable speculative building on the part of shipyards supported by Financial Institutions and Owners
- 204 units (72%) are 19-19,999 DWT

What was the love affair with this size of ship?
Intercontinental Fleet
Existing Fleet (18-22,999 DWT) – 283 Ships

• Asian yards (particularly Japanese) accounted for approx. 76% of all ships built in this size range. Many of the Japanese yards were stretched to their limits with this size.

• Inert gas requirements by Solas/IMO (1986) could be avoided if ship was less than 20,000 DWT. However the cost savings in construction and operational costs alone could not have driven demand for this size.

• A number of respectable Owner / Operators have found trades where this size ship with stainless steel cargo tanks fit well. However, the ship is considered by many to be too large for many regional trades and too small for most intercontinental trades.

• Too many Owner/Operators are trading spot/prompt and given the flexibility of these ships have moved in and out of both regional and intercontinental trades seeking employment. The over capacity of these types of ships have contributed towards softening of spot freight rates which are highly influential on contract renewals.
Intercontinental Fleet
Existing Fleet (18-22,999 DWT) – 283 Ships

Who are the Owners / Operators?

52% of ships in this size controlled by 11 Operators. The number of units is 33% or more of total fleet for 8 Operators.
They don’t make them like they used to

<table>
<thead>
<tr>
<th>DWT</th>
<th>15,000</th>
<th>20,000</th>
<th>25,000</th>
<th>30,000</th>
<th>35,000</th>
<th>40,000</th>
<th>45,000</th>
<th>50,000</th>
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<tr>
<td>Ratio</td>
<td>0</td>
<td>0.5</td>
<td>1</td>
<td>1.5</td>
<td>2</td>
<td>2.5</td>
<td></td>
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<tr>
<td>Retired Fleet Average</td>
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<td>New Fleet Average</td>
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**Intercontinental Fleet's Tank vs DWT Ratio**

*Cargo Tanks divided by DWT/1,000 = Ratio*
Risk - Reward

How are return on investment decisions being conducted now to decide on the right number of segregations per ship’s total DWT?

What is the cost of adding another segregation to an already designed ship?

What additional revenue can be generated to off-set the costs and overcome investment hurdles?

RISK vs REWARD
Costs for additional segregations can range from $500-750,000 by some estimates on a large stainless steel chemical tanker.

Cost of pumps, piping, venting, coils, monitoring equipment, additional bulkheads

Impact of DWT, cubic, damage stability, construction scheduling/time
Revenue Considerations

Increased revenue from freight premiums for smaller grades against cost of additional segregation(s)

The spot market continues to show a clear delineation for premiums on small parcels however most contracts have shifted to bundled rates for total volume shipped, eg: a 500-1,000mt parcel in a given nomination pays the same rate as a 3,000mt parcel

Loss of revenue due to reduced cargo deadweight utilization

With fewer cargo tanks and particularly small tanks, can ships achieve optimum stowage and achieve high deadweight utilization?

Judging from the latest ship orders / deliveries, Owners are choosing to build ships with fewer cargo tanks. How will this impact customers who rely on frequent shipments of small parcels?
Owners / Operators should submit data to IPTA or Consulting Firm for benchmarking:

**Data Points**

<table>
<thead>
<tr>
<th>Ship DWT</th>
<th>Total Cubic (Cargo)</th>
<th>Total Cargo</th>
<th>No. Cargo Tanks</th>
<th>No. Open Tanks</th>
<th>Sea Days</th>
</tr>
</thead>
</table>

Shared data will provide guidance for future new building orders on the optimum number of cargo tanks for various ship sizes to achieve optimum deadweight utilization.
Charter Party Terms that hurt the bottom line

LOAD TOLERANCE – 2% MOLCO

30,000 DWT / 35,000 cubic

Cubic Allowance for 2% more (Charterers’ Option)  567 MT / 700 CBM

567 MT cargo @ $50/T = $28,350 Lost Revenue

Charterer opts to load 2% less  567 MT / 700 CBM

567 MT cargo @ $50/T = $28,350 Lost Revenue

Downside Potential $0-$56,700 per voyage

Based on 8 voyages per annum the downside could be $226,800 (based on 50% of total downsides)

Over 20 years this could amount to lost revenue opportunity in excess of $4M

What ever happened to 5% MOLOO?
Charter Party Terms that hurt the bottom line

LAYTIME PROVISIONS

Pro rata waiting time (Port)
Pro rata waiting time (Berth)
Weather Clauses
Suspected Laytime (while working others)
Time Bars / Supporting Documents

Has the pendulum swung too far in one direction whereby Owners / Operators are not being fairly compensated for lost time?

The market will soon turn in favour of the Owner / Operator – will the focus be on freight alone or will there be concerted efforts to improve CP terms?
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