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The Chemical Tanker Market
The Asian Perspective

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Contents

Part 1: Market Demand
Part 2: Freight Trends
Part 3: Fleet
Part 4: Freight Market Outlook
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.

The chart illustrates GDP growth/forecast from 2005 to 2016 for various regions including Europe, USA, Developing Asia, China, Newly industrialized Asian economies, and Global GDP.
Chinese economic growth is slowing – Having peaked at 11.9% in Q1 2010, according to analysts GDP is expected to be below 9% in 2012, dampening demand for chemical tankers in Asia.
Regional volume flows saw only modest growth in 2010, due largely to a downturn in Chinese imports. In 2011 regional volume flows saw a moderate increase of 2.23% with Chinese imports improving 6.05%. Of the 4 main export countries to China only Korea saw its exports trending higher 7.55% in 2011 with China increasing imports from other developing Asian countries such as Malaysia, Thailand and Indonesia.
Market Demand: Middle East Chemical Exports

- Saudi exports grew almost 28.71% in 2011, this upturn has underpinned demand for chemical tankers over the past year.
- 56% of Saudi volumes moved eastbound to Asia (plus another 11% to India), while 47% of Iranian chemical volumes ship eastbound. Volumes eastbound from Iran are expected to grow further due to upcoming EU sanctions.

Middle East Chemical Exports 2009 - 2011

- Saudi exports grew by 9.0% in 2010 and by 28.71% in 2011, while Iran exports grew by 26.3% in 2010 and decreased by 1.57% in 2011.
- Iran 2011 volume is estimated based on available data of first 6 months of 2011.

![Graph showing Middle East Chemical Exports 2009-2011](image-url)
Freight Trends: Asian Overview

- Demand for tonnage has spurred a steady improvement on most Inter Asia trade-lanes, which have seen freight levels rise over the past 12 months, despite modest volume growth in 2010 and 2011.

- Taking average freight developments on various routes throughout the region, overall freight levels in Asia have improved by over 12% from Q1 2010 to Q4 2011.

![Intra Asia Bulk Chemical Freight Market Index](chart_image)
Freight Trends: Middle East Trade Routes

- Rates ex Middle East Gulf eastbound to Asia have been gradually declining to $51/t in Jan, 2012, after a short term peak of $67/t in Mar/Apr, 2011 based on 10,000t to Mid China. However, rates have increased over the year from Jan, 2011, by 5.26%.

- Meantime rates ex Middle East Gulf westbound to the Mediterranean and NW Europe firmed up last year, stabilising around $69/t in Jan, 2012. Ex Middle East Gulf westbound freight rates rose 33.98% over the year to Jan, 2012, based on 20,000t to the Mediterranean.
The repositioning leg into WC India has improved, with Chemical rates gaining almost 5.95% from Jan 2011 to Jan 2012.

Palm oil rates into India are up almost 29.52% from one year ago, although, as expected, we have seen a seasonal dip in recent months following the Indian festive period.

In 2012 Indonesian palm oil production is expected to increase 6.4%, with Malaysian production up by 2.3%. India and China will take for the majority of this increase, with demand expected to rise by 4-5% in 2012.
Freight Trends: Asian Trade Routes

- Demand for tonnage in the Inter Asia routes has spurred a steady improvement in the SE Asia Northbound and NE Asia Southbound freight rates with figures increasing 5.88% and 8.06% respectively over the past 12 months.

- As at Nov 2011, SE Asia Northbound freight rates were 34.3% higher than NE Asia Southbound freight rates, underlining the continued imbalance in volume flows with three times more cargo moving Northbound versus Southbound.

Chemical Tanker Market – The Asian Perspective
On Intra NE Asia routes, markets have seen very little movement from this time last year while Intra SE Asia saw an increase of 6.25% over the same period.
Fleet: 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 booms resulting in an oversupply of vessels during market downturns.

![Diagram showing the supply/demand cycles in the chemical tanker market.](image-url)
Fleet: Asian Fleet Growth

- The Asian fleet grew by about 89% between 2005 and 2010.
- Newbuildings peaked in 2009, with 1,146,865 DWT added to the Asian fleet.
- The rate of fleet growth continues to slow with 646,616 DWT and 172,417 DWT being added in 2011 and 2012, respectively.
- Scrapping increased in 2010 with 244,300 DWT exiting the market. An additional 264,289 DWT was scrapped in 2011.
- As at 2010 1.4 million DWT or 17% of the Asian fleet was 20 years or older, so, if steel prices remain firm, we could see increased scrapping going forward. Given the decline in Newbuildings, the Asian fleet could potentially shrink from 2012.
Historically many Asian Owners have preferred to operate their vessel for easy chemicals where possible avoiding the high intensity multi-parcel trades.

During the ‘boom years’ where cash was readily available and Owners wanted to expand their fleets as quickly as possible (as well as Owners from other sectors looking to get in on the chemical dream), rising prices of stainless steel as well along with tightness in yard availability (partly due to the booming bulker market) as well as the emergence of increasing shipyard capacity in Korea and China, which did 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 which were delivered to western Owners).

The trend towards better economies of scale has resulted in a lack of renewal in the smaller vessel sector which we feel will lead to a shortage of quality modern sophisticated tonnage in the short sea Far Eastern markets and a lesser extent South East Asia.
Taking a broader view, demand for chemical tankers is expected to exceed supply over the next three years, with demand increasing by more than double the fleet’s growth in the median scenario. Demand will grow 5% and 5.7% in 2012 and 2013, respectively, compared to a fleet expansion of 2.3% and 2% in the same years.

In the high fleet supply and demand scenario, 2013 is expected to see the increase in demand outstrip supply by an extra 3.7%, while in the low fleet supply and demand scenario, fleet supply is expected to decrease.
Freight Market Outlook: Time Charter Rates

- Time-charter rates are expected to follow an upward curve over the next three years with some in the industry expecting time-charter rates to increase in 2012 by around 15% for stainless steel vessels and around 4% for coated vessels.

- But even a 15% increase would bring time-charter rates of a 19,000 DWT stainless steel vessel, currently costing around 12,500 USD per day, to 14,375 USD per day, which is still far below the rates of around 20-22,000 USD per day seen during the peak in 2007 and still below levels that Owners who built at the top of the market would need to become profitable.
Oil Prices have stayed high between US$100-120 for the past 6 months, leading to further escalation in operating costs for ship owners. Similarly, both the IFO180 and IFO380 followed suit over the last 6 months, increasing 11.6% and 9.3% respectively. The MGO saw a modest increase of just 0.3%. Nonetheless, fuel prices remain at all-time historical highs.

Opex costs for chemical tankers rose over 15% from 2008 to 2010 and remain high. Crew costs rose almost 20%, while dry dock costs are up over 50%.

Given high operating costs as well as finance costs to lenders, as the supply/balance for chemical tankers tips. It is likely that Owners will aggressively seek to improve freight levels.
Freight Market Outlook: Demand versus Supply

- 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 2013-2014.
- China has overtaken Japan as the second largest economy in the world, but is placing measures to avoid overheating.
- Demand for petrochemicals continues to grow, especially in emerging markets. Demand 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.
- During the last peak cycle, cheap debt, plentiful bank liquidity and eagerness of some ship finance players to buy market share, led to an order-book for chemical tankers stretching into 2012.
- Despite an uncertain demand outlook, we expect freight rates will continue to recover into 2012, as the number of Newbuilding deliveries dwindle, while scrapping picks up.
- The coming 12 months will remain very challenging for Owners, who will have to rely on the support of banks to survive and it is reasonable to assume that some may not, given that operational and bunker costs remain high.
Freight Market Outlook: Swing Factors

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
- High debt, unemployment and reduced consumption in the developed world
- War/unrest in the Middle East – ‘Arab Spring’
- Natural disasters – ‘Japan’s Earthquake’
- Very high oil and commodity prices could harm a sustainable economic recovery
- Slowing growth and weakness in the Chinese banking system, as propagated by the ‘Chinese Bears’

**Supply**
- Rebalancing of tonnage into Asian routes, if freight demand in the Asian region picks up, while markets in the west remain dull
Chemical Tanker Market – The Asian Perspective

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