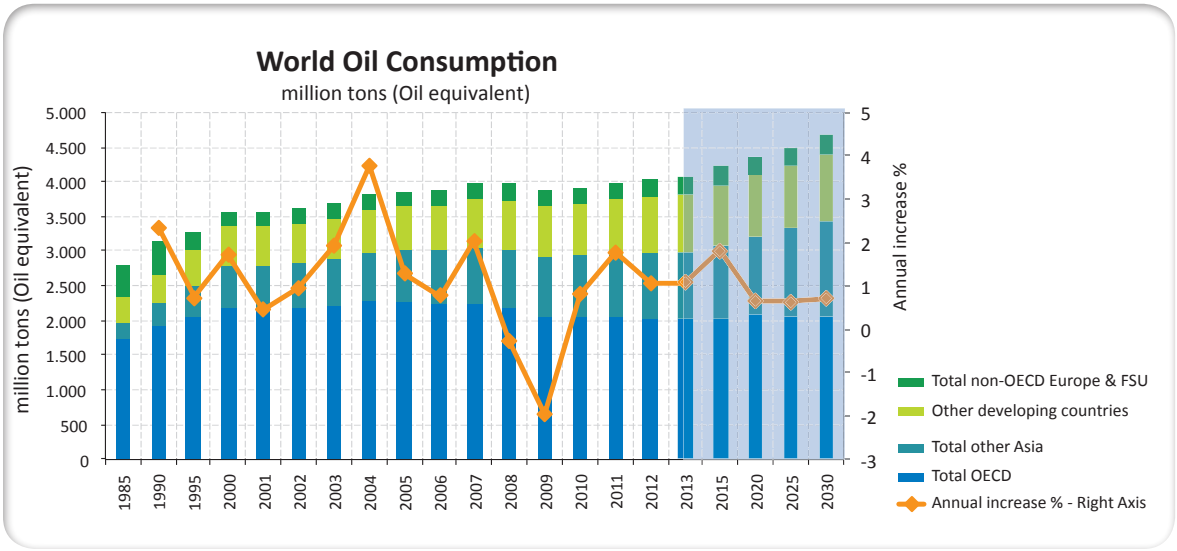
## c. Oil & Chemical Tankers

### Industry Overview

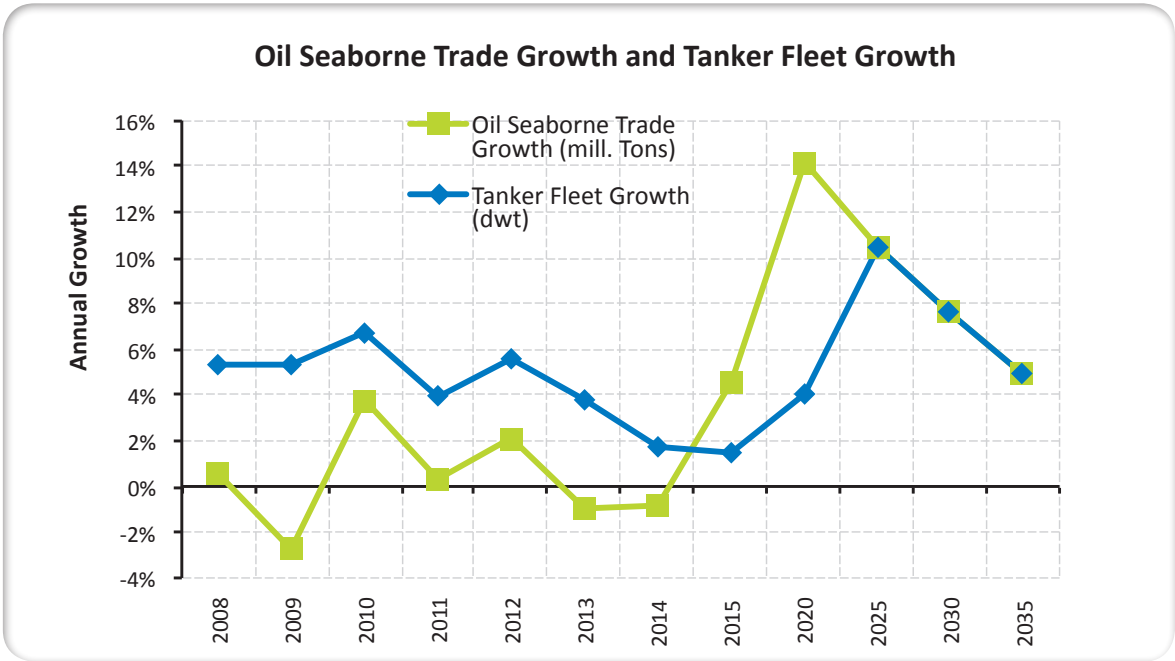
In the period 2003-2007 (“Great Moderation”), oil consumption grew by 1.9% annually, while the period 2008-2012 (the crisis and post-crisis period), oil consumption grew by 0.3% annually. IEA Forecasts until 2035 estimate a 0.8% annual growth in oil consumption, and IEA forecasts until 2035 estimate growth of seaborne trade in oil of 1.8% p.a..

On the other hand, in the past decade, the tanker fleet grew more than oil seaborne trade, generating fleet overcapacity. The projection to 2035 shows that due to this overcapacity, the tanker fleet will grow less than oil seaborne trade.




*Source: SEA Europe*

Tanker Fleet Requirement and Newbuilding Forecast



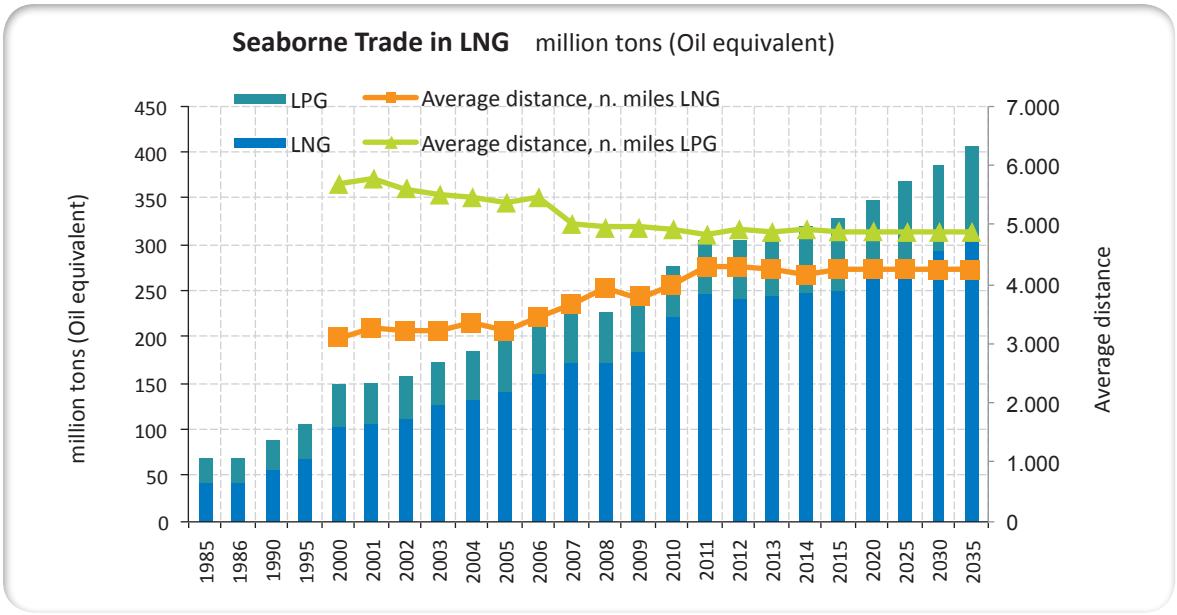

*Source: SEA Europe*

We expect the oil tankers fleet requirements expand at a rate of 1.3% per year in terms of DWT. In contrast to the previous decade, tanker fleet grew at a rate close to 5% per year in terms of DWT. In the period 2015-2035, oil tankers newbuilding requirement, according to our forecasts, has a mean of 250 units per year, 27 DWT p.a., and 7.8 CGT p.a..

In the medium term, it is estimated that Chemical / Product Tankers' demand for transportation tons will average 3.4% between 2019 and 2023, lower than previous historical levels and levels reached between 2016-2018. This sluggish demand for Chemical / Product Tankers shipping would be due to factors that support a growth in demand, such as the expansion of petrochemical capacity in the US and the Middle East, and the increase in chemical transport to Asia, to be offset by factors such as lower demand for transport in primary commodity-exporting countries for low energy prices. Overall, by 2018-2021, the demand for Chemical / Product Tankers ships between 10,000 and 60,000 DWT would be around 75 units per year.

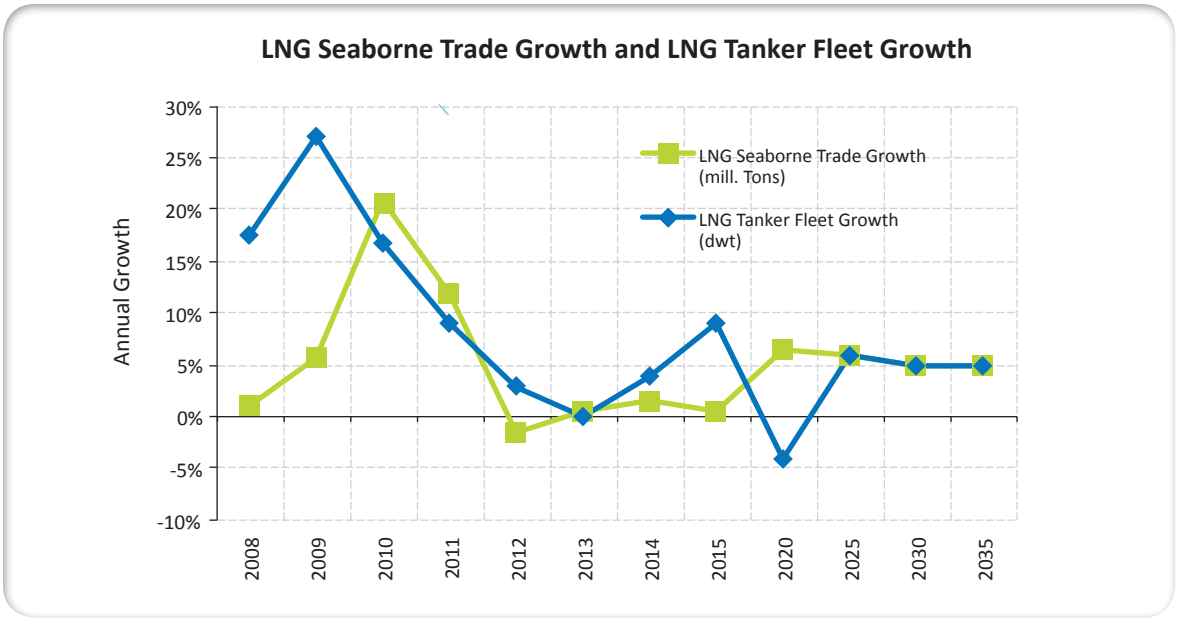
## d. LNG & LPG Market

Between 2001 and 2014, the strong growth in LNG transport demand and high gas prices led to an increase in the contracting of LNG and LPG vessels. However, as of 2015, the fall in the price of natural gas and oil reduced freight prices, with the result that contracts fell sharply to the lowest levels of the last 10 years. In 2015 only 28 units of LNG were contracted and we have only 6 units in 2016, compared to 70 LNG contractors in 2014 and 41 in 2013. The 2035 forecasts estimate growth of seaborne trade in LNG of 1.8% p.a..




*Source: SEA Europe*

## LNG & LPG Fleet Requirements and Newbuilding Forecast




*Source: SEA Europe*

In the last 5 years, the LNG carriers fleet grew more than gas seaborne trade, generating fleet overcapacity. The projection to 2035 shows that due to this overcapacity, the LNG tanker fleet will grow less than LNG seaborne trade. We expect the LNG carrier fleet requirement expands at a rate of 0.9% per year in terms of DWT. In contrast to the previous decade, LNG carrier fleet grew at a rate close to 10% per year in terms of DWT. In the period 2015-2035, LNG carrier new building requirement, according to our forecasts, has a mean of 15 units per year, 1.2 DWT p.a., and 0.7 CGT p.a..

## e. Bulk Carriers

The bulk carrier market condition came under renewed severe pressure in 2015 reflecting the input of a considerable slowdown in seaborne dry bulk trade and existing oversupply pressures.

In recent years, China has been key in driving world seaborne trade growth. However, against the backdrop of the country transitioning towards a more mature, diversified economy, expansion in Chinese imports has slowed, with dry bulk imports dropping. Global dry bulk trade grew only 0.6% in 2015, the slowest pace since 2009.

### Demand

China´s imports in 2015 have been reduced compared to previous years contributing to a notable slowdown in growth in China´s iron ore imports from 15% in 2014 to 3% in 2015. The recent growth in Chinese iron ore imports, 6% in 2016, is not likely to be sustainable, and imports are projected to soften into medium-term.

Meanwhile, China´s seaborne coal imports has fallen 30% and with little growth in heavy industry elsewhere in the world and coal quality restriction reflecting an increasing environmental focus, the result is likely to be minimal growth in seaborne dry bulk trade.

China is suffering a phenomenon known as the “trade development cycle” which recognises that emerging economies use large quantities of raw materials to build infrastructure, and then settle down to value-added growth which requires less resource intensive imports.

Although there is a possibility that rapid growth will resume after the present economic difficulties have been resolved, it seems more likely that the economy is moving into a new phase with slower growth, with the existing steel capacity, sufficient to support its economy.

Shipments into other major importing regions, such as Japan and Europe, also look likely to remain subdued, while prospects for growth in imports appear mixed. So, it looks as though the dry bulk market could be in for a spell of slow growth.

Average earnings in the year 2015 across all sectors down significantly year-to-year. Despite a temporary uptick in July 2015, Capesize spot earnings fell 47% year to year to average $ 8,440/day in the first eight months of 2015, and the Capsize market is 68% below the ten year historical average. Overall, the dry bulk market is 64% below the long term historical trend.

### Supply

On the supply side, the positive news is that bulk carrier fleet growth is slowing, with growth of 2.8% in DWT terms in 2015, following 4.4% growth in 2014 and which was the slowest pace of growth since 1999. The Handymax fleet is expected to grow at the fastest speed (7.3%). Meanwhile, Capesize fleet growth to slow significantly to 0.8% (from 4.9% in 2014), largely as a result of record demolition in the year. (Whether fairly slow supply growth will be enough to support the Capesize market during a time of relatively weak demand is a matter for speculations). However, the biggest worry is perhaps the bulk carrier orderbook, which has declined 28%.

Newbuilding contracting activity was very subdue in 2015 and even worse in 2016 when it fell to the lowest level since 2001 with just only 48 units of a total 13.4 million DWT reported ordered compared to an average of 74.2 million DWT per year in the previous ten years, a 76% less in DWT. Bulker orderbook declined by 28% in terms of tonnage. Deliveries continued at a relatively steady pace, with 49.3 million DWT entering the fleet in 2015.

Bulker demolition surged helping to limit overall fleet growth to the slowest pace in fifteen years, accounted for 78% of tonnage reported scrapped in 2015 with a record of 93 Capesize with 15.4 million DWT demolished and a total of 30.6 million DWT bulkcarriers demolished, almost double the

2014 level. It is noteworthy that almost all Capesize ships built in the 90s were scrapped. Scrap prices falling because of a surplus of steel production.

## Bulk Carrier Market outlook

The sudden slowdown in seaborne dry bulk trade to only grown across 0.66% growth in 2015 has put the markets under enormous pressure, and even the 2-3% growth of supply achieved by a heavy pace of demolition has been more than the market can cope with. With around 133 mln DWT of bulk carriers on the orderbook, the dry bulk market needs to keep scrapping. Even if there is a bounce back, the market is still left with around 20% fundamental surplus tied up in slow steaming. So the ultimate escape to "good times" appears to remain some way off. The dry bulk sector is chronically over-supplied and will remain so over the next few years.

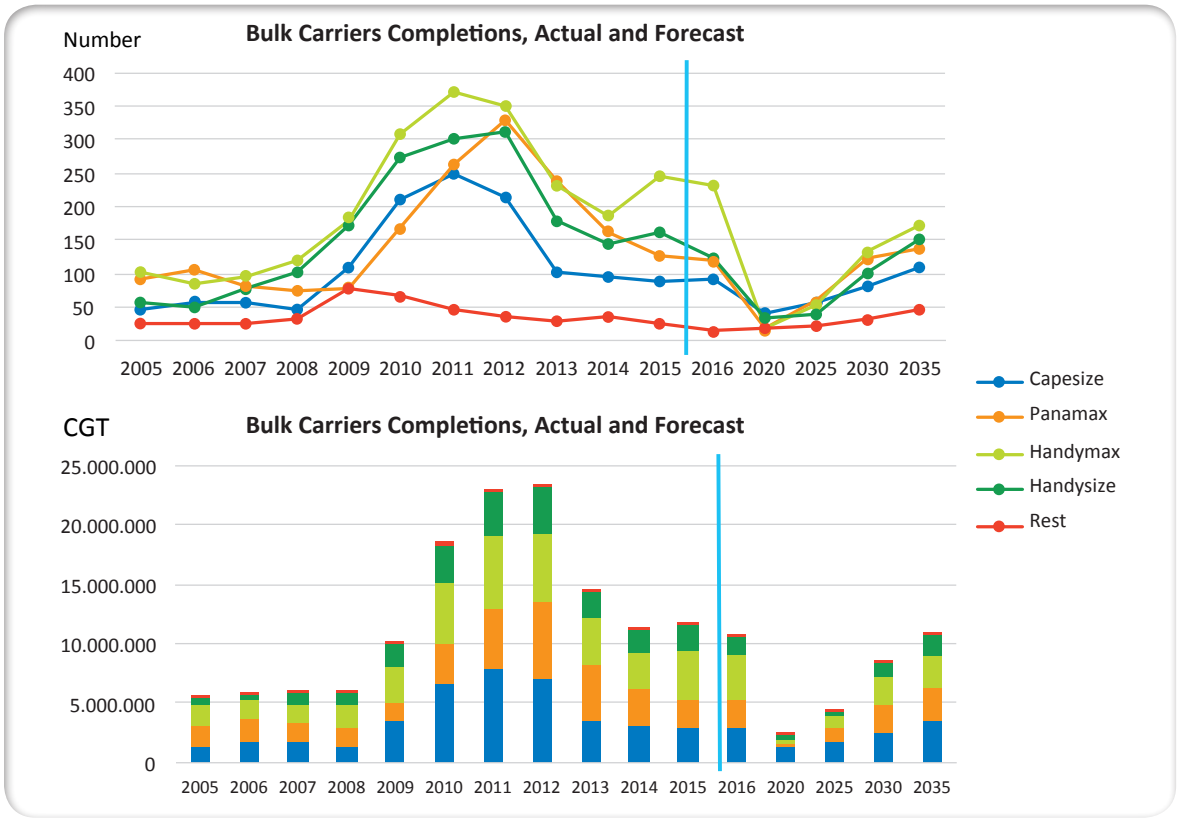
2016 was the worst year in DWT ordered since 2001. The main reason for the dry bulk downturn is the slowdown of the Chinese economy.

Bulk carriers are expected to account for the majority of the tonnage sold for demolition in 2016 with 33.3 million DWT projected to be scrapped.

The new expanded and widened Panama Channel could mean that the ever popular Panamax size segment would be faced with the threat of extinction. Panamax vessels have been the size that has felt the biggest brunt of this effort, being a size group that is no longer offering the best economics of scale because they are too big and gearless to be able to be shifted easily to smaller developing trade routes. The NeoPanamax vessels will be the ones that will quickly replace these vessels as the best suited to fully utilise trade routes which pass through the Panama Channel.

In the short and medium term, excess of fleet due to lower transport demand along with low levels of freight, will remain. The drought for newbuilding contracts and, therefore, completions will be kept.

However, we think that with the drastic reduction of fleet due to the current considerable increase in scrapping, together with the possible cyclical factor of increased consumer demand and transport, we might anticipate the turning point which will be from 2020 an increase in newbuilding and consequently completions.




*Source: SEA Europe*