Slowing crude tanker demand and the "manageable" orderbook

Summary -- Ecstatic over lofty tanker earnings brought on by OPEC policy largesse, and convinced of a sustained, cyclical recovery, once again, owners have ordered too many crude tankers. Their justification included simplistic hypotheses about oil demand and inter-basin crude flows, but shifts in global production, refining and imports suggest that the sector is a 1% growth business, at best. Given the orderbook size, the results should be predictable.

Under the current market view, prospects for the crude tanker sector remain lacklustre, as market participants are now focusing on the sector orderbook and rising deliveries during the next eight quarters. Although analysts are finally marking down their spot earnings forecasts for 2017-18, the mood has not descended into overt fear yet, with the consensus suggesting that any rate declines would remain above vessel break-even costs and that cash flows would remain positive. Meanwhile, owners are arguing that healthy oil demand and vessel demolition are sufficient to absorb the newbuilding tonnage, while a restrictive lending environment limits future ordering.

Owners are grossly over-estimating forward demand based upon previous trends, while the oil supply chain continues to undergo dramatic shifts. Oil product demand is ***not*** crude tanker demand -- and a combination of liquids bypassing the refining system, higher domestic crude intake and future inventory changes are likely to supress crude tanker trade volume relative to oil product demand. Tonne-mile demand expectations are also over-stated. As the global oil markets creep towards a rebalancing in 2017, the resulting shifts in liquids production, refining and export cargo availability should alter crude trade patterns and tonne-mile growth from their previous trends. Finally, the dramatic decline in fleet productivity since the financial crisis is nearing its limitations, including recent port delays, which will limit forward demand gains. The benefits to tanker owners from the change in OPEC strategy were immediate -- more volume -- but the powerful effects from that strategy shift have been slow to arrive, and will be longer lasting.

Key tanker investment hypothesis fading under OPEC strategy

Tanker owners have clung to an investment rationale that robust Asian demand will continue to increase eastbound flows of Atlantic Basin crude and boost tonne-mile demand. Although this was a dominant force in tonne-mile development over the past several years, the shift in OPEC strategy should significantly temper this growth. As the cartel attacks US light tight oil (LTO) and other high-cost projects in the Atlantic Basin, cargo availability is declining from easing production, but also from rising crude intake in producing countries.

Oil product demand not returning as main driver for tankers until oversupply ends in 2018

The normal demand-pull mechanism of oil product consumption driving crude runs, imports and tanker demand is no longer in control, as OPEC continues its supply-push -- forcing an oil term structure that has encouraged stock builds. Higher consumption has only been relevant in determining the trajectory for ultimate rebalancing, not the level of tanker demand, which has been predominantly a function of excess supply. The sector will not experience normal demand dynamics until destocking subsides in 2018-19.

Slowing builds -- not outright inventory declines -- cutting into crude supply and tanker demand

A balanced oil market would bring a flatter term structure, prompting OECD refiners to release record-high crude and product stocks, while builds continue in the growing non-OECD markets. Global stocks may decline briefly in 2018, but in the global mass balance, it is not the absolute inventory builds and draws, but the change in accumulation, that drives the change in supply flows. Following the massive builds of 2015, required field supply slows dramatically, limiting trade flows and tanker demand through 2018.

Fleet productivity unable to offer additional demand benefits

Low tanker earnings and high bunker prices drove a 22% decline in average vessel speeds across the crude tanker fleet since the financial crisis, effectively adding equivalent dwt demand through lower fleet productivity. Productivity has rebounded from the 2014 lows, as speeds responded to higher earnings, but should now reverse through 2018 on slumping rates. This metric remains flat after 2018, as a tightening VLCC Atlantic balance offsets the positive effects of speed and delays, offering little assistance in a weak market.

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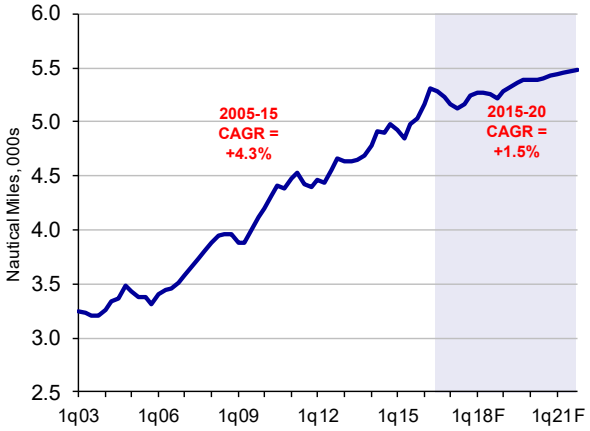
Executive Summary

"Demand for tankers will outpace global oil consumption because supplies from Latin America and West Africa have to travel further to high-growth Asian economies than to North America and Europe." -- Wilbur Ross

This is the key investment rationale for crude tankers, almost in its entirety. This quote, from a late-2014 *Bloomberg* article, reflects the prevailing mind-set and demand view among tanker owners. Although eastbound crude flows to Asia have surged dramatically over the past several years, lengthening voyage distances and boosting tonne-mile demand, this phenomenon is set to decelerate sharply in response to OPEC strategy and secular trends. As shown in the chart below, the change in voyage distances for Atlantic Basin exports (West & North Africa, Europe, EC Latin America, and North America) should slow to 1.5% during the next five years, from the rapid 4.3% annual pace in 2005-15.

About those longer voyage distances...

Average Voyage Distance -- Atlantic Exports
4-quarter Moving Average, Nautical miles 000s



Source: Makai

Declining liquids production, from the upstream spending collapse, along with rising crude runs, should cut Atlantic Basin export cargo availability during the next several years. West African (WAF) exports decline by 0.9 mbpd over 2015-20 in the Base Case, led by a 1.0 mbpd collapse in European imports. Rising US imports of WAF grades, to offset falling US LTO production, would limit eastbound flows, as should a wider Brent-Dubai spread from the shifting light crude balances. Latin American export flows to Asia should continue to rise, however, offsetting the WAF decline and allowing average voyage distances to edge higher. Still, Asian tonne-mile demand should slow to 1.4% per annum during 2015-20, from the 3.3% pace during the previous five years.

E&P spending collapse limits cargo availability in Atlantic Basin...

...while lower US production boosts intra-basin imports

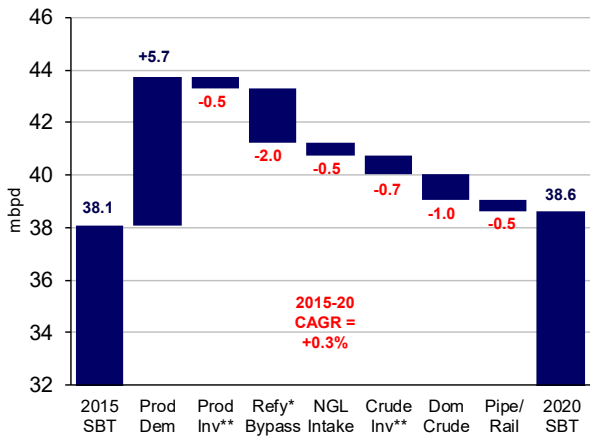
Not only are voyage distances stabilising, but actual seaborne trade should remain flat over the next five years. Although product demand should rise by 5.7 mbpd during the period, a number of rising flows continue to bypass the refining system, while declining crude stocks cut into refinery deliveries. These bypass flows include NGLs flowing directly into LPG & naphtha supply, gas-to-liquids and biofuels moving directly into product blending, rising refinery gains from growing upgrading capacity and direct crude & NGL burn. We track these flows in our 185-country model, achieving a balance across all liquid streams in meeting global product demand. During the next three years, these bypass flows should rise by 2.0 mbpd, while direct refinery NGL intake (separate from crude) should grow by 0.5 mbpd. Moreover, global inventory builds should slow significantly through 2018, despite the growth in Asia strategic stocks, thus reducing required supply. Finally, domestic crude intake should rise 1.0 mbpd over the period, led by Latin America, Africa and the AG, while pipeline and rail transport grows

Virtually no crude trade growth through 2020

Flows bypassing the refining system rise...

...while stock builds slow through 2018

Crude Seaborne Trade 2015-20
Waterfall Analysis, mbpd



* NGL bypass, biofuels, GTLs, refinery gains, direct crude burn
** Slowing of inventory builds vs 2015, not absolute declines

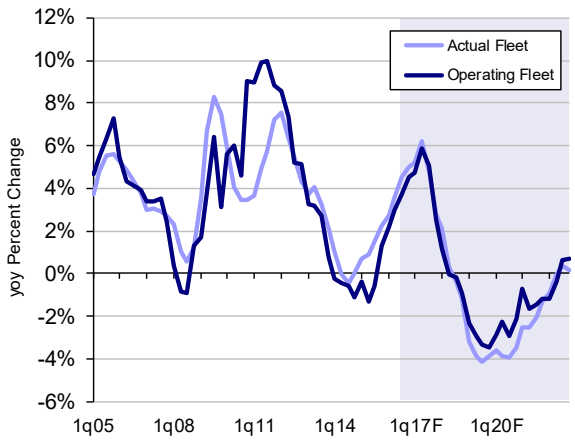
Source: Makai

by 0.5 mbpd. Overall, these flows are set to limit global seaborne trade growth to 0.5 mbpd, or a 0.3% annual pace.

OPEC-inspired ordering has ensured 4% fleet growth in 2017-18

Although crude tanker ordering has evaporated during 2016, the damage has been done. During 2015, owners contracted 74 VLCCs, 58 Suezmaxes and 65 dirty Aframaxes, or 11.8% of the fleet, and the current orderbook stands at 17.1% of the fleet. Operating fleet growth should average 3.4% in 2016, rising to 4.5% in 2017. The collapse in ordering should slow fleet growth from 2018, but more important, demolition should rise from its virtually non-existent levels in 2015. Scrapping should reach 4% of the fleet in 2017 and rise over 7% in 2018, as owners struggle to reign in fleet growth. The operating fleet should begin to decline in 4q17, but would require sustained 3% declines to rebalance the market.

Dirty Tanker Operating Fleet Growth
yoy Percent Change, Quarterly



Source: Makai

Balance in 2018-19 will demand upon scrapping response

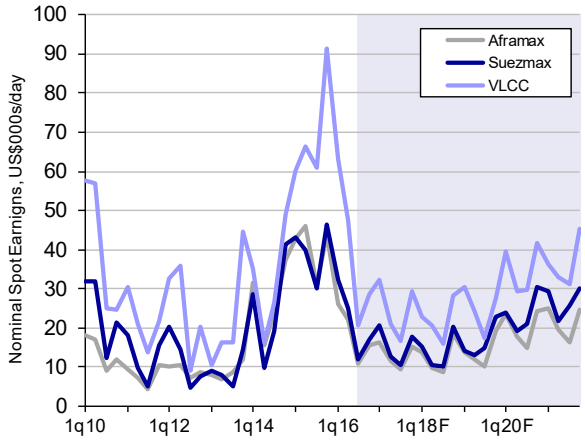
Contrary to owner-speak, orderbook is hardly moderate

At 17% of the fleet, the crude tanker orderbook is well below the previous peaks of 2006-08, giving rise to the impression that it is only "moderate". With little growth in crude seaborne trade, however, the current orderbook is certainly large enough to punish earnings during 2017-19. Average voyage distances should inch higher, keeping crude tonne-mile demand growth near 0.5% per annum through 2020. Although distances from Latin America continue to rise, the larger AG and African flows dominate the distances.

Heavy ordering in low-growth environment has predictable results

With operating fleet growth averaging 2.6% during 2015-18, and dirty dwt demand actually declining 0.1% on shrinking fuel oil trade and higher productivity, dirty tanker fleet utilisations should return to the low-80% area. Earnings would avoid the painful 2012-13 lows, but VLCC spot TCE earnings would average only $21,900/day in 2018.

Dirty Tanker Spot Earnings
by Sector, Quarterly, US$000s/day



Sources: Baltic Exchange, Makai

"Anchoring" is not just a nautical term

For tanker owners, this is simply inconceivable. Still, much like dry bulk owners who could not depart from their 10% demand growth expectations following the financial crisis, crude tanker owners remain anchored on demand growth ideas of 3-4%. They have failed to recognise that, even prior to the OPEC price war, structural forces in the oil markets were pushing secular growth rates towards 1% or less. The tanker earnings frenzy created by OPEC has completely obscured the visibility of these trends, and emboldened owners to order vessels, arguing that this was the start of a cyclical bull market.

More OPEC serendipity than management foresight

In fact, OPEC's strategy added at least 5% to tanker tonne-mile demand in 2015, suggesting that VLCC rates would have averaged $35,000/day in 2015 -- rather than the $69,700/day realised -- had OPEC maintained output at 30.5 mbpd. Since these lower rates represent those associated with the true, underlying oil supply/demand fundamentals, owners would be having an entirely-different return-on-capital conversation with investors about their $100 million VLCCs, without OPEC's gift. They may have that conversation yet.