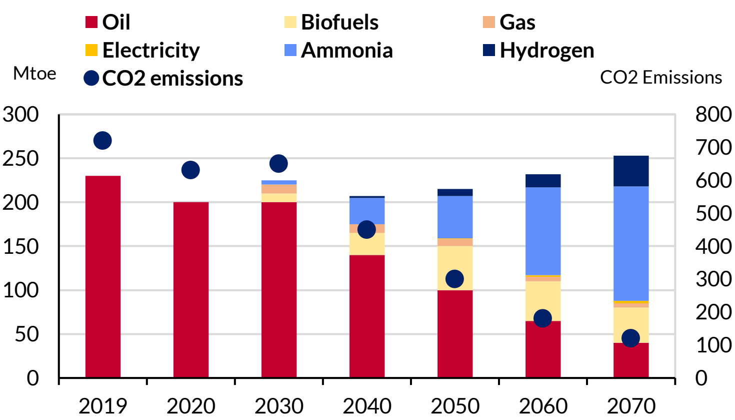
Is Ammonia the Next Big Bunker Fuel?

Weekly Tanker Market Report

The move to zero emissions transport will be a very long and winding one, in which by all accounts the transport sector and in particular shipping, will be one of the last to fully make the transition. The IEA recently investigated the general move to zero emissions within the global economy. They highlight that reducing CO_2 emissions in the transport sector will be a formidable task, despite, or maybe because of the growing number of regulations requiring shipping to reduce its Green House Gas (GHG) and air pollutant emissions. This poses a real challenge for the shipping industry. Shipping by its very nature mostly involves large vessels traveling long distances which have trading lives of 20-35 years, inhibiting the uptake of new low-carbon technologies. Reducing emissions from large transoceanic ships will be particularly onerous, requiring significant investment and co-ordinated efforts among fuel suppliers, ports, shipbuilders owners and charterers.

Global Shipping Energy and CO2 Emissions (Source: IEA)



Ammonia is attracting interest as a potential carbon-free fuel for shipping due to its high liquefaction temperature and energy density compared to hydrogen. There is also a well-established infrastructure system for handling ammonia, although currently no bunkering facilities. Plus it is easier to store and transport than hydrogen. In addition, ammonia is a well traded chemical and there is already significant industry expertise when it comes to handling it on-board as a cargo as opposed to hydrogen. The main barrier to it being used as a fuel for shipping is that it is acutely toxic. On a positive note, ammonia can be used in a fuel cell as well as a conventional engine. But further technological advances are needed for ammonia fuel cells to see lower costs and become a viable alternative technology. The current efficiency of the ammonia conversion process is currently around 50%, which would need to be improved to help to reduce production costs. Also, the competitiveness of hydrogen-based fuels (like ammonia) will also depend on adoption of policy by either penalising the use of fossil fuels, such as CO_2 pricing, or incentivising the use of clean fuels, such as clean fuel standards that are currently being considered at the IMO.

It is therefore likely that Ammonia will be one of the future fuels developed to replace current fossil fuels. There has already been some progress within the sector as earlier this year NYK announced that they would be looking into ammonia as a marine fuel. Wartsila is working on testing a four-stroke engine running on ammonia in conjunction with Knutsen Shipping and Repsol. These might be small steps, but the potential for ammonia as a bunker fuel is significant.

Crude Oil

Middle East

A little more VLCC activity than last week, but that's not saying much and, with availability remaining particularly top-heavy, Owners were forced to accept ever lower rates to lead the bottom end of the range to Opex returns and only modestly higher than those at the top end. It's now a 'ws 20's' market to the East and a mid high 'teens' for any rare requirement to the West. Ballasting away 'on-spec', or locking in for winter storage at unexciting numbers, remain the alternatives for those that can. Suezmaxes stumbled through the week at rock bottom numbers - as low as ws 13 to the West and little better than ws 37.5 to the East, with even more misery to come over the near term, at least. Aframaxes missed their opportunity to take a step higher, and ended up in reverse gear as sentiment punctured upon a weak forward fixture, and rates eased back to 80,000mt by ws 62.5 to Singapore on the 'regular' fixing window.

West Africa

Another hard week of only intermittent trading for overweight Suezmaxes keeping rates pegged to as low as 130,000mt by ws 27.5 to the USGulf and to ws 32 to Europe - a situation that looks set to remain the default for a while yet. VLCC Charterers largely stayed away from engagement here as the AGulf continued to settle. Owners still hold for premiums over prevailing AGulf/East marks, but rates are easing in ratio, nonetheless, and now into the low ws 30's to the far East. Another testing week ahead.

Mediterranean

Last week Aframaxes were posted in the low/mid ws 50's X-Med upon a general lack of enquiry...and this week things remained similarly depressed. For now it seems as if all parties are content to tread water but perhaps there could be a degree of uplift if Libyan barrels become more readily available. Suezmaxes also need those extra Libyan barrels as Owners have found relatively little else to do in order to absorb the supply excess.140,000mt at down to ws 42.5 from the Black Sea to European destinations now, and to $2.3 million for any needs to China.

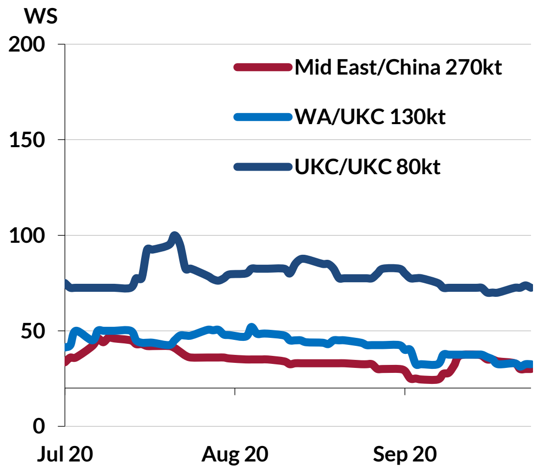
US Gulf/Latin America

Aframaxes had hoped for bad weather disruption - again - but although there was a very slight twitch upwards towards 70,000mt by ws 60 upcoast, rates then fell off again to ws 55, with the market transatlantic remaining 'conference' at ws 50. More defending to do into next week. VLCCs moved onto the defensive as other areas weakened and Charterers did their best to hold back. Rates from the USGulf to South Korea/China are now marked at a slightly reduced $4.7 million level and may yet ease further if there's no pick-up elsewhere.

North Sea

As in the Med, Aframax Owners had another week of 'same as' rates to 80,000mt by ws 72.5 X-UKCont, and 100,000mt by ws 40 from the Baltic, but Charterers are now beginning to stretch ahead, and that does give Owners the opportunity to ask for premiums in order to oblige....let's see. VLCCs found occasional partners at down to $4.4 million for crude oil to South Korea/China but it remained somewhat hit and miss and traders needed something a bit lower to convert with ease.

Crude Tanker Spot Rates



*All rates displayed in graphs in terms of WS100 at the time

Clean Products

East

An incredibly exciting week on the MRs as their true value is finally realised by Charterers. The $850k Argentina levels are a distant memory now; a tight list until end month has pushed levels over $1 million and $1.2 million on subs but failed. Latin America is demanding a slight premium, as Owners do not want to end up there. UKCont is on subs at $1.05 million and likely sits flat. TC12 on subs at ws 95 failed, although if MRs are re-considered in September dates - numbers remain flat - October availability is more forthcoming. X-AGulf $245k on subs - although you would look closer to $225k for October dates. We expect MRs to quieten down as LR present much better value at present - it is their turn to watch the larger sizes get busy next week.

LRs have seen a mixed bag this week. With MRs firming and business trying to upsize to the bigger units, LR1s have also been a lot busier, but so far rates have struggled to really increase. 55,000mt naphtha AGulf/Japan hasn't really been tested yet but will next be around ws 70. 65,000mt jet AGulf/UKCont has looked like it will firm but there are still some Owners willing at the last done low levels so $1.20 million is still there. But this will move next week to more like $1.30 million we feel. LR2s have got busier but the backlog of tonnage is a real impediment to progress. But, with a number of stems hitting the market at the end of the week ambitions from Owners are growing. 75,000mt naphtha AGulf/Japan was once again done at ws 60, but others are now holding for ws 70. 90,000mt jet AGulf/UKCont has seen the lowest of the year done this very morning but should now see an improvement, with tonnage clearing. Overall LR activity is due to be higher next week as MRs give up some of their volume.

Mediterranean

A week to forget for Handy Owners with negative sentiment seen throughout. At the time of writing, rates are just about holding the three-digit mark at 30 x ws 100 but, with rumours circulating of 30 x ws 95, it would not be surprising for two-digits to become the norm come Monday. Supply and demand has been the simple but brutal factor this week with simply not enough cargoes to chip away at the well stocked tonnage list. Black Sea rates need a negative test but expect this to be closer to the 30 x ws 110 mark now. Expect Monday to bring more pressure with further losses on the horizon.

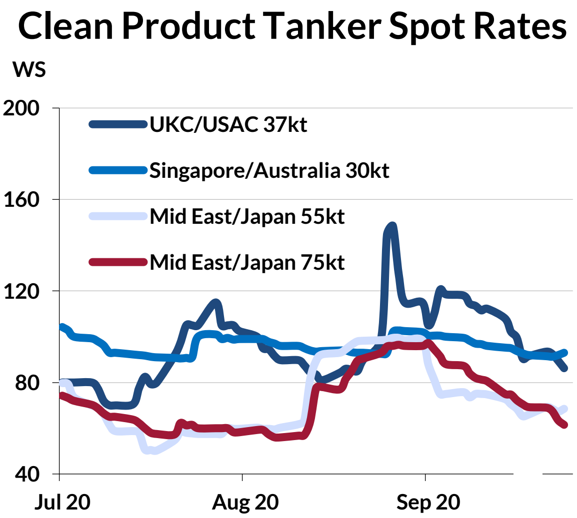
On the MRs in the Mediterranean, many Owners walked into the week with a spring in their step, as rate improvement was seen on the Friday and the promise of a tighter LR1 sector was on many minds. This unfortunately though never materialised as these pipe dreams remained just that and enquiry levels remained subdued throughout. Charterers in the UKCont managed to clip out some more distressed tonnage, which in tow knocked belief out of Owners and rates slipped down to 37 x ws 85 for transatlantic come Friday and ws 95-100 for WAF. Little remains outstanding and, with the lack of East moves, Owners in the Med will continue to be led by the UKCont sector, with hopes of holding onto these present levels the goal for today.

UK Continent

The abundance of tonnage has once again taken its toll on this MR market as demand issues continue to hamper the chances of a positive Q4. There had been some hope that WAF would contribute to the cause this week in the absence of too many LR1's, but in keeping with the current mood of this market, owners were left disappointed once again. It was largely left up to TC2 to once more carry the can and, with the length of that list, any early optimism was soon replaced by the reality of the situation. Rates have steadily declined throughout, and the week ends with TC2 at 37 x ws 85 and WAF hovering around 37 x ws 95-100. We may see a slight change in tonnage supply over the next week or two with USAC vessels likely to head to the USG now, which may bring some relief going forwards, but for now, next week and the shorter term in general, it continues to look challenging for the Owners.

Once Monday morning Handy tonnage lists were drawn up and it revealed a healthy amount of prompt units. However, improved volumes were seen across the region and, with a few vessels being tied up in storage deals, freight rose to 30 x ws 105 for Baltic/UKCont. Prompt X-UKCont cargoes also proved trickier to cover for certain grades and requirements. Although as the week draws to a close and tonnage starts being recycled for the next natural fixing window, Baltic liftings close at 30 x ws 100 and XUKCont around the 30 x ws 90-92.5 mark but in need of a fresh test.

With very little to get excited about on the MRs /Handies, the Flexis were always going to have a quiet week. A few vessels have been fixed away from the front end of the list with COAs and the odd private cargo giving employment, but this still isn't enough to make a dent in tonnage supply. Rates remain Handy driven with 22 x ws 120 seeming to be a fair reflection of where a X-UKCont should land.



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Dirty Products

Handy

This week the NWE sector started off at a snail's pace, with little fresh enquiry at the beginning of the week. Come Wednesday afternoon the real story of the week started to unfold as Charterers still had cargoes to cover on relatively early dates. With multiple cargoes entering the market at the same time, Owners managed to roll up their sleeves and for the first time in a while managed to gain ground. This resulted in the equivalent of ws 115 on subjects, at the time of writing this report. Next week we expect some tonnage replenishment, however, not as much as Charterers may like if further early October Baltic stems still need to be covered.

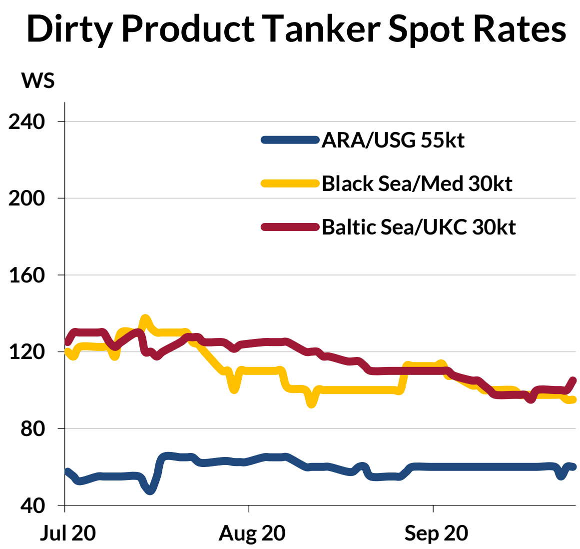
The Mediterranean kept a little more of a steady stream of activity than has been seen of late, however, a turnaround in Owners fortunes still remains someway off in the distance. As the delicate balance between supply and demand has remained flat for the majority of the week. With that said, tonnage has thinned down somewhat and, with some bad weather blowing through the region over this weekend, replenishment come Monday may be limited. All eyes will be on the fresh tonnage lists that are published early next week as this will be key as to where opportunity lies.

MR

Once again, we report of a mixed bag of fortunes in the MR market, with those in the North seeing the bright lights of better things to come and those in the Med trickling along behind. Marketed tonnage on the Continent has seen both full and part cargo opportunities offering better levels than we have seen of late. Owners, boosted by the activity of the last two days, will be coming in Monday with the bit between their teeth and hopes that the sun is slowly setting on the summer market. In the Med, however, idle days continue to chip away at those with prompt units and as there is little on offer on the Handies, there is a feeling levels across the region are still there to tested - Charterer sympathy is all that is keeping levels steady for now.

Panamax

As the week unfolded and Panamaxes started to clear down, the picture became clearer that there was an uptick in demand but the chances of any uptick in rates continued to be denied where the Aframaxes trade at such low levels. That said, it is true that this is not a new trait of the market as surrounding sectors have been suppressed for some time, however, if this sector remains self-supportive as it is currently, then as soon as the Aframaxes pick up - we will have lift off!



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Dirty Tanker Spot Market Developments - Spot Worldscale

			wk on wk change	Sep 24th	Sep 17th	Last Month*	FFA Q3
TD3C	VLCC	AG-China	**-7**	29	35	30	28
TD20	Suezmax	WAF-UKC	**-3**	33	35	43	35
TD7	Aframax	N.Sea-UKC	**-1**	73	74	79	76

Dirty Tanker Spot Market Developments - $/day tce (a)

			wk on wk change	Sep 24th	Sep 17th	Last Month*	FFA Q3
TD3C	VLCC	AG-China	**-8,250**	12,750	21,000	13,000	11,250
TD20	Suezmax	WAF-UKC	**-1,500**	5,750	7,250	11,000	7,000
TD7	Aframax	N.Sea-UKC	**+500**	2,250	1,750	3,500	4,500

Clean Tanker Spot Market Developments - Spot Worldscale

			wk on wk change	Sep 24th	Sep 17th	Last Month*	FFA Q3
TC1	LR2	AG-Japan	**-9**	61	70	96	
TC2	MR - west	UKC-USAC	**-4**	86	91	127	88
TC5	LR1	AG-Japan	**+3**	68	65	99	69
TC7	MR - east	Singapore-EC Aus	**+0**	93	93	103	98

Clean Tanker Spot Market Developments - $/day tce (a)

			wk on wk change	Sep 24th	Sep 17th	Last Month*	FFA Q3
TC1	LR2	AG-Japan	**-3,250**	9,000	12,250	21,000	
TC2	MR - west	UKC-USAC	**-500**	7,250	7,750	14,750	7,500
TC5	LR1	AG-Japan	**+750**	7,250	6,500	15,000	7,250
TC7	MR - east	Singapore-EC Aus	**+250**	6,250	6,000	7,750	7,000

(a) based on round voyage economics at 'market' speed

ClearView Bunker Price (Rotterdam VLSFO)	**-4**	289	293	314
ClearView Bunker Price (Fujairah VLSFO)	**+15**	340	325	335
ClearView Bunker Price (Singapore VLSFO)	**+0**	326	326	345
ClearView Bunker Price (Rotterdam LSMGO)	**-10**	309	319	359

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