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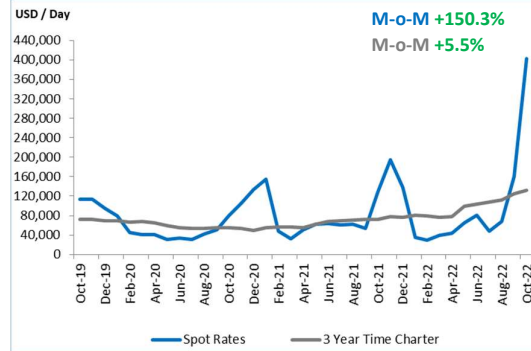
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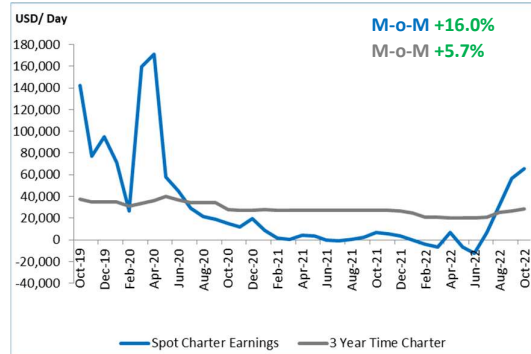
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### LNG Carrier



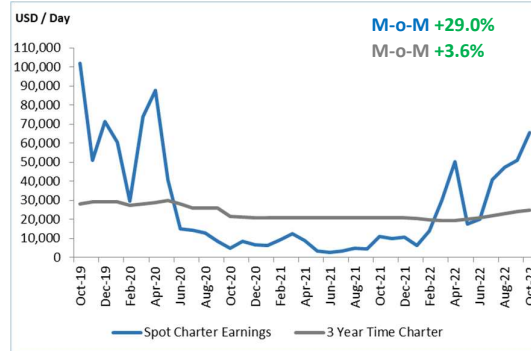
LNG carrier spot rates surged further into record territory of above USD400,000 per day. The current TTF gas price contango encouraged slow-steaming and the lack of European regasification capacity caused an increase in floating storage activities, further squeezed global tonnage supply.

### VLCC



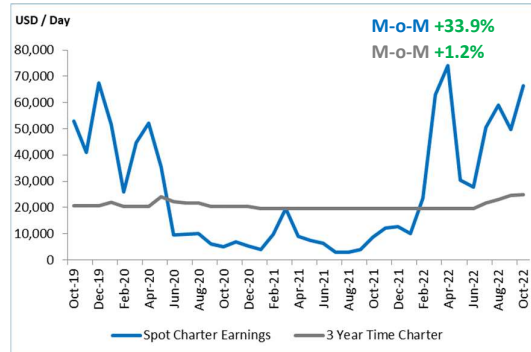
VLCC market conditions continued to firm in October mainly driven by increased activities from the Middle East to East Asia contributed by higher purchase of oil by China and South Korea. Activities in the Atlantic is slightly subdued due to less demand from Europe.

### Suezmax



Similar to VLCC market, Suezmax market condition also continued to strengthen but it is driven by the increased activities in the Atlantic driven by exports from West Africa and higher activities in Middle East.

### Aframax



Accordingly, higher activities in the Mediterranean/Black Sea and UK Coast/Baltic Sea contributed to the surge of Aframax spot rate.

## Industry News Highlights

### GAS CARRIERS

#### Wave of LNG tankers is overwhelming Europe in energy crisis and hitting natural gas prices

*CNBC*

The U.S. is exporting more LNG to Europe amid Russia's war in Ukraine and cuts made to natural gas supplies ahead of winter, but there has been a build-up of LNG vessels waiting to unload at ports as European infrastructure unable to handle the increased LNG shipments. The underlying issue is lack of European regasification capacity due to a shortage of regasification plants and pipelines connecting countries that have regasification facilities. As a result, the amount of LNG on the water (floating storage) increases and in turn, drives down the price of natural gas. European gas prices had soared above EUR340 (USD332.6) per megawatt hour in late August, but dipped below USD100 at end of October, for the first time since Russia cut supplies. There are about sixty LNG tankers have been idling or slowly sailing around northwest Europe, the Mediterranean, and the Iberian Peninsula, according to MarineTraffic. These delays postpone the tankers' return to the Gulf Coast of the United States to pick up the next load and as a result, natural gas inventories rise more than the market expected.

#### Record rates, floating storage and contango trades for LNG shipping amid discharge delays

*Lloyd's List*

As the energy crisis engulfing the European Union, LNG shipping spot rates have soared past \$461,000 per day and are setting fresh records at each assessment, particularly on the US Gulf-to-Europe and other routes. These rates have risen five-fold since the beginning of October, reflecting extremely tight availability of vessels on the spot market. There are plenty of laden LNG carriers are at anchor mostly around Europe as traders and oil companies secured tonnage under longer-term arrangements in order to ensure that they have the capacity needed over winter. Another reason is that the price for natural gas for delivery in future months in Europe is much higher than the current month, reflecting market anticipation of a demand surge over winter. Also influencing cargo flows towards year end will be natural gas prices in Asia, currently lower than in Europe. All these has encouraged traders to keep LNG cargoes in floating storage for later sale at a higher price. The EU and the UK are forecasted to raise LNG imports by more than 45% over 2022 to boost depleted storage inventories and reduce reliance on supplies of pipelined gas from Russia, which previously met 40% of consumption.

#### Orders for LNG carriers surge on back of demand

*Hellenic Shipping News*

With burgeoning demand for LNG, the new orders for LNG carriers have recorded significant jump recently. At the start of October, the order book of LNG carriers stood at a record high, according to data provided by market tracker Clarksons Research. Currently, the delivery date of LNG carriers from global mainstream shipbuilders has been scheduled into 2027, adding that the demand in the LNG shipping market will continue to exceed supply for some time. Meanwhile, the tight market has also caused a price spike of LNG carriers. According to the economic research center of China State Shipbuilding Corp Ltd., in early October, a new LNG carrier was priced at \$245 million, the highest level since 2014, and up 14.5 percent from early this year.

## OIL TANKERS

### Tanker rates continued to pick up in all classes

[OPEC](#)

VLCC rates Very Large Crude Carrier (VLCC) rates continued moving higher in October, with gains seen on all major routes. Spot VLCC rates on the Middle East-to-East route rose 8%, while on the West Africa-to-East route, they gained 10%. Rates for midsize Suezmax and Aframax routes were broadly higher. Suezmax rates on the US Gulf Coast (USGC)-to-Europe route rose 16%, while Aframax spot rates on the Cross-Med route increased by 30%. All monitored routes were well above levels seen in the same month last year. Clean rates saw diverging trends, with losses East of Suez outweighing gains West of Suez. On the Middle East-to-East route, clean spot rates fell 38% m-o-m in October.

### Tanker spot market moving away from near term negative fundamentals

[Hellenic Shipping News](#)

With demand for crude oil moving downwards, slower global economic growth and 2 million barrels per day of production cut by OPEC+, one would expect that the tanker rates would be heading lower. Yet, spot earnings in the crude tanker market are spiking and strong returns are seen for clean tonnage. There is a clear disconnect between the economic prospects and looming reduction in OPEC+ production levels, according to shipbroker Gibson. Apparently, changes in trade flows are the main driver behind the current robust tanker earnings. A big chunk of tonne miles demand growth so far this year has been due to Russian crude travelling further off course. Further increase in tonne miles into Europe is also expected to take place once the EU ban on imports of Russian crude and products comes into force.

### VLCC rates surge 19% in a day to reach 28-month high

[TradeWinds](#)

VLCC spot rates rocketed in October as the Baltic Exchange's average of earnings in the sector reached its highest level in 28 years. New York shipbroker Poten & Partners reported that the average time-charter equivalent earnings (TCE) for a 270,000-dwt VLCC with no scrubber jumped 19% mid-Oct for a journey from the Middle East to Asia. The rate gains are expected to continue. According to Clarksons Securities, brokers note that tonnage lists are light for all natural fixing windows and the owner sentiment is extremely bullish, and thus expects rates to continue to rise. But VLCCs were not the only rising tanker segment. "All segments are up!" trumpeted Poten & Partners on Twitter as suezmax, aframax and panamax crude tankers, as well as MR, LR1 and LR2 product tankers also saw gains on benchmark routes.

## OFFSHORE OIL AND GAS

### Adnoc eyes huge production boost by 2025

[Upstream Online](#)

Abu Dhabi National Oil Company (Adnoc) is advancing multiple offshore oil and gas developments as it aims to produce 5 million barrels per day of oil by the middle of the decade and swiftly scale up its gas production. Adnoc has unveiled a \$127 billion capital expenditure plan for 2022-2026 as it embarks on multiple offshore oil and gas expansion projects. The emirati giant is believed to have fast-tracked expansion plans to meet the 2025 target five years earlier than the previous target of 2030, led by improved market fundamentals and concerns regarding limited spare capacity of the Middle East's leading producers. With capacity of more than 4 million bpd, the company accounts for almost all of the United Arab Emirates' oil productions. Currently, it is producing closer to 3.4 million bpd, in line with output targets set by the wider Opec+ group. In recent months, Adnoc has increased its upstream tendering activity as it aims to expand the production profiles at some of its largest offshore oilfields, tap sour gas and gas cap reserves, and exploit unconventional resources. The company will likely offer multiple engineering, procurement and construction deals in coming months in line with its expansion plans. Adnoc said this year that Abu Dhabi's estimated unconventional gas resources stand at almost 160 trillion cubic feet. The company is also gearing up to tap its estimated 22 billion barrels of unconventional oil resources and believes its production potential is comparable to the most prolific North American shale plays.

## OFFSHORE OIL AND GAS

### Petrobras gauges market appetite for two more giant floaters

[Upstream Online](#)

Brazilian state-controlled oil company Petrobras has issued a request for information (RFI) to gauge the market interest in forthcoming tenders for the Sepia-2 and Atapu-2 floating production, storage and offloading (FPSO) vessels. The tender for the two units is expected to be issued in the first quarter of 2023, or possibly before the year-end. Each unit will feature topsides modules able to process 225,000 barrels per day of oil and 10 million cubic metres per day of natural gas. The contracting strategy, under which Petrobras will own and operate both units, is expected to attract some Asian shipyards. Petrobras intends to sign the contracts for the Sepia-2 and Atapu-2 FPSOs by the fourth quarter of 2023. The winning bidders will have up to 47 months to build and deliver the units, suggesting first oil is earmarked for late 2027. The planned contest for the two Petrobras-owned units is expected to follow closely on the heels of tenders for three chartered units and ahead of another planned contest for four more chartered units, expected in the second half of 2024, which brings the total number to 9 units.

## SHIPPING

### Rules on ship carbon intensity and rating system enter into force

[IMO](#)

Amendments to the International Convention for the Prevention of Pollution from Ships (MARPOL) Annex VI enter into force on 1 November 2022. From 1 January 2023 it will be mandatory for all ships to calculate their attained Energy Efficiency Existing Ship Index (EEXI) to measure their energy efficiency and to initiate the collection of data for the reporting of their annual operational carbon intensity indicator (CII) and CII rating. This means that the first annual reporting will be completed in 2023, with initial CII ratings given in 2024. The introduction of EEXI and CII measures falls under the Strategy's short-term measures which commit IMO to a target of reducing carbon intensity of international shipping by 40% by 2030, compared to 2008. Meanwhile, IMO Member States are currently actively engaged in the process of revising the Initial IMO Strategy on Reduction of GHG Emissions from Ships with a view to adoption of a revised Strategy in mid-2023. Member States are also engaged in developing a basket of candidate mid-term measures, including technical and economic elements, that will set global shipping on an ambitious path to phasing out GHG emissions towards the middle of this century.

### IEA: Ammonia key fuel for shipping to hit climate change goals

[TradeWinds](#)

Oil will make up just 15% of liquid fuels used to power the shipping fleet by 2050 if the maritime sector is to play its part in limiting man-made temperature rises to 1.5C. According to International Energy Agency (IEA) World Energy Outlook 2022, shipping would have to undergo a major transformation from heavy reliance on oil to a position in which ammonia meets about 45% of demand for shipping fuel, with bioenergy and hydrogen hitting a further 20% each. On the other hand, hydrogen would be focused on short to mid-range operations while electricity will play a minor role on meeting demand from small ships and short distance cruise ferries. Oil used to power the shipping industry will be cut by a quarter in the 20 years to 2050, if the sector sticks to its current emissions-cutting targets set by the International Maritime Organisation (IMO), the IEA said. However, the IEA said current policies fell 'far short of what is needed' to keep the rise in global temperatures below the key threshold of 1.5C. According to IEA's modelling, shipping's oil use is expected to increase to 2030 as trade increases owing to a 35% growth of the global economy. Therefore, the predicted reduction under the IMO plans would still leave the fleet's 2050 oil consumption at around current levels of 5 million barrels per day.

## SHIPPING

### Up to 800,000 seafarers will need alternative fuel training by mid-2030s, says taskforce

*TradeWinds*

Up to 800,000 seafarers will require training by the mid-2030s to handle alternative fuels that can reach shipping's decarbonisation goals, according to plans launched at COP27. The Maritime Just Transition Task Force, involving the International Chamber of Shipping (ICS), International Transport Workers' Federation (ITF) and UN Global Compact, has set out a 10-point action plan highlighting the additional training needed to handle new green fuels up to 2050. It stresses an immediate need to start setting up the training infrastructure to ensure hundreds of thousands of the world's nearly two million seafarers are upskilled. It also recommended strengthening global training standards, ensuring a 'health and safety first' approach and establishing advisory national maritime skills councils.

## SHIPYARD

### South Korean yards hit by welder shortages as fake document scandal exposed

*TradeWinds*

Plans for South Korean shipyards to hire Vietnamese welders to ease labour shortages have been delayed after recruitment agencies were found to have supplied fake documentation. Some 1,100 Vietnamese welders were denied entry into South Korea after employment documents were found to be forged and workers' skills did not qualify them for work permits, according to local news agencies. South Korea requires a minimum of two years of welding experience to be employed under the E-7 work visa. South Korean shipbuilders have been facing a serious shortfall of workers since the post-Covid-19 resumption of newbuilding contracting in the middle of last year. Yards are sitting on packed orderbooks and some are said to be behind schedule by up to three weeks. Local news agencies reported that the South Korean government has set up a task force to tackle the labour shortage problems at shipyards. The country is looking to bring in 110,000 foreign workers this year — the largest number ever for welding and painting jobs. They are also sourcing workers from Thailand, Sri Lanka and Indonesia.

## MISC Announcements

### Award of contracts

3 Nov 2022 - The Board of Directors of MISC wishes to announce that the Company, through a consortium with Nippon Yusen Kabushiki Kaisha (NYK), Kawasaki Kisen Kaisha, Ltd. (K-Line) and China LNG Shipping (Holdings) Limited (CLNG), has been awarded long term Time Charter Parties (TCPs) by QatarEnergy for five (5) 174,000 cubic meter (m<sup>3</sup>) newbuild LNG Carriers (LNGCs) to be built by Hudong-Zhonghua Shipbuilding (Group) Co., Ltd. Pursuant to the TCPs, the LNGCs will be employed by QatarEnergy under long-term charters starting from 2025 onwards.

## FREIGHT MARKET

USD/Day	Sep 2022 Avg	Oct 2022 Avg	1-Month +/-%	2022 Avg	2021 Avg	2020 Avg
<b>LNG</b>						
<b>Modern Tonnage</b> (155k - 165k cbm, DF/TF diesel electric)						
Spot Rates	161,050	403,125	150.3%	97,577	87,375	59,527
1 Year Time Charter	175,150	192,563	9.9%	123,789	78,173	55,323
3 Year Time Charter	125,150	132,000	5.5%	99,708	66,033	58,765
<b>Steam Engine</b> (145k – 155k cbm, steam turbine)						
Spot Rates	65,750	238,125	262.2%	55,258	63,502	41,385
1 Year Time Charter	73,450	100,688	37.1%	65,356	46,898	35,435
3 Year Time Charter	55,850	59,750	7.0%	50,145	37,108	35,506
<b>PETROLEUM</b>						
<b>VLCC</b>						
Spot Charter Earnings <sup>1</sup>	56,466	65,506	16.0%	13,854	3,076	53,995
1 Year Time Charter	37,350	41,625	11.4%	21,848	20,949	39,607
3 Year Time Charter	26,850	28,375	5.7%	22,995	27,106	33,220
<b>Suezmax</b>						
Spot Charter Earnings <sup>1</sup>	50,831	65,575	29.0%	34,220	7,251	30,197
1 Year Time Charter	31,100	33,250	6.9%	22,871	16,899	27,799
3 Year Time Charter	24,000	24,875	3.6%	21,339	20,723	26,066
<b>Aframax</b>						
Spot Charter Earnings <sup>1</sup>	49,693	66,522	33.9%	45,480	8,270	21,887
1 Year Time Charter	32,850	32,500	-1.1%	22,164	15,623	22,192
3 Year Time Charter	24,700	25,000	1.2%	21,140	19,513	21,239
<b>MR2</b>						
1 Year Time Charter	24,050	27,500	14.3%	18,768	12,421	14,389
<b>CHEMICAL</b>						
<b>Spot Rates (USD/Tonne)</b>						
Rotterdam - Far East	131.6	130.0	-1.2%	132.2	121.0	112.0
Rotterdam-Taiwan	93.6	92.0	-1.7%	93.5	87.1	86.8
Gulf-Far East	82.8	85.8	3.6%	67.4	42.0	45.0
Singapore-Rotterdam	216.6	227.0	4.8%	171.9	93.9	72.3
<b>Time Charter (USD/Day)</b>						
1 Year Time Charter 19,000 dwt	16,000	16,750	4.7%	14,513	13,021	13,479
1 Year Time Charter 37,000 dwt	21,500	21,875	1.7%	16,086	10,806	12,922

Notes: <sup>1</sup> Spot Charter Earnings are calculated by taking the total revenue net of commission, deducting bunker costs based on latest prices at representative regional bunker ports, estimated port costs (after currency adjustments) and then dividing the result by the number of voyage days.

## ASSET VALUE

USD 'Million	Sep 2022 Avg		Oct 2022 Avg		1-Month +/-		2022 Avg		2021 Avg		2020 Avg	
LNG												
Newbuild (174k cbm, MEGI)	244.0		248.0		1.6%		230.2		195.2		186.0	
VLCC												
Newbuild	120.0		120.0		-		117.4		99.5		88.4	
5-Year	88.0		89.0		1.1%		78.7		69.4		70.0	
Suezmax												
Newbuild	80.0		80.0		-		78.6		67.2		58.3	
5-Year	62.0		62.0		-		54.2		46.8		48.5	
Aframax												
Newbuild	61.5		61.5		-		61.0		53.7		47.8	
5-Year	57.0		57.0		-		50.1		38.8		37.5	
CHEMICAL												
IMO II 37,000 dwt	S/S <sup>2</sup>		C <sup>3</sup>	S/S	C	S/S	C	S/S	C	S/S	C	S/S
Newbuild Prices	67.0		43.0	66.0	41.5	-1.5%	-3.5%	63.5	40.3	52.5	33.8	47.8
Secondhand Prices - 10 years	41.5		23.0	43.5	23.0	4.8%	-	38.8	18.4	33.8	14.4	33.0

## FLEET DEVELOPMENT

No. of Vessels	Current Fleet	2022	2023	2024	2025+	Total Orderbook	Orderbook as % of Fleet
<b>LNG</b>							
LNG Carriers <sup>4</sup>	629	8	46	77	125	256	41%
<b>PETROLEUM</b>							
VLCC	878	5	23	1	1	30	3%
Suezmax	654	1	9	4	0	14	2%
Aframax	678	6	46	23	14	89	13%

## DELIVERIES & DEMOLITIONS

Deliveries	Sep-22	Oct-22	YTD	Demolitions	Sep-22	Oct-22	YTD
<b>LNG</b>							
LNG Carriers	3	3	22	LNG Carriers	0	0	1
<b>PETROLEUM</b>							
VLCC	3	3	36	VLCC	0	1	4
Suezmax	1	1	41	Suezmax	1	0	7
Aframax	1	1	19	Aframax	1	0	15

Sources: Affinity, Clarksons, Drewry and Woodmac.

Notes: <sup>2</sup> Stainless Steel. <sup>3</sup> Coated. <sup>4</sup> LNG carrier fleet total updated quarterly

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