

February 2017

moving energy to build a better world



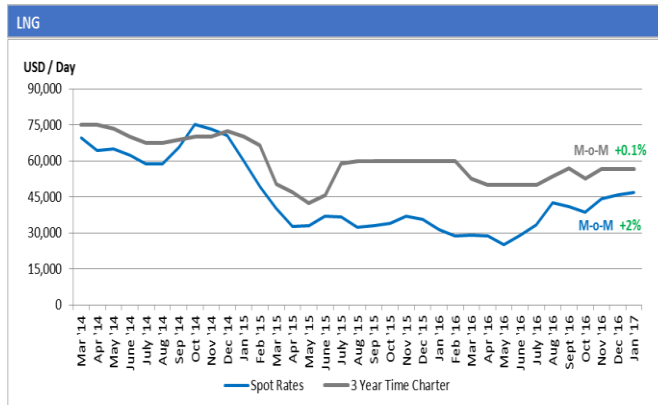
MISC Financial Calendar

1Q FY2017 Quarterly Results	Friday, 5 May 2017
2Q FY2017 Quarterly Results	Wednesday, 9 August 2017
3Q FY2017 Quarterly Results	Friday, 3 November 2017

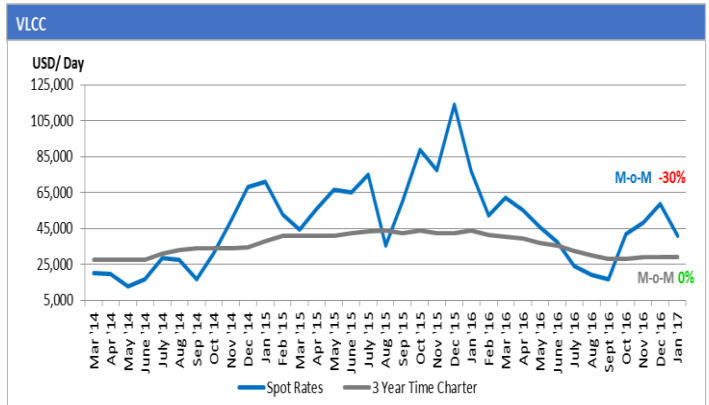
MISC Announcements

Delivery of second new LNG carrier, Seri Cenderawasih

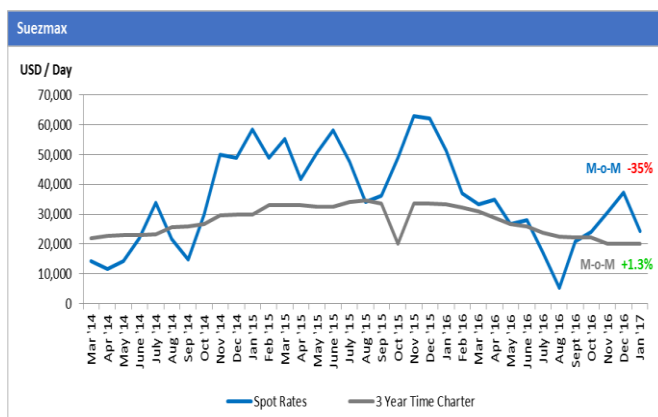
FREIGHT MARKET



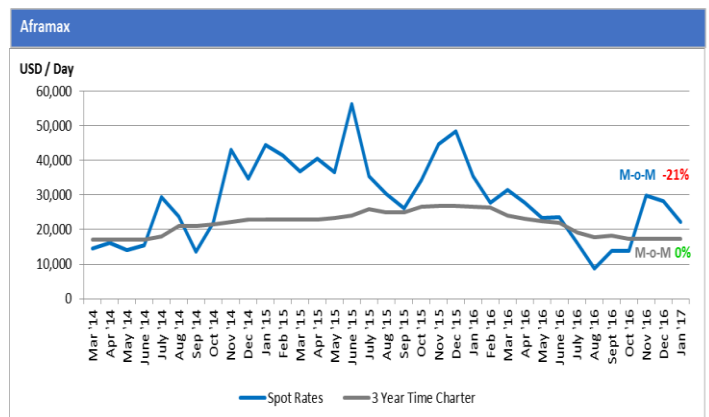
- January spot rates firm due to seasonal demand for LNG.
- Vessel availability in West and East remains tight - keeping charter rates stable.
- Gorgon LNG Train 1 and Angola LNG resumed operations and ramping up slowly.



- Rates weakened due to demand slack from the CNY holidays.
- Higher activity levels noted in West Africa however with little impact to rates.
- January VLCC fixtures (168 fixtures) fell 2% from December (172 fixtures).
- 12 new deliveries were recorded in January alone with an additional 26 to be delivered within the year.



- Competition from VLCC segment has displaced demand for Suezmax, leading to a decrease in rates.
- Disruption and loading delays on Nigerian exports have also led to declines in export volumes for the Suezmax segment.
- January deliveries totalled 6, with 37 further deliveries expected within the year.



- Spot rates fell due to lower demand exacerbated by the oversupply of vessels.
- Production delays in Libya reduced export volumes from North Africa.
- In January, 9 newbuilds were delivered which added further pressure on rates. 17 further deliveries expected within the year.

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FREIGHT MARKET

USD/Day	Dec 2016 Avg	Jan 2017 Avg	1-Month +/-%	2016 Avg	2015 Avg
LNG					
Spot Rates	46,000	46,875	2%	34,796	38,430
1 Year Time Charter	34,700	38,750	12%	32,639	36,119
3 Year Time Charter	56,700	56,750	0.1%	54,079	56,750
PETROLEUM					
VLCC					
Spot Rates	58,559	40,839	-30%	44,900	67,279
1 Year Time Charter	30,125	30,563	1%	38,352	45,805
3 Year Time Charter	29,000	29,000	-	34,496	41,869
Suezmax					
Spot Rates	37,375	24,270	-35%	28,897	50,411
1 Year Time Charter	22,000	22,000	-	27,381	35,024
3 Year Time Charter	19,938	20,250	1%	25,780	33,063
Aframax					
Spot Rates	28,127	22,263	-21%	23,368	39,614
1 Year Time Charter	17,188	17,438	1%	22,334	26,577
3 Year Time Charter	17,250	17,250	-	20,957	24,619
MR2					
1 Year Time Charter	12,525	12,875	3%	15,078	17,754
CHEMICAL					
Spot Rates (USD/Tonne)					
Rotterdam - Far East	106	106	-	107	105
Rotterdam-Taiwan	79	79	-	80	85
Gulf-Far East	34	35	2%	38	46
Singapore-Rotterdam	73	72	-1%	76	91
Time Charter (USD/Day)					
1 Year Time Charter 19,000 dwt	14,000	13,500	-4%	15,513	15,233
1 Year Time Charter 37,000 dwt	11,750	11,688	-1%	13,995	15,877

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ASSET VALUE

USD 'Million	Dec 2016 Avg		Jan 2017 Avg		1-Month +/-%		2016 Avg		2015 Avg	
LNG										
Newbuild (DFDE, Atlantic Max)	192		189		-2%		196		200	
PETROLEUM										
VLCC										
Newbuild	85		85		-		89		96	
5-Year	60		60		-		69		81	
Suezmax					-					
Newbuild	55		55		-		58		64	
5-Year	40		41		-2%		51		60	
Aframax					-					
Newbuild	45		45		-		48		53	
5-Year	29		29		-		35		46	
CHEMICAL										
IMO II 37,000 dwt	S/S	Coated	S/S	Coated	S/S	Coated	S/S	Coated	S/S	Coated
Newbuild Prices	48	29	48	29	-	-	50	30	59	31
Secondhand Prices - 10 years	34	16	34	16	-	-	36	17	37	16

FLEET DEVELOPMENT

No. of Vessels	Current Fleet	2017	2018	2019+	2020+	Total Orderbook	Orderbook as % of Fleet
LNG							
LNG Carriers	452	57	42	18	5	122	27%
PETROLEUM							
VLCC	643	38	38	0	0	76	12%
Suezmax	509	55	15	0	0	70	14%
Aframax	695	42	36	2	1	81	12%

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INDUSTRY HEADLINES**LNG: Angola LNG back online**

Chevron-led 5.2 million tons per year Angola LNG plant in Soyo has restarted production following the latest shutdown during late December. The December shutdown was due to engineers performing “minor intervention”. “I confirm that Angola LNG’s plant has restarted production,” Angola LNG spokeswoman said in an emailed statement to LNG World News. To remind, the \$10 billion Angola LNG project, restarted operations in May last year after it was closed for more than two years due to a major rupture on a flare line that occurred in April 2014. At the end of October, Chevron chief financial officer Pat Yarrington, told that such short duration shutdowns are often experienced as facilities are ramped up to their full capacity. Angola LNG is a joint venture between Sonangol (22.8%), Chevron (36.4%), BP (13.6%), Eni (13.6%), and Total (13.6%).

Source: LNG World News

LNG: Chevron resumes production at Gorgon LNG Train 1

US-based energy giant Chevron resumed production at the first liquefaction train of its US\$54 billion Gorgon LNG project on Barrow Island in Western Australia. “Gorgon LNG Train 1 operation resumed earlier this week,” Chevron’s spokesperson told LNG World News in an emailed statement. According to the statement, production was halted in late November 2016 to assess and address some performance variations. Production at Chevron’s Gorgon LNG project has been hit several times last year since it shipped its first cargo of the chilled fuel on March 21. “Train 2 production was unaffected and we continued to produce LNG and load cargos during this time,” the statement reads. Once in full production, the three-train plant on Barrow Island is expected to have a capacity of 15.6 million mt/year. The Gorgon LNG project is operated by Chevron that owns a 47.3 percent stake, while other shareholders are ExxonMobil (25 percent), Shell (25 percent), Osaka Gas (1.25 percent), Tokyo Gas (1 percent) and Chubu Electric Power (0.417 percent).

Source: LNG World News

LNG: LNG tankers' spot rates near two-year high

Spot rates of liquefied natural gas carriers have risen to their highest in nearly two years after the US boosted exports to Asia during the cold winter. But US flows to Asia might slow, with Chevron’s Gorgon export project in Australia resuming operations. But the market outlook remains rosy, as overall tonne-miles are set to increase with several export projects back online and import projects commissioned in recent weeks. Clarkson’s latest assessment pegged the spot charter rate for a 160,000 cu m LNG tanker at \$47,000 per day, up 9.3% on month and the highest since early 2015. As of last Wednesday, Fearnleys estimated the rate for a similar-size vessel at \$52,000 per day in the east-of-Suez market and \$38,000 west of Suez. The strong momentum came as winter demand in northeast Asia — the world’s largest LNG importing region — picked up, and Chevron shut its Gorgon plant. The outage has pushed up Asia’s spot LNG price in comparison with the US benchmark Henry Hub quote, prompting Asian firms to increase liftings from the US. Overall, initial data from Lloyd’s List Intelligence shows at least seven US liftings in December and four in January. The figures include cargo flows to Asia as well as other regions. While the US-Asia long-haul trade has soaked up some spot tonnage, analysts at Stifel expected vessel supply to tighten further, with several import and export projects coming onstream recently. The Gorgon project resumed operation, while the Angola LNG project also came back online earlier this month, according to media reports, and Stifel said the latest developments “should add incremental cargoes to the market, causing further tightening”. Lloyd’s List has sought separate confirmation from Chevron, who is also the largest shareholder of Angola project. On the demand side, EDF announced the start-up of an import terminal with regasification capacity of 13bn cu m per annum in Dunkirk, France on January 1, hailed to be the second largest facility of its kind in mainland Europe. Turkey has also welcomed its first floating LNG import terminal, after Engie commissioned the 145,000 cu m *Neptune* in late December. The floating storage regasification unit is 50% owned by Höegh LNG Partners, 48.5% by Mitsui OSK Lines and 1.5% by Tokyo LNG Tanker. For the longer term, much of the market focus will remain on the US exports, which are expected to rise rapidly over the next few years. Based on the latest forecast of the Energy Information Administration, US LNG exports are to increase to 530bn cu ft (15bn cu m) this year from 170bn cu ft in 2016, and break the 1trn mark in 2018.

Source: Lloyd’s List

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INDUSTRY HEADLINES**PETROLEUM: Suezmax and Aframax markets begin year on quiet note**

Suezmax and aframax markets have kicked off on a quiet note this year, with brokerages reporting little chartering activity so far this week. Suezmax rates had ended 2016 on a relatively stronger note, helped by winter demand and stronger supplies from oil producers. A noticeable trend for suezmax and aframax tanker rates at the start of 2017 is the divergence in the Worldscale rate assessment and time charter equivalent rates. This is because bunker fuel prices for 2016 used to calculate the base rate were much lower during the year than they were in 2015. As a result, the Worldscale flat rates recalculated for 2017 are roughly 20% to 30% lower. "When we assessed the Baltic indices year-to-date, we did it on the basis of the 2017 flat rate, which is significantly lower than the 2016 one," a Singapore-based ship broker said. In order to account for the lower flat rate, the new Worldscale rate assessment for 2017 will have to be higher to maintain the same level of time charter equivalent. So, for example, the benchmark TD20 from West Africa to Continent rose to W120.66 on January 3, from W104.04 on December 23, an increase of 16.62 points on the Baltic Exchange. However, the time charter equivalent dropped to \$27,704 per day from \$33,771 per day for the same period on the same route. Market participants will need a couple of days to adjust to the new pricing mechanism, which is an annual affair. The suezmax and aframax markets are also supported by the lack of excess tonnage, as the market has been balanced by steady volumes emerging from the Middle East and West Africa, persistent Turkish Strait delays of up to six days both ways, and winter-related disruptions at north Asian ports.

Source: Lloyd's List

CHEMICAL: Too many ships, the issue for chemical shipping

The problem seems to never go away for chemical shipping, though there are years when it is only a minor or secondary issue. But 2017 will probably not be one of those years. Most forecasts put the problem of too many ships as the central issue for that sector, not only in the coming year but in the next few after that. Too many ships chasing too few cargoes has plagued chemical shipping off and on for years, and this dilemma is expected to continue. The Chemical Forecaster, published by global shipping consultancy Drewry, said recently that rising fleet growth and softening seaborne trade will depress chemical shipping freight rates over the next few years. The problem surfaced quite visibly in 2016. Freight rates on the two major chemical shipping routes in the Americas – the transatlantic eastbound and the US Gulf to Asia trade lane – declined by 9% during the year. The Drewry report noted a reduction in China's imports of certain products during 2016, not only because of declining demand but also from a surge in domestic production. With new projects there slated to begin operations in the next few years, demand for some chemical imports will decline further, the report said. In the long term, this will push down on freight rates to Asia. "While freight rates on some routes are forecast to reduce substantially, other routes may see rollovers or minor increases," said Hu Qing, Drewry's lead analyst for chemical shipping, in the report. Qing said shipowners' earnings will remain depressed for the next two years, especially those covered mainly by contract business. Additionally, Qing said time-charter rates in the smaller size categories should remain stable in the next two years, but rates for the larger-sized chemical tankers are expected to decline steeply "because of surplus supply and intense competition".

Source: ICIS (By Lane Kelley)

OIL & GAS: Douglas-Westwood: Expectations for 2017

The past year has undoubtedly been one of the toughest for the oil & gas industry in recent memory. As we enter 2017 we consider three key themes that could shape the industry over the year ahead. A North America-Led OFS Recovery: OFS markets are expected to bounce back in 2017 and we expect North America onshore activity to be at the forefront. These projects are characterised by short lead-times, and drilling & completion costs have nearly halved since 2014. Rig activity is recovering fast with more than 600 rigs working in the US now vs a low of 404 in late June 2016. New offshore production systems orders to finally emerge: Following a period of some 18 months since the last order for an offshore floating production system, it appears that 2017 will see some ordering activity at last. This includes (amongst others) FPSOs for Hurricane's Lancaster development, Exxon's Liza EPS, Petrobras' Libra & Sepia fields and a semi-submersible for BP's Mad Dog 2. OPEC must remain disciplined to avoid oil glut: At present we expect (based on project-by-project tracking of individual fields) an additional 1.2 million barrels per day of supply to come in 2017 from offshore production. OPEC needs to stick to its cuts to avoid a substantial overhang of production capacity and likely downward pressure on oil prices.

Source: DW

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INDUSTRY HEADLINES**HEAVY ENGINEERING: Shipbuilders continue to struggle amid downturn**

Shipbuilders are cutting their targets for new orders for next year amid the bleak outlook. Hyundai Heavy Industries lowered its target to US\$9.5 billion from its initial target of \$19.5 billion. As of November its cumulative orders for this year stood at \$7.1 billion. Daewoo Shipbuilding and Marine Engineering is expected to trim its target to around \$6.2 billion, down from \$10.8 set early this year. It bagged only \$1.55 billion worth of orders until last month, a mere 10 percent of its goal. Samsung Heavy Industries plans to set its target at around \$6 billion, down from the initial target of \$12.5 billion. It clinched a mere \$520 million worth of orders until November. "The overall slump in the shipbuilding industry will continue next year, dealing a blow to the overall economy," an industry insider said.

Source: Chosun

HEAVY ENGINEERING: FPS market 'has turned the corner'

The floating production system market will this year start to put the nadir of 2016 behind it, with Latin America to get a sizeable chunk of the units and capital expenditure over the next five years, according to an analyst report. Floating production, storage and offloading units will make up the largest share of floaters to start up globally from 2017 to 2021, analysis firm Douglas-Westwood said in its latest report on the segment. Around \$50 billion-worth of floating units will be deployed on projects in that timeframe as the market segment turns its back on last year, where it bottomed out with not a single unit ordered, the report said. The expected recovery is put down to three factors: a continued recovery in the oil price; lower industry costs due to aggressive cost-cutting during the protracted industry slump; and the re-engineering of some projects amid the industry downturn. Douglas-Westwood sees 54 FPS units being installed from this year to 2021, the majority of which were ordered before the oil price downturn. This is actually a 21% decline on the number of units installed in the period 2012 to 2016. The 45 FPSOs set to start up in the next five years will take 84% (\$42 billion) of the \$50 billion capex, with floating production semi-submersibles getting 10% (\$5 billion) of the capex and tension-leg platforms 8% (\$4 billion). Latin American will get 31% of the units – the vast majority in Brazil's pre-salt province – and 33% (\$16.5 billion) of the capex, with Western Europe getting 11 units and 14% (\$7 billion) of capex, and Asia 10 units and 10% (\$5 billion) of capex. Although Africa will only see nine of the units, it will account for 25% (\$12.5 billion) of the capex as the units coming online are typically of higher value than elsewhere. Much of the \$50 billion – about \$23 billion – will go on units that are set to be installed this year, as many of these were ordered for field developments that were sanctioned in a higher oil price environment. The value of units to be installed next year is around \$14 billion, with around \$5 billion in 2019 and the remaining \$8 billion split relatively evenly between 2020 and 2021, a graph from the report showed. Despite the 21% decline in the number of units to be installed in the next five years as against the previous five, the \$50 billion capex total is 14% higher than the value of units installed from 2012 to 2016. This, Douglas-Westwood said, highlights the increasing complexity of units being built and cost inflation seen between 2012 and 2014. Douglas-Westwood pointed to BP's move on Mad Dog 2 in the US Gulf of Mexico, where it recently placed a \$1.26 billion order for a semi-submersible production unit at South Korea's Samsung Heavy Industries, as a signal that the tide has turned on the FPS market.

Source: Upstream

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