# MISC Bhd

## Critical to watch 2Q22F results

- MISC 2Q22 results on 18 Aug 2022 is very important as it may offer critical insights on whether strong tanker spot rates are finally benefitting MISC.
- We also expect a reversal of construction profits on the FPSO Mero-3 project as well as guidance on the revised capex budget for the project.
- Reiterate Add and SOP-based TP of RM8; both of the above developments could put a floor on the near-term uncertainty and help the share price rerate.

**Malaysia**

**ADD** *(no change)*

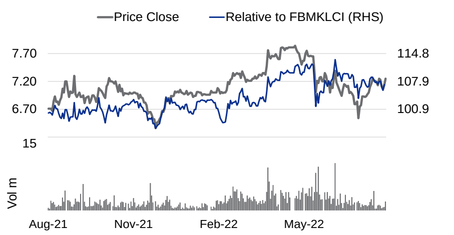
| Consensus ratings*: | Buy 5 | Hold 8 | Sell 1 |
|---|---|---|---|

| | |
|---|---|
| Current price: | RM7.25 |
| Target price: | RM8.00 |
| Previous target: | RM8.00 |
| Up/downside: | 10.3% |
| CGS-CIMB / Consensus: | 2.9% |
| Reuters: | MISC.KL |
| Bloomberg: | MISC MK |
| Market cap: | US$7,263m<br>RM32,362m |
| Average daily turnover: | US$3.99m<br>RM17.52m |
| Current shares o/s: | 4,464m |
| Free float: | 8.8% |

*Source: Bloomberg

### Key changes in this note

- No change to core EPS forecasts.




Source: Bloomberg

| **Price performance** | *1M* | *3M* | *12M* |
|---|---|---|---|
| Absolute (%) | 6.8 | -4.6 | 8 |
| Relative (%) | 2.1 | -0.5 | 8.8 |

| **Major shareholders** | % held |
|---|---|
| Petronas | 57.6 |
| EPF | 11.1 |
| PNB | 8.8 |

### Investors need proof that strong aframax rates can benefit AET

Crude tanker spot freight rates for the small aframax tankers have jumped since the Russia-Ukraine war started on 24 Feb 2022. Therefore, when MISC released its 1Q22 results in May 2022, investors were disappointed that its tanker arm, AET, merely broke even (vs. a small pretax profit in 4Q21). In our view, this was because there is usually a time lag for AET to benefit from stronger aframax rates, while AET probably incurred losses on its spot VLCC fleet that was exposed to negative TCE rates due to vessel oversupply. When MISC releases its 2Q22F results, we would be looking for evidence that the strong aframax rates will be able to overcome the drag from the VLCC side. This will be the key for investors to gain confidence in MISC as an investment story, in our view. So far in 3Q22F, we highlight that the aframax and suezmax rates have strengthened significantly qoq, and even VLCC rates have been restored to positive levels as China's crude oil demand has likely rebounded with the relaxation of pandemic lockdowns. While this is directionally positive for AET, investors still need confirmation from the 2Q22F results and MISC's guidance at the analyst briefing.

### FPSO Mero-3 profit reversals and capex budget need to be clarified

MISC is facing cost overruns in its FPSO Mero-3 construction project and execution delays. The DCF value of the FPSO Mero-3 project to MISC's SOP was reduced by 25% from RM0.84/share to RM0.63/share in our 27 May note, as we pencilled-in higher project capex of US$2.2bn, from US$1.8bn previously, due to project execution delays and cost overruns. On 29 and 30 Jun 2022, MISC's President/Group CEO Datuk Yee Yang Chien cautioned investors and analysts about the potential in 2Q22F for a write-back of earlier-recognised FPSO Mero-3 construction profits (see our 1 Jul note). If MISC provides realistic guidance about the FPSO Mero-3 project capex at the 2Q22F results release, the stock price can reflect that guidance and hopefully find a floor.

### It's all up to how MISC guides the market

MISC's share price fell from RM7.10 on 30 Jun to a recent low of RM6.54 on 13 Jul in the wake of MISC's disclosures about the Mero-3 project, and while the stock recovered to RM7.25, it is still below the recent high of RM7.84 on 5 May. The 2Q22F results may be a catalyst for a further rerating if AET finally delivers solid profits, and if MISC makes the necessary provisions and write-offs to properly reflect Mero-3's project risks. However, if MISC fails to do so, the downside risk is for ongoing uncertainty to limit price upside.

| **Financial Summary** | **Dec-20A** | **Dec-21A** | **Dec-22F** | **Dec-23F** | **Dec-24F** |
|---|---|---|---|---|---|
| Revenue (US$m) | 2,237 | 2,575 | 3,117 | 2,964 | 2,461 |
| Operating EBITDA (US$m) | 914 | 848 | 1,039 | 1,056 | 1,044 |
| Net Profit (US$m) | (10.7) | 434.3 | 488.0 | 508.3 | 507.7 |
| Core EPS (US$) | 0.11 | 0.10 | 0.11 | 0.11 | 0.11 |
| Core EPS Growth | 23.2% | (2.9%) | 4.4% | 4.2% | (0.1%) |
| FD Core P/E (x) | 15.08 | 15.54 | 14.88 | 14.29 | 14.31 |
| DPS (US$) | 0.079 | 0.080 | 0.077 | 0.077 | 0.077 |
| Dividend Yield | 4.83% | 4.90% | 4.72% | 4.72% | 4.72% |
| EV/EBITDA (x) | 9.74 | 11.04 | 8.90 | 8.06 | 7.13 |
| P/FCFE (x) | 14.67 | 64.66 | 5.47 | 5.22 | 5.97 |
| Net Gearing | 19.9% | 26.0% | 24.8% | 16.3% | 4.1% |
| P/BV (x) | 0.90 | 0.89 | 0.87 | 0.85 | 0.84 |
| ROE | 5.83% | 5.76% | 5.90% | 6.03% | 5.91% |
| % Change In Core EPS Estimates | | | (0%) | (0%) | (0%) |
| CGS-CIMB/Consensus EPS (x) | | | 1.17 | 1.14 | 1.02 |

SOURCES: CGS-CIMB RESEARCH, COMPANY REPORTS

**Analyst(s)**

**Raymond YAP, CFA**
**T** (60) 3 2635 9250
**E** raymond.yap@cgs-cimb.com

## Crude tanker freight rates have done well in 2Q and 3Q22

Crude tanker time charter equivalent (TCE) rates have done very well since the outbreak of the Russia-Ukraine war on 24 February 2022, especially for the smaller tanker sizes, i.e. suezmax and aframax rates (see Figures 1-7).

Even TCE rates for the largest tanker size, VLCCs, have recovered from negative levels; TCE rates descend to negative levels when gross freight revenues (cargo tonnes carried x freight rate per tonne) are unable to cover voyage costs like fuel and port charges.

- Average spot TCE rates for VLCCs have recovered from negative US$3,590/day in 1Q22 to US$8,443/day so far in 3Q22F (between 1 July and 5 August 2022), although this is still historically very low.
- Suezmax spot TCE rates have risen from US$16,666/day in 1Q22 to US$41,716/day in 3Q22F, within striking distance to all-time highs.
- Aframax spot TCE rates have spiked from US$32,266/day in 1Q22 to US$52,019/day in 3Q22F, which is just a whisker lower than historic highs.

Higher TCE spot rates have also spilled over into time charter (TC) rates for the leasing of entire ships, particularly for suezmaxes and aframaxes, although TC rates for VLCCs remain at the bottom of the chart.

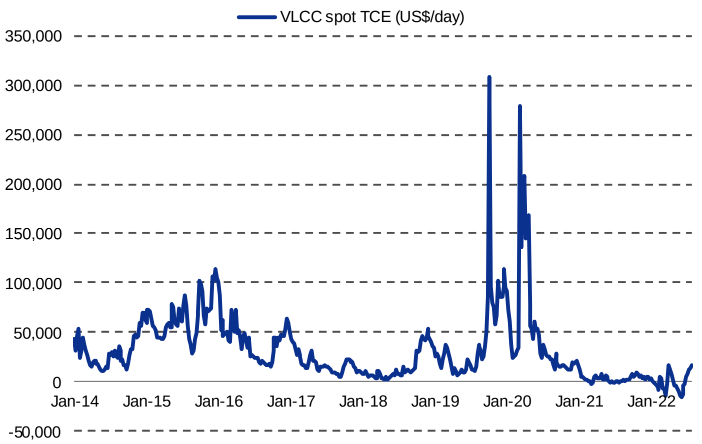
We expect the positive freight rate momentum to benefit MISC's aframax tanker fleet, which we think almost half of which is exposed to the spot market (44% of MISC's aframax fleet was trading in the spot market in 1Q22). However, this could be partly offset by historically-low VLCC TC and TCE rates, as we will elaborate later.

**Figure 1: Dirty Tanker Time Charter Equivalent Rates (US$/day)**

| | VLCC spot average (US$/day) | | | | | Suezmax spot average (US$/day) | | | | | Aframax spot average (US$/day) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1Q | 2Q | 3Q | 4Q | Full year | 1Q | 2Q | 3Q | 4Q | Full year | 1Q | 2Q | 3Q | 4Q | Full year |
| 2009 | 45,134 | 20,955 | 16,850 | 30,799 | 28,434 | 38,011 | 22,703 | 13,828 | 28,391 | 25,733 | 22,227 | 12,395 | 6,401 | 16,458 | 14,370 |
| 2010 | 48,964 | 48,078 | 19,065 | 20,132 | 33,797 | 33,035 | 34,799 | 18,073 | 25,548 | 27,820 | 21,807 | 21,109 | 12,333 | 15,512 | 17,649 |
| 2011 | 24,680 | 14,793 | 7,567 | 16,119 | 18,263 | 24,599 | 15,728 | 10,151 | 23,251 | 18,154 | 16,574 | 10,931 | 7,252 | 14,756 | 12,199 |
| 2012 | 26,194 | 27,441 | 4,860 | 14,942 | 21,187 | 24,569 | 19,782 | 10,276 | 13,005 | 16,908 | 14,501 | 14,087 | 10,359 | 11,216 | 12,541 |
| 2013 | 7,115 | 11,209 | 11,674 | 34,870 | 18,621 | 14,576 | 11,987 | 11,704 | 23,777 | 15,511 | 12,934 | 12,659 | 12,612 | 18,318 | 14,131 |
| 2014 | 29,398 | 13,824 | 22,090 | 43,948 | 30,015 | 31,041 | 15,940 | 23,330 | 40,851 | 27,791 | 29,173 | 15,182 | 22,386 | 32,078 | 24,705 |
| 2015 | 55,239 | 60,940 | 55,811 | 87,395 | 64,846 | 50,455 | 46,923 | 37,123 | 52,352 | 46,713 | 39,715 | 42,542 | 30,006 | 39,643 | 37,977 |
| 2016 | 58,367 | 42,969 | 19,659 | 46,639 | 41,488 | 37,914 | 28,222 | 15,508 | 29,554 | 27,567 | 30,197 | 24,483 | 13,741 | 24,148 | 22,965 |
| 2017 | 26,518 | 18,229 | 10,092 | 16,334 | 17,794 | 19,690 | 14,452 | 10,646 | 16,957 | 15,436 | 18,591 | 13,404 | 9,238 | 14,260 | 13,873 |
| 2018 | 6,701 | 5,301 | 9,909 | 40,331 | 15,561 | 6,588 | 10,364 | 11,489 | 37,422 | 16,466 | 9,829 | 9,662 | 13,562 | 31,646 | 16,175 |
| 2019 | 25,625 | 11,565 | 25,504 | 102,761 | 41,364 | 21,391 | 15,425 | 16,602 | 72,822 | 31,560 | 22,661 | 14,636 | 14,748 | 52,853 | 26,225 |
| 2020 | 84,557 | 88,907 | 23,711 | 15,404 | 53,145 | 55,001 | 47,275 | 12,229 | 6,455 | 30,240 | 41,610 | 32,624 | 8,698 | 5,713 | 22,161 |
| 2021 | 3,989 | 2,837 | 503 | 5,378 | 3,177 | 9,156 | 5,177 | 4,173 | 10,547 | 7,263 | 10,527 | 7,648 | 4,281 | 11,093 | 8,387 |
| 2022 | -3,590 | -2,978 | 8,443 | | 625 | 16,666 | 30,861 | 41,716 | | 29,748 | 32,266 | 46,438 | 52,019 | | 43,574 |
| | | | | | | | | | | | | | | | |
| *Change yoy (%)* | | | | | | | | | | | | | | | |
| *2010* | *8.5%* | *129.4%* | *13.1%* | *-34.6%* | *18.9%* | *-13.1%* | *53.3%* | *30.7%* | *-10.0%* | *8.1%* | *-1.9%* | *70.3%* | *92.7%* | *-5.8%* | *22.8%* |
| *2011* | *-49.6%* | *-69.2%* | *-60.3%* | *-19.9%* | *-46.0%* | *-25.5%* | *-54.8%* | *-43.8%* | *-9.0%* | *-34.7%* | *-24.0%* | *-48.2%* | *-41.2%* | *-4.9%* | *-30.9%* |
| *2012* | *6.1%* | *85.5%* | *-35.8%* | *-7.3%* | *16.0%* | *-0.1%* | *25.8%* | *1.2%* | *-44.1%* | *-6.9%* | *-12.5%* | *28.9%* | *42.8%* | *-24.0%* | *2.8%* |
| *2013* | *-72.8%* | *-59.2%* | *140.2%* | *133.4%* | *-12.1%* | *-40.7%* | *-39.4%* | *13.9%* | *82.8%* | *-8.3%* | *-10.8%* | *-10.1%* | *21.8%* | *63.3%* | *12.7%* |
| *2014* | *313.2%* | *23.3%* | *89.2%* | *26.0%* | *61.2%* | *113.0%* | *33.0%* | *99.3%* | *71.8%* | *79.2%* | *125.5%* | *19.9%* | *77.5%* | *75.1%* | *74.8%* |
| *2015* | *87.9%* | *340.8%* | *152.7%* | *98.9%* | *116.0%* | *62.5%* | *194.4%* | *59.1%* | *28.2%* | *68.1%* | *36.1%* | *180.2%* | *34.0%* | *23.6%* | *53.7%* |
| *2016* | *5.7%* | *-29.5%* | *-64.8%* | *-46.6%* | *-36.0%* | *-24.9%* | *-39.9%* | *-58.2%* | *-43.5%* | *-41.0%* | *-24.0%* | *-42.5%* | *-54.2%* | *-39.1%* | *-39.5%* |
| *2017* | *-54.6%* | *-57.6%* | *-48.7%* | *-65.0%* | *-57.1%* | *-48.1%* | *-48.8%* | *-31.3%* | *-42.6%* | *-44.0%* | *-38.4%* | *-45.2%* | *-32.8%* | *-40.9%* | *-39.6%* |
| *2018* | *-74.7%* | *-70.9%* | *-1.8%* | *146.9%* | *-12.5%* | *-66.5%* | *-28.3%* | *7.9%* | *120.7%* | *6.7%* | *-47.1%* | *-27.9%* | *46.8%* | *121.9%* | *16.6%* |
| *2019* | *282.4%* | *118.2%* | *157.4%* | *154.8%* | *165.8%* | *224.7%* | *48.8%* | *44.5%* | *94.6%* | *91.7%* | *130.5%* | *51.5%* | *8.7%* | *67.0%* | *62.1%* |
| *2020* | *230.0%* | *668.8%* | *-7.0%* | *-85.0%* | *28.5%* | *157.1%* | *206.5%* | *-26.3%* | *-91.1%* | *-4.2%* | *83.6%* | *122.9%* | *-41.0%* | *-89.2%* | *-15.5%* |
| *2021* | *-95.3%* | *-96.8%* | *-97.9%* | *-65.1%* | *-94.0%* | *-83.4%* | *-89.0%* | *-65.9%* | *63.4%* | *-76.0%* | *-74.7%* | *-76.6%* | *-50.8%* | *94.2%* | *-62.2%* |
| *2022* | *-190.0%* | *-205.0%* | *1578.2%* | | *-80.3%* | *82.0%* | *496.2%* | *899.6%* | | *309.6%* | *206.5%* | *507.2%* | *1115.2%* | | *419.5%* |

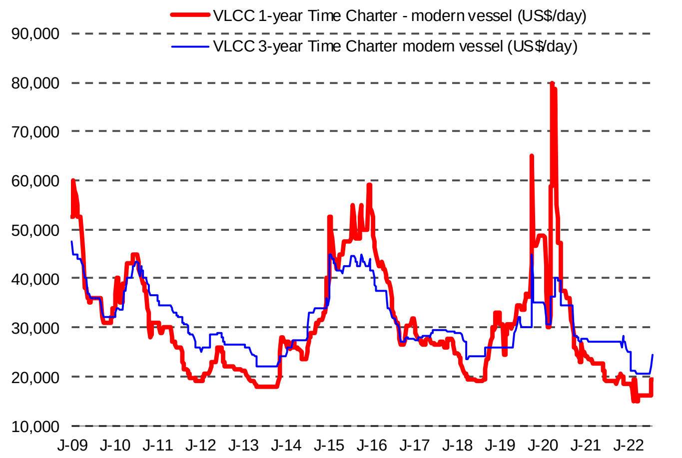
SOURCES: CGS-CIMB RESEARCH, BALTIC EXCHANGE, CLARKSON RESEARCH SERVICES

**Figure 2: VLCC crude tanker spot TCE rates (US$/day)**



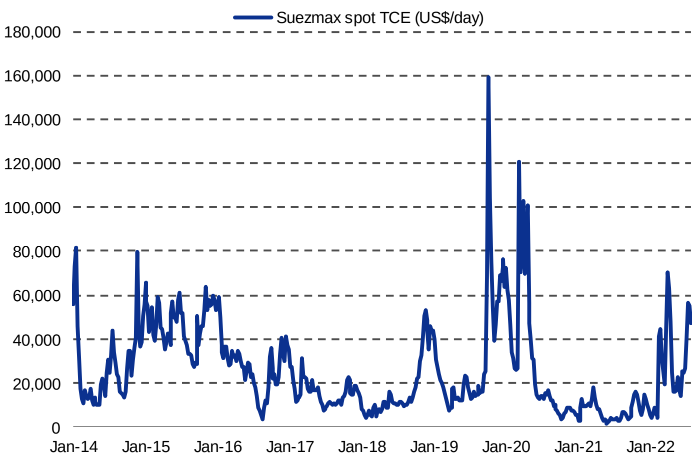

SOURCES: CGS-CIMB RESEARCH, CLARKSON RESEARCH SERVICES

**Figure 3: VLCC crude tanker time charter rates (US$/day)**



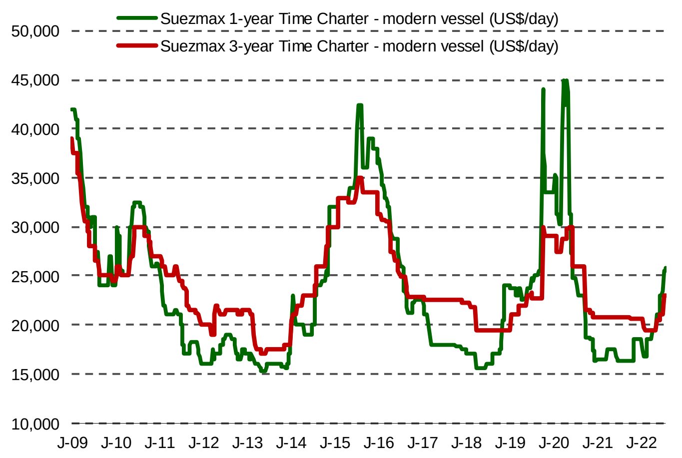

SOURCES: CGS-CIMB RESEARCH, CLARKSON RESEARCH SERVICES

**Figure 4: Suezmax crude tanker spot TCE rates (US$/day)**



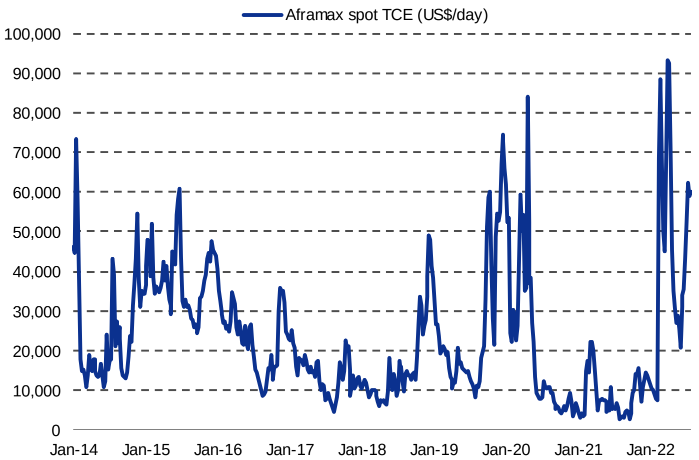

SOURCES: CGS-CIMB RESEARCH, CLARKSON RESEARCH SERVICES

**Figure 5: Suezmax crude tanker time charter rates (US$/day)**



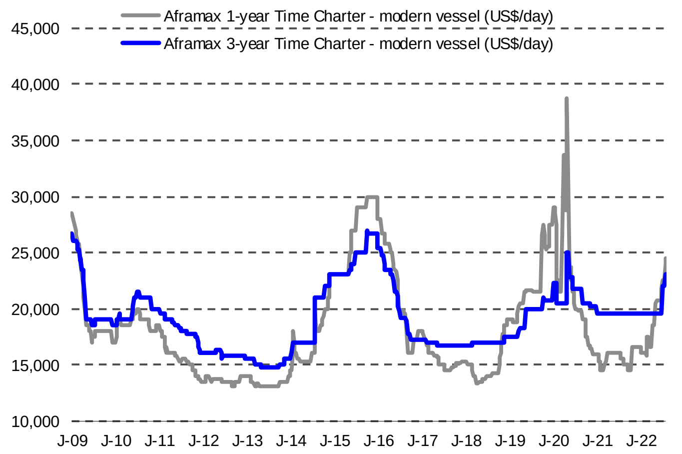

SOURCES: CGS-CIMB RESEARCH, CLARKSON RESEARCH SERVICES

**Figure 6: Aframax crude tanker spot TCE rates (US$/day)**




SOURCES: CGS-CIMB RESEARCH, CLARKSON RESEARCH SERVICES

**Figure 7: Aframax crude tanker time charter rates (US$/day)**




SOURCES: CGS-CIMB RESEARCH, CLARKSON RESEARCH SERVICES

MISC operates the petroleum tanker shipping business via its wholly-owned AET.

As at 31 March 2022, AET had a fleet of 9 VLCCs, 6 suezmaxes and 24 aframaxes in its crude tanker shipping fleet (AET has since taken delivery of one additional VLCC). AET also operates 2 LR2 clean tanker vessels (that carry refined petroleum products), 14 shuttle tankers (that move oil between floating offshore production units and onshore terminal receiving points), and 3 chemical tankers, but we exclude these from our discussion today.

In terms of the number of crude tanker vessels, AET had 23% exposure to VLCCs, 15% exposure to suezmaxes, and 62% exposure to aframaxes, as at 31 March 2022.

Nevertheless, because of different cargo-carrying capacities, AET's exposure in terms of deadweight tonnes (dwt) is about 42% each for VLCCs and aframaxes, and 16% for suezmaxes. This more closely reflects the economic significance of different tanker vessel classes to AET.

The key takeaway is that while aframax and suezmax rates have done well, low VLCC rates may be a drag on AET's financial performance. It is not straightforward for analysts and investors to decipher whether the positive impact or the negative impact will be larger, due to limited disclosure by MISC of the durations and TC rates for the time charter contracts entered into for its VLCCs and suezmaxes.

This is why monitoring AET's 2Q22 results performance will be key; MISC will be releasing its 2Q22 quarterly results next week, 18 August. If AET succeeds in delivering a strong pretax profit in 2Q22, vs. the breakeven reported for 1Q22, then we will have greater confidence that AET is on track to report robust profits in FY22F vs. FY21. It is possible for AET to report strong qoq profit improvement, because tanker freight rates only rallied from late-February 2022 (after the Russia-Ukraine war started), and there is usually a 1-2 months' time lag for the higher rates to be reflected in AET's financial performance.

However, if AET fails to report sufficiently strong qoq profit improvement due to the drag from the VLCC segment, we may have to reexamine at our FY22F core profit estimates for AET and for MISC as a whole. Currently, our FY22F core net profit estimate for MISC is 19% higher than Bloomberg consensus, predicated on a strong AET performance (our AET pretax profit estimate for FY22F stands at US$136m, vs. US$38m in FY21).

## Push and pull factors that may affect AET's earnings performance

### AET's VLCCs impacted by expired time charters and weak spot TCE rates

AET's VLCCs have traditionally been almost entirely time chartered out to other ship operators, which means that they are leased out as whole ships. AET reported that some of its VLCC time charters expired in 1Q22, and AET was reluctant to commit those vessels to new time charters due to the rock-bottom TC rates prevailing at that time (Figure 3). Therefore, AET was forced to leave those VLCCs open in the spot market, and AET was subsequently hurt by loss-making TCE rates, since VLCC TCE spot rates averaged a negative US$3,590/day in 1Q22 (Figure 1). AET's VLCCs were 25% exposed to the spot market on average during 1Q22, from just 6% in 4Q21.

VLCC TC rates have since barely improved, hence, it is unlikely for AET to have signed new long-term time charters. The good news is that TCE spot rates have risen to positive territory, averaging US$8,443/day QTD in 3Q22F. For the week ended 5 August 2022, VLCC TCE rates hit US$15,667/day, according to shipbroker Clarksons. The bad news is that these spot rates are still below the prevailing TC rate of US$19,500/day, which is already one of the lowest TC rates historically for VLCCs. Our preliminary conclusion is that the financial performance of AET's VLCCs are almost certain to be weaker YTD 2022F than in the same period last year, as historic time charters expired and AET's VLCCs became exposed to a still-weak VLCC TCE rate environment. If current conditions for VLCC spot freight markets continue for the rest of the year, then AET's VLCCs will likely report lower profits in FY22F vs. FY21 (MISC does not provide a breakdown of AET's pretax profits by vessel class).

**AET's suezmaxes should enjoy higher earnings**

AET's suezmaxes are typically time chartered out to other ship operators, and about one-quarter to one-third is usually exposed to the spot market. However, the proportion exposed to the spot market rose to a high of 42% in 1Q22 as several suezmax time charters had expired during or slightly after 4Q21.

On the balance of probability, we expect AET's suezmaxes to deliver stronger profits in FY22F as TCE spot rates have done extremely well, and any vessels on expired time charters can be redeployed to the spot market to benefit from the spike in TCE rates. Even TC rates have done very much better so far in 2022F, compared to all of 2021.

**AET's aframaxes are enjoying powerful rate tailwinds**

In contrast to the weakish outlook for the VLCC fleet, AET's aframax tankers are likely enjoying very strong TCE spot rates so far in 2022F.

AET has traditionally used its aframax fleet for voyages (to ship crude oil from load port to discharge port), and to perform lightering services in the US Gulf of Mexico (US GOM). Its vessels are primarily based in the US GOM and Latin America, but several are based in Southeast Asia. Typically, slightly under half of its aframaxes trade in the spot freight markets, while the remainder perform lightering services under cost of affreightment (COA) contracts. AET's COAs are considered 'term' contracts as opposed to 'spot', but these COA rates may fluctuate within an upper and lower bound based on prevailing spot rates and may not be entirely fixed in nature. This means that all of AET's aframaxes enjoy some degree of spot exposure, which will be very beneficial to AET this year.

Aframax TCE spot rates have done well, as shown in Figure 6, although it is hard to make a definitive judgment due to the significant weekly volatility. Averaging out the TCE rates by quarter, as shown in Figures 8-11, we get a clearer picture for the specific route regions where AET is primarily exposed to:

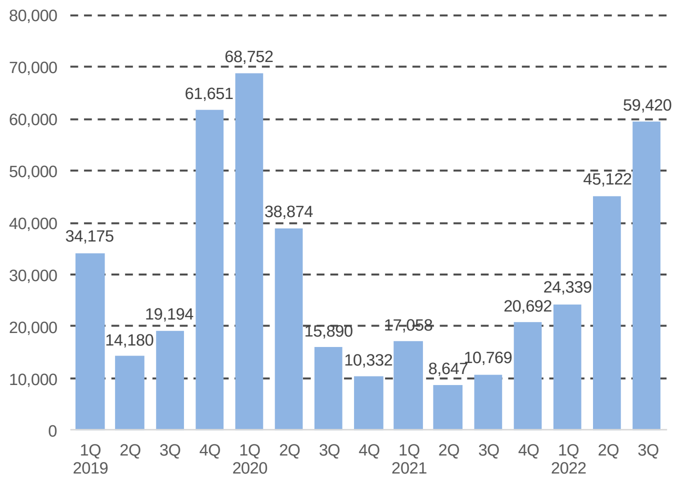
- Average quarterly aframax TCE spot rates between Curacao (Latin America) and Hamburg (Europe) have risen 2.9x between 4Q21 and 3Q22F (1 July to 5 August 2022);
- Between Corpus Christi (US) and Rotterdam (Europe), they have risen 4.3x;
- Between Curacao (Latin America) and Texas (US), they have risen 3.6x; and
- Between Singapore (SE Asia) and Chiba (Japan), they have risen 5.7x in that same time period.

In fact, TCE spot rates for the week ended 5 August 2022 are even higher than the 3Q22F averages, with:

- Curacao-Hamburg at US$74,062/day (vs. US$59,420/day average for 3Q22F);
- Corpus Christi-Rotterdam at US$56,586/day (vs. US$40,646/day);
- Curacao-Texas at US$46,411 (vs. US$43,273/day); and
- Singapore-Chiba at US$46,026 (vs. US$28,297/day).

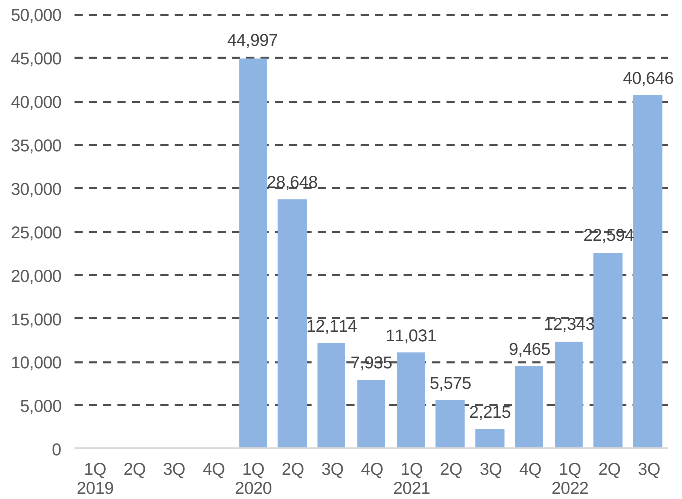
As a result of the prevailing spot rate strength, we expect AET's aframax fleet to show significantly better results in 2Q22F and 3Q22F on a qoq and yoy basis.

**Figure 8: Aframax average quarterly TCE rates (US$/day) - Curacao (Latin America) to Hamburg (Europe)**



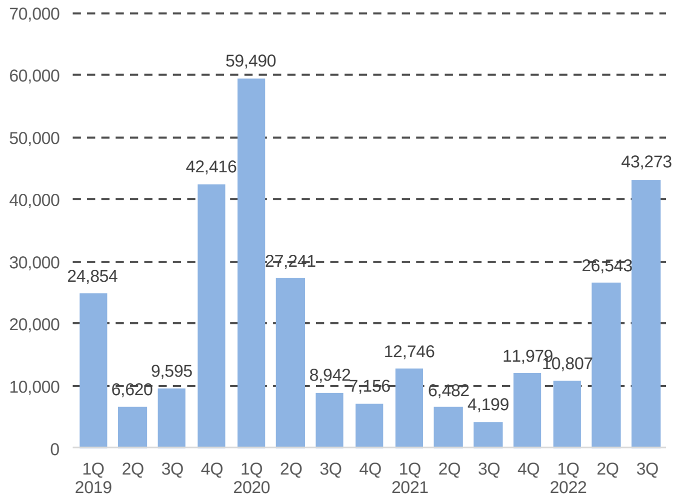

SOURCES: CGS-CIMB RESEARCH, CLARKSON RESEARCH SERVICES

**Figure 9: Aframax average quarterly TCE rates (US$/day) - Corpus Christi (US) to Rotterdam (Europe)**



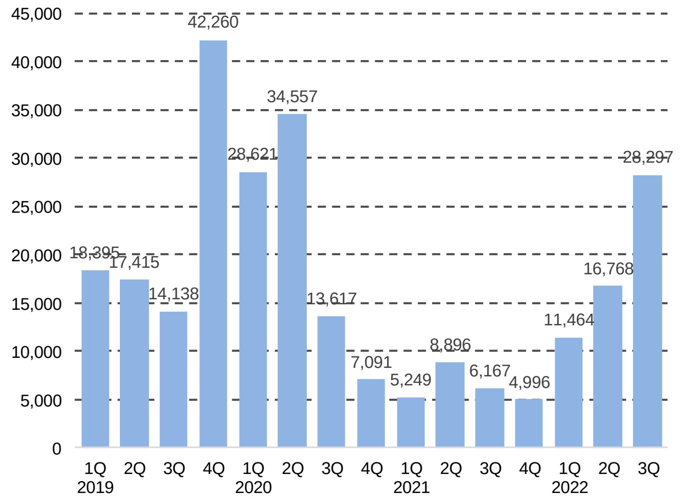

SOURCES: CGS-CIMB RESEARCH, CLARKSON RESEARCH SERVICES

**Figure 10: Aframax average quarterly TCE rates (US$/day) - Curacao (Latin America) to Texas (US)**




SOURCES: CGS-CIMB RESEARCH, CLARKSON RESEARCH SERVICES

**Figure 11: Aframax average quarterly TCE rates (US$/day) - Singapore (SE Asia) to Chiba (Japan)**




SOURCES: CGS-CIMB RESEARCH, CLARKSON RESEARCH SERVICES

## Why are crude tanker freight rates starting to do well?

### Why VLCC rates were so weak during 1H22

VLCC TCE spot rates were in negative territory in 1Q22 and 2Q22 because of continued VLCC newbuilding deliveries and fleet growth were juxtaposed against China's Covid-19-related lockdowns, which had reduced demand for crude oil imports. China is probably the single-largest source of VLCC demand.

According to China Customs, China's imports of crude oil averaged 42.6m tonnes in 1Q22, which is only 1.7% higher than the 41.9m tonnes imported in 4Q21 (and 8.2% lower than the 46.4m tonnes imported in 1Q21).

However, during 2Q22, China's crude oil imports fell 3.1% qoq to an average of 41.3m tonnes (2% higher than 2Q21's 40.5m tonnes). This is equivalent to a decline in crude oil imports of 1 million barrels per day (mbpd), or about 1% of global demand. VLCC TCE rates plunged to negative US$15,466/day for the week ended 10 June 2022, the lowest in years, coinciding with Chinese crude oil imports declining to just 35.8m tonnes in June 2022, the lowest since June 2018.

Meanwhile, the outstanding global fleet of VLCCs increased by 2.3% between December 2021 and July 2022, as newbuilding deliveries exceeded scrapping.

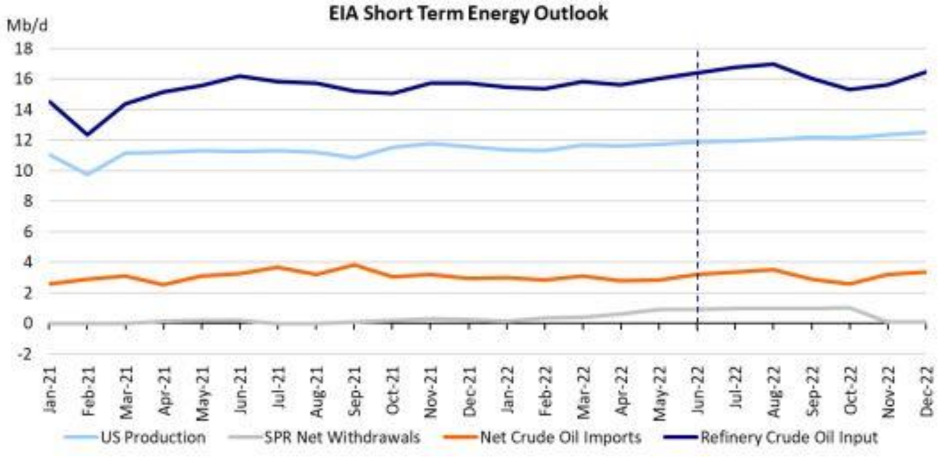
Although average OPEC crude oil production during 7M22 increased by 3% against the December 2021 production level, oil storage levels increased in 2Q22 vs. 1Q22 due to lower demand, according to the US Energy Information Administration (EIA), which had probably led to lower seaborne exports.

**Why VLCC rates are finally strengthening**

From early-July 2022, VLCC rates started to strengthen as China gradually lifted lockdown restrictions, which probably led to higher crude oil imports (China's crude oil import data for July has not yet been released). This has dovetailed well with higher OPEC output.

VLCC rates have also benefitted from the rise in US exports of crude oil to Europe. This is on the back of higher US crude oil production, as well as the release of US Strategic Petroleum Reserves (SPR), which picked up pace in 2Q22, and which the US EIA expects to sustain at a high level between July and October 2022F. The SPR releases can be purchased by domestic US refineries, but has also been exported globally. These exports can be shipped directly to Europe using aframaxes, or using suezmaxes and VLCCs with aframaxes used for lightering; therefore US SPR releases benefit all vessel classes.

**Figure 12: The US Strategic Petroleum Reserves net withdrawal picked up in 2Q22, and the US EIA expects the net withdrawals to remain high in July-October 2022F (as depicted by the grey line at the bottom of the chart)**




SOURCES: POTEN, US EIA

Strong suezmax rates are also pushing up VLCC demand, as charterers attempt to combine two suezmax loads of 1m barrels each into one VLCC load of 2m barrels to save costs. According to shipbroker Braemar, combining two suezmaxes-sized cargoes onto a VLCC will result in longer ship loading times and only result in VLCCs being 80% full due to certain operational constraints. As a result, Braemar suggested that "on average, the VLCC fleet loading from the Middle East has carried about 3% to 5% less cargo since March 2022."

Looking forward, China's crude oil imports may trend even higher from September and October 2022, which are the peak consumption months. The International Energy Agency (IEA) is expecting Chinese oil demand to increase from 14.6 mbpd in 2Q22, to 15.7 mbpd in 3Q22F, and then to 15.9 mbpd in 4Q22F.

In China, independent 'teapot' refineries are typically allocated crude oil import quotas by the government, and cannot import as they wish. Since China's oil consumption demand was weak in 1H22 due to the Covid-19 lockdowns, the independent refineries imported less than their allocated quotas. Typically, independent refineries aim to finish their annual quota by the year end in order to secure sufficient quota in the following year. As such, assuming that the independent refineries use up all their crude import quotas, it would imply a 46% hoh rise in their crude oil imports in 2H22F vs. 1H22, according to Platts. Independent refineries make up some 20-25% of China's total crude oil imports, based on information from Reuters. However, some analysts interviewed by Platts think that private refiners may not use up all their crude import quotas in order to avoid holding high-cost crude stocks at end-2022F. Still, there is a likelihood of higher Chinese crude oil imports in 2H22F vs. 1H22 that may help VLCC rates increase.

Also, under the EU's sixth sanctions package against Russia that was announced on 3 June 2022, EU member nations will not be allowed to import seaborne crude oil from Russia from 5 December 2022 and Russian imports of refined products will not be permitted from 5 February 2023. EU member states need to diversify their import sources from further away, which will increase tonne-miles of oil transport and increase demand for tankers towards late-2022F.

**Why suezmax and aframax rates continue to do well**

Aframax and suezmax rates are rising because of factors that we have already described above, such as higher US crude oil exports.

Another important factor is the Russia-Ukraine war, which caused the diversion of Russian crude exports from Europe to more-distant export destinations such as India and China. According to Reuters, during April-June 2022, India's imports of crude oil from Russia rose to 682,200 bpd, from 22,500 bpd in the same period last year. Meanwhile, China increased its purchases of Russian crude exported via the Russian Far Eastern port of Kozmino, which has helped to push up aframax TCE rates from Kozmino to Qingdao, China; these rates averaged US$84,995/day in 3Q22F, vs. US$51,573/day in 2Q22 and US$19,050/day in 1Q22.

Aframax and suezmax tanker rates may also be benefitting from Libya's crude production returning to 1.2 mbpd after the lifting of force majeure on oil fields and exports on 15 July 2022. Crude production had reached a two-year low of 650,000 bpd in June.

Specifically in Asia, Platts noted that a breakdown in Thailand's Star Petroleum Refining Co.'s pipeline in Thailand since January 2022 resulted in aframaxes being used for lightering activities to offload VLCC cargoes and haul the crude into Map Ta Phut refining hub; this benefitted aframax demand-supply balances in Asia.

Meanwhile, Platts highlighted that aframaxes are also being used by the US to import fuel oil (FO) and vacuum gas oil (VGO) from the Middle East after the US stopped importing them from Russia. The starting-up of Malaysia's Pengerang oil refinery also resulted in aframax exports of atmospheric residue (AR) to the US.

The strength of the global refined products trade since the start of the Russia-Ukraine war has also contributed to higher aframax crude tanker shipping rates. This is because aframax-sized clean tankers, also called 'LR2' tankers, had muscled-in on crude cargoes when clean tanker rates were weak. However, the war caused Europe to reduce, as much as possible, imports of Russian refined products, and to find alternative sources further away. This increased the tonne-mile demand in the product tanker trades and caused LR2 rates to spike. LR2 tankers that had erstwhile been carrying crude oil cleaned up their tanks in order to reenter the clean product trades. This led to lower availability of aframax crude tankers, and with higher tonne-mile demand, rates naturally rose.

Finally, the global aframax crude tanker fleet has grown by just 0.8% since the beginning of 2022, while the global suezmax crude tanker fleet has increased by 4.2%, but higher suezmax freight rates clearly show that the fleet growth has been more than offset by strong tonne-mile demand growth.

## Developments in the LNG business

### Award of an effective 1.75 LNG ship time charters from QatarEnergy

MISC announced on 10 August 2022 that its 25%-owned consortium with partners NYK (9101 JP, Not rated), K Line (9107 JP, Not rated), and China LNG Shipping (Holdings) Limited (931 HK, Not rated) successfully secured an award of time charter contracts for 7 x 174,000 cubic metres (cbm) LNG tanker vessels that will be built by Hyundai Heavy Industries (329180 KS, Not rated). This means that MISC had effectively won 1.75 new LNG ship time charters.

The LNG time charter contracts were awarded by QatarEnergy (Not listed), which is developing the North Field expansion project that is intended to significantly increase Qatar's LNG export capacity from 77 million tonnes per annum (mtpa) of LNG to 126 mtpa. The time charters for the seven LNG ships will commence in 2025F, according to MISC.

In 2Q20, Qatar Petroleum, which has since been renamed QatarEnergy, reserved up to 151 LNG berths in total at South Korea's big three shipbuilders and China's largest LNG yard, i.e. Hudong-Zhonghua Shipbuilding (Group) (Not listed), at US$185m each. QatarEnergy has signed newbuilding and long-term charter deals on a total of 34 vessels.

MISC told analysts and investors in meetings on 29 and 30 June 2022 that its consortium had bid for 12 LNG time charters from QatarEnergy; having only secured seven to-date, we are unsure if a further five charters will be awarded down the road, or if seven is the final tally.

MISC did not officially disclose the actual capex cost of each LNG vessel, the time charter rates, nor the duration. However, industry newspaper Tradewinds reported that the price of each LNG tanker had risen to US$215m, due to cost inflation. We think that the duration of the time charters would be between 10 and 20 years, probably 12 years or 15 years, in our estimate.

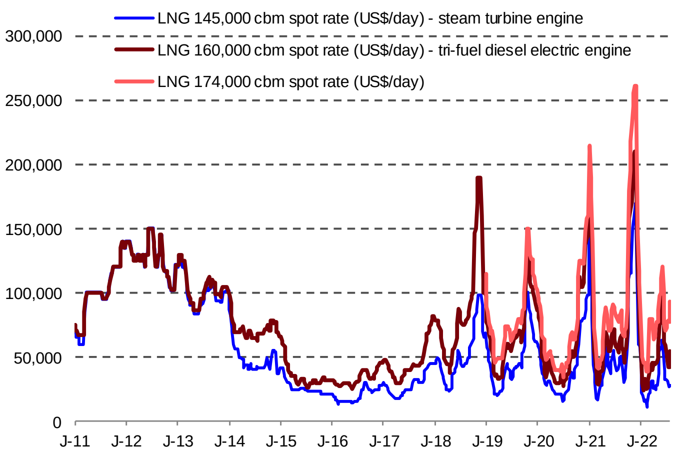
We are largely neutral on this contractual win, as QatarEnergy contracts are likely to command low daily charter rates, given the volume of business on offer to potential shipowners. Also, MISC's consortium partners are likely to enjoy lower cost of capital than MISC itself, hence, MISC may have had to accept lower returns, in our view. MISC has a fleet of 38 LNG-type vessels, comprising 30 of the traditional LNG carriers, two floating storage units, and six VLECs. Hence, an additional 1.75 effective LNG ships may not be significant overall.

### Spot LNG rates weakened YTD 2022F vs. 2021

Spot LNG freight rates so far in 2022F (Figure 13 and 15) have weakened significantly compared to average levels seen in 2018-21. This is mainly because the US is exporting 70% of LNG production to Europe vs. just 15% in 2021, which has shortened tonne-miles demand.

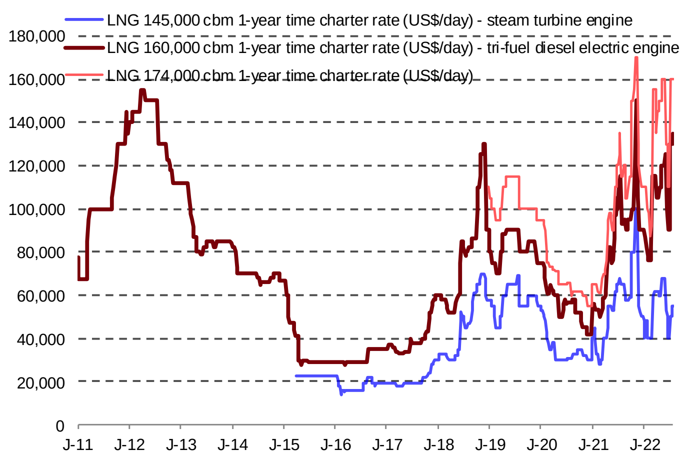
The lower spot LNG freight rates may have a negative impact on MISC since four of its 30 traditional LNG carriers are trading on relatively short-term charters, with 26 on long-term charters. We are unable to estimate the negative impact without knowledge of when those short-term charters expire, but the negative impact, if any, should not be significant since it may impact only a small part of MISC's LNG portfolio.

**Figure 13: LNG spot rates (US$/day)**




SOURCES: CGS-CIMB RESEARCH, CLARKSON RESEARCH SERVICES

**Figure 14: LNG 1-year time charter rates (US$/day)**




SOURCES: CGS-CIMB RESEARCH, CLARKSON RESEARCH SERVICES

**Figure 15: LNG Tanker Time Charter Equivalent Rates (US$/day)**

| | LNG 160,000 cbm spot rate (US$/day) *Tri-fuel diesel electric engine* | | | | | LNG 145,000 cbm spot rate (US$/day) *Steam turbine engine* | | | | | LNG 174,000 cbm spot rate (US$/day) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1Q | 2Q | 3Q | 4Q | Full year | 1Q | 2Q | 3Q | 4Q | Full year | 1Q | 2Q | 3Q | 4Q | Full year |
| 2011 | 72,292 | 100,000 | 101,250 | 126,538 | 100,577 | 68,125 | 100,000 | 101,286 | 126,538 | 99,625 | | | | | |
| 2012 | 132,692 | 132,692 | 133,462 | 110,654 | 127,375 | 132,692 | 132,692 | 134,000 | 110,231 | 127,404 | | | | | |
| 2013 | 119,154 | 90,154 | 106,769 | 101,308 | 104,346 | 114,538 | 87,385 | 101,462 | 97,077 | 100,115 | | | | | |
| 2014 | 77,769 | 68,462 | 67,846 | 73,692 | 71,942 | 65,615 | 43,500 | 41,423 | 46,731 | 49,317 | | | | | |
| 2015 | 50,615 | 32,154 | 29,538 | 31,846 | 36,038 | 34,077 | 25,154 | 23,308 | 21,462 | 26,000 | | | | | |
| 2016 | 29,308 | 28,615 | 36,571 | 39,385 | 33,528 | 17,154 | 14,846 | 23,429 | 24,923 | 20,151 | | | | | |
| 2017 | 40,846 | 34,462 | 42,538 | 66,385 | 46,058 | 23,385 | 21,000 | 29,615 | 40,385 | 28,596 | | | | | |
| 2018 | 65,385 | 58,000 | 82,000 | 149,385 | 88,692 | 39,385 | 36,692 | 48,846 | 83,077 | 52,000 | | | | | |
| 2019 | 55,615 | 48,577 | 65,269 | 107,885 | 69,337 | 37,397 | 32,731 | 42,769 | 77,885 | 47,695 | 67,851 | 61,192 | 74,808 | 123,808 | 81,915 |
| 2020 | 56,923 | 34,615 | 41,115 | 104,423 | 59,269 | 39,923 | 23,269 | 27,923 | 73,077 | 41,048 | 70,192 | 43,500 | 52,500 | 118,500 | 71,173 |
| 2021 | 84,423 | 57,962 | 58,788 | 150,804 | 89,179 | 59,962 | 44,654 | 41,692 | 109,000 | 64,679 | 101,500 | 74,327 | 77,942 | 189,429 | 112,283 |
| 2022 | 34,844 | 61,846 | 49,750 | | 48,813 | 21,750 | 40,346 | 29,667 | | 30,588 | 56,646 | 86,327 | 78,208 | | 73,727 |
| | | | | | | | | | | | | | | | |
| *Change yoy (%)* | | | | | | | | | | | | | | | |
| *2012* | *83.6%* | *32.7%* | *31.8%* | *-12.6%* | *26.6%* | *94.8%* | *32.7%* | *32.3%* | *-12.9%* | *27.9%* | | | | | |
| *2013* | *-10.2%* | *-32.1%* | *-20.0%* | *-8.4%* | *-18.1%* | *-13.7%* | *-34.1%* | *-24.3%* | *-11.9%* | *-21.4%* | | | | | |
| *2014* | *-34.7%* | *-24.1%* | *-36.5%* | *-27.3%* | *-31.1%* | *-42.7%* | *-50.2%* | *-59.2%* | *-51.9%* | *-50.7%* | | | | | |
| *2015* | *-34.9%* | *-53.0%* | *-56.5%* | *-56.8%* | *-49.9%* | *-48.1%* | *-42.2%* | *-43.7%* | *-54.1%* | *-47.3%* | | | | | |
| *2016* | *-42.1%* | *-11.0%* | *23.8%* | *23.7%* | *-7.0%* | *-49.7%* | *-41.0%* | *0.5%* | *16.1%* | *-22.5%* | | | | | |
| *2017* | *39.4%* | *20.4%* | *16.3%* | *68.6%* | *37.4%* | *36.3%* | *41.5%* | *26.4%* | *62.0%* | *41.9%* | | | | | |
| *2018* | *60.1%* | *68.3%* | *92.8%* | *125.0%* | *92.6%* | *68.4%* | *74.7%* | *64.9%* | *105.7%* | *81.8%* | | | | | |
| *2019* | *-14.9%* | *-16.2%* | *-20.4%* | *-27.8%* | *-21.8%* | *-5.0%* | *-10.8%* | *-12.4%* | *-6.3%* | *-8.3%* | | | | | |
| *2020* | *2.4%* | *-28.7%* | *-37.0%* | *-3.2%* | *-14.5%* | *6.8%* | *-28.9%* | *-34.7%* | *-6.2%* | *-13.9%* | *3.4%* | *-28.9%* | *-29.8%* | *-4.3%* | *-13.1%* |
| *2021* | *48.3%* | *67.4%* | *43.0%* | *44.4%* | *50.5%* | *50.2%* | *91.9%* | *49.3%* | *49.2%* | *57.6%* | *44.6%* | *70.9%* | *48.5%* | *59.9%* | *57.8%* |
| *2022* | *-58.7%* | *6.7%* | *-15.4%* | | *-45.3%* | *-63.7%* | *-9.6%* | *-28.8%* | | *-52.7%* | *-44.2%* | *16.1%* | *0.3%* | | *-34.3%* |

SOURCES: CGS-CIMB RESEARCH, CLARKSON RESEARCH SERVICES

## SOP and target price calculation

**Figure 16: MISC's SOP and target price, end-2022F**

| | Current portfolio of assets | Value (US$ m) | Value (RM m) | Per share (RM) | Notes |
|---|---|---|---|---|---|
| 1 | **LNG business** | **3,487.2** | **14,995.0** | **3.36** | |
| | - Existing LNG carriers | 1,832.2 | 7,878.6 | 1.77 | DCF, discounted using Ke of 7.9% on 27 LNG vessels; Year 1 WACC of 4.6% on newer LNG ships rising to Ke of 7.9% in Year 13 |
| | - FSU Lekas (x 2) | 339.7 | 1,460.7 | 0.33 | Estimated finance lease receivable on the two FSU Lekas vessels |
| | - MISC-Mitsubishi JV | 103.8 | 446.5 | 0.10 | Assume 25.5% stake for two 174,000 cbm LNG vessels delivered in 2021 |
| | - MISC-Avenir JV | 24.6 | 105.8 | 0.02 | 51% stake for one 7,500 cbm LNG bunkering vessel delivered in 1Q20 |
| | - ExxonMobil charter | 316.7 | 1,361.6 | 0.31 | 100% stake for two LNG vessels to be delivered in 1Q23F |
| | - VLEC tankers | 870.2 | 3,741.8 | 0.84 | DCF on 6 VLEC tankers; Year 1 WACC of 4.6% rising to Ke of 7.9% in Year 13 |
| | | | | | |
| 2 | **Offshore business** | **2,803.3** | **12,054.1** | **2.70** | |
| | - Traditional assets | 237.2 | 1,019.8 | 0.23 | DCF, discounted using Ke of 7.9% on six offshore assets |
| | - FPSO Cendor | 166.0 | 713.9 | 0.16 | Estimated finance lease receivable |
| | - FPS Gumusut | 1,610.3 | 6,924.4 | 1.55 | Estimated finance lease receivable |
| | - FSO Benchamas 2 | 31.5 | 135.5 | 0.03 | Estimated finance lease receivable |
| | - FSO Mekar Bergading | 94.3 | 405.3 | 0.09 | Estimated finance lease receivable |
| | - FSO Idemitsu | 13.2 | 56.7 | 0.01 | Estimated finance lease receivable |
| | - FPSO Mero-3 | 650.8 | 2,798.4 | 0.63 | DCF, Ke 10.25% on US$2.2bn capex, project IRR of c.7.2% over 22 years contract period |
| | | | | | |
| 3 | **Tanker shipping business** | **3,919.2** | **16,852.6** | **3.78** | |
| | - Petroleum tankers | 1,697.2 | 7,297.9 | 1.63 | Expected end-2022F values; assume 20% higher than end-2021 values |
| | - Petroleum tankers under construction | 209.2 | 899.6 | 0.20 | Capex to be spent in 2020-2022F that is not reflected in fleet value |
| | - Shuttle tankers | 2,012.8 | 8,655.2 | 1.94 | DCF on 17 shuttle tankers; Year 1 WACC of 4.6% rising to Ke of 7.9% in Year 13 |
| | | | | | |
| 4 | Heavy Engineering | 96.5 | 415.0 | 0.09 | 66.5% stake, based on price of RM0.39/share |
| | | | | | |
| 5 | Other fixed assets | 453.6 | 1,950.6 | 0.44 | Book value as at 31 December 2022F |
| | | | | | |
| 6 | Net cash/(debt) | -2,111.4 | -9,079.1 | -2.03 | Forecast as at 31 December 2022F |
| | | | | | |
| 7 | Other net assets/(liabilities) | -343.5 | -1,477.1 | -0.33 | |
| | | | | | |
| | **SOP of current asset portfolio** | **8,304.9** | **35,711.0** | **8.00** | |

SOURCES: CGS-CIMB RESEARCH ESTIMATES, COMPANY REPORTS

Our SOP-based target price remains at RM8.00. The SOP is largely based on the DCF value of MISC's LNG and offshore businesses, but we have incorporated the value of MISC's petroleum tanker business based on the expected liquidation value of its tanker fleet at the end of 2022F.

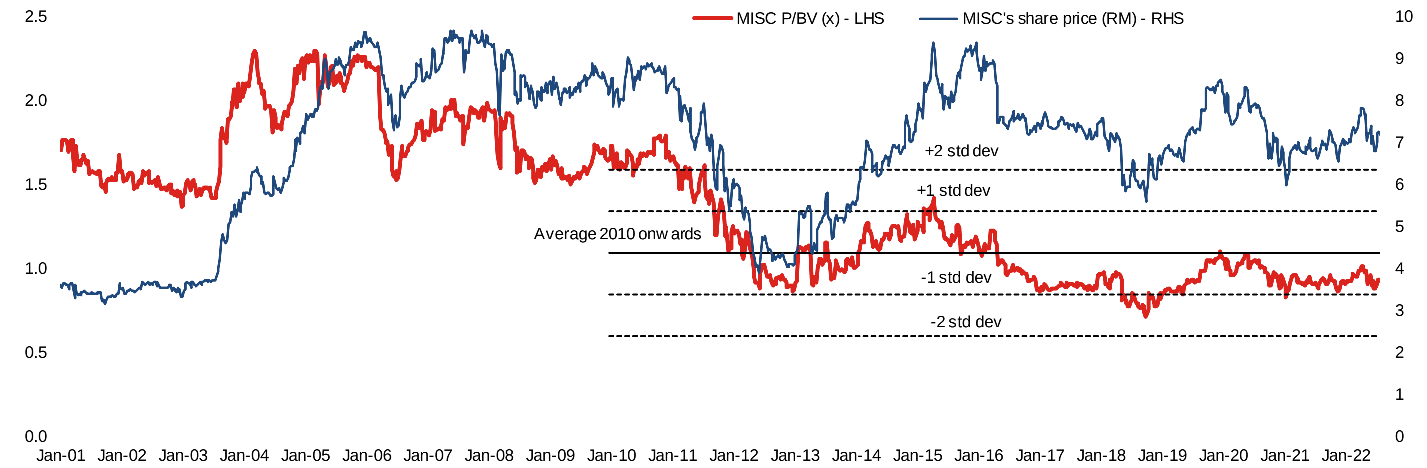
Our assumption for the tanker fleet's liquidation value assumes that the values will be 20% higher than the end-2021 values, but actual secondhand ship values have risen by more than that. According to Clarksons, 5-year old VLCCs (310,000 dwt) are worth US$84m in early-August 2022, up 20% from December 2021's value of US$70m. Meanwhile, the value of 5-year old suezmaxes (160,000 dwt) are now US$59m, vs. US$47m (+26%), while 5-year old aframaxes (105,000 dwt) are now worth US$53m, up 29% from December 2021's US$41m. Secondhand ship values have risen with higher newbuilding prices (the latter being driven by higher steel costs and the lack of available shipbuilding slots), and higher spot freight rates (see Figures 18-21). We retain our 20% annual ship valuation increase for now.

The DCF value of the FPSO Mero-3 project to MISC's SOP was reduced by 25% from RM0.84/share to RM0.63/share in our 27 May 2022 note, as we pencilled-in a higher project capex assumption of US$2.2bn, up from US$1.8bn previously, to factor in execution delays and cost overruns. On 29 and 30 June 2022, MISC's President/Group CEO Datuk Yee Yang Chien cautioned investors and analysts about the potential in 2Q22F for a write-back of earlier-recognised FPSO Mero-3 construction profits, due to cost overruns and execution delays (see our 1 July 2022 note). If MISC provides realistic guidance about the FPSO Mero-3 project capex, we may reflect that new guidance into our SOP.

Our target price of RM8.00 is close to MISC's BVPS of RM7.79 as at 31 March 2022, which represents a P/BV of 1.03x and lower than MISC's average P/BV since 2010 of 1.09x.

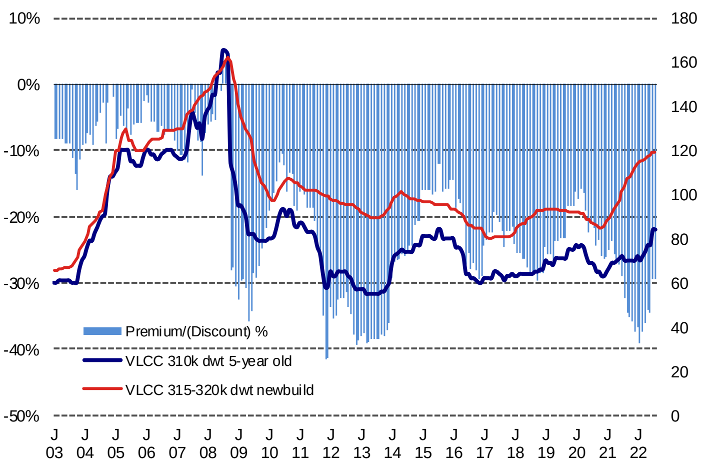
We reiterate our Add recommendation, with a potential re-rating catalyst being the strong recovery in aframax and suezmax tanker rates in 2022F. Downside risks include the potential for additional cost overruns on the FPSO Mero-3 project, and the potential for still-weak VLCC TCE spot and TC rates to negatively impact the profitability of AET's VLCC segment.

**Figure 17: MISC historical P/BV chart**



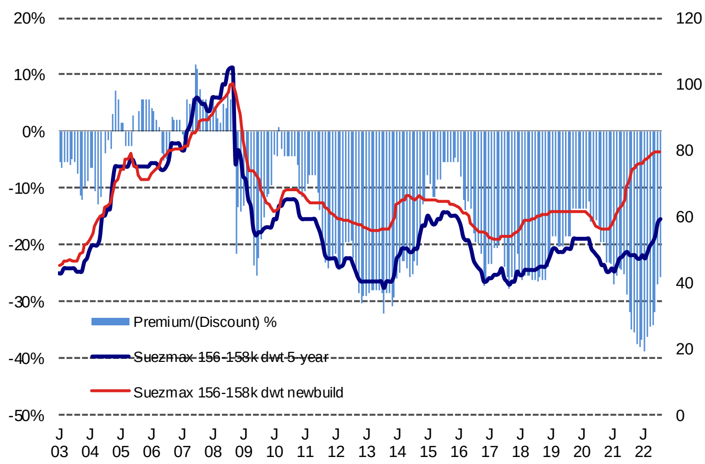

SOURCES: CGS-CIMB RESEARCH, BLOOMBERG

**Figure 18: VLCC vessel prices (US$ m)**



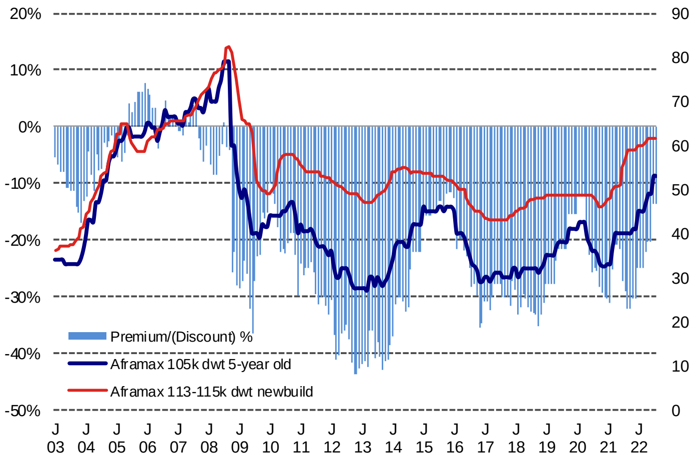

SOURCES: CGS-CIMB RESEARCH, CLARKSON RESEARCH SERVICES

**Figure 19: Suezmax vessel prices (US$ m)**



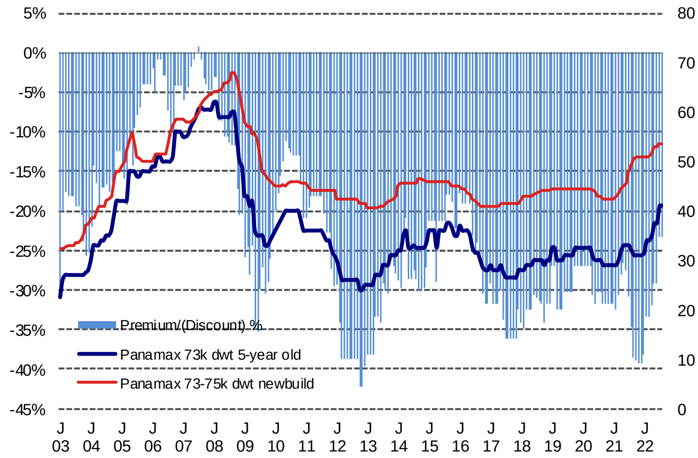

SOURCES: CGS-CIMB RESEARCH, CLARKSON RESEARCH SERVICES

**Figure 20: Aframax vessel prices (US$ m)**




SOURCES: CGS-CIMB RESEARCH, CLARKSON RESEARCH SERVICES

**Figure 21: Panamax vessel prices (US$ m)**




SOURCES: CGS-CIMB RESEARCH, CLARKSON RESEARCH SERVICES

## Abbreviations

IEA: International Energy Agency

OPEC: Organization of the Petroleum Exporting Countries

OPEC+: OPEC and its key non-OPEC collaborators, principally Russia

OECD: The Organisation for Economic Co-operation and Development

AET: MISC's wholly-owned petroleum and chemical tanker shipping subsidiary

MMHE: Malaysia Marine and Heavy Engineering Holdings Bhd, MISC's 66%-owned heavy engineering subsidiary

FPSO: Floating Production Storage and Offload vessels

LNG: Liquefied Natural Gas

VLCC: Very Large Crude Carriers

VLEC: Very Large Ethane Carriers

TCE: Time Charter Equivalent rates, expressed in US$/day

mbpd: million barrels per day

## ESG in a nutshell

Refinitiv ESG Scores

| ESG Score | ESG Controversies Score | ESG Combined Score | ESG Environment Pillar Score | ESG Social Pillar Score | ESG Government Pillar Score |
|---|---|---|---|---|---|
| A- | A+ | A- | B | A | A |

MISC may be doubly impacted by the energy transition. In the short term, the International Maritime Organization (IMO) has set in motion the Energy Efficiency Existing Ship Index (EEXI) and the Carbon Intensity Index (CII) regulations to come into effect from 1 January 2023F, which may require MISC to take measures to progressively improve its shipping fleet's energy efficiency. While we believe that MISC's petroleum tanker fleet is likely to outperform its competitors once the EEXI/CII rules come into effect, MISC may be forced to accept discounts on the time charter rates of its ageing fuel-inefficient steam turbine LNG tanker fleet. Potential carbon taxes and a longer-term decline in fossil fuel demand may require MISC to revamp its business model in the transportation of fossil fuels and ownership of floating production assets. With a strong balance sheet and Petronas' target for net zero carbon emissions by 2050F, MISC is well-positioned to tap into these opportunities.

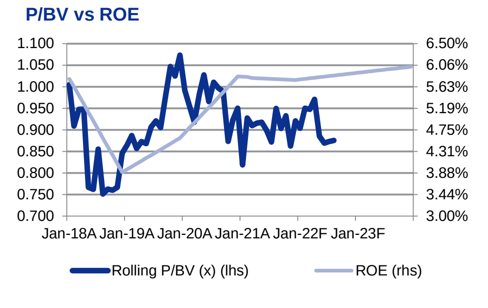
| Keep your eye on | Implications |
|---|---|
| The IMO's EEXI and CII regulations will come into effect from 1 January 2023F, with the requirements to be tightened gradually to meet the IMO's goal of a 40% reduction in shipping's carbon intensity by 2030F.<br><br>MISC has signed up to own a zero-carbon, ammonia fuelled ship by 2025F, or 2030F at the latest. | Most of MISC's petroleum tanker vessels will have no problem meeting the challenges of the incoming rules, with lower carbon intensity than global averages. MISC stands to benefit from higher petroleum tanker freight rates if its competitors are forced to reduce sailing speeds. Conversely, steam turbine LNG tankers face greater challenges to meet the future requirements and MISC may have to slow down their sailing speeds materially, which could negatively impact its time charter rates. MISC's future ammonia-fuelled ship could help bolster its ESG credentials, as well as outperform regulatory requirements in the next decade. |

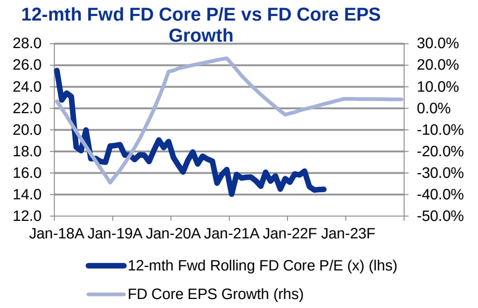
| ESG highlights | Implications |
|---|---|
| MISC has some of the best ESG disclosures among shipping companies, in our view, with disclosures improving significantly in Annual Report 2019 and Annual Report 2020. Notably, MISC discloses operating carbon intensity data for its petroleum and LNG tanker vessels with significantly more detail than we have seen from its peers. | We expect MISC to improve its ESG disclosures further in Annual Report 2021, which is likely to be released in April 2022F, with a sharper focus on key environmental and regulatory issues. The transparency of MISC's disclosures should hopefully translate into better investor confidence. |

| Trends | Implications |
|---|---|
| MISC faces an existential threat from the world's effort to decarbonise, as it is a transporter of fossil fuels like crude oil and LNG and also an owner of floating production assets. | MISC has time to respond to the existential threat, as global oil demand may continue to grow in the 2020s and plateau in the 2030Fs, before declining in the 2040s. MISC has already ventured into very large ethane carrier (VLEC) and LNG bunker vessel (LBV) segments; we expect these ship types to be resilient amid the energy transition. |

SOURCES: CGS-CIMB RESEARCH, COMPANY REPORTS, REFINITIV

# BY THE NUMBERS




## Profit & Loss

| (US$m) | Dec-20A | Dec-21A | Dec-22F | Dec-23F | Dec-24F |
|---|---|---|---|---|---|
| **Total Net Revenues** | **2,237** | **2,575** | **3,117** | **2,964** | **2,461** |
| **Gross Profit** | **914** | **848** | **1,039** | **1,056** | **1,044** |
| **Operating EBITDA** | **914** | **848** | **1,039** | **1,056** | **1,044** |
| Depreciation And Amortisation | -498 | -471 | -462 | -452 | -439 |
| **Operating EBIT** | **417** | **377** | **577** | **605** | **605** |
| Financial Income/(Expense) | -61 | -76 | -127 | -117 | -107 |
| Pretax Income/(Loss) from Assoc. | 103 | 73 | 45 | 29 | 18 |
| Non-Operating Income/(Expense) | 28 | 80 | 0 | 0 | 0 |
| **Profit Before Tax (pre-EI)** | **487** | **454** | **495** | **517** | **516** |
| Exceptional Items | -492 | -33 | 0 | 0 | 0 |
| **Pre-tax Profit** | **-5** | **421** | **495** | **517** | **516** |
| Taxation | -11 | -10 | -15 | -16 | -15 |
| Exceptional Income - post-tax | | | | | |
| **Profit After Tax** | **-16** | **411** | **481** | **502** | **501** |
| Minority Interests | 6 | 24 | 7 | 7 | 7 |
| Preferred Dividends | 0 | 0 | 0 | 0 | 0 |
| FX Gain/(Loss) - post tax | | | | | |
| Other Adjustments - post-tax | | | | | |
| **Net Profit** | **-11** | **434** | **488** | **508** | **508** |
| Recurring Net Profit | 482 | 467 | 488 | 508 | 508 |
| **Fully Diluted Recurring Net Profit** | **482** | **467** | **488** | **508** | **508** |

## Cash Flow

| (US$m) | Dec-20A | Dec-21A | Dec-22F | Dec-23F | Dec-24F |
|---|---|---|---|---|---|
| EBITDA | 914 | 848 | 1,039 | 1,056 | 1,044 |
| Cash Flow from Invt. & Assoc. | | | | | |
| Change In Working Capital | 371 | -235 | -310 | 188 | 541 |
| (Incr)/Decr in Total Provisions | | | | | |
| Other Non-Cash (Income)/Expense | | | | | |
| Other Operating Cashflow | 167 | 103 | 342 | 346 | 336 |
| Net Interest (Paid)/Received | -108 | -2 | -127 | -117 | -107 |
| Tax Paid | -15 | -11 | -15 | -16 | -15 |
| **Cashflow From Operations** | **1,330** | **703** | **930** | **1,458** | **1,799** |
| Capex | -1,152 | -1,472 | -393 | -300 | -300 |
| Disposals Of FAs/subsidiaries | 118 | 132 | 0 | 0 | 0 |
| Acq. Of Subsidiaries/investments | 0 | 0 | 0 | 0 | 0 |
| Other Investing Cashflow | 70 | 22 | 0 | 0 | 0 |
| **Cash Flow From Investing** | **-964** | **-1,317** | **-393** | **-300** | **-300** |
| Debt Raised/(repaid) | 128 | 726 | 790 | 233 | -283 |
| Proceeds From Issue Of Shares | 0 | 0 | 0 | 0 | 0 |
| Shares Repurchased | 0 | 0 | 0 | 0 | 0 |
| Dividends Paid | -351 | -362 | -343 | -343 | -343 |
| Preferred Dividends | | | | | |
| Other Financing Cashflow | -108 | -2 | -127 | -117 | -107 |
| **Cash Flow From Financing** | **-331** | **362** | **321** | **-226** | **-733** |
| Total Cash Generated | 36 | -252 | 857 | 932 | 766 |
| **Free Cashflow To Equity** | **495** | **112** | **1,327** | **1,391** | **1,216** |
| **Free Cashflow To Firm** | **474** | **-612** | **663** | **1,274** | **1,606** |

SOURCES: CGS-CIMB RESEARCH, COMPANY REPORTS

## BY THE NUMBERS… cont'd

### Balance Sheet

| (US$m) | Dec-20A | Dec-21A | Dec-22F | Dec-23F | Dec-24F |
|---|---|---|---|---|---|
| Total Cash And Equivalents | 1,705 | 1,909 | 2,766 | 3,698 | 4,464 |
| Total Debtors | 1,303 | 1,129 | 1,298 | 1,251 | 1,093 |
| Inventories | 23 | 29 | 35 | 32 | 24 |
| Total Other Current Assets | 43 | 16 | 16 | 16 | 16 |
| **Total Current Assets** | **3,074** | **3,082** | **4,115** | **4,996** | **5,596** |
| Fixed Assets | 5,798 | 6,169 | 6,430 | 6,047 | 5,260 |
| Total Investments | 393 | 594 | 639 | 669 | 687 |
| Intangible Assets | 204 | 255 | 255 | 255 | 255 |
| Total Other Non-Current Assets | 3,421 | 3,706 | 3,490 | 3,261 | 3,032 |
| **Total Non-current Assets** | **9,816** | **10,724** | **10,814** | **10,231** | **9,233** |
| Short-term Debt | 499 | 1,994 | 1,280 | 1,280 | 1,280 |
| Current Portion of Long-Term Debt | | | | | |
| Total Creditors | 852 | 960 | 1,155 | 1,060 | 788 |
| Other Current Liabilities | 29 | 29 | 29 | 29 | 29 |
| **Total Current Liabilities** | **1,380** | **2,983** | **2,464** | **2,369** | **2,096** |
| Total Long-term Debt | 2,844 | 2,093 | 3,597 | 3,831 | 3,547 |
| Hybrid Debt - Debt Component | | | | | |
| Total Other Non-Current Liabilities | 419 | 348 | 348 | 348 | 348 |
| **Total Non-current Liabilities** | **3,263** | **2,441** | **3,945** | **4,178** | **3,895** |
| Total Provisions | 0 | 0 | 0 | 0 | 0 |
| **Total Liabilities** | **4,644** | **5,423** | **6,409** | **6,547** | **5,992** |
| Shareholders' Equity | 8,028 | 8,199 | 8,345 | 8,511 | 8,676 |
| Minority Interests | 218 | 183 | 175 | 169 | 162 |
| **Total Equity** | **8,246** | **8,382** | **8,520** | **8,679** | **8,838** |

### Key Ratios

| | Dec-20A | Dec-21A | Dec-22F | Dec-23F | Dec-24F |
|---|---|---|---|---|---|
| Revenue Growth | 3.4% | 15.1% | 21.0% | (4.9%) | (17.0%) |
| Operating EBITDA Growth | (6.2%) | (7.2%) | 22.5% | 1.7% | (1.2%) |
| Operating EBITDA Margin | 40.9% | 32.9% | 33.3% | 35.6% | 42.4% |
| Net Cash Per Share (US$) | -0.37 | -0.49 | -0.47 | -0.32 | -0.08 |
| BVPS (US$) | 1.80 | 1.84 | 1.87 | 1.91 | 1.94 |
| Gross Interest Cover | 4.76 | 3.74 | 3.84 | 4.06 | 4.09 |
| Effective Tax Rate | 0.00% | 2.36% | 3.00% | 3.00% | 3.00% |
| Net Dividend Payout Ratio | 71.2% | 74.6% | 68.1% | 65.4% | 65.5% |
| Accounts Receivables Days | 129.3 | 126.8 | 104.2 | 117.1 | 126.2 |
| Inventory Days | 8.74 | 5.45 | 5.58 | 6.36 | 7.17 |
| Accounts Payables Days | 189.2 | 191.5 | 185.7 | 211.9 | 238.6 |
| ROIC (%) | 3.11% | 2.85% | 4.20% | 4.38% | 4.65% |
| ROCE (%) | 3.77% | 3.34% | 4.64% | 4.68% | 4.71% |
| Return On Average Assets | 4.16% | 3.83% | 4.11% | 4.01% | 3.97% |

### Key Drivers

| | Dec-20A | Dec-21A | Dec-22F | Dec-23F | Dec-24F |
|---|---|---|---|---|---|
| LNG vessels (no) | 33.0 | 39.0 | 39.0 | 41.0 | 41.0 |
| Petroleum and chemical vessels (no) | 66.0 | 59.0 | 63.0 | 66.0 | 66.0 |

SOURCES: CGS-CIMB RESEARCH, COMPANY REPORTS

## DISCLAIMER

The content of this report (including the views and opinions expressed therein, and the information comprised therein) has been prepared by and belongs to CGS-CIMB. Reports relating to a specific geographical area are produced and distributed by the corresponding CGS-CIMB entity as listed in the table below.

This report is not directed to, or intended for distribution to or use by, any person or entity who is a citizen or resident of or located in any locality, state, country or other jurisdiction where such distribution, publication, availability or use would be contrary to law or regulation.

By accepting this report, the recipient hereof represents and warrants that he is entitled to receive such report in accordance with the restrictions set forth below and agrees to be bound by the limitations contained herein (including the "Restrictions on Distributions" set out below). Any failure to comply with these limitations may constitute a violation of law. This publication is being supplied to you strictly on the basis that it will remain confidential. No part of this report may be (i) copied, photocopied, duplicated, stored or reproduced in any form by any means; or (ii) redistributed or passed on, directly or indirectly, to any other person in whole or in part, for any purpose without the prior written consent of CGS-CIMB.

The information contained in this research report is prepared from data believed to be correct and reliable at the time of issue of this report. CGS-CIMB may or may not issue regular reports on the subject matter of this report at any frequency and may cease to do so or change the periodicity of reports at any time. CGS-CIMB has no obligation to update this report in the event of a material change to the information contained in this report. CGS-CIMB does not accept any obligation to (i) check or ensure that the contents of this report remain current, reliable or relevant, (ii) ensure that the content of this report constitutes all the information a prospective investor may require, (iii) ensure the adequacy, accuracy, completeness, reliability or fairness of any views, opinions and information, and accordingly, CGS-CIMB, its affiliates and related persons including China Galaxy International Financial Holdings Limited ("CGIFHL") and CIMB Group Sdn. Bhd. ("CIMBG") and their respective related corporations (and their respective directors, associates, connected persons and/or employees) shall not be liable in any manner whatsoever for any consequences (including but not limited to any direct, indirect or consequential losses, loss of profits and damages) of any reliance thereon or usage thereof. In particular, CGS-CIMB disclaims all responsibility and liability for the views and opinions set out in this report.

Unless otherwise specified, this report is based upon sources which CGS-CIMB considers to be reasonable. Such sources will, unless otherwise specified, for market data, be market data and prices available from the main stock exchange or market where the relevant security is listed, or, where appropriate, any other market. Information on the accounts and business of company(ies) will generally be based on published statements of the company(ies), information disseminated by regulatory information services, other publicly available information and information resulting from our research.

Whilst every effort is made to ensure that statements of facts made in this report are accurate, all estimates, projections, forecasts, expressions of opinion and other subjective judgments contained in this report are based on assumptions considered to be reasonable as of the date of the document in which they are contained and must not be construed as a representation that the matters referred to therein will occur. Past performance is not a reliable indicator of future performance. The value of investments may go down as well as up and those investing may, depending on the investments in question, lose more than the initial investment. No report shall constitute an offer or an invitation by or on behalf of CGS-CIMB or any of its affiliates (including CGIFHL, CIMBG and their respective related corporations) to any person to buy or sell any investments.

CGS-CIMB, its affiliates and related corporations (including CGIFHL, CIMBG and their respective related corporations) and/or their respective directors, associates, connected parties and/or employees may own or have positions in securities of the company(ies) covered in this research report or any securities related thereto and may from time to time add to or dispose of, or may be materially interested in, any such securities. Further, CGS-CIMB, its affiliates and their respective related corporations (including CGIFHL, CIMBG and their respective related corporations) do and seek to do business with the company(ies) covered in this research report and may from time to time act as market maker or have assumed an underwriting commitment in securities of such company(ies), may sell them to or buy them from customers on a principal basis and may also perform or seek to perform significant investment banking, advisory, underwriting or placement services for or relating to such company(ies) as well as solicit such investment, advisory or other services from any entity mentioned in this report.

CGS-CIMB or its affiliates (including CGIFHL, CIMBG and their respective related corporations) may enter into an agreement with the company(ies) covered in this report relating to the production of research reports. CGS-CIMB may disclose the contents of this report to the company(ies) covered by it and may have amended the contents of this report following such disclosure.

The analyst responsible for the production of this report hereby certifies that the views expressed herein accurately and exclusively reflect his or her personal views and opinions about any and all of the issuers or securities analysed in this report and were prepared independently and autonomously. No part of the compensation of the analyst(s) was, is, or will be directly or indirectly related to the inclusion of specific recommendations(s) or view(s) in this report. The analyst(s) who prepared this research report is prohibited from receiving any compensation, incentive or bonus based on specific investment banking transactions or for providing a specific recommendation for, or view of, a particular company. Information barriers and other arrangements may be established where necessary to prevent conflicts of interests arising. However, the analyst(s) may receive compensation that is based on his/their coverage of company(ies) in the performance of his/their duties or the performance of his/their recommendations and the research personnel involved in the preparation of this report may also participate in the solicitation of the businesses as described above. In reviewing this research report, an investor should be aware that any or all of the foregoing, among other things, may give rise to real or potential conflicts of interest. Additional information is, subject to the duties of confidentiality, available on request.

Reports relating to a specific geographical area are produced by the corresponding CGS-CIMB entity as listed in the table below. The term "CGS-CIMB" shall denote, where appropriate, the relevant entity distributing or disseminating the report in the particular jurisdiction referenced below, or, in every other case except as otherwise stated herein, CGS-CIMB Securities International Pte. Ltd. and its affiliates, subsidiaries and related corporations.

| Country | CGS-CIMB Entity | Regulated by |
|---|---|---|
| Hong Kong | CGS-CIMB Securities (Hong Kong) Limited | Securities and Futures Commission Hong Kong |
| India | CGS-CIMB Securities (India) Private Limited | Securities and Exchange Board of India (SEBI) |
| Indonesia | PT CGS-CIMB Sekuritas Indonesia | Financial Services Authority of Indonesia |
| Malaysia | CGS-CIMB Securities Sdn. Bhd. | Securities Commission Malaysia |
| Singapore | CGS-CIMB Securities (Singapore) Pte. Ltd. | Monetary Authority of Singapore |
| South Korea | CGS-CIMB Securities (Hong Kong) Limited, Korea Branch | Financial Services Commission and Financial Supervisory Service |
| Thailand | CGS-CIMB Securities (Thailand) Co. Ltd. | Securities and Exchange Commission Thailand |

**Other Significant Financial Interests:**

(i) As of July 31, 2022 CGS-CIMB has a proprietary position in the securities (which may include but not be limited to shares, warrants, call warrants and/or any other derivatives) in the following company or companies covered or recommended in this report:

(a) -

(ii) Analyst Disclosure: As of August 11, 2022, the analyst(s) who prepared this report, and the associate(s), has / have an interest in the securities (which may include but not be limited to shares, warrants, call warrants and/or any other derivatives) in the following company or companies covered or recommended in this report:

(a) -

This report does not purport to contain all the information that a prospective investor may require. Neither CGS-CIMB nor any of its affiliates (including CGIFHL, CIMBG and their related corporations) make any guarantee, representation or warranty, express or implied, as to the adequacy, accuracy, completeness, reliability or fairness of any such information and opinion contained in this report. Neither CGS-CIMB nor any of its affiliates nor their related persons (including CGIFHL, CIMBG and their related corporations) shall be liable in any manner whatsoever for any consequences (including but not limited to any direct, indirect or consequential losses, loss of profits and damages) of any reliance thereon or usage thereof.

This report is general in nature and has been prepared for information purposes only. It is intended for circulation amongst CGS-CIMB's clients generally and does not have regard to the specific investment objectives, financial situation and the particular needs of any specific person who may receive this report. The information and opinions in this report are not and should not be construed or considered as an offer, recommendation or solicitation to buy or sell the subject securities, related investments or other financial instruments or any derivative instrument, or any rights pertaining thereto.

Investors are advised to make their own independent evaluation of the information contained in this research report, consider their own individual investment objectives, financial situation and particular needs and consult their own professional and financial advisers as to the legal, business, financial, tax and other aspects before participating in any transaction in respect of the securities of company(ies) covered in this research report.

The securities of such company(ies) may not be eligible for sale in all jurisdictions or to all categories of investors.

Restrictions on Distributions

**Australia:** Despite anything in this report to the contrary, this research is provided in Australia by CGS-CIMB Securities (Singapore) Pte. Ltd. and CGS-CIMB Securities (Hong Kong) Limited. This research is only available in Australia to persons who are "wholesale clients" (within the meaning of the Corporations Act 2001 (Cth) and is supplied solely for the use of such wholesale clients and shall not be distributed or passed on to any other person. You represent and warrant that if you are in Australia, you are a "wholesale client". This research is of a general nature only and has been prepared without taking into account the objectives, financial situation or needs of the individual recipient. CGS-CIMB Securities (Singapore) Pte. Ltd. and CGS-CIMB Securities (Hong Kong) Limited do not hold, and are not required to hold an Australian financial services license. CGS-CIMB Securities (Singapore) Pte. Ltd. and CGS-CIMB Securities (Hong Kong) Limited rely on "passporting" exemptions for entities appropriately licensed by the Monetary Authority of Singapore (under ASIC Class Order 03/1102) and the Securities and Futures Commission in Hong Kong (under ASIC Class Order 03/1103).

**Canada:** This research report has not been prepared in accordance with the disclosure requirements of Dealer Member Rule 3400 – Research Restrictions and Disclosure Requirements of the Investment Industry Regulatory Organization of Canada. For any research report distributed by CIBC, further disclosures related to CIBC conflicts of interest can be found at https://researchcentral.cibcwm.com .

**China:** For the purpose of this report, the People's Republic of China ("PRC") does not include the Hong Kong Special Administrative Region, the Macau Special Administrative Region or Taiwan. The distributor of this report has not been approved or licensed by the China Securities Regulatory Commission or any other relevant regulatory authority or governmental agency in the PRC. This report contains only marketing information. The distribution of this report is not an offer to buy or sell to any person within or outside PRC or a solicitation to any person within or outside of PRC to buy or sell any instruments described herein. This report is being issued outside the PRC to a limited number of institutional investors and may not be provided to any person other than the original recipient and may not be reproduced or used for any other purpose.

**France:** Only qualified investors within the meaning of French law shall have access to this report. This report shall not be considered as an offer to subscribe to, or used in connection with, any offer for subscription or sale or marketing or direct or indirect distribution of financial instruments and it is not intended as a solicitation for the purchase of any financial instrument.

**Germany:** This report is only directed at persons who are professional investors as defined in sec 31a(2) of the German Securities Trading Act (WpHG). This publication constitutes research of a non-binding nature on the market situation and the investment instruments cited here at the time of the publication of the information.

The current prices/yields in this issue are based upon closing prices from Bloomberg as of the day preceding publication. Please note that neither the German Federal Financial Supervisory Agency (BaFin), nor any other supervisory authority exercises any control over the content of this report.

**Hong Kong:** This report is issued and distributed in Hong Kong by CGS-CIMB Securities (Hong Kong) Limited ("CHK") which is licensed in Hong Kong by the Securities and Futures Commission for Type 1 (dealing in securities) and Type 4 (advising on securities) activities. Any investors wishing to purchase or otherwise deal in the securities covered in this report should contact the Head of Sales at CGS-CIMB Securities (Hong Kong) Limited. The views and opinions in this research report are our own as of the date hereof and are subject to change. If the Financial Services and Markets

Act of the United Kingdom or the rules of the Financial Conduct Authority apply to a recipient, our obligations owed to such recipient therein are unaffected. CHK has no obligation to update its opinion or the information in this research report.

This publication is strictly confidential and is for private circulation only to clients of CHK.

CHK does not make a market on other securities mentioned in the report.

**India:** This report is issued and distributed in India by CGS-CIMB Securities (India) Private Limited ("CGS-CIMB India"). CGS-CIMB India is a subsidiary of CGS-CIMB Securities International Pte. Ltd. which is in turn is a 50:50 joint venture company of CGIFHL and CIMBG. The details of the members of the group of companies of CGS-CIMB can be found at www.cgs-cimb.com, CGIFHL at www.chinastock.com.hk/en/ACG/ContactUs/index.aspx and CIMBG at www.cimb.com/en/who-we-are.html. CGS-CIMB India is registered with the National Stock Exchange of India Limited and BSE Limited as a trading and clearing member (Merchant Banking Number: INM000012037) under the Securities and Exchange Board of India (Stock Brokers and Sub-Brokers) Regulations, 1992. In accordance with the provisions of Regulation 4(g) of the Securities and Exchange Board of India (Investment Advisers) Regulations, 2013, CGS-CIMB India is not required to seek registration with the Securities and Exchange Board of India ("SEBI") as an Investment Adviser. CGS-CIMB India is registered with SEBI (SEBI Registration Number: INZ000209135) as a Research Analyst (INH000000669) pursuant to the SEBI (Research Analysts) Regulations, 2014 ("Regulations").

This report does not take into account the particular investment objectives, financial situations, or needs of the recipients. It is not intended for and does not deal with prohibitions on investment due to law/jurisdiction issues etc. which may exist for certain persons/entities. Recipients should rely on their own investigations and take their own professional advice before investment.

The report is not a "prospectus" as defined under Indian Law, including the Companies Act, 2013, and is not, and shall not be, approved by, or filed or registered with, any Indian regulator, including any Registrar of Companies in India, SEBI, any Indian stock exchange, or the Reserve Bank of India. No offer, or invitation to offer, or solicitation of subscription with respect to any such securities listed or proposed to be listed in India is being made, or intended to be made, to the public, or to any member or section of the public in India, through or pursuant to this report.

The research analysts, strategists or economists principally responsible for the preparation of this research report are segregated from the other activities of CGS-CIMB India and they have received compensation based upon various factors, including quality, accuracy and value of research, firm profitability or revenues, client feedback and competitive factors. Research analysts', strategists' or economists' compensation is not linked to investment banking or capital markets transactions performed or proposed to be performed by CGS-CIMB India or its affiliates.

CGS-CIMB India does not have actual / beneficial ownership of 1% or more securities of the subject company in this research report, at the end of the month immediately preceding the date of publication of this research report. However, since affiliates of CGS-CIMB India are engaged in the financial services business, they might have in their normal course of business financial interests or actual / beneficial ownership of one per cent or more in various companies including the subject company in this research report.

CGS-CIMB India or its associates, may: (a) from time to time, have long or short position in, and buy or sell the securities of the subject company in this research report; or (b) be engaged in any other transaction involving such securities and earn brokerage or other compensation or act as a market maker in the financial instruments of the subject company in this research report or act as an advisor or lender/borrower to such company or may have any other potential conflict of interests with respect to any recommendation and other related information and opinions.

CGS-CIMB India, its associates and the analyst engaged in preparation of this research report have not received any compensation for investment banking, merchant banking or brokerage services from the subject company mentioned in the research report in the past 12 months.

CGS-CIMB India, its associates and the analyst engaged in preparation of this research report have not managed or co-managed public offering of securities for the subject company mentioned in the research report in the past 12 months. The analyst from CGS-CIMB India engaged in preparation of this research report or his/her relative (a) do not have any financial interests in the subject company mentioned in this research report; (b) do not own 1% or more of the equity securities of the subject company mentioned in the research report as of the last day of the month preceding the publication of the research report; (c) do not have any material conflict of interest at the time of publication of the research report.

**Indonesia:** This report is issued and distributed by PT CGS-CIMB Sekuritas Indonesia ("CGS-CIMB Indonesia"). The views and opinions in this research report are our own as of the date hereof and are subject to change. CGS-CIMB Indonesia has no obligation to update its opinion or the information in this research report. This report is for private circulation only to clients of CGS-CIMB Indonesia. Neither this report nor any copy hereof may be distributed in Indonesia or to any Indonesian citizens wherever they are domiciled or to Indonesian residents except in compliance with applicable Indonesian capital market laws and regulations.

This research report is not an offer of securities in Indonesia. The securities referred to in this research report have not been registered with the Financial Services Authority (Otoritas Jasa Keuangan) pursuant to relevant capital market laws and regulations, and may not be offered or sold within the territory of the Republic of Indonesia or to Indonesian citizens through a public offering or in circumstances which constitute an offer within the meaning of the Indonesian capital market law and regulations.

**Ireland:** CGS-CIMB is not an investment firm authorised in the Republic of Ireland and no part of this document should be construed as CGS-CIMB acting as, or otherwise claiming or representing to be, an investment firm authorised in the Republic of Ireland.

**Malaysia:** This report is distributed in Malaysia by CGS-CIMB Securities Sdn. Bhd. ("CGS-CIMB Malaysia") solely for the benefit of and for the exclusive use of our clients. Recipients of this report are to contact CGS-CIMB Malaysia, at Level 29, Menara Bumiputra-Commerce, No. 11, Jalan Raja Laut, 50350 Kuala Lumpur, Malaysia, in respect of any matters arising from or in connection with this report. CGS-CIMB Malaysia has no obligation to update, revise or reaffirm its opinion or the information in this research report after the date of this report. CGS-CIMB Malaysia may act or acts as a market maker in the capital market products of the following companies: (Malaysia Market Maker Company List - Click here)

**New Zealand:** In New Zealand, this report is for distribution only to persons who are wholesale clients pursuant to section 5C of the Financial Advisers Act 2008.

**Singapore:** This report is issued and distributed by CGS-CIMB Securities (Singapore) Pte Ltd ("CGS-CIMB Singapore"). CGS-CIMB Singapore is a capital markets services licensee under the Securities and Futures Act (Chapter 289). Accordingly, it is exempted from the requirement to hold a financial adviser's licence under the Financial Advisers Act, Cap 110 ("FAA") for advising on investment products, by issuing or promulgating research analyses or research reports, whether in electronic, print or other form. CGS-CIMB Singapore is subject to the applicable rules under the FAA unless it is able to avail itself to any prescribed exemptions.

Recipients of this report are to contact CGS-CIMB Singapore, 10 Marina Boulevard, Marina Bay Financial Centre Tower 2, #09-01, Singapore 018983 in respect of any matters arising from, or in connection with this report. CGS-CIMB Singapore has no obligation to update its opinion or the information in this research report. This publication is strictly confidential and is for private circulation only. If you have not been sent this report by CGS-CIMB Singapore directly, you may not rely, use or disclose to anyone else this report or its contents.

If the recipient of this research report is not an accredited investor, expert investor or institutional investor, CGS-CIMB Singapore accepts legal responsibility for the contents of the report without any disclaimer limiting or otherwise curtailing such legal responsibility. If the recipient is an accredited investor, expert investor or institutional investor, the recipient is deemed to acknowledge that CGS-CIMB Singapore is exempt from certain requirements under the FAA and its attendant regulations, and as such, is exempt from complying with the following:

(a) Section 25 of the FAA (obligation to disclose product information);

(b) Section 27 (duty not to make recommendation with respect to any investment product without having a reasonable basis where you may be reasonably expected to rely on the recommendation) of the FAA;

(c) MAS Notice on Information to Clients and Product Information Disclosure [Notice No. FAA-N03];

(d) MAS Notice on Recommendation on Investment Products [Notice No. FAA-N16];

(e) Section 36 (obligation on disclosure of interest in specified products), and

(f) any other laws, regulations, notices, directive, guidelines, circulars and practice notes which are relates to the above, to the extent permitted by applicable laws, as may be amended from time to time, and any other laws, regulations, notices, directive, guidelines, circulars, and practice notes as we may notify you from time to time. In addition, the recipient who is an accredited investor, expert investor or institutional investor acknowledges that as CGS-CIMB Singapore is exempt from Section 27 of the FAA, the recipient will also not be able to file a civil claim against CGS-CIMB Singapore for any loss or damage arising from the recipient's reliance on any recommendation made by CGS-CIMB Singapore which would otherwise be a right that is available to the recipient under Section 27 of the FAA. .

CGS-CIMB Singapore, its affiliates and related corporations, their directors, associates, connected parties and/or employees may own or have positions in specified products of the company(ies) covered in this research report or any specified products related thereto and may from time to time add to or dispose of, or may be materially interested in, any such specified products. Further, CGS-CIMB Singapore, its affiliates and its related corporations do and seek to do business with the company(ies) covered in this research report and may from time to time act as market maker or have assumed an underwriting commitment in specified products of such company(ies), may sell them to or buy them from customers on a principal basis and may also perform or seek to perform significant investment banking, advisory, underwriting or placement services for or relating to such company(ies) as well as solicit such investment, advisory or other services from any entity mentioned in this report.

As of August 11, 2022, CGS-CIMB Singapore does not have a proprietary position in the recommended specified products in this report.

CGS-CIMB Singapore does not make a market on the securities mentioned in the report.

**South Korea:** This report is issued and distributed in South Korea by CGS-CIMB Securities (Hong Kong) Limited, Korea Branch ("CGS-CIMB Korea") which is licensed as a cash equity broker, and regulated by the Financial Services Commission and Financial Supervisory Service of Korea. In South Korea, this report is for distribution only to professional investors under Article 9(5) of the Financial Investment Services and Capital Market Act of Korea ("FSCMA").

**Spain:** This document is a research report and it is addressed to institutional investors only. The research report is of a general nature and not personalised and does not constitute investment advice so, as the case may be, the recipient must seek proper advice before adopting any investment decision. This document does not constitute a public offering of securities.

CGS-CIMB is not registered with the Spanish Comision Nacional del Mercado de Valores to provide investment services.

**Sweden:** This report contains only marketing information and has not been approved by the Swedish Financial Supervisory Authority. The distribution of this report is not an offer to sell to any person in Sweden or a solicitation to any person in Sweden to buy any instruments described herein and may not be forwarded to the public in Sweden.

**Switzerland:** This report has not been prepared in accordance with the recognized self-regulatory minimal standards for research reports of banks issued by the Swiss Bankers' Association (Directives on the Independence of Financial Research).

**Thailand:** This report is issued and distributed by CGS-CIMB Securities (Thailand) Co. Ltd. ("CGS-CIMB Thailand") based upon sources believed to be reliable (but their accuracy, completeness or correctness is not guaranteed). The statements or expressions of opinion herein were arrived at after due and careful consideration for use as information for investment. Such opinions are subject to change without notice and CGS-CIMB Thailand has no obligation to update its opinion or the information in this research report.

**Corporate Governance Report (CGR):** (Thai CGR and Anti-Corruption of Thai Listed Companies - Click here)

The disclosure of the survey result of the Thai Institute of Directors Association ("IOD") regarding corporate governance is made pursuant to the policy of the Office of the Securities and Exchange Commission. The survey of the IOD is based on the information of a company listed on the Stock Exchange of Thailand and the Market for Alternative Investment disclosed to the public and able to be accessed by a general public investor. The result, therefore, is from the perspective of a third party. It is not an evaluation of operation and is not based on inside information.

The survey result is as of the date appearing in the Corporate Governance Report of Thai Listed Companies. As a result, the survey result may be changed after that date. CGS-CIMB Thailand does not confirm nor certify the accuracy of such survey result.

| **Score Range:** | 90 - 100 | 80 – 89 | 70 - 79 | Below 70 | No Survey Result |
|---|---|---|---|---|---|
| **Description:** | Excellent | Very Good | Good | N/A | N/A |

**United Arab Emirates:** The distributor of this report has not been approved or licensed by the UAE Central Bank or any other relevant licensing authorities or governmental agencies in the United Arab Emirates. This report is strictly private and confidential and has not been reviewed by, deposited or registered with UAE Central Bank or any other licensing authority or governmental agencies in the United Arab Emirates. This report is being issued outside the United Arab Emirates to a limited number of institutional investors and must not be provided to any person other than the original recipient and may not be reproduced or used for any other purpose. Further, the information contained in this report is not intended to lead to the sale of investments under any subscription agreement or the conclusion of any other contract of whatsoever nature within the territory of the United Arab Emirates.

**United Kingdom and European Economic Area (EEA):** In the United Kingdom and European Economic Area, this material is also being distributed by CGS-CIMB Securities (UK) Limited ("CGS-CIMB UK"). CGS-CIMB UK is authorized and regulated by the Financial Conduct Authority and its registered office is at 53 New Broad Street, London EC2M 1JJ. The material distributed by CGS-CIMB UK has been prepared in accordance with CGS-CIMB's policies for managing conflicts of interest arising as a result of publication and distribution of this material. This material is for distribution only to, and is solely directed at, selected persons on the basis that those persons: (a) are eligible counterparties and professional clients of CGS-CIMB UK; (b) have professional experience in matters relating to investments falling within Article 19(5) of the Financial Services and Markets Act 2000 (Financial Promotion) Order 2005 (as amended, the "Order"), (c) fall within Article 49(2)(a) to (d) ("high net worth companies, unincorporated associations etc") of the Order; (d) are outside the United Kingdom subject to relevant regulation in each jurisdiction, material(all such persons together being referred to as "relevant persons"). This material is directed only at relevant persons and must not be acted on or relied on by persons who are not relevant persons. Any investment or investment activity to which this material relates is available only to relevant persons and will be engaged in only with relevant persons.

This material is categorised as non-independent for the purposes of CGS-CIMB UK and therefore does not provide an impartial or objective assessment of the subject matter and does not constitute independent research. Consequently, this material has not been prepared in accordance with legal requirements designed to promote the independence of research and will not be subject to any prohibition on dealing ahead of the dissemination of research. Therefore, this material is considered a marketing communication.

**United States:** This research report is distributed in the United States of America by CGS-CIMB Securities (USA) Inc, a U.S. registered broker-dealer and an affiliate of CGS-CIMB Securities Sdn. Bhd., CGS-CIMB Securities (Singapore) Pte Ltd, PT CGS-CIMB Sekuritas Indonesia, CGS-CIMB Securities (Thailand) Co. Ltd, CGS-CIMB Securities (Hong Kong) Limited and CGS-CIMB Securities (India) Private Limited, and is distributed solely to persons who qualify as "U.S. Institutional Investors" as defined in Rule 15a-6 under the Securities and Exchange Act of 1934. This communication is only for Institutional Investors whose ordinary business activities involve investing in shares, bonds, and associated securities and/or derivative securities and who have professional experience in such investments. Any person who is not a U.S. Institutional Investor or Major Institutional Investor must not rely on this communication. The delivery of this research report to any person in the United States of America is not a recommendation to effect any transactions in the securities discussed herein, or an endorsement of any opinion expressed herein. CGS-CIMB Securities (USA) Inc, is a FINRA/SIPC member and takes responsibility for the content of this report. For further information or to place an order in any of the above-mentioned securities please contact a registered representative of CGS-CIMB Securities (USA) Inc.

CGS-CIMB Securities (USA) Inc. does not make a market on other securities mentioned in the report.

CGS-CIMB Securities (USA) Inc. has not managed or co-managed a public offering of any of the securities mentioned in the past 12 months.

CGS-CIMB Securities (USA) Inc. has not received compensation for investment banking services from any of the company mentioned in the past 12 months.

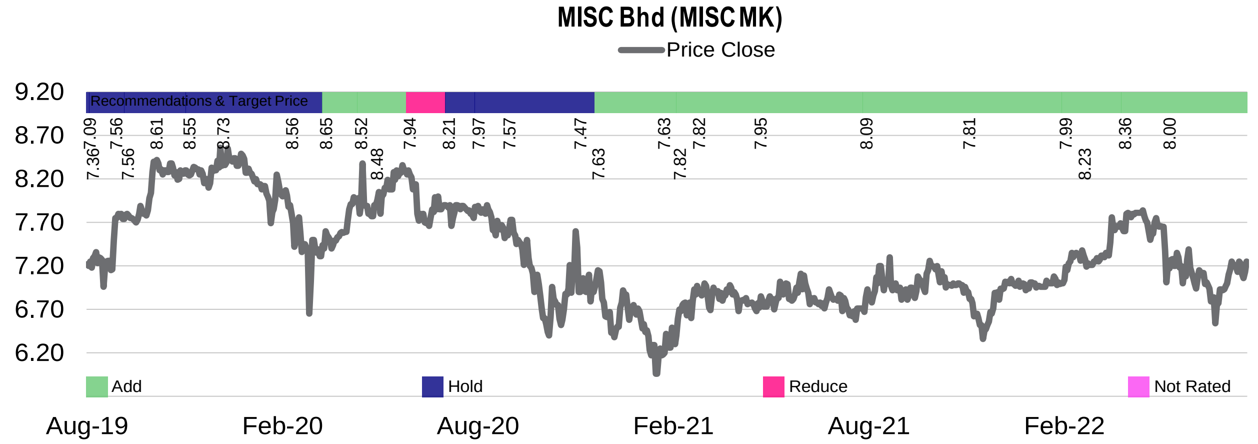
CGS-CIMB Securities (USA) Inc. neither expects to receive nor intends to seek compensation for investment banking services from any of the company mentioned within the next 3 months.

**United States Third-Party Disclaimer:** If this report is distributed in the United States of America by Raymond James & Associates, Inc ("RJA"), this report is third-party research prepared for and distributed in the United States of America by RJA pursuant to an arrangement between RJA and CGS-CIMB Securities International Pte. Ltd. ("CGS-CIMB"). CGS-CIMB is not an affiliate of RJA. This report is distributed solely to persons who qualify as "U.S. Institutional Investors" or as "Major U.S. Institutional Investors" as defined in Rule 15a-6 under the Securities and Exchange Act of 1934, as amended. This communication is only for U.S. Institutional Investors or Major U.S. Institutional Investor whose ordinary business activities involve investing in shares, bonds, and associated securities and/or derivative securities and who have professional experience in such investments. Any person who is not a U.S. Institutional Investor or Major U.S. Institutional Investor must not rely on this communication. The delivery of this report to any person in the U.S. is not a recommendation to effect any transactions in the securities discussed herein, or an endorsement of any opinion expressed herein. If you are receiving this report in the U.S from RJA, a FINRA/SIPC member, it takes responsibility for the content of this report. For further information or to place an order in any of the above-mentioned securities please contact a registered representative of CGS-CIMB Securities (USA) Inc. or RJA. https://raymondjames.com/InternationalEquityDisclosures

**Other jurisdictions:** In any other jurisdictions, except if otherwise restricted by laws or regulations, this report is only for distribution to professional, institutional or sophisticated investors as defined in the laws and regulations of such jurisdictions.

| Distribution of stock ratings and investment banking clients for quarter ended on 30 June 2022<br>643 companies under coverage for quarter ended on 30 June 2022 | | |
|---|---|---|
| | Rating Distribution (%) | Investment Banking clients (%) |
| Add | 68.4% | 0.8% |
| Hold | 24.6% | 0.0% |
| Reduce | 7.0% | 0.2% |

**Spitzer Chart for stock being researched ( 2 year data )**




| **Recommendation Framework** | |
|---|---|
| **Stock Ratings** | Definition: |
| Add | The stock's total return is expected to exceed 10% over the next 12 months. |
| Hold | The stock's total return is expected to be between 0% and positive 10% over the next 12 months. |
| Reduce | The stock's total return is expected to fall below 0% or more over the next 12 months. |

*The total expected return of a stock is defined as the sum of the: (i) percentage difference between the target price and the current price and (ii) the forward net dividend yields of the stock. Stock price targets have an investment horizon of 12 months.*

| | |
|---|---|
| **Sector Ratings** | Definition: |
| Overweight | An Overweight rating means stocks in the sector have, on a market cap-weighted basis, a positive absolute recommendation. |
| Neutral | A Neutral rating means stocks in the sector have, on a market cap-weighted basis, a neutral absolute recommendation. |
| Underweight | An Underweight rating means stocks in the sector have, on a market cap-weighted basis, a negative absolute recommendation. |
| **Country Ratings** | Definition: |
| Overweight | An Overweight rating means investors should be positioned with an above-market weight in this country relative to benchmark. |
| Neutral | A Neutral rating means investors should be positioned with a neutral weight in this country relative to benchmark. |
| Underweight | An Underweight rating means investors should be positioned with a below-market weight in this country relative to benchmark. |

#01d