



## LPG in Worlds Market

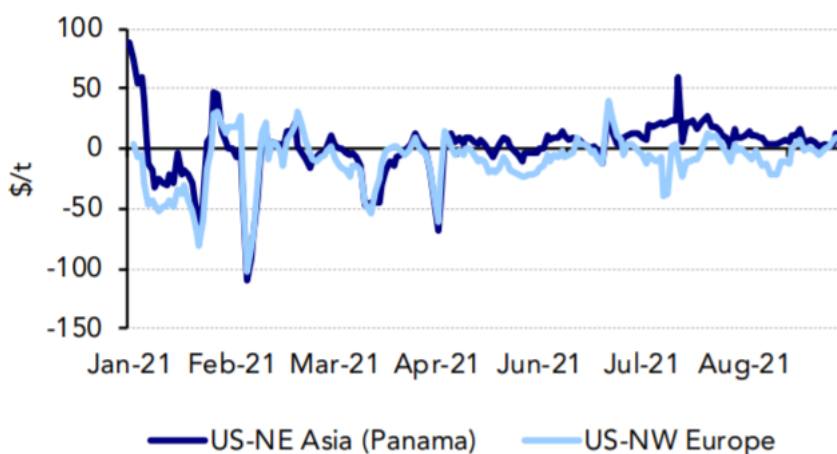
### High prices weigh on arbs, freights

US LPG exports declined in September from the previous month amid narrow arbitrage economics. Low inventories caused average Mont Belvieu propane prices to jump another 15% in September from August. Swap prices suggest the high price environment is expected to stick around through February 2022 as winter demand and slow growth in US production put additional pressure on the market. Following the winter months, swaps are trending lower.

After weeks of small storage builds and an early withdrawal in September, the US Energy Information Administration reported a larger-than-expected, a 2.6-million barrel build in US propane inventories in the week ended September 24, sending some relief to the tight supply demand situation in the US. However, US inventories are still significantly lower than last year and higher domestic demand in the coming months is expected to limit exports.

The current forecasts call for a slight decline in US exports between October 2021 and March 2022 than the previous six months (see details in the US section).

#### US arbitrage economics



#### Spot chartering down

The number of FOB resale trades and spot chartering fell in September (for October loadings) due to tight arbitrage between the US and Europe, which is expected to keep exports in October low compared with the high volumes seen since March through August. VLGC/LGC shipments from the US in August were a little over 3.3 MMT, a four-month high, but September loadings fell 9% month-on-month.

Traders are observing there are short windows when the arbitrage briefly opens up for US exports. Most deals are being done during those brief periods. Following a quiet first half of September, 15

VLGCs were fixed within a couple of days in the third week of September as arbitrages improved slightly. However, spot fixing was down in the following two weeks.

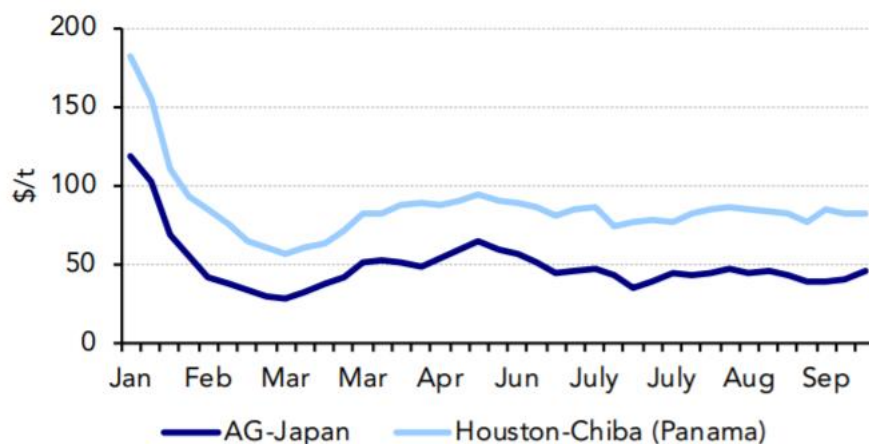
The flurry of fixing in the third week provided some support to the USGC to Asia (via Panama) spot VLGC freight rates; however, rates ended the month at \$83/t slightly lower than end-August values and \$10/t lower than last year.

Ship owners and charterers favored positioning ships in the West of Suez in September as US-to-Asia trade showed higher Time Charter Equivalents (TCEs) compared with TCEs achievable in the East market. However, higher vessel availability and narrow arbs towards end September suggest spot freight rates will be under pressure in October. Most of the October spot cargoes are expected to head to Asia where the netbacks continue to favor over shipping cargoes to Northwest Europe/Mediterranean. Only two of these vessels may end up in the Europe/Med region according to fixtures.

In addition, Enterprise bought back at least six FOB cargoes from October loading which could result fewer vessels requirements in October if these volumes are sold in the domestic market.

The spot freight rates for Middle East to Japan was down for most of September. Rates saw a slight increase towards the end of September reaching \$45.5/t which was mainly due to low number of available spot ships, not because of higher number of fixings. However, spot rates ended the month slightly lower from the previous month.

### Weekly spot VLGC rates



### Forward price

Forward curve shows the spread between October Mont Belvieu vs November FEI propane swaps widened in recent week which could incentivize more US exports and lend support to freight rates. However, the spreads are much lower in Feb-Mar 2022.

For October, Saudi Aramco announced cargo nominations without any cuts for the month which should increase liftings. Whether this will increase requirements for spot ships is yet to be seen.

Prices in the Middle East have increased sharply in the past month in tandem with US prices. The October propane CP was set at \$800/t, compared with the September CP at \$665/t. The October CP swap was trading below \$700/t at the beginning of September.

Far East prices increased at a slower rate in the first three weeks of September, narrowing arbs with Middle East and the US. However, prices in the region have increased at higher rate in the past week, improving arbs slightly. There is some indication, Far East traders are returning to market to prepare for winter pushing the benchmark FEI above \$900/t in early October.

However, despite the increase in outright propane price and improved arbs the challenge for ship owners is increase in bunker fuel price in tandem with surging crude price.

### Chinese demand uncertain

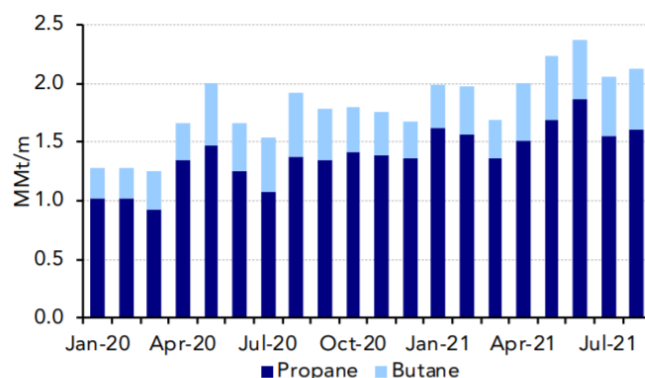
Further widening of arbitrage will depend on increased buying interest, especially from China.

There is lot of uncertainty about LPG demand in China. The country is facing a widespread power shortage due to the high cost of power generation fuels (natural gas/LNG/coal) which prompted 17 provinces and autonomous regions (almost half of China) to announce measures to cut power consumption by industrial end-users. The industries being targeted include aluminum, steel, petrochemicals, and textiles. These measures could decrease demand for LPG.

China is scrambling to tackle the situation by allowing higher electricity rates, more coal imports and raising local production. The consensus is that despite these measures, the cost of energy will be high this winter and will affect the industrial sector which will cut plant operations. High energy costs could also affect the petrochemical sector and weigh on LPG demand.

In the residential sector, high natural gas and electricity prices could drive some incremental demand for propane as heating and cooking fuel. However, these uncertainties and high prompt prices are limiting traders to buying only what is necessary despite concerns that there could be a shortage in the winter months.

### Chinese LPG imports



Source: OGP

Chinese LPG imports hit a record in June at nearly 2.4 MMT. Imports in the past three months have fallen from that high level due to high prices, narrow arbs and some PDH plant maintenance reducing demand from the chemical sector. These plants are expected to start buying propane in October as they return to service; however, high propane price is expected to force some plants to cut rates. Demand from crackers is also low due to unfavorable propane naphtha-spread.

The high price of LNG/gas is also pushing energy costs in Europe higher, sending signals that some industries could consider temporary plant closures during the winter months. Slow economic activity and the high price of propane is expected to drive demand lower in the region this winter where LPG demand is already low from the petrochemical sector.