



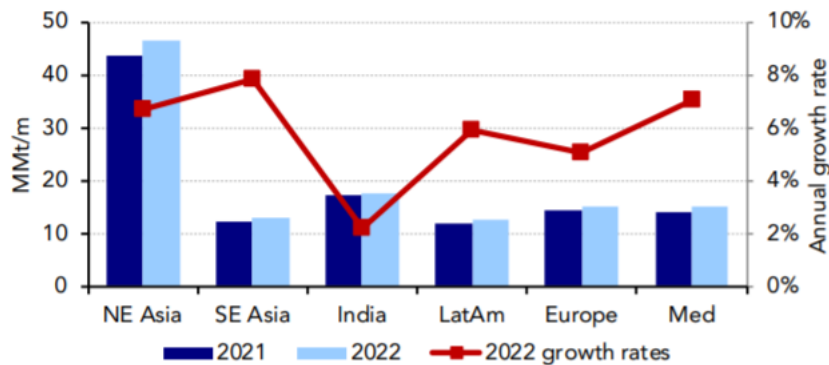
LPG Market Outlook

Northeast Asia demand to remain robust, European demand gaining strength

Northeast Asia is forecast to take in 40% of total global seaborne trade in 2022 – up about 1% from 2021. Import growth from the region is forecast at 7% in 2022 with imports rising from 43.7 MMt/y in 2021 to 46.6 MMt/y although that number may be higher depending on the rate of petrochemical demand growth in China.

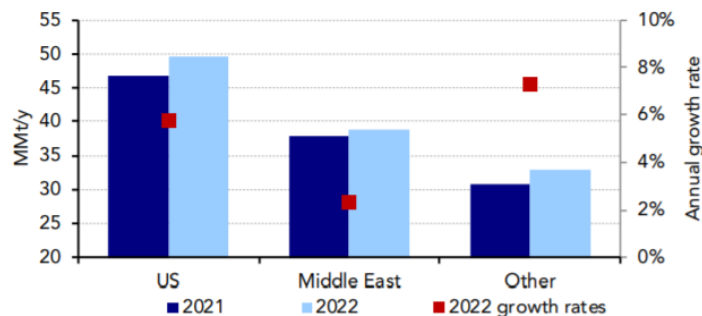
Southeast Asia is forecast to see the largest growth in imports at 8% which is mostly driven by declining production from Taiwan and Thailand. Imports are forecast at 13 MMt/y in 2022 for Southeast Asia. Europe and the Mediterranean are forecast to import about 30 MMt/y combined in 2022 with the volume split evenly between the two regions but the Mediterranean will see a higher growth rate.

2022 LPG import forecast and annual growth rate



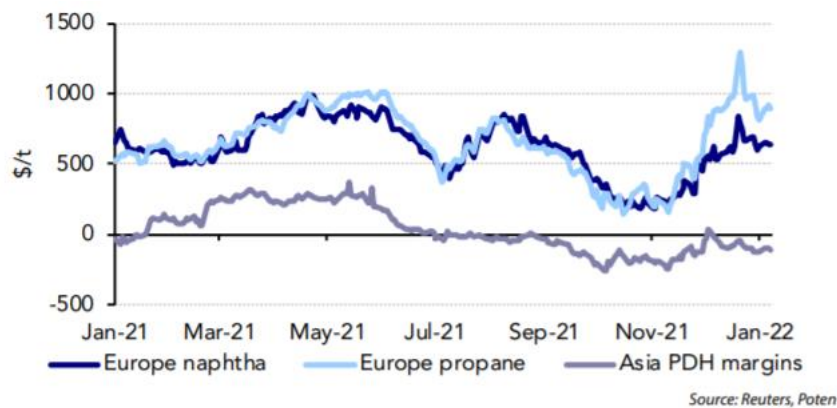
Global exports are forecast to climb by 5% in 2022 driven largely by the US with some small growth combined from several small exporters in West Africa, Europe and Latin America. Middle East exports are forecast at 38.7 MMt/y in 2022. Growth from the region is limited by production quotas from the OPEC members.

Global LPG export forecast and growth rates



The large gas producers in the region, the UAE and Qatar, are not anticipated to ramp up gas production by a significant amount in the near term. Qatari export growth is limited to growth from the LNG export capacity expansions which are not taking place until later in the decade. Rising production from Saudi Arabia would be a key ingredient in alleviating the tightness in the market, but no signs are pointing that direction except for incremental LPG supplies coming from unwinding of oil production cuts.

European ethylene and Asia PDH margins



Market dynamics are indicating continue price volatility and tighter supplies in the near term if LPG production does not increase in 1Q 2022. European petrochemical producers are now incentivized to consume more LPG for the first time since June. Propane margins are outpacing naphtha margins by a considerable amount in Europe while PDH margins in China have struggled in negative territory since June 2021.

Despite the negative margins at PDH plants, China continues to consume high amounts of LPG. If European demand picks up further on the strength of the petrochemical sector, supplies will grow tighter and drive prices higher once again.