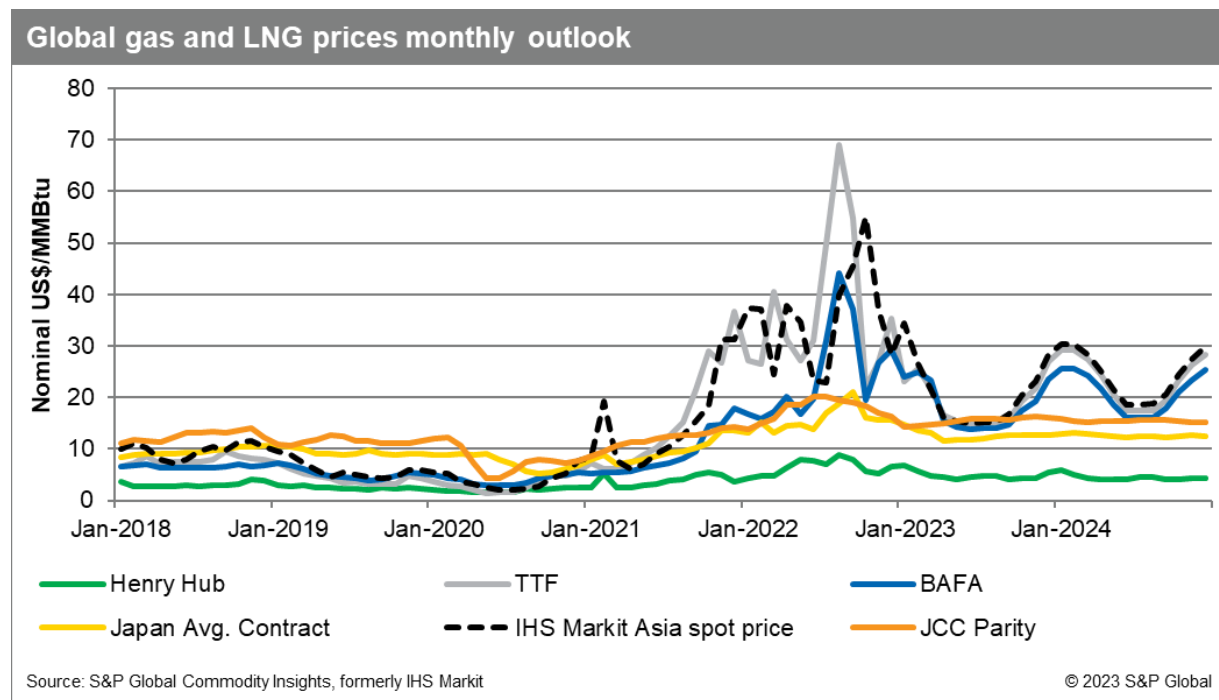


Gas & LNG prices – short to medium term

Following the energy market upheaval caused by Russia's invasion of the Ukraine in 2022, record-high LNG prices were recorded in 2022, primarily driven by a supply-demand imbalance and gas reception and transmission bottlenecks in the European gas market. This upheaval is expected to have a long-lasting effect on LNG, with European buyers of LNG, who were in the past viewed as buyers of last resort, are currently dominating the market and crowding out Asian demand LNG demand. Although a return to the European price highs of 2022 is not expected, given the relatively mild weather and low gas terminal send-out rates of winter 2022-2023 to date, prices are expected to remain above historical averages until the late 2020s.



Oil Price Futures

Traded oil future prices run up to 2030, and are forecasted up to 2040. The importance of the futures market is underlined by the the volume of traded value that, traders, banks, oil majors, producers and other related parties are willing to commit to a specific future price. A snapshot from today's (30th January 2023) monthly future prices for Brent is shown as per below:

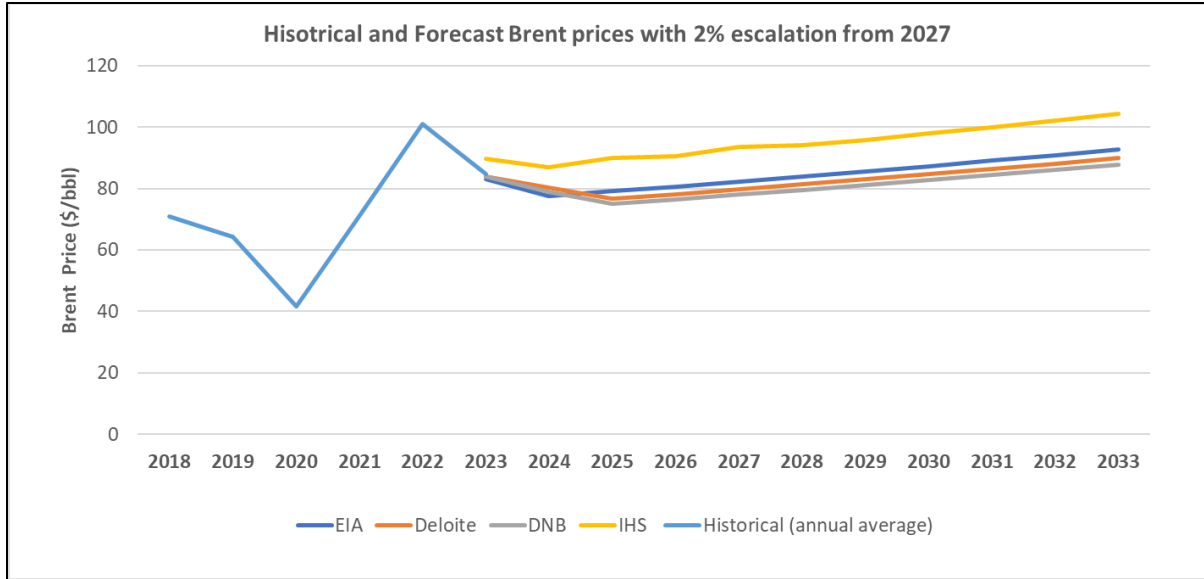
Contract	Last	Change	Open	High	Low
CBZ26 (Dec '26)	69.85s	-0.50	70.35	70.35	69.76
CBF27 (Jan '27)	69.65s	-0.51	0.00	69.65	69.65
CBG27 (Feb '27)	69.45s	-0.50	0.00	69.45	69.45
CBH27 (Mar '27)	69.25s	-0.48	0.00	69.25	69.25
CBJ27 (Apr '27)	69.06s	-0.49	0.00	69.06	69.06
CBK27 (May '27)	68.86s	-0.46	0.00	68.86	68.86

As we can see from the futures prices, the market is not expecting Brent to trade at levels above \$70/bbl through 2026-2027. If a 2% average annual inflation rate is applied to the futures market, we can expect the following prices:

Year	Brent Price (\$/bbl)
2027	69.65
2028	71.04
2029	72.46
2030	73.91
2031	75.39
2032	76.90
2033	78.44

Other Oil Price Forecasts

A number of other forecasts are available from various banks and other market intelligence services, which help inform a view of the market. The general outlook is as per graph below. Please note that we have taken the various reported forecasted prices from the banks and other service providers up to 2027 and then we escalated each reported price with 2% (based in inflation rate) for the remaining 5 years.

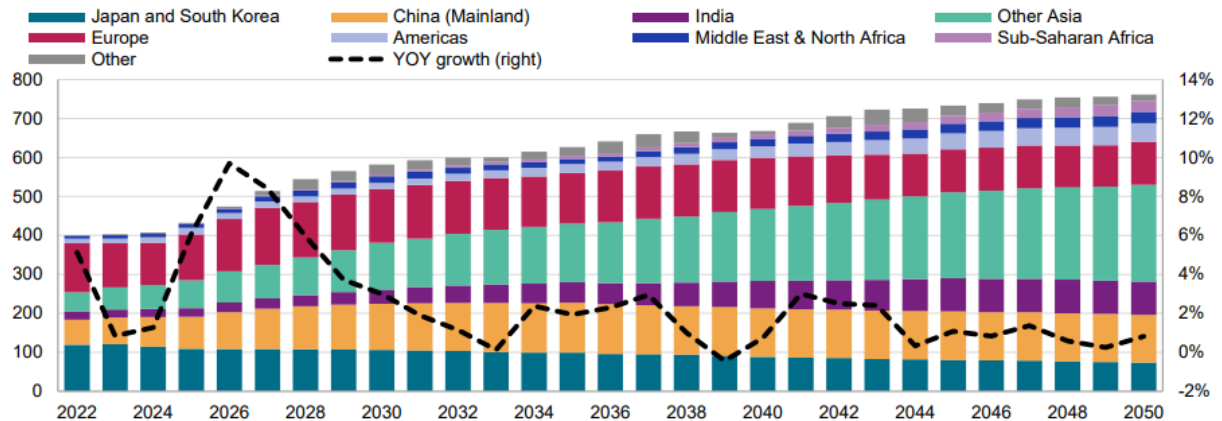


It can be seen that there is a trend towards forecasting a price range within the \$80-90/bbl in the period to 2033, and that the exceptionally high average prices seen in 2022 are not repeated in the future. Nevertheless, these forecasts are \$10-20 higher than trends observed pre-Covid pandemic, where forecasts were generally limited to the \$70-75/bbl threshold.

Long Term gas and LNG price outlook

Since the last update of this report, the demand for global gas, and especially LNG, is expected to remain strong in the longer term (i.e. beyond 2030). The world will need new LNG projects to be developed to meet future natural gas demand. However, the market is very competitive with many more proposed projects than can be absorbed. Cost competition is a key driver behind future projects moving forward.

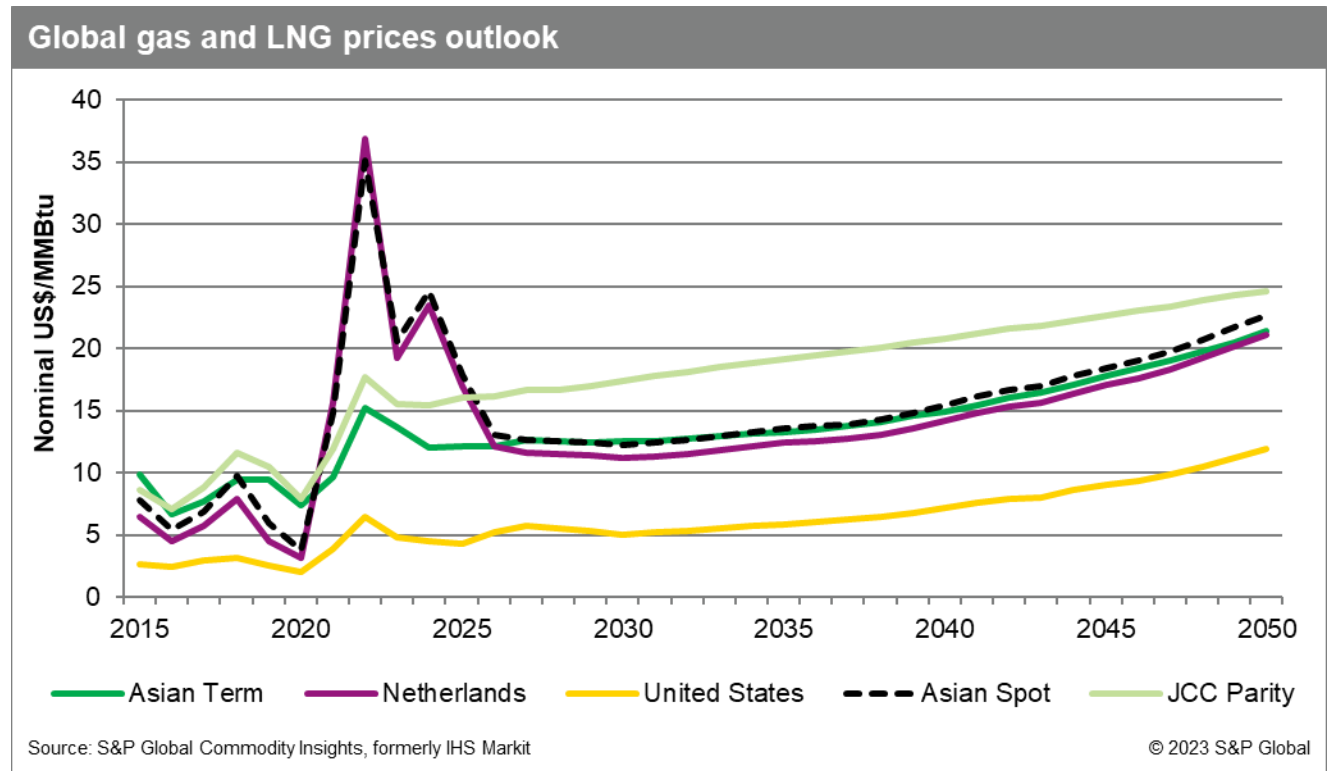
LNG demand outlook (MMt)



Data compiled Jan. 23, 2023.
 Our forecast for "Other" demand represents the potential upside to our demand forecasts (from numerous unpredictable factors like policy changes, extreme weather patterns, and price-driven fuel switching including increased boil-off consumption), and we consider the market to be loosely balanced (without the need for significant swings in prices) as long as Other demand is within a small enough threshold, generally 5% of the market.
 Source: S&P Global Commodity Insights.
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LNG and gas prices are expected to remain at elevated levels in the European and Asian spot markets until 2026-2027, by which point the spur of new investments in liquefaction capacity in current high price environment are able to bring new supply to the market, easing the tightening of the markets

Given the large potential for US exports (both due to the high number of competing proposals and the vast low-cost gas resource base), US LNG is thereafter likely to be the benchmark that all future supply will have to compete with. Also, in the longer term, oil indexation will play a decreasing role in setting Asian term prices. More contracts are expected to have prices at least partially linked to gas market hubs.



EU ETS Futures

Prices of future traded carbon emissions allowances under the EU's ETS have steadily increased since 2020. The chart below, illustrating the 5-year price history of the price of allowances in Euros/tonne for December 2023 EUA futures, is indicative of this.



Futures prices for allowances on the ETS scheme are currently (31st January 2023) trading between 90-101 Euros/tonne of CO₂e. The table below gives the prices for futures on the ICE index up to 2025 – beyond that, there is no significant traded volume for futures, so any prices are highly speculative.

Contract	Last	Change	Open	High	Low	Previous
+ CKG23 (Feb '23)	90.05s	+3.33	87.15	90.05	86.95	86.72
+ CKH23 (Mar '23)	90.25s	+3.34	87.18	90.33	86.43	86.91
+ CKJ23 (Apr '23)	N/A	N/A	N/A	N/A	N/A	N/A
+ CKM23 (Jun '23)	91.15s	+3.34	0.00	91.15	91.15	87.81
+ CKU23 (Sep '23)	92.08s	+3.37	0.00	92.08	92.08	88.71
+ CKZ23 (Dec '23)	93.44	+0.43	92.71	93.61	92.25	93.01
+ CKH24 (Mar '24)	94.07s	+3.41	90.16	94.07	90.10	90.66
+ CKM24 (Jun '24)	95.08s	+3.44	0.00	95.08	95.08	91.64
+ CKU24 (Sep '24)	96.09s	+3.47	0.00	96.09	96.09	92.62
+ CKZ24 (Dec '24)	97.67	+0.57	96.61	97.67	96.58	97.10
+ CKH25 (Mar '25)	98.30s	+3.55	0.00	98.30	98.30	94.75
+ CKZ25 (Dec '25)	101.75s	+3.62	98.45	102.16	98.45	98.13