Longreach Energy Holdings LLC

Monthly Report

February 2023

FIRM INFORMATION

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1.0 Market and Portfolio Commentary

1.1 Macro Industry Commentary

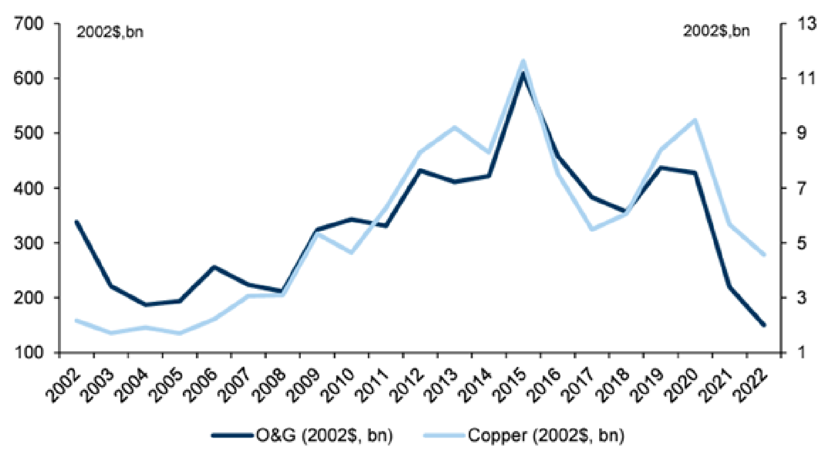
US Henry Hub gas prices fell in early February on continued warm weather before recovering at the end of the month. The prompt contract ended up rising from $2.68/mmbtu at close of business on 31 January to $2.75/mmbtu at close on 28 February. Calendar 2023 was flat, moving from $3.281/mmbtu to $3.267/mmbtu over the same period.

Oil prices fell modestly. The prompt opened February at $78.87/bbl and closed the month at $77.05/bbl. Calendar 2023 also fell on recession fears, starting the month at $78.03/bbl and closed at $75.96/bbl.

Despite the steep rise in commodities prices, real capex in both energy and metals has fallen over the last two years (Figure 1). This is likely to result in inadequate production capacity and, over the medium term, a substantial rise in prices to destroy demand and incentivise more supply. Although investments in green energy have grown, their contribution to supply has been relatively marginal. Over the last decade, the $3.8 trillion spent on renewable energy globally has reduced fossil fuels' share of primary energy by just 1%, from 82% to 81%.

Figure 1: Inflation Adjusted Commodity Capex (Source: Baker Hughes, via GS)

Exhibit 12: Capex across commodities continued to fall in real terms despite higher prices
Oil & Gas and Metals and Mining (rhs) real capex in 2002 dollars



Source: Baker Hughes, Goldman Sachs Global Investment Research

The latest Baker Hughes rig count data follows. In February US total rigs fell by 13 from 745 to 732. Oil rigs fell by 7 from 599 to 592 while gas rigs fell by 4 from 158 to 154. Fall in miscellaneous and inland waters rigs made up the difference. Note that Longreach Energy's discussions with private operators indicate that a large drop in natural gas rig count is coming – there is a natural delay between the decision to drop rigs and release while current operations are completed.

Baker Hughes rig count

Baker Hughes

Rotary Rig Count

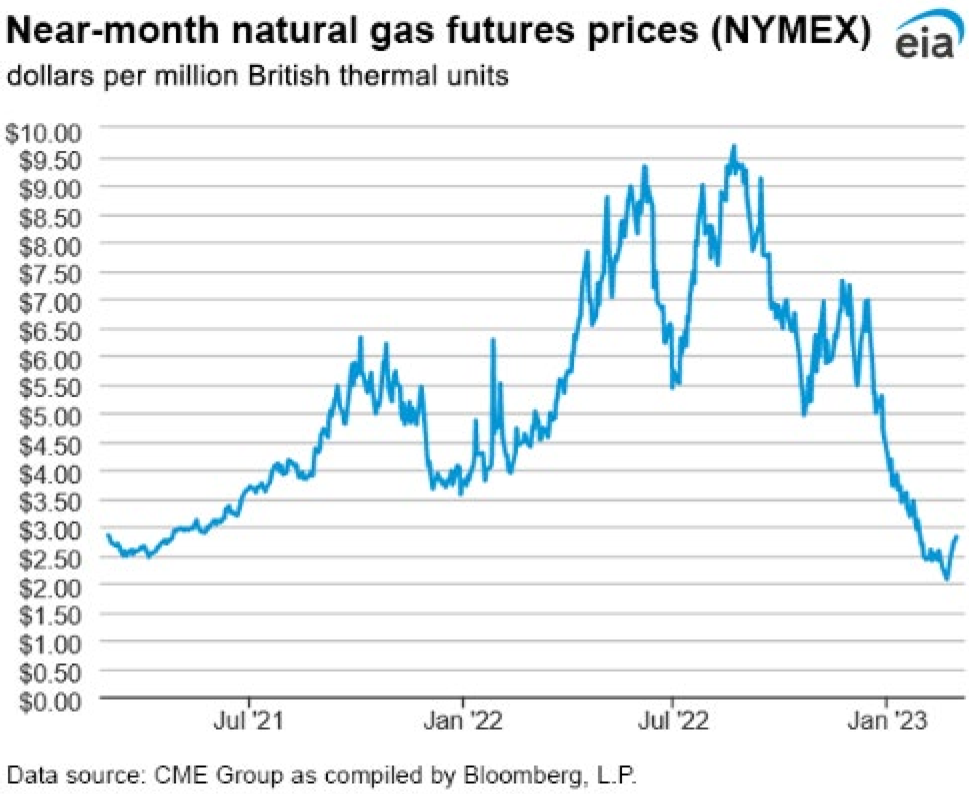
3/3/23

Location	Week	+/-	Week Ago	+/-	Year Ago
Land	732	-2	734	97	635
Inland Waters	1	-1	2	-2	3
Offshore	16	-1	17	4	12
United States Total	749	-4	753	99	650
Gulf Of Mexico	16	-1	17	4	12
Canada	246	2	244	29	217
North America	995	-2	997	128	867
U.S. Breakout Information	**This Week**	**+/-**	**Last Week**	**+/-**	**Year Ago**
Oil	592	-8	600	73	519
Gas	154	3	151	24	130
Miscellaneous	3	1	2	2	1
Directional	45	1	44	15	30
Horizontal	690	-3	693	95	595
Vertical	14	-2	16	-11	25

Gas Market

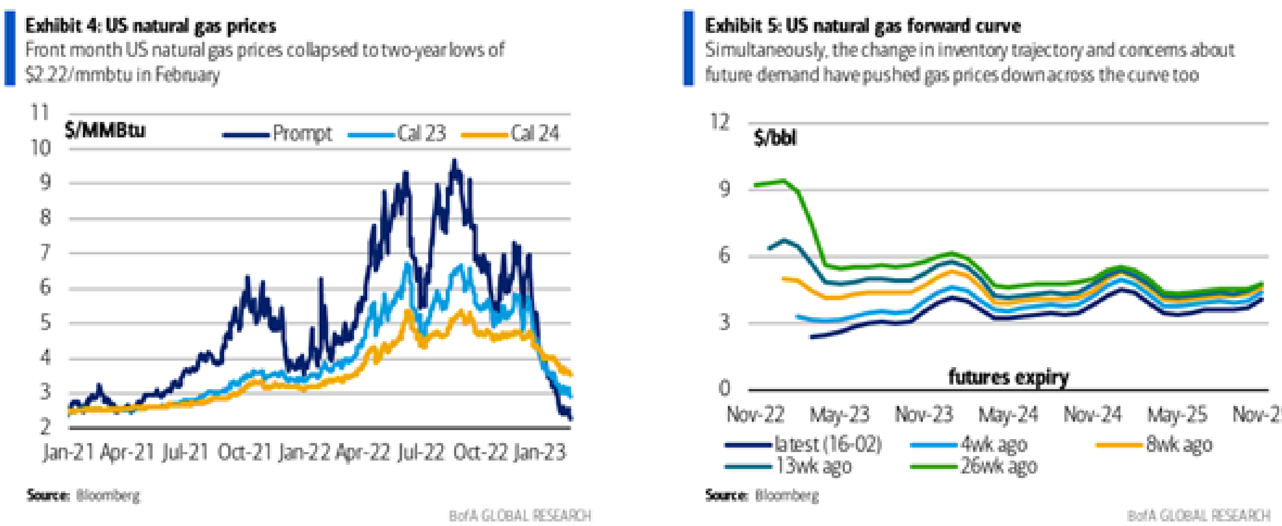
Prompt Henry Hub gas futures bounced off a ~$2/mmbtu low to stay relatively flat month-on-month (Figure 2).

Figure 2: Near Month Henry Hub Futures (Source: EIA)



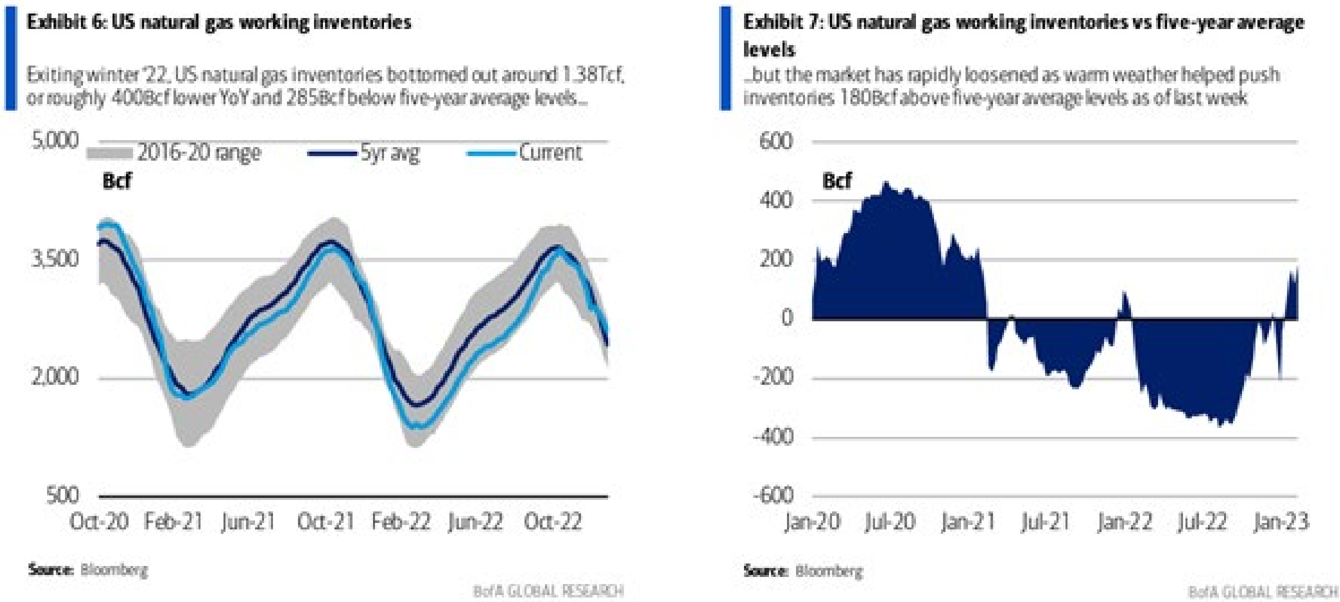
The first three weeks of February saw continuation of the factors that drove the gas market lower in January – warm weather, fears of recession induced demand loss, no restart of the 2bcf/d Freeport LNG facility and continued strong production (LHS Figure 3). The forward curve has also fallen although by much smaller amounts leaving the Henry Hub gas curve in contango (RHS Figure 3).

Figure 3: US Natural Gas Prices (Source: Bloomberg, via BofA)



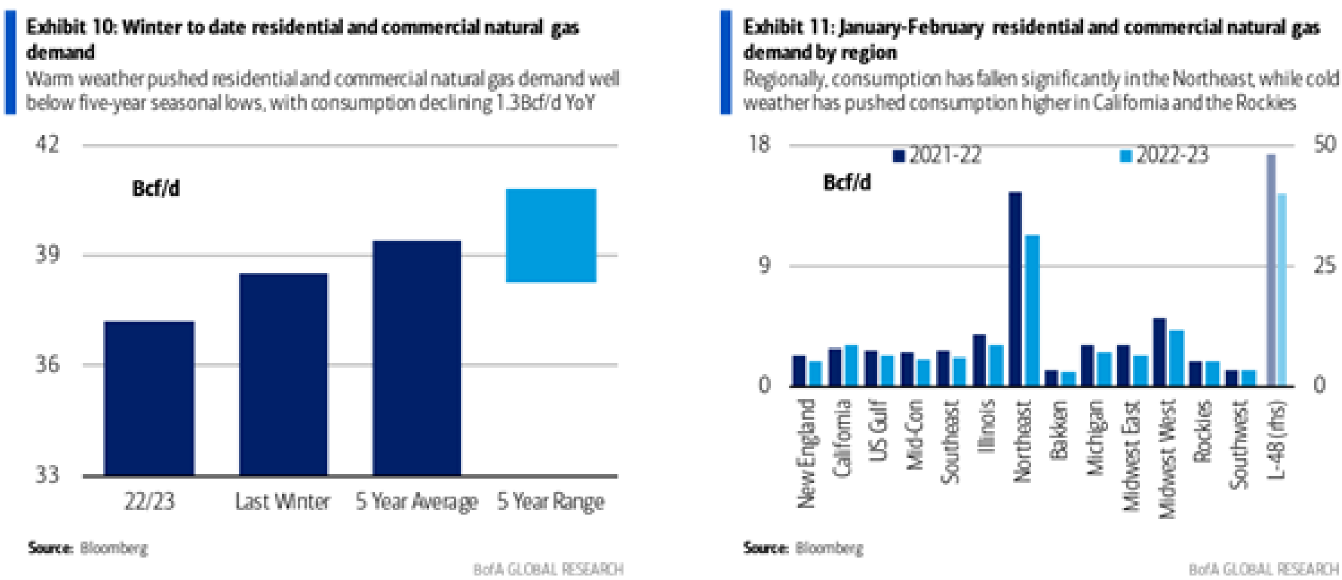
Gas prices have responded to inventories which have risen from 285bcf below the five-year average in April 2022 (LHS Figure 4) to 180bcf above the five-year average in the last week of February 2023 (RHS Figure 4).

Figure 4: US Natural Gas Inventories (Source: Bloomberg, via BofA)



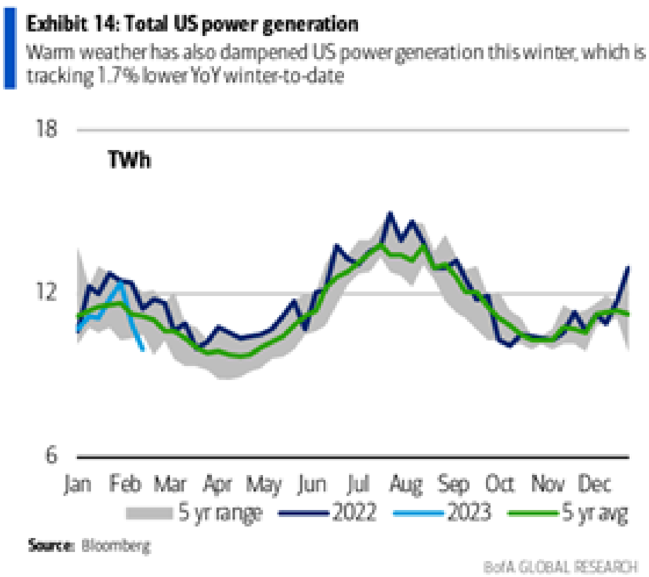
Warm weather reduced 2022/23 winter residential and commercial natural gas demand by 1.3bcf/d from last winter (LHS Figure 5). Demand losses were concentrated in the Northeast, the largest demand centre. Demand gains in California and the Rockies provided small offsets (RHS Figure 5).

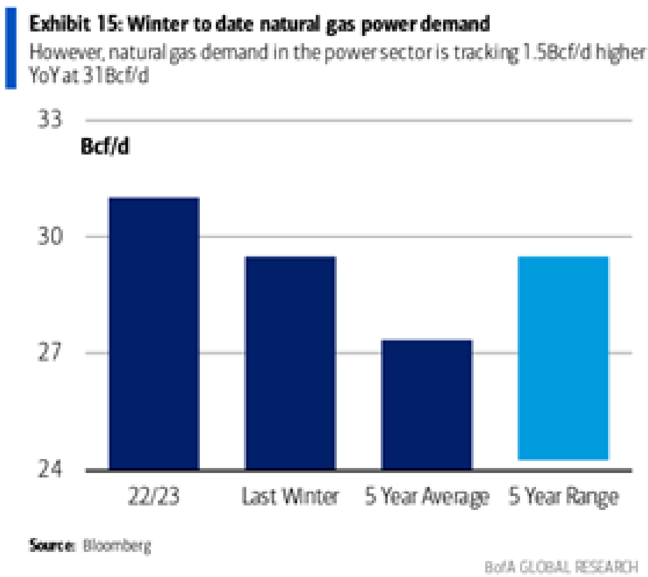
Figure 5: Residential and Commercial Gas Demand (Source: Bloomberg, via BofA)



US power generation was also reduced by warm weather this winter, tracking 1.7% lower YoY this winter-to-date (LHS Figure 6). Gas is however providing a larger percentage of power generation, tracking 1.5bcf/d higher YoY at 31bcf/d (RHS Figure 6).

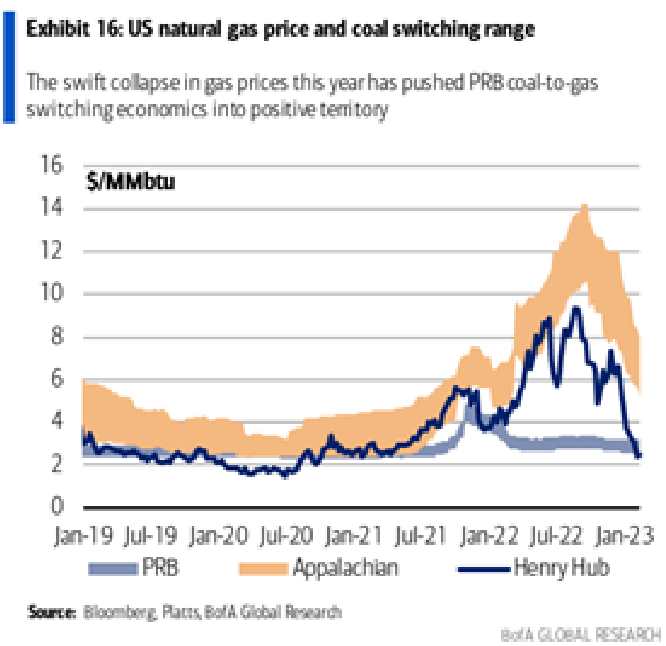
Figure 6: US Power Generation (Source: Bloomberg, via BofA)

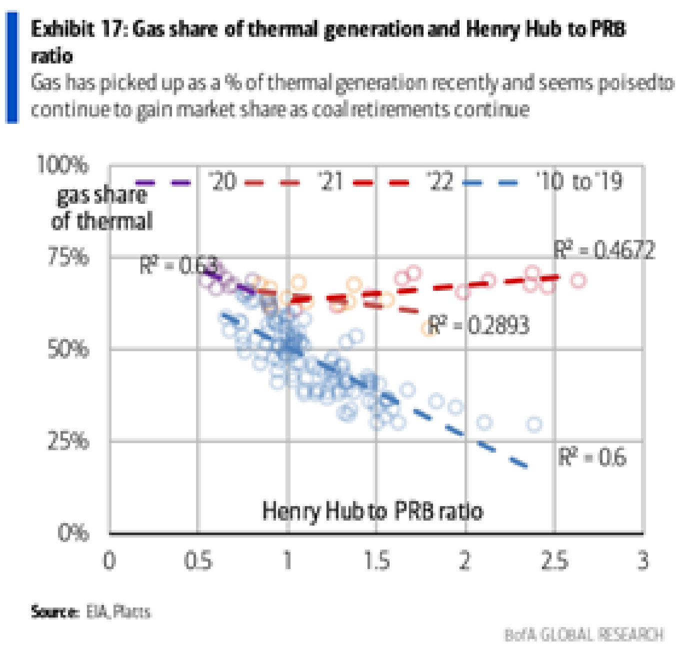




The collapse in gas prices has made it attractive to switch from using Powder River Basin (PRB) coal to natural gas to power thermal generation (LHS Figure 7). Gas has recently increased its share of thermal generation and this trend is likely to continue with further coal retirements (RHS Figure 7).

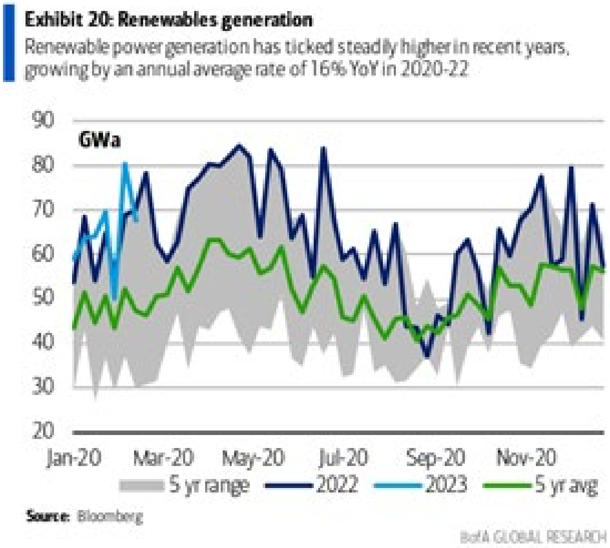
Figure 7: US Natural Gas vs Coal (Source: various, via BofA)

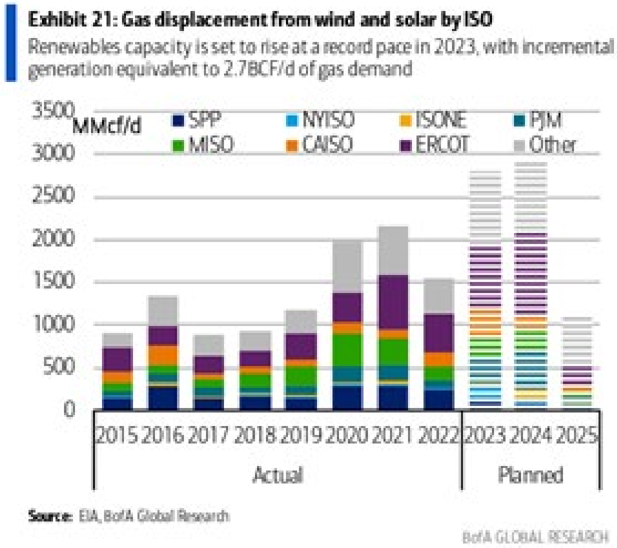




Renewables are also increasing, growing by an average rate of 16% YoY 2020-2022 (LHS Figure 8). Record growth is expected in 2023, delivering incremental generation equivalent to 2.7bcf/d of gas demand (RHS Figure 8). In summary, gas and renewables are increasing, and coal is declining.

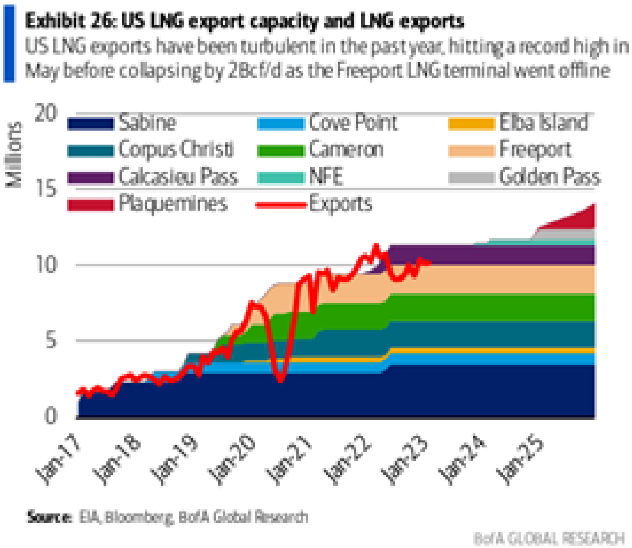
Figure 8: Renewables Generation (Source: various, via BofA)

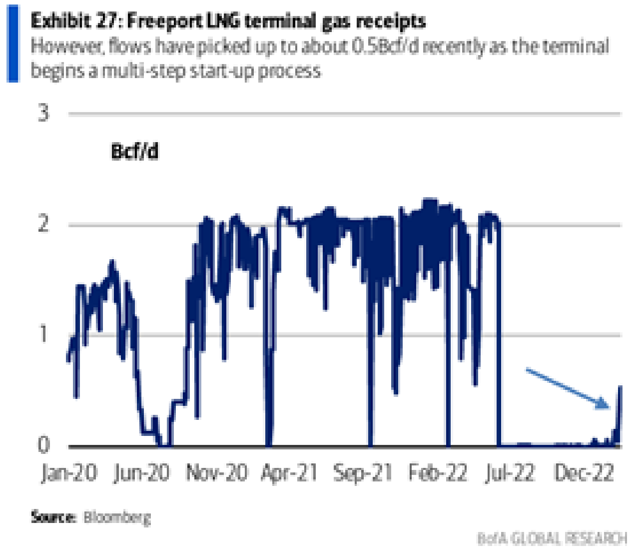




US LNG exports have been turbulent in the past year, hitting a record high in May 2022 before collapsing by 2bcf/d as the Freeport LNG terminal suffered an accident and went offline (LHS Figure 9). Since then, Calcasieu Pass LNG terminal has ramped up but maintenance on Freeport has extended beyond anyone's original expectation. The terminal is now, finally, ramping up to full production (RHS Figure 9), on 7 March Freeport took 1.4bcf of feed gas. It is likely the facility will be running at full 2bcf/d capacity by the end of the month.

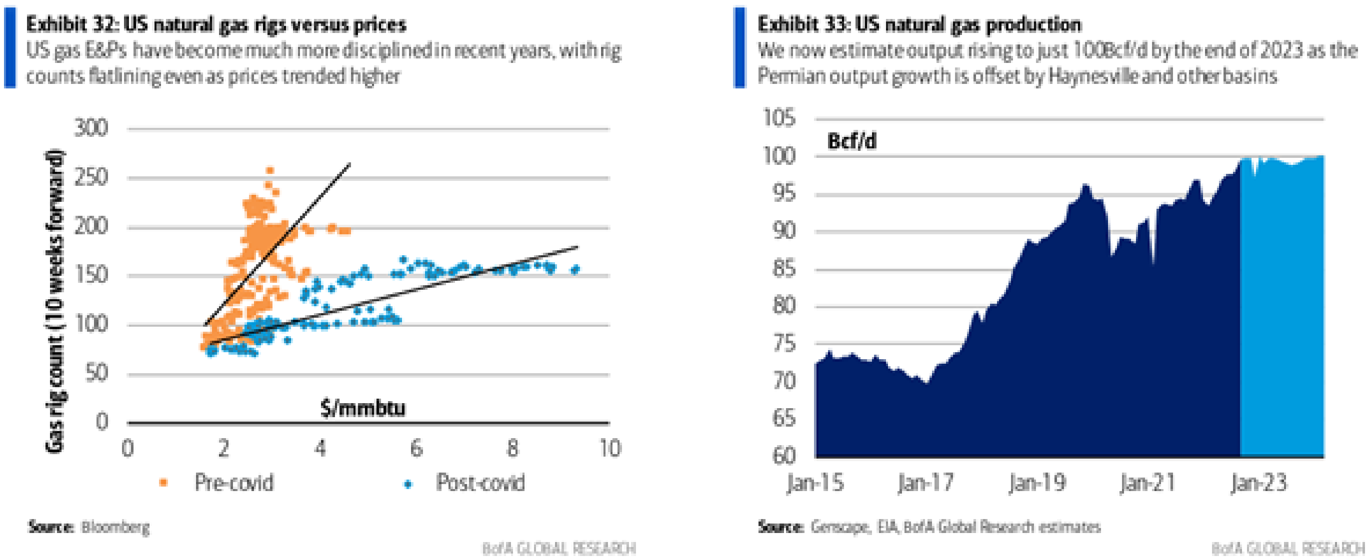
Figure 9: US LNG Capacity and Exports and Freeport Gas Receipts (Source: various, via BofA)





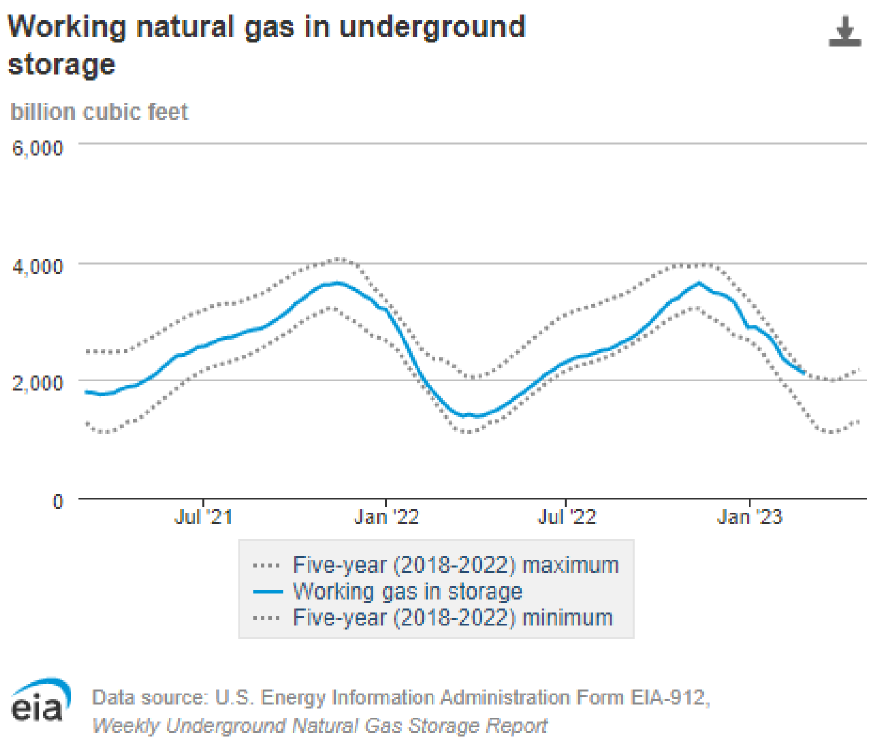
US gas producers maintained their capex discipline while prices were high (LHS Figure 10) and are now beginning to cut rigs and completions with spot gas trading around \$2.50/mmbtu. This will see reduced production growth (RHS Figure 10) and, over time, assist the recovery in prices.

Figure 10: US Gas Rigs vs Prices and US Natural Gas Production (Source: various, via BofA)



Working gas in storage as of 24 February totalled 2,114 bcf, a decrease of 469 bcf since last month's report. Stocks were 451 bcf higher than last year at this time and 342 bcf above the 5-year average (Figure 11).

Figure 11: Change in Working Gas in Storage (Source: EIA)

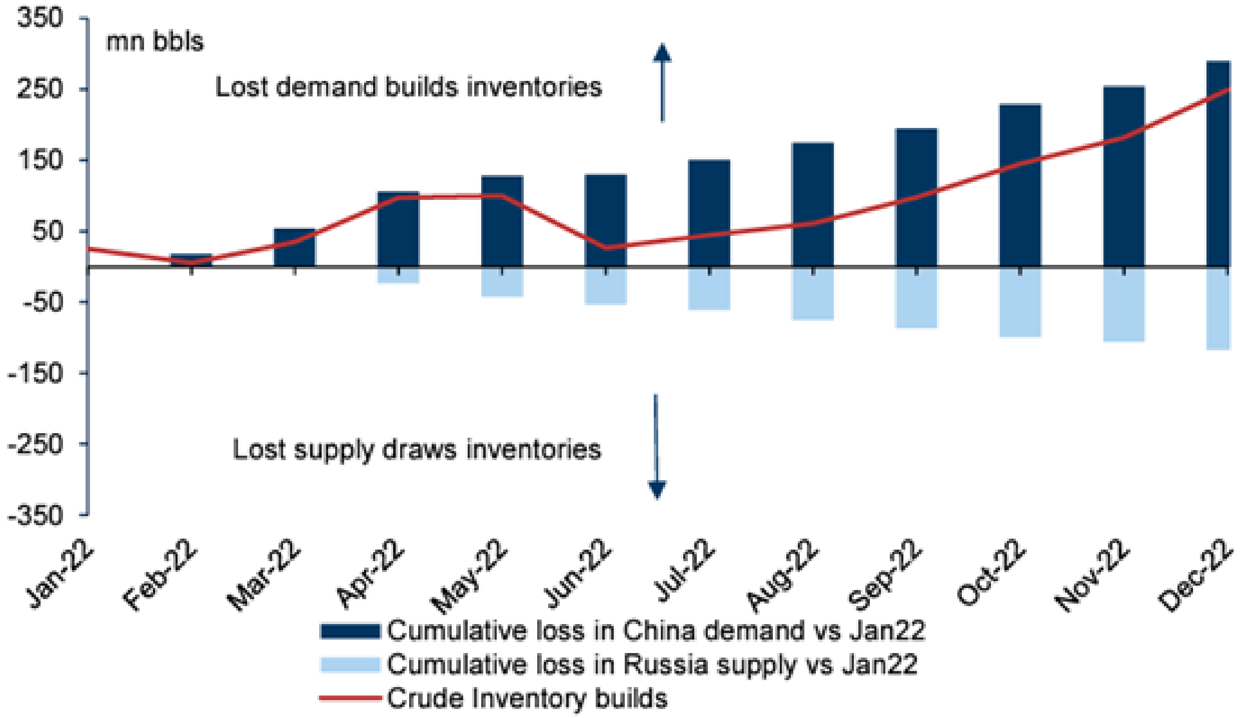


Oil Market

The stability that we have seen in oil prices this year has been heavily influenced by the fact that the largest shock to oil supply and demand in 2022 was not the reduction in Russian supply, but rather the loss of demand in China. A Chinese economy beset by policies leading to rolling pandemic lockdowns and an aggressive deleveraging of the property sector drove the recent oil price weakness (Figure 12).

Figure 12: Cumulative Impact of Russian Supply and Chinese Demand (Source: GS)

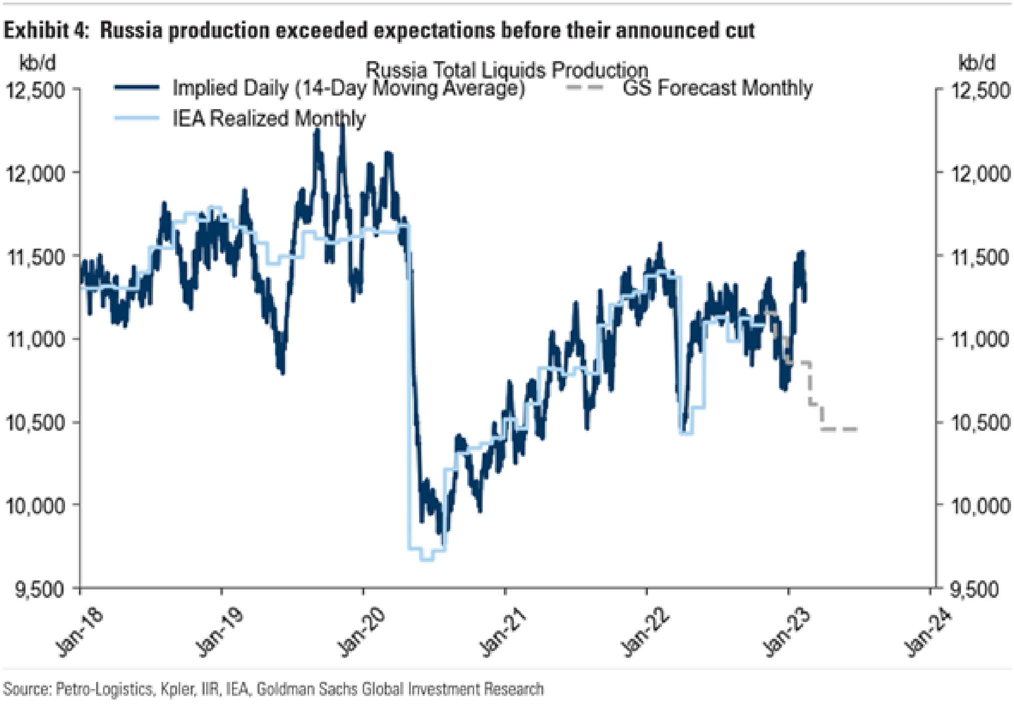
Exhibit 11: The impact of lost Chinese Demand on Crude volumes was far larger than lost Russian supplies



Source: Goldman Sachs Global Investment Research

Looking forward, Russia has announced a 500kbbl/d cut (Figure 13). Recently their production has exceeded forecasts, but the cut is an indication that Russia is struggling to find markets to take all its available supply.

Figure 13: Russian Oil Production (Source: various, via GS)

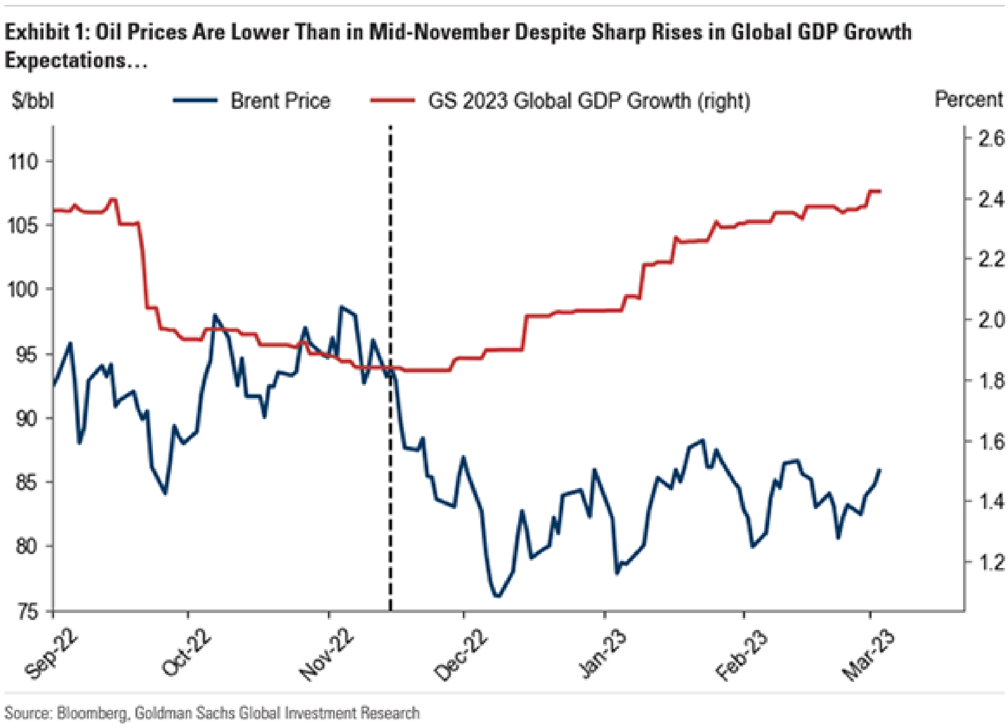


Goldman expects that Chinese oil demand will rise to 16.1mmbbl/d by 4Q2023. Chinese mobility remains robust and Goldman's demand data suggest oil demand is currently 1mmbbl/d higher than lows in November 2022 (Figure 14).

Figure 14: Chinese Oil Demand (Source: various, via GS)

The oil market's focus on near term factors is illustrated by the fact that oil prices are currently lower than in mid-November despite sharp rises in global GDP growth expectations (Figure 15).

Figure 15: Brent Oil and GS GDP Growth Forecast (Source: Bloomberg, GS)



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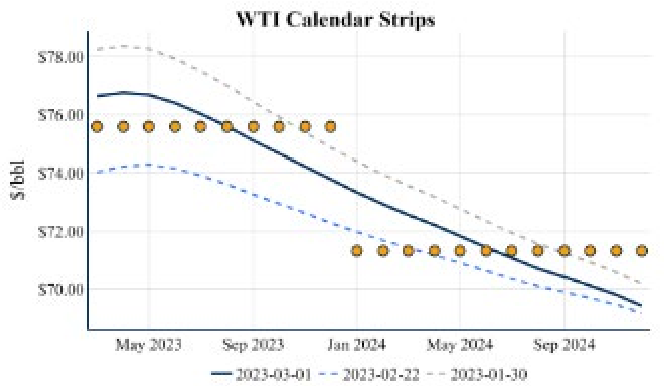
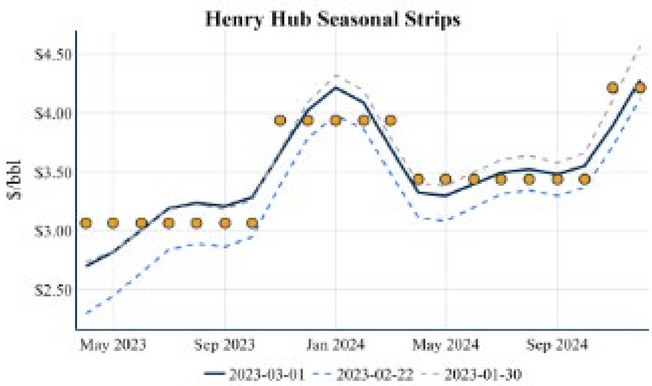
LONGREACH ENERGY

Gas and Oil Prices 1 March 2023





Swap Pricing	Cal 23	Cal 24	Cal 25	Cal 26
NYMEX WTI	$75.62	$71.35	$67.36	$64.04
ICE Brent	$80.93	$76.46	$72.47	$69.30
LLS	$78.38	$74.01	$69.92	$66.62
Mars	$73.94	$69.55	$64.98	$61.82
West TX Sour (WTS)	$74.80	$70.04	$66.09	$62.76

Swap Pricing	Month 1	Winter 22/23	Summer 23	Winter 23/24	Summer 24
Henry Hub Fixed	$2.705	$2.489	$3.070	$3.938	$3.442
Eastern Gas South	-$0.502	-$0.383	-$0.771	-$0.855	-$0.891
Waha	-$1.289	-$1.099	-$1.339	-$0.800	-$0.932
TETCO M3	-$0.352	$0.011	-$0.558	$2.494	-$0.619
Houston Ship Channel	-$0.298	-$0.272	-$0.279	-$0.241	-$0.368
Columbia Gulf Mainline	-$0.229	-$0.210	-$0.282	-$0.302	-$0.261
Panhandle East	-$0.333	-$0.319	-$0.425	$0.145	-$0.396
NGPL MidCon	-$0.313	-$0.160	-$0.353	$0.047	-$0.337
SoCal	$0.754	$2.937	$1.268	$2.923	$0.690
AECO	-$0.555	-$0.145	-$1.046	-$1.274	-$1.186
Chicago City-Gates	$0.034	$0.047	-$0.147	$0.433	-$0.161

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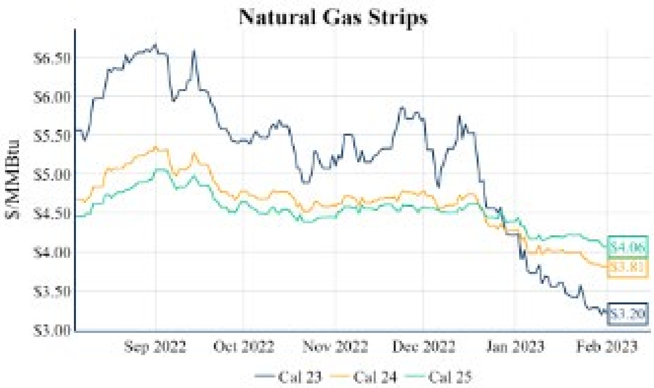
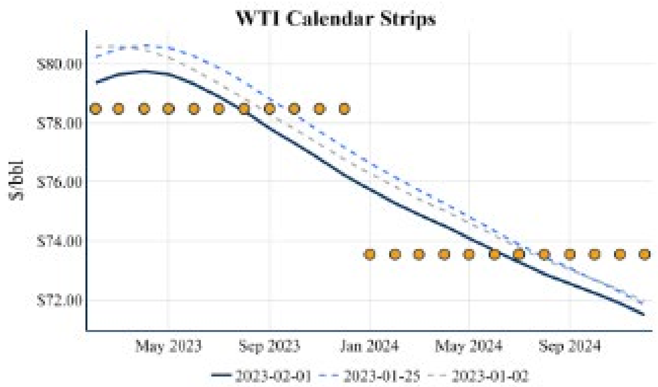
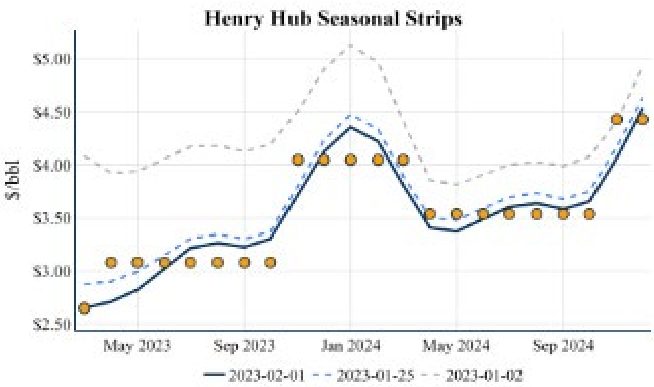
Gas and Oil Prices 1 February 2023







Swap Pricing	Cal 23	Cal 24	Cal 25	Cal 26
NYMEX WTI	$78.47	$73.54	$69.36	$65.89
ICE Brent	$83.46	$78.55	$74.72	$71.79
LLS	$81.40	$76.29	$72.06	$68.62
Mars	$75.90	$70.92	$66.92	$63.63
West TX Sour (WTS)	$77.83	$72.81	$67.95	$64.48

Swap Pricing	Month 1	Winter 22/23	Summer 23	Winter 23/24	Summer 24
Henry Hub Fixed	$2.654	$2.654	$3.086	$4.045	$3.540
Eastern Gas South	-$0.537	-$0.537	-$0.747	-$0.850	-$1.031
Waha	-$1.215	-$1.215	-$1.546	-$0.959	-$1.258
TETCO M3	$0.118	$0.118	-$0.496	$2.300	-$1.003
Houston Ship Channel	-$0.452	-$0.452	-$0.282	-$0.335	-$0.480
Columbia Gulf Mainline	-$0.256	-$0.256	-$0.276	-$0.380	-$0.297
Panhandle East	-$0.205	-$0.205	-$0.265	-$0.091	-$0.723
NGPL MidCon	-$0.195	-$0.195	-$0.241	-$0.162	-$0.589
SoCal	$0.621	$0.621	$1.489	$2.452	$0.454
AECO	-$0.260	-$0.260	-$0.919	-$1.225	-$1.165
Chicago City-Gates	$0.038	$0.038	$0.069	$0.233	-$0.336

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