

US Oil and Gas

OIM# 658: OPEC extends cuts: now technicals have fundamental support

Industry Overview

OPEC extends because it had to

Over the weekend OPEC+ agreed to extend production cuts in place since mid-2023 in a decision that we see as largely expected but with a de-facto 2.2mm bpd cut extended through 2Q24, OPEC+ has likely ensured a continuation of draws in oil & product inventories. However, the pace of inventory declines remains pedestrian: since summer 2023, global stocks have dropped 150mm bbls; but this equates to 'only' around 600,000 bpd. At the same time, per the IEA, any reversal of the cuts would lead to a supply / demand surplus of 1.25mm bpd. Assuming the cuts remain in place and are fully implemented, inventories should theoretically continue to draw in 2Q23, providing near term support for oil prices.

Oil has already bounced off Dec lows. However, for now, the scale of the cuts remains dominated by Saudi at ~1mm bpd. For all intents and purposes, Saudi has some 3mm bpd of spare capacity, versus its theoretical 'maximum' or MSP. The net result is that after finding a recent floor around \$73 Brent (\$68 WTI) in mid-Dec, oil prices have rebounded to >\$80 / bbl. But with clear artificial support from OPEC+ and significant spare capacity we believe is reasonably >5mm bpd, there is still no practical headroom for OPEC+ to add back production without hurting price. The outcome is backwardation, a declining forward curve that on the assumption of +2 years as a reasonable limit of liquidity that means long dated oil prices sit \$10 lower, before stabilizing around \$70 Brent long term. In our view, this remains the biggest headwind to sector performance with longer dated oil prices dominating value as defined on a DCF basis. With that said we reflect back on our [year ahead strategy report](#) (here) where we suggest a rangebound, but volatile commodity backdrop will very likely come with trading opportunities.

Technical matters

Brent's \$10 bounce has caught the attention of our technical team, which characterize the outlook as 'rangebound', but within a \$73-\$96 range, essentially where oil has traded over the past six months. The trade-off is mixed fundamental support for spot prices – tightening inventories, but artificially induced and at a pace below what might be expected given the scale of OPEC+ cuts. With that said, next steps on global balances come from a seasonal rebound in summer demand – a move we expect can help accelerate inventory tightness and give paper markets grounds that as a minimum, could prevent a return to December lows. Ultimately, we see the directional response of non-commercial players to OPEC's announcement as the critical path to how oil prices respond with technicals suggesting oil could go either way, risks look similarly balanced. Wild cards come from geopolitics. A potential cease fire in Gaza could ease Red Sea transit concerns which but suspect that it could take time to settle down, leaning us towards our technical team's contention that oil prices likely trade with 'higher highs & higher lows'. From a sector standpoint we see no reason to change our view screened first through value, at current strip prices with an upside case as a free option. Conversely, we see those names with the rate of change in break-even prices and the extraction of value from consolidation, outperforming in a downturn. Navigating the extremes of these two scenarios our top ideas remain XOM, OXY, CHK, SU and APA.

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Equity
United States
Oils

Doug Leggate
Research Analyst
BofAS
+1 713 247 6013
doug.leggate@bofa.com

Kalei Akamine
Research Analyst
BofAS
+1 713 247 7880
kalei.akamine@bofa.com

Noah Hungness
Research Analyst
BofAS
+1 832 341 5807
noah.hungness@bofa.com

Exhibit 1: BBG vs. Actuals (mbbls)

Gasoline draws while crude inventories build

Crude Stocks	
Est	4,041
Actual	3,514
Diff	(527)
Distillate Stocks	
Est	(1,532)
Actual	(4,008)
Diff	(2,476)
Gasoline Stocks	
Est	(2,877)
Actual	(293)
Diff	2,584
Utilization	
Est	81.1%
Actual	80.6%
Diff	-0.5%

Source: EIA

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OPEC – organization of petroleum exporting countries
E&P – exploration and production
IEA – international energy agency
DOE – department of energy
OIM – oil inventory monitor
bpd – barrel per day
bbl – barrel

DUC – drilled uncompleted

OIM #658

Exhibit 2: Summary DOE

Summary of DOE Weekly Statistics

	Current	Prev	Change	%
Crude Oil	447.2	443.0	4.199	0.9%
of which cushioning	31.0	29.5	1.458	4.9%
Lower 48 Production	12,900	12,900	0.000	0.0%
Motor Gasoline	244.2	247.0	(2.832)	-1.1%
Gasoline production	9,419	9.0	0.390	0.0
Gasoline demand	8,467	8,200	0.267	3.3%
Gasoline demand cover	28.8	30.1	(1.284)	-4.3%
Distillate	121.1	121.7	(0.510)	-0.4%
of which Heating Oil	7.2	7.4	(0.137)	-1.9%
of which Diesel	113.9	114.3	(0.373)	-0.3%
Distillate demand	3.5	3.9	(0.404)	-10.3%
Distillate demand cover	34.3	30.9	3.383	11.0%
Jet Fuel	40.0	41.1	(1.073)	-2.6%
Jet fuel demand	1.6	1.4	0.179	12.6%
Jet fuel demand cover	25.0	28.8	(3.888)	-13.5%
Residual	29.5	29.1	0.333	1.1%
Resid demand	0.4	0.4	(0.046)	-11.3%
Resid demand cover	81.6	71.6	10.040	14.0%
Utilization	81.5%	80.6%	0.9%	na
Product Stocks	1228.3	1231.5	-3.2	0.3%

Source: DOE

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Crude and products inventory change

Exhibit 3: Distillate inventory by PADD

Distillate inventories drew by -4009 kbbbls

BBG Estimates	(510)
Actual stock change	(510)
Exports	937
Imports	112
Prod / consumption net	753
Production	4,289
Product Supplied	(3,536)
PADD 1	(264)
PADD 2	(609)
PADD 3	344
PADD 4	125
PADD 5	(105)
Total	(509)

Source: BofA Global Research, Bloomberg

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Exhibit 4: Crude inventory by PADD

Crude inventories built by 3514 kbbbls

BBG Estimates	4,199
Actual stock change	4,199
Exports (Monthly avg)	4,728
Imports	6,385
Prod / consumption net	(6,385)
Production	13,300
Product Supplied	(19,685)
PADD 1	309
PADD 2	2,149
PADD 3	149
PADD 4	232
PADD 5	1,361
Total	4,200

Source: BofA Global Research, Bloomberg

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Exhibit 5: Gasoline inventory by PADD

Gasoline inventories drew by -293 kbbbls

BBG Estimates	(2,832)
Fnsh'd MoGas stock chn'g	235.9
Exports	752
Imports	35
Prod / consumption net	952
Production	9,419
Product Supplied	(8,467)
PADD 1	(766)
PADD 2	(482)
PADD 3	(507)
PADD 4	(407)
PADD 5	(670)
Total	(2,832)

Source: BofA Global Research, Bloomberg

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Exhibit 6: Jet inventory by PADD

Jet inventories built by 144 kbbbls

BBG Estimates	(1,073)
Actual stock change	(1,073)
Exports	239
Imports	(234)
Prod / consumption net	(29)
Production	1,575
Product Supplied	(1,604)
PADD 1	298
PADD 2	(208)
PADD 3	(794)
PADD 4	(32)
PADD 5	(338)
Total	(1,074)

Source: BofA Global Research, Bloomberg

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OPEC's extend cuts

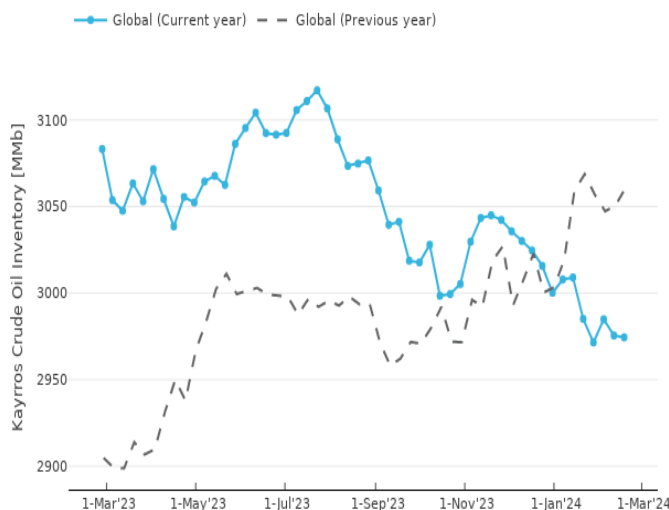
Now technicals have short term fundamental support

Over the weekend OPEC+ agreed to extend the production cuts in place since mid-2023. By our assessment this decision was largely expected, with the 'pain' trade, a downside case where OPEC+ added back barrels into a still uncertain demand outlook. However, with the de-facto 2.2mm bpd cut extended through 2Q24, OPEC+ has likely ensured a continuation of draws in global oil and product inventories that have fallen 75mm bbls since November, based on satellite data from Kayrros.

Since summer 2023, global oil & product stocks have now dropped 150mm bbls, albeit in both cases this is before considering changes on oil on the water. Since mid-Jan floating storage has seemingly jumped by ~90mm bbls, which we assume is at least partly related to long trade routes associated with freight diversion from the Red Sea.

Exhibit 7: Global crude inventories

Global crude inventories held roughly flat w/w

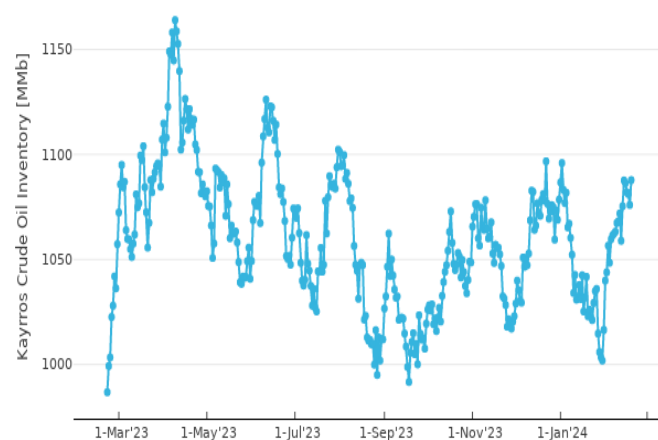


Source: Kayrros

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Exhibit 8: Global crude on water

Crude on water continues to climb



Source: Kayrros

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As always, the challenge for market observers is that the scale of the apparent inventory reductions, even before the floating storage delta equates to 'only' around 600,000 bpd (amortizing the 150mm barrel draw over the 8 months between Jul 2023 and Feb 2024). If viewed only over 2024 year-to-date, the ~25mm bbl draw is closer to 400,000 bpd.

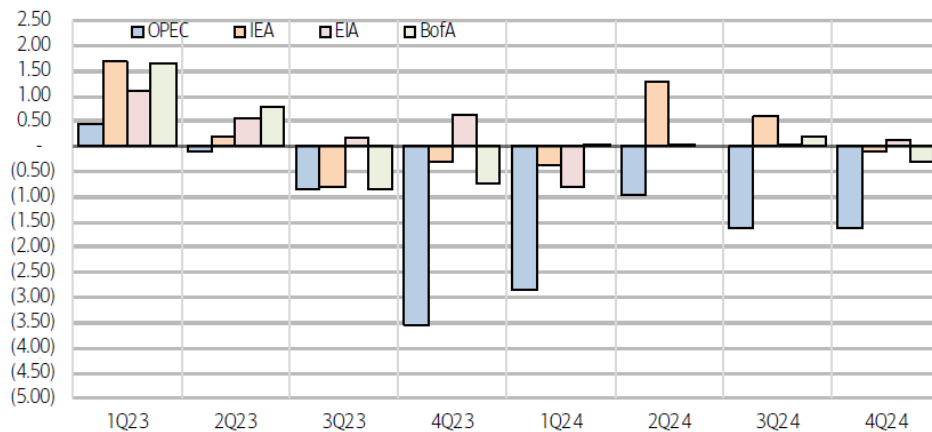
So while global inventories have been pulled lower, the pace remains well below the theoretical scale of the proposed cuts from OPEC+.

Given that OPEC's 'voluntary' cuts effective from Nov-23 off a proposed 2024 baseline amount to some 2.2mm bpd, it seems clear that absent an extension, inventories would most likely build.

A glance at our year ahead review of global inventory balances, show that for the IEA in particular, a reversal of the cuts would lead to a supply / demand surplus of 1.25mm bpd. Assuming the cuts remain in place and are fully implemented, inventories should theoretically continue to draw in 2Q23, providing near term support for oil prices.

Exhibit 9: IEA estimates suggested a surplus in 2Q/3Q inventories

IEA, EIA, OPEC & BofA supply / demand balances



Source: IEA, EIA, OPEC & BofA Global Research

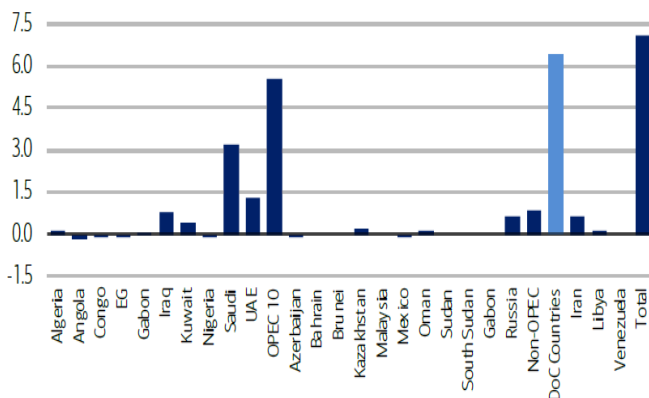
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Oil has already bounced off Dec lows when inventories had increased and in the wake of a lackluster Nov 30th OPEC meeting, which revealed some rancor amongst the OPEC+ members around the veracity of each country's commitment to reduce production. Recall this led to the departure of Angola from OPEC and the OPEC+ agreement. Anecdotal feedback from last week's IP conference in London suggests pressure from Saudi to ensure compliance remains high on its list of priorities to ensure the policy is effective; but it also suggests implementation continues to be a source of tension within the group, albeit not to the scale that might break the agreement.

For now, the scale of the cuts remains dominated by Saudi – 1mm bpd in addition to the 500,000 bpd announced last Spring. For all intents and purposes, Saudi has some 3mm bpd of spare capacity, versus its theoretical 'maximum' or MSP¹. The net result of all of this is that after finding a recent floor around \$73 Brent (\$68 WTI) in mid-Dec, oil prices have bounced back above \$80/bbl and at the time of writing, sits around \$84 (\$80 WTI).

Exhibit 10: Spare capacity is reasonably >6mm bpd

Saudi accounts for >3mm bpd



Source: BofA Global Research

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Exhibit 11: Brent oil prices have bounced >\$10/bbl since Dec

Coinciding with a decline in inventories



Source: Bloomberg

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However, with clear artificial support from OPEC+ and spare capacity that we believe is reasonably ~5mm bpd and in an optimistic case is >6mm bpd, there is still no practical capacity for OPEC+ to add back production without hurting price.

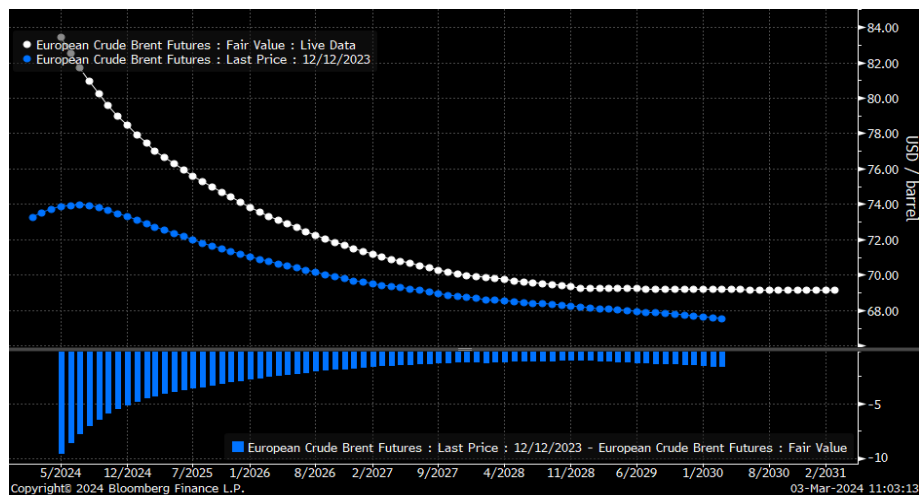
¹ Maximum Sustainable Capacity: Saudi's declared production capacity is 12mm bpd

The outcome is backwardation, a declining forward curve that on the assumption of +2 years as a reasonable limit of liquidity, means long dated oil prices sit \$10 lower, before stabilizing at around \$70 Brent long term.

In our view, this remains the biggest headwind to sector performance with longer dated oil prices dominating value as defined on a DCF basis.

Exhibit 12: Backwardation stands at >\$10 on a +2 year view

The biggest headwind to sector valuations



Source: Bloomberg

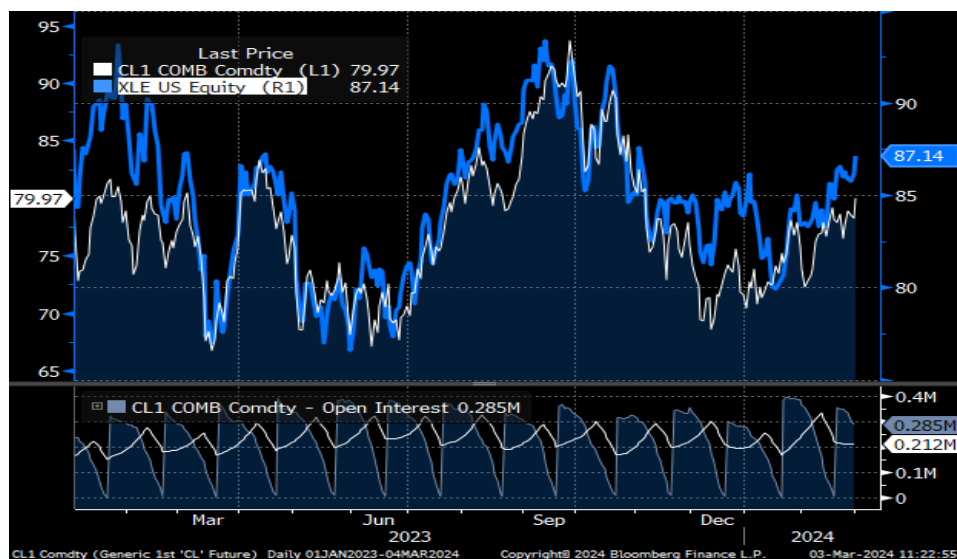
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With that said we reflect back on our [year ahead strategy report](#) (see here) where we suggest a rangebound but volatile commodity backdrop will come with trading opportunities.

The chart below shows the relationship between the XLE and spot WTI prices. While we observe some outperformance in the last several months that we associate with consolidation beneficiaries, we suggest the broader relationship between aggregate sector performance and oil price has held.

Exhibit 13: Trading opportunities: consolidation winners have allowed the XLE to hold up

XLE vs WTI spot prices



Source: Bloomberg

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The key question is where oil moves next. Here we turn back to what we believe is a useful short-term monitor from our Technical team.

Technical matters

Brent's \$10 bounce from December lows in the \$70s has caught the attention of our technical team, who characterize the oil outlook as 'rangebound', but within a wide band of \$73/bbl - \$96/bbl, essentially where oil has traded over the past six months.

- In its recent '[Commodities Technical Advantage report](#)' (see here) our team suggests recent momentum could lead a move back to the top of the trading range – and perhaps a break-out higher above \$100/bbl.
- If proven right, we would characterize the impact on the sector as the trading opportunities that come with commodity volatility. But the fundamental backdrop is also worth considering given the implications of continued OPEC supply constraints against rising seasonal demand, post the winter shoulder season.

Exhibit 14: Technicals rangebound – but is at a 3m high!

Technical range points to \$73 - \$95



Source: BofA Global Research

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The trade-off is that upside in spot prices has mixed fundamental support – tightening inventories, but artificially induced and at a pace that is below what might be expected given the scale of OPEC+ cuts.

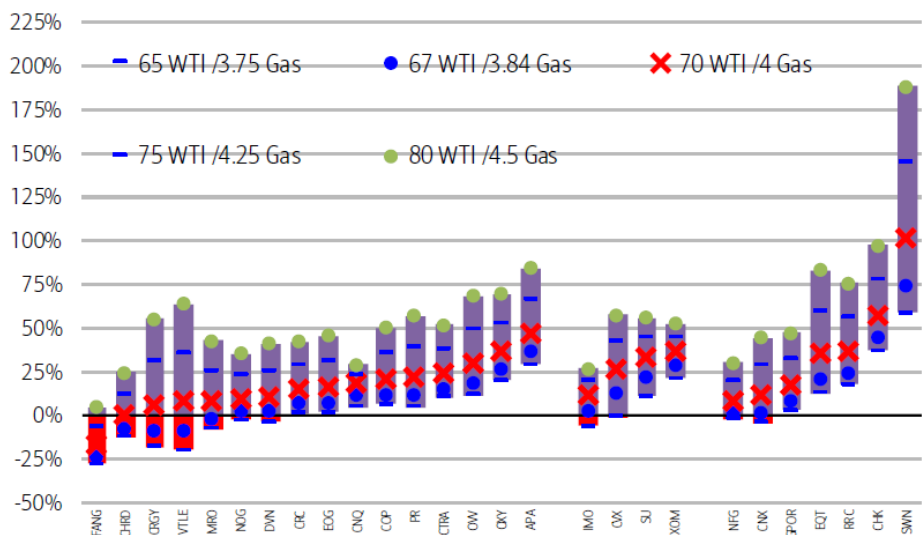
With that said, next steps on global balances come from a seasonal rebound in summer demand – a move we expect may help accelerate inventory tightness and hence give paper markets grounds for fundamental support that as a minimum prevents a return to December lows.

Ultimately we see the directional response to OPEC's announcement as the critical path to how oil prices respond. With technicals suggesting oil could go either way, we see sector risks similarly balanced. Wild cards of course come as always from geopolitics and the Middle East. Does a potential cease fire in Gaza ease Red Sea transit concerns? We suspect these take time to settle down, leaning us towards our technical team's near term contention that oil prices likely trade with 'higher highs and higher lows'.

From a sector standpoint we see no reason to change our view that screened first through value, at current strip prices an upside case is a free option. Conversely, we see those names with the rate of change in declining break even prices and the extraction of value from consolidation outperforming in a downturn. Our top oil major & E&P ideas remain XOM, OXY, CHK, SU and APA.

Exhibit 15: Valuation sensitivity for the US oils keeps us focused on rate of changed

Average upside at our base case is 16%, but skewed towards consolidation plays



Source: BofA Global Research

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DOE Review

Crude inventories grew by a moderate 3.5 mmbbls w/w focused in PADD 2 and 3 as US refining utilization continues to lag more than offsetting a 434 kbd decline in net imports and flat US production at 13.3mmbd. Notably PADD 3 refining utilization continues to lag still below 80% and the 5-year seasonal range. In PADD 2 we continue to see the effects of the extended unplanned down time at BP's Whiting refinery that is now not expected to start back up until March. During this period of higher-than-normal down time crude inventories have recovered with commercial inventories now back at the 5-year seasonal average and Cushing also back within the 5 year seasonal range.

On the refined products side distillate declined by 4 mmbbls w/w as product supplied added by 426 kbd, more than offsetting a 110 kbd increase in imports. Since the start of this year distillate inventories have generally followed seasonal trends, albeit a steeper than usual decline that we see as a result of a heavy refining maintenance season that has kept distillate production below the 5-year range for the last 5 weeks.

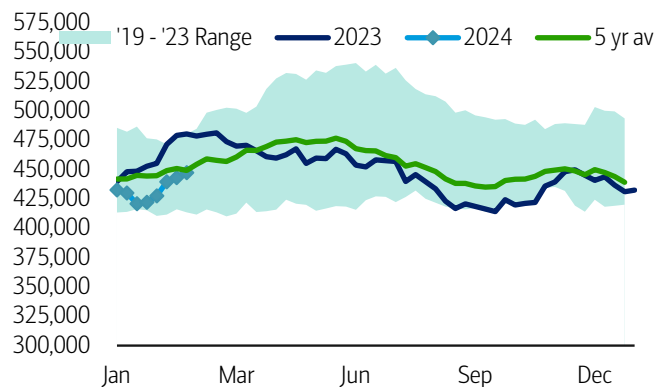
Gasoline inventories held roughly flat w/w only declining by 293 kbbls with draws in PADD 2 and 3 offset by a build in PADD 1. Total US inventories are slightly below the 5-year average ahead of the normal seasonal decline due to switching from winter to summer grade. While current inventories look relatively well positioned we see risks of tightness heading into summer given the tightness of summer grade components in the larger refining complex. Product supplied was also flat and remains at the bottom of the 5-year range while gasoline production is at the 5-year average.

Global inventories held flat w/w only seeing a 1mmbbl decline led by China and MENA, offset by builds in APAC and Europe. Since the start of the year inventories have declined by an average of 645 kbd. Part of that we believe is from OPEC cuts but also we note that crude on water has climb to the top of the recent range which we see as crude tankers being diverted from the Suez canal to the Cape of Good hope. In our view, the risk is that global balances may be in a slight deficit but current onshore inventory draws look potentially overstated as the barrels have shifted to water borne vessels versus a signal that there is more significant lack of supply.

Crude oil stocks

Exhibit 16: Crude Stocks

Crude Stocks 0.9% Higher w/w and -7.8% Lower y/y

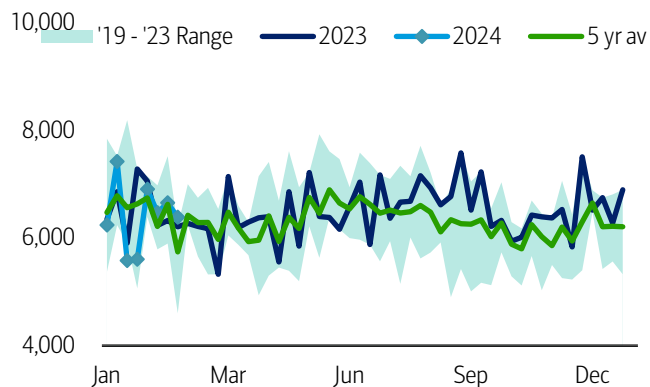


Source:DOE

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Exhibit 17: Crude Imports

Crude Imports -4.0% Lower w/w and 7.2% Higher y/y

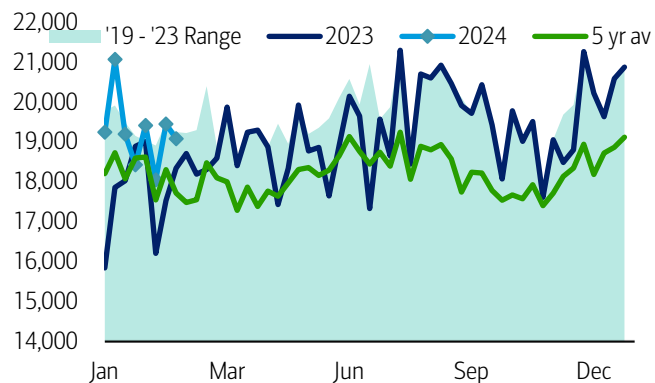


Source:DOE

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Exhibit 18: Crude Implied Demand (000 bpd)

Crude Implied Demand -1.9% Lower w/w and 6.1% Higher y/y

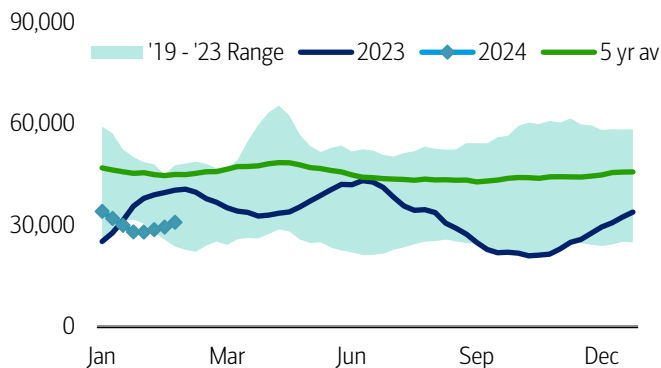


Source:DOE

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Exhibit 19: Cushing Inventory

Cushing Inventory 4.9% Higher w/w and -27.5% Lower y/y

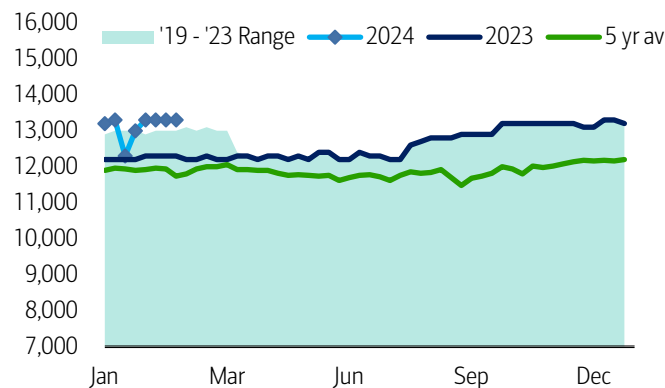


Source:DOE

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Exhibit 20: Crude Production

Crude Production 0.0% in line w/w and 8.1% Higher y/y

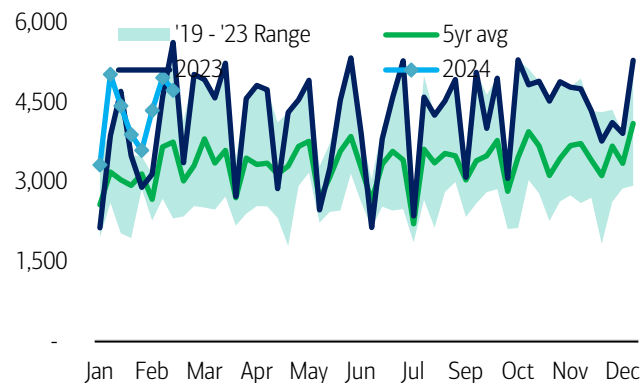


Source:DOE

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Exhibit 21: Crude Oil Exports

Crude Oil Exports -4.8% Lower w/w and -11.8% Lower y/y



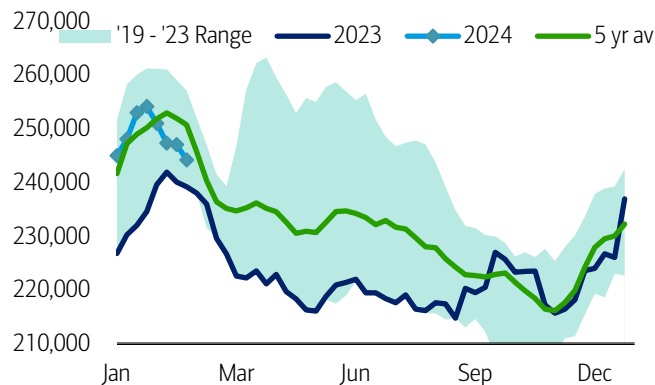
Source:DOE

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Gasline stocks

Exhibit 22: Gasoline Stocks

Gasoline Stocks -1.1% Lower w/w and 3.3% Higher y/y

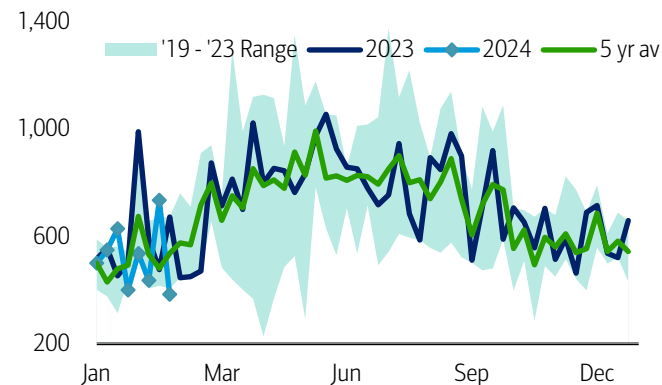


Source:DOE

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Exhibit 23: Gasoline Imports

Gasoline Imports -47.7% Lower w/w and 9.2% Lower y/y

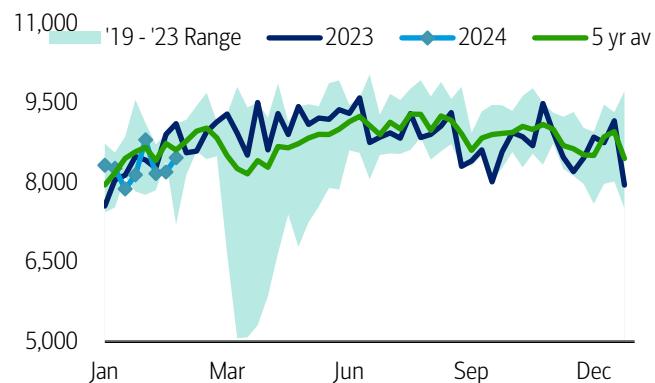


Source:DOE

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Exhibit 24: Gasoline Product Supplied (000 bpd)

Gasoline Product Supplied 3.3% Higher w/w and -10.0% Lower y/y

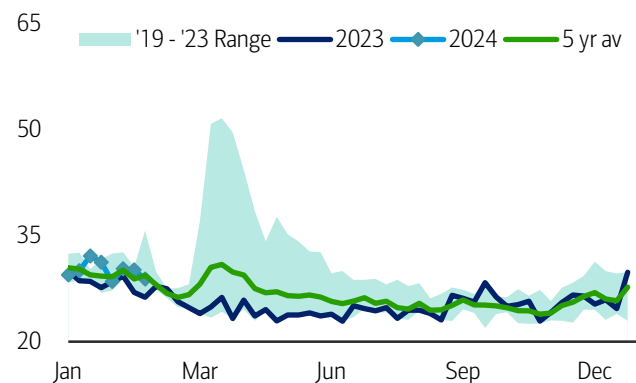


Source:DOE

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Exhibit 25: Gasoline Demand Cover

Gasoline Demand Cover -4.3% Lower w/w and 14.8% Higher y/y

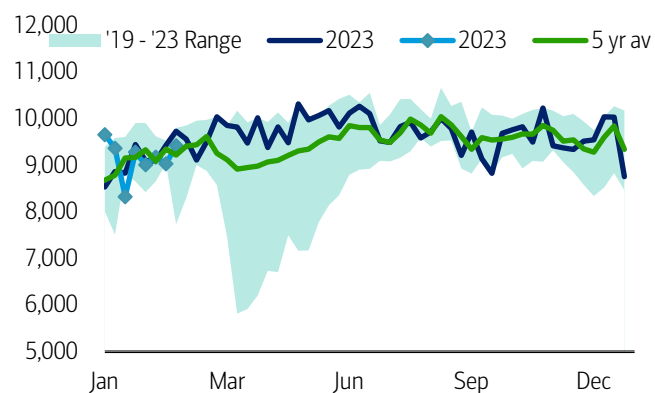


Source:DOE

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Exhibit 26: Gasoline Production

Gasoline Production 4.3% Higher w/w and -7.2% Lower y/y

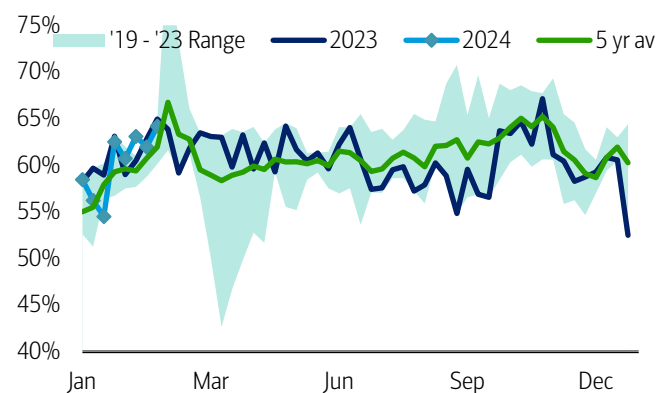


Source:DOE

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Exhibit 27: Gasoline Yield

Gasoline Yield 2.4% Higher w/w and 2.8% Higher y/y



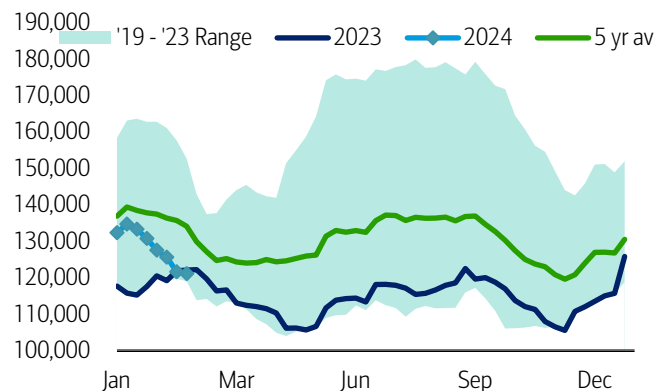
Source:DOE

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Distillate stocks

Exhibit 28: Distillate Stocks

Distillate Stocks -0.4% Lower w/w and -0.4% Lower y/y

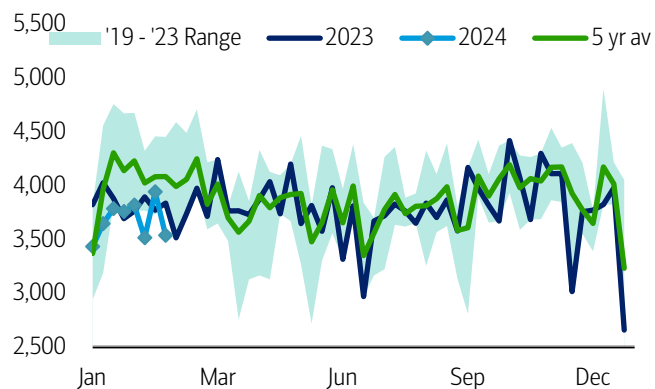


Source:DOE

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Exhibit 30: Distillate Product Supplied (000 bpd)

Distillate Product Supplied -10.3% Lower w/w and 2.7% Lower y/y

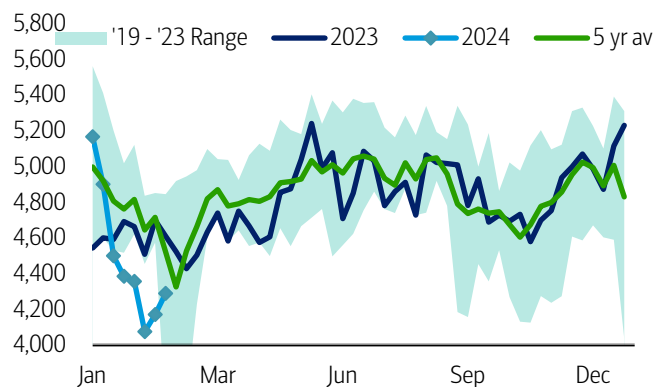


Source:DOE

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Exhibit 32: Distillate Production

Distillate Production 2.8% Higher w/w and -9.5% Lower y/y

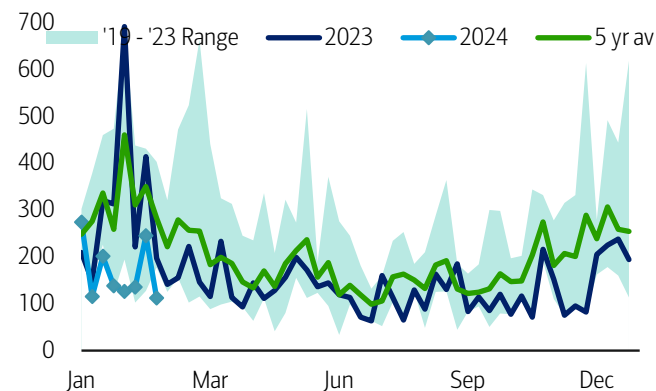


Source:DOE

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Exhibit 29: Distillate Imports

Distillate Imports -54.3% Lower w/w and 24.4% Lower y/y

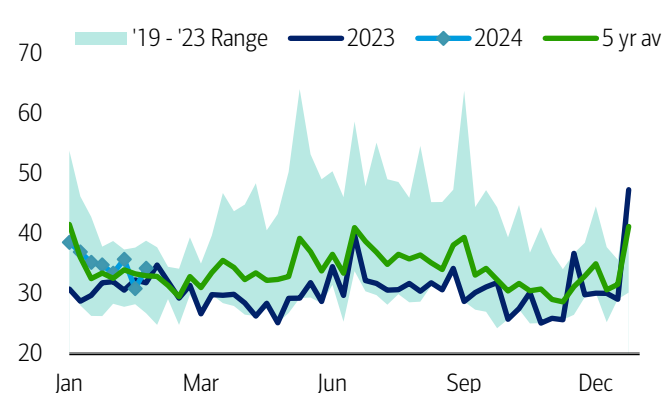


Source:DOE

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Exhibit 31: Distillate Demand Cover

Distillate Demand Cover 11.0% Higher w/w and -3.0% Higher y/y

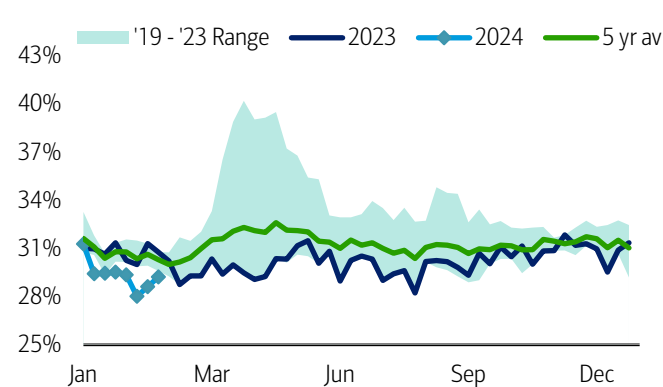


Source:DOE

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Exhibit 33: Distillate Yield

Distillate Yield 2.1% Higher w/w and -7.0% Lower y/y



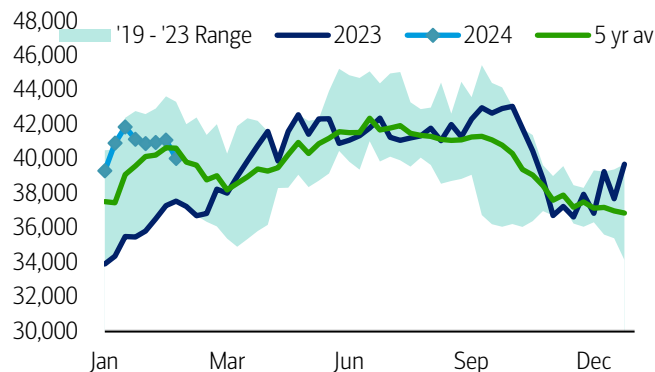
Source:DOE

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Jet stocks

Exhibit 34: Jet Stocks

Jet Stocks -2.6% Lower w/w and 9.5% Higher y/y

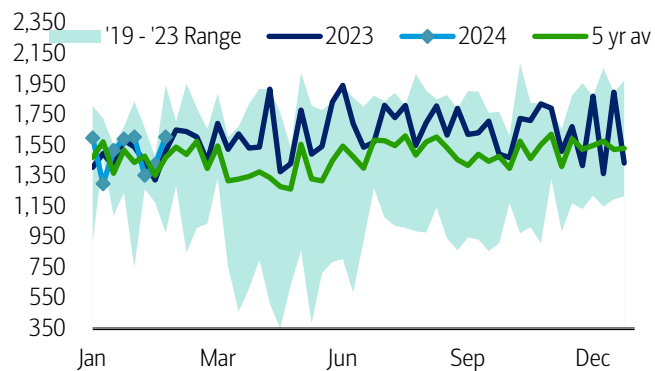


Source:DOE

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Exhibit 36: Jet Implied Demand (000 bpd)

Jet Product Supplied 12.6% Higher w/w and -5.8% Higher y/y

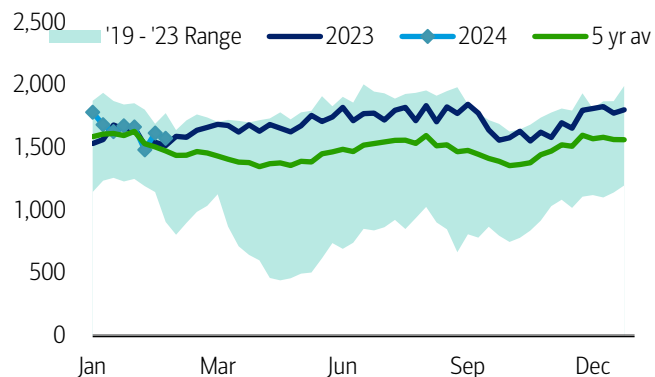


Source:DOE

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Exhibit 38: Jet Production

Jet Production -2.6% Lower w/w and 6.6% Higher y/y

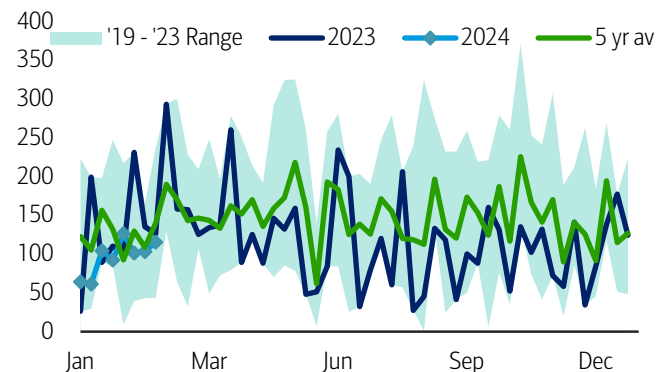


Source:DOE

BofA GLOBAL RESEARCH

Exhibit 35: Jet Imports

Jet Imports 11.7% Higher w/w and -18.3% Lower y/y

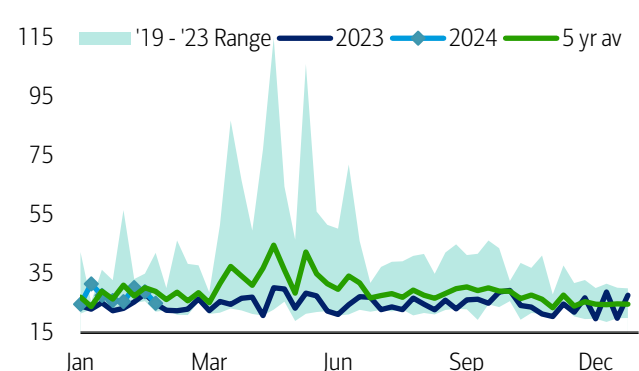


Source:DOE

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Exhibit 37: Jet Demand Cover

Jet Demand Cover -13.5% Lower w/w and 16.2% Higher y/y

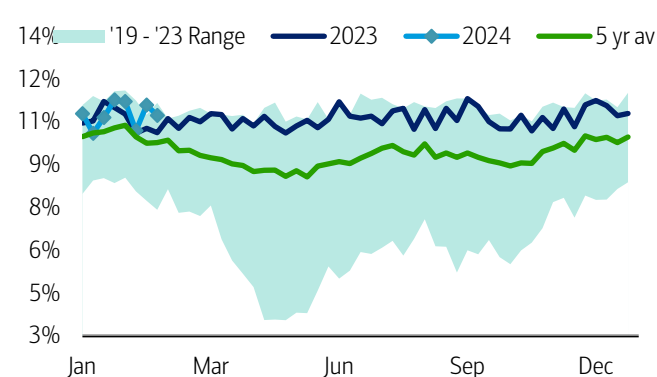


Source:DOE

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Exhibit 39: Jet Yield

Jet Yield -3.3% Lower w/w and 9.6% Higher y/y



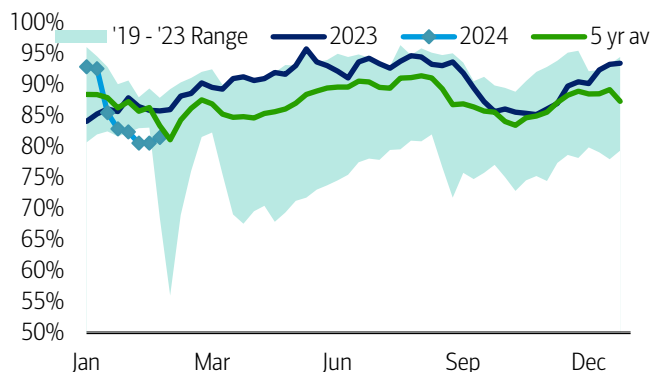
Source:DOE

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Refinery Utilization

Exhibit 40: Utilization

Refinery Utilization 1.1% Higher w/w and -6.1% Lower y/y

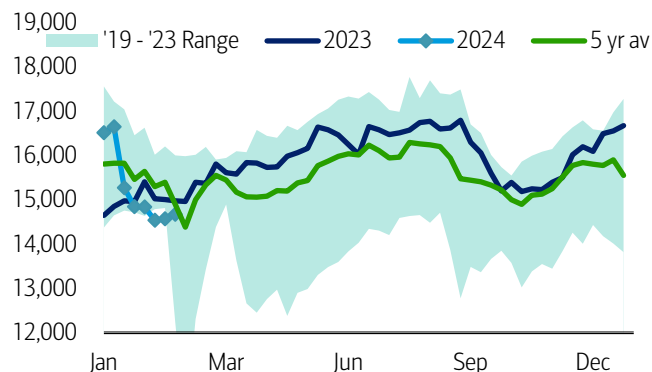


Source:DOE

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Exhibit 41: Crude Throughput

Crude Throughput 0.7% Higher w/w and -2.7% Lower y/y

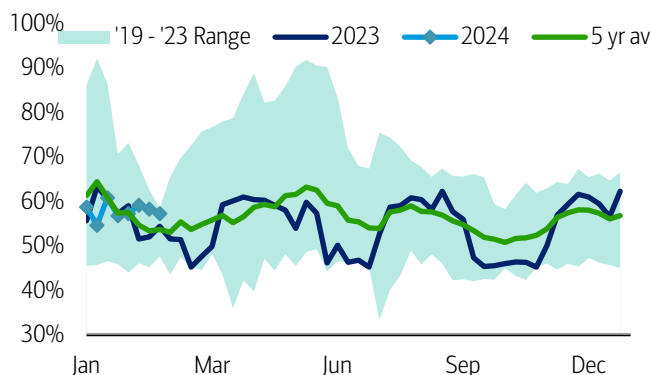


Source:DOE

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Exhibit 42: PADD I Utilization

PADD 1 Utilization Lower w/w and -3.3% Lower y/y

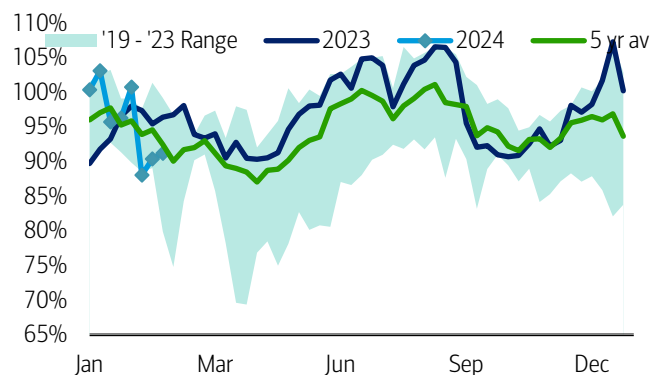


Source:DOE

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Exhibit 43: PADD II Utilization

PADD 2 Utilization 1.5% Higher w/w and -2.9% Lower y/y

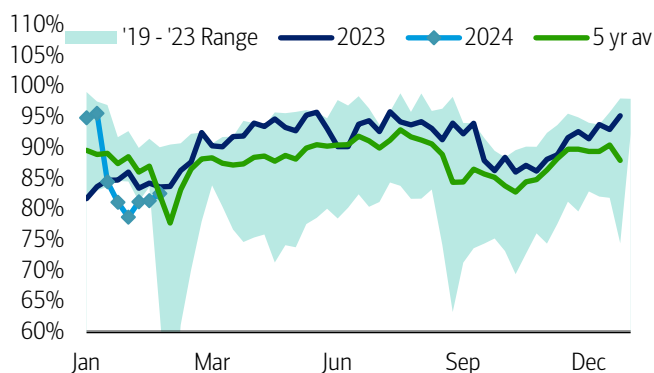


Source:DOE

BofA GLOBAL RESEARCH

Exhibit 44: PADD III Utilization

PADD 3 Utilization 1.8% Higher w/w and -7.4% Lower y/y

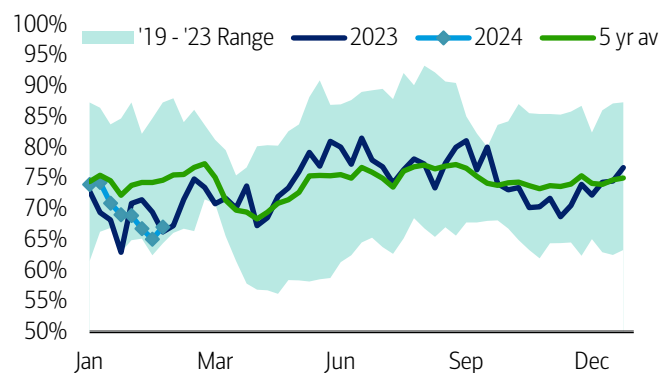


Source:DOE

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Exhibit 45: PADD V Utilization

PADD 5 Utilization 2.7% Higher w/w and -4.0% Lower y/y



Source:DOE

BofA GLOBAL RESEARCH

Crude demand coverage

Exhibit 46: US Crude Demand Cover
US Crude Demand Cover 0.3% Higher w/w and -5.2% Lower y/y

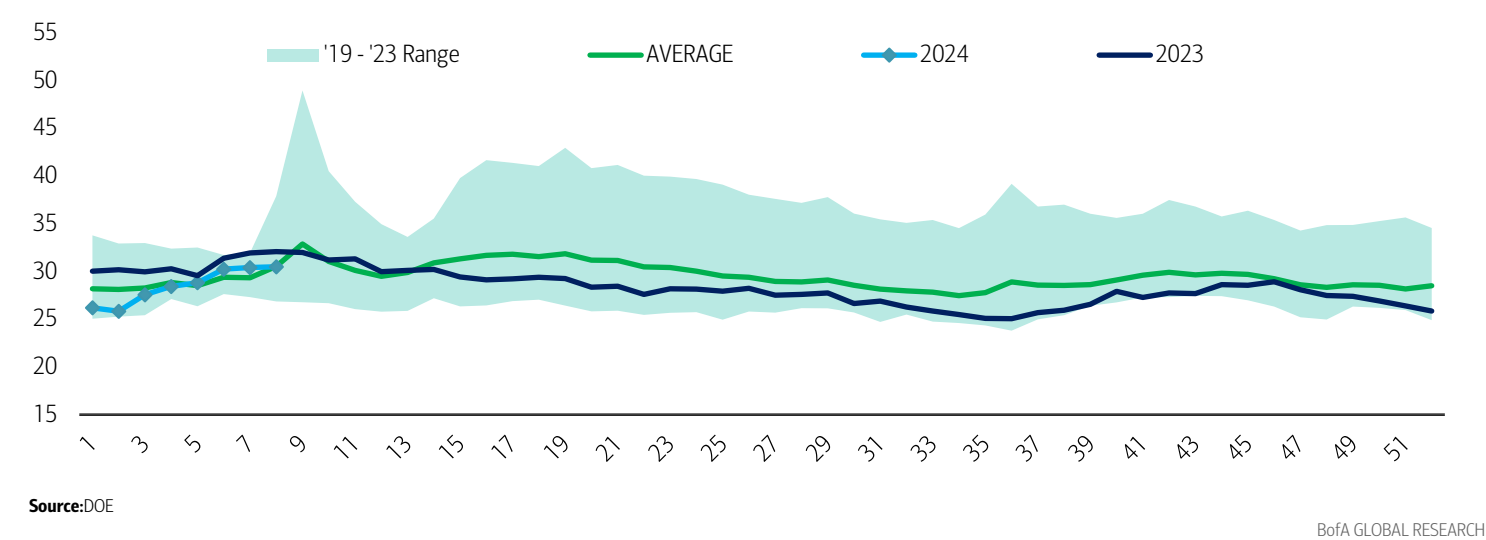
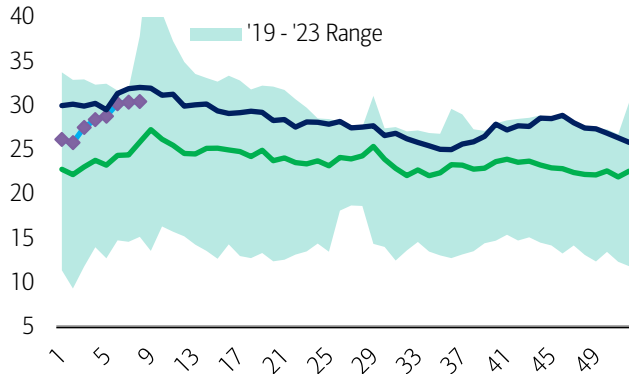


Exhibit 47: PADD I Crude Demand Cover

PADD 1 Crude Demand Cover 6.1% Higher w/w and -5.6% Higher y/y

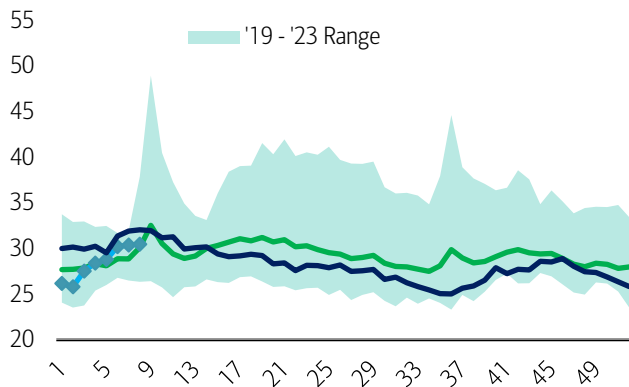


Source:DOE

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Exhibit 49: PADD III Crude Demand Cover

PADD 3 Crude Demand Cover -0.7% Lower w/w and 0.2% Lower y/y

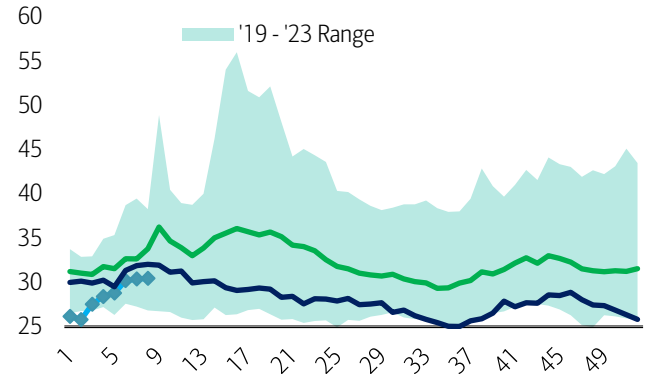


Source:DOE

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Exhibit 48: PADD II Crude Demand Cover

PADD 2 Crude Demand Cover 1.0% Higher w/w and -5.4% Lower y/y

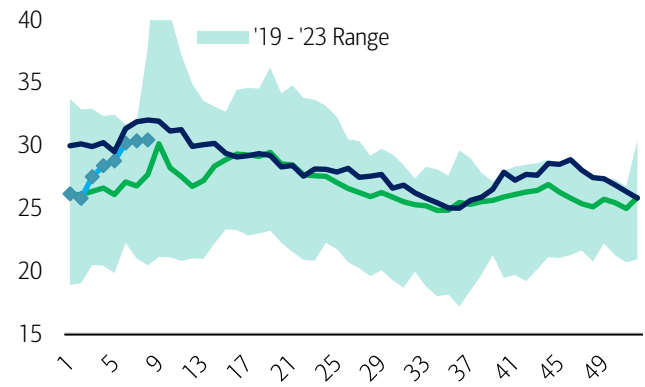


Source:DOE

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Exhibit 50: PADD V Crude Demand Cover

PADD 5 Crude Demand Cover -0.1% Lower w/w and -8.5% Lower y/y



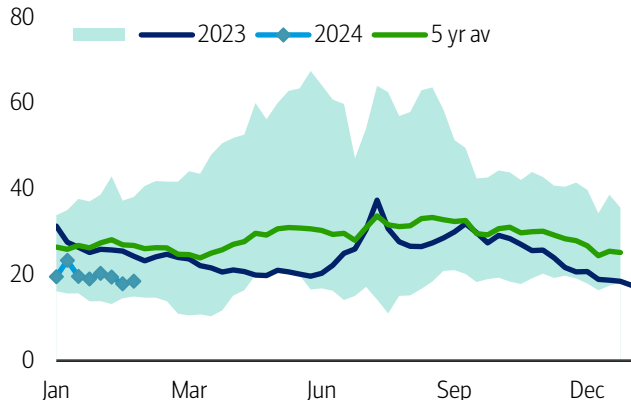
Source:DOE

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NGL pricing

Exhibit 51: Ethane

Ethane Price is 9.4% Higher w/w and -27.7% Lower y/y

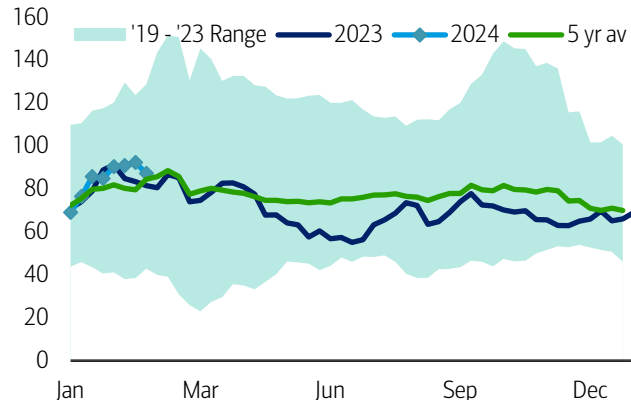


Source: Bloomberg

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Exhibit 52: Propane

Propane Price is -6.3% Lower w/w and 12.0% Higher y/y

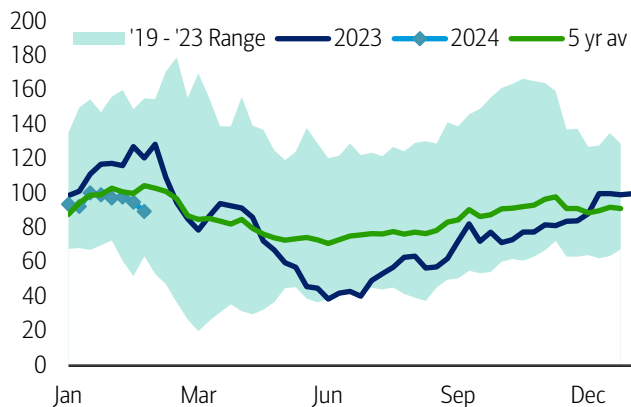


Source: Bloomberg

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Exhibit 53: Butane

Butane Price is -8.7% Lower w/w and -28.3% Lower y/y

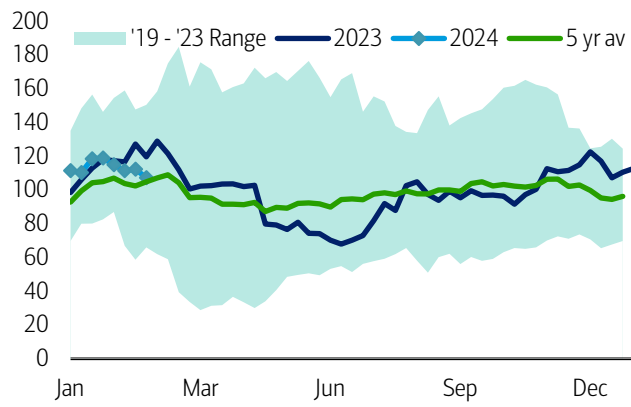


Source: Bloomberg

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Exhibit 54: Isobutane

Isobutane Price is -5.0% Lower w/w and -17.7% Lower y/y

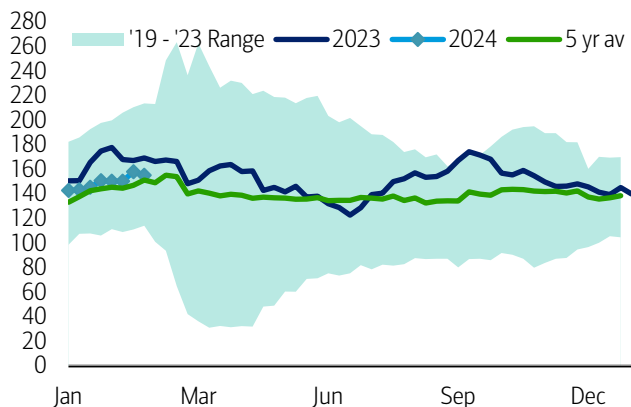


Source: Bloomberg

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Exhibit 55: Natural Gasoline

Natural Gasoline Price is -3.1% Lower w/w and -3.0% Lower y/y

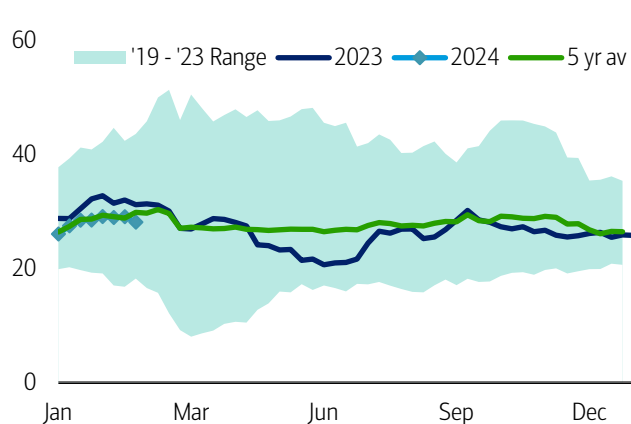


Source: Bloomberg

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Exhibit 56: NGL Composite Barrel

NGL Composite Barrel is -72.0% Lower w/w and -18.9% Lower y/y



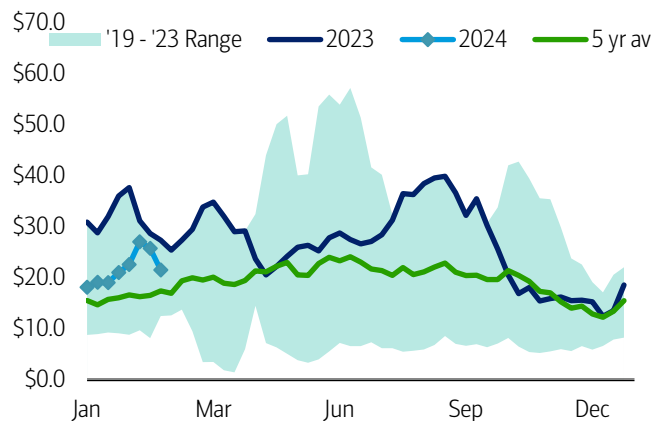
Source: Bloomberg

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Crack spreads

Exhibit 57: Gulf Coast 321

Gulf Coast 321 LLS -6.4% Lower w/w and -18.7% Lower y/y

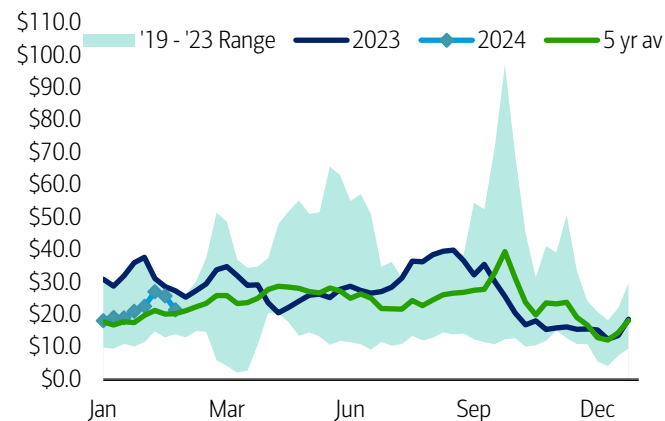


Source: Bloomberg

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Exhibit 58: West Coast 321

West Coast 321 ANS 17.9% Higher w/w and -30.9% Lower y/y

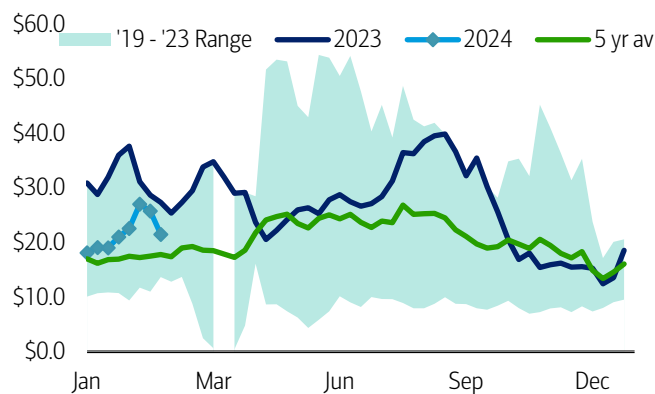


Source: Bloomberg

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Exhibit 59: Northeast 321

New York 321 Brent -0.6% Lower w/w and 3.1% Higher y/y

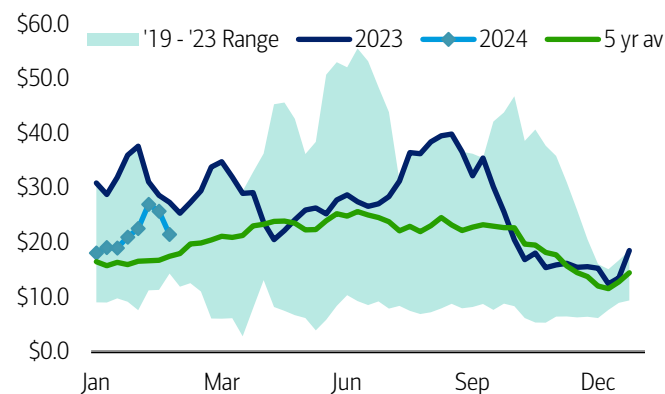


Source: Bloomberg

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Exhibit 60: Midcont 321

Mid Cont 321 WTI 6.3% Higher w/w and -35.5% Lower y/y

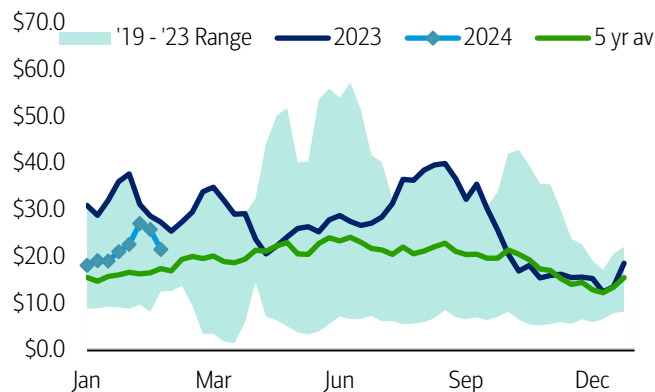


Source: Bloomberg

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Exhibit 61: NWE 321

Northwest Europe 321 Brent 20.7% Higher w/w and -31.5% Lower y/y

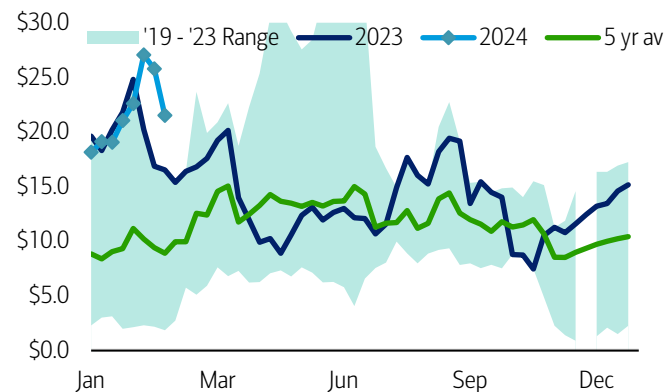


Source: Bloomberg

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Exhibit 62: Dubai 321

Dubai 321 3.7% Higher w/w and 9.1% Higher y/y



Source: Bloomberg

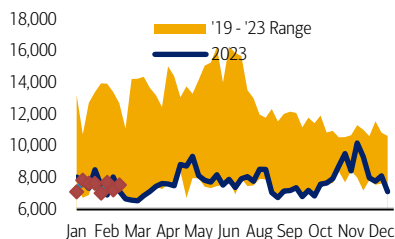
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Regional Breakdown

Exhibit 63: PADD 1 Crude Stock

PADD 1 Crude Stock -12.1% Lower w/w and -17.8% y/y

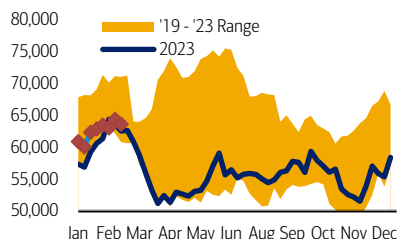


Source: EIA

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Exhibit 64: PADD 1 Gasoline Stock

PADD 1 Gasoline Stock 1.2% Higher w/w and -7.3% y/y

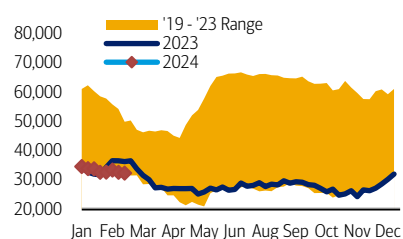


Source: EIA

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Exhibit 65: PADD 1 Distillate Stock

PADD 1 Distillate Stock -0.3% Lower w/w and -32.7% y/y

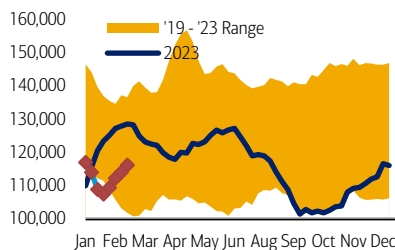


Source: EIA

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Exhibit 66: PADD 2 Crude Stock

PADD 2 Crude Stock -2.5% Lower w/w and -18.6% y/y

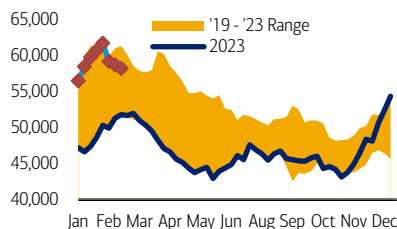


Source: EIA

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Exhibit 67: PADD 2 Gasoline Stock

PADD 2 Gasoline Stock 7.5% Higher w/w and -4.1% y/y

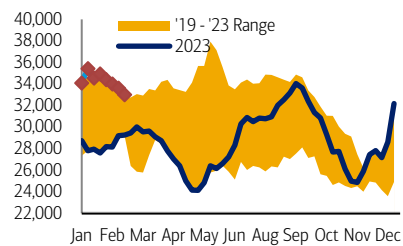


Source: EIA

BofA GLOBAL RESEARCH

Exhibit 68: PADD 2 Distillate Stock

PADD 2 Distillate Stock 6.7% Higher w/w and -1.4% y/y

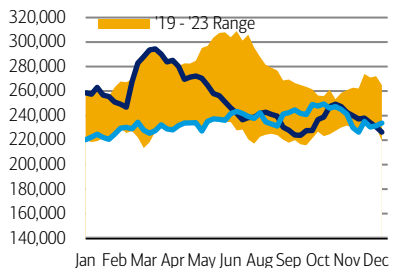


Source: EIA

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Exhibit 69: PADD 3 Crude Stock

PADD 3 Crude Stock -1.2% Lower w/w and -13.4% y/y

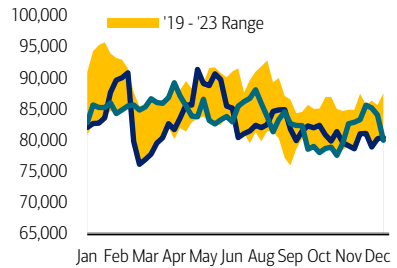


Source: EIA

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Exhibit 70: PADD III Gasoline Stocks

PADD 3 Gasoline Stock 2% Higher w/w and -14.5% y/y

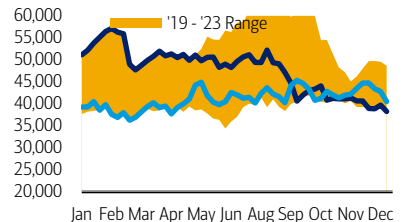


Source: EIA

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Exhibit 71: PADD III Distillate Stocks

PADD 5 Distillate Stock 1% Higher w/w and -1.3% y/y

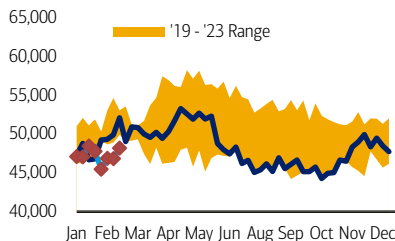


Source: EIA

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Exhibit 72: PADD 5 Crude Stock

PADD 5 Crude Stock 6.1% Higher w/w and -2.0% y/y

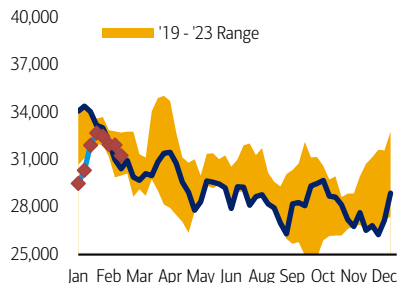


Source: EIA

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Exhibit 73: PADD 5 Gasoline Stock

PADD 5 Gasoline Stock 6.5% Higher w/w and -13.0% y/y

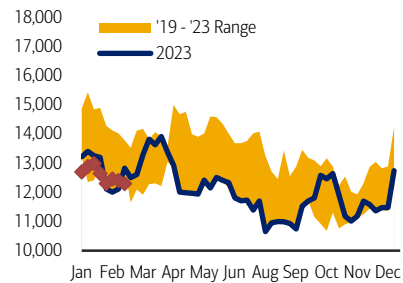


Source: EIA

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Exhibit 74: PADD 5 Distillate Stock

PADD 5 Distillate Stock 1.6% Higher w/w and -15.2% y/y



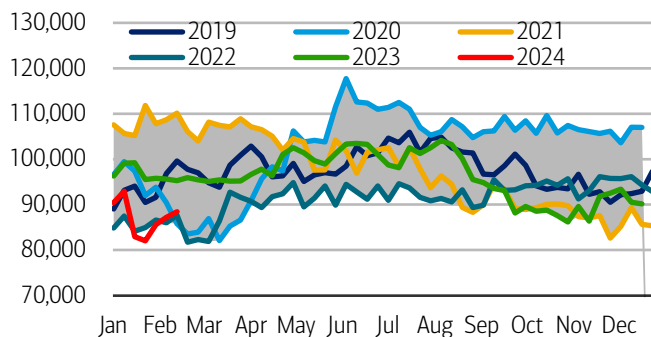
Source: EIA

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Amsterdam, Rotterdam, Antwerp

Exhibit 75: Total ARA Petroleum Stocks (thousand barrels)

Inventories -1% lower w/w

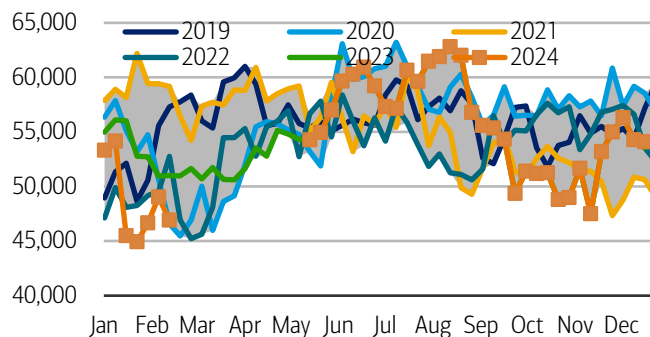


Source: Genscape, PJK

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Exhibit 76: Genscape ARA Crude Stocks (thousand barrels)

Inventories 6% higher w/w

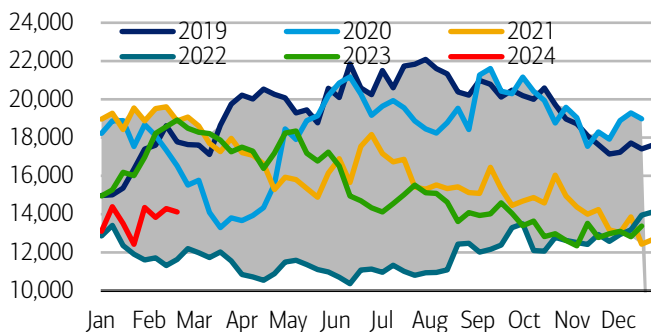


Source: Genscape, PJK

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Exhibit 77: ARA Gasoil Stocks (thousand barrels)

Inventories -1% lower w/w

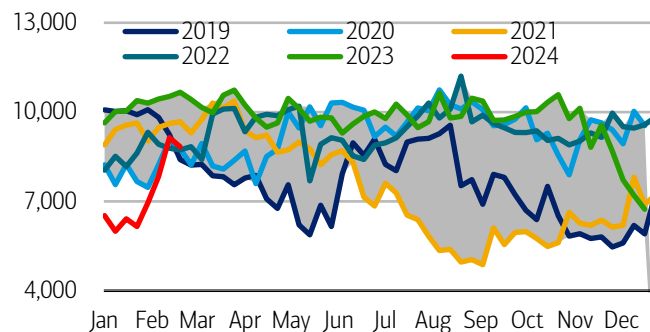


Source: Genscape, PJK

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Exhibit 78: ARA Gasoline Stocks (thousand barrels)

Inventories -3% lower w/w

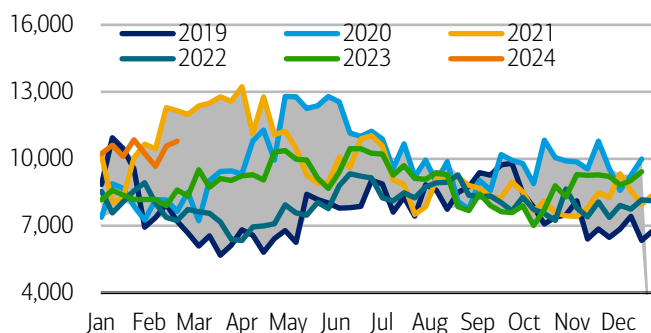


Source: Genscape, PJK

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Exhibit 79: ARA Fuel Oil Stocks (thousand barrels)

Inventories 2% higher w/w

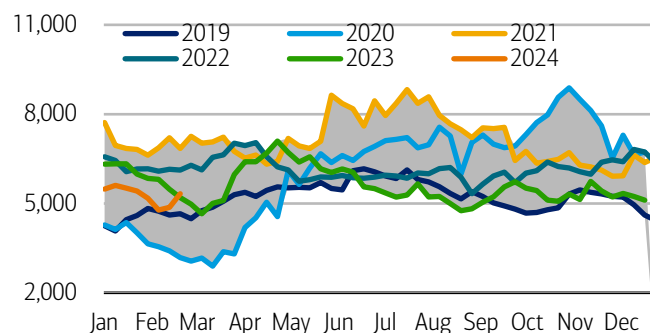


Source: Genscape, PJK

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Exhibit 80: ARA Jet Stocks (thousand barrels)

Inventories 9% higher w/w



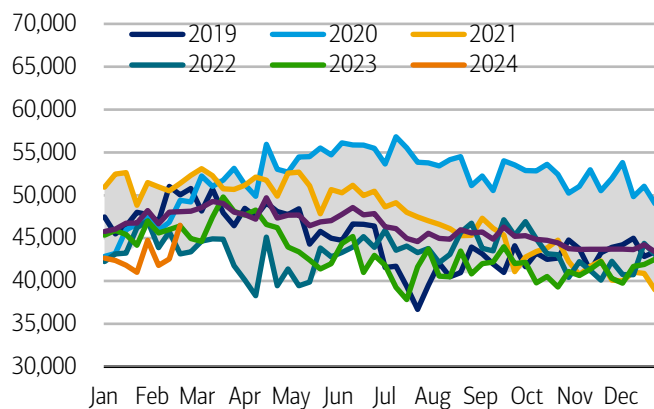
Source: Genscape, PJK

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Singapore

Exhibit 81: Total Singapore Light Distillate, Middle Distillate and Residue Stocks (thousand barrels)

Inventories 9% higher w/w

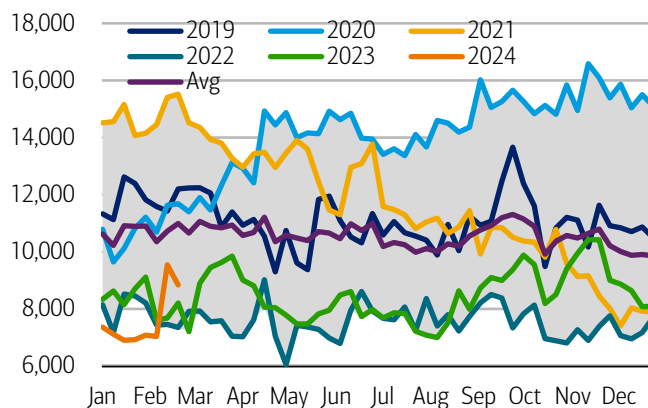


Source: International Enterprise

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Exhibit 82: Singapore Middle Distillate Stocks (thousand barrels)

Inventories -7% lower w/w

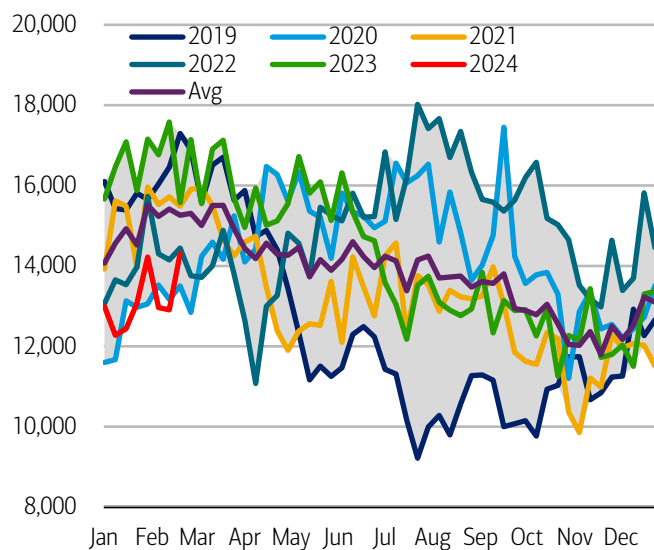


Source: International Enterprise

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Exhibit 83: Singapore Light Distillate Stocks (thousand barrels)

Inventories 11% higher w/w

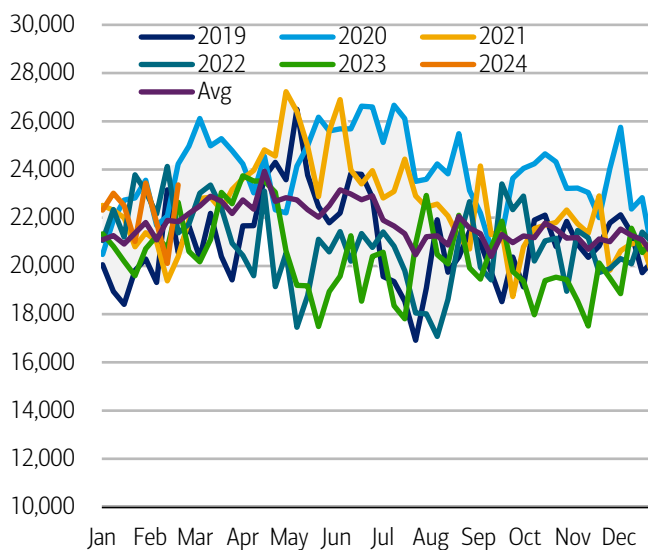


Source: International Enterprise

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Exhibit 84:

Inventories 16% higher w/w

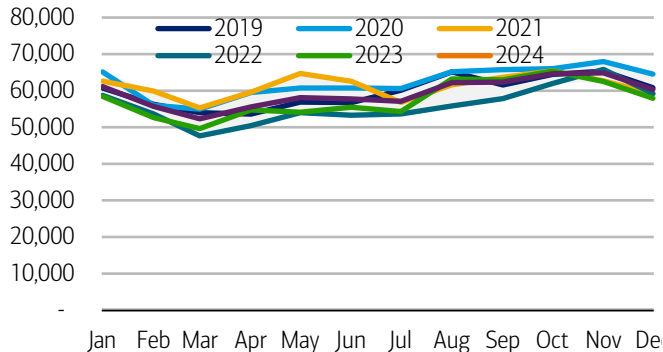


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Japan

Exhibit 85: Japan Heavy Fuel Oil Stock (thousand barrels)

Inventories 1% higher w/w

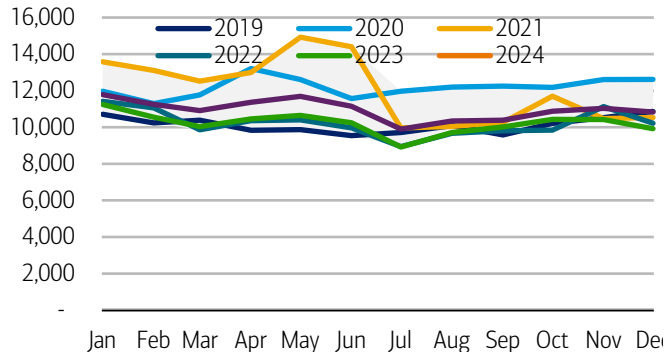


Source: Ministry of Economy Trade and Industry of Japan

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Exhibit 86: Japan Heavy Fuel Oil Stock (thousand barrels)

Inventories 1% higher w/w

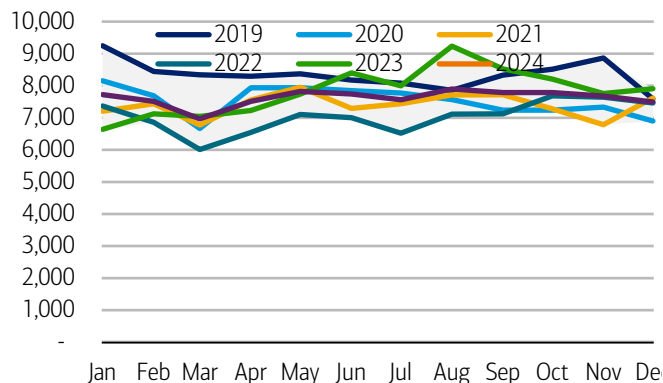


Source: Ministry of Economy Trade and Industry of Japan

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Exhibit 87: Japan Heavy Fuel Oil Stock (thousand barrels)

Inventories 1% higher w/w

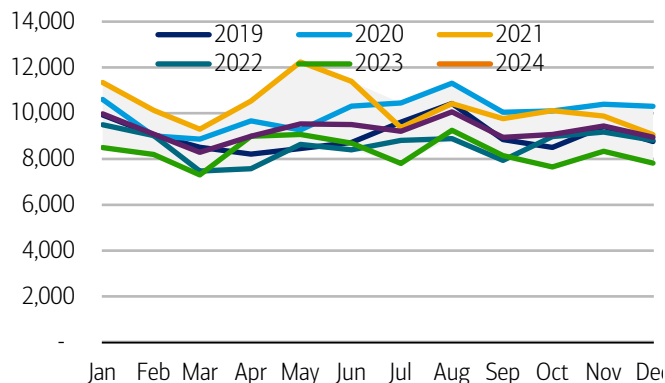


Source: Ministry of Economy Trade and Industry of Japan

BofA GLOBAL RESEARCH

Exhibit 88: Japan Heavy Fuel Oil Stock (thousand barrels)

Inventories 1% higher w/w

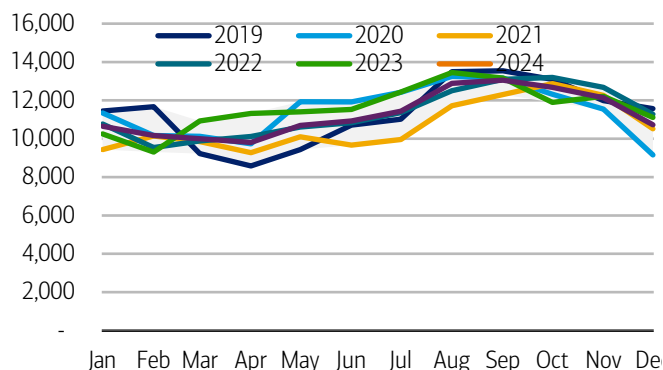


Source: Ministry of Economy Trade and Industry of Japan

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Exhibit 89: Japan Heavy Fuel Oil Stock (thousand barrels)

Inventories 1% higher w/w

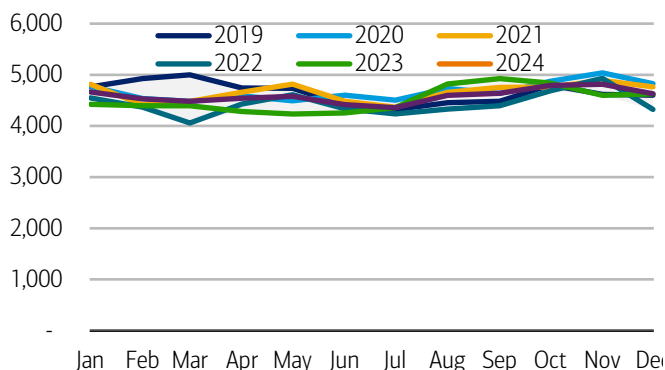


Source: Ministry of Economy Trade and Industry of Japan

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Exhibit 90: Japan Heavy Fuel Oil Stock (thousand barrels)

Inventories 1% higher w/w



Source: Ministry of Economy Trade and Industry of Japan

BofA GLOBAL RESEARCH

Exhibit 91: Stocks mentioned

Prices and ratings for stocks mentioned in this report

BofA Ticker	Bloomberg ticker	Company name	Price	Rating
APA	APA US	APA Corp	US\$ 30.41	C-1-7
CRC	CRC US	California Resources	US\$ 53.96	C-2-7
CNQ	CNQ US	Canadian Natl Re	US\$ 72.07	C-1-7
YCNQ	CNQ CN	Canadian Natural Res	C\$ 97.7	B-1-7
CHK	CHK US	Chesapeake	US\$ 82.81	B-1-7
CVX	CVX US	Chevron	US\$ 152.81	B-1-7
COP	COP US	ConocoPhillips	US\$ 114.24	B-1-7
CTRA	CTRA US	Coterra Energy Inc	US\$ 25.96	B-1-7
DVN	DVN US	Devon Energy	US\$ 44.39	C-2-7
FANG	FANG US	Diamondback	US\$ 185.17	C-2-7
EOG	EOG US	EOG Resources	US\$ 116.1	C-2-7
XOM	XOM US	ExxonMobil	US\$ 105.84	B-1-7
GPOR	GPOR US	Gulfport	US\$ 142	C-2-9
MRO	MRO US	Marathon	US\$ 24.6	C-3-7
OXY	OXY US	Occidental	US\$ 61.36	C-1-7
OVV	OVV US	Ovintiv	US\$ 50.4	C-1-7
YOVV	OVV CN	Ovintiv	C\$ 68.32	C-1-7
PR	PR US	Permian Resources	US\$ 16.05	C-2-7
RRC	RRC US	Range	US\$ 32.14	C-1-7
SU	SU US	Suncor	US\$ 34.94	B-1-7
YSU	SU CN	Suncor	C\$ 47.4	B-1-7

Source: BofA Global Research

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Investment Rationale

Permian Resources Corporation

Our rating reflects limited upside under our base case that assumes \$80 Brent (\$75 WT) in 2024 with backwardation embedded in our long-term commodity view of \$70 WTI.

Price objective basis & risk

APA Corporation (APA)

Our \$49 PO assumes ex growth discounted cash flow value, which assumes \$75 Brent and \$70 West Texas Intermediate (WTI) long term. We also assume long-term Henry Hub natural gas as \$4.00. We apply a long-term (post-tax) weighted average cost of capital (WACC) of 8.4%, which is based on the BofA strategy team's assumed risk premium and a five-year monthly beta.

Upside risks to achieving our price objective are 1) higher commodity prices, 2) exploration success in Suriname, 3) exploration success and increased drilling activity in Egypt. Downside risks to achieving our price objective are (1) lower commodity prices, (2) Egyptian political risk, (3) exploration risk in Suriname.

California Resources Corporation (CRC)

Our price objective of \$64/sh is based on ex growth DCF value using BofA's base case commodity view through 2024 and a Long-term (2025+) oil price assumption of \$75 Brent. We assume long-term HH natural gas of \$4.00. We apply a long-term (post-tax) weighted average cost of capital (WACC) of 9.6%, which is based on the BofA strategy team's assumed risk premium and a five-year monthly beta.



Upside risks to our PO are a higher sustaining commodity price than we have in our base case and faster than expected monetization of carbon capture/sequestration technology/acumen. Downside risks to our price objective are (1) regulatory risks in California, (2) project timing delays could impact our growth rates, and (3) as an oil leveraged company, a weak oil price environment would affect our estimates and valuation. (4) A slower than expected monetization of carbon capture/sequestration technology/acumen.

Canadian Natural Resources (YCNQ / CNQ)

Our C\$105 / US\$79 assumes ex growth discounted cash flow value, which assumes \$75 Brent and \$70 WTI long-term. We also assume long term Henry Hub natural gas as \$4.00. We apply a long-term (post-tax) weighted average cost of capital (WACC) of 8.8%, which is based on the BofA strategy team's assumed risk premium and a five-year monthly beta.

The risks to our price objective are (1) the oil and gas price and margin environment, (2) significant delays to the new upstream projects critical to its production targets, (3) inability to capture the price environment due to cost pressures (opex, capex, and taxation) and (4) potential currency exchange risk. Upside risks to our price objective are (1) potentially improving cost of capital as company deleverages balance sheet and (2) higher oil & gas prices.

Chesapeake Energy (CHK)

Our price objective of \$115/sh assumes \$75 Brent and \$70 WTI long-term. We assume long-term HH natural gas of \$4.00. We apply a long-term (post-tax) weighted average cost of capital (WACC) of 7.2%, which is based on the BofA Strategy team's assumed risk premium and a five-year monthly beta.

Downside risks to our price objective are: E&P companies, in general, are subject to commodity price volatility, commensurate slowdowns in development drilling, and potential investor apathy. Company-specific downside risks to our price objective are: (1) Potential M&A as the company does consider potential acquisitions, (2) potential regional bottleneck, and (3) a production mix heavily weighted towards natural gas, making it more susceptible if commodity prices were to decline.

Upside risks to our PO 1) higher potential long-term gas and 2) the debottlenecking of US gas as LNG infrastructure is built along the Gulf Coast.

Chevron Corp. (CVX)

Our price objective of \$196/sh assumes \$75 Brent and \$70 WTI long-term. We assume long-term HH natural gas of \$4.00. We apply a long-term (post-tax) weighted average cost of capital (WACC) of 7.7%, which is based on the BofA Strategy team's assumed risk premium and a five-year monthly beta.

The risks to our price objective are: (1) commodity price volatility, (2) operational execution particularly on new projects, and (3) inability to capture the price environment due to cost pressures (opex, capex and taxation), unseen integration issues with the recently announced acquisition. Upside risks to our price objective are higher oil prices and lower cap ex spending.

ConocoPhillips (COP)

Our price objective of \$140/share assumes ex growth discounted cash flow value, which assumes \$75 Brent and \$70 West Texas Intermediate (WTI) long term. We also assume long-term Henry Hub natural gas as \$4.00. We apply a long-term (post-tax) weighted average cost of capital (WACC) of 7.6%, which is based on the BofA strategy team's assumed risk premium and a five-year monthly beta.

The risks to our price objective are (1) the oil and gas price and margin environment, (2) significant delays to the new upstream projects critical to its production targets, and (3) inability to capture the price environment due to cost pressures (operating expense, capex, and taxation). Upside risks to our price objective are higher oil prices and lower capital expenditure spending.

Coterra Energy Inc (CTRA)

Our price objective of \$31/sh assumes ex growth discounted cash flow value, which assumes \$75 Brent and \$70 West Texas Intermediate (WTI) long term. We also assume long-term Henry Hub natural gas as \$4.00. We apply a long-term (post-tax) weighted average cost of capital (WACC) of 6.8%, which is based on the BofA strategy team's assumed risk premium and a five-year monthly beta.

The risks to our price objective are (1) the oil and gas price and margin environment, (2) significant delays to the new upstream projects critical to its production targets, (3) inability to capture the price environment due to cost pressures (opex, capex, and taxation) and (4) lower natural gas prices compared to our estimates. Upside risks to our price objective are higher oil & gas prices, unexpected narrowing of basis differential and lower cap ex spending.

Devon Energy Corp. (DVN)

Our price objective of \$50/sh assumes ex growth discounted cash flow value, which assumes \$75 Brent and \$70 West Texas Intermediate (WTI) long term. We also assume long-term Henry Hub natural gas as \$4.00. We apply a long-term (post-tax) weighted average cost of capital (WACC) of about 8%, which is based on the BofA strategy team's assumed risk premium and a five-year monthly beta.

The risks to our price objective are (1) the oil and gas price and margin environment, (2) significant delays to the new upstream projects critical to its production targets, and (3) inability to capture the price environment due to cost pressures (opex, capex, and taxation). Upside risks to our price objective are higher oil & gas prices.

Diamondback Energy Inc. (FANG)

Our price objective of \$182/sh assumes ex growth discounted cash flow value, which assumes \$75 Brent and \$70 West Texas Intermediate (WTI) long term. We also assume long-term Henry Hub natural gas as \$4.00. We apply a long-term (post-tax) weighted average cost of capital (WACC) of 8.2%, which is based on the BofA strategy team's assumed risk premium and a five-year monthly beta.

Downside risks to our price objective are (1) the oil and gas price and margin environment, (2) significant delays to the new upstream projects critical to its production targets, and (3) inability to capture the price environment due to cost pressures (opex, capex, and taxation). Upside risks to our price objective are higher oil & gas prices, new & unexplored plays, and further technological advances that add downside pressures to costs.

EOG Resources (EOG)

Our price objective of \$140/sh assumes ex growth discounted cash flow value, which assumes \$75 Brent and \$70 West Texas Intermediate (WTI) long term. We also assume long-term Henry Hub natural gas as \$4.00. We apply a long-term (post-tax) weighted average cost of capital (WACC) of 8.2%, which is based on the BofA strategy team's assumed risk premium and a five-year monthly beta.

The risks to our price objective are (1) the oil and gas price and margin environment, (2) significant delays to the new upstream projects critical to its production targets, and (3)

inability to capture the price environment due to cost pressures (opex, capex, and taxation). Upside risks to our price objective are higher oil & gas prices.

ExxonMobil Corp. (XOM)

Our price objective of \$140/sh assumes \$75 Brent and \$70 WTI long-term. We assume long-term HH natural gas of \$4.25. We apply a long-term (post-tax) weighted average cost of capital (WACC) of 7.7%, which is based on the BofA strategy team's assumed risk premium and a five-year monthly beta.

The risks to our price objective are (1) the oil and gas price and margin environment, (2) significant delays to the new upstream projects critical to its growth targets, and (3) inability to capture the price environment due to cost pressures (opex, capex, and taxation). Upside risks to our price objective are higher oil & gas prices.

Gulfport Energy Corporation (GPOR)

Our \$151PO is based on a DCF, which assumes long-term \$4.00 HH / \$70 WTI / \$75 Brent and an 9% WACC

Downside risks to our price objective are (1) potential acquisitions risk, (2) regional pipeline disruptions (3), and a potential equity overhang

Upside risks to our price objective are (1) higher gas prices, (2) better visibility on extent of 'core' inventory, and (3) further cost deflation

Marathon Oil Corp. (MRO)

Our price objective of \$27/sh assumes \$75 Brent and \$70 WTI long-term. We assume long-term HH natural gas of \$4.00. We apply a long-term (post-tax) weighted average cost of capital (WACC) of 7.6%, which is based on the BofA strategy team's assumed risk premium and a five-year monthly beta.

The risks to our price objective are (1) the oil and gas price and margin environment, (2) significant delays to the new upstream projects critical to its production targets, (3) inability to capture the price environment due to cost pressures (opex, capex, and taxation), and (4) limited visibility around long-term upstream developments necessary to sustain production. Upside risks to our price objective are higher oil & gas prices.

Occidental Petroleum Corp. (OXY)

Our price objective of \$80/sh assumes \$75 Brent and \$70 WTI long-term. We assume long-term HH natural gas of \$4.00. We apply a long-term (post-tax) weighted average cost of capital (WACC) of 7.9%, which is based on the BofA strategy team's assumed risk premium and a five-year monthly beta.

Downside risks to our price objective are (1) the oil and gas price and margin environment, (2) significant delays to the new upstream projects critical to its production targets, and (3) inability to capture the price environment due to cost pressures (opex, capex, and taxation).

Upside risks to our price objective are higher oil & gas prices.

Ovintiv Inc (OVV / YOYV)

Our price objective of \$56 US (\$75 CN) assumes \$75 Brent and \$70 WTI long-term. We assume long-term HH natural gas of \$4.00. We apply a long-term (post-tax) weighted average cost of capital (WACC) of 8.5%, which is based on the BofA strategy team's assumed risk premium and a five-year monthly beta.

The risks to our price objective are (1) the oil and gas price and margin environment, (2)

significant delays to the new upstream projects critical to its production targets, (3) inability to capture the price environment due to cost pressures (opex, capex, and taxation) and (4) potential currency exchange risk and (5) is contingent upon the acquisition of certain Midland Basin assets closing by mid-2023. Upside risks to our price objective are (1) potentially improving cost of capital as company deleverages balance sheet and (2) higher oil & gas prices.

Permian Resources Corporation (PR)

Our \$17 PO is based on discounted cash flow assuming a 9% WACC and a long-term price deck of \$4.00 HH / \$70 WTI.

Upside risks are: 1) potential upside to initial synergies from the Earthstone acquisition, 2) Continued efficiency gains on the operational front, and 3) better execution on the ground game activity

Downside risks are: 1) difficulty integrating assets acquired, 2) regulatory risk, and 3) supply chain delays

Range Resources Corp (RRC)

Our \$42 PO is based on ex growth discounted cash flow value, which assumes long-term \$4.00 HH / \$70 WTI/ \$75 Brent. We apply a long-term (post tax) WACC of approximately 7.3%, which is based on the BofA strategy team's assumed risk premium and a 5-year monthly beta.

Downside risks to our price objective are (1) the oil and gas price and margin environment, (2) significant delays to the new upstream projects critical to its production targets, and (3) inability to capture the price environment due to cost pressures (opex, capex, and taxation). Upside risks to our price objective are (1) higher gas prices, (2) potential asset sales that improve leverage outlook, and (3) further cost reductions

Suncor (YSU / SU)

Our price objective of \$60 CN / \$45 US assumes \$75 Brent / \$70 WTI / \$4.0 HH long-term. We apply a long-term (post tax) WACC of approximately 9.1%, which is based on the BofA strategy team's assumed risk premium and a 5-year monthly beta

The risks to our price objective are (1) the oil and gas price and margin environment, (2) significant delays to the new upstream projects critical to its production targets, and (3) inability to capture the price environment due to cost pressures (opex, capex, and taxation). Upside risks to our price objective are higher oil & gas prices and execution on operational and safety targets laid out as part of the 2025 plan. Downside risks to our PO for Suncor are (1) lower commodity prices (2) deterioration in refining margins, (3) interruption of production at units related to operational issues, fires, etc., (4) tax policy in the regions in which it operates, (5) A lack of execution on operational targets laid out in its 2025 plan

Analyst Certification

We, Doug Leggate and Kalei Akamine, hereby certify that the views each of us has expressed in this research report accurately reflect each of our respective personal views about the subject securities and issuers. We also certify that no part of our respective compensation was, is, or will be, directly or indirectly, related to the specific recommendations or view expressed in this research report.

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BofA Securities is currently acting as financial advisor to Occidental Petroleum Corporation in connection with its proposed acquisition of CrownRock LP, which was announced on December 11, 2023.

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US - Large Cap Oils Coverage Cluster

Investment rating	Company	BofA Ticker	Bloomberg symbol	Analyst
BUY				
	APA Corporation	APA	APA US	Doug Leggate
	Canadian Natural Resources	YCNQ	CNQ CN	Doug Leggate
	Canadian Natural Resources	CNQ	CNQ US	Doug Leggate
	Chesapeake Energy	CHK	CHK US	Doug Leggate
	Chevron Corp.	CVX	CVX US	Doug Leggate
	ConocoPhillips	COP	COP US	Doug Leggate
	Coterra Energy Inc	CTRA	CTRA US	Doug Leggate
	EQT Corporation	EQT	EQT US	John H. Abbott
	ExxonMobil Corp.	XOM	XOM US	Doug Leggate
	Granite Ridge Resources, Inc	GRNT	GRNT US	John H. Abbott
	Imperial Oil	IMO	IMO US	Doug Leggate
	Imperial Oil	YIMO	IMO CN	Doug Leggate
	Kimbell Royalty Partners	KRP	KRP US	John H. Abbott
	Magnolia Oil and Gas	MGY	MGY US	Noah Hungness
	Occidental Petroleum Corp.	OXY	OXY US	Doug Leggate
	Ovintiv Inc	YOVV	OVV CN	Doug Leggate
	Ovintiv Inc	OVV	OVV US	Doug Leggate
	Range Resources Corp	RRC	RRC US	Doug Leggate
	Suncor	YSU	SU CN	Doug Leggate
	Suncor	SU	SU US	Doug Leggate
NEUTRAL				
	California Resources Corporation	CRC	CRC US	Kalei Akamine
	CNX Resources	CNX	CNX US	John H. Abbott
	Delek US Holdings, Inc.	DK	DK US	Doug Leggate
	Devon Energy Corp.	DVN	DVN US	Doug Leggate
	Diamondback Energy Inc.	FANG	FANG US	Doug Leggate
	EOG Resources	EOG	EOG US	Doug Leggate
	Gulfport Energy Corporation	GPOR	GPOR US	Doug Leggate
	HF Sinclair Corporation	DINO	DINO US	Doug Leggate
	Marathon Petroleum Company	MPC	MPC US	Doug Leggate
	PBF Energy	PBF	PBF US	Doug Leggate
	Permian Resources Corporation	PR	PR US	Doug Leggate
	Phillips 66	PSX	PSX US	Doug Leggate
	Valero Energy Corp.	VLO	VLO US	Doug Leggate
UNDERPERFORM				
	Chord Energy Corporation	CHRD	CHRD US	John H. Abbott
	Crescent Energy Company	CRGY	CRGY US	John H. Abbott
	Marathon Oil Corp.	MRO	MRO US	Doug Leggate
	National Fuel Gas Company	NFG	NFG US	John H. Abbott
	Northern Oil and Gas	NOG	NOG US	John H. Abbott
	Vital Energy Inc	VTLE	VTLE US	John H. Abbott
RSTR				
	Pioneer Natural Resources	PXD	PXD US	Doug Leggate

Disclosures

Important Disclosures

Equity Investment Rating Distribution: Energy Group (as of 31 Dec 2023)

Coverage Universe	Count	Percent	Inv. Banking Relationships ^{R1}	Count	Percent
Buy	83	61.48%	Buy	64	77.11%
Hold	28	20.74%	Hold	21	75.00%
Sell	24	17.78%	Sell	18	75.00%

Equity Investment Rating Distribution: Global Group (as of 31 Dec 2023)

Coverage Universe	Count	Percent	Inv. Banking Relationships ^{R1}	Count	Percent
Buy	1895	53.62%	Buy	1083	57.15%
Hold	832	23.54%	Hold	454	54.57%
Sell	807	22.84%	Sell	383	47.46%

^{R1} Issuers that were investment banking clients of BofA Securities or one of its affiliates within the past 12 months. For purposes of this Investment Rating Distribution, the coverage universe includes only stocks. A stock rated Neutral is included as a Hold, and a stock rated Underperform is included as a Sell.

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Investment rating	Total return expectation (within 12-month period of date of initial rating)	Ratings dispersion guidelines for coverage cluster ^{R2}
Buy	≥ 10%	≤ 70%
Neutral	≥ 0%	≤ 30%
Underperform	N/A	≥ 20%

^{R2} Ratings dispersions may vary from time to time where BofA Global Research believes it better reflects the investment prospects of stocks in a Coverage Cluster.

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