

Oil and Gas



Demand concerns cap oil price, OPEC+ output cuts key to maintaining deficit

Brent moderated to ~USD 73/bbl on easing geopolitical tensions, demand concerns, and potential over-supply risk if OPEC+ unwinds its 2.2mmbpd voluntary output cuts over Dec'24 to Nov'25. IEA has further cut its CY24 global oil demand growth marginally to 0.9mmbpd as China's oil demand contracted for the 4th straight month in Aug'24 by 500kbpd YoY, though it maintains CY25 growth at ~1mmbpd. However, IEA expects global oil supply growth for CY24 to be limited at only 0.7mmbpd due to OPEC+ output cuts, implying a deficit of ~0.2mmbpd. Though IEA expects surplus to emerge in CY25, we believe OPEC+ is likely to defer/reverse the unwinding of voluntary output cuts to ensure the market remains in deficit (as detailed in our recent note [Saudi Arabia - shift in strategy from price to market share?](#)). We still believe the strong pricing power of OPEC+ will continue to support Brent at USD 75-80/bbl (around Saudi Arabia's fiscal break-even crude price). We maintain BUY on Oil India/ONGC given robust ~30%/15% production growth outlook in the next 1-3 years; Oil India also benefits from lucrative NRL capacity expansion. However, we believe OMCs' risk-reward still appears unfavourable as CMP is discounting gross marketing margin to be higher than the historical average of INR 3.5/ltr and ignoring OMCs' aggressive capex plans. OMCs' valuations (HPCL 1.4x FY27 P/B; IOCL 1.0x FY27 P/B; and BPCL 1.4x FY27 P/B) are trading at 10-30% premium to historical valuations.

- **Brent moderates to ~USD 73/bbl on easing geopolitical tension, demand concerns, and potential over-supply concerns if OPEC+ unwind voluntary cuts:** Brent has moderated to ~USD 73/bbl after reports that Israel may not strike Iran's oil assets. We believe with US elections on 5th Nov'24, US may not prefer any major spike in oil prices ahead of elections on account of any near-term disruption in Iranian oil supply. Further, oil price is under pressure driven by oil-demand-growth concerns in China. Further, adding to concerns is potential over-supply due to OPEC+ plans to phase out 2.2mmbpd voluntary output cuts over Dec'24 to Nov'25 (had deferred output hike by 2 months from earlier plans to phase out cuts from Oct'24 to Sep'25).
- **IEA further cuts CY24 global oil demand growth marginally to 0.9mmbpd on China's oil demand contraction for 4th straight month in Aug'24; maintains CY25 growth at ~1mmbpd:** IEA in its [Oct'24 monthly report](#) has marginally cut its global oil demand growth estimate for CY24 by 40kbpd to 0.86mmbpd (slightly lower than EIA estimate of 0.91mmbpd and much lower than OPEC's optimistic growth estimate of 1.64mmbpd) though it raised its demand growth estimate for CY25 by 50kbpd to 1mmbpd (vs. EIA's estimate of 1.3mmbpd and OPEC estimate of 1.93mmbpd). This marginal cut in global oil demand growth estimate for CY24 is due to China's oil consumption which contracted YoY for the 4th straight month in Aug'24 by 500kbpd due to **a)** weak economic activity; **b)** rising adoption of electric vehicles (EVs), LNG trucks & other alternative fuels; and **c)** high-speed rail network restricting growth in domestic air travel. Over the past decade China's oil demand growth has averaged at ~600kbpd, accounting for +60% of average global oil demand growth; however, IEA expects China's oil demand growth at only 150kbpd in CY24 and 220kbpd in CY25 or only 20% of average global oil demand growth — **Exhibit 1-2**.
- **Global oil inventories decline by ~22mmbbl MoM in Aug'24 with OECD inventory down ~103mmbbl below 5-year average; global oil supply falls in Sep'24 led by Libya:** IEA estimates global oil inventories declined by 22.3mmbbl MoM in Aug'24 with OECD industry inventories falling by 13.4mmbbl MoM to 2,811mmbbl, still 103mmbbl below 5-year average — **Exhibit 3**. Preliminary data suggest oil inventories slipped further in Sep'24 as global oil supply declined by 640kbpd MoM in Sep'24 because OPEC crude output fell by 650kbpd MoM in Sep'24 to 26.72 mmbpd due to lower output from Libya (down to 565kbpd), Nigeria (down 50kbpd) and lower output in Kazakhstan and Norway due to field maintenance.

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- **OPEC+ output cuts to keep oil market in deficit of ~0.2mmbpd in CY24; grouping likely to try to keep market in deficit in CY25 as well amidst significant risk of surplus:** IEA has largely maintained the global oil supply growth estimate for CY24 at 0.7mmbpd (to ~102.8mmbpd) which is lower than CY24 oil demand growth of 0.9mmbpd. Global oil supply growth of 0.7mmbpd in CY24 is due to 1.5mmbpd of output growth from non-OPEC+ countries (like US, Brazil, Guyana and Canada), partly offset by OPEC+ output cuts (resulting in OPEC+ supply declining by ~0.8mmbpd). These OPEC+ output cuts are likely to keep the market in a deficit of 0.2mmbpd in CY24. However, the oil market could turn into surplus in CY25 as IEA expects global oil supply to grow by 2.1mmbpd in CY25 (to 104.9mmbpd), primarily led by ~1.5mmbpd growth from non-OPEC+ countries and aided by 0.54mmbpd rise in OPEC+ output due to gradual phasing out of voluntary output cuts. However, we believe OPEC+ will continue to use its strong pricing power to support Brent crude price ~USD 75-80/bbl (around Saudi Arabia's fiscal break-even crude price) by deferring/reversing the unwinding of voluntary output cuts to ensure market remains in deficit in case there are demand-related concerns (**Exhibit 7**). The pricing power of OPEC+ has got strengthened over the past 2-3 years due to: **a)** limited growth in US oil production as US shale investors have become disciplined in capital investment (**Exhibit 8-9**); and **b)** OPEC+ having shown strong ability to cut output by ~10mmbpd in early CY20 to offset the ~10% decline in global oil demand post Covid; OPEC+ still has scope to cut output by 3-5mmbpd to offset any macro-related risk to demand.
- **Russian crude discount to India reduces MoM to ~USD 1.8/bbl in Aug'24 (much lower than USD 6-10/bbl in 1HCY23):** As per CMIE, discount on Russian crude to India declined MoM to ~USD 1.8/bbl in Aug'24 vs. USD 2.9/bbl in Jul'24 (much lower than discount of USD 6-10/bbl in 1HCY23) — **Exhibit 19**. Further, Russia's robust share of India's crude imports also declined MoM to ~35% in Aug'24 vs. 45% in Jul'24 (vs. ~20% in Dec'22 and 1-2% pre-Ukraine invasion).
- **Maintain BUY on Oil India/ONGC due to robust production growth outlook and expectation of OPEC+ supporting crude ~USD 75/bbl:** We maintain BUY on Oil India (unchanged TP of INR 695), and also ONGC (unchanged TP of INR 340), given robust production growth outlook in the next 1-3 years (20-30% for Oil India and 12-15% for ONGC) and our expectation of OPEC+ supporting crude ~USD 75/bbl. Further, Oil India's earnings growth is likely to be aided by expansion of the NRL refinery from 3mmtpa to 9mmtpa by Dec'25 given the management guidance of excise duty benefits continuing for the expanded capacity as well. However, ONGC/Oil India's earnings will be negatively impacted if Brent crude price sustains below USD 75/bbl with every USD 5/bbl decline in net crude realisation resulting in decline in our FY26 EPS and valuation by 6-10% (**Exhibit 20-25**). At CMP, ONGC trades at 5.2x FY27E consolidated EPS and 0.8x FY27E BV and Oil India trades at 5.9x FY27E consolidated EPS and 1.1x FY27E BV.
- **OMCs' risk-reward still unfavourable:** As highlighted in our recent notes ([What is OMCs' CMP discounting?](#) and [OMCs' auto-fuel price cut raises uncertainty on marketing earnings](#)) we continue to believe OMCs' risk-reward is still unfavourable as CMP is discounting gross marketing margin to be higher than historical average of INR 3.5/ltr, though historical precedent suggests that the government either cut retail petrol/diesel price and/or hike excise duty on petrol/diesel if crude price sustains at lower levels. Hence, lower crude price benefit in the marketing segment for OMCs is likely to be limited to only a couple of months. Valuations are also trading at 10-30% premium to historical P/B valuations: **a)** HPCL at 1.4x FY27 P/B (vs. historical average of 1.0x); **b)** IOCL is trading at 1.0x FY27 P/B (vs. average of 1.0x); and **c)** BPCL is trading at 1.4x FY27 P/B (vs. average of 1.3x). Moreover, their aggressive capex plans accentuate our key structural concern as many of the projects fail to create long-term value for shareholders. We reiterate that their risk-reward is still unfavourable and maintain our SELL rating on HPCL (unchanged TP of INR 315) and IOCL (unchanged TP of INR 150) and our HOLD rating on BPCL (unchanged TP of INR 320) – **Exhibit 26-32**.

OPEC+ to support Brent at ~USD 75-80/bbl

Exhibit 1. IEA expects global oil demand to grow by 0.9mmbpd in CY24 & 1mmbpd in CY25

mmbpd	CY15	CY16	CY17	CY18	CY19	CY20	CY21	CY22	CY23	CY24E	CY25E
IEA											
Global demand (mmbpd)	95.3	96.5	98.2	99.3	99.7	90.8	97.5	99.8	101.9	102.8	103.8
Demand growth (mmbpd, YoY)	1.9	1.1	1.7	1.1	0.4	-8.9	6.7	2.3	2.1	0.9	1.0
EIA											
Global demand (mmbpd)	95.9	97.5	99.4	100.1	100.9	91.6	97.5	100.0	102.1	103.1	104.3
Demand growth (mmbpd, YoY)	1.8	1.6	1.9	0.7	0.8	-9.3	6.0	2.5	2.1	0.9	1.3

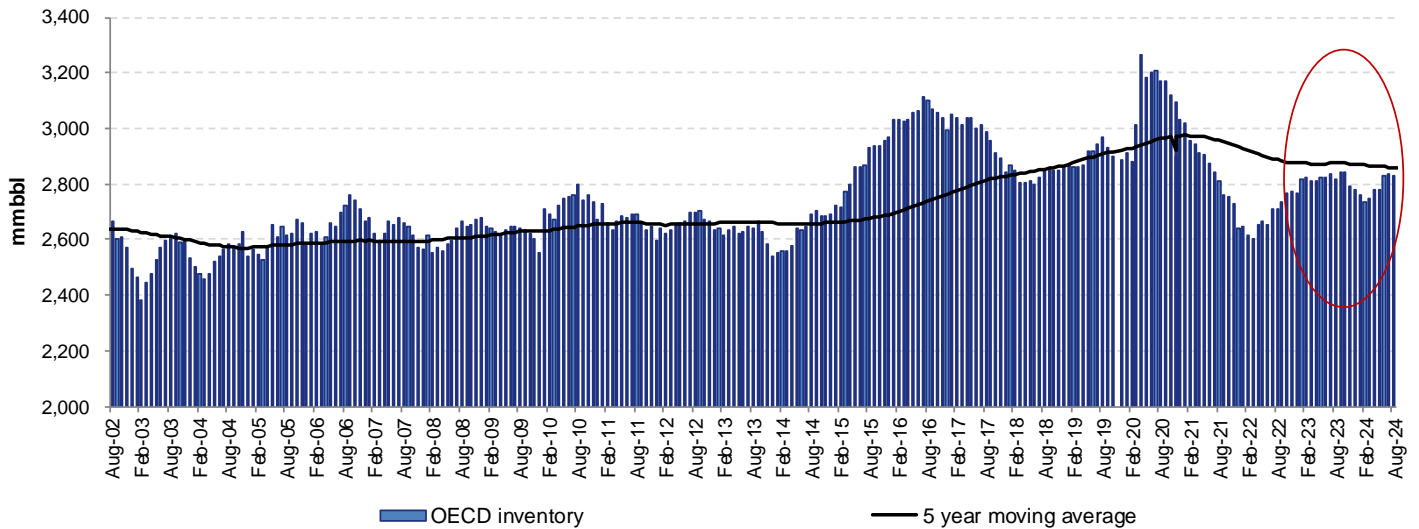
Source: IEA, EIA, JM Financial

Exhibit 2. EIA's estimate of monthly global and region-wise demand and supply trend

	2024												2025											
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Supply (mmbpd)																								
Total world supply	100.9	102.2	102.9	102.7	102.4	102.3	102.8	102.8	101.8	102.4	103.2	103.4	103.3	103.3	103.5	103.8	104.2	104.8	105.0	105.1	105.2	105.3	105.6	105.3
Crude Oil	76.0	76.8	77.3	76.7	76.1	75.8	76.3	76.6	75.8	76.3	77.1	77.4	77.7	77.8	77.8	77.8	77.7	78.3	78.5	78.6	78.8	78.8	79.1	79.0
Other Liquids	24.9	25.4	25.7	26.0	26.3	26.6	26.5	26.2	26.0	26.1	26.1	26.0	25.6	25.6	25.7	26.0	26.4	26.5	26.5	26.5	26.4	26.5	26.5	26.3
OPEC	31.9	32.1	32.4	32.3	32.2	31.8	32.3	32.1	31.3	31.9	32.0	32.2	32.2	32.3	32.4	32.5	32.5	32.7	32.8	32.8	32.9	32.8	32.7	32.6
Crude Oil	26.5	26.8	27.1	27.1	26.9	26.5	27.0	26.8	26.0	26.6	26.7	26.8	26.9	27.0	27.1	27.2	27.3	27.4	27.5	27.5	27.6	27.5	27.5	27.4
Other Liquids	5.5	5.4	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.4	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3
Non-OPEC	69.0	70.1	70.5	70.3	70.2	70.6	70.5	70.7	70.5	70.6	71.3	71.2	71.1	71.1	71.2	71.3	71.6	72.1	72.3	72.3	72.3	72.5	72.8	72.6
Crude Oil	49.6	50.0	50.2	49.6	49.1	49.3	49.3	49.8	49.8	49.7	50.4	50.6	50.8	50.8	50.7	50.6	50.5	50.9	51.1	51.0	51.2	51.3	51.6	51.6
Other Liquids	19.4	20.1	20.3	20.7	21.1	21.3	21.2	20.9	20.8	20.8	20.8	20.6	20.3	20.3	20.5	20.7	21.1	21.2	21.2	21.3	21.1	21.3	21.2	21.0
Consumption (mmbpd)																								
Total World Consumption	101.1	103.3	102.2	102.3	103.4	103.6	103.2	102.9	103.7	102.2	103.7	105.0	102.5	105.4	104.1	103.3	103.8	105.2	104.4	104.3	105.0	103.6	104.6	106.1
OECD	44.4	45.2	44.8	45.2	45.9	45.6	45.8	45.8	46.0	45.8	46.2	46.5	44.8	46.2	45.6	45.0	45.0	45.8	45.7	46.0	46.0	46.0	45.9	46.4
Canada	2.4	2.4	2.3	2.1	2.3	2.4	2.5	2.6	2.5	2.5	2.5	2.5	2.4	2.5	2.4	2.3	2.4	2.4	2.5	2.5	2.5	2.4	2.5	2.5
Europe	12.6	13.0	13.0	13.6	13.5	13.7	13.7	13.6	14.0	13.8	13.4	13.3	12.7	13.6	13.3	13.3	13.0	13.6	13.7	13.5	13.9	13.8	13.3	13.3
Japan	3.4	3.5	3.4	3.1	2.9	2.9	3.0	3.1	3.0	3.1	3.3	3.8	3.4	3.7	3.4	3.0	2.8	2.8	2.9	3.0	3.0	3.0	3.2	3.7
United States	19.6	19.9	19.9	20.0	20.8	20.2	20.5	20.4	20.4	20.4	20.7	20.5	20.1	20.1	20.4	20.2	20.7	20.8	20.5	20.7	20.5	20.7	20.6	20.5
U.S. Territories	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Other OECD	6.2	6.3	6.2	6.2	6.2	6.3	6.0	6.1	6.0	6.0	6.1	6.3	6.1	6.3	6.1	6.0	6.0	6.0	6.0	6.1	6.0	6.0	6.2	6.3
Non-OECD	56.7	58.1	57.4	57.2	57.6	58.0	57.3	57.0	57.8	56.4	57.5	58.5	57.7	59.2	58.5	58.3	58.7	59.4	58.7	58.3	59.1	57.6	58.7	59.7
China	16.5	17.0	16.8	16.9	16.6	16.4	16.2	15.6	16.5	15.7	16.6	17.1	16.6	17.1	17.0	17.1	16.9	16.7	16.5	16.0	16.9	15.9	16.9	17.4
Eurasia	4.6	4.8	4.7	4.7	4.8	5.1	5.2	5.3	5.2	5.1	5.1	5.1	4.6	4.9	4.8	4.7	4.9	5.1	5.2	5.3	5.2	5.1	5.2	5.2
Europe	0.7	0.7	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.7	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
Other Asia	14.8	15.2	15.2	14.9	15.0	14.8	14.4	14.4	14.4	14.5	14.8	14.9	15.2	15.7	15.7	15.5	15.6	15.4	14.9	14.8	14.8	14.9	15.3	15.4
Other non-OECD	20.2	20.4	19.9	20.0	20.3	20.9	20.8	20.9	20.9	20.4	20.1	20.6	20.6	20.8	20.3	20.2	20.6	21.4	21.2	21.4	21.3	20.8	20.6	21.0
Surplus/(Deficit) (mmbpd)	-0.1	-1.1	0.7	0.3	-1.1	-1.3	-0.4	0.0	-1.9	0.2	-0.4	-1.6	0.7	-2.1	-0.5	0.6	0.4	-0.4	0.6	0.8	0.1	1.7	1.0	-0.9

Source: EIA, JM Financial

OECD total commercial oil inventory (mmbbl) still down ~103mmbbl vs. 5-year average



Source: IEA, Bloomberg, JM Financial

Exhibit 3. OPEC and non-OPEC countries' monthly crude production trend (mmbpd)

Countries	CY18	CY19	CY20	CY21	CY22	CY23	Sep-23	Oct-23	Nov-23	Dec-23	Jan-24	Feb-24	Mar-24	Apr-24	May-24	Jun-24	Jul-24	Aug-24	Sep-24
OPEC																			
Saudi Arabia	10.3	9.8	9.2	9.1	10.6	9.6	9.0	9.0	8.9	9.0	9.0	9.0	9.0	9.0	9.0	8.9	9.0	9.0	9.0
Iran	3.8	2.4	2.0	2.4	2.6	3.0	3.1	3.1	3.2	3.2	3.2	3.2	3.3	3.4	3.4	3.4	3.4	3.4	3.4
Venezuela	1.5	0.9	0.5	0.6	0.7	0.8	0.8	0.8	0.8	0.8	0.8	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
Nigeria	1.6	1.7	1.5	1.3	1.2	1.2	1.4	1.4	1.3	1.4	1.4	1.4	1.2	1.3	1.3	1.3	1.3	1.4	1.3
Libya	1.0	1.1	0.4	1.1	1.0	1.2	1.2	1.1	1.2	1.2	1.0	1.2	1.2	1.2	1.2	1.2	1.2	1.0	0.6
Iraq	4.5	4.7	4.1	4.0	4.4	4.3	4.3	4.4	4.3	4.3	4.3	4.3	4.3	4.2	4.3	4.3	4.4	4.4	4.3
UAE	2.9	3.1	2.9	2.7	3.2	3.3	3.3	3.3	3.2	3.2	3.2	3.2	3.1	3.2	3.3	3.3	3.3	3.3	3.3
Kuwait	2.7	2.7	2.4	2.4	2.7	2.6	2.6	2.6	2.6	2.6	2.5	2.4	2.5	2.5	2.5	2.5	2.5	2.5	2.5
Other OPEC	3.8	3.6	2.9	2.6	2.7	2.6	2.6	2.7	1.5	1.5	1.4	1.4	1.5	1.4	1.4	1.5	1.5	1.5	1.4
Total OPEC crude	32.0	30.0	25.8	26.3	29.0	28.3	28.2	28.2	27.0	27.0	26.8	26.9	26.9	27.1	27.2	27.1	27.4	27.4	26.7
Non-OPEC																			
Russia	11.4	11.6	9.7	9.6	9.7	9.6	9.5	9.5	9.5	9.5	9.4	9.4	9.5	9.3	9.2	9.2	9.2	9.1	9.1
US crude (excluding NGL's)	10.4	12.3	11.3	11.3	12.0	12.9	13.2	13.1	13.3	13.3	12.6	13.1	13.2	13.2	13.2	13.2	13.2	13.4	13.2
US NGL (Natural Gas Liquid)	4.4	4.8	5.2	5.4	5.9	6.5	6.8	6.8	6.8	6.6	6.1	6.6	6.8	7.0	7.0	7.0	6.9	6.8	6.8

Source: IEA, EIA, OPEC OMR, Reuters, JM Financial.

Exhibit 4. OPEC+ crude oil production (mmbpd) declined by ~260kbpd MoM in Aug'24 as lower output from Libya/Russia/Kazakhstan was partly offset by rise in output from Nigeria/Iran; OPEC+ output is still ~0.8mmbpd above its target (including voluntary cuts)

Countries	Jul 2024 Supply	Aug 2024 Supply	Aug 2024 Target		Sustainable Capacity ¹	Spare Capacity in Aug'24	CY24 Target excluding voluntary cuts	CY25 Target excluding voluntary cuts
			including voluntary cuts	Aug 2024 production vs target				
OPEC								
Algeria	0.92	0.91	0.9	0.0	1.0	0.1	1.0	1.0
Congo	0.26	0.27	0.3	0.0	0.3	0.0	0.3	0.3
Equatorial Guinea	0.06	0.07	0.1	0.0	0.1	0.0	0.1	0.1
Gabon	0.22	0.23	0.2	0.1	0.2	0.0	0.2	0.2
Iraq	4.38	4.38	3.9	0.5	4.9	0.5	4.4	4.4
Kuwait	2.52	2.52	2.4	0.1	2.9	0.4	2.7	2.7
Nigeria	1.31	1.36	1.5	-0.1	1.4	0.1	1.4	1.5
Saudi Arabia	9.01	9.01	9.0	0.0	12.1	3.1	10.5	10.5
UAE	3.30	3.30	2.9	0.4	4.3	1.0	3.2	3.5
Total OPEC-9⁶	21.98	22.05	21.1	0.9	27.1	5.1	23.7	24.1
Iran ³	3.38	3.42			3.8			
Libya ³	1.16	0.98			1.2	0.3		
Venezuela ³	0.92	0.92			0.9	-0.1		
Total OPEC	27.44	27.37			33.0	5.3		
Azerbaijan	0.48	0.48	0.6	-0.1	0.5	0.0	0.6	0.6
Kazakhstan	1.60	1.45	1.4	0.0	1.6	0.2	1.6	1.6
Mexico ⁴	1.57	1.58			1.6	0.0	1.8	1.8
Oman	0.76	0.76	0.8	0.0	0.9	0.1	0.8	0.8
Russia	9.19	9.11	9.0	0.1	9.8		9.8	9.9
Others ⁵	0.69	0.72	0.9	-0.2	0.9	0.1	0.9	0.9
Total Non-OPEC	14.29	14.10	12.6	-0.1	15.2	0.4	15.5	15.6
OPEC+¹⁸ in cut deal^{3,4}	34.70	34.57	33.7	0.8	40.7	5.5	37.4	38.0
Total OPEC+	41.73	41.47			48.2	5.7		

Source: IEA. Note: Production excludes condensates; 1. Capacity levels can be reached within 90 days and sustained for extended period; 2. Excludes shut in Iranian, Russian crude; 3. Iran, Libya, Venezuela exempt from cuts; 4. Mexico excluded from OPEC+ compliance; only cut in May, June 2020; 5. Bahrain, Brunei, Malaysia, Sudan and South Sudan; 6. Angola left OPEC effective 1 Jan 2024.

Exhibit 5. OPEC+ Aug'24 supply was 2.2mmbpd lower vs. Sep'22 driven by output cut by Saudi (2mmbpd), Russia (0.6mmbpd), Kuwait (0.3mmbpd) and UAE/Iraq/Libya (0.2mmbpd each); partly offset by higher output from Iran (0.9mmbpd), Nigeria (0.4mmbpd) and Kazakhstan/Venezuela (0.2mmbpd each).

Countries	Sep 2022 Supply	Aug 2024 Supply	Sep 2022 Target	Aug 2024 Target including voluntary cuts	CY24 Target excluding voluntary cuts	Increase in actual cut in Aug'24 vs Sep'22	Increase in cut target Aug'24 vs Sep'22 (including voluntary cut of 2.2mmbpd)
OPEC							
Algeria	1.0	0.9	1.1	0.9	1.0	-0.1	-0.2
Congo	0.3	0.3	0.3	0.3	0.3	0.0	-0.1
Equatorial Guinea	0.1	0.1	0.1	0.1	0.1	0.0	-0.1
Gabon	0.2	0.2	0.2	0.2	0.2	0.0	0.0
Iraq	4.6	4.4	4.7	3.9	4.4	-0.2	-0.8
Kuwait	2.8	2.5	2.8	2.4	2.7	-0.3	-0.4
Nigeria	1.0	1.4	1.8	1.5	1.4	0.4	-0.3
Saudi Arabia	11.0	9.0	11.0	9.0	10.5	-2.0	-2.1
UAE	3.5	3.3	3.2	2.9	3.2	-0.2	-0.3
Total OPEC-9⁶	24.4	22.1	25.2	21.1	23.7	-2.4	-4.1
Iran ³	2.5	3.4				0.9	0.0
Libya ³	1.2	1.0				-0.2	0.0
Venezuela ³	0.7	0.9				0.2	0.0
Total OPEC	28.8	27.4				-1.4	-4.1
Azerbaijan	0.5	0.5	0.7	0.6	0.6	-0.1	-0.2
Kazakhstan	1.2	1.5	1.7	1.4	1.6	0.2	-0.3
Mexico ⁴	1.6	1.6	1.8	1.8	1.8	-0.1	0.0
Oman	0.9	0.8	0.9	0.8	0.8	-0.1	-0.1
Russia	9.7	9.11	11.0	9.0	9.8	-0.6	-2.1
Others ⁵	0.9	0.7	1.1	0.9	0.9	-0.2	-0.2
Total Non-OPEC	14.9	14.1	17.2	14.4	15.5	-0.8	-2.8
OPEC+18 in cut deal³	37.7	34.6	40.6	33.7	37.4	-3.1	-6.9
Total OPEC+	43.7	41.5				-2.2	

Source: IEA. Note: Production excludes condensates; 1. Capacity levels can be reached within 90 days and sustained for extended period; 2. Excludes shut in Iranian, Russian crude; 3. Iran, Libya, Venezuela exempt from cuts; 4. Mexico excluded from OPEC+ compliance; only cut in May, June 2020; 5. Bahrain, Brunei, Malaysia, Sudan and South Sudan; 6. Angola left OPEC effective 1 Jan 2024.

Exhibit 6. OPEC+ voluntary cuts target and phase-out details over Dec'24 to Nov'25 (mmbpd)

Countries	Voluntary cuts currently in place	Production target based on planned phasing out of voluntary cuts over Dec'24 to Nov'25															Output cuts reversed during Dec'24 to Nov'25
		3QCY24	Oct-Nov'24	Dec'24	Jan'25	Feb'25	Mar'25	Apr'25	May'25	Jun'25	Jul'25	Aug'25	Sep'25	Oct'25	Nov'25	Dec'25	
Saudi Arabia	1.00	8.98	8.98	9.06	9.15	9.23	9.31	9.40	9.48	9.56	9.65	9.73	9.81	9.90	9.98	9.98	0.83
Russia	0.47	8.98	8.98	9.02	9.06	9.10	9.14	9.17	9.21	9.25	9.29	9.33	9.37	9.41	9.45	9.45	0.39
Iraq	0.22	4.00	4.00	4.02	4.04	4.06	4.07	4.09	4.11	4.13	4.15	4.17	4.18	4.20	4.22	4.22	0.18
UAE ²	0.16	2.91	2.91	2.93	2.97	3.02	3.07	3.11	3.16	3.21	3.25	3.30	3.35	3.36	3.38	3.38	0.44
Kuwait	0.14	2.41	2.41	2.42	2.44	2.45	2.46	2.47	2.48	2.49	2.50	2.51	2.53	2.54	2.55	2.55	0.11
Kazakhstan	0.08	1.47	1.47	1.48	1.48	1.49	1.50	1.50	1.51	1.52	1.52	1.53	1.54	1.54	1.55	1.55	0.07
Algeria	0.05	0.91	0.91	0.91	0.92	0.93	0.93	0.93	0.94	0.94	0.95	0.95	0.95	0.96	0.96	0.96	0.04
Oman	0.04	0.76	0.76	0.76	0.77	0.77	0.77	0.78	0.78	0.78	0.79	0.79	0.79	0.80	0.80	0.80	0.04
Total	2.16	30.42	30.42	30.60	30.82	31.03	31.24	31.45	31.67	31.88	32.09	32.31	32.52	32.70	32.88	32.88	2.10

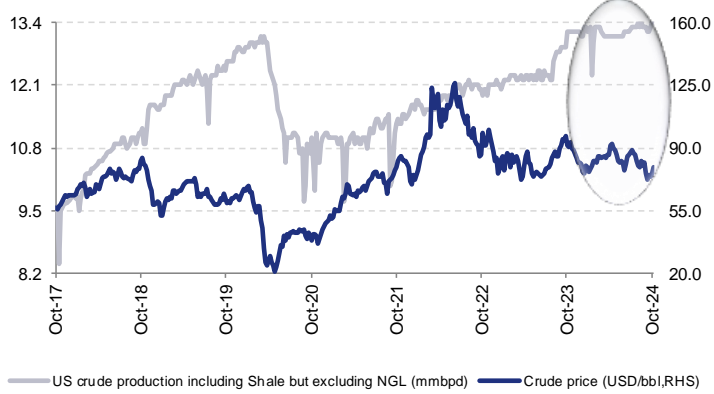
Source: OPEC * "Output cuts reversed during Dec'24 to Nov'25" for UAE also includes 300kbpd rise in required production from Jan'25 to Sep'25.

Exhibit 7. Saudi Arabia's fiscal breakeven crude price is ~USD 85-96/bbl

USD/bbl	Avg 2000-20	2021	2022	2023	2024E	2025E
Algeria	101	111	110	94	126	119
Azerbaijan	53	58	67	76	88	89
Bahrain	85	132	132	138	126	128
Iran	92	119	131	105	121	124
Iraq	71	54	69	80	94	90
Kazakhstan	...	184	95	109	124	109
Kuwait	60	88	82	81	84	78
Libya	75	52	64	66	66	64
Oman	70	77	55	57	58	54
Qatar	45	48	46	47	43	40
Saudi Arabia	80	84	88	93	96	85
Turkmenistan	38	29	32	34	36	37
United Arab Emirates	50	53	47	52	57	54

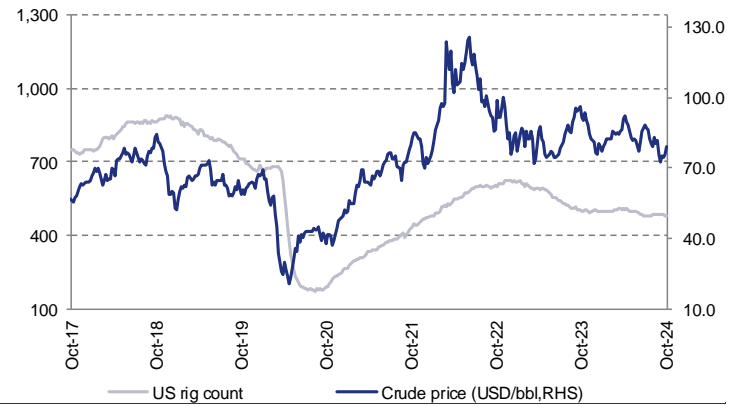
Source: IMF, JM Financial

Exhibit 8. US crude output at 13.5mmbpd in Oct'24, above its pre-Covid peak of ~13mmbpd



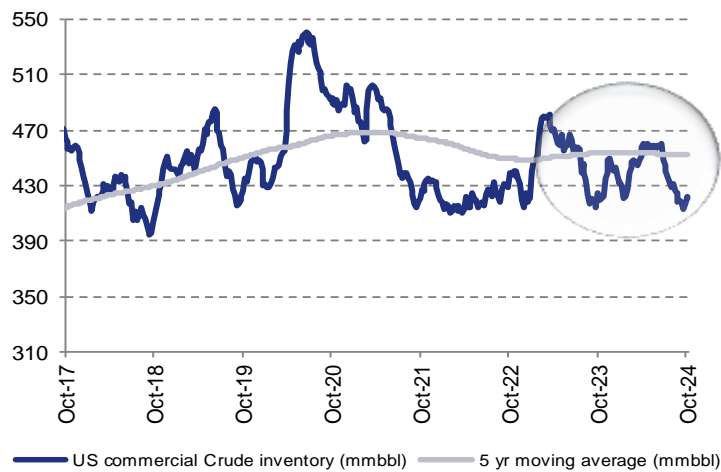
Source: Bloomberg, EIA JM Financial

Exhibit 9. US oil rig count at 481, much lower vs.784 rigs in Jun'19



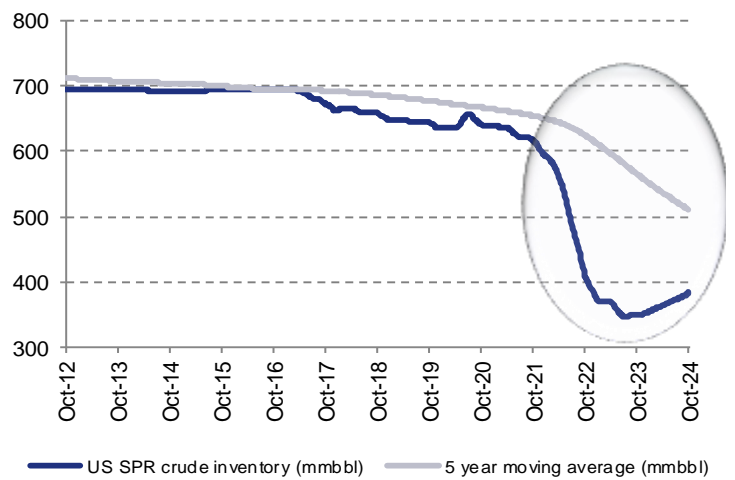
Source: Bloomberg, JM Financial

Exhibit 10. US commercial crude inventory at ~420mmbbl, below its 5-year average



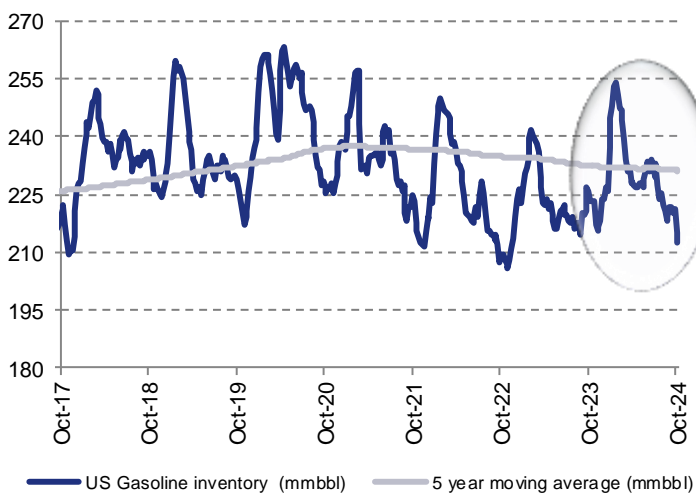
Source: Bloomberg, EIA JM Financial

Exhibit 11. US strategic crude inventory at ~380mmbbl vs. 5-year average of ~520mmbbl



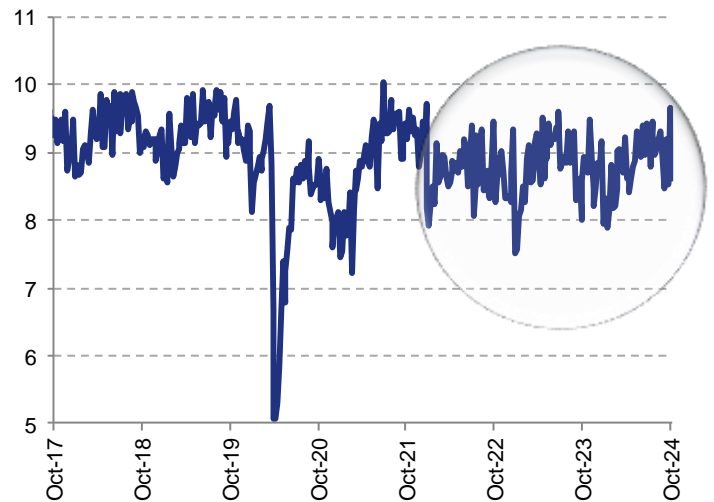
Source: Bloomberg, JM Financial

Exhibit 12. US gasoline inventory below its 5-yr average (mmbbl)



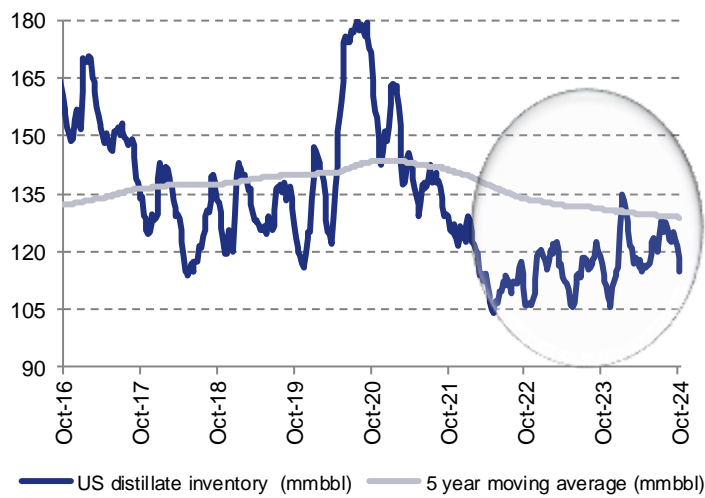
Source: EIA, JM Financial

Exhibit 13. US gasoline demand was at ~9.1mmbpd in Oct'24



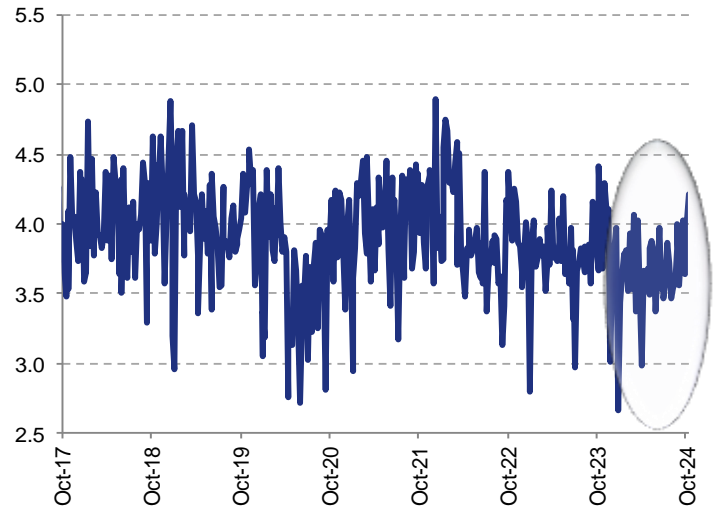
Source: EIA, JM Financial

Exhibit 14. US distillate inventory below its 5-year average (mmbbl)



Source: EIA, JM Financial

Exhibit 15. US distillate demand was at ~4.1mmbpd in Oct'24



Source: EIA, JM Financial

Exhibit 16. US monthly crude and natural gas (including NGL) production trend – NGL and crude production flattish YoY in Sep'24; NGL and crude production growth expected to slow down in CY24 (after witnessing significant growth in CY23)

	NGL Production (mmbpd)	YoY growth (%)	Crude Oil output (mmbpd)	YoY growth (%)	Crude Oil output including NGLs (mmbpd)	YoY growth (%)	Dry Natural Gas output (bcfcpd)	Dry Natural Gas output (mmmoepd)	YoY growth (%)	NGL output as % of Dry Natural Gas output
CY10	2.07		5.47		7.54		58.39	9.92		20.9%
CY11	2.21	6.8%	5.64	3.1%	7.86	4.1%	62.72	10.66	7.4%	20.8%
CY12	2.41	8.8%	6.50	15.1%	8.90	13.3%	65.66	11.16	4.7%	21.6%
CY13	2.61	8.2%	7.45	14.7%	10.06	12.9%	66.66	11.33	1.5%	23.0%
CY14	3.01	15.6%	8.67	16.4%	11.68	16.2%	70.09	11.91	5.1%	25.3%
CY15	3.34	10.9%	9.43	8.8%	12.77	9.3%	74.15	12.60	5.8%	26.5%
CY16	3.51	5.0%	8.83	-6.4%	12.34	-3.4%	72.66	12.35	-2.0%	28.4%
CY17	3.78	7.8%	9.35	5.9%	13.13	6.4%	74.75	12.70	2.9%	29.8%
CY18	4.37	15.5%	10.93	16.9%	15.30	16.5%	83.29	14.15	11.4%	30.9%
CY19	4.82	10.5%	12.31	12.6%	17.13	12.0%	92.86	15.78	11.5%	30.6%
CY20	5.17	7.2%	11.33	-8.0%	16.50	-3.7%	92.40	15.70	-0.5%	33.0%
CY21	5.42	4.7%	11.30	-0.3%	16.72	1.3%	94.54	16.06	2.3%	33.7%
CY22	5.93	9.5%	11.99	6.1%	17.92	7.2%	99.58	16.92	5.3%	35.1%
CY23	6.50	9.5%	12.93	7.9%	19.43	8.4%	103.74	17.63	4.2%	36.9%
CY24E	6.76	4.0%	13.22	2.2%	19.98	2.8%	103.49	17.59	-0.2%	38.4%
CY25E	6.80	0.7%	13.54	2.4%	20.34	1.8%	104.61	17.78	1.1%	38.3%
Jan-23	6.04	9.7%	12.61	10.2%	18.65	10.0%	101.83	17.30	5.8%	34.9%
Feb-23	6.12	10.9%	12.59	9.8%	18.71	10.2%	101.93	17.32	6.2%	35.3%
Mar-23	6.35	6.7%	12.82	7.9%	19.17	7.5%	102.86	17.48	5.4%	36.3%
Apr-23	6.45	8.9%	12.68	7.3%	19.13	7.9%	102.70	17.45	4.5%	36.9%
May-23	6.43	7.8%	12.73	8.4%	19.16	8.2%	103.56	17.60	4.5%	36.5%
Jun-23	6.41	6.7%	12.87	8.0%	19.27	7.5%	103.23	17.54	3.9%	36.5%
Jul-23	6.51	5.1%	12.94	7.9%	19.44	6.9%	103.31	17.56	2.9%	37.1%
Aug-23	6.63	9.4%	13.05	7.6%	19.68	8.2%	104.49	17.75	3.6%	37.3%
Sep-23	6.80	10.4%	13.18	5.9%	19.97	7.4%	104.43	17.75	2.0%	38.3%
Oct-23	6.80	10.3%	13.15	5.8%	19.95	7.3%	104.30	17.72	2.0%	38.4%
Nov-23	6.78	10.5%	13.28	6.5%	20.06	7.8%	105.87	17.99	3.6%	37.7%
Dec-23	6.65	18.7%	13.31	9.3%	19.96	12.3%	106.35	18.07	6.1%	36.8%
Jan-24	6.06	0.3%	12.55	-0.5%	18.61	-0.2%	103.56	17.60	1.7%	34.4%
Feb-24	6.64	8.6%	13.10	4.1%	19.74	5.5%	105.97	18.01	4.0%	36.9%
Mar-24	6.83	7.6%	13.17	2.8%	20.00	4.4%	102.68	17.45	-0.2%	39.2%
Apr-24	6.97	8.2%	13.25	4.5%	20.22	5.7%	101.73	17.29	-0.9%	40.3%
May-24	7.05	9.7%	13.20	3.7%	20.25	5.7%	101.57	17.26	-1.9%	40.8%
Jun-24	7.01	9.4%	13.23	2.8%	20.24	5.0%	102.84	17.48	-0.4%	40.1%
Jul-24	6.89	6.0%	13.20	2.1%	20.10	3.4%	104.32	17.73	1.0%	38.9%
Aug-24	6.76	2.0%	13.36	2.4%	20.12	2.3%	103.79	17.64	-0.7%	38.4%
Sep-24	6.75	-0.6%	13.25	0.5%	20.00	0.1%	103.53	17.59	-0.9%	38.4%

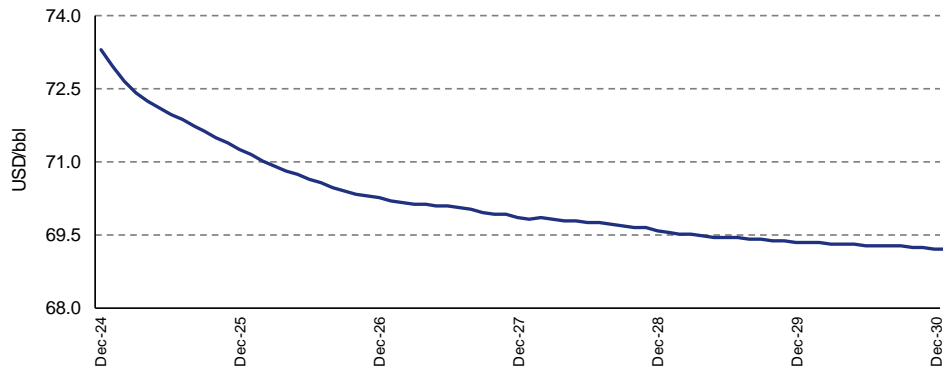
Source: EIA, JM Financial

Exhibit 17. China's refinery throughput and oil & gas export import details: Crude imports decline while oil product exports recover slightly MoM in Sep'24

	CY19	CY20	CY21	CY22	CY23	CY24TD	CY23TD	% YoY	Sep-23	Oct-23	Nov-23	Dec-23	Jan-24	Feb-24	Mar-24	Apr-24	May-24	Jun-24	Jul-24	Aug-24	Sep-24	% YoY
Refinery Throughput																						
Total Throughput (mmt)	N/A	N/A	N/A	673.9	738.4	N/A	491.2	N/A	63.6	63.9	59.5	60.1	N/A	N/A	63.8	58.8	60.5	58.3	59.1	59.1		
Total Throughput (mmbpd)	N/A	N/A	N/A	13.5	14.8	N/A	13.1	N/A	15.5	15.1	14.5	14.2	N/A	N/A	15.0	14.3	14.3	14.2	13.9	13.9		
Exports																						
Diesel (mmt)	21.4	19.8	17.2	10.9	13.8	6.7	9.7	-31%	1.2	1.1	1.2	0.7	0.6	0.6	1.4	0.8	1.1	0.8	0.5	0.9		
Gasoline (mmt)	16.4	16.0	14.6	12.7	12.3	6.5	8.8	-26.1%	1.1	0.8	0.9	0.8	0.8	0.7	1.2	0.4	0.9	0.9	0.8	0.8		
Total oil product exports (mmt)	66.9	61.9	60.3	53.8	62.8	45.2	47.9	-5.7%	5.4	5.2	5.1	4.6	4.6	4.2	6.0	4.6	5.4	5.4	5.0	4.9	5.2	-4.6%
Imports																						
Crude (mmt)	505.9	542.4	513.2	508.4	564.3	412.4	424.5	-2.8%	45.7	49.0	42.4	48.4	44.2	44.1	49.1	44.7	47.0	46.5	42.3	49.1	45.5	-0.6%
Crude (mmbpd)	10.1	10.8	10.3	10.2	11.3	11.0	11.4	-3.2%	11.1	11.5	10.3	11.4	10.4	11.1	11.6	10.9	11.1	11.3	10.0	11.6	11.1	-0.6%
Total oil product imports (mmt)	30.6	28.5	27.1	26.3	47.8	37.5	34.8	8%	4.2	4.1	4.2	4.8	4.1	3.5	4.6	5.7	4.5	3.0	3.3	4.5	4.5	6.9%
LNG (mmt)	60.7	67.3	79.9	63.8	71.8	50.7	45.8	10.7%	5.7	5.2	6.8	8.4	7.3	6.0	6.7	6.2	6.6	5.6	5.9	6.5		
Piped natural gas (mmt)	36.3	34.5	42.4	45.8	48.7	36.8	32.2	14.4%	4.5	3.6	4.2	4.3	4.3	4.7	4.1	4.1	4.8	4.8	5.0	5.2		

Source: Bloomberg, JM Financial.

Exhibit 18. Brent long-term forward curve stabilising at ~USD 70/bbl



Source: Bloomberg, JM Financial

Exhibit 19. Russia's robust share in India's crude imports declines to ~35% in Aug'24 (vs +40% during May-Aug'23); discount on Russian crude reduces MoM to USD 1.8/bbl in Aug'24 (much lower than USD 6-10/bbl in 1H23)

Year/Month	India's total crude imports			India's crude imports from Russia			Russia crude proportion and discount		
	Value (USD bn)	Qty (mmbpd)	Average Cost (USD/bbl)	Value (USD bn)	Qty (mmbpd)	Average Cost (USD/bbl)	Russia's share in India's crude imports	Russia crude premium/discount (%)	Russia crude premium/discount (\$/bbl)
Annual									
FY14	143.7	3.81	103.4	0.1	0.00	94.9	0.1%	NM	NM
FY15	116.0	3.78	84.0	0.2	0.00	113.2	0.1%	NM	NM
FY16	65.6	4.06	44.1	0.1	0.00	65.8	0.1%	NM	NM
FY17	70.7	4.33	44.8	0.3	0.01	78.5	0.2%	NM	NM
FY18	87.4	4.39	54.5	1.2	0.06	53.7	1.4%	-2%	-0.8
FY19	114.2	4.56	68.6	1.2	0.04	72.6	1.0%	6%	4.0
FY20	102.7	4.44	63.3	1.7	0.07	66.6	1.6%	5%	3.3
FY21	59.3	3.79	42.8	0.9	0.06	46.5	1.5%	9%	3.7
FY22	122.6	4.43	75.8	2.5	0.09	77.9	2.0%	3%	2.0
FY23	162.1	4.77	93.2	31.3	1.02	83.6	21.5%	-10%	-9.5
FY24	139.9	4.67	81.9	46.5	1.67	76.2	35.7%	-7%	-5.7
Monthly details									
Jan-23	12.0	4.85	80.0	3.2	1.40	73.1	28.9%	-9%	-6.9
Feb-23	13.3	6.08	78.3	3.4	1.66	71.9	27.4%	-8%	-6.4
Mar-23	13.6	5.73	76.7	4.0	1.85	70.0	32.3%	-9%	-6.8
Apr-23	10.9	4.73	76.6	3.4	1.69	68.0	35.7%	-11%	-8.6
May-23	12.1	5.23	74.7	4.6	2.11	70.0	40.4%	-6%	-4.7
Jun-23	10.1	4.92	68.2	3.8	2.18	58.1	44.4%	-15%	-10.1
Jul-23	9.0	3.45	83.9	3.4	1.38	78.8	40.0%	-6%	-5.1
Aug-23	13.1	4.48	94.1	4.2	1.76	75.9	39.4%	-19%	-18.2
Sep-23	10.4	3.87	89.7	3.5	1.27	91.6	32.7%	2%	1.9
Oct-23	12.4	4.51	88.8	3.8	1.42	86.0	31.5%	-3%	-2.8
Nov-23	11.9	4.51	87.7	3.6	1.41	85.7	31.2%	-2%	-2.0
Dec-23	11.6	4.58	81.4	3.9	1.63	77.6	35.6%	-5%	-3.8
Jan-24	12.0	4.85	80.1	4.5	1.84	78.6	37.9%	-2%	-1.5
Feb-24	13.3	5.67	80.5	3.6	1.61	77.4	28.3%	-4%	-3.2
Mar-24	13.2	5.21	81.6	4.2	1.70	80.4	32.6%	-1%	-1.1
Apr-24	13.2	5.17	84.9	4.3	1.70	83.9	33.0%	-1%	-1.1
May-24	15.9	6.06	84.9	5.8	2.26	83.5	37.2%	-2%	-1.4
Jun-24	11.3	4.55	82.9	4.7	1.92	81.2	42.1%	-2%	-1.7
Jul-24	10.3	3.91	84.9	4.5	1.75	82.0	44.8%	-3%	-2.9
Aug-24	7.8	3.02	83.4	2.6	1.05	81.6	34.6%	-2%	-1.8

Source: CMIE, JM Financial.

Prefer Oil India and ONGC (preferably Oil India) over OMCs on risk-reward basis

Exhibit 20. Oil India SOTP valuation

	INR/share	Comment
Standalone business		
FY27 standalone EPS (INR)	55.7	Adjusting for NRL EPS
P/E multiple used (x)	7.0	
Equity value of standalone business (INR/share)	390	After adjusting for Oil India standalone net debt
NRL		
FY27E EPS from NRL adjusted for Oil India's 69.6% stake	34.7	Assumed 9mmtpa throughput and USD 27/bbl GRM in FY27
P/E multiple used (x)	7.0	
Oil India's Equity Value in NRL (INR/share)	243	
Other investments		
Value on IOCL's stake (5.0% stake)	62	At 20% discount to CMP
Total equity value (INR/share)	695	

Source: JM Financial

Exhibit 21. Oil India consolidated FY26 EPS sensitivity to net crude realisation and gas price (INR/share)

		FY26 Gas Price (USD/mmbtu)						
		5.5	6.3	7.1	7.8	8.6	9.4	10.2
Net crude realisation (USD/bbl)	60	43.1	43.2	43.2	43.3	43.4	43.4	43.5
	65	49.2	49.3	49.4	49.4	49.5	49.6	49.6
	70	55.4	55.4	55.5	55.6	55.6	55.7	55.7
	75	61.5	61.6	61.6	61.7	61.7	61.8	61.9
	80	62.2	62.3	62.4	62.4	62.5	62.6	62.6
	85	63.0	63.1	63.1	63.2	63.3	63.3	63.4
	90	63.8	63.8	63.9	64.0	64.0	64.1	64.2

Source: Company, JM Financial

Exhibit 22. Oil India valuation sensitivity to net crude realisation and gas price

		FY26 Gas Price (USD/mmbtu)						
		5.5	6.3	7.1	7.8	8.6	9.4	10.2
Net crude realisation (USD/bbl)	60	549	549	550	550	550	551	551
	65	597	597	598	598	599	599	600
	70	645	646	646	646	647	647	648
	75	693	694	694	695	695	696	696
	80	701	701	702	702	703	703	704
	85	709	709	709	710	710	711	711
	90	716	717	717	718	718	718	719

Source: JM Financial

Exhibit 23. ONGC SOTP valuation

SOTP Valuation	INR/share	Comment
Standalone business		
FY27E standalone core EPS	42.1	
P/E multiple used (x)	6.0	
Value of standalone business	252	
OVL business		
FY27E OVL EPS	2.2	
P/E multiple used (x)	6.0	
Value of OVL	13	
Other investments		
IOCL (14.2% stake)	22	At 20% discount to CMP
PLNG (12.5% stake)	4	At 20% discount to CMP
GAIL (5.01% stake)	5	At 20% discount to CMP
HPCL (54.9% stake)	30	At 20% discount to CMP
MRPL (71.63% stake)	14	At 20% discount to CMP
Total value of investments	75	
Total equity value (Rs/share)	340	

Source: JM Financial

Exhibit 24. ONGC consolidated FY26 EPS sensitivity to net crude realisation and gas price (INR/share)

		FY26 Gas Price (USD/mmbtu)						
		5.3	6.1	6.9	7.6	8.4	9.2	9.9
Net crude realisation (USD/bbl)	60	25.0	27.1	29.2	31.3	33.4	35.5	37.5
	65	28.3	30.4	32.5	34.6	36.7	38.8	41.0
	70	31.5	33.7	35.8	37.9	40.1	42.2	44.4
	75	34.8	36.9	39.1	41.3	43.4	45.6	47.8
	80	34.8	37.0	39.2	41.4	43.6	45.8	48.0
	85	34.8	37.1	39.3	41.5	43.7	45.9	48.1
	90	34.9	37.1	39.4	41.6	43.8	46.1	48.3

Source: Company, JM Financial

Exhibit 25. ONGC valuation sensitivity to net crude realisation and gas price (INR/share)

		FY26 Gas Price (USD/mmbtu)						
		5.3	6.1	6.9	7.6	8.4	9.2	9.9
Net crude realisation (USD/bbl)	60	232	245	258	272	285	298	311
	65	254	267	281	294	308	321	335
	70	276	290	303	317	331	344	358
	75	298	312	326	340	353	367	381
	80	300	314	328	342	356	371	385
	85	303	317	331	345	359	374	388
	90	305	319	334	348	362	377	391

Source: Company, JM Financial

Exhibit 26. OMCs' current P/B valuation at CMP vs. historical P/B valuation

CMP (INR)	Book Value (INR)			Implied P/B at CMP			OMCs historical average P/B			OMCs historical peak P/B			OMCs historical trough P/B		
	FY25E	FY26E	FY27E	FY25E	FY26E	FY27E	3 year	5 year	Since May'14	3 year	5 year	Since May'14	3 year	5 year	Since May'14
IOCL 161	137	147	155	1.17	1.10	1.04	0.78	0.87	1.06	1.17	1.63	1.90	0.61	0.55	0.55
BPCL 331	197	217	236	1.68	1.53	1.40	1.40	1.54	1.80	2.02	2.40	2.83	1.02	1.02	1.02
HPCL 429	250	280	309	1.72	1.54	1.39	0.96	0.98	1.27	1.40	1.52	2.70	0.73	0.59	0.59

Source: JM Financial

Exhibit 27. OMCs' valuation table

Company	Rating	TP (INR)	Upside/ (downside)	P/E (x)			P/B (x)			EV/EBITDA (x)			ROE (%)		
				FY25E	FY26E	FY27E	FY25E	FY26E	FY27E	FY25E	FY26E	FY27E	FY25E	FY26E	FY27E
IOCL	SELL	150	-7%	10.5	8.9	9.3	1.2	1.2	1.1	7.9	6.9	6.8	12.1	13.3	12.0
BPCL	HOLD	320	-3%	10.3	10.3	10.5	1.7	1.6	1.4	6.5	6.5	6.7	17.7	16.0	14.3
HPCL	SELL	315	-27%	9.0	8.8	9.6	1.8	1.6	1.4	9.1	8.7	8.4	21.0	19.1	15.7

Source: JM Financial

Exhibit 28. IOCL SOTP valuation

			Value (INR Bn)	Value (INR/share)	Comment
Core business					
Standalone core business					
Refining segment			189	5.5	1,040
Marketing segment			176	5.5	968
Petchem segment			55	5.5	304
Pipeline segment			85	5.5	465
Standalone core business					2,777
Less: Net debt					1,096
Standalone core business equity value					1,682
CPCL (51.9% stake)			58	4	At 20% discount to CMP
Total core business (a)					1,740
					123
Other investments					
ONGC (7.84% stake)			987	236	233
PLNG (12.5% stake)			188	286	54
Oil India (4.93% stake)			80	453	36
GAIL (2.5% stake)			82	184	15
Treasury shares (2.5% stake)			350	135	47
Total other investments (b)					385
Equity value (a+b)					150

Source: JM Financial

Exhibit 29. BPCL SOTP valuation

SOTP Valuation	FY27 EBITDA (INR Bn)	EV/EBITDA multiple (x)	Value	Value	Comment
			(INR Bn)	(INR/share)	
Core business					
Refining segment	148	5.5	816	192	Refining EBITDA based on GRM of USD 9.0/bbl (vs historical GRM of USD 6-7/bbl)
Marketing segment	115	5.5	630	148	Marketing EBITDA based on historical auto-fuel GMM of INR 3.5/ltr
Core business			1,446	340	
Less: Net debt			291	68	
Core business equity value (a)			1,155	271	
Other investments	No of shares (Mn)	discount (INR/sh)			
PLNG (12.5% stake)	188	286	54	13	At 20% discount to CMP
IGL (22.5% stake)	158	438	69	16	At 20% discount to CMP
Oil India (2.47% stake)	40	453	18	4	At 20% discount to CMP
MNGL (22.5% stake)			28	7	Valued at 20x FY24 PAT
Sabarmati Gas (49.94% stake)			30	7	Valued at 20x FY24 PAT
CUGL (25% stake)			4	1	Valued at 20x FY24 PAT
Total other investments (e)			203	49	
Equity value (d+e)				320	

Source: JM Financial

Exhibit 30. HPCL SOTP valuation

SOTP Valuation	FY27 EBITDA (INR Bn)	EV/EBITDA multiple (x)	Value	Value	Comment
			(INR Bn)	(INR/share)	
Core business					
Standalone core business					
Refining segment	83	5.5	454	213	Refining EBITDA based on GRM of USD 7.9/bbl (vs historical GRM of USD 5-6/bbl)
Marketing segment	134	5.5	739	347	Marketing EBITDA based on historical auto-fuel GMM of INR 3.5/ltr
Standalone core business			1,193	561	
Less: Net debt			645	303	
Standalon core business equity value (a)			548	257	
Bhatinda refinery JV (49% stake)					
EV	32	5.5	175	82	Bhatinda EBITDA based on GRM of USD 10/bbl
Less: Net debt			115	54	
Bhatinda refinery equity value (b)			61	29	
Total core business (c= a+b)			609	286	
Other investments	No of shares (Mn)	CMP less 20% discount			
MRPL (16.96% stake)	297	144	43	20	At 20% discount to CMP
Oil India (2.47% stake)	40	453	18	9	At 20% discount to CMP
Sub-total (d)			61	29	
Equity value				315	

Source: JM Financial

Exhibit 31. OMCs' auto-fuel gross marketing margin improved to INR 11.0/tr (vs. historical margin of +INR 3.5/tr); gross auto-fuel integrated margin also robust at INR 16.9/tr (vs. historical margin of INR 11.4/tr) at spot crude price and product crack

	1QFY24	2QFY24	3QFY24	4QFY24	1QFY25	2QFY25	3QFY25TD	On spot crude price and spot product crack*
OMCs gross marketing margin (GMM, INR/tr)								
Diesel GMM (INR/tr)	9.5	2.8	1.4	3.9	3.5	6.0	12.1	10.6
Petrol GMM (INR/tr)	7.4	4.3	5.7	5.7	2.7	7.2	11.3	11.7
Wt Avg GMM for Diesel & Petrol (INR/tr)	8.8	3.3	2.8	4.5	3.3	6.4	11.8	11.0
Historical average GMM (INR/tr)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
OMCs diesel/petrol refining product crack trend (USD/bbl)								
Diesel refining product crack (USD/bbl)	13.8	26.5	20.3	21.2	13.9	12.8	12.4	12.2
Petrol refining product crack (USD/bbl)	16.5	18.8	11.8	17.6	13.3	10.7	8.6	9.0
Historical average diesel/petrol product crack (USD/bbl)	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0
OMCs diesel/petrol refining product crack trend (INR/tr)								
Diesel refining product crack (INR/tr)	7.1	13.8	10.6	11.1	7.3	6.7	6.5	6.4
Petrol refining product crack (INR/tr)	8.5	9.8	6.2	9.2	7.0	5.6	4.5	4.8
Historical average diesel/petrol product crack (INR/tr)	7.8	7.8	7.8	7.8	7.9	7.9	7.9	7.9
OMCs integrated gross refining and marketing margin (INR/tr) — assuming 1:1 marketing vs refining volume								
Diesel integrated gross margin (INR/tr)	16.6	16.6	12.0	15.0	10.8	12.7	18.6	17.1
Petrol integrated gross margin (INR/tr)	16.0	14.1	11.8	14.9	9.6	12.8	15.8	16.5
Wt Avg integrated gross margin for Diesel & Petrol (INR/tr)*	16.4	15.8	12.0	15.0	10.4	12.7	17.7	16.9
Historical average integrated gross margin for Diesel & Petrol (INR/tr)	11.3	11.3	11.3	11.3	11.4	11.4	11.4	11.4
HPCL integrated gross refining and marketing margin (INR/tr) — assuming 1.7:1 marketing vs refining MS HSD cons volume								
Diesel integrated gross margin (INR/tr)	13.7	10.9	7.7	10.5	7.8	9.9	15.9	14.4
Petrol integrated gross margin (INR/tr)	12.5	10.1	9.3	11.1	6.8	10.5	14.0	14.5
Wt Avg integrated gross margin for Diesel & Petrol (INR/tr)*	13.3	10.7	8.2	10.7	7.5	10.1	15.3	14.5
HPCL historical average integrated gross margin for Diesel & Petrol (INR/tr)	8.1	8.1	8.1	8.1	8.1	8.1	8.2	8.2
BPCL integrated gross refining and marketing margin (INR/tr) — assuming 1.2:1 marketing vs refining MS HSD cons volume								
Diesel integrated gross margin (INR/tr)	15.4	14.3	10.3	13.2	9.6	11.6	17.5	16.0
Petrol integrated gross margin (INR/tr)	14.5	12.5	10.8	13.4	8.5	11.9	15.1	15.7
Wt Avg integrated gross margin for Diesel & Petrol (INR/tr)*	15.1	13.7	10.4	13.2	9.2	11.7	16.7	15.9
BPCL historical average integrated gross margin for Diesel & Petrol (INR/tr)	10.0	10.0	10.0	10.0	10.1	10.1	10.1	10.1
IOCL integrated gross refining and marketing margin (INR/tr) — assuming 1:1 marketing vs refining MS HSD cons volume								
Diesel integrated gross margin (INR/tr)	16.6	16.6	12.0	15.0	10.8	12.7	18.6	17.1
Petrol integrated gross margin (INR/tr)	16.0	14.1	11.8	14.9	9.6	12.8	15.8	16.5
Wt Avg integrated gross margin for Diesel & Petrol (INR/tr)*	16.4	15.8	12.0	15.0	10.4	12.7	17.7	16.9
IOCL historical average integrated gross margin for Diesel & Petrol (INR/tr)	11.3	11.3	11.3	11.3	11.4	11.4	11.4	11.4

Source: Company, JM Financial Note: *Margin is based on spot Brent price of ~USD 73.3/bbl and current diesel crack of ~USD12/bbl and petrol crack of ~USD9/bbl

Exhibit 32. Spore GRM continued to be weak at ~USD2.8/bbl in 3QFY25TD on lower diesel and petrol cracks

	Sep-24	Aug-24	Jul-24	3QFY25TD	2QFY25	FY24	FY23	FY22	FY21	FY20	FY19	FY18	FY17
Refining margin & product cracks (USD/bbl)													
S'pore GRM (USD/bbl)	2.1	4.3	4.3	2.8	3.6	6.6	10.8	5.0	0.5	3.2	4.9	7.2	6.2
Product cracks (USD/bbl)													
Diesel	9.9	13.2	15.1	12.4	12.8	20.5	35.7	10.5	4.7	13.6	14.4	13.2	11.1
Petrol	9.3	10.9	11.8	8.6	10.7	16.2	19.1	13.7	4.6	10.0	8.4	14.6	14.9
Naptha	-3.2	-5.1	-8.1	-1.8	-5.6	-11.8	-12.1	1.6	-0.8	-5.4	-3.9	0.2	1.2
LPG	-17.4	-23.0	-29.2	-17.6	-23.5	-29.7	-36.3	-15.1	-6.9	-22.2	-22.3	-13.2	-11.4
Jet Fuel	9.9	13.2	15.1	12.4	12.8	20.5	32.9	10.5	4.7	13.6	14.4	13.2	11.1
Fuel Oil	-6.5	-6.6	-4.8	-5.3	-6.0	-9.4	-18.4	-6.5	-2.2	-6.9	-1.5	-3.2	-4.8
Brent (USD/bbl)	80.9	80.9	86.3	77.9	80.4	83.0	94.7	80.0	44.7	60.9	70.2	57.6	49.0

Source: Bloomberg

APPENDIX I

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