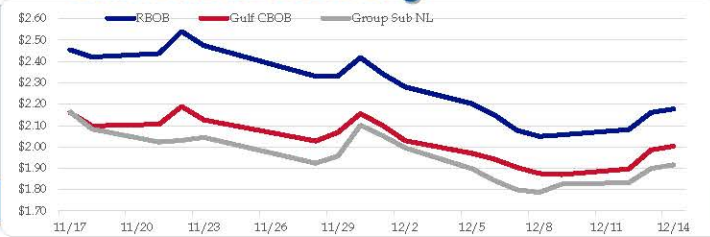


Gasoline

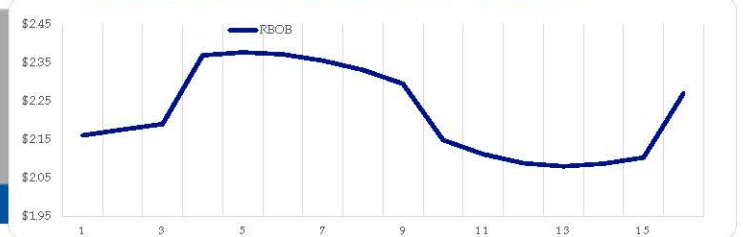
	RBOB	Change	Gulf CBOB	Change	Group Sub NL	Change	Gulf Basis	Group Basis	LA Basis
12/14	\$2.1775	\$0.0166	\$2.0031	\$0.0171	\$1.9157	\$0.0168	\$(0.1749)	\$(0.2621)	\$(0.1405)
12/13	\$2.1609	\$0.0799	\$1.9860	\$0.0898	\$1.8989	\$0.0665	\$(0.1749)	\$(0.2620)	\$(0.1390)
12/12	\$2.0810	\$0.0249	\$1.8962	\$0.0260	\$1.8325	\$0.0067	\$(0.1848)	\$(0.2486)	\$0.0010
12/9	\$2.0561	\$0.0070	\$1.8702	-\$0.0050	\$1.8257	\$0.0388	\$(0.1860)	\$(0.2304)	\$0.0010
12/8	\$2.0491	-\$0.0281	\$1.8752	-\$0.0278	\$1.7869	-\$0.0121	\$(0.1740)	\$(0.2622)	\$0.0195
12/7	\$2.0772	-\$0.0719	\$1.9030	-\$0.0394	\$1.7990	-\$0.0428	\$(0.1743)	\$(0.2783)	\$(0.0353)
12/6	\$2.1491	-\$0.0528	\$1.9424	-\$0.0269	\$1.8418	-\$0.0553	\$(0.2068)	\$(0.3073)	\$(0.1804)
12/5	\$2.2019	-\$0.0785	\$1.9692	-\$0.0598	\$1.8971	-\$0.0985	\$(0.2327)	\$(0.3048)	\$(0.2282)

RBOB Technicals		
Indicator	Direction	Resistance
MACD	Neutral	3.1427 Aug High
Stochastics	Oversold	3.0221 Oct High
RSI	Neutral	2.0204 2022 Low
ADX	Bearish	1.8800 Dec 21 Low
Momentum	Neutral	Support
Bias:	Neutral	

Gasoline History



Gasoline Forward Curve



Diesel

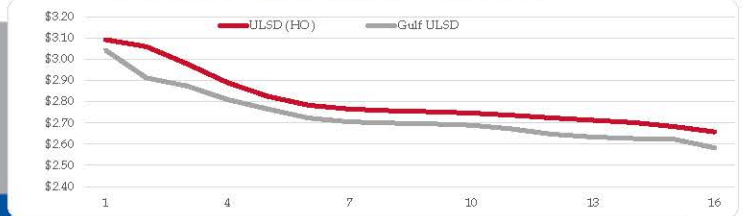
	ULSD (HO)	Change	Gulf ULSD	Change	Group ULSD	Change	Gulf Basis	Group Basis	LA Basis
12/14	\$3.1742	\$0.0820	\$2.9777	\$0.0816	\$2.7948	\$0.0822	\$(0.1967)	\$(0.3796)	\$(0.1670)
12/13	\$3.0922	\$0.1237	\$2.8960	\$0.1097	\$2.7126	\$0.0885	\$(0.1962)	\$(0.3796)	\$(0.1680)
12/12	\$2.9685	\$0.1748	\$2.7863	\$0.1659	\$2.6242	\$0.1265	\$(0.1822)	\$(0.3444)	\$(0.3055)
12/9	\$2.7937	-\$0.0861	\$2.6205	-\$0.1040	\$2.4977	-\$0.0747	\$(0.1733)	\$(0.2960)	\$(0.2505)
12/8	\$2.8798	\$0.0993	\$2.7245	\$0.1150	\$2.5724	\$0.0892	\$(0.1554)	\$(0.3074)	\$(0.2755)
12/7	\$2.7805	-\$0.1350	\$2.6095	-\$0.0971	\$2.4832	-\$0.1078	\$(0.1710)	\$(0.2973)	\$(0.3605)
12/6	\$2.9155	-\$0.0843	\$2.7066	-\$0.0498	\$2.5910	-\$0.0843	\$(0.2089)	\$(0.3245)	\$(0.3955)
12/5	\$2.9998	-\$0.1687	\$2.7564	-\$0.1512	\$2.6753	-\$0.1660			

HO Technicals		
Indicator	Direction	Resistance
MACD	Bullish	5.8595 Record High
Stochastics	Bullish	4.6841 Oct High
RSI	Neutral	2.7647 Dec Low
ADX	Bearish Trend	2.3134 Jan Low
Momentum	Neutral	Support
Bias:	Neutral	

Diesel History



Diesel Forward Curve



Crude

	WTI	Change	Brent	Change
12/14	\$76.16	\$0.77	\$81.22	\$0.54
12/13	\$75.39	\$2.22	\$80.68	\$2.69
12/12	\$73.17	\$2.16	\$77.99	\$1.89
12/9	\$71.02	-\$0.44	\$76.10	-\$0.05
12/8	\$71.46	-\$0.55	\$76.15	-\$1.02
CPL space	Line 1	Change	Line 2	Change
	0.0830	-\$0.0220	\$0.0830	\$0.0050

Refinery Margins

		Vs WTI				Vs Brent				Group / WCS
		Gulf Gas	Gulf Diesel	3/2/1	5/3/2	Gulf Gas	Gulf Diesel	3/2/1	5/3/2	3/2/1
12/14		\$8.02	\$46.24	\$20.76	\$23.31	\$2.73	\$40.95	\$15.47	\$18.02	17.98
12/13		\$6.47	\$43.85	\$18.93	\$21.42	\$1.65	\$39.03	\$14.11	\$16.60	14.88
12/12		\$7.53	\$39.04	\$18.03	\$20.13	\$2.45	\$33.96	\$12.95	\$15.05	15.07
12/9		\$7.30	\$42.97	\$19.19	\$21.56	\$2.61	\$38.28	\$14.50	\$16.87	14.59

RINs and Price Drivers

Current Year Biodiesel RINs			Current Year Ethanol RINs		
	Settle	Net Change		Settle	Net Change
	1.7425	0.023		1.5850	0.037
Price Drivers			Price Drivers		
	Settle	Net Change		Settle	Net Change
Soybeans	1479.75	-7.500	Ethanol	2.16	0.000
Soybean Oil	66.31		Com	643.75	-4.750
BOHO Spread	1.881		Com Crush	-0.138	
Soy Crush	724.51		RVO Estimate		
			Per Gallon	\$ 0.1910	\$ 0.0040
			Per Barrel	\$ 8.02	\$ 0.17

Economic Indicators

Commodity Futures

	Settle	Change		Settle	Change
S&P 500 Futures	4,017	-5.00	NatGas	6.587	0.348
DJIA	34,109	103.60	Gold	1,814	-6.9
EUR/USD	0.9992	0.0005	Silver	23.80	0.1
USD Index	103.94	-0.05	Copper	3.84	0.024
US 10 YR YIELD	3.51%	-0.10	FCOJ	207.70	1.75
US 2 YR YIELD	4.22%	-0.17	Wheat	728.75	
Oil Volatility Index	44.99	-1.62	Butane	0.894	0.022
S&P Volatility Index (VIX)	25.00	-2.45	Propane	0.690	0.012
Nikkei 225 Index	28,000	55.00	Bitcoin	39,475	115

*SOURCES: Nymex, CBOT, NYSE, ICE, NASDAQ, CME Group, CBOE. Prices delayed.

OPEC crude oil production

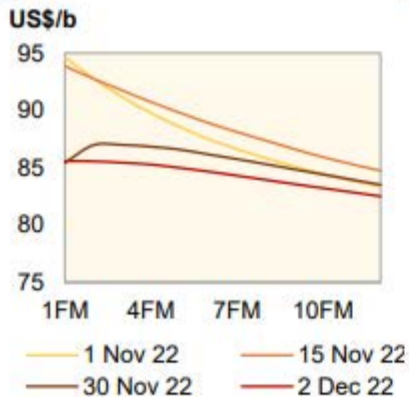
According to secondary sources, total **OPEC-13 crude oil production** averaged 28.83 mb/d in November 2022, lower by 744 tb/d m-o-m. Crude oil output increased mainly in Nigeria and Angola, while production in Saudi Arabia, the UAE, Kuwait and Iraq declined.

Table 5 - 7: OPEC crude oil production based on *secondary sources*, tb/d

Secondary sources	2020	2021	1Q22	2Q22	3Q22	Sep 22	Oct 22	Nov 22	Change Nov/Oct
Algeria	904	913	984	1,015	1,039	1,042	1,041	1,022	-19
Angola	1,245	1,117	1,152	1,171	1,155	1,131	1,064	1,102	38
Congo	289	265	263	268	267	278	260	259	-2
Equatorial Guinea	115	97	91	90	90	87	73	69	-4
Gabon	191	182	199	190	199	202	205	207	2
IR Iran	1,991	2,392	2,529	2,555	2,566	2,555	2,561	2,559	-1
Iraq	4,076	4,049	4,286	4,440	4,540	4,546	4,582	4,465	-117
Kuwait	2,439	2,419	2,612	2,690	2,801	2,822	2,806	2,685	-121
Libya	367	1,143	1,063	751	992	1,157	1,166	1,133	-32
Nigeria	1,578	1,372	1,376	1,211	1,064	1,015	1,066	1,158	92
Saudi Arabia	9,204	9,114	10,165	10,450	10,893	11,008	10,878	10,474	-404
UAE	2,804	2,727	2,954	3,045	3,168	3,192	3,186	3,037	-149
Venezuela	512	555	684	714	667	661	682	656	-26
Total OPEC	25,714	26,345	28,358	28,589	29,442	29,696	29,570	28,826	-744

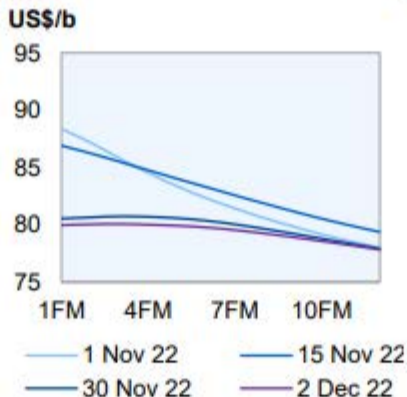
Notes: Totals may not add up due to independent rounding, given available secondary sources to date. Source: OPEC.

Graph 1 - 4: ICE Brent forward curves



Sources: ICE and OPEC.

Graph 1 - 5: NYMEX WTI forward curves



Sources: CME and OPEC.

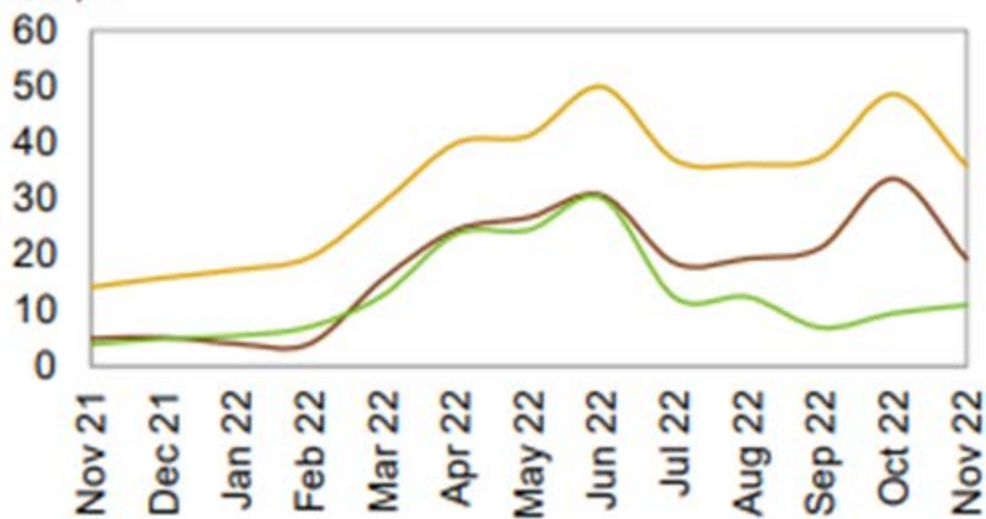
Graph 1 - 6: DME Oman forward curves



Sources: DME and OPEC.

Graph 6 - 1: Refining margins

US\$/b



— WTI (US Gulf)
— Oman (Singapore)

— Brent (Rotterdam)

Sources: Argus and OPEC.

Table 6 - 1: Short-term prospects for product markets and refinery operations

Event	Time frame	Asia	Europe	US	Observations
End of Autumn heavy refinery turnaround season	Nov 22 – Dec 22	↓ Downward pressure on product crack spreads	↓ Downward pressure on product crack spreads	↓ Downward pressure on product crack spreads	The end of the peak turnaround season should lead to rising product availability exerting pressure on product prices. On the other hand, rising refinery intakes should provide support to oil markets.
Winter season	Nov 22 – Dec 22	↓ Negative impact on product markets	↓ Negative impact on product markets	↓ Negative impact on product markets	Transport fuels are expected to come under pressure during winter as driving activities tend to be low. The Thanksgiving holiday in the US should provide limited/temporary support in November and December.
Diesel Tightness	Nov 22 – Dec 22	↑ Upward pressure on product prices	↑ Upward pressure on product prices	↑ Upward pressure on product prices	The current low diesel inventory levels in the Atlantic Basin will most likely represent a driver for stronger oil demand to enable diesel restocking. This could partially offset some of the seasonal pressure on oil demand.