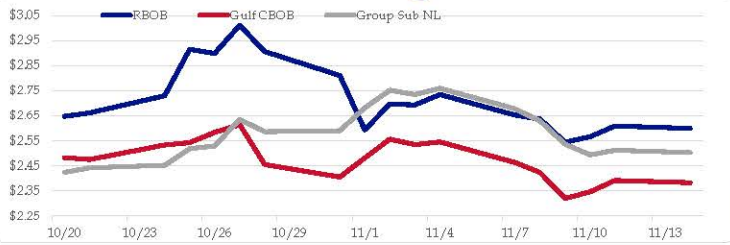


## Gasoline

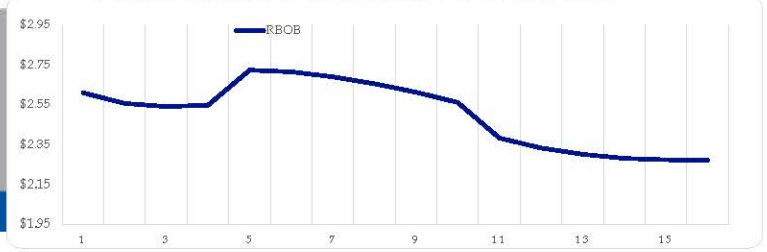
	RBOB	Change	Gulf CBOB	Change	Group Sub NL	Change	Gulf Basis	Group Basis	LA Basis
11/14	\$2.5997	<b>-\$0.0099</b>	\$2.3828	<b>-\$0.0094</b>	\$2.5029	<b>-\$0.0097</b>	\$(0.2174)	\$(0.0971)	\$0.7995
11/11	\$2.6096	<b>\$0.0433</b>	\$2.3922	<b>\$0.0457</b>	\$2.5126	<b>\$0.0186</b>	\$(0.2174)	\$(0.0970)	\$0.8010
11/10	\$2.5663	<b>\$0.0217</b>	\$2.3465	<b>\$0.0266</b>	\$2.4940	<b>-\$0.0427</b>	\$(0.2198)	\$(0.0723)	\$0.9760
11/9	\$2.5446	<b>-\$0.0921</b>	\$2.3199	<b>-\$0.1041</b>	\$2.5367	<b>-\$0.0928</b>	\$(0.2247)	\$(0.0079)	\$1.0360
11/8	\$2.6367	<b>-\$0.0164</b>	\$2.4240	<b>-\$0.0398</b>	\$2.6295	<b>-\$0.0491</b>	\$(0.2127)	\$(0.0072)	\$0.9120
11/7	\$2.6531	<b>-\$0.0817</b>	\$2.4639	<b>-\$0.0822</b>	\$2.6786	<b>-\$0.0814</b>	\$(0.1893)	\$0.0255	\$0.8597
11/4	\$2.7348	<b>\$0.0409</b>	\$2.5461	<b>\$0.0111</b>	\$2.7600	<b>\$0.0246</b>	\$(0.1888)	\$0.0252	\$0.6396
11/3	\$2.6939	<b>-\$0.0033</b>	\$2.5350	<b>-\$0.0221</b>	\$2.7354	<b>-\$0.0171</b>	\$(0.1590)	\$0.0414	\$0.6418

RBOB Technicals		
Indicator	Direction	Resistance
MACD	Neutral	3.1427 Aug High
Stochastics	Bearish	3.0221 Oct High
RSI	Neutral	2.2890 Sep Low
ADX	Bullish	1.8800 Dec Low
Momentum	Bullish	
Bias:	Neutral	

## Gasoline History



## Gasoline Forward Curve

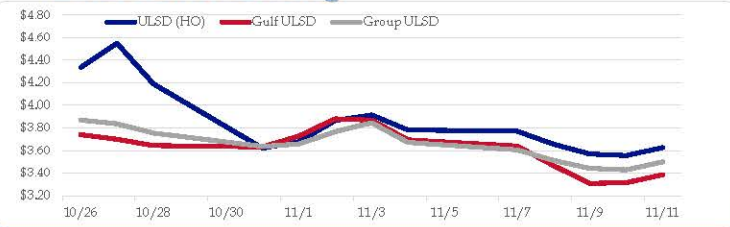


## Diesel

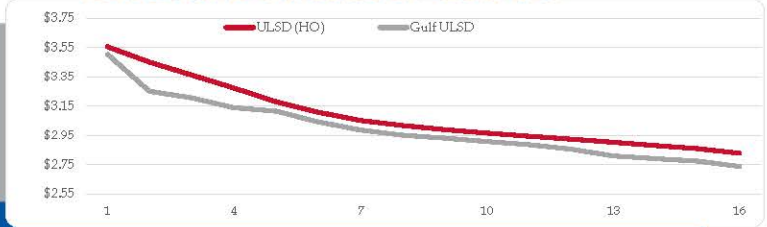
	ULSD (HO)	Change	Gulf ULSD	Change	Group ULSD	Change	Gulf Basis	Group Basis	LA Basis
11/14	\$3.6255	<b>\$0.0702</b>	\$3.3850	<b>\$0.0698</b>	\$3.4986	<b>\$0.0704</b>	\$(0.2407)	\$(0.1271)	\$(0.0245)
11/11	\$3.5553	<b>-\$0.0141</b>	\$3.3151	<b>\$0.0067</b>	\$3.4282	<b>-\$0.0141</b>	\$(0.2402)	\$(0.1271)	\$(0.0255)
11/10	\$3.5694	<b>-\$0.0869</b>	\$3.3085	<b>-\$0.1584</b>	\$3.4423	<b>-\$0.0705</b>	\$(0.2610)	\$(0.1271)	\$(0.1005)
11/9	\$3.6563	<b>-\$0.1144</b>	\$3.4668	<b>-\$0.1731</b>	\$3.5128	<b>-\$0.0930</b>	\$(0.1895)	\$(0.1435)	\$(0.1005)
11/8	\$3.7707	<b>-\$0.0104</b>	\$3.6399	<b>-\$0.0540</b>	\$3.6058	<b>-\$0.0655</b>	\$(0.1309)	\$(0.1649)	\$(0.1005)
11/7	\$3.7811	<b>-\$0.1337</b>	\$3.6939	<b>-\$0.1746</b>	\$3.6713	<b>-\$0.1740</b>	\$(0.0873)	\$(0.1098)	\$(0.1955)
11/4	\$3.9148	<b>\$0.0495</b>	\$3.8684	<b>-\$0.0122</b>	\$3.8453	<b>\$0.0795</b>	\$(0.0464)	\$(0.0695)	\$(0.4055)
11/3	\$3.8653	<b>\$0.1879</b>	\$3.8806	<b>\$0.1529</b>	\$3.7658	<b>\$0.1081</b>			

HO Technicals		
Indicator	Direction	Resistance
MACD	Neutral	5.8595 Record High
Stochastics	Bullish	4.6841 Oct High
RSI	Neutral	3.1085 Sep Low
ADX	Bearish	2.9330 March Low
Momentum	Neutral	
Bias:	Neutral	

## Diesel History



## Diesel Forward Curve



## Crude

	WTI	Change	Brent	Change
11/14	\$87.98	<b>-\$0.98</b>	\$95.02	<b>-\$0.97</b>
11/11	\$88.96	<b>\$2.49</b>	\$95.99	<b>\$2.32</b>
11/10	\$86.47	<b>\$0.64</b>	\$93.67	<b>\$1.02</b>
11/9	\$85.83	<b>-\$3.08</b>	\$92.65	<b>-\$2.71</b>
11/8	\$88.91	<b>-\$2.88</b>	\$95.36	<b>-\$2.56</b>
CPL space	Line 1	Change	Line 2	Change
	0.1455	<b>-\$0.0045</b>	\$0.1390	<b>\$0.0047</b>

## 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			
11/14	\$11.51	\$50.27	\$24.43	\$27.02	\$4.48	\$43.24	\$17.40	\$19.99	31.88			
11/11	\$12.08	\$52.48	\$25.55	\$28.24	\$4.88	\$45.28	\$18.35	\$21.04	31.55			
11/10	\$11.61	\$59.78	\$27.66	\$30.87	\$4.79	\$52.96	\$20.84	\$24.05	34.38			
11/9	\$12.90	\$63.96	\$29.92	\$33.32	\$6.45	\$57.51	\$23.47	\$26.87	35.20			

## Economic Indicators

## Commodity Futures

	Settle	Change		Settle	Change
S&P 500 Futures	3,989	<b>-11.50</b>	NatGas	6.239	<b>-0.360</b>
DJIA	33,748	<b>32.49</b>	Gold	1,766	<b>-4.4</b>
EUR/USD	1.0364	<b>-0.0036</b>	Silver	21.65	
USD Index	106.16	<b>0.64</b>	Copper	3.95	<b>-0.085</b>
US 10 YR YIELD	3.82%	<b>-0.30</b>	FCOJ	203.30	<b>-3.20</b>
US 2 YR YIELD	4.34%	<b>-0.27</b>	Wheat	813.75	<b>-4.00</b>
Oil Volatility Index	45.11	<b>-0.07</b>	Butane	1.022	<b>0.002</b>
S&P Volatility Index (VIX)	24.35	<b>1.19</b>	Propane	0.872	<b>0.006</b>
Nikkei 225 Index	28,120	<b>-30.00</b>	Bitcoin	16,050	<b>645</b>

## RINs and Price Drivers

Current Year Biodiesel RINs			Current Year Ethanol RINs		
	Settle	Net Change		Settle	Net Change
	1.9225	<b>-0.002</b>		1.7925	<b>0.008</b>
Price Drivers			Price Drivers		
Soybeans	1455.50	<b>4.500</b>	Ethanol	2.16	<b>0.000</b>
Soybean Oil	76.97	<b>-0.780</b>	Corn	658.00	<b>-3.000</b>
BOHO Spread	2.217		Corn Crush	-0.189	
Soy Crush	841.08		RVO Estimate		
			Per Gallon	\$ 0.2130	<b>\$ 0.0010</b>
			Per Barrel	\$ 8.95	<b>\$ 0.04</b>

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

Table 5 - 2: Non-OPEC liquids production in 2023\*, mb/d

Non-OPEC liquids production	2022	1Q23	2Q23	3Q23	4Q23	2023	Change 2023/22	
							Growth	%
<b>Americas</b>	26.59	27.60	27.70	28.05	28.43	27.95	1.35	5.09
<i>of which US</i>	18.93	19.75	20.05	20.24	20.47	20.13	1.20	6.33
<b>Europe</b>	3.64	3.97	3.95	3.84	3.97	3.93	0.29	8.10
<b>Asia Pacific</b>	0.49	0.51	0.48	0.50	0.49	0.50	0.00	0.97
<b>Total OECD</b>	<b>30.72</b>	<b>32.08</b>	<b>32.13</b>	<b>32.40</b>	<b>32.89</b>	<b>32.38</b>	<b>1.65</b>	<b>5.38</b>
<b>China</b>	4.46	4.51	4.50	4.47	4.47	4.49	0.03	0.64
<b>India</b>	0.78	0.80	0.79	0.78	0.77	0.79	0.01	1.12
<b>Other Asia</b>	2.32	2.38	2.38	2.35	2.37	2.37	0.05	2.16
<b>Latin America</b>	6.32	6.47	6.65	6.71	6.78	6.66	0.33	5.27
<b>Middle East</b>	3.34	3.35	3.36	3.39	3.39	3.37	0.03	0.99
<b>Africa</b>	1.32	1.32	1.34	1.35	1.37	1.35	0.02	1.87
<b>Russia</b>	10.93	9.92	10.07	10.14	10.19	10.08	-0.85	-7.78
<b>Other Eurasia</b>	2.88	3.10	3.07	3.04	3.08	3.07	0.19	6.65
<b>Other Europe</b>	0.11	0.10	0.10	0.10	0.10	0.10	0.00	-2.83
<b>Total Non-OECD</b>	<b>32.46</b>	<b>31.96</b>	<b>32.26</b>	<b>32.33</b>	<b>32.53</b>	<b>32.27</b>	<b>-0.18</b>	<b>-0.57</b>
<b>Total Non-OPEC production</b>	63.18	64.04	64.39	64.73	65.42	64.65	1.47	2.33
<b>Processing gains</b>	2.40	2.47	2.47	2.47	2.47	2.47	0.07	2.96
<b>Total Non-OPEC liquids production</b>	<b>65.58</b>	<b>66.51</b>	<b>66.86</b>	<b>67.20</b>	<b>67.89</b>	<b>67.12</b>	<b>1.54</b>	<b>2.35</b>
<b>Previous estimate</b>	65.60	66.56	66.83	67.23	67.88	67.13	1.52	2.32
<b>Revision</b>	-0.02	-0.04	0.04	-0.03	0.01	-0.01	0.02	0.02

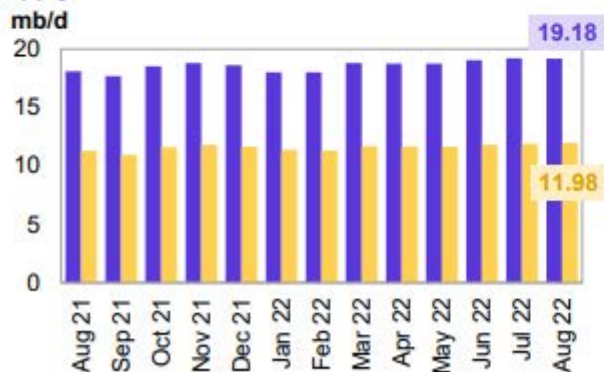
Note: \* 2022-2023 = Forecast. Totals may not add up due to independent rounding. Source: OPEC.

Table 5 - 3: US crude oil production by selected state and region, tb/d

State	Change				
	Aug 21	Jul 22	Aug 22	m-o-m	y-o-y
Texas	4,865	5,018	5,096	78	231
Gulf of Mexico (GOM)	1,549	1,762	1,783	21	234
New Mexico	1,378	1,572	1,581	9	203
North Dakota	1,098	1,065	1,059	-6	-39
Colorado	418	431	425	-6	7
Alaska	409	432	413	-19	4
Oklahoma	385	406	413	7	28
<b>Total</b>	<b>11,277</b>	<b>11,873</b>	<b>11,975</b>	<b>102</b>	<b>698</b>

Sources: EIA and OPEC.

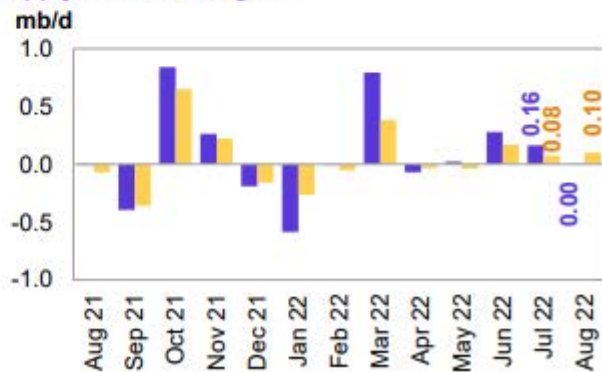
Graph 5 - 7: US monthly crude oil and total liquids supply



■ US total liquids production ■ US crude oil production

Sources: EIA and OPEC.

Graph 5 - 8: US monthly crude oil and total liquids supply, m-o-m changes



■ US total liquids production ■ US crude oil production

Sources: EIA and OPEC.



# OPEC crude oil production

According to secondary sources, total **OPEC-13 crude oil production** averaged 29.49 mb/d in October 2022, lower by 210 tb/d m-o-m. Crude oil output increased mainly in Nigeria and Iraq, while production in Saudi Arabia and Angola declined.

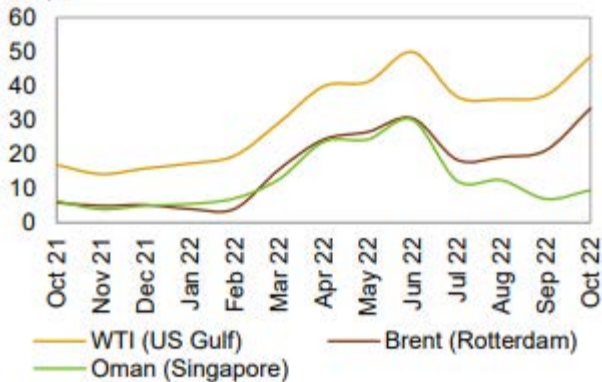
Table 5 - 7: OPEC crude oil production based on secondary sources, tb/d

Secondary sources	2020	2021	1Q22	2Q22	3Q22	Aug 22	Sep 22	Oct 22	Change Oct/Sep
Algeria	904	912	984	1,015	1,038	1,042	1,040	1,036	-4
Angola	1,245	1,117	1,152	1,171	1,160	1,170	1,145	1,067	-78
Congo	289	265	263	268	266	264	276	257	-19
Equatorial Guinea	114	96	90	89	90	85	88	74	-14
Gabon	191	182	199	190	199	197	202	214	12
IR Iran	1,991	2,392	2,529	2,555	2,562	2,571	2,549	2,548	-1
Iraq	4,076	4,049	4,286	4,440	4,540	4,543	4,551	4,572	20
Kuwait	2,439	2,419	2,612	2,690	2,801	2,810	2,822	2,804	-18
Libya	367	1,143	1,063	751	992	1,135	1,157	1,163	6
Nigeria	1,578	1,372	1,376	1,211	1,067	1,043	1,025	1,057	33
Saudi Arabia	9,204	9,114	10,165	10,450	10,885	10,930	10,987	10,838	-149
UAE	2,804	2,727	2,954	3,045	3,168	3,182	3,192	3,186	-7
Venezuela	512	555	684	714	670	681	669	679	9
<b>Total OPEC</b>	<b>25,713</b>	<b>26,344</b>	<b>28,357</b>	<b>28,588</b>	<b>29,438</b>	<b>29,653</b>	<b>29,704</b>	<b>29,494</b>	<b>-210</b>

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

**Graph 6 - 1: Refining margins**

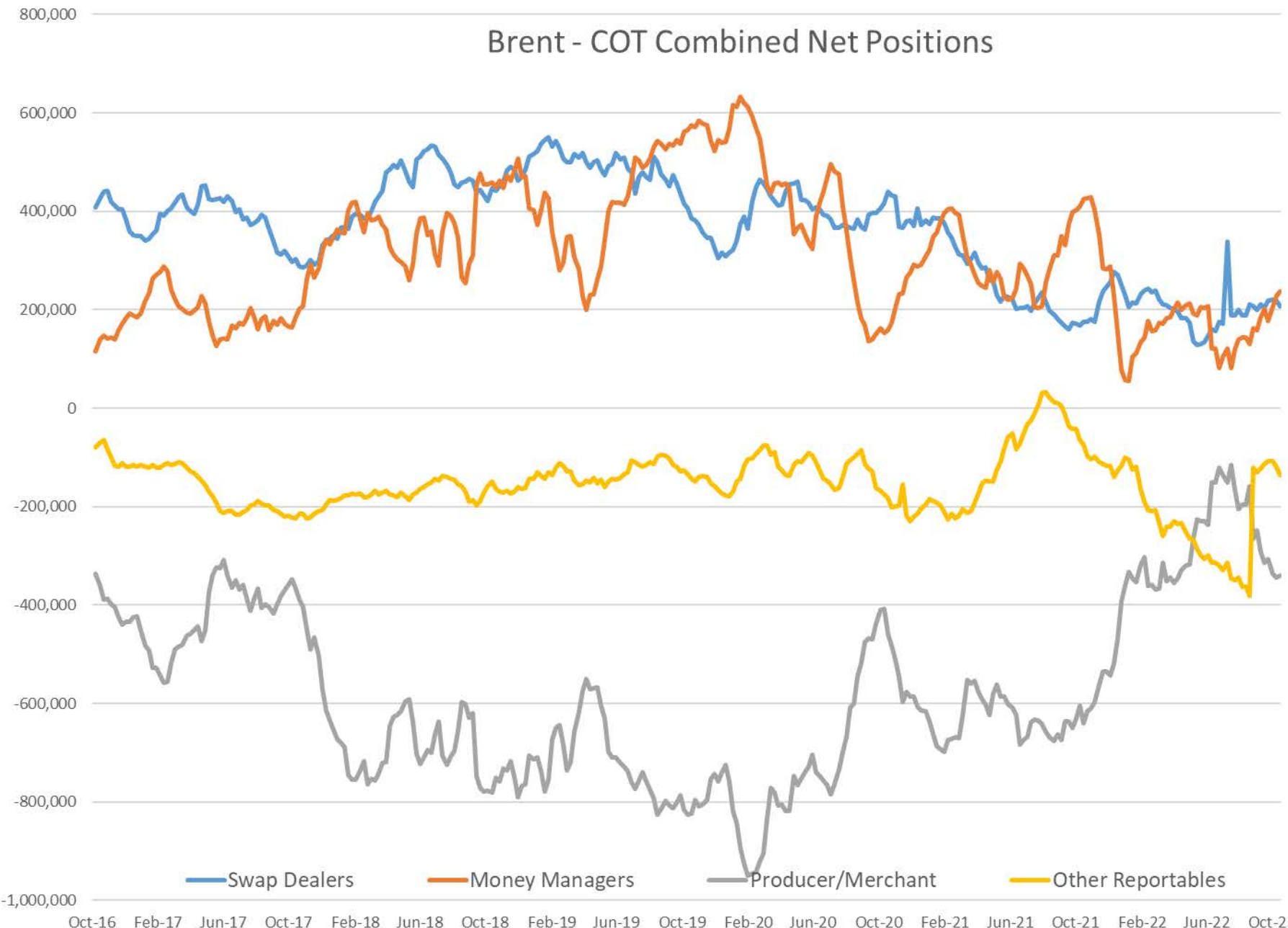
US\$/b



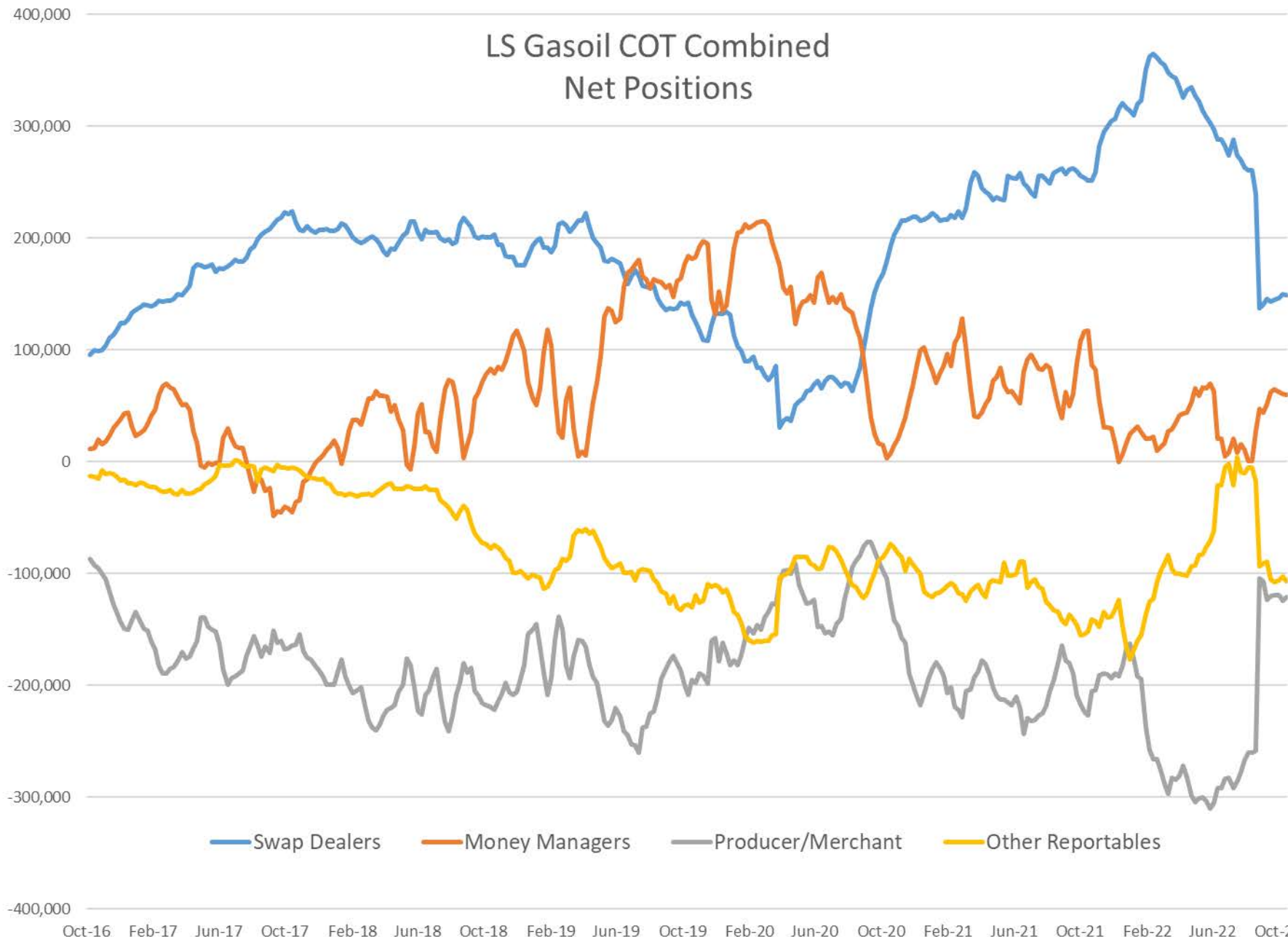
Sources: Argus and OPEC.

Brent Managed Long Positions	Brent Managed Short Positions	Brent Open Interest	Brent Managed Net Position	LS Gasoil Managed Long Positions	LS Gasoil Managed Short Positions	LS Gasoil Open Interest	LS Gasoil Managed Net Position
281,003	42,916	2,368,461	238,087	73,799	13,551	486,254	60,248
267,511	39,846	2,348,531	227,665	73,301	12,438	511,831	60,863
13,492	3,070	19,930	10,422	498	1,113	(25,577)	(615)
5.0%	7.7%	0.8%	4.6%	0.7%	8.9%	-5.0%	-1.0%
(218,526)	(30,850)	(866,741)	(187,676)	(53,896)	3,369	(441,958)	(57,265)
-44%	-42%	-27%	-44%	-42%	33%	-48%	-49%

# Brent - COT Combined Net Positions



# LS Gasoil COT Combined Net Positions





# Baker Hughes Rig Count

