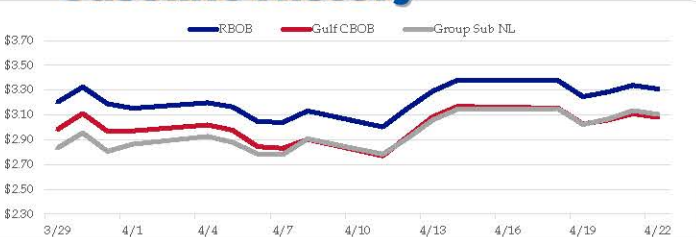


Gasoline

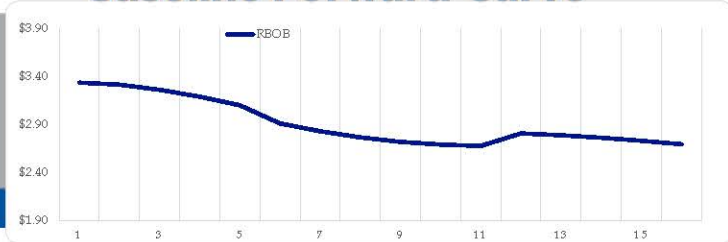
	RBOB	Change	Gulf CBOB	Change	Group Sub NL	Change	Gulf Basis	Group Basis	LA Basis
4/22	\$3.3091	-\$0.0295	\$3.0810	-\$0.0290	\$3.1051	-\$0.0300	\$ (0.2287)	\$ (0.2044)	\$ 0.1860
4/21	\$3.3386	\$0.0538	\$3.1100	\$0.0521	\$3.1351	\$0.0685	\$ (0.2287)	\$ (0.2036)	\$ 0.1855
4/20	\$3.2848	\$0.0374	\$3.0578	\$0.0303	\$3.0666	\$0.0427	\$ (0.2270)	\$ (0.2183)	\$ 0.1343
4/19	\$3.2474	-\$0.1307	\$3.0275	-\$0.1279	\$3.0239	-\$0.1270	\$ (0.2199)	\$ (0.2236)	\$ 0.1043
4/18	\$3.3781	-\$0.0033	\$3.1554	-\$0.0133	\$3.1508	\$0.0042	\$ (0.2227)	\$ (0.2273)	\$ 0.0805
4/14	\$3.3814	\$0.0901	\$3.1687	\$0.0839	\$3.1466	\$0.0876	\$ (0.2127)	\$ (0.2348)	\$ 0.0580
4/13	\$3.2913	\$0.1375	\$3.0849	\$0.1575	\$3.0590	\$0.1450	\$ (0.2065)	\$ (0.2323)	\$ 0.0505
4/12	\$3.1538	\$0.1507	\$2.9274	\$0.1570	\$2.9140	\$0.1307	\$ (0.2265)	\$ (0.2398)	\$ 0.1110

RBOB Technicals		
Indicator	Direction	Resistance
MACD	Neutral	3.8904 2022 High
Stochastics	Bullish	3.5000 March 24 High
RSI	Neutral	2.9867 April Low
ADX	Bullish	2.8861 March 15 low
Momentum	Bullish	
Bias:	Bullish	

Gasoline History



Gasoline Forward Curve

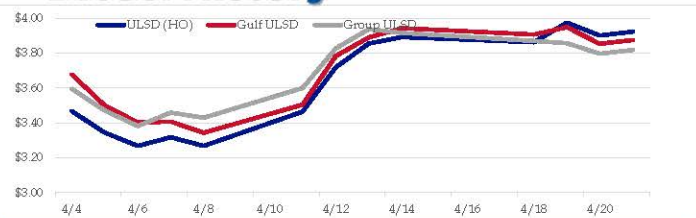


Diesel

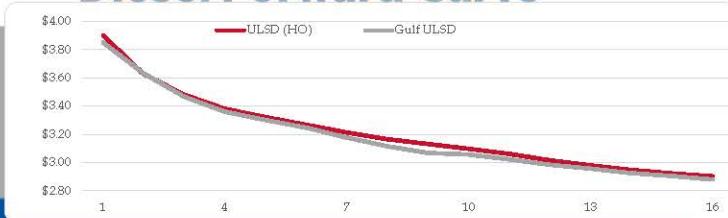
	ULSD (HO)	Change	Gulf ULSD	Change	Group ULSD	Change	Gulf Basis	Group Basis	LA Basis
4/22	\$3.9227	\$0.0219	\$3.8738	\$0.0218	\$3.8184	\$0.0222	\$ (0.0494)	\$ (0.1045)	\$ (0.0486)
4/21	\$3.9008	-\$0.0723	\$3.8519	-\$0.0966	\$3.7962	-\$0.0598	\$ (0.0489)	\$ (0.1046)	\$ (0.0496)
4/20	\$3.9731	\$0.1112	\$3.9484	\$0.0435	\$3.8560	-\$0.0137	\$ (0.0247)	\$ (0.1171)	\$ (0.0812)
4/19	\$3.8619	-\$0.0289	\$3.9049	-\$0.0368	\$3.8697	-\$0.0460	\$ 0.0430	\$ 0.0078	\$ (0.0352)
4/18	\$3.8908	\$0.0360	\$3.9417	\$0.0529	\$3.9147	-\$0.0216	\$ 0.0509	\$ 0.0239	\$ 0.1145
4/14	\$3.8548	\$0.1364	\$3.8888	\$0.1088	\$3.9363	-\$0.1099	\$ 0.0340	\$ 0.0814	\$ 0.1845
4/13	\$3.7184	\$0.2540	\$3.7820	\$0.2786	\$3.8264	\$0.2265	\$ 0.0636	\$ 0.1080	\$ 0.1845
4/12	\$3.4644	\$0.1967	\$3.5035	\$0.1617	\$3.5999	\$0.1707			

HO Technicals		
Indicator	Direction	Resistance
MACD	Neutral	4.6709 2022 High
Stochastics	Overbought	4.2000 March 25 High
RSI	Neutral	3.1891 April Low
ADX	Bullish	2.933 March 15 Low
Momentum	Bullish	
Bias:	Neutral	

Diesel History



Diesel Forward Curve



Crude

	WTI	Change	Brent	Change
4/22	\$102.70	-\$1.09	\$107.40	-\$0.93
4/21	\$103.79	\$1.04	\$108.33	\$1.53
4/20	\$102.75	\$0.19	\$106.80	-\$0.45
4/19	\$102.56	-\$5.65	\$107.25	-\$5.91
4/18	\$108.21	\$1.26	\$113.16	\$1.46
CPL Space	Line 1 0.0218	-\$0.0007	Line 2 -\$0.0115	-\$0.0003

Refinery Margins

	Gulf Gas	Vs WTI		Vs Brent		Group / WCS			
		Gulf Diesel	3/2/1	5/3/2	3/2/1		5/3/2		
4/22	\$26.83	\$57.99	\$37.21	\$39.29	\$22.29	\$53.45	\$32.67	\$34.75	38.18
4/21	\$25.68	\$63.08	\$38.15	\$40.64	\$21.63	\$59.03	\$34.10	\$36.59	37.10
4/19	\$24.60	\$61.45	\$36.88	\$39.34	\$19.91	\$56.76	\$32.19	\$34.65	36.28
4/18	\$24.32	\$57.34	\$35.33	\$37.53	\$19.37	\$52.39	\$30.38	\$32.58	34.82

RINs and Price Drivers

Current Year Biodiesel RINs			Current Year Ethanol RINs		
	Settle	Net Change		Settle	Net Change
	1.7000	0.005		1.3300	0.025
Price Drivers			Price Drivers		
Soybeans	1748.25	6.000	Ethanol	2.16	0.000
Soybean Oil	81.50	2.800	Com	799.25	4.750
BOHO Spread	2.212		Com Crush	-0.694	
Soy Crush	889.33		RVO Estimate		
			Per Gallon	\$ 0.1700	\$ 0.0020
			Per Barrel	\$ 7.14	\$ 0.08

Economic Indicators

Commodity Futures

	Settle	Change		Settle	Change
S&P 500 Futures	4,378	-12.26	NatGas	6.957	
DJIA	35,161	-368.03	Gold	1,945	-13.8
EUR/USD	1.0848	-0.0019	Silver	24.62	-0.2
USD Index	100.61	0.32	Copper	4.70	
US 10 YR YIELD	2.90%	0.05	FCOJ	173.00	1.90
US 2 YR YIELD	2.68%	0.08	Wheat	1068.00	3.75
Oil Volatility Index	52.23	-2.37	Butane	1.566	
S&P Volatility Index (VIX)	20.32	2.36	Propane	1.322	
Nikkei 225 Index	27,185	0.00	Bitcoin	41,245	-825

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

Disclaimer: The information contained herein is derived from multiple sources believed to be reliable. However, this information is not guaranteed as to its accuracy or completeness. No responsibility is assumed for use of this material and no express or implied warranties or guarantees are made. This material and any view or comment expressed herein are provided for informational purposes only and should not be construed in any way as an inducement or recommendation to buy or sell products, commodity futures or options contracts.



Target Rate

- 4 May22
- 15 Jun22
- 27 Jul22
- 21 Sep22
- 2 Nov22
- 14 Dec22
- 1 Feb23
- 15 Mar23
- 3 May23
- 14 Jun23
- 26 Jul23

Current

Compare

Probabilities

Historical

Historical

Downloads

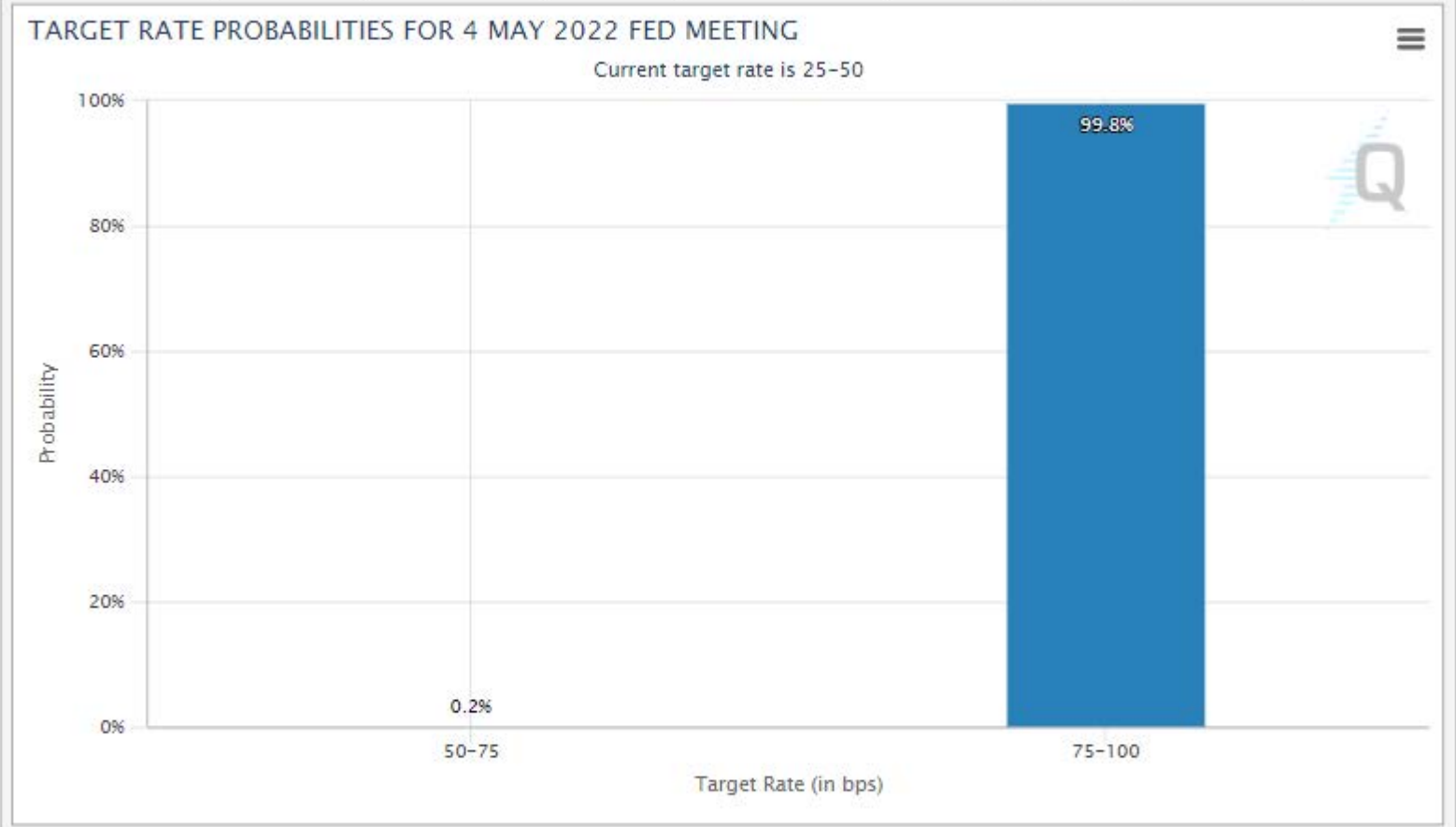
Prior Hikes

Dot Plot

Chart

Table

MEETING INFORMATION						PROBABILITIES		
MEETING DATE	CONTRACT	EXPIRES	MID PRICE	PRIOR VOLUME	PRIOR OI	EASE	NO CHANGE	HIKE
4 May 2022	ZQK2	31 May 2022	99.2175	95,445	349,618	0.0 %	0.0 %	100.0 %



TARGET RATE (BPS)	PROBABILITY(%)			
	NOW *	1 DAY 21 APR 2022	1 WEEK 14 APR 2022	1 MONTH 22 MAR 2022
50-75	0.2%	0.0%	9.6%	36.1%
75-100	99.8%	99.6%	90.4%	63.9%
100-125	0.0%	0.4%	0.0%	0.0%

* Data as of 22 Apr 2022 07:40:02 CT

3/15/2023 and forward are projected meeting dates



- Target Rate
- Current
- Compare
- Probabilities
- Historical
- Historical
- Downloads
- Prior Hikes
- Dot Plot
- Chart
- Table

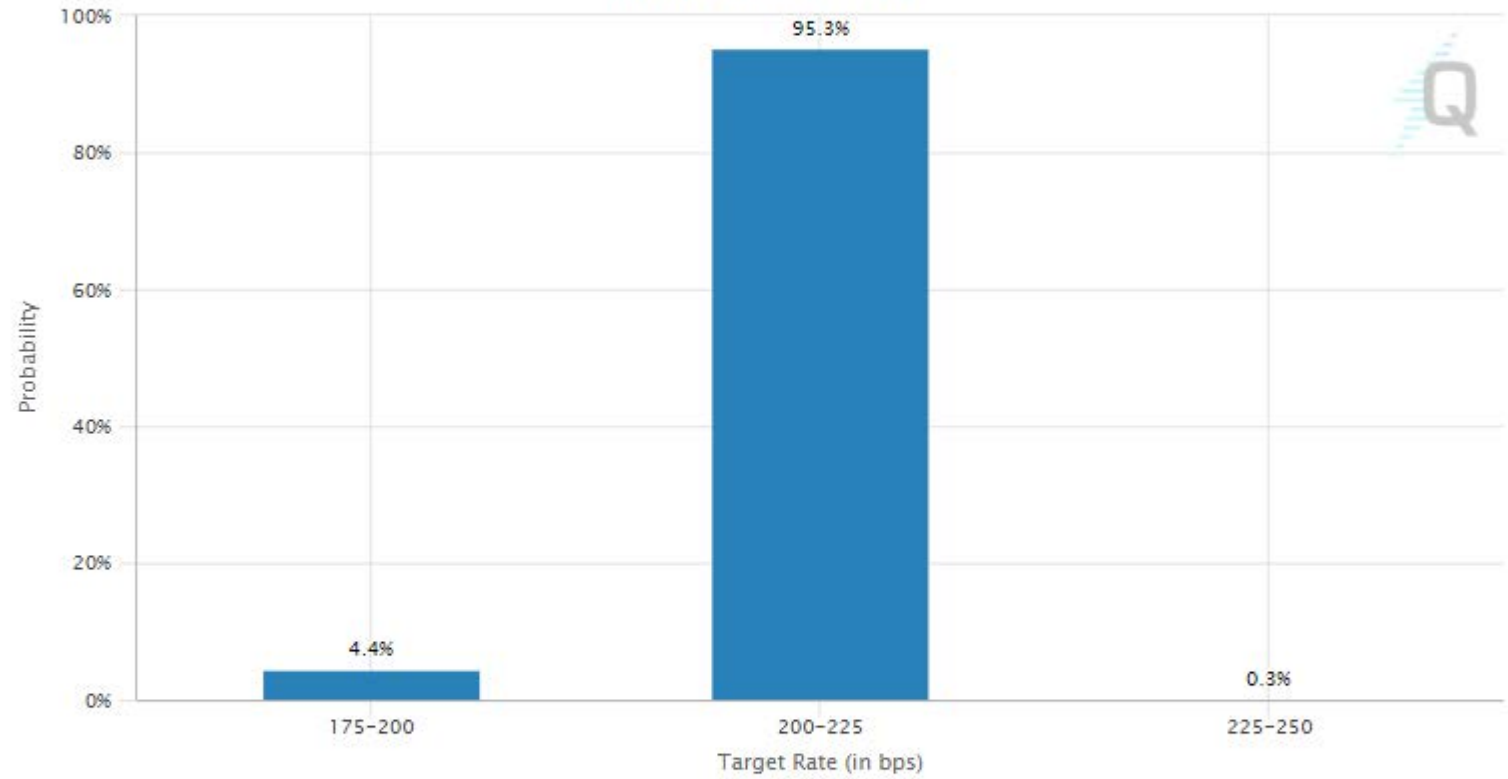
- 4 May22
- 15 Jun22
- 27 Jul22
- 21 Sep22
- 2 Nov22
- 14 Dec22
- 1 Feb23
- 15 Mar23
- 3 May23
- 14 Jun23
- 26 Jul23

MEETING INFORMATION					
MEETING DATE	CONTRACT	EXPIRES	MID PRICE	PRIOR VOLUME	PRIOR OI
27 Jul 2022	ZQN2	29 Jul 2022	98.5075	101,251	280,326

PROBABILITIES		
EASE	NO CHANGE	HIKE
0.0 %	0.0 %	100.0 %

TARGET RATE PROBABILITIES FOR 27 JUL 2022 FED MEETING

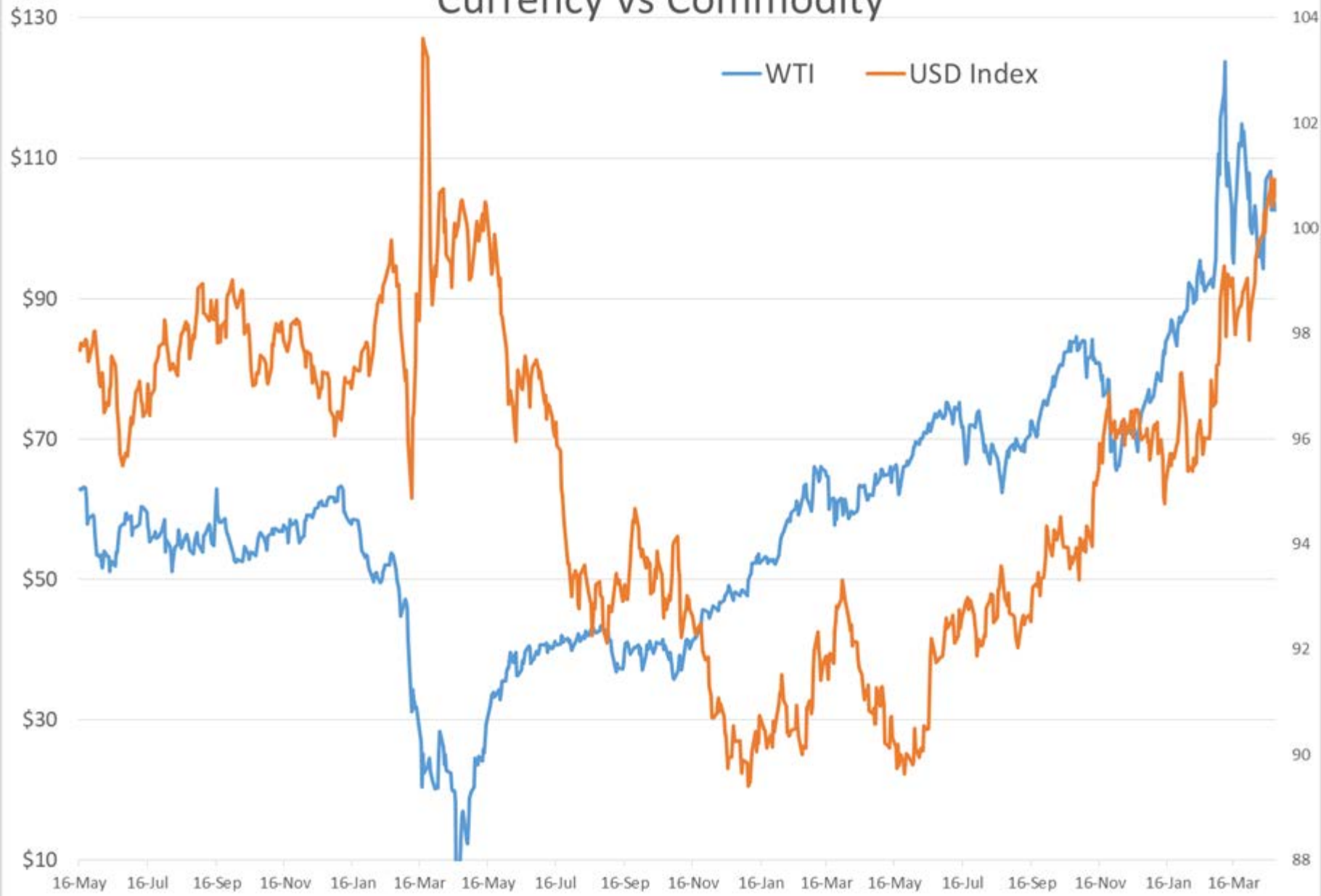
Current target rate is 25-50



TARGET RATE (BPS)	PROBABILITY(%)			
	NOW *	1 DAY 21 APR 2022	1 WEEK 14 APR 2022	1 MONTH 22 MAR 2022
100-125	0.0%	0.0%	0.0%	0.6%
125-150	0.0%	0.0%	3.0%	21.5%
150-175	0.0%	4.9%	32.9%	51.2%
175-200	4.4%	36.4%	48.5%	26.7%
200-225	95.3%	58.4%	15.6%	0.0%
225-250	0.3%	0.2%	0.0%	0.0%

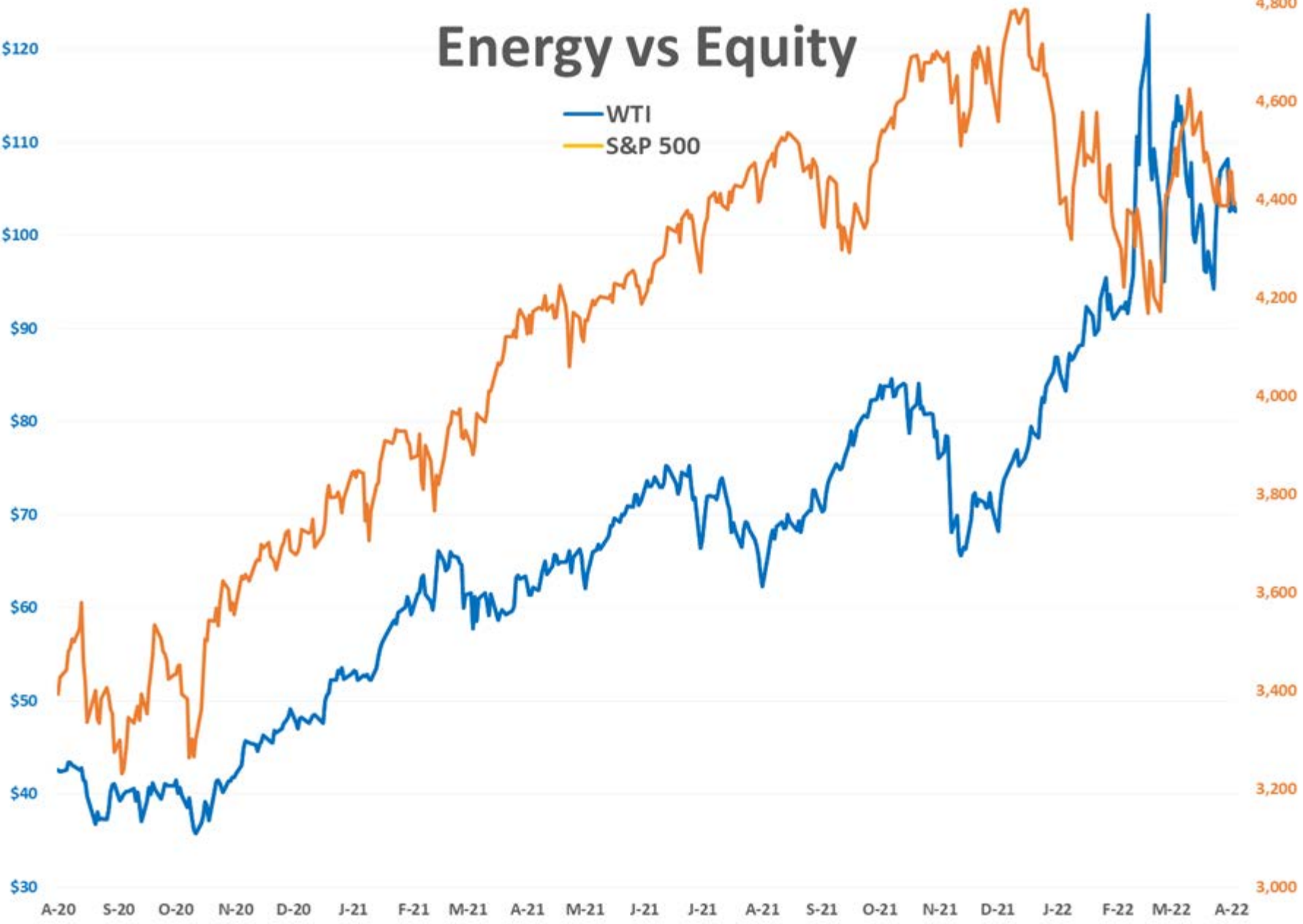
* Data as of 22 Apr 2022 07:40:40 CT

Currency vs Commodity

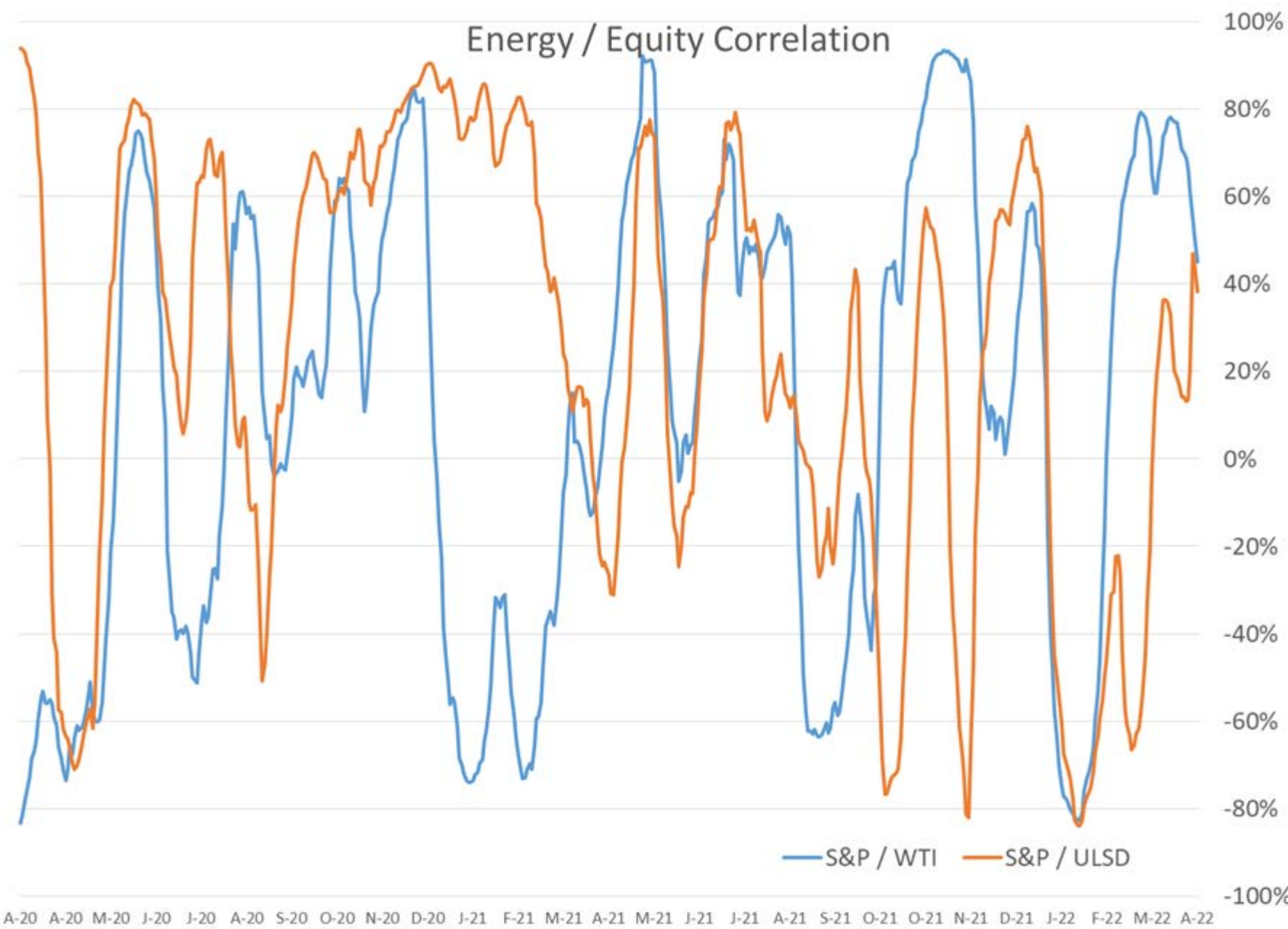


Energy vs Equity

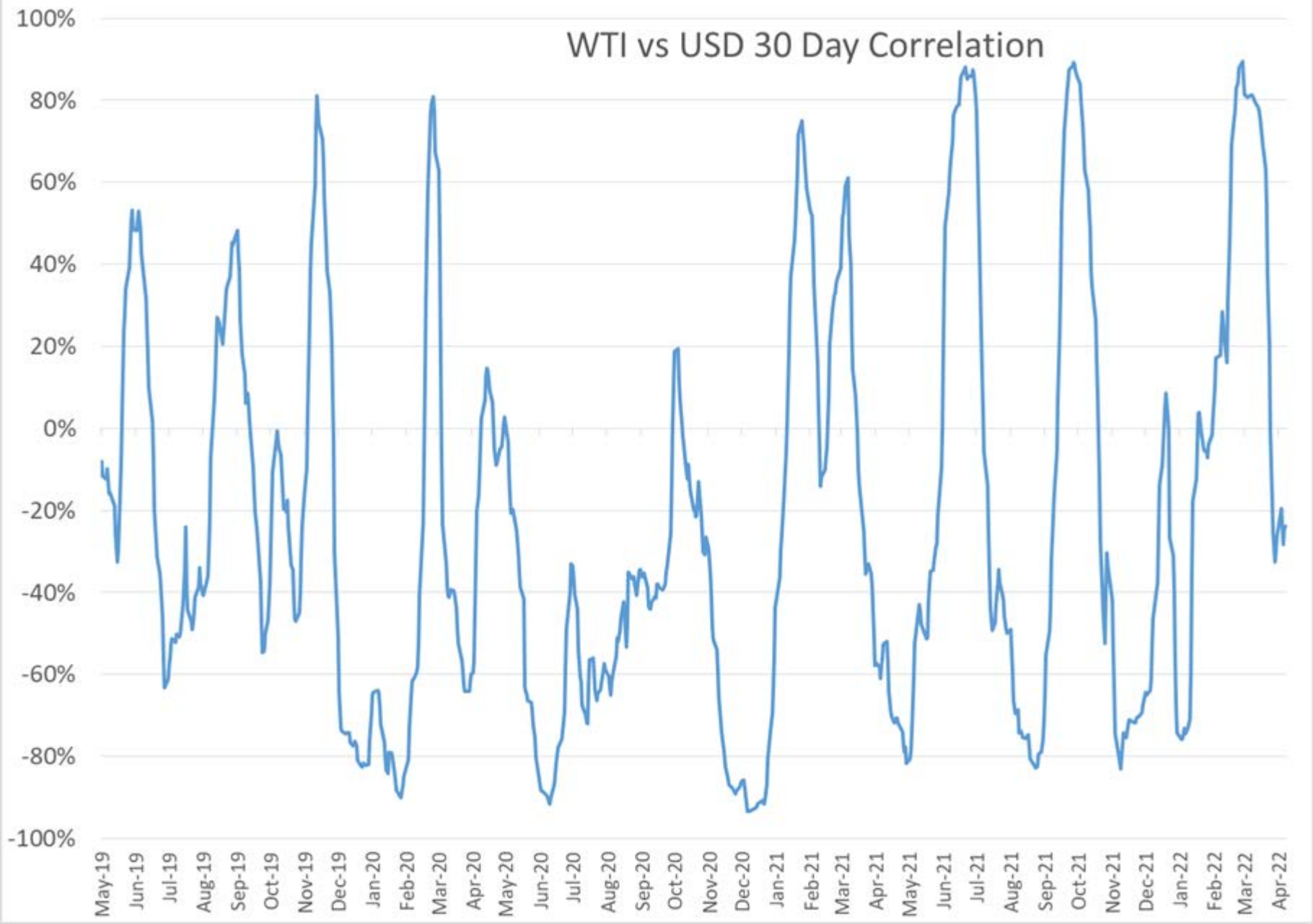
WTI
S&P 500



Energy / Equity Correlation



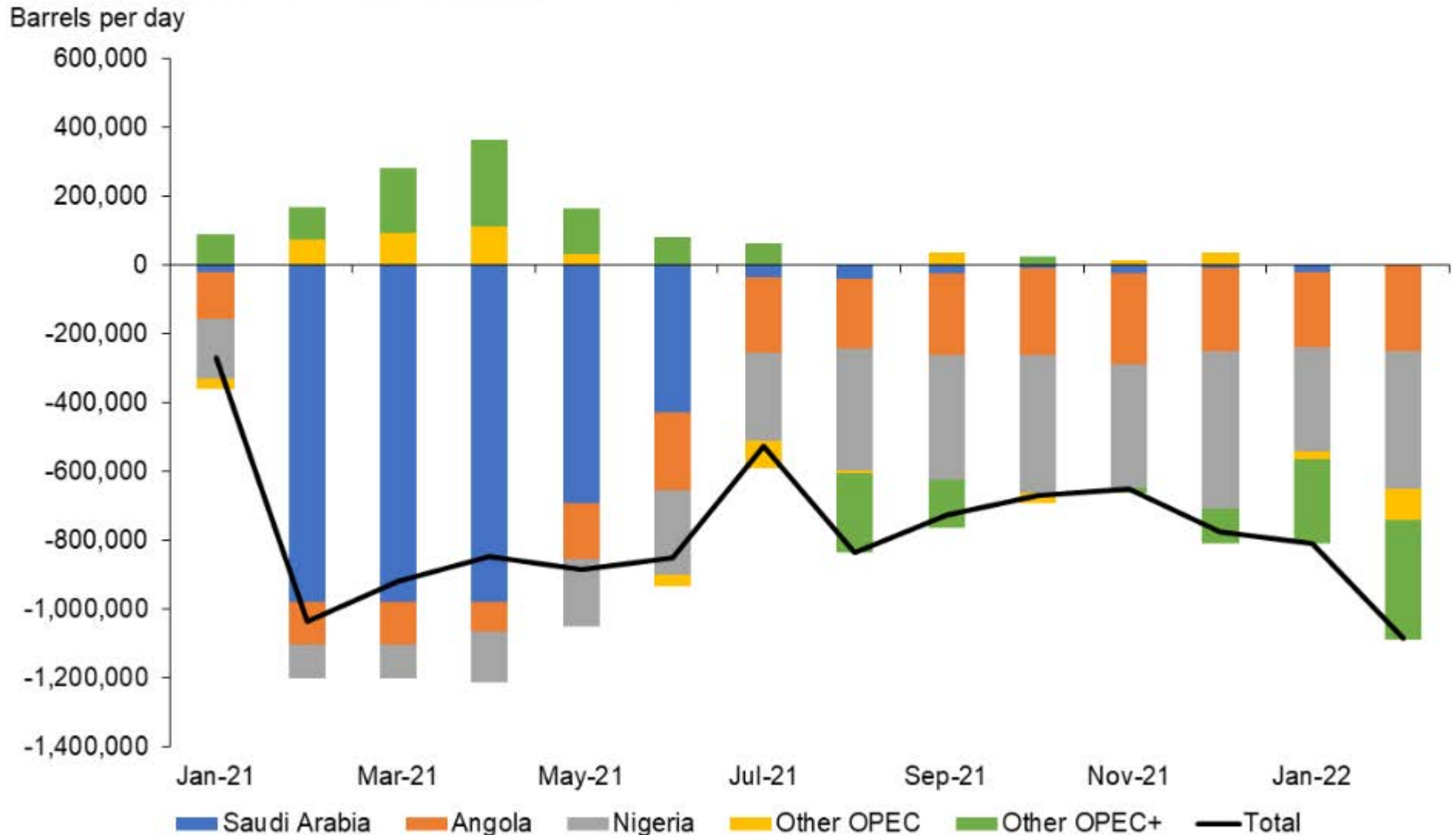
WTI vs USD 30 Day Correlation



Growing Supply Gap Garner Attention

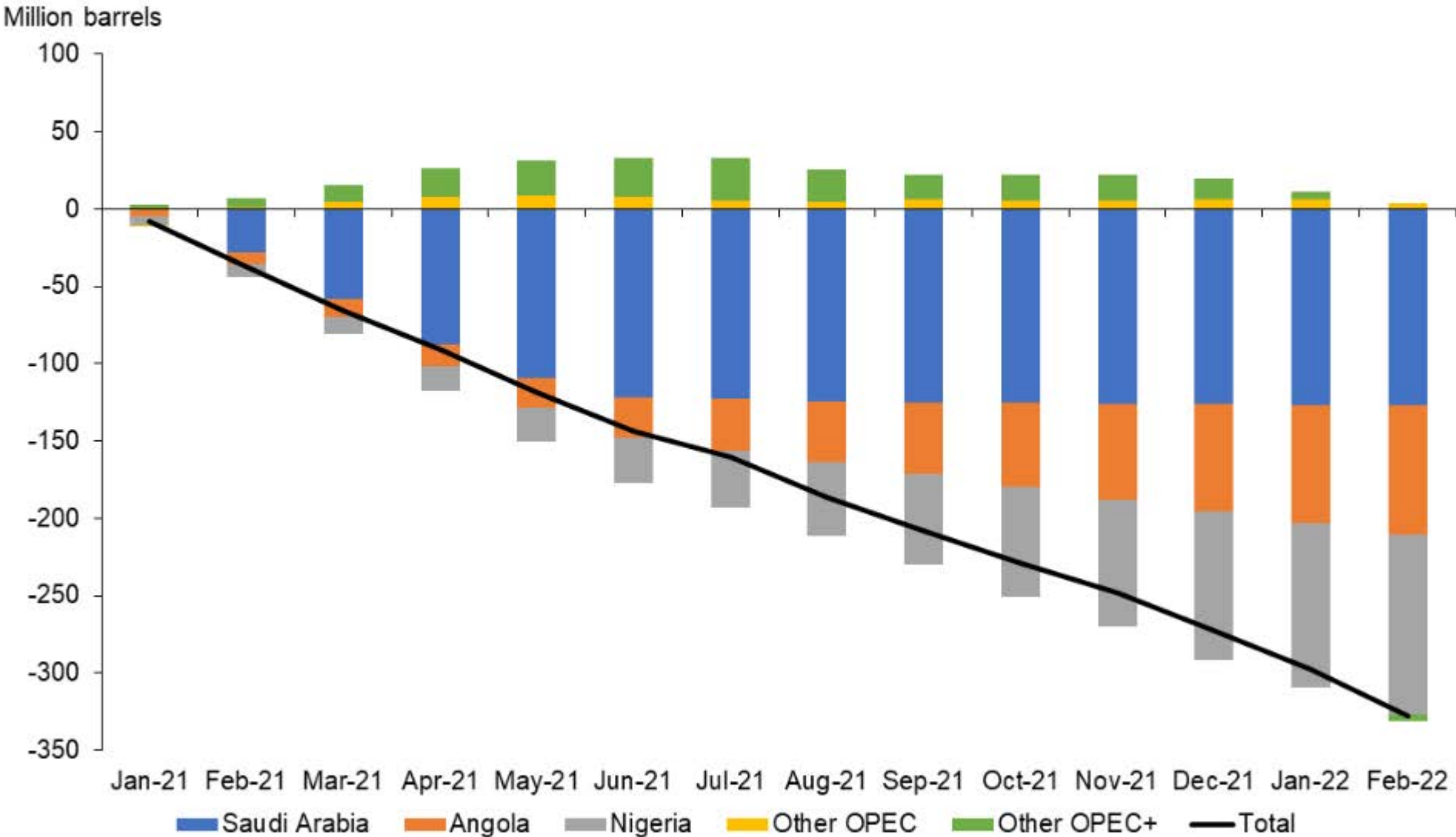
Various commentators have noted a gap between OPEC+ quotas and actual production levels. There are several ways of presenting this gap. Some report a monthly gap between the total quota and total production, considering only those countries participating in the agreement. This gap stood at almost 1.1 million barrels per day (mb/d) in February, the most recent month for which there are official production data (Chart 1).

Chart 1
Nigeria and Angola Drive Recent OPEC+ Shortfall



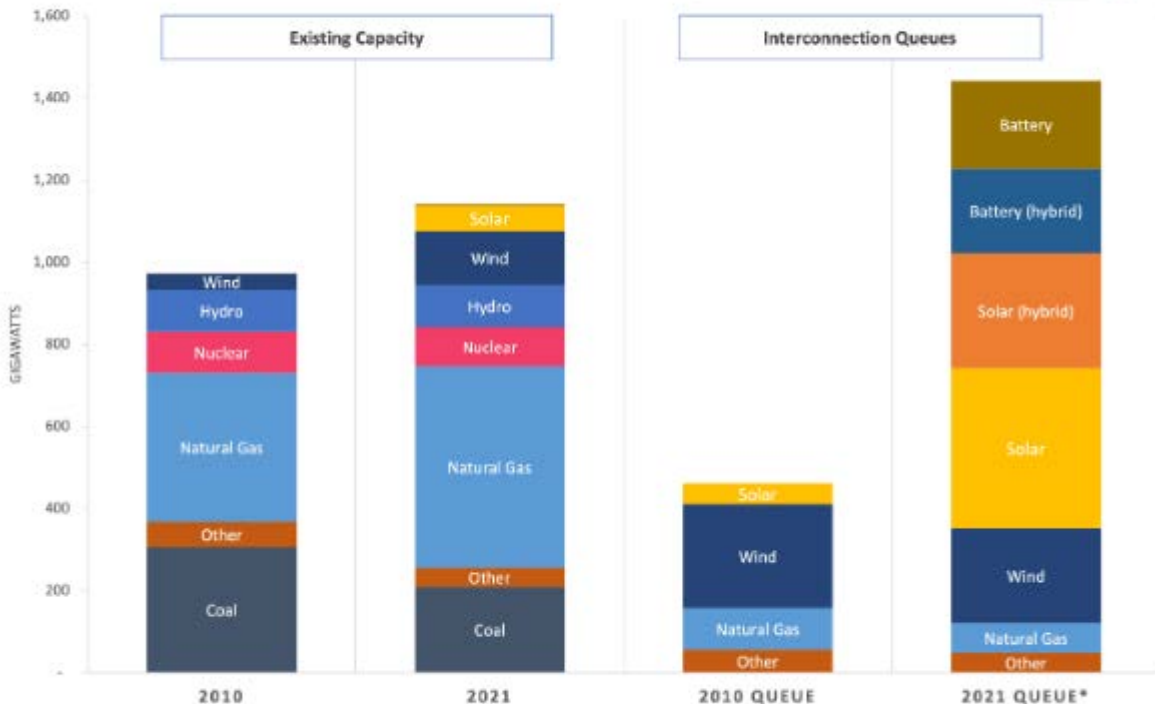
Others report the cumulative losses in supply over some period. By this measure, there was a large and growing production shortfall in the group, with the total reaching more than 300 million barrels by the end of 2021 and increasing into 2022 (Chart 2). A closer look shows that this shortfall is largely attributable to three countries: Angola, Nigeria and Saudi Arabia.

Chart 2
OPEC+ Cumulative Shortfall Has Increased Since 2021



NOTES: Other OPEC countries are Algeria, Congo, Equatorial Guinea, Gabon, Iraq, Kuwait and the United Arab Emirates. Other OPEC+ countries are Azerbaijan, Bahrain, Brunei, Kazakhstan, Malaysia, Oman, Russia, Sudan and South Sudan.
 SOURCES: International Energy Agency; Federal Reserve Bank of Dallas.

EXISTING U.S. GENERATION CAPACITY VS. INTERCONNECTION QUEUES



* Queue data represents about 85% of U.S. electric load; AK and HI and some non-RTO utilities not included.

Existing U.S. capacity (2010 and 2021) compared to interconnection queue capacity (2010 and 2021).