

What the Fed Said

The schedule of important economic releases was unusually light this week, but comments from Fed officials have provided ample fodder for the financial markets. The main talking point seems to be that tightening isn't over, and any policy pivot is a long way away.

Several surprising economic data releases have painted a far different picture than Fed officials had reviewed at the February FOMC meeting. In particular, the January jobs report showing surging payroll growth and unemployment at a new five-decade low, in addition to the January ISM non-manufacturing index, which seemed to indicate a reinvigorated service sector. Continued economic resiliency would make it extremely difficult for the Fed to get a handle on wage inflation.

In response, Atlanta Fed President Raphael Bostic told Bloomberg News on Monday that unexpectedly strong January payroll gains probably means the FOMC will be forced to raise rates more than the December dot plot had indicated. Bostic also said the committee could consider a half point increase at future meetings, after 25 bp hikes in December and February.

The following day, Fed Chairman Powell told an audience at the Washington Economic Club, "The reality is if we continue to get strong labor market reports or higher inflation reports, it might be the case that we have to raise rates more." Powell went on to warn, "it will take some time, and we'll have to do more rate increases and then we'll have to look around and see if we've done enough."

Also on Tuesday, Minneapolis Fed President Neel Kashkari told a CNBC audience that the unexpected January payroll gain showed Fed tightening, so far, has had a limited effect on the economy. Kashkari went on to say the committee "will need to raise rates aggressively" and then "allow policy to work its way through the economy."

New York Fed President John Williams told the Wall Street Journal on Wednesday that a terminal rate between 5.00% and 5.50% is "a very reasonable view." Williams added that the uncertain outlook means inflation could be even more persistent, and indicated the committee will need to attain a "sufficiently restrictive stance of policy and maintain it for a few years."

That same day, Fed Governor Chris Waller told an Arkansas State audience that the January jobs growth indicates "labor income will be robust and buoy consumer spending, which could put upward pressure on inflation in the months ahead." Waller indicated that wage growth was still too high, and that the Fed would have to maintain tight monetary policy "for some time."

Clearly, the January labor report had grabbed the attention of policy-makers ... although it's still unclear whether the numbers were legitimate. Analysts have questioned the impact of seasonal adjustments that inherently expect employers

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to lay-off seasonal workers in January. The reality seems to be that many employers have decided to retain holiday workers given persistent hiring challenges.

Next week's economic releases are major, with January CPI on tap for Tuesday and retail sales on Wednesday. Both are expected to rebound significantly from December weakness, which would only add to the Fed's too-hot-for-comfort narrative. CPI could get an unfortunate boost from used car prices, which seem to have bounced last month, while gasoline prices are creeping higher.

The bond market has taken note of economic strength and Fed caution, with yields moving higher this week all along the curve. The futures market is now signaling 25 bp rate hikes at both the March and May FOMC meetings.

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Market Indications as of 9:38 A.M. Central Time

DOW Up 56 to 33,756 (HIGH: 36,800)

NASDAQ Down -44 to 11,745 (HIGH: 16,057)

S&P 500 Up 7 to 4,089 (HIGH: 4,797)

1-YrT-bill current yield 4.88%; opening yield 4.84%

2-Yr T-note current yield 4.50%; opening yield 4.49% 3-Yr T-note current yield 4.18%; opening yield 4.16% 5-Yr T-note current yield 3.90%; opening yield 3.86% 10-Yr T-note current yield 3.71%; opening yield 3.67% 30-Yr T-bond current yield 3.79%; opening yield 3.75%

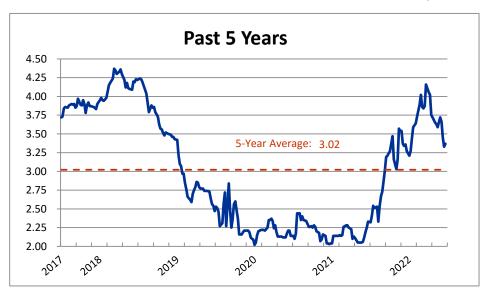
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TEXAS BOND MARKET UPDATE - FEBRUARY 2023

BOND BUYER'S INDEX

(as detailed on reverse side)





REPRESENTATION OF RECENT TEXAS BOND SALES

(as reported to the Municipal Advisory Council of Texas)

	Issue	Sale	Bank	S&P	Credit	Call	Yield to Maturity for Bonds Maturing in:				
Issuer	Size (000's)	Date	Qualified?	Rating	Enhanced?	Date	2027	2032	2037	2042	2047
City of Sugar Land	\$ 6,235	1/17/2023	No	AAA	No	2/15/2032	2.350%	2.510%	3.668%	3.934%	n/a
City of Aubrey	\$ 8,170	1/26/2023	No	AA	Yes	2/15/2032	3.000%	3.100%	3.789%	4.140%	4.260%
City of Kyle	\$ 41,575	1/17/2023	No	AA	Yes	8/15/2032	2.350%	2.510%	3.651%	4.068%	n/a
Rockwall County	\$ 11,610	1/10/2023	No	AA+	No	2/1/2031	2.610%	3.019%	3.972%	4.060%	n/a
Trenton ISD	\$ 39,145	1/24/2023	No	AA	Yes	2/1/2033	2.400%	2.530%	3.686%	4.099%	4.170%
Spring ISD	\$ 293,460	1/26/2023	No	AA-	No	8/15/2033	2.230%	2.370%	3.519%	3.937%	4.241%
Dallas ISD	\$ 551,460	1/18/2023	No	AAA	PSF	2/15/2032	2.160%	2.240%	3.481%	3.946%	4.209%

*Moody's

compliments of

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Investment Banking Solutions

Bond Buyer's Index of 20 Municipal Bonds

MONTH	WEEK	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
January	1	5.24	4.25	5.08	3.83	3.68	4.75	3.42	3.45	3.78	3.44	4.09	2.73	2.17	2.12	3.66
- Cumuun y	2	5.02	4.31	5.39	3.62	3.60	4.68	3.29	3.45	3.72	3.54	4.20	2.63	2.21	2.19	3.45
	3	4.80	4.31	5.41	3.60	3.53	4.55	3.36	3.37	3.83	3.52	4.19	2.56	2.21	2.25	3.33
	4	5.13	4.30	5.25	3.68	3.54	4.50	3.36	3.38	3.87	3.59	4.23	2.54	2.14	2.33	3.37
	5	5.16	4.39			3.67	4.48					4.22	2.47			
February	1	4.96	4.36	5.25	3.60	3.68	4.46	3.49	3.30	3.87	3.72	4.23	2.53	2.14	2.32	
-	2	4.89	4.34	5.29	3.70	3.72	4.46	3.60	3.27	3.88	3.73	4.24	2.51	2.10	2.41	
	3	4.89	4.38	5.10	3.65	3.74	4.44	3.62	3.27	3.94	3.84	4.23	2.46	2.17	2.54	
	4	4.87	4.36	4.95	3.69	3.74	4.38	3.62	3.34	3.92	3.86	4.19	2.27	2.44	2.51	
March	1	4.96	4.34	4.90	3.72	3.86	4.41	3.68	3.34	3.95	3.85	4.09	2.31	2.44	2.53	
	2	5.03	4.33	4.91	3.84	4.00	4.47	3.62	3.42	4.02	3.88	4.04	2.57	2.35	2.33	
	3	4.98	4.32	4.86	3.95	3.99	4.51	3.62	3.40	4.02	3.89	3.92	2.72	2.40	2.53	
	4	5.00	4.44	4.91	4.01	3.99	4.43	3.52	3.38	3.91	3.90	3.79	2.27	2.35	2.67	
	5				4.02				3.38	3.86	3.89				2.73	
April	1	4.92	4.44	5.00	4.08	3.96	4.44	3.49	3.28	3.83	3.90	3.88	2.84	2.34	2.87	
	2	4.92	4.45	5.04	3.97	3.93	4.32	3.49	3.30	3.77	3.85	3.85	2.49	2.30	3.01	
	3	4.78	4.43	5.06	3.90	3.89	4.32	3.45	3.28	3.71	3.87	3.86	2.25	2.26	3.19	
	4	4.57	4.37	4.98	3.86	3.90	4.33	3.52	3.32	3.82	3.97	3.79	2.36	2.26	3.21	
	5			4.86	0.04		4.00	3.62	0.00			0.70	2.56	2.27	0.07	
May	1 2	4.70 4.62	4.37	4.69 4.61	3.81 3.71	3.77 3.67	4.33	3.74 3.74	3.32 3.32	3.82 3.81	3.89 3.88	3.73 3.63	2.60 2.48	2.25	3.27	
		4.62	4.29		3.71		4.31 4.26	3.74		3.73	3.95	3.57	2.48	2.28	3.37	
	3 4	4.54	4.32 4.27	4.55 4.53	3.75	3.61 3.70	4.28	3.73	3.26 3.26	3.73	3.90	3.57	2.37	2.26 2.20	3.47 3.16	
	5	4.44	4.27	4.55	3.77	3.84	4.29	3.73	3.20	3.09	3.78	3.51	2.10	2.20	3.10	
June	1	4.71	4.28	4.51	3.92	3.93	4.23	3.81	3.26	3.61	3.88	3.48	2.16	2.18	3.03	
ounc	2	4.86	4.37	4.49	3.95	4.16	4.37	3.87	3.03	3.53	3.92	3.52	2.19	2.07	3.16	
	3	4.86	4.40	4.49	3.95	4.37	4.36	3.79	2.99	3.53	3.87	3.51	2.21	2.09	3.57	
	4	4.79	4.40	4.46	3.95	4.63	4.29	3.80	2.90	3.53	3.87	3.50	2.21	2.16	3.54	
	5								2.85	3.58					3.54	
July	1	4.81	4.38	4.59	3.94	4.39	4.31	3.85	2.80	3.60	3.86	3.49	2.21	2.14	3.37	
	2	4.71	4.36	4.65	3.83	4.55	4.38	3.76	2.80	3.61	3.85	3.46	2.19	2.04	3.34	
	3	4.68	4.37	4.51	3.75	4.52	4.36	3.82	2.87	3.51	3.83	3.46	2.12	2.04	3.36	
	4	4.69	4.26	4.46	3.61	4.77	4.29	3.75	2.85	3.52	3.90	3.43	2.10	2.03	3.27	
	5	4.69	4.21	4.47			4.33	3.75					2.09	2.04		
August	1	4.65	4.16	4.19	3.66	4.70	4.31	3.75	2.85	3.50	3.95	3.42	2.02	2.04	3.21	
	2	4.65	4.06	3.97	3.75	4.73	4.24	3.69	2.85	3.52	3.98	3.22	2.05	2.14	3.27	
	3	4.58	4.03	3.83	3.80	4.80	4.21	3.73	2.84	3.57	3.95	3.10	2.15	2.14	3.44	
	4	4.53	3.88	4.09	3.76	4.91	4.17	3.79	2.84	3.53	3.94	3.07	2.20	2.14	3.59	
	5				3.72	4.96				3.51	3.96	2.97				
September	1	4.37	3.86	4.14	3.73	5.03	4.09	3.82	2.84	3.49	3.98	2.97	2.22	2.14	3.64	
	2	4.33	3.92	4.05	3.79	4.93	4.14	3.82	2.83	3.56	4.06	2.85	2.22	2.15	3.73	
	3	4.20 4.04	3.89 3.83	4.07 3.85	3.72	4.66 4.53	4.17 4.11	3.78 3.71	2.96 2.98	3.60 3.64	4.15 4.18	2.76 2.66	2.22 2.21	2.14 2.15	3.81 3.89	
	4 5	4.04	3.03	3.93	3.67	4.55	4.11	3.71	3.06	3.04	4.10	2.00	2.21	2.13	4.02	
October	1	3.94	3.84	4.14	3.61	4.53	4.11	3.67	3.20	3.63	4.24	2.62	2.25	2.27	3.86	
COLODO	2	4.06	3.84	4.17	3.64	4.57	4.01	3.68	3.28	3.61	4.37	2.59	2.35	2.28	3.84	
	3	4.32	3.82	4.08	3.68	4.68	3.87	3.68	3.28	3.53	4.35	2.70	2.35	2.28	3.87	
	4	4.31	3.84	4.12	3.68	4.56	3.90	3.67	3.32	3.65	4.30	2.75	2.37	2.25	4.16	
	5	4.39	3.96			4.48	3.90	3.66				2.79	2.34			
November	1	4.41	4.02	4.02	3.67	4.56	3.98	3.69	3.27	3.67	4.33	2.86	2.24	2.23	4.06	
	2	4.40	4.24	4.02	3.55	4.64	3.98	3.74	3.52	3.49	4.36	2.85	2.28	2.10	4.02	
	3	4.35	4.72	4.09	3.41	4.60	3.93	3.65	3.75	3.52	4.30	2.79	2.19	2.13	3.75	
	4	4.33	4.60	4.07	3.37	4.61	3.94	3.65	3.80	3.51	4.26	2.77	2.13	2.11	3.72	
	5				3.29					3.59	4.22					
December	1	4.24	4.65	4.12	3.27	4.70	3.83	3.57	4.03	3.29	4.12	2.77	2.13	2.05	3.65	
	2	4.19	4.86	3.93	3.44	4.74	3.65	3.57	3.78	3.41	4.18	2.74	2.13	2.05	3.63	
	3	4.18	5.15	3.92	3.64	4.73	3.65	3.57	3.88	3.56	4.11	2.74	2.12	2.05	3.59	
	4	4.21	5.00	3.92	3.58	4.73	3.65	3.57	3.83	3.44	4.10	2.74	2.12	2.05	3.66	
	5		4.95	3.88			3.56		3.78				2.12	2.06	3.72	

The Bond Buyer's 20-Bond Index is determined by a poll taken of several investment banks each week of the 20 year yield of outstanding general obligation bonds from a select group of municipalities across the nation with an average credit rating of "AA".



HTS Commodities Energy Updates: January 20, 2023

Active Commodity Contracts

Source: Bloomberg

					101 Net	
	1/20/23	1/13/23	Net Chg	1/20/22	Chg	YoY %Chg
RBOB Gasoline NYMEX (\$/gal)	2.645	2.533	0.113	2.462	0.183	+7.44%
ULSD NYMEX (HO) (\$/gal)	3.467	3.256	0.211	2.672	0.795	+29.76%
Natural Gas NYMEX (\$/mmbtu)	3.174	3.419	-0.245	3.802	-0.628	-16.52%
Crude Oil NYMEX (\$/barrel)	81.310	79.860	1.450	86.900	-5.590	-6.43%

Fixed Price Projection¹

Source: Bloomberg

	2Q23	2Q23	3Q23	4Q23	1Q24
RBOB Gasoline NYMEX (\$/gal)	2.729	2.525	2.309	2.309	2.428
ULSD NYMEX (HO) (\$/gal)	3.006	2.910	2.871	2.871	2.740
Natural Gas NYMEX (\$/mmbtu)	3.126	3.425	3.925	3.925	3.596
Crude Oil NYMEX (\$/barrel)	81.830	80.550	78.830	78.830	75.650

Commentary

This week, NYMEX US energy prices were split. WTI crude and crude products were trading higher while natural gas continued to struggle. Prompt ULSD futures were up \$.2089/gal, +6% WoW, while the prompt NYMEX reformulated gasoline futures contract was trading up \$.1140/gal, +4% WoW. The prompt NYMEX natural gas contract was down 7% WoW at \$3.17/mmBtu.

With the prompt NYMEX natural gas futures contract closing lower for the fifth consecutive week and at the lowest price level since 2021, the bull argument seems present in name only. Despite domestic natural gas stocks being slightly below 2022 levels, benign weather in the US and Europe, and growing domestic production are providing the fundamental and psychological bearish catalysts that are driving the futures market lower. While it is convenient to look at the US weather and forecast runs to help explain the short-term volatility and price fluctuations in the Q1'23 futures contracts, the demand related implications have been real. We believe that the -27% YoY YTD average daily gas demand for residential and commercial use is a material bearish component of the demand equation and has been in part driven by temperatures.

The -10% YoY YTD compression in industrial demand is also bearish but not a surprise as manufacturing activity in the US has been gradually slowing. Despite lower prices possibly stimulating domestic industrial gas demand, the fragile domestic and global macroeconomic outlook in 2023 are a source of concern. Until there is a structural catalyst, we expect domestic industrial gas demand to remain soft during 2023. The bright spot for gas demand is at the power producer level. During December and YTD, the gas burn rate has been at the top of the 5-year range. With gas prices falling and domestic production running above the 100 Bcf/d, we expect to see gas not coal being the input of choice for power generators. With coal producers widely expected to reduce supplies in 2023, this can create increasing reliance on gas and can expose futures prices to structural supply vulnerabilities and amplify volatility.

The EIA is forecasting domestic natural gas production to increase by about 2% YoY in 2023 and average between 100 Bcf/d and 101 Bcf/d for the year. In light of the increased renewable electric-generating capacity scheduled to come online, the agency believes that electricity consumption can soften as the weather transitions from La Nina to El Nino. Aside from the Freeport LNG terminal in Texas returning to active status after in a fire in June of 2022, no new US LNG export facilities are scheduled for operation in 2023. Without new facilities, US LNG exports will not increase.

Along with increasing supplies, no new LNG export terminals, the probability of a cooler summer, and soft industrial demand are all variables that are being priced into the futures market and can limit price appreciation.

(1) Indications only, valuation as of 1/20/2023; includes \$0.00 in customary and transaction expenses; assumes equal monthly volumes.

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RBOB Gasoline NYMEX

	1/20/23	1/13/23	Net Chg	%Change
FEB 23	2.65	2.53	0.11	+4.45%
MAR 23	2.65	2.54	0.11	+4.36%
APR 23	2.80	2.70	0.10	+3.86%
MAY 23	2.78	2.68	0.10	+3.59%
JUN 23	2.74	2.65	0.09	+3.35%
JUL 23	2.69	2.61	0.08	+3.11%
AUG 23	2.63	2.56	0.07	+2.77%
SEP 23	2.57	2.51	0.06	+2.41%
OCT 23	2.39	2.35	0.04	+1.80%
NOV 23	2.34	2.30	0.04	+1.75%
DEC 23	2.31	2.27	0.04	+1.69%

ULSD NYMEX (formerly Heating Oil)

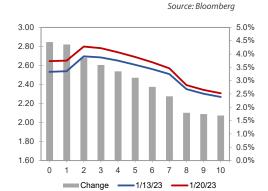
	1/20/23	1/13/23	Net Chg	%Change
FEB 23	3.47	3.26	0.21	+6.48%
MAR 23	3.36	3.16	0.19	+6.11%
APR 23	3.20	3.03	0.17	+5.52%
MAY 23	3.08	2.94	0.14	+4.80%
JUN 23	3.00	2.88	0.12	+4.20%
JUL 23	2.96	2.85	0.11	+3.71%
AUG 23	2.93	2.84	0.09	+3.34%
SEP 23	2.92	2.83	0.09	+3.16%
OCT 23	2.90	2.82	0.09	+3.11%
NOV 23	2.89	2.80	0.09	+3.12%
DEC 23	2.88	2.79	0.09	+3.13%

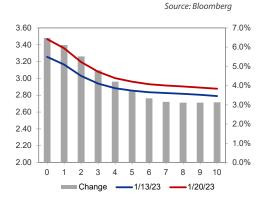
Natural Gas NYMEX

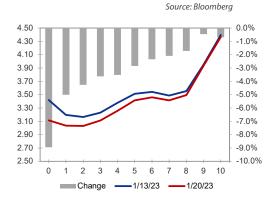
	1/20/23	1/13/23	Net Chg	%Change
FEB 23	3.11	3.42	-0.31	-8.95%
MAR 23	3.04	3.20	-0.16	-5.01%
APR 23	3.03	3.17	-0.14	-4.27%
MAY 23	3.11	3.23	-0.12	-3.62%
JUN 23	3.26	3.38	-0.12	-3.52%
JUL 23	3.41	3.51	-0.10	-2.85%
AUG 23	3.46	3.54	-0.08	-2.34%
SEP 23	3.41	3.49	-0.07	-2.09%
OCT 23	3.49	3.55	-0.06	-1.72%
NOV 23	3.93	3.95	-0.02	-0.46%
DEC 23	4.37	4.40	-0.03	-0.71%

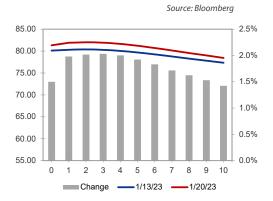
Crude Oil NYMEX

	1/20/23	1/13/23	Net Chg	%Change
MAR 23	81.31	80.11	1.20	+1.50%
APR 23	81.89	80.30	1.59	+1.98%
MAY 23	82.00	80.38	1.62	+2.02%
JUN 23	81.92	80.29	1.63	+2.03%
JUL 23	81.64	80.04	1.60	+2.00%
AUG 23	81.21	79.68	1.53	+1.92%
SEP 23	80.69	79.24	1.45	+1.83%
OCT 23	80.12	78.77	1.35	+1.71%
NOV 23	79.56	78.29	1.27	+1.62%
DEC 23	79.00	77.81	1.19	+1.53%
JAN 24	78.41	77.31	1.10	+1.42%









⁽¹⁾ Indications only, valuation as of 1/20/2023; includes \$0.00 in customary and transaction expenses; assumes equal monthly volumes.



Disclosures

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Weekly Rate Summary: January 20, 2023

Weekly Summary and Highlights

- (1) Reminder: USD LIBOR will be discontinued after June 30 of THIS YEAR. Our desk can help you understand ISDA Fallbacks Protocol
- (2) Guaranteed Investment Contracts (GICs) continue to offer attractive rates for project funds and reserve funds.
- (3) Market anticipates lower Fed Fund rate by December 2023. Good opportunity to lock in yields over the longer term.

Source: Bloomberg

1/20/22

0.063%

0.171%

0.084%

0.215%

0.109%

0.259%

Source: Bloomberg

YoY Chg

(bps)

446

449

437

450

440

456

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Short-Term Inte	rest	Rates		Source: Bloombe	erg	In
1/2/	0/23	1/13/23	WoW Chg	1/20/22	YoY Chg	
1/20	U/23	1/13/23	(bps)	1/20/22	(bps)	

WoW Chg

(bps)

3.8

2.7

5.5

-0.1

5.9

2.3

			WOW CIIG		101 Clig
	1/20/23	1/13/23	(bps)	1/20/22	(bps)
SIFMA	1.860%	2.500%	-64.0	0.040%	182
SOFR	4.310%	4.300%	1.0	0.040%	427
BSBY (O/N)	4.359%	4.374%	-1.5	0.080%	428
Ameribor (O/N)	4.617%	4.606%	1.0	0.148%	447
Fed Funds Effec.	4.330%	4.330%	0.0	0.080%	425
Prime	7.500%	7.500%	0.0	3.250%	425

1/13/23

4.483%

4.632%

4.395%

4.715%

4.454%

4.792%

nterest Rate Forecast Survey

Source: Bloombera

	Current	Q123	Q223	Q323	Q423
Target Fed Funds	4.500%	5.00%	5.05%	4.95%	4.70%
3MO Term SOFR	4.653%	4.92%	4.94%	4.76%	4.41%
2YR T-Note	4.126%	4.51%	4.41%	4.14%	3.81%
10YR T-Note	3.392%	3.85%	3.80%	3.68%	3.51%
30YR T-Note	3.561%	3.88%	3.89%	3.82%	3.73%

SOFR Forward Swap Rates

Source: Bloomberg

Source: Bloomberg

Tenor	Current	3Mo Fwd	6Mo Fwd	1Yr Fwd	2Yr Fwd
5YR	3.330%	3.234%	3.121%	2.913%	2.790%
7YR	3.208%	3.141%	3.062%	2.917%	2.846%
10YR	3.164%	3.121%	3.069%	2.975%	2.937%
20YR	3.159%	3.128%	3.091%	3.023%	2.974%
30YR	2.969%	2.941%	2.908%	2.846%	2.789%

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U.S. Treasury Yields

1MO Term SOFR

3MO Term SOFR

1MO BSBY

3MO BSBY

1MO LIBOR

3MO LIBOR

Variable Rate Term Structure

1/20/23

4.520%

4.659%

4.450%

4.714%

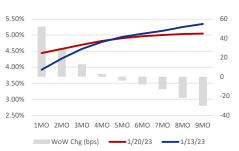
4.513%

4.816%

			WoW Chg	5.00%
	1/20/23	1/13/23	(bps)	4.50%
1MO	4.418%	4.337%	8.1	
3MO	4.615%	4.573%	4.2	4.00%
6MO	4.802%	4.772%	3.0	3.50%
1YR	4.656%	4.662%	-0.6	3.00%
2YR	4.170%	4.232%	-6.2	2.50%
3YR	3.827%	3.900%	-7.3	2.00%
5YR	3.560%	3.611%	-5.1	1.50%
7YR	3.514%	3.555%	-4.1	1MO 3MO 6MO 1YR 2YR 3YR 5YR 7YR 10YR
10YR	3.479%	3.504%	-2.5	WoW Chg (bps) ——1/20/23 ——1/13/23

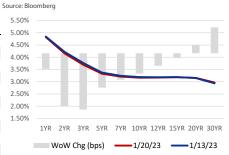
CP (A1/P1) Indicative Rates Source: Bloomberg

			WoW Chg
	1/20/23	1/13/23	(bps)
1MO	4.44%	3.92%	52
2MO	4.57%	4.27%	30
3MO	4.70%	4.57%	13
4MO	4.82%	4.79%	3
5MO	4.90%	4.94%	-4
6MO	4.96%	5.04%	-8
7MO	5.00%	5.13%	-13
OM8	5.03%	5.25%	-22
9MO	5.05%	5.35%	-30



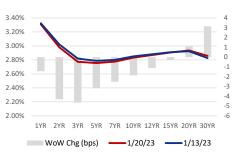
SOFR Swap Rates

0%	5.50%	WoW Chg			
0%	5.00%	(bps)	1/13/23	1/20/23	
	4.50%	-2.0	4.848%	4.828%	1YR
	4.00%	-6.5	4.224%	4.159%	2YR
	3.50%	-6.9	3.762%	3.693%	3YR
	3.00%	-4.2	3.373%	3.330%	5YR
	2.50%	-3.2	3.241%	3.208%	7YR
	2.00%	-2.5	3.188%	3.164%	10YR
	1.50%	-1.5	3.186%	3.171%	12YR
1YR 2YR	1.50%	-0.6	3.192%	3.186%	15YR
		1.0	3.149%	3.159%	20YR
WoW		3.2	2.938%	2.969%	30YR



Tax Exempt Swap Rates

				WoW Chg
	_	1/20/23	1/13/23	(bps)
1YR		3.310%	3.324%	-1.4
2YR		2.980%	3.023%	-4.3
3YR		2.772%	2.819%	-4.6
5YR		2.756%	2.788%	-3.2
7YR		2.776%	2.801%	-2.5
10YR		2.832%	2.851%	-1.9
12YR		2.869%	2.880%	-1.1
15YR		2.906%	2.909%	-0.3
20YR		2.936%	2.925%	1.1
30YR		2.857%	2.825%	3.1



Data as of January 20, 2023 2:23 PM Central Time.



HTS Commodities Energy Updates: January 27, 2023

Active Commodity Contracts

Source: Bloomberg

					YOY NET	
	1/27/23	1/20/23	Net Chg	1/27/22	Chg	YoY %Chg
RBOB Gasoline NYMEX (\$/gal)	2.582	2.645	-0.063	2.521	0.061	+2.42%
ULSD NYMEX (HO) (\$/gal)	3.268	3.467	-0.199	2.795	0.473	+16.94%
Natural Gas NYMEX (\$/mmbtu)	3.109	3.174	-0.065	6.265	-3.156	-50.38%
Crude Oil NYMEX (\$/barrel)	79.400	81.310	-1.910	86.610	-7.210	-8.32%

Fixed Price Projection¹

Source: Bloomberg

	2Q23	2Q23	3Q23	4Q23	1Q24
RBOB Gasoline NYMEX (\$/gal)	2.688	2.481	2.262	2.262	2.411
ULSD NYMEX (HO) (\$/gal)	2.914	2.842	2.792	2.792	2.665
Natural Gas NYMEX (\$/mmbtu)	2.999	3.307	3.768	3.768	3.482
Crude Oil NYMEX (\$/barrel)	79.640	78.330	76.650	76.650	73.720

Commentary

NYMEX Henry Hub prompt contract closed at a 52-week low on Thursday at \$2.944/MMBtu. The futures market reaction was based upon strong production, and warmer than expected weather. The last time the front month contract traded below \$3/MMBtu was in May of 2021. Federal regulators approved Freeport LNG terminal to begin cooling its liquified natural gas transfer system. The process could take several weeks before full capacity is resumed. No timeline has been provided on the complete restart. The facility has been idle since June 2022. When fully operational, Freeport provided 15% of total US LNG exports.

The Western United States experienced dramatic natural gas price increases in December. During the month, some spot prices in California traded above \$50/MMBtu. While these prices have decreased substantially, it is important to recognize that these events can occur, and it could be beneficial to hedge potential disruptions in the future. Some factors that led to this were below-normal temperatures, higher consumption, and physical constraints. We will continue to monitor these markets.

In the gasoline and distillate space, we will be paying attention to crack spreads as this spread has traded sharply higher since the earlier December 2022 low. These jumps in crack spreads often correspond to increases in consumer prices of gasoline and diesel.

Week over week, the NYMEX RBOB and Heating Oil futures curves both traded lower across the entire curve.

(1) Indications only, valuation as of 1/27/2023; includes \$0.00 in customary and transaction expenses; assumes equal monthly volumes.

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RBOB Gasoline NYMEX

	1/27/23	1/20/23	Net Chg	%Change
FEB 23	2.58	2.65	-0.06	-2.39%
MAR 23	2.59	2.65	-0.06	-2.39%
APR 23	2.75	2.80	-0.05	-1.66%
MAY 23	2.73	2.78	-0.05	-1.70%
JUN 23	2.69	2.74	-0.05	-1.80%
JUL 23	2.64	2.69	-0.05	-1.86%
AUG 23	2.58	2.63	-0.05	-1.96%
SEP 23	2.52	2.57	-0.05	-2.07%
OCT 23	2.35	2.39	-0.05	-1.96%
NOV 23	2.30	2.34	-0.05	-2.03%
DEC 23	2.26	2.31	-0.05	-2.30%

ULSD NYMEX (formerly Heating Oil)

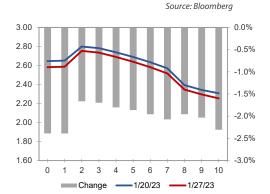
	1/27/23	1/20/23	Net Chg	%Change
FEB 23	3.27	3.47	-0.20	-5.74%
MAR 23	3.18	3.36	-0.17	-5.17%
APR 23	3.06	3.20	-0.13	-4.12%
MAY 23	2.96	3.08	-0.12	-3.81%
JUN 23	2.90	3.00	-0.10	-3.45%
JUL 23	2.88	2.96	-0.08	-2.72%
AUG 23	2.86	2.93	-0.07	-2.41%
SEP 23	2.85	2.92	-0.07	-2.35%
OCT 23	2.83	2.90	-0.07	-2.56%
NOV 23	2.81	2.89	-0.08	-2.78%
DEC 23	2.79	2.88	-0.09	-2.99%

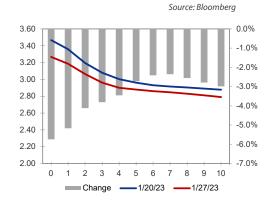
Natural Gas NYMEX

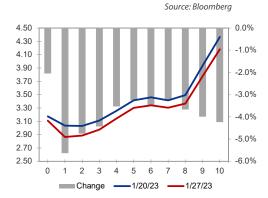
	1/27/23	1/20/23	Net Chg	%Change
FEB 23	3.11	3.17	-0.06	-2.05%
MAR 23	2.87	3.04	-0.17	-5.63%
APR 23	2.89	3.03	-0.14	-4.75%
MAY 23	2.97	3.11	-0.14	-4.43%
JUN 23	3.14	3.26	-0.12	-3.53%
JUL 23	3.30	3.41	-0.11	-3.25%
AUG 23	3.34	3.46	-0.12	-3.47%
SEP 23	3.30	3.41	-0.11	-3.22%
OCT 23	3.37	3.49	-0.13	-3.66%
NOV 23	3.78	3.93	-0.16	-3.99%
DEC 23	4.18	4.37	-0.19	-4.24%

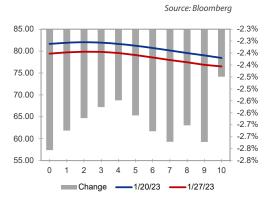
Crude Oil NYMEX

	1/27/23	1/20/23	Net Chg	%Change
MAR 23	79.39	81.64	-2.25	-2.76%
APR 23	79.70	81.89	-2.19	-2.67%
MAY 23	79.85	82.00	-2.15	-2.62%
JUN 23	79.81	81.92	-2.11	-2.58%
JUL 23	79.56	81.64	-2.08	-2.55%
AUG 23	79.09	81.21	-2.12	-2.61%
SEP 23	78.53	80.69	-2.16	-2.68%
OCT 23	77.94	80.12	-2.18	-2.72%
NOV 23	77.45	79.56	-2.11	-2.65%
DEC 23	76.85	79.00	-2.15	-2.72%
JAN 24	76.49	78.41	-1.92	-2.45%









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Weekly Rate Summary: January 27, 2023

Weekly Summary and Highlights

- (1) Reminder: USD LIBOR will be discontinued after June 30 of THIS YEAR. Our desk can help you understand ISDA Fallbacks Protocol.
- (2) Guaranteed Investment Contracts (GICs) continue to offer attractive rates for project funds, Cap-I funds and reserve funds.
- (3) Next FOMC rate decision is on Wed, Feb 1. Market anticipates 25 basis point increase, but economic data remains in focus.

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Short-Term	Source: Bloomberg				
			WoW Chg		YoY Chg
	1/27/23	1/20/23	(bps)	1/27/22	(bps)
SIFMA	1.660%	1.860%	-20.0	0.060%	160
SOFR	4.300%	4.300%	0.0	0.040%	426
BSBY (O/N)	4.358%	4.359%	0.0	0.080%	428
Ameribor (O/N)	4.630%	4.617%	1.3	0.147%	448
Fed Funds Effec.	4.330%	4.330%	0.0	0.080%	425
Prime	7.500%	7.500%	0.0	3.250%	425

Interest Rate Forecast Survey Source: Bloombera

	Current	Q123	Q223	Q323	Q423
Target Fed Funds	4.500%	5.00%	5.05%	4.95%	4.75%
3MO Term SOFR	4.670%	4.89%	4.98%	4.82%	4.54%
2YR T-Note	4.183%	4.33%	4.23%	3.99%	3.72%
10YR T-Note	3.495%	3.67%	3.63%	3.52%	3.39%
30YR T-Note	3.640%	3.88%	3.89%	3.82%	3.73%

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Variable Rate Term Structure

Variable Rate Term Structure Source: Bloomberg						
			WoW Chg		YoY Chg	
	1/27/23	1/20/23	(bps)	1/27/22	(bps)	
1MO Term SOFR	4.561%	4.520%	4.1	0.056%	451	
3MO Term SOFR	4.676%	4.659%	1.7	0.179%	450	
1MO BSBY	4.502%	4.450%	5.2	0.091%	441	
3MO BSBY	4.722%	4.714%	0.7	0.247%	447	
1MO LIBOR	4.570%	4.513%	5.7	0.105%	446	
3MO LIBOR	4.825%	4.816%	1.0	0.299%	453	

SOFR Forward Swap Rates

Tenor	Current	3Mo Fwd	6Mo Fwd	1Yr Fwd	2Yr Fwd
5YR	3.404%	3.307%	3.196%	2.992%	2.850%
7YR	3.271%	3.203%	3.125%	2.981%	2.895%
10YR	3.214%	3.169%	3.117%	3.022%	2.972%
20YR	3.181%	3.149%	3.112%	3.043%	2.986%
30YR	2.977%	2.948%	2.915%	2.854%	2.790%

U.S. Treasury Yields

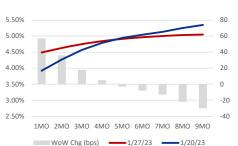


CP (A1/P1) Indicative Rates Source: Bloomberg

			WoV	V Chg
	1/27	7/23 1/2	0/23 (b	ps)
1MO	4.4	9% 3.9	92% 5	57
2MO	4.6	3% 4.2	27% 3	36
3MO	4.7	5% 4.5	57% 1	18
4MO	4.8	4% 4.7	79%	5
5MO	4.9	1% 4.9	94% -	-3
6MO	4.9	6% 5.0)4%	-8
7MO	5.0	0% 5.1	13% -	13
8MO	5.0	3% 5.2	25% -	22
9MO	5.0	5% 5.3	35% -	30

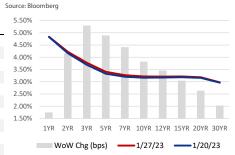
Source: Bloomberg

Source: Bloomberg



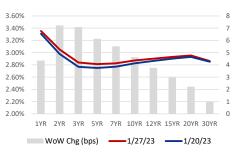
SOFR Swap Rates

			WoW Chg
	1/27/23	1/20/23	(bps)
1YR	4.837%	4.831%	0.6
2YR	4.221%	4.162%	6.0
3YR	3.780%	3.694%	8.5
5YR	3.404%	3.328%	7.6
7YR	3.271%	3.206%	6.5
10YR	3.214%	3.161%	5.2
12YR	3.213%	3.169%	4.4
15YR	3.218%	3.183%	3.5
20YR	3.181%	3.155%	2.5
30YR	2.977%	2.966%	1.2



Tax Exempt Swap Rates

			WoW Chg
	1/27/23	1/20/23	(bps)
1YR	3.354%	3.311%	4.3
2YR	3.050%	2.978%	7.2
3YR	2.838%	2.767%	7.1
5YR	2.812%	2.751%	6.1
7YR	2.826%	2.770%	5.5
10YR	2.873%	2.826%	4.6
12YR	2.902%	2.864%	3.8
15YR	2.931%	2.901%	3.0
20YR	2.953%	2.931%	2.2
30YR	2.861%	2.852%	1.0



Data as of January 27, 2023 3:22 PM Central Time.



HTS Commodities Energy Updates: February 3, 2023

Active Commodity Contracts

Source: Bloomberg

					101 Net	
	2/3/23	1/27/23	Net Chg	2/3/22	Chg	YoY %Chg
RBOB Gasoline NYMEX (\$/gal)	2.321	2.589	-0.268	2.643	-0.322	-12.17%
ULSD NYMEX (HO) (\$/gal)	2.775	3.266	-0.490	2.840	-0.064	-2.26%
Natural Gas NYMEX (\$/mmbtu)	2.410	3.109	-0.699	4.888	-2.478	-50.70%
Crude Oil NYMEX (\$/barrel)	73.390	79.680	-6.290	90.270	-16.880	-18.70%

Fixed Price Projection¹

Source: Bloomberg

	2Q23	2Q23	3Q23	4Q23	1Q24
RBOB Gasoline NYMEX (\$/gal)	2.467	2.304	2.094	2.094	2.267
ULSD NYMEX (HO) (\$/gal)	2.648	2.618	2.602	2.602	2.535
Natural Gas NYMEX (\$/mmbtu)	2.617	3.033	3.524	3.524	3.229
Crude Oil NYMEX (\$/barrel)	73.810	72.990	71.830	71.830	69.820

Commentary

This week, the US energy futures markets were all lower. The prompt NYMEX ULSD futures contract fell by 15%, or \$.48/gal to \$2.7807/gal, and the prompt reformulated gasoline declined by 10%, or \$.2667/gal. The move in gasoline prices was the second week in a row that the contract closed lower. It was the largest one-week percentage decline since the week ending August 20, 2021, and the largest one-week net decline since the week ending April 2, 2022.

The negative price sentiment in the crude product futures market is related to simple supply and demand related variables. Since the beginning of calendar year 2023, domestic gasoline inventories have steadily risen each week. Despite being at the bottom of the 20-year range for the month of January, gasoline stocks have risen by 7.8 million barrels. Despite last week's incremental demand strength, implied domestic gasoline consumption has been steadily weakening during January. The lack of demand resulted in just under 8.9 million barrels of gasoline being consumed, which was the lowest since November 2022.

Despite the negative supply and demand construct for diesel, the G-7 signaled that it's comfortable implementing a \$100 price cap on Russian diesel fuel. The EU is set to impose this moratorium on Russian crude products on Sunday, February 5. Currently, Russian has been selling diesel for \$110-\$120/bbl. While there are questions about how strong diesel demand will be in 2023, we believe that the price cap on Russian diesel will force a reallocation of the diesel supply and demand structure. This realignment will place increased pressures on refiners in the Middle East and the US to supply the EU. Despite the US importing Indian diesel, most likely refined with Russian crude, the EU's price cap can stress global refining production which can increase the probability of supply shocks and price spikes.

Despite the frigid temperatures and wintry weather passing through most of the lower 48 this week, the prompt NYMEX natural gas contract declined by 16% or \$.45/mmBtu. This was the seventh consecutive week that the prompt contract has closed lower and the largest seven-week net decline since the week ending August 22, 2008. The speed of the consistent price decent of the natural gas futures curve continues to be centered around the warm weather in the US and the EU. Over the last two weeks the stock withdrawals have been material and estimates for next week are 146 bcf. However total stocks would be 2.583 tcf, or +7% above the 5-year average.

(1) Indications only, valuation as of 2/3/2023; includes \$0.00 in customary and transaction expenses; assumes equal monthly volumes.

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RBOB Gasoline NYMEX

	2/3/23	1/27/23	Net Chg	%Change
MAR 23	2.32	2.59	-0.27	-10.51%
APR 23	2.51	2.76	-0.25	-8.99%
MAY 23	2.50	2.74	-0.24	-8.74%
JUN 23	2.47	2.69	-0.23	-8.43%
JUL 23	2.43	2.64	-0.21	-8.09%
AUG 23	2.39	2.59	-0.20	-7.65%
SEP 23	2.34	2.52	-0.19	-7.34%
OCT 23	2.17	2.35	-0.18	-7.62%
NOV 23	2.12	2.30	-0.18	-7.74%
DEC 23	2.08	2.26	-0.18	-7.87%
JAN 24	2.07	2.24	-0.18	-7.83%

ULSD NYMEX (formerly Heating Oil)

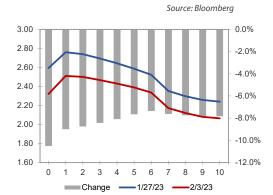
	2/3/23	1/27/23	Net Chg	%Change
MAR 23	2.78	3.19	-0.41	-12.87%
APR 23	2.72	3.06	-0.34	-11.03%
MAY 23	2.67	2.96	-0.29	-9.93%
JUN 23	2.63	2.90	-0.27	-9.43%
JUL 23	2.62	2.88	-0.26	-9.09%
AUG 23	2.61	2.86	-0.25	-8.68%
SEP 23	2.61	2.85	-0.23	-8.25%
OCT 23	2.61	2.83	-0.22	-7.85%
NOV 23	2.60	2.81	-0.21	-7.49%
DEC 23	2.59	2.80	-0.20	-7.21%
JAN 24	2.59	2.78	-0.19	-6.98%

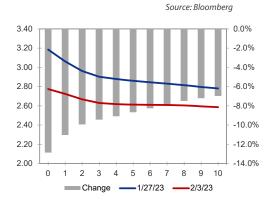
Natural Gas NYMEX

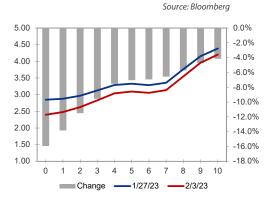
	2/3/23	1/27/23	Net Chg	%Change
MAR 23	2.40	2.85	-0.45	-15.94%
APR 23	2.48	2.88	-0.40	-13.83%
MAY 23	2.63	2.97	-0.34	-11.50%
JUN 23	2.83	3.13	-0.30	-9.56%
JUL 23	3.04	3.29	-0.25	-7.54%
AUG 23	3.09	3.33	-0.24	-7.06%
SEP 23	3.06	3.28	-0.23	-6.94%
OCT 23	3.14	3.36	-0.22	-6.59%
NOV 23	3.55	3.76	-0.22	-5.74%
DEC 23	3.96	4.15	-0.20	-4.74%
JAN 24	4.20	4.38	-0.18	-4.15%

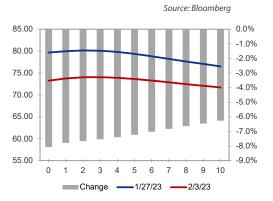
Crude Oil NYMEX

	2/3/23	1/27/23	Net Chg	%Change
MAR 23	73.26	79.68	-6.42	-8.06%
APR 23	73.74	79.96	-6.22	-7.78%
MAY 23	74.00	80.14	-6.14	-7.66%
JUN 23	74.05	80.08	-6.03	-7.53%
JUL 23	73.90	79.80	-5.90	-7.39%
AUG 23	73.62	79.35	-5.73	-7.22%
SEP 23	73.26	78.79	-5.53	-7.02%
OCT 23	72.87	78.20	-5.33	-6.82%
NOV 23	72.48	77.63	-5.15	-6.63%
DEC 23	72.09	77.07	-4.98	-6.46%
JAN 24	71.70	76.49	-4.79	-6.26%









⁽¹⁾ Indications only, valuation as of 2/3/2023; includes \$0.00 in customary and transaction expenses; assumes equal monthly volumes.



Disclosures

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Weekly Rate Summary: February 03, 2023

Weekly Summary and Highlights

- (1) Reminder: USD LIBOR will be discontinued after June 30 of THIS YEAR. Our desk can help you understand ISDA Fallbacks Protocol.
- (2) Guaranteed Investment Contracts (GICs) continue to offer attractive rates for project funds, Cap-I funds and reserve funds.
- (3) Commercial paper (A1/P1 ratings) offers attractive short-term rates if CPs are eligible investment for your organization and fit your investment purpose.

30YR T-Note

SOFR Forward Swap Rates



Short-Term Interest Rates Source: Bloomberg						
			WoW Chg		YoY Chg	
	2/3/23	1/27/23	(bps)	2/3/22	(bps)	
SIFMA	1.870%	1.660%	21.0	0.110%	176	
SOFR	4.560%	4.300%	26.0	0.050%	451	
BSBY (O/N)	4.447%	4.358%	8.9	0.068%	438	
Ameribor (O/N)	4.889%	4.628%	26.1	0.105%	478	
Fed Funds Effec.	4.580%	4.330%	25.0	0.080%	450	
Prime	7.750%	7.500%	25.0	3.250%	450	

Interest Rate Forecast Survey Source: Bloombera Current Q123 Q223 Q323 Q423 4.750% 5.00% 5.05% 4.95% 4.75% Target Fed Funds 3MO Term SOFR 4.697% 4.89% 4.98% 4.82% 4.54% 2YR T-Note 4.104% 4.33% 4.23% 3.99% 3.72% 10YR T-Note 3.393% 3.67% 3.63% 3.52% 3.39%

3.88%

3.89%

3.82%

Source: Bloomberg

3.73%

3.545%

Hilltop Securities Inc. Structured Products (214) 953-4020 717 N. Harwood Street Suite 3400 Dallas, Texas 75201 Brett Weaver Investment & Hedging Advisor brett.weaver@hilltopsecurities.com

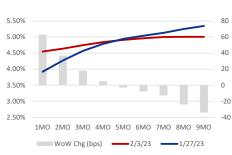
Variable Ra		Source: Bloombe	erg		
			WoW Chg		YoY Chg
	2/3/23	1/27/23	(bps)	2/3/22	(bps)
1MO Term SOFR	4.567%	4.561%	0.6	0.050%	452
3MO Term SOFR	4.692%	4.676%	1.6	0.220%	447
1MO BSBY	4.561%	4.502%	5.9	0.096%	447
3MO BSBY	4.744%	4.722%	2.2	0.300%	444
1MO LIBOR	4.572%	4.570%	0.2	0.111%	446
3MO LIBOR	4.834%	4.825%	0.9	0.315%	452

Tenor	Current	3Mo Fwd	6Mo Fwd	1Yr Fwd	2Yr Fwd
5YR	3.475%	3.377%	3.261%	3.044%	2.884%
7YR	3.328%	3.258%	3.176%	3.021%	2.921%
10YR	3.255%	3.208%	3.153%	3.049%	2.986%
20YR	3.198%	3.165%	3.126%	3.053%	2.989%
30YR	2.990%	2.959%	2.926%	2.861%	2.794%

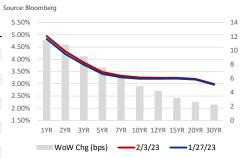
Amber Chien Investment & Hedging Advisor amber.chien@hilltopsecurities.com

U.S	. Treasury	y Yields			Source: Blo	pomberg
		2/3/23	1/27/23	WoW Chg (bps)	5.00%	12
	1MO	4.462%	4.471%	-0.9	4.50%	8
	3MO	4.633%	4.664%	-3.1	4.00%	6
	6MO	4.820%	4.818%	0.2	3.50%	4
	1YR	4.738%	4.644%	9.4	3.00%	2
	2YR	4.311%	4.199%	11.2	2.50%	0
	3YR	3.974%	3.897%	7.7		-2
	5YR	3.671%	3.610%	6.1	2.00%	-4 1MO 3MO 6MO 1YR 2YR 3YR 5YR 7YR 10YR
	7YR	3.605%	3.564%	4.1		1MO 3MO 6MO 1YR 2YR 3YR 5YR 7YR 10YR
	10YR	3.532%	3.503%	2.9		WoW Chg (bps) ——2/3/23 ——1/27/23

CP (A1/P1) Ir	ndicative	Rates	Source: Bloomberg	
	2/3/23	1/27/23	WoW Chg (bps)	
1MO	4.55%	3.92%	63	
2MO	4.64%	4.27%	37	4
3MO	4.75%	4.57%	18	4
4MO	4.84%	4.79%	5	3
5MO	4.91%	4.94%	-3	
6MO	4.96%	5.04%	-8	3
7MO	5.00%	5.13%	-13	4
8MO	5.01%	5.25%	-24	
9MO	5.01%	5.35%	-34	



SOFR Swap	Rates			S
			WoW Chg	
	2/3/23	1/27/23	(bps)	
1YR	4.950%	4.835%	11.5	
2YR	4.328%	4.220%	10.9	
3YR	3.868%	3.777%	9.2	
5YR	3.475%	3.399%	7.6	
7YR	3.328%	3.265%	6.3	
10YR	3.255%	3.206%	4.9	
12YR	3.246%	3.203%	4.2	
15YR	3.241%	3.208%	3.2	
20YR	3.198%	3.172%	2.7	
30YR	2.990%	2.967%	2.3	



Tax Exempt	Source: Bloomberg		
			WoW Chg
	2/3/23	1/27/23	(bps)
1YR	3.458%	3.352%	10.6
2YR	3.142%	3.046%	9.6
3YR	2.919%	2.833%	8.7
5YR	2.875%	2.806%	6.8
7YR	2.867%	2.817%	5.0
10YR	2.901%	2.863%	3.8
12YR	2.924%	2.891%	3.3
15YR	2.945%	2.920%	2.5
20YR	2.962%	2.942%	2.1
30YR	2.868%	2.849%	1.8



Data as of February 03, 2023 2:29 PM Central Time.

Weekly Rate Summary: February 10, 2023

Weekly Summary and Highlights

- (1) Reminder: USD LIBOR will be discontinued after June 30 of THIS YEAR. Our desk can help you understand ISDA Fallbacks Protocol.
- (2) Guaranteed Investment Contracts (GICs) continue to offer attractive rates for project funds, Cap-I funds and reserve funds.

3.250%

Source: Bloomberg

(3) Our team can review your refunding or defeasance escrows for periods of time in which cash is uninvested. UST or SLGS might be available to fill in the gaps.



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Short-Term Interest Rates				Source: Bloombe	erg
			WoW Chg		YoY Chg
	2/10/23	2/3/23	(bps)	2/10/22	(bps)
SIFMA	3.740%	1.870%	187.0	0.170%	357
SOFR	4.550%	4.550%	0.0	0.050%	450
BSBY (O/N)	4.621%	4.447%	17.3	0.077%	454
Ameribor (O/N)	4.871%	4.888%	-1.7	0.106%	476
Fed Funds Effec.	4.570%	4.580%	-1.0	0.080%	449

Interest Rate Forecast Survey Source: Bloomhero

	Current	Q123	Q223	Q323	Q423
Target Fed Funds	4.750%	5.00%	5.10%	5.00%	4.75%
3MO Term SOFR	4.753%	4.89%	4.98%	4.82%	4.54%
2YR T-Note	4.482%	4.36%	4.24%	3.98%	3.69%
10YR T-Note	3.658%	3.67%	3.62%	3.50%	3.37%
30YR T-Note	3.726%	3.88%	3.89%	3.82%	3.73%

Hilltop Securities Inc. **Structured Products**

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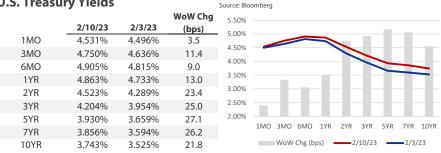
Variable Rate Term Structure

			WoW Chg		YoY Chg
	2/10/23	2/3/23	(bps)	2/10/22	(bps)
1MO Term SOFR	4.562%	4.567%	-0.5	0.057%	450
3MO Term SOFR	4.756%	4.692%	6.4	0.300%	446
1MO BSBY	4.572%	4.561%	1.1	0.091%	448
3MO BSBY	4.764%	4.744%	2.1	0.358%	441
1MO LIBOR	4.578%	4.572%	0.6	0.124%	445
3MO LIBOR	4.869%	4.834%	3.5	0.395%	447

SOFR Forward Swap Rates

Tenor	Current	3Mo Fwd	6Mo Fwd	1Yr Fwd	2Yr Fwd
5YR	3.704%	3.616%	3.503%	3.278%	3.083%
7YR	3.540%	3.478%	3.397%	3.234%	3.105%
10YR	3.446%	3.406%	3.351%	3.240%	3.156%
20YR	3.370%	3.340%	3.302%	3.225%	3.149%
30YR	3.156%	3.128%	3.094%	3.025%	2.947%

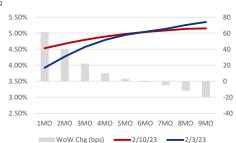
U.S. Treasury Yields



CP (A1/P1) Indicative Rates Source: Bloomberg

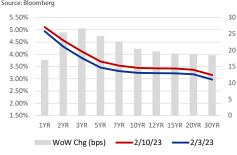
	2/10/23	2/3/23	WoW Chg
			(bps)
1MO	4.53%	3.92%	61
2MO	4.67%	4.27%	40
3MO	4.79%	4.57%	22
4MO	4.89%	4.79%	10
5MO	4.97%	4.94%	3
6MO	5.03%	5.04%	-1
7MO	5.08%	5.13%	-5
8MO	5.13%	5.25%	-12
9MO	5.15%	5.35%	-20

Source: Bloombero



SOFR Swap Rates

			WoW Chg
	2/10/23	2/3/23	(bps)
1YR	5.114%	4.944%	17.0
2YR	4.568%	4.313%	25.5
3YR	4.119%	3.852%	26.7
5YR	3.704%	3.461%	24.4
7YR	3.540%	3.314%	22.6
10YR	3.446%	3.242%	20.4
12YR	3.428%	3.232%	19.6
15YR	3.416%	3.226%	19.0
20YR	3.370%	3.182%	18.8
30YR	3.156%	2.971%	18.5



Tax Exempt Swap Rates

				WoW Chg
	_	2/10/23	2/3/23	(bps)
1YR	_	3.557%	3.458%	9.9
2YR		3.320%	3.137%	18.3
3YR		3.115%	2.912%	20.2
5YR		3.062%	2.868%	19.5
7YR		3.053%	2.862%	19.0
10YR		3.095%	2.898%	19.7
12YR		3.105%	2.920%	18.4
15YR		3.121%	2.939%	18.2
20YR		3.138%	2.955%	18.3
30YR		3.045%	2.857%	18.8



Data as of February 10, 2023 3:10 PM Central Time.



HTS Commodities Energy Updates: February 17, 2023

Active Commodity Contracts

Source: Bloomberg

						YOY NET	
		2/17/23	2/10/23	Net Chg	2/17/22	Chg	YoY %Chg
F	RBOB Gasoline NYMEX (\$/gal)	2.408	2.504	-0.096	2.649	-0.240	-9.08%
	ULSD NYMEX (HO) (\$/gal)	2.712	2.865	-0.153	2.786	-0.074	-2.66%
Na	atural Gas NYMEX (\$/mmbtu)	2.275	2.514	-0.239	4.486	-2.211	-49.29%
	Crude Oil NYMEX (\$/barrel)	76.340	79.720	-3.380	91.760	-15.420	-16.80%

Fixed Price Projection¹

Source: Bloomberg

_	2Q23	2Q23	3Q23	4Q23	1Q24
RBOB Gasoline NYMEX (\$/gal)	2.577	2.417	2.215	2.215	2.363
ULSD NYMEX (HO) (\$/gal)	2.672	2.652	2.641	2.641	2.556
Natural Gas NYMEX (\$/mmbtu)	2.505	2.899	3.406	3.406	3.172
Crude Oil NYMEX (\$/barrel)	76.610	75.700	74.490	74.490	72.360

Commentary

Last week the unrelenting price carnage continued to be inflicted on the NYMEX natural gas curve as the warm weather, ample supplies, and the thought that the Fed will raise benchmark overnight lending rate by 50bps at their next meeting all continued to weigh on prices. The prompt futures contract declined by .096/mmBbtu, -10% YoY, to \$2.272/mmBtu. This is the lowest price level for 2023 and a 25-month low.

The major driver of the price move continues to be the lackluster domestic demand as production remains accommodating. The influence of the warmer than normal weather across the southern and eastern population centers is suppressing gas demand which is slowing stock draws. In the fall of 2022, the gas paradigm was entirely different. Domestic stocks were building but remained well behind 2021 and the 5-year averages as EU demand helped drive prices higher. Since the start of the 2023 calendar year, domestic US gas withdrawals have been muted. At 2.266 tcf US stocks have risen above 2022 levels, above the 5-year average and toward the upper end of the 10-year range.

Production has been robust which may generate thoughts that the market is oversupplied. Statements this week by EQT, the largest US natural gas producer, confirmed that supply and demand has fallen out of equilibrium and that production may start to decline. Weekly data shows the production in the Permian and the Haynesville basins are starting to slow which has the ability to support prices. Additional variables that can help support prices is the aggressive US LNG export program. Last week, the 13.5 bcf gas flows to LNG export terminals were the highest since March, 2022. The soft reopening, aka regasification of the storage tanks, at Freeport's LNG export terminal in Texas since an explosion in June, 2022 closed the facility is another variable that can possibly help soften the aggressive bearish tone.

(1) Indications only, valuation as of 2/17/2023; includes \$0.00 in customary and transaction expenses; assumes equal monthly volumes.

HTS Commodities a Division of Hilltop Securities

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RBOB Gasoline NYMEX

	2/17/23	2/10/23	Net Chg	%Change
MAR 23	2.41	2.50	-0.10	-3.81%
APR 23	2.62	2.70	-0.08	-2.95%
MAY 23	2.61	2.69	-0.08	-2.86%
JUN 23	2.58	2.65	-0.07	-2.56%
JUL 23	2.55	2.61	-0.06	-2.30%
AUG 23	2.51	2.56	-0.05	-2.09%
SEP 23	2.46	2.50	-0.05	-1.81%
OCT 23	2.30	2.33	-0.04	-1.53%
NOV 23	2.25	2.28	-0.03	-1.29%
DEC 23	2.21	2.23	-0.02	-1.02%
JAN 24	2.20	2.22	-0.02	-0.89%

ULSD NYMEX (formerly Heating Oil)

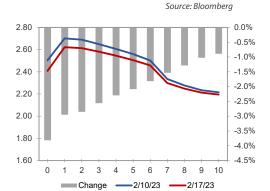
	2/17/23	2/10/23	Net Chg	%Change
MAR 23	2.71	2.86	-0.15	-5.32%
APR 23	2.70	2.84	-0.14	-4.77%
MAY 23	2.68	2.79	-0.11	-3.84%
JUN 23	2.66	2.75	-0.09	-3.40%
JUL 23	2.65	2.74	-0.09	-3.20%
AUG 23	2.64	2.72	-0.08	-2.97%
SEP 23	2.64	2.72	-0.08	-2.77%
OCT 23	2.64	2.71	-0.07	-2.58%
NOV 23	2.64	2.70	-0.07	-2.41%
DEC 23	2.63	2.69	-0.06	-2.28%
JAN 24	2.62	2.68	-0.06	-2.17%

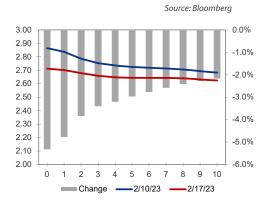
Natural Gas NYMEX

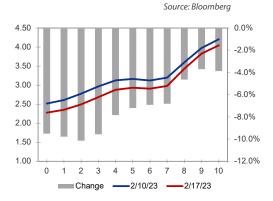
	2/17/23	2/10/23	Net Chg	%Change
MAR 23	2.28	2.51	-0.24	-9.51%
APR 23	2.35	2.61	-0.26	-9.78%
MAY 23	2.50	2.78	-0.28	-10.15%
JUN 23	2.68	2.97	-0.28	-9.58%
JUL 23	2.88	3.12	-0.25	-7.85%
AUG 23	2.93	3.16	-0.23	-7.21%
SEP 23	2.91	3.12	-0.22	-6.92%
OCT 23	2.98	3.20	-0.22	-6.82%
NOV 23	3.43	3.60	-0.17	-4.64%
DEC 23	3.83	3.97	-0.15	-3.70%
JAN 24	4.04	4.21	-0.16	-3.88%

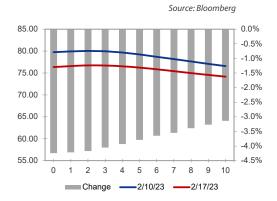
Crude Oil NYMEX

	2/17/23	2/10/23	Net Chg	%Change
MAR 23	76.34	79.72	-3.38	-4.24%
APR 23	76.55	79.92	-3.37	-4.22%
MAY 23	76.70	80.04	-3.34	-4.17%
JUN 23	76.71	79.95	-3.24	-4.05%
JUL 23	76.53	79.66	-3.13	-3.93%
AUG 23	76.22	79.22	-3.00	-3.79%
SEP 23	75.82	78.69	-2.87	-3.65%
OCT 23	75.38	78.15	-2.77	-3.54%
NOV 23	74.98	77.61	-2.63	-3.39%
DEC 23	74.56	77.08	-2.52	-3.27%
JAN 24	74.14	76.54	-2.40	-3.14%









⁽¹⁾ Indications only, valuation as of 2/17/2023; includes \$0.00 in customary and transaction expenses; assumes equal monthly volumes.



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Weekly Rate Summary: February 17, 2023

Weekly Summary and Highlights

- (1) Reminder: USD LIBOR will be discontinued after June 30 of THIS YEAR. Our desk can help you understand ISDA Fallbacks Protocol.
- (2) Guaranteed Investment Contracts (GICs) continue to offer attractive rates for project funds, Cap-I funds and reserve funds.
- (3) Our team can review your refunding or defeasance escrows for periods of time in which cash is uninvested. UST or SLGS might be available to fill in the gaps.



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Short-Term Interest Rates Source: Bloomberg **WoW Chg** YoY Chg 2/17/23 2/10/23 2/17/22 (bps) (bps) SIFMA 3.980% 3.740% 0.190% 24.0 379 SOFR 4.550% 4.550% 0.0 0.050% 450 BSBY (O/N) 4.633% 4.621% 1.3 0.077% 456 Ameribor (O/N) 4.873% 4.856% 476 1.6 0.113% Fed Funds Effec. 4.580% 0.0 450 4.580% 0.080%

0.0

3.250%

Source: Bloomberg

Source: Bloomberg

450

7.750%

Interest Rate Forecast Survey Source: Bloomberg 0223 0423 Current 0123 0323 Target Fed Funds 4.750% 5.00% 5.10% 5.00% 4.75% 3MO Term SOFR 4.804% 4.89% 4.98% 4.82% 4.54% 2YR T-Note 4.640% 4.36% 4.24% 3.98% 3.69% 10YR T-Note 3.861% 3.67% 3.62% 3.50% 3.37% 30YR T-Note 3.914% 3.88% 3.89% 3.82% 3.73%

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Variable Rate Term Structure

7.750%

			WoW Chg		YoY Chg
	2/17/23	2/10/23	(bps)	2/17/22	(bps)
1MO Term SOFR	4.564%	4.562%	0.2	0.133%	443
3MO Term SOFR	4.811%	4.756%	5.5	0.392%	442
1MO BSBY	4.577%	4.572%	0.5	0.094%	448
3MO BSBY	4.798%	4.764%	3.4	0.468%	433
1MO LIBOR	4.591%	4.578%	1.3	0.162%	443
3MO LIBOR	4.915%	4.869%	4.6	0.481%	443

SOFR Forward Swap Rates

Tenor	Current	3Mo Fwd	6Mo Fwd	1Yr Fwd	2Yr Fwd
5YR	3.819%	3.727%	3.612%	3.384%	3.174%
7YR	3.643%	3.575%	3.491%	3.326%	3.185%
10YR	3.536%	3.489%	3.431%	3.316%	3.218%
20YR	3.413%	3.379%	3.338%	3.257%	3.172%
30YR	3.178%	3.147%	3.111%	3.039%	2.952%

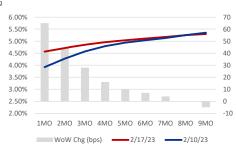




CP (A1/P1) Indicative Rates Source: Bloomberg

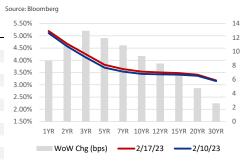
	•			bource, biodiniberg
				WoW Chg
		2/17/23	2/10/23	(bps)
1MO		4.57%	3.92%	65
2MO		4.71%	4.27%	44
3MO		4.85%	4.57%	28
4MO		4.95%	4.79%	16
5MO		5.04%	4.94%	10
6MO		5.11%	5.04%	7
7MO		5.17%	5.13%	4
8MO		5.25%	5.25%	0
9MO		5.30%	5.35%	-5

Source: Bloombero



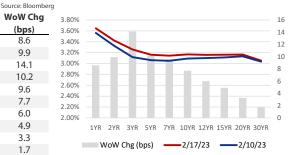
SOFR Swap Rates

			WoW Chg
	2/17/23	2/10/23	(bps)
1YR	5.199%	5.112%	8.7
2YR	4.676%	4.567%	10.9
3YR	4.248%	4.118%	13.0
5YR	3.819%	3.700%	11.9
7YR	3.643%	3.534%	10.9
10YR	3.536%	3.442%	9.4
12YR	3.506%	3.423%	8.3
15YR	3.479%	3.410%	6.9
20YR	3.413%	3.365%	4.8
30YR	3.178%	3.152%	2.6



Tax Exempt Swap Rates

			WoW Chg
	2/17/23	2/10/23	(bps)
1YR	3.649%	3.563%	8.6
2YR	3.424%	3.325%	9.9
3YR	3.258%	3.116%	14.1
5YR	3.163%	3.061%	10.2
7YR	3.144%	3.049%	9.6
10YR	3.167%	3.090%	7.7
12YR	3.158%	3.098%	6.0
15YR	3.162%	3.113%	4.9
20YR	3.163%	3.130%	3.3
30YR	3.053%	3.036%	1.7



Data as of February 17, 2023 3:49 PM Central Time.