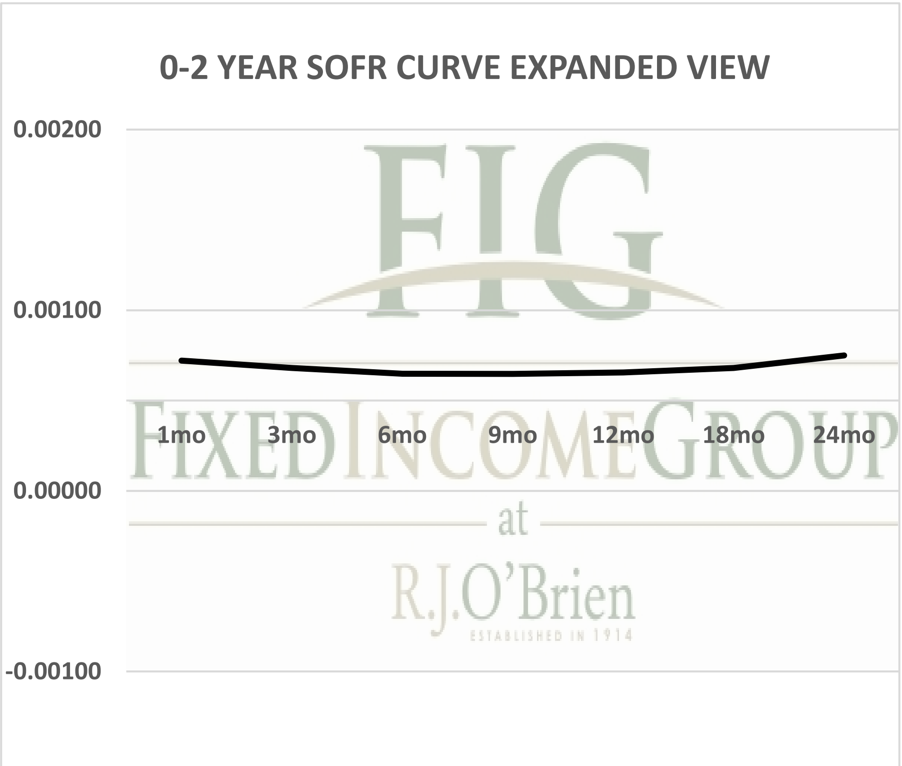
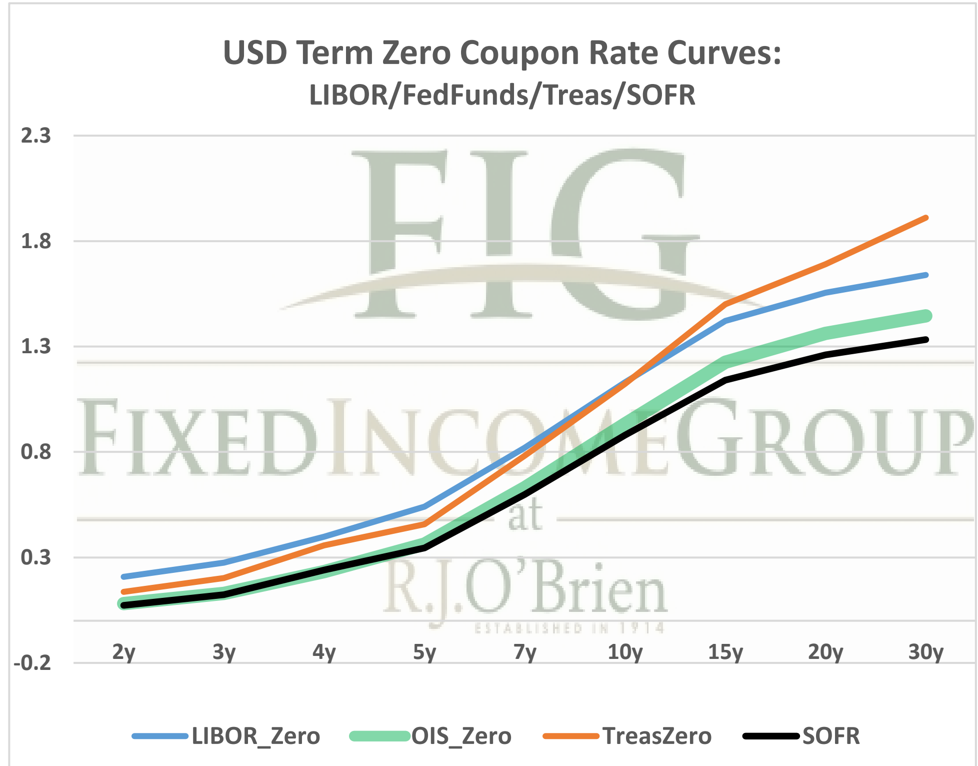
THE SOFR CURVE

Distributed by The Fixed Income Group at RJ O'Brien

Making the change from LIBOR to a new reference rate is not an insignificant exercise. It will take planning and changes to processes and systems. Sonia and SOFR appear likely to offer two options for users: compounded, setting in arrears (currently used in OIS markets) or a term rate setting in advance like LIBOR. You have questions, we have answers.





For more information on the Libor replacement contact:

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1/20/2021 6:21 ct

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Term SOFR from 1-day Returns

0.07207%	**0.06801%**	**0.06483%**	**0.06475%**	**0.06550%**	**0.06797%**	**0.07497%**
1.000062062	1.000170034	1.00032596	1.00049101	1.00066407	1.00103084	1.00152014
1mo	**3mo**	**6mo**	**9mo**	**12mo**	**18mo**	**24mo**
1/20/2021	1/20/2021	1/20/2021	1/20/2021	1/20/2021	1/20/2021	1/20/2021
2/19/2021	4/19/2021	7/19/2021	10/19/2021	1/19/2022	7/19/2022	1/19/2023
31	90	181	273	365	546	730

Term SOFR+Credit from 1-day Returns

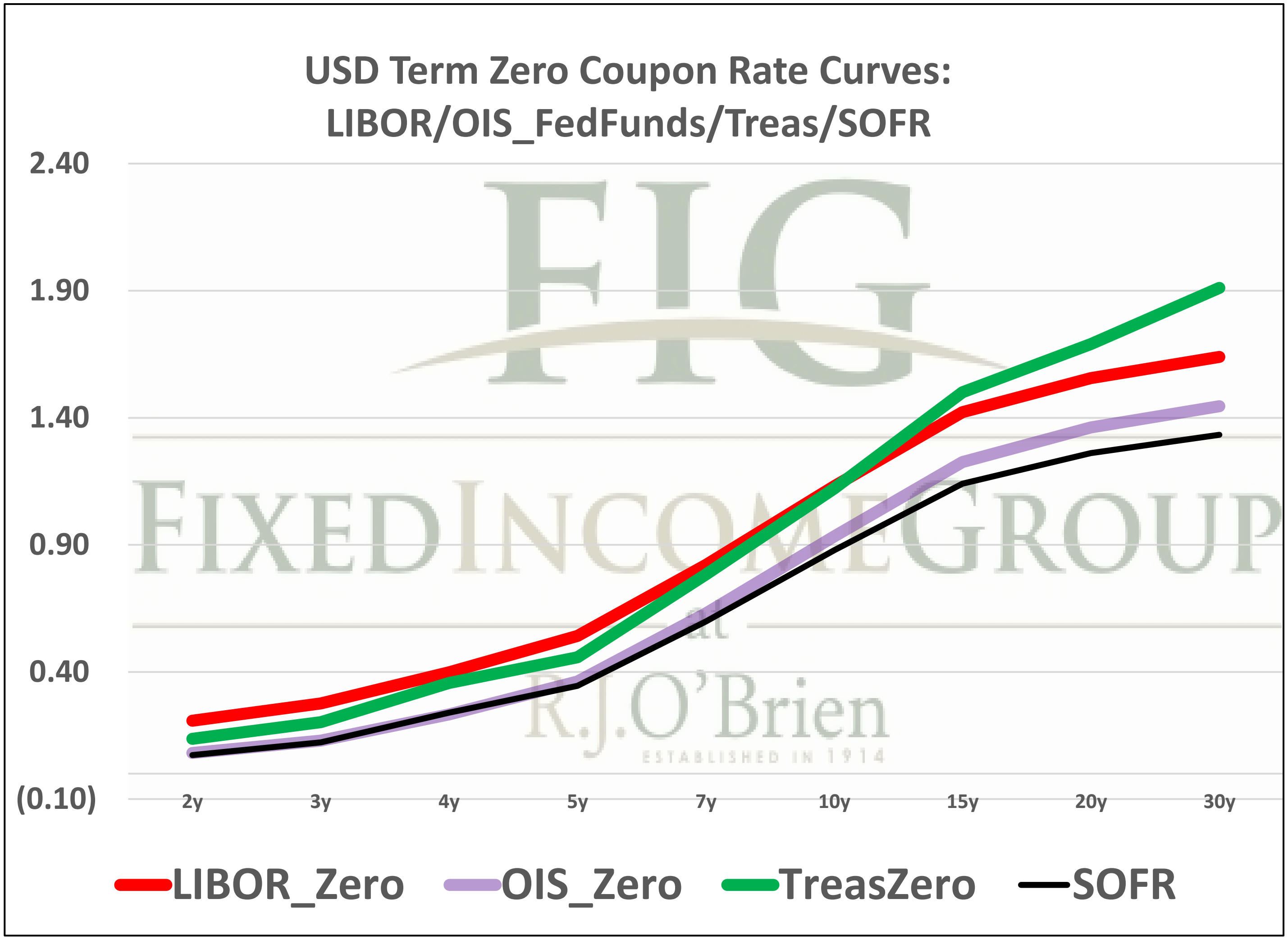
0.57473%	**0.57040%**	**0.56620%**	**0.56658%**	**0.56777%**	**0.57115%**	**0.57905%**
1.000494908	1.001426004	1.00284673	1.00429658	1.00575655	1.008662405	1.0117419
1mo	**3mo**	**6mo**	**9mo**	**12mo**	**18mo**	**24mo**
1/20/2021	1/20/2021	1/20/2021	1/20/2021	1/20/2021	1/20/2021	1/20/2021
2/19/2021	4/19/2021	7/19/2021	10/19/2021	1/19/2022	7/19/2022	1/19/2023
31	90	181	273	365	546	730

Term AMERIBOR from 1-day Returns

0.08304%	**0.07971%**	**0.07772%**	**0.07678%**	**0.07631%**		
1.00	**1.00**	**1.00**	**1.00**	**1.00**		
1mo	**3mo**	**6mo**	**9mo**	**12mo**		
1/20/2021	**1/20/2021**	**1/20/2021**	**1/20/2021**	**1/20/2021**		
2/19/2021	**4/19/2021**	**7/19/2021**	**10/19/2021**	**1/19/2022**		
31	**90**	**181**	**273**	**365**		

Term AMERIBOR+Credit from 1-day Returns

0.58390%	**0.58057%**	**0.57859%**	**0.57764%**	**0.57718%**		
1.00	1.00	1.00	1.00	1.00		
1mo	3mo	6mo	9mo	12mo		
1/20/2021	1/20/2021	1/20/2021	1/20/2021	1/20/2021		
2/19/2021	4/19/2021	7/19/2021	10/19/2021	1/19/2022		
31	90	181	273	365		


USD Term Zero Coupon Rate Curves:
LIBOR/OIS_FedFunds/Treas/SOFR
2.40
1.90
1.40
0.90
0.40
(0.10)
2y
3y
4y
5y
7y
10y
15y
20y
30y
LIBOR_Zero
OIS_Zero
TreasZero
SOFR
FIG
FIXED INCOME GROUP
at
R.J.O'Brien
ESTABLISHED IN 1914