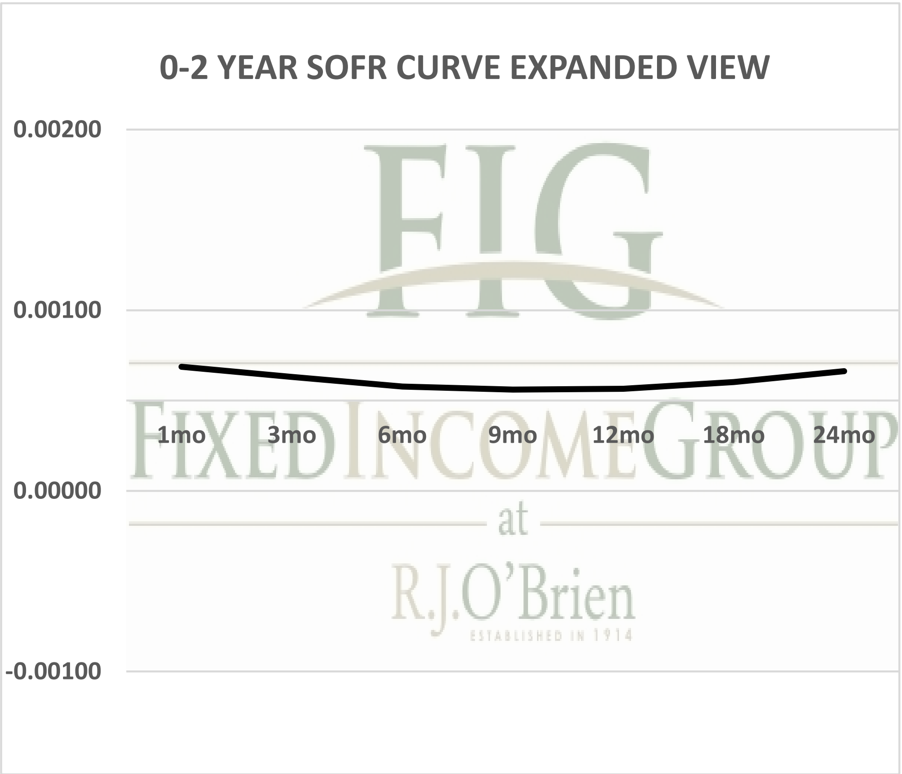
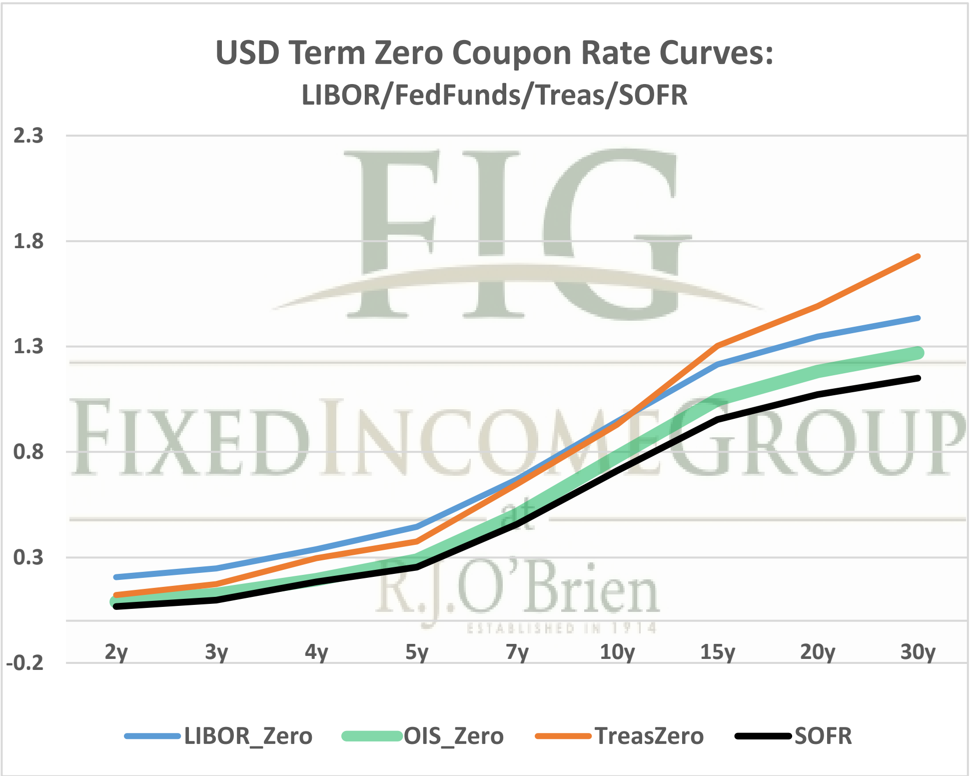
THE SOFR CURVE

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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12/16/2020 6:30 ct

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Term SOFR from 1-day Returns

0.06869%	**0.06313%**	**0.05779%**	**0.05606%**	**0.05647%**	**0.06018%**	**0.06630%**
1.000059152	1.000157832	1.00029218	1.000426691	1.000572503	1.000914417	1.00134447
1mo	**3mo**	**6mo**	**9mo**	**12mo**	**18mo**	**24mo**
12/16/2020	12/16/2020	12/16/2020	12/16/2020	12/16/2020	12/16/2020	12/16/2020
1/15/2021	3/15/2021	6/15/2021	9/15/2021	12/15/2021	6/15/2022	12/15/2022
31	90	182	274	365	547	730

Term SOFR+Credit from 1-day Returns

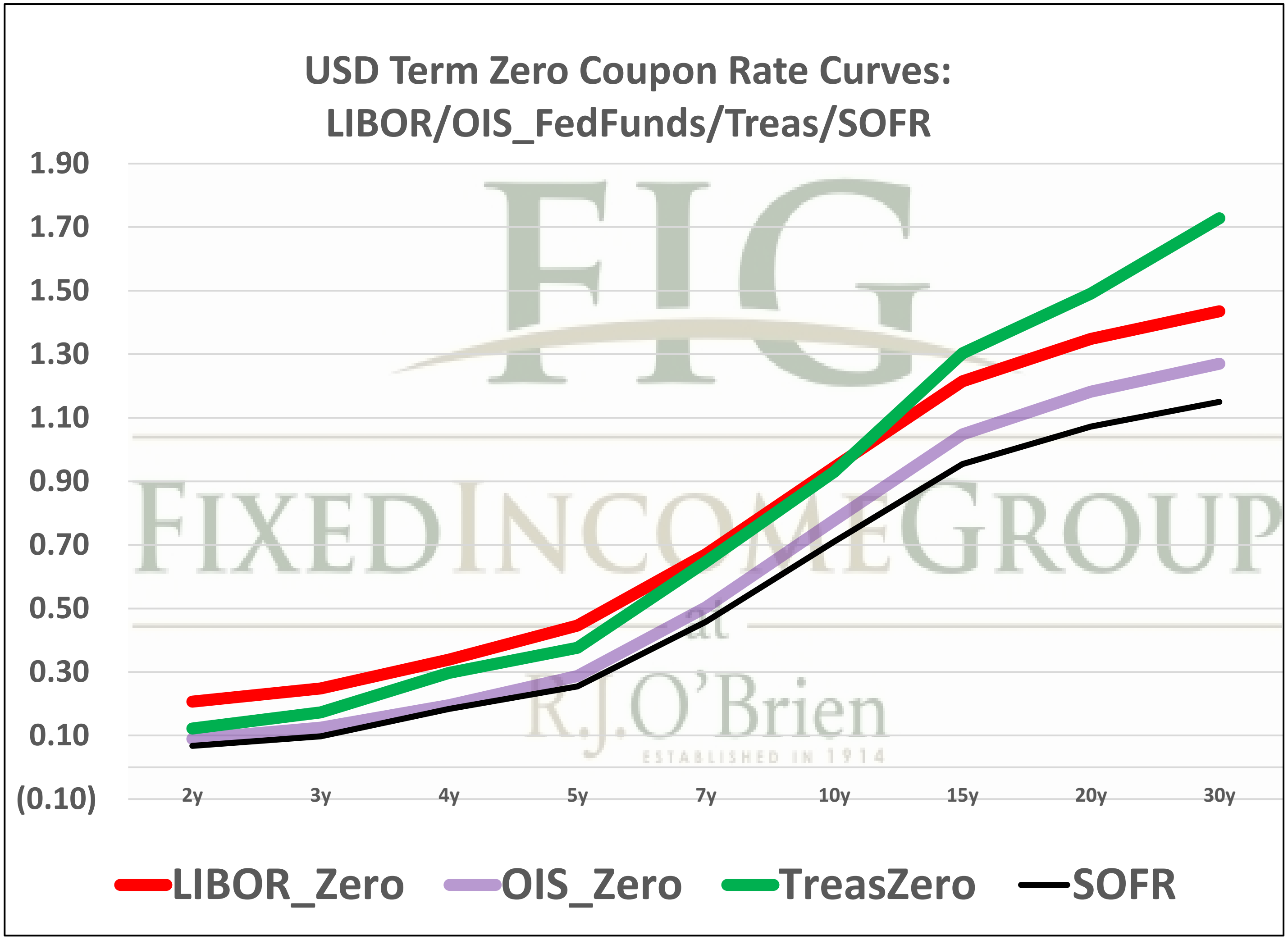
0.59386%	**0.58865%**	**0.58326%**	**0.58167%**	**0.58237%**	**0.58688%**	**0.59390%**
1.000511376	1.00147162	1.00294871	1.004427186	1.005904556	1.008917373	1.01204295
1mo	**3mo**	**6mo**	**9mo**	**12mo**	**18mo**	**24mo**
12/16/2020	12/16/2020	12/16/2020	12/16/2020	12/16/2020	12/16/2020	12/16/2020
1/15/2021	3/15/2021	6/15/2021	9/15/2021	12/15/2021	6/15/2022	12/15/2022
31	90	182	274	365	547	730

Term AMERIBOR from 1-day Returns

0.07889%	**0.07536%**	**0.07309%**	**0.07249%**	**0.06907%**		
1.00	**1.00**	**1.00**	**1.00**	**1.00**		
1mo	**3mo**	**6mo**	**9mo**	**12mo**		
12/16/2020	**12/16/2020**	**12/16/2020**	**12/16/2020**	**12/16/2020**		
1/15/2021	**3/15/2021**	**6/15/2021**	**9/15/2021**	**12/15/2021**		
31	**90**	**182**	**274**	**365**		

Term AMERIBOR+Credit from 1-day Returns

0.60281%	**0.59928%**	**0.59701%**	**0.59641%**	**0.59299%**		
1.00	1.00	1.00	1.00	1.00		
1mo	3mo	6mo	9mo	12mo		
12/16/2020	12/16/2020	12/16/2020	12/16/2020	12/16/2020		
1/15/2021	3/15/2021	6/15/2021	9/15/2021	12/15/2021		
31	90	182	274	365		


USD Term Zero Coupon Rate Curves:
LIBOR/OIS_FedFunds/Treas/SOFR
1.90
1.70
1.50
1.30
1.10
0.90
0.70
0.50
0.30
0.10
(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