

MARCH MADNESS AND BANKING

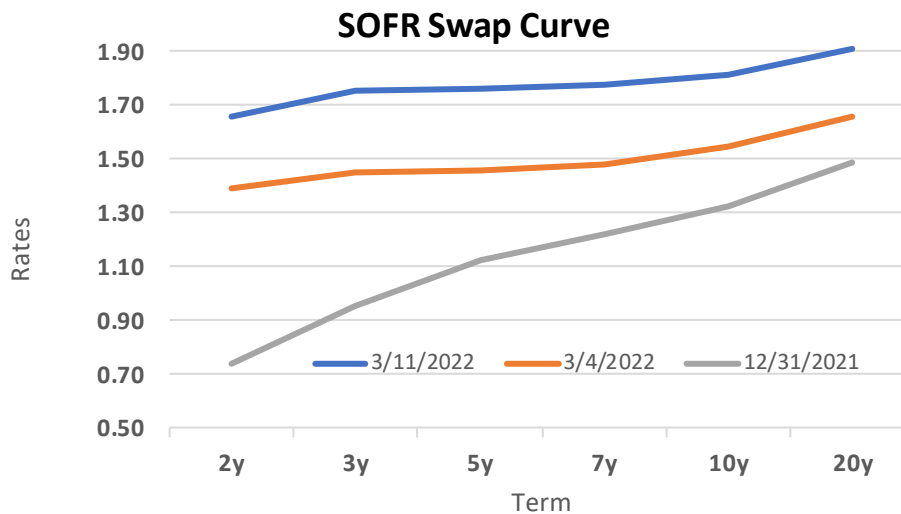
This Day in History: Today is National Potato Chip Day. On March 14, 1592, at 6:53 a.m., the world experienced the ultimate Pi day, corresponding the date with Pi (3.141592653). In 2018, NASA determined astronaut Scott Kelly is no longer identical to his twin brother as 7% of his genes had altered after one year in space.

Rates reversed course rather dramatically as term rates increased significantly during the week. The market currently expects a 25bps increase in the Fed Funds rate this week with as many as 6 more increases before the end of 2022.

<u>Term</u>	<u>SOFR Swap Rates</u>			<u>Change</u>	
	<u>3/11/2022</u>	<u>3/4/2022</u>	<u>2/11/2022</u>	<u>WoW</u>	<u>MoM</u>
2y	1.66	1.39	1.51	0.28	0.16
3y	1.76	1.45	1.64	0.30	0.12
5y	1.75	1.45	1.69	0.30	0.06
7y	1.77	1.48	1.72	0.28	0.05
10y	1.80	1.54	1.75	0.26	0.05
20y	1.90	1.66	1.82	0.24	0.08
2s/10s slope	0.14	0.15	0.25	-0.01	-0.11

March Madness, the best time of the year for college basketball fans, is here. Even those who don't follow college basketball will complete brackets and try to outsmart/outguess others to create a winning bracket. A week from now, there will likely be a huge portion of the U.S. population discussing busted brackets, Cinderella teams, and 12/5 upsets. Efficiency will probably suffer, especially this week as a full slate of games is played Thursday and Friday while those working in the office and at home keep at least one eye regularly checking on games.

What does a basketball tournament have to do with banking, other than the loss of productivity? The interest rate markets are experiencing a little March madness of their own. Let's start by looking at the SOFR Swap curve as of December 31, 2021, March 4, and midafternoon March 11:



The graphs above show the dramatic increase in term rates that has occurred in the first 2 ½ months of the year. What it does not show is the volatility that has occurred over the last two weeks. We have an unusual yield curve with the front end (overnight to 2-years) extremely steep and the belly of the curve (2-years to 10-years) extremely flat. The front-end steepness signals that markets expect the Fed to increase their funds rate several times in the coming months, consistent with current fed commentary. The flatness in the belly of the curve reflects a terminal Fed Funds rate of between 2.00% to 2.25% occurring in mid-2024 as well as continued geopolitical uncertainty.

What does this have to do with March Madness? Let’s draw an analogy. The beginning of the basketball seasons is synonymous with the start of the budget process. At the beginning of those processes, we don’t know the final outcomes, so we develop assumptions/plans to guide us through the season/year. If we planned for 2 Fed increases but it now looks like we will get 5, that creates an unexpected benefit, much like having a player who greatly outperforms expectations. So instead of having an average season/year, we are now expecting banner performance or, in the March Madness world, a high seed in the tournament.

The recent and dramatic changes in the rate environment and market sentiment reminds us of a few truisms:

- Although we use interest rate forecasts in preparing budgets, we cannot control the interest rate environment, we can only control how our balance sheet reacts to a given rate environment.
- Stakeholders—management, boards, shareholders and regulators—expect consistent, quality performance regardless of the interest rate environment.

- Customers expect products that meet *their* needs regardless of the interest rate environment.

If you need some ideas of how to improve earnings, manage interest rate risk or take advantage of market opportunities, we would love to hear from you.

Don't let the madness of the March yield curve keep you on the bench. Contact your relationship manager or call VSIRP and let us show you how we can help you beat the competition and control risk.

Stay safe and have a great week!

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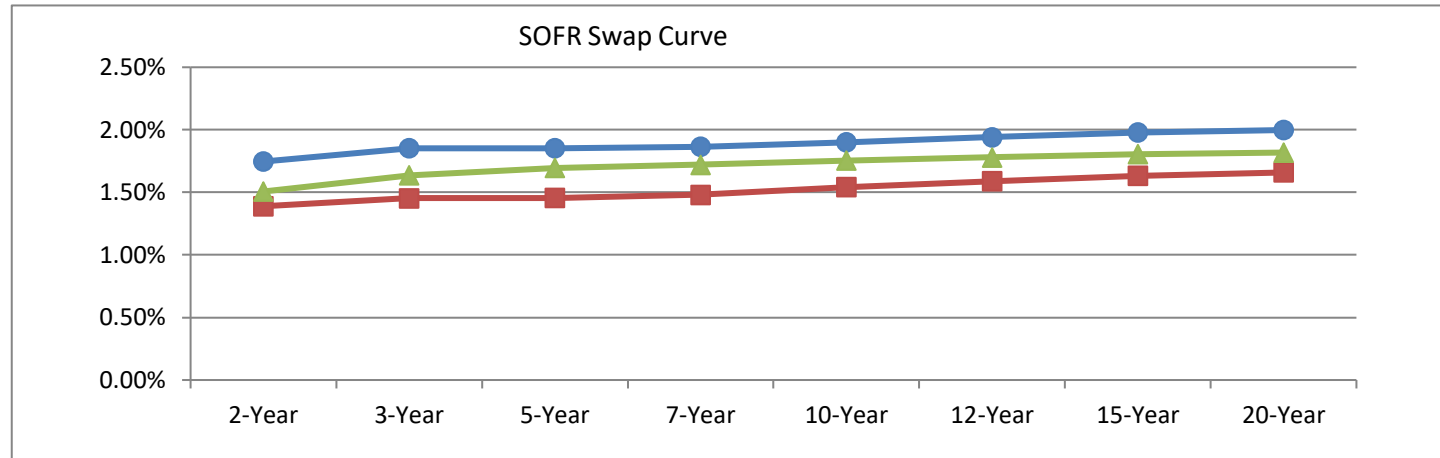
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Interest Rate Swap Curves

	SOFR Swap Curve	Current	Last Week	Last Month
2-Year	●●	1.747%	1.389%	1.507%
3-Year	■	1.853%	1.453%	1.637%
5-Year	▲▲	1.852%	1.455%	1.695%
7-Year		1.865%	1.481%	1.720%
10-Year		1.901%	1.543%	1.753%
12-Year		1.941%	1.588%	1.780%
15-Year		1.978%	1.631%	1.806%
20-Year		1.998%	1.659%	1.818%



Money Market Rates		SOFR Forward Rates	
1M LIBOR	0.43057%	Dec-21	0.05000%
3M LIBOR	0.88471%	Mar-22	0.49500%
SOFR	0.05000%	Jun-22	1.12000%
1M Term SOFR	0.30427%	Sep-22	1.52500%
1M BSBY	0.32155%	Dec-22	1.85000%
1M Ameribor	0.1261%		
Prime	3.2500%		
FFTR	0.2500%		
Eff FF	0.0800%		

*Bloomberg mid-market quotations

Spot Start Loan Hedging

Rate Term (Years)	Floating Rate	Amortization Term (Years)							
		3-Year	5-Year	7-Year	10-Year	15-Year	20-Year	25-Year	Bullet
2-Year	SOFR	1.74%	1.82%	1.85%	1.86%	1.87%	1.88%	1.88%	1.89%
3-Year	SOFR	1.79%	1.90%	1.92%	1.94%	1.95%	1.95%	1.95%	1.96%
4-Year	SOFR		1.90%	1.92%	1.94%	1.95%	1.95%	1.96%	1.96%
5-Year	SOFR		1.90%	1.92%	1.94%	1.93%	1.93%	1.92%	1.92%
6-Year	SOFR			1.93%	1.93%	1.91%	1.91%	1.91%	1.91%
7-Year	SOFR			1.93%	1.91%	1.91%	1.92%	1.92%	1.94%
8-Year	SOFR				1.92%	1.93%	1.94%	1.94%	1.94%
9-Year	SOFR				1.92%	1.94%	1.95%	1.95%	1.95%
10-Year	SOFR				1.92%	1.95%	1.95%	1.96%	2.01%
12-Year	SOFR					1.97%	2.00%	2.03%	2.05%
15-Year	SOFR						1.98%	2.05%	2.08%

Customer Pays Fixed, Monthly, Act/360
Customer Receives SOFR

Forward Starting Swap Quotes

Rate Term (Years)	Floating Rate	20-Year Amortization		
		3-Month	6-Month	12-Month
2-Year	SOFR	2.06%	2.17%	2.26%
3-Year	SOFR	2.07%	2.13%	2.16%
4-Year	SOFR	2.04%	2.09%	2.11%
5-Year	SOFR	2.00%	2.04%	2.06%
6-Year	SOFR	1.98%	2.01%	2.03%
7-Year	SOFR	1.98%	2.01%	2.03%
8-Year	SOFR	1.99%	2.02%	2.04%
9-Year	SOFR	2.00%	2.02%	2.05%
10-Year	SOFR	2.00%	2.03%	2.05%
12-Year	SOFR	2.04%	2.07%	2.09%
15-Year	SOFR	2.09%	2.11%	2.13%

Profitability Analysis

Rate Term (Years)	Profit Per Basis Point of Mark-up, Per \$1,000,000 of Notional							
	3-Year	5-Year	7-Year	10-Year	15-Year	20-Year	25-Year	Bullet
2-Year	\$139	\$166	\$177	\$185	\$191	\$194	\$196	\$200
3-Year	\$158	\$218	\$244	\$263	\$277	\$285	\$289	\$298
4-Year		\$250	\$296	\$330	\$356	\$369	\$376	\$393
5-Year		\$261	\$334	\$388	\$429	\$449	\$460	\$486
6-Year			\$357	\$435	\$495	\$524	\$541	\$578
7-Year			\$365	\$472	\$555	\$594	\$617	\$668
8-Year				\$499	\$607	\$660	\$690	\$757
9-Year				\$516	\$654	\$720	\$759	\$844
10-Year				\$522	\$693	\$775	\$823	\$929
12-Year					\$750	\$871	\$940	\$1,095
15-Year						\$783	\$975	\$1,331

Fee Income Generation Only Possible With
Back-to-Back Swaps and SMART Loan Products

Macro-Hedging

Protection Against Rising Rates							
SOFR Pay Fixed Swap			SOFR Caps - Premium in Basis Points				
2-Year	3-Year	4-Year	Strike	2-Year	3-Year	4-Year	5-Year
2-Year	1.89%		0.25%	3.36%	5.24%	7.08%	8.77%
3-Year	1.98%		0.50%	2.92%	4.60%	6.25%	7.77%
4-Year	1.99%		0.75%	2.51%	4.00%	5.49%	6.85%
5-Year	1.98%						

Protection Against Falling Rates							
Prime Rcv Fixed Swap			SOFR Floors - Premium in Basis Points				
2-Year	3-Year	4-Year	Strike	2-Year	3-Year	4-Year	5-Year
2-Year	4.87%		0.05%	0.37%	0.59%	0.76%	0.96%
3-Year	4.94%						
4-Year	4.94%						
5-Year	4.88%						

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Interest Rate Swap Curves

	SOFR Swap Curve		
	Current	Last Week	Last Month
2-Year	1.747%	1.440%	1.558%
3-Year	1.853%	1.509%	1.695%
5-Year	1.852%	1.507%	1.753%
7-Year	1.865%	1.529%	1.777%
10-Year	1.901%	1.581%	1.810%
12-Year	1.941%	1.624%	1.835%
15-Year	1.978%	1.663%	1.861%
20-Year	1.998%	1.683%	1.875%



Money Market Rates		3M LIBOR Forward Rates	
1M LIBOR	0.43057%	Mar-22	0.88470%
3M LIBOR	0.88471%	Jun-22	1.47000%
6M LIBOR	1.17500%	Sep-22	1.77500%
12M LIBOR	1.65686%	Dec-22	2.13000%
Prime	3.25000%	Mar-23	2.34500%
FFTR	0.2500%		
Eff FF	0.0800%		
SOFR	0.0500%		

*Bloomberg mid-market quotations

Spot Start Loan Hedging

Rate Term (Years)	Floating Rate	Amortization Term (Years)							
		3-Year	5-Year	7-Year	10-Year	15-Year	20-Year	25-Year	Bullet
2-Year	Prime	4.95%	5.03%	5.05%	5.07%	5.08%	5.08%	5.09%	5.09%
3-Year	Prime	5.00%	5.10%	5.13%	5.14%	5.15%	5.15%	5.16%	5.16%
4-Year	Prime		5.10%	5.12%	5.13%	5.14%	5.15%	5.15%	5.16%
5-Year	Prime		5.10%	5.11%	5.12%	5.11%	5.11%	5.10%	5.10%
6-Year	Prime			5.11%	5.11%	5.09%	5.09%	5.09%	5.09%
7-Year	Prime			5.12%	5.10%	5.09%	5.10%	5.10%	5.11%
8-Year	Prime				5.09%	5.10%	5.11%	5.11%	5.11%
9-Year	Prime				5.09%	5.11%	5.11%	5.11%	5.11%
10-Year	Prime				5.10%	5.12%	5.12%	5.12%	5.17%
12-Year	Prime	Customer Pays Fixed, Monthly, Act/360				5.13%	5.16%	5.19%	5.20%
15-Year	Prime	Customer Receives Prime				5.14%	5.21%	5.21%	5.23%

Forward Starting Swap Quotes

Rate Term (Years)	Floating Rate	20-Year Amortization		
		3-Month	6-Month	12-Month
2-Year	Prime	5.27%	5.38%	5.47%
3-Year	Prime	5.26%	5.32%	5.35%
4-Year	Prime	5.23%	5.27%	5.28%
5-Year	Prime	5.18%	5.21%	5.23%
6-Year	Prime	5.15%	5.18%	5.20%
7-Year	Prime	5.15%	5.18%	5.20%
8-Year	Prime	5.16%	5.19%	5.20%
9-Year	Prime	5.16%	5.18%	5.20%
10-Year	Prime	5.16%	5.19%	5.21%
12-Year	Prime	5.20%	5.22%	5.24%
15-Year	Prime	5.24%	5.26%	5.27%

Profitability Analysis

Rate Term (Years)	Profit Per Basis Point of Mark-up, Per \$1,000,000 of Notional							
	3-Year	5-Year	7-Year	10-Year	15-Year	20-Year	25-Year	Bullet
2-Year	\$140	\$166	\$177	\$185	\$191	\$194	\$196	\$200
3-Year	\$158	\$218	\$244	\$263	\$278	\$285	\$289	\$298
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5-Year		\$261	\$334	\$388	\$429	\$449	\$460	\$486
6-Year			\$357	\$435	\$495	\$524	\$541	\$578
7-Year			\$365	\$473	\$555	\$594	\$617	\$668
8-Year				\$499	\$607	\$660	\$690	\$757
9-Year				\$516	\$654	\$720	\$759	\$845
10-Year				\$522	\$693	\$775	\$823	\$930
12-Year	Fee Income Generation Only Possible With				\$750	\$871	\$940	\$1,095
15-Year	Back-to-Back Swaps and SMART Loan Products				\$783	\$975	\$1,085	\$1,331

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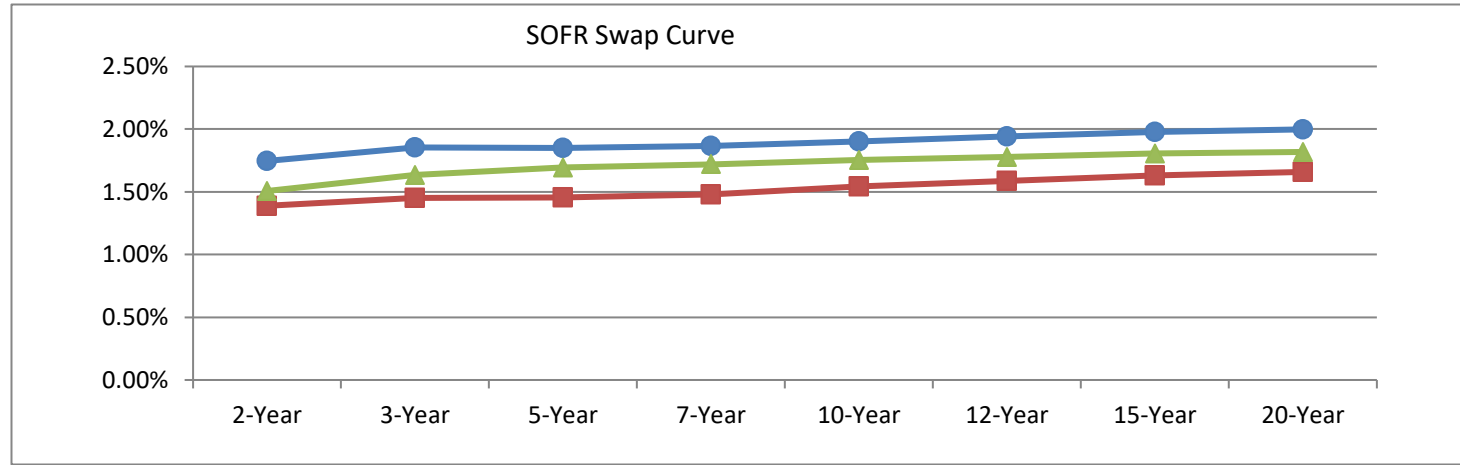
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*Bloomberg mid-market quotations



Money Market Rates		SOFR Forward Rates	
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FFTR	0.2500%		
Eff FF	0.0800%		
SOFR	0.0500%		

Spot Start Loan Hedging

Rate Term (Years)	Floating Rate	Amortization Term (Years)							
		3-Year	5-Year	7-Year	10-Year	15-Year	20-Year	25-Year	Bullet
2-Year	EFF	1.80%	1.88%	1.90%	1.92%	1.93%	1.94%	1.94%	1.95%
3-Year	EFF	1.85%	1.95%	1.97%	1.99%	2.00%	2.00%	2.00%	2.01%
4-Year	EFF		1.95%	1.97%	1.98%	2.00%	2.00%	2.00%	2.01%
5-Year	EFF		1.95%	1.97%	1.98%	1.97%	1.97%	1.97%	1.96%
6-Year	EFF			1.97%	1.97%	1.95%	1.95%	1.95%	1.95%
7-Year	EFF			1.97%	1.95%	1.95%	1.96%	1.96%	1.97%
8-Year	EFF				1.95%	1.96%	1.98%	1.98%	1.97%
9-Year	EFF				1.96%	1.98%	1.98%	1.98%	1.98%
10-Year	EFF				1.96%	1.98%	1.98%	1.99%	2.03%
12-Year	EFF					2.00%	2.03%	2.06%	2.07%
15-Year	EFF					2.01%	2.07%	2.09%	2.10%

Customer Pays Fixed, Monthly, Act/360
Customer Receives Prime

Forward Starting Swap Quotes

Rate Term (Years)	Floating Rate	20-Year Amortization		
		3-Month	6-Month	12-Month
2-Year	EFF	2.12%	2.22%	2.31%
3-Year	EFF	2.11%	2.17%	2.20%
4-Year	EFF	2.09%	2.13%	2.14%
5-Year	EFF	2.04%	2.08%	2.10%
6-Year	EFF	2.02%	2.05%	2.06%
7-Year	EFF	2.01%	2.04%	2.06%
8-Year	EFF	2.03%	2.06%	2.07%
9-Year	EFF	2.03%	2.05%	2.07%
10-Year	EFF	2.03%	2.06%	2.08%
12-Year	EFF	2.07%	2.09%	2.11%
15-Year	EFF	2.11%	2.13%	2.15%

Profitability Analysis

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10-Year				\$522	\$693	\$775	\$823	\$929
12-Year					\$750	\$871	\$940	\$1,095
15-Year					\$783	\$975	\$1,085	\$1,331

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