



Sacramento Transportation Authority

Market Update and Debt Portfolio Overview

Presented by PFM Financial Advisors LLC

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Table of Contents

1. Market Update
2. Overview of STA Debt Profile
3. Overview of Interest Rate Swaps



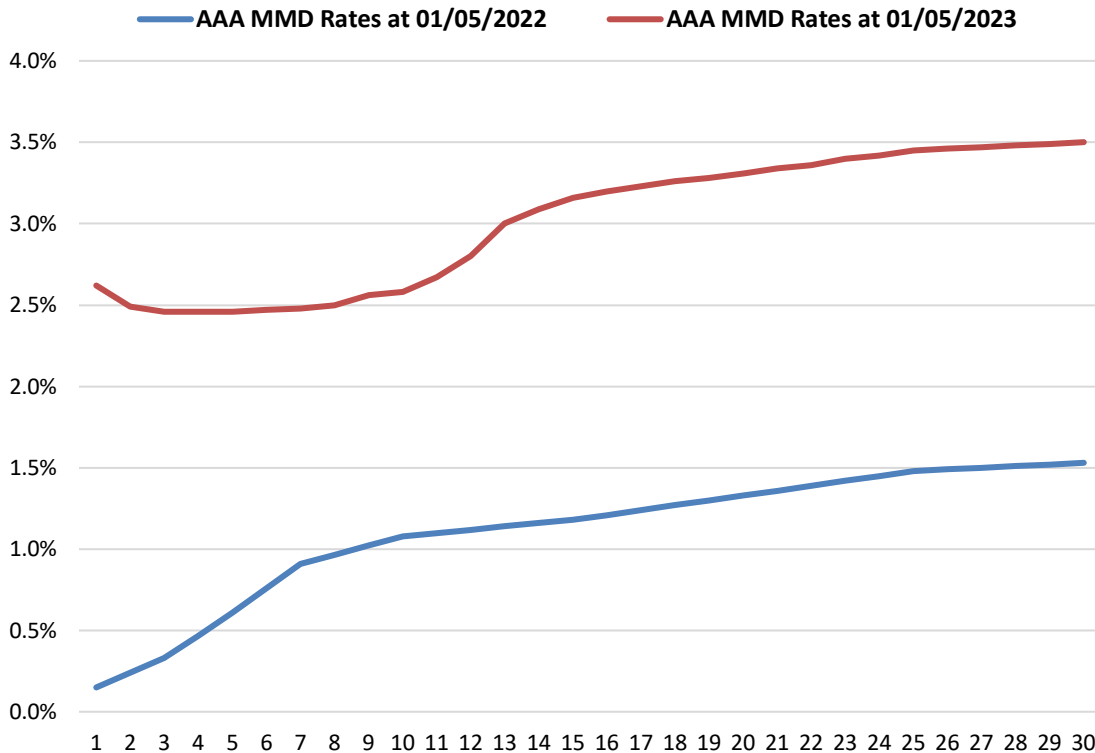
Market Update



Tax Exempt Yield Curve

◆ Inflationary pressure and the FOMC rate hikes increased interest rates over the last year:

- Tax exempt rates up 251 basis points on the short end of the curve
- Long-term rates are up 194 basis points



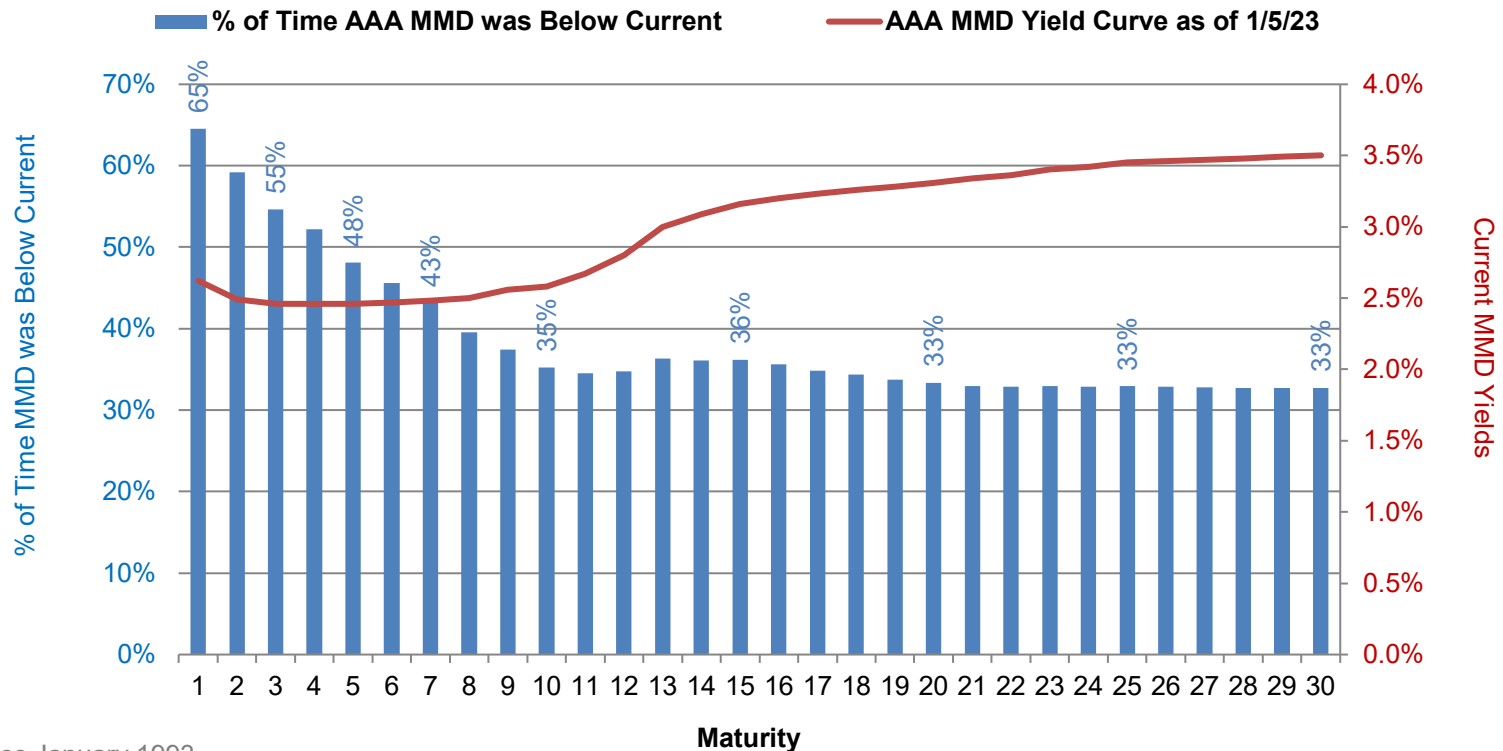
MMD Yield Curve			
Term	1/5/2023	1/5/2022	Delta
1	2.62	0.20	2.42
2	2.49	0.30	2.19
3	2.46	0.39	2.07
4	2.46	0.50	1.96
5	2.46	0.63	1.83
6	2.47	0.80	1.67
7	2.48	0.90	1.58
8	2.50	0.98	1.52
9	2.56	1.02	1.54
10	2.58	1.07	1.51
11	2.67	1.09	1.58
12	2.80	1.11	1.69
13	3.00	1.15	1.85
14	3.09	1.18	1.91
15	3.16	1.21	1.95
16	3.20	1.24	1.96
17	3.23	1.27	1.96
18	3.26	1.30	1.96
19	3.28	1.33	1.95
20	3.31	1.36	1.95
21	3.34	1.39	1.95
22	3.36	1.42	1.94
23	3.40	1.45	1.95
24	3.42	1.47	1.95
25	3.45	1.48	1.97
26	3.46	1.49	1.97
27	3.47	1.50	1.97
28	3.48	1.51	1.97
29	3.49	1.52	1.97
30	3.50	1.53	1.97



Percentage of Time Tax Exempt Rates Have Been Below Current Rates

- On the short end of the curve, the AAA MMD rate has risen above historical averages, while the long end has so far remained below

AAA MMD Yield Curve



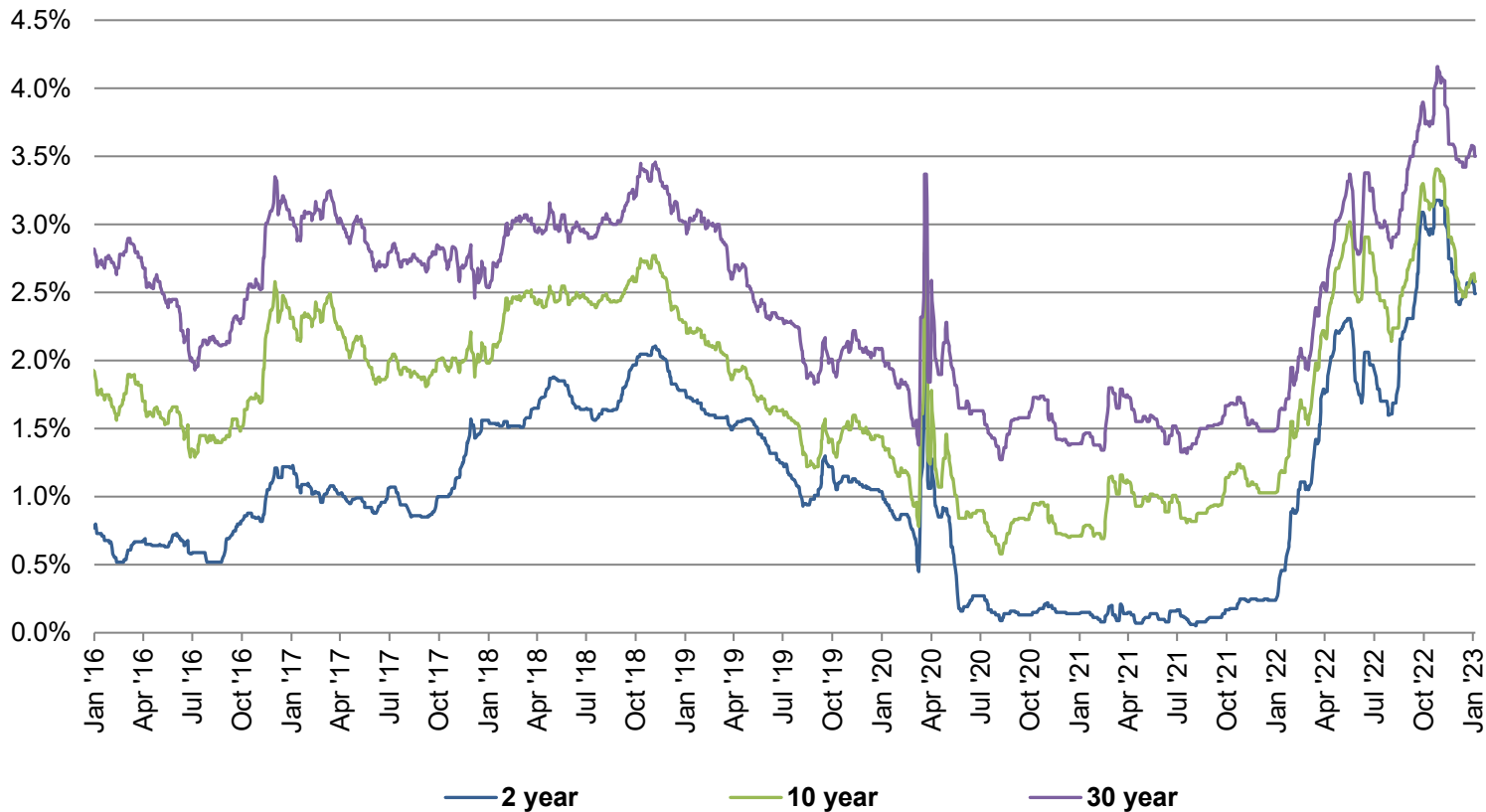
Since January 1993



Interest Rate Changes Since 2016

- Significant volatility has marked the last seven years of tax-exempt rates
- Following historically low rates during the pandemic, rates increased steeply through 2022

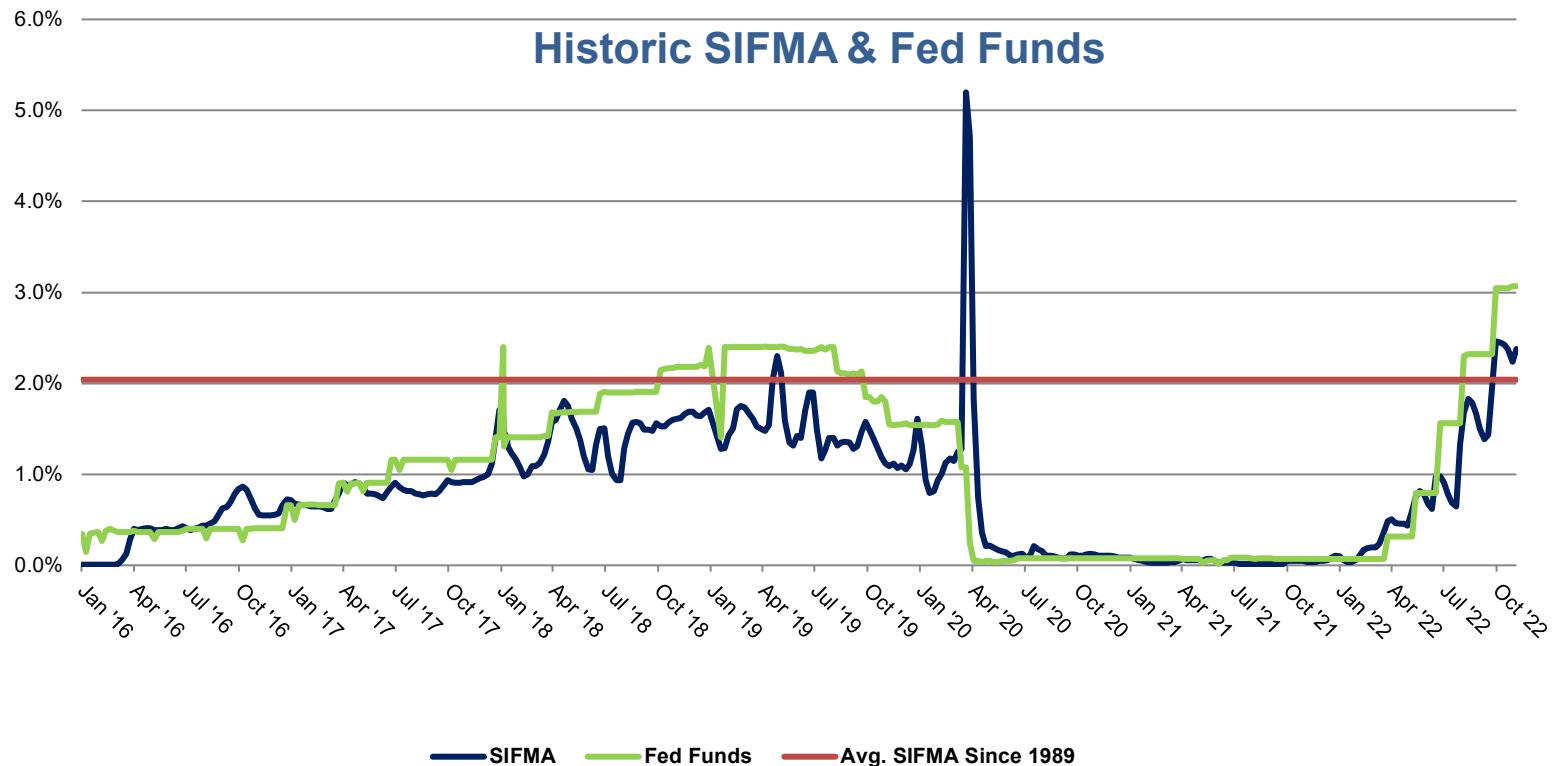
Historical MMD Rates





Short Term Rates: SIFMA and Fed Funds Rate

- ◆ The FOMC increased the Fed Funds rates throughout 2022 to combat inflation – now targeting at Fed Funds rate of 4.50%
- ◆ Tax Exempt short-term rates (SIFMA Index) have risen with Fed Funds increases





Total Monthly Bond Issuances

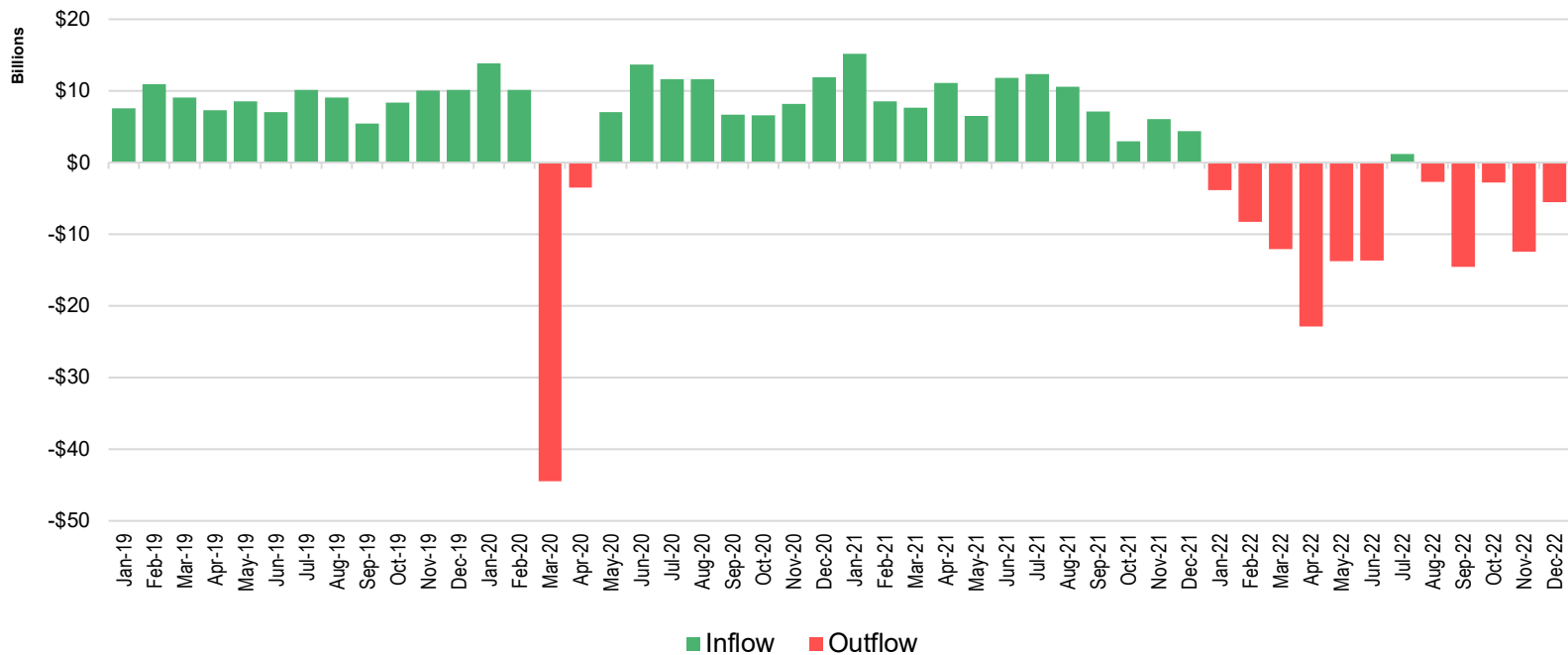
◆ Municipal bond issuance was down 20% in 2022 compared to 2021.

Monthly Municipal Market Supply over Last Five Years (in Billions)								
Month	2016	2017	2018	2019	2020	2021	2022	% Change 2021 to 2022
January	\$25.73	\$36.05	\$21.51	\$25.07	\$32.79	28.24	26.29	-6.9%
February	31.66	23.39	17.9	26.49	42.23	37.09	31.44	-15.2%
March	42.49	32.89	26.08	27.95	20.26	47.88	45.50	-5.0%
April	35.37	30.71	31.52	28.15	31.69	37.15	40.01	+7.7%
May	42.32	38.71	35.15	29.21	30.99	35.41	36.36	+2.7%
June	47.96	39.3	33.4	36.75	52.39	50.39	37.33	-25.9%
July	28.83	24.97	27.74	30.16	47.74	37.64	28.03	-25.5%
August	46.66	37.54	34.04	39.52	43.4	44.54	41.53	-6.8%
September	39.79	29.7	25.22	37.44	53.51	44.86	26.88	-40.1%
October	53.45	40.1	36.59	55.78	73.45	41.86	27.99	-33.1%
November	31.66	45.43	27.85	47.31	21.36	37.13	25.50	-31.3%
December	18.88	62.83	21.96	42.52	34.74	40.99	17.16	-58.1%
Total	\$444.80	\$441.62	\$338.96	\$426.35	\$484.55	\$483.23	\$384.08	-20.5%
YoY Change		-0.71%	-23.25%	25.78%	13.65%	-0.21%	20.5%	-20.5%



Total Monthly Fund Flows

◆ Municipal bond funds (investors) experienced significant fund outflows since the beginning of calendar year 2022



January 2019 through December 2022



United States Bond Yield Forecasts

- the Federal Reserve has implemented numerous rate hikes in 2022, targeting a Federal Funds Rate of 4.25% to 4.50%, with expectations of an additional increase 1st quarter 2023
- Inverted Treasury curve: as of 01/03/2023, the 2-Yr treasury rate at 4.41%, the 10-yr treasury rate at a 3.78% - sometimes an indicator of a pending recession

UNITED STATES BOND YIELD FORECASTS January 03, 2023

Rate	Yields	Q1 23	Q2 23	Q3 23	Q4 23	Q1 24	Q2 24	Q3 24	Q4 24	Q1 25
United States										
US 30-Year	3.88 %	3.99 %	3.99 %	3.89 %	3.76 %	3.71 %	3.66 %	3.66 %	3.65 %	3.80 %
US 10-Year	3.78 %	3.85 %	3.80 %	3.68 %	3.51 %	3.43 %	3.35 %	3.30 %	3.25 %	3.46 %
US 5-Year	3.94 %	4.09 %	4.02 %	3.86 %	3.62 %	3.46 %	3.36 %	3.27 %	3.22 %	3.42 %
US 2-Year	4.41 %	4.51 %	4.41 %	4.14 %	3.81 %	3.55 %	3.37 %	3.20 %	3.08 %	3.26 %
US 3-Month Term SOFR	4.60 %	4.92 %	4.94 %	4.76 %	4.41 %	3.98 %	3.69 %	3.46 %	3.34 %	3.30 %
Fed Funds Rate - Upper Bound	4.50 %	5.05 %	5.05 %	4.95 %	4.70 %	4.20 %	3.85 %	3.50 %	3.30 %	3.00 %
Fed Funds Rate - Lower Bound	4.25 %	4.78 %	4.80 %	4.70 %	4.44 %	3.97 %	3.60 %	3.23 %	3.05 %	2.77 %
2 Year - 10 Year Spread	-0.62 %	-0.66 %	-0.61 %	-0.46 %	-0.30 %	-0.12 %	-0.01 %	0.10 %	0.17 %	0.19 %

Source: Bloomberg



Overview of Debt Profile



STA's Current Debt Portfolio

- STA has approximately \$342.5 million in outstanding bonds: “AAA” rated by S&P and Fitch

Sacramento Transportation Authority Debt Summary

SERIES	OUTSTANDING PAR	FINAL MATURITY	MODE	SBPA/DIRECT PURCHASE	EXPIRATION/TENDER DATE	REMARKETING AGENT
2009C	\$106,100,000	10/1/2038	Weekly VRDB	US Bank N.A. SBPA	11/20/2027	US Bank
2014A	\$106,100,000	10/1/2038	Weekly VRDB	Sumitomo Mitsui Banking Corp.	10/30/2024	Wells Fargo
2015A	\$106,100,000	10/1/2038	Weekly VRDB	Sumitomo Mitsui Banking Corp.	5/12/2023	JP Morgan
2022	\$24,245,000	10/1/2027	Fixed Rate	N/A	N/A	N/A
TOTAL	\$342,545,000					

- The Authority's three swaps have a market valuation of (\$36.9 million)

- None of the swaps have a collateral posting requirement and all swaps have performed as anticipated

Sacramento Transportation Authority Swaps Summary

ASSOCIATED SERIES	AUTHORITY PAYS	AUTHORITY RECIEVES	EFFECTIVE DATE	TERMINATION DATE	NOTIONAL AMOUNT	COLLATERAL THRESHOLD AMOUNTS	COUNTERPARTY	CURRENT MARKET VALUATION
						Aa3/AA+		
2009C	3.74%	67% of 1-month LIBOR	10/1/2009	10/1/2038	106,100,000	Not Applicable	Bank of America N.A.	(\$12,841,846)
2014A	3.74%	67% of 1-month LIBOR	10/1/2009	10/1/2038	106,100,000	Not Applicable	Goldman Sachs Capital Markets	(\$11,196,939)
2015A	3.67%	67% of 3-month LIBOR	10/1/2009	10/1/2038	106,100,000	Not Applicable	JP Morgan Chase Bank N. A	(\$12,839,515)
TOTAL					\$318,300,000			(\$36,878,301)

Market Valuations are dated 12/30/2022 from PFM Swap Advisors



Debt Service Schedule

◆ Annual Debt Service ranges from \$18.8 million in FY2023-28 to \$36.3 million in FY2029-39

Year	FY2023 Revenues	Series 2009C Debt Service ^{1 3}	Series 2012 Debt Service	Series 2014A Debt Service ^{1 3}	Series 2015A Debt Service ^{2 3}	Series 2022 Debt Service	Total Existing Debt Service	Annual Debt Service Coverage
2023	164,453,000	4,571,436	5,215,000	4,432,339	4,366,635	619,594	19,205,005	8.56x
2024	164,453,000	4,573,058		4,433,587	4,367,899	5,482,750	18,857,293	8.72x
2025	164,453,000	4,571,305		4,432,230	4,366,504	5,478,250	18,848,289	8.73x
2026	164,453,000	4,571,436		4,432,339	4,366,635	5,477,375	18,847,786	8.73x
2027	164,453,000	4,571,436		4,432,339	4,366,635	5,479,375	18,849,786	8.72x
2028	164,453,000	4,573,058		4,433,587	4,367,899	5,478,625	18,853,168	8.72x
2029	164,453,000	11,909,794		11,677,709	11,614,276	-	35,201,780	4.67x
2030	164,453,000	12,173,855		12,151,975	11,995,451	-	36,321,281	4.53x
2031	164,453,000	12,216,244		12,005,243	12,053,860	-	36,275,346	4.53x
2032	164,453,000	12,144,670		12,144,752	11,998,736	-	36,288,158	4.53x
2033	164,453,000	12,155,693		12,065,756	12,027,376	-	36,248,825	4.54x
2034	164,453,000	12,150,773		12,073,145	12,040,601	-	36,264,518	4.53x
2035	164,453,000	12,128,532		12,063,751	12,037,276	-	36,229,559	4.54x
2036	164,453,000	12,089,577		12,038,047	12,115,836	-	36,243,460	4.54x
2037	164,453,000	12,130,156		12,092,714	11,977,086	-	36,199,957	4.54x
2038	164,453,000	12,051,941		12,029,044	12,120,297	-	36,201,283	4.54x
2039	164,453,000	12,054,301		12,046,545	12,042,892	-	36,143,737	4.55x
TOTAL (2023-2039)	2,795,701,000	160,637,266	5,215,000	158,985,102	158,225,894	28,015,969	511,079,231	4.53x

1. The net hedged rate for the Series 2009C and 2014A bonds is 3.7360%

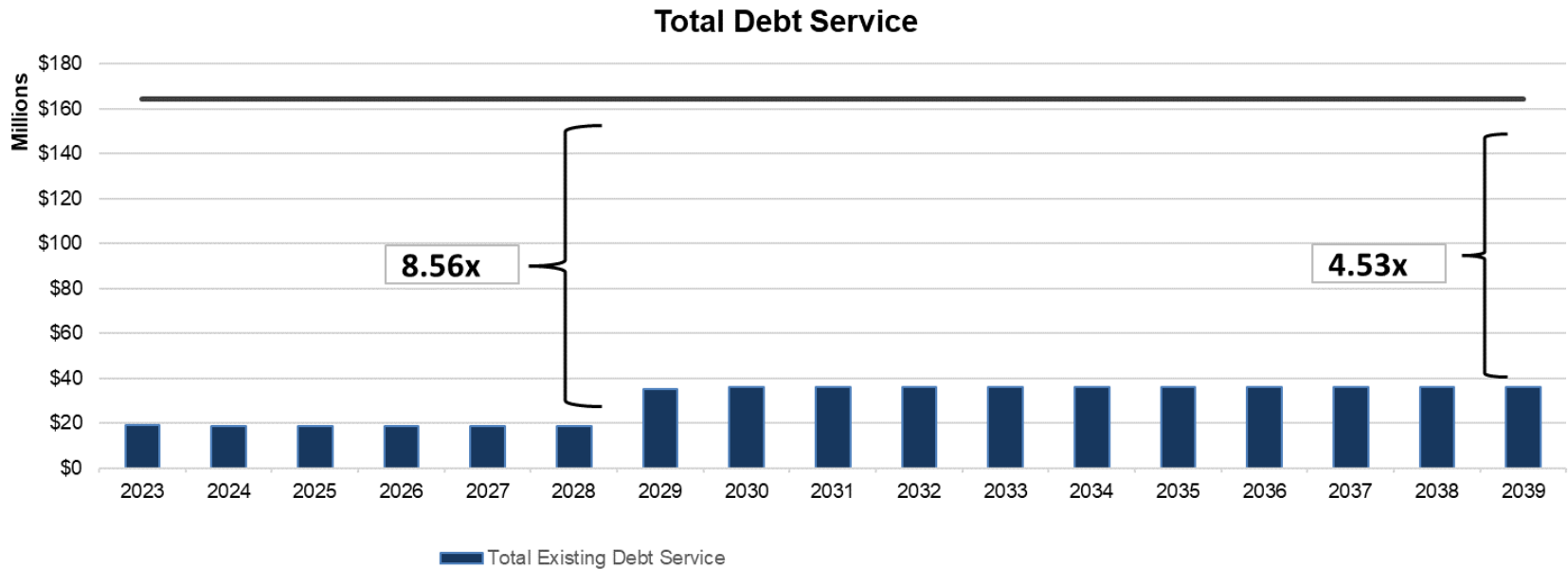
2. The net hedged rate for the Series 2015A bonds is 3.6660%

3. Includes liquidity and remarketing fees



Debt Service Coverage Ratio

- Very strong annual debt service coverage (with FY2023 revenues = \$164.4 million) supports “AAA” ratings from S&P and Fitch
 - Annual DS coverage through 2028: 8.56x
 - After 2029 DS coverage: 4.53x





Overview of Interest Rate Swaps



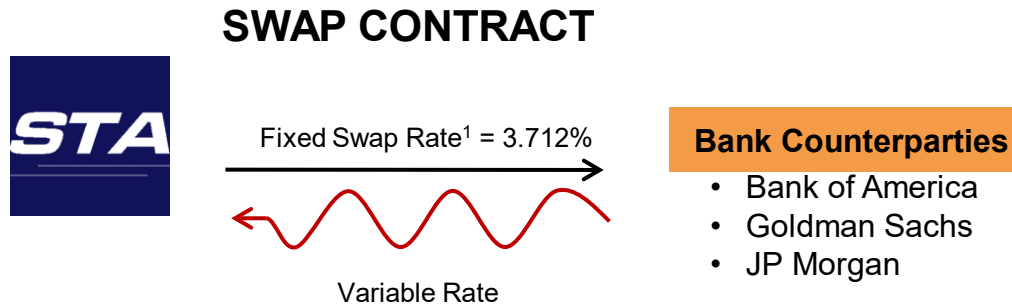
Why Use an Interest Rate Swap?

- ◆ Lock in interest rates today for planned bond issuance in the future
 - An interest rate swap is one of the only ways to lock in today's rates for bonds issued several years in the future
- ◆ In 2006, STA identified \$318 million of future borrowing needs in 2009 for projects
- ◆ Interest rate swaps in 2006 provided budget certainty for future interest rates



Interest Rate Swap Overview

- An interest rate swap is a contract between two counterparties to exchange interest rate payments over time.
- Purpose: the swap contract locks in the fixed rate.

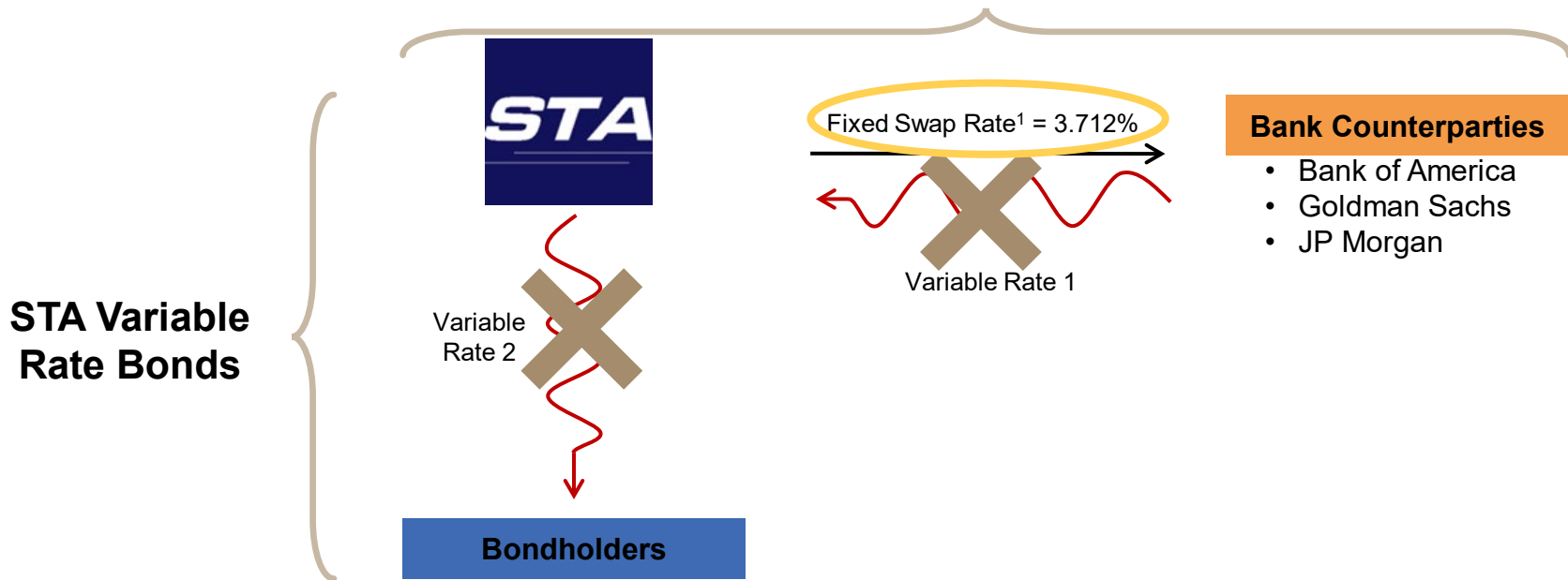




Interest Rate Swap Overview

- The swap locks in the rate – the variable rate bonds raise funds for projects
- To the extent that $variable-rate-1 = variable-rate-2$ (i.e., inflows equal outflows) STA's net payment is the fixed swap rate

SWAP CONTRACT





Total Cost on Interest Rate Swap and Bonds

- ◆ STA's all-in cost of capital on the interest rate swaps is 4.12%, including all ancillary fees

Total Cost of Interest Rate Swap	
<u>STA Pays</u>	
Swap Fixed Rate	3.71%
Fees to Remarketing Agents	0.06%
Fees to Liquidity Providers	0.35%
All in Cost:	4.12%



Recent Accomplishments & Future Considerations

- ◆ The 2022 bond refunding saved \$1.95 million in debt service costs through 2028

- ◆ S&P and Fitch upgraded the STA to “AAA” in August – the highest possible credit rating

- ◆ The strong Sacramento County regional economy supports diverse employment, growing personal income statistics and strong consumption and sales tax growth
 - Sales tax revenue grew to \$173 million in FY 2022: 31% growth over 2019 revenues

- ◆ PFM will work with staff to analyze the possibility of refunding all or a portion of the interest rate swaps and variable rate bonds to simplify the debt portfolio
 - Present analysis results at upcoming STA Board meeting

Thank You



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