

SESSION FOUR: PART TWO

Group Exercise: Bond Pricing



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- Exercise Overview
- Issuer Historical Pricing Results
- Recent Comparable Pricing Results
- Secondary Trading
- Pre-Marketing
- Market Data/Tone Impact on Spreads on Day of Pricing
- Release Pricing Wire and Take Orders
- Reprice and Verbal Award



Exercise Overview



Exercise Overview

Cal City Joint Powers Financing Authority (AA) - Series 2023A (Lease Revenue Bonds) Pricing Worksheet

pfm Year	Term	Avg Life	Principal	PFM 5% CPN / 10.1 yr PC Scale					Spread to 8/11/2023 Interpolated BVAL	Benchmark 8/11/2023 BVAL AAA
				Coupon	ROY	YTC	YTM	Price		
10/1/2024	1.1		\$ 765,000	5.000%	3.16%			101.946		3.16%
10/1/2025	2.1		\$ 805,000	5.000%	3.05%			103.911		3.05%
10/1/2026	3.1		\$ 845,000	5.000%	2.91%			106.134		2.91%
10/1/2027	4.1		\$ 890,000	5.000%	2.80%			108.442		2.80%
10/1/2028	5.1		\$ 935,000	5.000%	2.74%			110.672		2.74%
10/1/2029	6.1		\$ 980,000	5.000%	2.70%			112.819		2.70%
10/1/2030	7.1		\$ 1,030,000	5.000%	2.67%			114.940		2.67%
10/1/2031	8.1		\$ 1,080,000	5.000%	2.67%			116.857		2.67%
10/1/2032	9.1		\$ 1,135,000	5.000%	2.67%			118.705		2.67%
10/1/2033	10.1		\$ 1,190,000	5.000%	2.70%			120.188		2.70%
10/1/2034	11.1		\$ 1,250,000	5.000%	2.78%		2.934%	119.434		2.78%
10/1/2035	12.1		\$ 1,315,000	5.000%	2.91%		3.175%	118.194		2.91%
10/1/2036	13.1		\$ 1,380,000	5.000%	3.05%		3.398%	116.811		3.05%
10/1/2037	14.1		\$ 1,445,000	5.000%	3.17%		3.572%	115.701		3.17%
10/1/2038	15.1		\$ 1,520,000	5.000%	3.23%		3.687%	115.091		3.23%
10/1/2039	16.1		\$ 1,595,000	5.000%	3.28%		3.773%	114.698		3.28%
10/1/2040	17.1		\$ 1,675,000	5.000%	3.33%		3.855%	114.224		3.33%
10/1/2041	18.1		\$ 1,760,000	5.000%	3.38%		3.928%	113.777		3.38%
10/1/2042	19.1		\$ 1,845,000	5.000%	3.43%		3.995%	113.325		3.43%
10/1/2043	20.1		\$ 1,940,000	5.000%	3.46%		4.047%	113.019		3.46%
10/1/2044	21.1	1	\$ 2,035,000							3.50%
10/1/2045	22.1	1	\$ 2,145,000							3.54%
10/1/2046	23.1	1	\$ 2,255,000							3.58%
10/1/2047	24.1	1	\$ 2,375,000							3.60%
10/1/2048	25.1	1	23.2 yrs \$ 2,500,000	5.000%	3.63%		4.252%	111.473		3.63%
10/1/2049	26.1	2	\$ 2,630,000							3.65%
10/1/2050	27.1	2	\$ 2,770,000							3.67%
10/1/2051	28.1	2	\$ 2,915,000							3.68%
10/1/2052	29.1	2	\$ 3,065,000							3.69%
10/1/2053	30.1	2	28.2 yrs \$ 3,230,000	5.000%	3.69%		4.344%	110.951		3.69%

Total Par \$ 51,300,000
Avg Life 19.2 years
PV01 \$ 45,551

Call Date:
10/1/2033

- California City Lease Revenue Bond
- AA Rated
- \$51.3 Million Issuance Size
- Maturity Size \$765k to \$3.32mm
- 5% Coupon,
- 10 Year Par Call Scale
- Term Bonds in 2048 and 2053

The case studies provided in this proposal are for informational purposes only. They do not represent an endorsement or testimonial by clients of PFM's financial advisory services.



Exercise Overview

➤ Based Supporting Data, credit spreads will be developed and evolve up until Morning of Pricing

Cal City Joint Powers Financing Authority (AA) - Series 2023A (Lease Revenue Bonds) Pricing Worksheet

pfm		PFM 5% CPN / 10.1 yr PC Scale							Benchmark 8/11/2023 BVAL AAA
Year	Term	Avg Life	Principal	Coupon	ROY	YTC	YTM	Price	
10/1/2024	1.1		\$ 765,000	5.000%	3.16%			101.946	3.16%
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10/1/2029	6.1		\$ 980,000	5.000%	2.70%			112.819	2.70%
10/1/2030	7.1		\$ 1,030,000	5.000%	2.67%			114.940	2.67%
10/1/2031	8.1		\$ 1,080,000	5.000%	2.67%			116.857	2.67%
10/1/2032	9.1		\$ 1,135,000	5.000%	2.67%			118.705	2.67%
10/1/2033	10.1		\$ 1,190,000	5.000%	2.70%			120.188	2.70%
10/1/2034	11.1		\$ 1,250,000	5.000%	2.78%		2.934%	119.434	2.78%
10/1/2035	12.1		\$ 1,315,000	5.000%	2.91%		3.175%	118.194	2.91%
10/1/2036	13.1		\$ 1,380,000	5.000%	3.05%		3.398%	116.811	3.05%
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10/1/2040	17.1		\$ 1,675,000	5.000%	3.33%		3.855%	114.224	3.33%
10/1/2041	18.1		\$ 1,760,000	5.000%	3.38%		3.928%	113.777	3.38%
10/1/2042	19.1		\$ 1,845,000	5.000%	3.43%		3.995%	113.325	3.43%
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10/1/2044	21.1	1	\$ 2,035,000						3.50%
10/1/2045	22.1	1	\$ 2,145,000						3.54%
10/1/2046	23.1	1	\$ 2,255,000						3.58%
10/1/2047	24.1	1	\$ 2,375,000						3.60%
10/1/2048	25.1	1	\$ 2,500,000	5.000%	3.63%		4.252%	111.473	3.63%
10/1/2049	26.1	2	\$ 2,630,000						3.65%
10/1/2050	27.1	2	\$ 2,770,000						3.67%
10/1/2051	28.1	2	\$ 2,915,000						3.68%
10/1/2052	29.1	2	\$ 3,065,000						3.69%
10/1/2053	30.1	2	\$ 3,230,000	5.000%	3.69%		4.344%	110.951	3.69%

Year	Issuer Historical Pricing Results	Recent Comparable Pricing Results	Secondary Trade Activity	Morning Market Tone
	Spread	Spread	Spread	Spread
1				
5				
10				
15				
20				
25				
30				

Total Par \$ 51,300,000
 Avg Life 19.2 years
 PV01 \$ 45,108

Call Date:
 10/1/2033



NEGOTIATED SALE

Independent Pricing Scale

Analyze Historical Issuer Results

Analyze Recent Comparable Results

Analyze Recent Trades

Issuer, FA, & Sr. underwriter negotiate Pre-Marketing wire scale

Issuer, FA, & Sr. underwriter negotiate pricing wire scale

Pricing wire released & bonds offered directly to investors

Underwriting syndicate takes orders

Final price negotiated





Issuer Historical Pricing Results



Issuer Historical Pricing Results - Exercise

- ❖ Historical Issuer Results can give a trading range for where an Issuer has priced in the Primary Market
- ❖ However, market dynamics at the time of the prior issuance need to be considered

Issuer:	Joint Powers Financing Authority (CA)					Joint Powers Financing Authority (CA)					Joint Powers Financing Authority (CA)				
Series:	Lease Revenue Bonds, Series 2023					Lease Revenue Bonds, Series 2022					Lease Revenue Bonds, Series 2021				
Security:	Gen Purpose/Pub Impt/Revenue					Gen Purpose/Pub Impt/Revenue					Gen Purpose/Pub Impt/Revenue				
Sale Type:	Tax Exempt (Negotiated)					Tax Exempt (Negotiated)					Tax Exempt (Negotiated)				
Underwriter:	Underwriter A					Underwriter B					Underwriter C				
Financial Advisor:	Fin Advisors					Fin Advisors					Fin Advisors				
Par Amount:	\$38.320					\$69.315.000					\$18.565.000				
Sale Date:	4/10/2023					5/18/2022					9/30/2021				
Last Call Date:	4/1/2033 @ 100 (10.1 Yrs)					12/1/2032 @ 103 (10.7 Yrs)					6/1/2029 @ 100 (7.8 Yrs)				
Underlying Ratings:	-/AA/-					-/AA/-					-/AA+/-				
Insured Ratings:	-/-					-/-					-/-				
Maturity Year (TSY)	Par (M)	Price	Coupon	Yield	BVAL Sprd	Par (M)	Price	Coupon	Yield	BVAL Sprd	Par (M)	Price	Coupon	Yield	BVAL Sprd
<1						945	\$101.54	5.000%	1.900%	42 bps					
1	745	\$102.86	5.000%	2.320%	0 bps	995	\$104.02	5.000%	2.260%	7 bps	505	\$102.41	4.000%	0.170%	2 bps
2	785	\$105.63	5.000%	2.220%	0 bps	1,045	\$105.95	5.000%	2.530%	13 bps	655	\$106.13	4.000%	0.230%	7 bps
3	820	\$108.53	5.000%	2.130%	2 bps	1,095	\$107.42	5.000%	2.760%	24 bps	680	\$109.71	4.000%	0.290%	7 bps
4	860	\$111.38	5.000%	2.080%	6 bps	1,155	\$108.98	5.000%	2.860%	24 bps	710	\$113.00	4.000%	0.390%	5 bps
5	900	\$114.13	5.000%	2.060%	10 bps	1,215	\$110.07	5.000%	3.000%	31 bps	735	\$115.75	4.000%	0.550%	6 bps
6	940	\$116.80	5.000%	2.050%	14 bps	1,275	\$110.74	5.000%	3.160%	40 bps	765	\$118.01	4.000%	0.730%	9 bps
7	985	\$119.36	5.000%	2.050%	18 bps	1,340	\$111.07	5.000%	3.320%	50 bps	795	\$119.91	4.000%	0.900%	12 bps
8	1,030	\$121.88	5.000%	2.050%	22 bps	1,410	\$111.73	5.000%	3.400%	53 bps	830	\$121.49	4.000%	1.060%	15 bps
9	1,080	\$124.15	5.000%	2.070%	26 bps	1,480	\$112.12	5.000%	3.490%	56 bps	860	\$120.36	4.000%	1.200%	18 bps
10	1,130	\$125.82	5.000%	2.140%	30 bps	1,555	\$111.64	5.000%	3.570%	59 bps	895	\$119.39	4.000%	1.320%	22 bps
11	1,185	\$124.69	5.000%	2.250%	30 bps	1,635	\$110.45	5.000%	3.740%	74 bps	930	\$118.51	4.000%	1.430%	27 bps
12	1,245	\$123.07	5.000%	2.410%	30 bps	1,720	\$109.82	5.000%	3.830%	81 bps	970	\$117.72	4.000%	1.530%	32 bps
13	1,305	\$121.57	5.000%	2.560%	30 bps	1,810	\$109.11	5.000%	3.930%	88 bps	1,005	\$116.86	4.000%	1.640%	40 bps
14	1,365	\$120.48	5.000%	2.670%	30 bps	1,900	\$108.59	5.000%	3.990%	92 bps	1,045	\$116.24	4.000%	1.720%	44 bps
15	1,435	\$119.89	5.000%	2.730%	30 bps	2,000	\$108.33	5.000%	4.020%	93 bps	1,090	\$115.77	4.000%	1.780%	47 bps
16	1,505	\$119.50	5.000%	2.770%	40 bps						1,130	\$115.54	4.000%	1.810%	47 bps
17	1,580	\$119.02	5.000%	2.820%	43 bps						1,180	\$115.39	4.000%	1.830%	46 bps
18	1,660	\$118.63	5.000%	2.860%	45 bps						1,225	\$105.59	3.000%	2.200%	80 bps
19	1,695	\$118.25	5.000%	2.900%	45 bps						1,260	\$105.30	3.000%	2.240%	81 bps
20	1,640	\$117.86	5.000%	2.940%	45 bps						1,300	\$98.47	2.500%	2.600%	114 bps
21						11,725	\$108.66	5.250%	4.220%	103 bps					
22															
23															
24															
25	9,310	\$116.16	5.000%	3.120%	48 bps	15,340	\$110.35	5.500%	4.220%	94 bps					
26															
27															
28															
29															
30	11,610	\$115.60	5.000%	3.180%	50 bps	19,675	\$95.22	4.500%	4.800%	149 bps					



Issuer Historical Pricing Results - Exercise

Cal City Joint Powers Financing Authority (AA) - Series 2023A (Lease Revenue Bonds) Pricing Worksheet

Year	Term	Avg Life	Principal	PFM 5% CPN / 10.1 yr PC Scale					Benchmark 8/11/2023 BVAL AAA
				Coupon	ROY	YTC	YTM	Price	
10/1/2024	1.1		\$ 765,000	5.000%	3.16%			101.946	3.16%
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10/1/2028	5.1		\$ 935,000	5.000%	2.74%			110.672	2.74%
10/1/2029	6.1		\$ 980,000	5.000%	2.70%			112.819	2.70%
10/1/2030	7.1		\$ 1,030,000	5.000%	2.67%			114.940	2.67%
10/1/2031	8.1		\$ 1,080,000	5.000%	2.67%			116.857	2.67%
10/1/2032	9.1		\$ 1,135,000	5.000%	2.67%			118.705	2.67%
10/1/2033	10.1		\$ 1,190,000	5.000%	2.70%			120.188	2.70%
10/1/2034	11.1		\$ 1,250,000	5.000%	2.78%		2.934%	119.434	2.78%
10/1/2035	12.1		\$ 1,315,000	5.000%	2.91%		3.175%	118.194	2.91%
10/1/2036	13.1		\$ 1,380,000	5.000%	3.05%		3.398%	116.811	3.05%
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10/1/2040	17.1		\$ 1,675,000	5.000%	3.33%		3.855%	114.224	3.33%
10/1/2041	18.1		\$ 1,760,000	5.000%	3.38%		3.928%	113.777	3.38%
10/1/2042	19.1		\$ 1,845,000	5.000%	3.43%		3.995%	113.325	3.43%
10/1/2043	20.1		\$ 1,940,000	5.000%	3.46%		4.047%	113.019	3.46%
10/1/2044	21.1	1	\$ 2,035,000						3.50%
10/1/2045	22.1	1	\$ 2,145,000						3.54%
10/1/2046	23.1	1	\$ 2,255,000						3.58%
10/1/2047	24.1	1	\$ 2,375,000						3.60%
10/1/2048	25.1	1	23.2 yrs \$ 2,500,000	5.000%	3.63%		4.252%	111.473	3.63%
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10/1/2052	29.1	2	\$ 3,065,000						3.69%
10/1/2053	30.1	2	28.2 yrs \$ 3,230,000	5.000%	3.69%		4.344%	110.951	3.69%

Total Par \$ 51,300,000
 Avg Life 19.2 years
 PV01 \$ 45,108

Call Date: 10/1/2033

Year	Issuer Historical Pricing Results Spread
1	
5	
10	
15	
20	
30	

- Based on Issuer Historical Pricing Results.
- Enter in the Spreads that you think our Primary Issue Example should clear the market.
- Start with Spots on the Curve (ie 1, 5, 10, 15, 20, 30 Year Tenors)



Recent Comparable Pricing Results



Recent Comparable Pricing Results - Example

California City Public Facilities Financing Authority (CA)						California County Capital Financing Authority (CA)					California County Capital Financing Authority (CA)				
Lease Revenue and Lease Revenue Refunding Bonds, Series 2024A						Lease Revenue Bonds, 2024 Series A-2					Lease Revenue Bonds, 2024 Series A-1				
Other Housing/Revenue Tax Exempt (Negotiated)						Gen Purpose/Pub Impt/Revenue Tax Exempt (Negotiated)					Gen Purpose/Pub Impt/Revenue Tax Exempt (Negotiated)				
Underwriter B						Underwriter C					Underwriter D				
Fin Advisors						Fin Advisors					Fin Advisors				
Par Amount: \$213,130,000						Par Amount: \$11,260,000					Par Amount: \$35,000,000				
Sale Date: 7/10/2024						Sale Date: 6/4/2024					Sale Date: 6/4/2024				
Last Call Date: 10/15/2034 @ 100 (10.4 Yrs)						Last Call Date: Non-Call					Last Call Date: 6/1/2029 @ 100 (5.1 Yrs)				
Underlying Ratings: -JAA-/AA						Underlying Ratings: -JAA+/-					Underlying Ratings: -JAA+/-				
Insured Ratings: -J-						Insured Ratings: -J-					Insured Ratings: -J-				
Maturity Year (TSY)	Par (M)	Price	Coupon	Yield	BVAL Sprd	Par (M)	Price	Coupon	Yield	BVAL Sprd	Par (M)	Price	Coupon	Yield	BVAL Sprd
<1	2,145	\$100.38	5.000%	3.250%	7 bps										
1	4,420	\$102.38	5.000%	3.000%	-7 bps	1,045	\$101.63	5.000%	3.240%	-11 bps					
2	4,645	\$104.33	5.000%	2.970%	-3 bps	1,370	\$103.39	5.000%	3.190%	-9 bps					
3	4,895	\$106.41	5.000%	2.900%	-3 bps	1,435	\$105.43	5.000%	3.060%	-9 bps					
4	5,135	\$108.28	5.000%	2.900%	0 bps	1,505	\$107.20	5.000%	3.050%	-4 bps					
5	5,410	\$110.21	5.000%	2.880%	0 bps	1,590	\$108.84	5.000%	3.060%	1 bps	2,590	\$100.22	4.000%	3.950%	90 bps
6	5,685	\$111.93	5.000%	2.890%	3 bps	635	\$110.13	5.000%	3.120%	10 bps	2,695	\$100.18	4.000%	3.960%	94 bps
7	5,990	\$113.38	5.000%	2.930%	8 bps	665	\$111.59	5.000%	3.130%	11 bps	2,805	\$100.18	4.000%	3.960%	94 bps
8	4,910	\$114.94	5.000%	2.940%	10 bps	700	\$112.84	5.000%	3.160%	15 bps	2,915	\$100.04	4.000%	3.990%	98 bps
9	5,165	\$116.27	5.000%	2.970%	12 bps	735	\$114.07	5.000%	3.180%	17 bps	3,030	\$100.00	4.000%	4.000%	99 bps
10	5,435	\$117.78	5.000%	2.970%	11 bps	775	\$115.41	5.000%	3.180%	17 bps	3,155	\$99.67	4.000%	4.040%	103 bps
11	5,705	\$117.20	5.000%	3.030%	16 bps	805	\$115.71	5.000%	3.280%	27 bps					
12	6,000	\$116.82	5.000%	3.070%	18 bps										
13	6,305	\$116.06	5.000%	3.150%	24 bps										
14	6,635	\$116.06	5.000%	3.150%	19 bps										
15	6,970	\$115.30	5.000%	3.230%	21 bps										
16	7,330	\$114.55	5.000%	3.310%	17 bps						17,810	\$99.61	4.125%	4.160%	93 bps
17	7,705	\$113.53	5.000%	3.420%	18 bps										
18	8,100	\$112.98	5.000%	3.480%	17 bps										
19	6,520	\$112.43	5.000%	3.540%	17 bps										
20	6,855	\$112.06	5.000%	3.580%	15 bps										
21															
22															
23															
24															
25	39,915	\$109.90	5.000%	3.820%	17 bps										
26															
27															
28															
29															
30	51,255	\$109.19	5.000%	3.900%	17 bps										



Recent Comparable Pricing Results - Exercise

Issuer:	California Lease Revenue Comparable 1					California Lease Revenue Comparable 2					California Lease Revenue Comparable 3					California Lease Revenue Comparable 4				
Series:	Lease Revenue Bonds, Series 2023A (Public Safety Center Project)					Lease Revenue Bonds, Series 2023					2023 Certificates of Participation (Central Valley Support Services Joint Power Agency)					Lease Revenue Bonds, Series 2023A (Gateway Preserve Land Acquisition Project)				
Security:	Gen Purpose/Pub Impt/Revenue					Gen Purpose/Pub Impt/COP/Lease					Primary & Secondary Education/COP/Lease					Gen Purpose/Pub Impt/Revenue				
Sale Type:	Tax Exempt (Negotiated)					Tax Exempt (Negotiated)					Tax Exempt (Negotiated)					Tax Exempt (Negotiated)				
Underwriter:	Underwriter A					Underwriter B					Underwriter C					Underwriter D				
Financial Advisor:	Financial Advisor A					Financial Advisor B					Financial Advisor C					Financial Advisor D				
Par Amount:	\$9,190,000					\$5,385,000					\$54,090,000					\$326,280,000				
Sale Date:	8/2/2024					7/12/2024					6/22/2024					6/1/2024				
Last Call Date:	10/1/2033 @ 100 (10.3 Yrs)					5/1/2031 @ 100 (7.9 Yrs)					6/1/2033 @ 100 (10.1 Yrs)					5/1/2026 @ 100 (3 Yrs)				
Underlying Ratings:	-JAA-					-JAA-					-JAA-					-JAA+/-				
Insured Ratings:	-J-					-J-					-J-					-J-				
Maturity Year (TSY)	Par (M)	Price	Coupon	Yield	BVAL Sprd	Par (M)	Price	Coupon	Yield	BVAL Sprd	Par (M)	Price	Coupon	Yield	BVAL Sprd	Par (M)	Price	Coupon	Yield	BVAL Sprd
<1																				
1						50	\$101.25	5.000%	3.320%	29 bps	655	\$101.69	5.000%	3.060%	6 bps					
2						165	\$102.94	5.000%	3.270%	33 bps	875	\$103.70	5.000%	2.970%	7 bps					
3						170	\$104.75	5.000%	3.190%	39 bps	920	\$105.83	5.000%	2.880%	12 bps					
4						180	\$106.66	5.000%	3.110%	42 bps	970	\$108.09	5.000%	2.790%	14 bps	5,925	\$105.56	5.000%	2.970%	26 bps
5						190	\$108.49	5.000%	3.070%	44 bps	1,020	\$110.13	5.000%	2.770%	18 bps	6,220	\$105.50	5.000%	2.990%	34 bps
6						200	\$110.12	5.000%	3.070%	47 bps	1,070	\$112.15	5.000%	2.750%	19 bps	6,530	\$105.42	5.000%	3.020%	42 bps
7						210	\$111.70	5.000%	3.070%	51 bps	1,120	\$114.23	5.000%	2.720%	20 bps	6,860	\$105.42	5.000%	3.020%	46 bps
8						215	\$113.24	5.000%	3.070%	52 bps	1,175	\$116.09	5.000%	2.720%	21 bps	7,200	\$105.39	5.000%	3.030%	48 bps
9						230	\$113.16	5.000%	3.080%	53 bps	1,235	\$117.81	5.000%	2.730%	23 bps	7,560	\$105.36	5.000%	3.040%	50 bps
10	1,750	\$117.15	5.000%	3.020%	38 bps	240	\$112.80	5.000%	3.130%	56 bps	1,295	\$119.08	5.000%	2.780%	25 bps	7,940	\$105.25	5.000%	3.080%	52 bps
11						285	\$112.28	5.000%	3.200%	56 bps	1,360	\$118.51	5.000%	2.840%	23 bps	8,335	\$105.08	5.000%	3.140%	51 bps
12						300	\$111.55	5.000%	3.300%	54 bps	1,430	\$117.47	5.000%	2.950%	22 bps	8,755	\$104.86	5.000%	3.220%	47 bps
13						315	\$110.19	5.000%	3.490%	59 bps	1,505	\$116.26	5.000%	3.080%	20 bps	9,190	\$104.49	5.000%	3.350%	45 bps
14						330	\$109.05	5.000%	3.650%	62 bps	1,580	\$114.88	5.000%	3.230%	23 bps	9,650	\$104.10	5.000%	3.490%	46 bps
15	1,265	\$111.87	5.000%	3.590%	42 bps	345	\$108.56	5.000%	3.720%	61 bps	1,655	\$113.79	5.000%	3.350%	28 bps	10,135	\$103.85	5.000%	3.580%	48 bps
16											1,740	\$112.80	5.000%	3.460%	35 bps					
17											1,820	\$111.73	5.000%	3.580%	42 bps					
18											1,915	\$110.68	5.000%	3.700%	50 bps					
19											2,010	\$110.24	5.000%	3.750%	50 bps					
20	1,615	\$109.39	5.000%	3.870%	48 bps	1,960	\$97.94	4.130%	4.280%	96 bps	2,110	\$109.98	5.000%	3.780%	50 bps	59,085	\$103.97	5.250%	3.780%	47 bps
21																				
22																				
23																				
24																				
25	2,040	\$97.14	4.250%	4.440%	88 bps						12,000	\$97.38	4.000%	4.170%	72 bps	76,300	\$103.45	5.250%	3.970%	49 bps
26																				
27																				
28																				
29																				
30	2,520	\$96.05	4.250%	4.490%	87 bps						14,630	\$97.40	4.130%	4.280%	77 bps	96,595	\$97.68	4.250%	4.390%	85 bps



Recent Comparable Pricing Results - Exercise

Cal City Joint Powers Financing Authority (AA) - Series 2023A (Lease Revenue Bonds) Pricing Worksheet

pfm Year	Term	Avg Life	Principal	PFM 5% CPN / 10.1 yr PC Scale					Benchmark 8/11/2023 BVAL AAA
				Coupon	ROY	YTC	YTM	Price	
10/1/2024	1.1		\$ 765,000	5.000%	3.16%			101.946	3.16%
10/1/2025	2.1		\$ 805,000	5.000%	3.05%			103.911	3.05%
10/1/2026	3.1		\$ 845,000	5.000%	2.91%			106.134	2.91%
10/1/2027	4.1		\$ 890,000	5.000%	2.80%			108.442	2.80%
10/1/2028	5.1		\$ 935,000	5.000%	2.74%			110.672	2.74%
10/1/2029	6.1		\$ 980,000	5.000%	2.70%			112.819	2.70%
10/1/2030	7.1		\$ 1,030,000	5.000%	2.67%			114.940	2.67%
10/1/2031	8.1		\$ 1,080,000	5.000%	2.67%			116.857	2.67%
10/1/2032	9.1		\$ 1,135,000	5.000%	2.67%			118.705	2.67%
10/1/2033	10.1		\$ 1,190,000	5.000%	2.70%			120.188	2.70%
10/1/2034	11.1		\$ 1,250,000	5.000%	2.78%		2.934%	119.434	2.78%
10/1/2035	12.1		\$ 1,315,000	5.000%	2.91%		3.175%	118.194	2.91%
10/1/2036	13.1		\$ 1,380,000	5.000%	3.05%		3.398%	116.811	3.05%
10/1/2037	14.1		\$ 1,445,000	5.000%	3.17%		3.572%	115.701	3.17%
10/1/2038	15.1		\$ 1,520,000	5.000%	3.23%		3.687%	115.091	3.23%
10/1/2039	16.1		\$ 1,595,000	5.000%	3.28%		3.773%	114.698	3.28%
10/1/2040	17.1		\$ 1,675,000	5.000%	3.33%		3.855%	114.224	3.33%
10/1/2041	18.1		\$ 1,760,000	5.000%	3.38%		3.928%	113.777	3.38%
10/1/2042	19.1		\$ 1,845,000	5.000%	3.43%		3.995%	113.325	3.43%
10/1/2043	20.1		\$ 1,940,000	5.000%	3.46%		4.047%	113.019	3.46%
10/1/2044	21.1	1	\$ 2,035,000						3.50%
10/1/2045	22.1	1	\$ 2,145,000						3.54%
10/1/2046	23.1	1	\$ 2,255,000						3.58%
10/1/2047	24.1	1	\$ 2,375,000						3.60%
10/1/2048	25.1	1	23.2 yrs \$ 2,500,000	5.000%	3.63%		4.252%	111.473	3.63%
10/1/2049	26.1	2	\$ 2,630,000						3.65%
10/1/2050	27.1	2	\$ 2,770,000						3.67%
10/1/2051	28.1	2	\$ 2,915,000						3.68%
10/1/2052	29.1	2	\$ 3,065,000						3.69%
10/1/2053	30.1	2	28.2 yrs \$ 3,230,000	5.000%	3.69%		4.344%	110.951	3.69%

Total Par \$ 51,300,000
 Avg Life 19.2 years
 PV01 \$ 45,108

Call Date: 10/1/2033

Year	Recent Comparable Pricing Results Spread
1	
5	
10	
15	
20	
30	

- Based Recent Comparable Pricing Results.
- Enter in the Spreads that you think our Primary Issue Example should clear the market.
- Start with Spots on the Curve (ie 1, 5, 10, 15, 20, 30 Year Tenors)
- Does the recent Primary Market activity change your initial spread thoughts?



Secondary Trade Activity



Secondary Trade Activity - Example

Recent California Lease Revenue Trades

Maturity	Issuer	State	Sector	Underlying	Insurer	Tax Status	Trade Date	Par Amount	Price	Coupon	Yield	BVAL Spread to Trade Tin	Call Tenor
2025	State Public Works Board of the State	CA	Gen Purpose/Pub Impt	Aa3/A+/AA-		Tax Exempt	8/12/24	\$4,655,000	102.44	5.00%	2.63%	-5 bps	Non-Call
2025	San Diego Regional Building Authority	CA	Govt/Pub Buildings	Aa2/AA+/AA+		Tax Exempt	8/08/24	\$1,000,000	102.75	5.00%	2.62%	-7 bps	Non-Call
2025	Municipal Improvement Corporation of	CA	Gen Purpose/Pub Impt	Aa3/AA-/		Tax Exempt	8/08/24	\$250,000	102.89	5.00%	2.59%	-9 bps	Non-Call
2026	State Public Works Board of the State	CA	Gen Purpose/Pub Impt	Aa3/A+/AA-		Tax Exempt	8/05/24	\$1,520,000	105.48	5.00%	2.55%	-9 bps	Non-Call
2027	State Public Works Board of the State	CA	Gen Purpose/Pub Impt	Aa3/A+/AA-		Tax Exempt	8/05/24	\$1,125,000	107.59	5.00%	2.54%	-6 bps	Non-Call
2028	Municipal Improvement Corporation of	CA	Gen Purpose/Pub Impt	-/AA-/		Tax Exempt	8/08/24	\$320,000	110.26	5.00%	2.43%	-16 bps	Non-Call
2028	State Public Works Board of the State	CA	Govt/Pub Buildings	Aa3/A+/AA-		Tax Exempt	8/12/24	\$1,190,000	111.80	5.50%	2.53%	-7 bps	Non-Call
2029	Fremont Public Financing Authority (C	CA	Gen Purpose/Pub Impt	-/AA-/		Tax Exempt	8/06/24	\$300,000	106.76	5.00%	2.75%	24 bps	3.2Yrs
2029	Fremont Public Financing Authority (C	CA	Gen Purpose/Pub Impt	-/AA-/		Tax Exempt	8/07/24	\$300,000	107.80	5.00%	2.41%	-16 bps	3.2Yrs
2031	State Public Works Board of the State	CA	Gen Purpose/Pub Impt	Aa3/A+/AA-		Tax Exempt	8/06/24	\$1,070,000	116.07	5.00%	2.48%	0 bps	Non-Call
2035	South Tahoe Joint Powers Financing A	CA	Electric & Public Power	-/AA-/		Tax Exempt	8/09/24	\$375,000	117.01	5.00%	2.87%	18 bps	9.3Yrs
2035	South Tahoe Joint Powers Financing A	CA	Electric & Public Power	-/AA-/		Tax Exempt	8/09/24	\$375,000	116.40	5.00%	2.94%	24 bps	9.3Yrs
2036	State Public Works Board of the State	CA	Gen Purpose/Pub Impt	Aa3/A+/AA-		Tax Exempt	8/08/24	\$250,000	115.26	5.00%	2.60%	-13 bps	7.1Yrs
2037	State Public Works Board of the State	CA	Gen Purpose/Pub Impt	Aa3/A+/AA-		Tax Exempt	8/13/24	\$1,350,000	117.68	5.00%	2.88%	13 bps	9.8Yrs
2041	San Diego City Public Facilities Financ	CA	Other Housing	-/AA-/AA		Tax Exempt	8/05/24	\$1,000,000	117.03	5.00%	3.04%	6 bps	10.3Yrs
2041	San Diego City Public Facilities Financ	CA	Other Housing	-/AA-/AA		Tax Exempt	8/06/24	\$1,000,000	117.15	5.00%	3.03%	11 bps	10.3Yrs
2041	State Public Works Board of the State	CA	Govt/Pub Buildings	Aa3/A+/AA-		Tax Exempt	8/12/24	\$1,170,000	115.21	5.00%	3.09%	-2 bps	9.4Yrs
2042	San Diego City Public Facilities Financ	CA	Other Housing	-/AA-/AA		Tax Exempt	8/05/24	\$1,000,000	116.97	5.00%	3.05%	7 bps	10.3Yrs
2042	San Diego City Public Facilities Financ	CA	Other Housing	-/AA-/AA		Tax Exempt	8/05/24	\$1,000,000	116.84	5.00%	3.06%	8 bps	10.3Yrs
2046	State Public Works Board of the State	CA	Gen Purpose/Pub Impt	Aa3/A+/AA-		Tax Exempt	8/13/24	\$3,000,000	99.38	4.00%	4.04%	69 bps	6.8Yrs
2046	State Public Works Board of the State	CA	Gen Purpose/Pub Impt	Aa3/A+/AA-		Tax Exempt	8/07/24	\$1,550,000	109.64	5.00%	3.48%	21 bps	7.3Yrs
2047	South Orange County Public Financing	CA	Gen Purpose/Pub Impt	-/AA/AA+		Tax Exempt	8/13/24	\$520,000	109.77	5.00%	3.55%	15 bps	7.9Yrs
2049	San Diego City Public Facilities Financ	CA	Other Housing	-/AA-/AA		Tax Exempt	8/05/24	\$2,900,000	113.39	5.00%	3.43%	10 bps	10.3Yrs
2049	San Diego City Public Facilities Financ	CA	Other Housing	-/AA-/AA		Tax Exempt	8/06/24	\$1,805,000	112.44	5.00%	3.54%	18 bps	10.3Yrs
2052	North Lake Tahoe Public Financing Au	CA	Hospitals	-/AA-/		Tax Exempt	8/08/24	\$1,900,000	103.19	4.50%	4.04%	49 bps	8.4Yrs
2054	Los Angeles County Facilities 2 Inc. (C	CA	Gen Purpose/Pub Impt	-/AA+/AA+		Tax Exempt	8/08/24	\$1,000,000	111.91	5.25%	3.78%	20 bps	10.0Yrs
2054	Los Angeles County Facilities 2 Inc. (C	CA	Gen Purpose/Pub Impt	-/AA+/AA+		Tax Exempt	8/13/24	\$2,000,000	111.74	5.25%	3.80%	23 bps	9.9Yrs
2054	San Diego City Public Facilities Financ	CA	Other Housing	-/AA-/AA		Tax Exempt	8/13/24	\$2,000,000	111.38	5.00%	3.65%	8 bps	10.3Yrs
2054	San Diego City Public Facilities Financ	CA	Other Housing	-/AA-/AA		Tax Exempt	8/13/24	\$2,000,000	111.32	5.00%	3.66%	9 bps	10.3Yrs
2054	California Enterprise Development Aut	CA	Gen Purpose/Pub Impt	Aa3/AA-/		Tax Exempt	8/07/24	\$500,000	115.28	5.25%	3.46%	-8 bps	10.4Yrs
2054	California Enterprise Development Aut	CA	Gen Purpose/Pub Impt	Aa3/AA-/		Tax Exempt	8/07/24	\$500,000	113.28	5.25%	3.68%	13 bps	10.4Yrs



Secondary Trade Activity - Exercise

Recent California Lease Rev Trades

Maturity	Issuer	State	Sector	Underlying	Insurer	Tax Status	Trade Date	Par Amount	Price	Coupon	Yield	Spread to BVA	Call Tenor
2024	City and County of San Francisco (CA)	CA	Civic & Convention Centers	Aa2/AA+/AA		Tax Exempt	5/23/23	\$1,325,000	101.33	5.00%	3.39%	23 bps	Non-Call
2024	City and County of San Francisco (CA)	CA	Civic & Convention Centers	Aa2/AA+/AA		Tax Exempt	5/23/23	\$1,325,000	101.33	5.00%	3.40%	24 bps	Non-Call
2025	Davis Joint Unified School District (CA)	CA	Primary & Secondary Educat	-/A+/-	AGM	Tax Exempt	6/01/23	\$1,000,000	103.97	5.00%	3.08%	15 bps	Non-Call
2025	Davis Joint Unified School District (CA)	CA	Primary & Secondary Educat	-/A+/-	AGM	Tax Exempt	6/06/23	\$825,000	104.21	5.00%	2.96%	6 bps	Non-Call
2027	City and County of San Francisco (CA)	CA	Govt/Pub Buildings	Aa1/AA+/AA		Tax Exempt	6/30/23	\$1,385,000	99.83	3.00%	3.05%	38 bps	Non-Call
2029	Chula Vista Elementary School District (CA)	CA	Primary & Secondary Educat	-/A+/-	AGM	Tax Exempt	7/24/23	\$760,000	107.06	4.00%	2.73%	27 bps	Non-Call
2029	Chula Vista Elementary School District (CA)	CA	Primary & Secondary Educat	-/A+/-	AGM	Tax Exempt	7/28/23	\$510,000	107.25	4.00%	2.70%	18 bps	Non-Call
2030	South Orange County Public Financing Authority (CA)	CA	Gen Purpose/Pub Impt	-/AA/AA+		Tax Exempt	7/20/23	\$855,000	115.45	5.00%	2.53%	9 bps	Non-Call
2030	South Orange County Public Financing Authority (CA)	CA	Gen Purpose/Pub Impt	-/AA/AA+		Tax Exempt	7/20/23	\$855,000	115.02	5.00%	2.59%	15 bps	Non-Call
2032	El Centro Financing Authority (CA)	CA	Police Station & Equipment	-/A/-		Tax Exempt	6/13/23	\$1,395,000	117.00	5.00%	2.90%	35 bps	Non-Call
2036	City of South San Francisco Public Finance Authority (CA)	CA	Parks, Zoos & Beaches	-/AA+/-		Tax Exempt	7/10/23	\$620,000	112.36	5.00%	3.00%	6 bps	7.0Yrs
2036	City of South San Francisco Public Finance Authority (CA)	CA	Parks, Zoos & Beaches	-/AA+/-		Tax Exempt	7/10/23	\$620,000	111.91	5.00%	3.07%	13 bps	7.0Yrs
2037	City of South San Francisco Public Finance Authority (CA)	CA	Parks, Zoos & Beaches	-/AA+/-		Tax Exempt	6/13/23	\$750,000	111.88	5.00%	3.09%	5 bps	7.1Yrs
2037	City of South San Francisco Public Finance Authority (CA)	CA	Parks, Zoos & Beaches	-/AA+/-		Tax Exempt	6/13/23	\$750,000	111.88	5.00%	3.09%	5 bps	7.1Yrs
2037	City of South San Francisco Public Finance Authority (CA)	CA	Parks, Zoos & Beaches	-/AA+/-		Tax Exempt	6/13/23	\$750,000	111.78	5.00%	3.11%	7 bps	7.1Yrs
2040	Long Beach Bond Finance Authority (CA)	CA	Gen Purpose/Pub Impt	-/AA-/AA-		Tax Exempt	7/10/23	\$625,000	113.07	5.00%	3.45%	22 bps	10.2Yrs
2040	Long Beach Bond Finance Authority (CA)	CA	Gen Purpose/Pub Impt	-/AA-/AA-		Tax Exempt	7/10/23	\$625,000	113.03	5.00%	3.45%	22 bps	10.2Yrs
2042	City of South San Francisco Public Finance Authority (CA)	CA	Parks, Zoos & Beaches	-/AA+/-		Tax Exempt	5/25/23	\$1,000,000	98.43	4.00%	4.12%	72 bps	7.1Yrs
2042	City of South San Francisco Public Finance Authority (CA)	CA	Parks, Zoos & Beaches	-/AA+/-		Tax Exempt	6/12/23	\$1,000,000	100.00	4.00%	4.00%	72 bps	7.1Yrs
2042	City of South San Francisco Public Finance Authority (CA)	CA	Parks, Zoos & Beaches	-/AA+/-		Tax Exempt	6/12/23	\$1,000,000	100.00	4.00%	4.00%	72 bps	7.1Yrs
2042	City of South San Francisco Public Finance Authority (CA)	CA	Parks, Zoos & Beaches	-/AA+/-		Tax Exempt	6/12/23	\$1,000,000	100.00	4.00%	4.00%	72 bps	7.1Yrs
2043	South Orange County Public Financing Authority (CA)	CA	Gen Purpose/Pub Impt	-/AA/AA+		Tax Exempt	7/11/23	\$1,790,000	110.16	5.00%	3.65%	31 bps	9.0Yrs
2043	South Orange County Public Financing Authority (CA)	CA	Gen Purpose/Pub Impt	-/AA/AA+		Tax Exempt	7/11/23	\$1,790,000	109.76	5.00%	3.70%	36 bps	9.0Yrs
2051	Santa Monica Public Financing Authority (CA)	CA	Gen Purpose/Pub Impt	-/AA+/AA+		Tax Exempt	6/01/23	\$500,000	67.75	2.25%	4.22%	69 bps	8.2Yrs
2051	Santa Monica Public Financing Authority (CA)	CA	Gen Purpose/Pub Impt	-/AA+/AA+		Tax Exempt	6/01/23	\$500,000	66.15	2.25%	4.35%	82 bps	8.2Yrs
2051	Santa Monica Public Financing Authority (CA)	CA	Gen Purpose/Pub Impt	-/AA+/AA+		Tax Exempt	6/01/23	\$500,000	66.09	2.25%	4.36%	82 bps	8.2Yrs
2053	Long Beach Bond Finance Authority (CA)	CA	Gen Purpose/Pub Impt	-/AA-/AA-		Tax Exempt	7/19/23	\$1,355,000	100.25	4.00%	3.97%	52 bps	10.2Yrs
2053	Long Beach Bond Finance Authority (CA)	CA	Gen Purpose/Pub Impt	-/AA-/AA-		Tax Exempt	7/19/23	\$655,000	99.00	4.00%	4.06%	61 bps	10.2Yrs
2053	Long Beach Bond Finance Authority (CA)	CA	Gen Purpose/Pub Impt	-/AA-/AA-		Tax Exempt	7/19/23	\$1,355,000	99.00	4.00%	4.06%	61 bps	10.2Yrs
2053	Long Beach Bond Finance Authority (CA)	CA	Gen Purpose/Pub Impt	-/AA-/AA-		Tax Exempt	7/19/23	\$500,000	98.75	4.00%	4.07%	63 bps	10.2Yrs
2053	Long Beach Bond Finance Authority (CA)	CA	Gen Purpose/Pub Impt	-/AA-/AA-		Tax Exempt	7/19/23	\$2,000,000	98.75	4.00%	4.07%	63 bps	10.2Yrs



Secondary Trade Activity - Exercise

Cal City Joint Powers Financing Authority (AA) - Series 2023A (Lease Revenue Bonds) Pricing Worksheet

pfm Year	Term	Avg Life	Principal	PFM 5% CPN / 10.1 yr PC Scale					Benchmark 8/11/2023 BVAL AAA
				Coupon	ROY	YTC	YTM	Price	
10/1/2024	1.1		\$ 765,000	5.000%	3.16%			101.946	3.16%
10/1/2025	2.1		\$ 805,000	5.000%	3.05%			103.911	3.05%
10/1/2026	3.1		\$ 845,000	5.000%	2.91%			106.134	2.91%
10/1/2027	4.1		\$ 890,000	5.000%	2.80%			108.442	2.80%
10/1/2028	5.1		\$ 935,000	5.000%	2.74%			110.672	2.74%
10/1/2029	6.1		\$ 980,000	5.000%	2.70%			112.819	2.70%
10/1/2030	7.1		\$ 1,030,000	5.000%	2.67%			114.940	2.67%
10/1/2031	8.1		\$ 1,080,000	5.000%	2.67%			116.857	2.67%
10/1/2032	9.1		\$ 1,135,000	5.000%	2.67%			118.705	2.67%
10/1/2033	10.1		\$ 1,190,000	5.000%	2.70%			120.188	2.70%
10/1/2034	11.1		\$ 1,250,000	5.000%	2.78%		2.934%	119.434	2.78%
10/1/2035	12.1		\$ 1,315,000	5.000%	2.91%		3.175%	118.194	2.91%
10/1/2036	13.1		\$ 1,380,000	5.000%	3.05%		3.398%	116.811	3.05%
10/1/2037	14.1		\$ 1,445,000	5.000%	3.17%		3.572%	115.701	3.17%
10/1/2038	15.1		\$ 1,520,000	5.000%	3.23%		3.687%	115.091	3.23%
10/1/2039	16.1		\$ 1,595,000	5.000%	3.28%		3.773%	114.698	3.28%
10/1/2040	17.1		\$ 1,675,000	5.000%	3.33%		3.855%	114.224	3.33%
10/1/2041	18.1		\$ 1,760,000	5.000%	3.38%		3.928%	113.777	3.38%
10/1/2042	19.1		\$ 1,845,000	5.000%	3.43%		3.995%	113.325	3.43%
10/1/2043	20.1		\$ 1,940,000	5.000%	3.46%		4.047%	113.019	3.46%
10/1/2044	21.1	1	\$ 2,035,000						3.50%
10/1/2045	22.1	1	\$ 2,145,000						3.54%
10/1/2046	23.1	1	\$ 2,255,000						3.58%
10/1/2047	24.1	1	\$ 2,375,000						3.60%
10/1/2048	25.1	1	23.2 yrs \$ 2,500,000	5.000%	3.63%		4.252%	111.473	3.63%
10/1/2049	26.1	2	\$ 2,630,000						3.65%
10/1/2050	27.1	2	\$ 2,770,000						3.67%
10/1/2051	28.1	2	\$ 2,915,000						3.68%
10/1/2052	29.1	2	\$ 3,065,000						3.69%
10/1/2053	30.1	2	28.2 yrs \$ 3,230,000	5.000%	3.69%		4.344%	110.951	3.69%

Year	Secondary Trade Activity Spread
1	
5	
10	
15	
20	
30	

- Based Recent Secondary Trade Activity
- Enter in the Spreads that you think our Primary Issue Example should clear the market.
- Start with Spots on the Curve (ie 1, 5, 10, 15, 20, 30 Year Tenors)
- Does the recent Secondary Trade activity change your initial spread thoughts?

Total Par \$ 51,300,000
 Avg Life 19.2 years
 PV01 \$ 45,108

Call Date: 10/1/2033



Pre-Marketing



NEGOTIATED SALE

Independent Pricing Scale

Issuer, FA, & Sr. underwriter
negotiate Pre-Marketing wire scale

Compare Independent Pricing Scale
and Syndicate Pre-Marketing

Issuer, FA, & Sr. underwriter
negotiate pricing wire scale

Pricing wire released & bonds offered
directly to investors

Underwriting syndicate takes orders

Final price negotiated



Maturity	Consensus	Lead Underwriter	Co Senior Underwriter	Co Senior Underwriter	Co Managing Underwriter	Co Managing Underwriter	Co Managing Underwriter
10/1/2024	15 bps	9 bps	9 bps	12 bps	20 bps	20 bps	19 bps
10/1/2025	16 bps	10 bps	10 bps	13 bps	21 bps	21 bps	20 bps
10/1/2026	18 bps	12 bps	12 bps	15 bps	23 bps	23 bps	22 bps
10/1/2027	21 bps	15 bps	15 bps	18 bps	26 bps	26 bps	25 bps
10/1/2028	24 bps	18 bps	18 bps	21 bps	29 bps	29 bps	28 bps
10/1/2029	27 bps	21 bps	21 bps	24 bps	32 bps	32 bps	31 bps
10/1/2030	23 bps	22 bps	20 bps	21 bps	27 bps	25 bps	22 bps
10/1/2031	25 bps	24 bps	22 bps	23 bps	29 bps	27 bps	24 bps
10/1/2032	34 bps	28 bps	28 bps	31 bps	39 bps	39 bps	38 bps
10/1/2033	36 bps	30 bps	30 bps	33 bps	41 bps	40 bps	39 bps
10/1/2034	40 bps	34 bps	34 bps	37 bps	45 bps	44 bps	43 bps
10/1/2035	38 bps	32 bps	32 bps	35 bps	43 bps	42 bps	41 bps
10/1/2036	34 bps	32 bps	30 bps	30 bps	38 bps	37 bps	36 bps
10/1/2037	34 bps	32 bps	30 bps	30 bps	38 bps	37 bps	36 bps
10/1/2038	34 bps	32 bps	30 bps	30 bps	38 bps	37 bps	36 bps
10/1/2039	46 bps	40 bps	40 bps	43 bps	51 bps	50 bps	49 bps
10/1/2040	46 bps	40 bps	40 bps	43 bps	51 bps	50 bps	49 bps
10/1/2041	50 bps	44 bps	44 bps	47 bps	55 bps	54 bps	53 bps
10/1/2042	53 bps	47 bps	47 bps	50 bps	58 bps	57 bps	56 bps
10/1/2043	53 bps	47 bps	47 bps	50 bps	58 bps	57 bps	56 bps
10/1/2048	55 bps	53 bps	52 bps	55 bps	60 bps	55 bps	54 bps
10/1/2053	57 bps	57 bps	54 bps	58 bps	62 bps	57 bps	55 bps



Maturity	Consensus	Lead Underwriter	FA/Issuer Independent Price Thoughts	Difference	Negotiation Points
10/1/2024	15 bps	9 bps	2 bps	-7 bps	+
10/1/2025	16 bps	10 bps	3 bps	-7 bps	+
10/1/2026	18 bps	12 bps	6 bps	-6 bps	+
10/1/2027	21 bps	15 bps	10 bps	-5 bps	
10/1/2028	24 bps	18 bps	13 bps	-5 bps	
10/1/2029	27 bps	21 bps	15 bps	-6 bps	+
10/1/2030	23 bps	22 bps	17 bps	-5 bps	
10/1/2031	25 bps	24 bps	17 bps	-7 bps	+
10/1/2032	34 bps	28 bps	20 bps	-8 bps	+
10/1/2033	36 bps	30 bps	25 bps	-5 bps	
10/1/2034	40 bps	34 bps	30 bps	-4 bps	
10/1/2035	38 bps	32 bps	25 bps	-7 bps	+
10/1/2036	34 bps	32 bps	22 bps	-10 bps	+
10/1/2037	34 bps	32 bps	22 bps	-10 bps	+
10/1/2038	34 bps	32 bps	26 bps	-6 bps	+
10/1/2039	46 bps	40 bps	34 bps	-6 bps	+
10/1/2040	46 bps	40 bps	37 bps	-3 bps	
10/1/2041	50 bps	44 bps	40 bps	-4 bps	
10/1/2042	53 bps	47 bps	42 bps	-5 bps	
10/1/2043	53 bps	47 bps	42 bps	-5 bps	
101/2048	55 bps	53 bps	47 bps	-6 bps	+
10/1/2053	57 bps	57 bps	50 bps	-7 bps	+

- Negotiation of Pre-Marketing Levels begins by comparing Independently developed price thoughts to the Syndicate Price views
- Identify areas where there is a moderate to large difference in viewpoint as starting negotiation points to focus.



Pre-Marketing Negotiation

Maturity	Consensus	Lead Underwriter	FA/Issuer Independent Price Thoughts	Difference	Negotiated Pre-Marketing	Difference to Negotiated Pre-Marketing
10/1/2024	15 bps	9 bps	2 bps	-7 bps	7 bps	-5 bps
10/1/2025	16 bps	10 bps	3 bps	-7 bps	8 bps	-5 bps
10/1/2026	18 bps	12 bps	6 bps	-6 bps	11 bps	-5 bps
10/1/2027	21 bps	15 bps	10 bps	-5 bps	15 bps	-5 bps
10/1/2028	24 bps	18 bps	13 bps	-5 bps	18 bps	-5 bps
10/1/2029	27 bps	21 bps	15 bps	-6 bps	20 bps	-5 bps
10/1/2030	23 bps	22 bps	17 bps	-5 bps	22 bps	-5 bps
10/1/2031	25 bps	24 bps	17 bps	-7 bps	22 bps	-5 bps
10/1/2032	34 bps	28 bps	20 bps	-8 bps	25 bps	-5 bps
10/1/2033	36 bps	30 bps	25 bps	-5 bps	30 bps	-5 bps
10/1/2034	40 bps	34 bps	30 bps	-4 bps	34 bps	-4 bps
10/1/2035	38 bps	32 bps	25 bps	-7 bps	30 bps	-5 bps
10/1/2036	34 bps	32 bps	22 bps	-10 bps	25 bps	-3 bps
10/1/2037	34 bps	32 bps	22 bps	-10 bps	26 bps	-4 bps
10/1/2038	34 bps	32 bps	26 bps	-6 bps	31 bps	-5 bps
10/1/2039	46 bps	40 bps	34 bps	-6 bps	39 bps	-5 bps
10/1/2040	46 bps	40 bps	37 bps	-3 bps	39 bps	-2 bps
10/1/2041	50 bps	44 bps	40 bps	-4 bps	43 bps	-3 bps
10/1/2042	53 bps	47 bps	42 bps	-5 bps	46 bps	-4 bps
10/1/2043	53 bps	47 bps	42 bps	-5 bps	46 bps	-4 bps
10/1/2048	55 bps	53 bps	47 bps	-6 bps	51 bps	-4 bps
10/1/2053	57 bps	57 bps	50 bps	-7 bps	55 bps	-5 bps

- Use the Data you reviewed earlier in the exercise to support the negotiation of Pre-Marketing levels
- How does the Issuers Historical results, recent comparables, and secondary trading activity support your viewpoint?
- Negotiation can be a give and a take process, with the goal of establishing the right starting point for Pre-Marketing that participants are comfortable with.
- Pricing is both an Art and a Science, especially with market volatility.



Market Data/Tone Impact on Spreads on Day of Pricing





Day of Pricing Market Dynamics

WEI World Equity Indices

Index	RMI	2Day	Value	Net Chg	%Chg	Δ AVAT	Time	Adv/Dcl	%Ytd	%YtdCur
Americas										
DOW JONES			39730.67	+9.31	+0.02%	+3.44%	15:41	18 / 12	+5.42%	+5.42%
S&P 500			5589.11	d -44.80	-0.80%					
NASDAQ			18324.26	-323.19	-1.73%					

Equity Indices – Risk On/Off

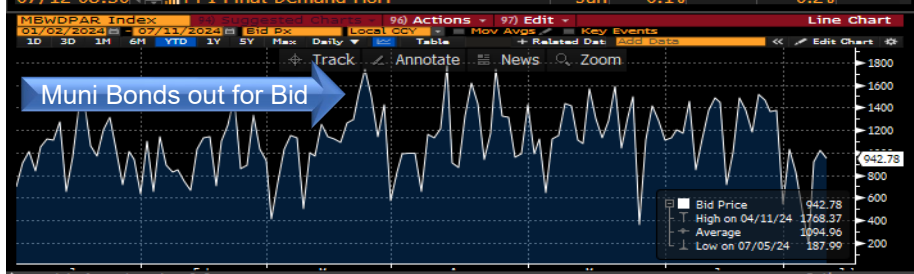
ECO Economic Calendars

United States 15:41:04 07/11/24 - 07/18/24

Economic Releases All Economic Releases

Date	Time	A	M	R	Event	Period	Surv(M)	Actual	Prior	Revised
07/11	08:30				CPI MoM	Jun	0.1%	-0.1%	0.0%	--
07/11	08:30				CPI Ex Food and Energy MoM	Jun	0.2%	0.1%	0.2%	--
07/11	08:30				CPI YoY	Jun	3.1%	3.0%	3.3%	--
07/11	08:30				CPI Ex Food and Energy YoY	Jun	3.4%	3.3%	3.4%	--
07/11	08:30				CPI Index NSA	Jun	314.614	314.175	314.069	--
07/11	08:30				CPI Core Index SA	Jun	318.780	318.346	318.140	--
07/11	08:30				Real Avg Hourly Earnings MoM	Jun	--	0.8%	0.8%	0.7%
07/11	08:30				Real Avg Weekly Earnings YoY	Jun	--	0.6%	0.5%	--
07/11	08:30				Initial Jobless Claims	Jul 6	225k	222k	238k	239k
07/11	08:30				Continuing Claims	Jul 6	1858k	1858k	1858k	1856k
07/11	14:00				Monthly Budget Statement	Jun	-\$76.1b	-\$66.0b	-\$347.1b	--
07/12	08:30				PPI Final Demand MoM	Jun	0.1%	--	-0.2%	--

Economic Data



Municipal Bond Monitor

Region	AAA Curve	States/Sectors	Scales/Curves	Reinvestment	Issuance and Forward Supply	As of Date	07/10/2024
10 Total	3,961,737.32	4,714.78	21,793.37	26,508.15	0.67	13,980.17	-12,527.98
11 California	641,628.39	915.59	5,959.89	6,875.48	1.07	2,053.39	-4,822.09
12 New York	459,970.47	997.33	4,063.11	5,060.44	1.10	2,063.87	-2,996.56
13 Maryland	63,087.74	1.25	999.48	1,000.74	1.59	0.00	-1,000.74
14 New Jersey	112,689.48	85.59	1,101.42	1,187.02	1.05	187.28	-999.73
15 Massachusetts	114,730.51	91.09	896.08	987.17	0.86	50.86	-936.31
16 Connecticut	56,800.59	303.61	533.33	836.94	1.47	83.22	-751.72
17 Indiana	50,876.66	36.11	754.37	790.48	1.55	221.46	-569.02
18 Virginia	79,710.08	9.38	806.74	816.12	1.02	289.00	-527.12
19 Minnesota	59,184.47	56.72	585.80	642.52	1.09	130.89	-451.63
20 Washington	92,805.28	302.01	541.20	843.21	0.91	338.04	-505.17
21 Pennsylvania	138,953.02	66.26	404.71	470.97	0.34	21.34	-449.63
22 Puerto Rico	69,177.17	16.18	350.97	367.15	0.53	0.00	-367.15
23 Ohio	102,323.23	30.24	287.37	287.37	0.71	0.00	-287.37
24 New Mexico	15,001.51	14.90	275.02	275.02	0.49	11.96	-175.81
25 Kentucky	17,279.20	10.95	179.20	179.20	0.27	0.00	-179.20
26 Michigan	86,633.16	132.16	100.12	232.27	0.28	104.23	-128.04
27 Alabama	54,550.22	50.93	100.51	151.44	0.28	27.99	-123.45
28 Kansas	23,889.99	5.48	148.40	153.88	0.64	38.46	-115.42
29 Oklahoma	27,941.11	0.93	93.19	94.12	0.34	9.39	-84.73
30 South Dakota	7,232.13	1.38	69.72	71.10	0.98	0.00	-71.10
31 Rhode Island	13,235.16	10.54	112.56	112.56	0.86	45.14	-68.42
32 Iowa	24,995.00	0.19	79.13	79.32	0.32	16.80	-62.52

Net Issuance

CN News Feed - Municipal Bonds, "lipper"

Match All "lipper" Municipal Bonds

Muni-Bond Funds See \$775 Million Weekly Inflow: LSEG Lipper

Muni-Bond Funds See \$498 Million Weekly Outflow: LSEG Lipper

Muni-Bond Funds See \$16 Million Weekly Inflow: LSEG Lipper

Muni-Bond Funds See \$154 Million Weekly Inflow: LSEG Lipper

Muni-Bond Funds See \$549 Million Weekly Inflow: LSEG Lipper

Fund Flows



Term	Description	Treasury Bid Yld	Ask Yld	Bid Chg	Swap Sprd	Bid Swap	Ask Swap	Bid Chg
1 mo	B 0 08/06/24	5.330	5.322	-0.006	-3	5.327	5.327	-0.018
3 mo	B 0 10/10/24	5.349	5.339	-0.027	-6.6	5.283	5.283	-0.215
6 mo	B 0 11/09/25	5.208	5.208	-0.75	-6.1	5.153	5.153	-0.055
1 yr	B 0 07/10/25	4.903	4.895	-0.101	-5.7	4.847	4.853	-0.101
1 yr	T 4 3/8 06/30/26	4.513	4.511	-0.109	-18.8	4.325	4.330	-0.126
1 yr	T 4 3/8 07/15/27	4.277	4.274	-0.112	-21.5	4.062	4.066	-0.124
1 yr	(Interpolated)	4.206	4.204	-0.107	-29.0	3.917	3.921	-0.113
1 yr	T 4 3/8 06/30/29	4.137	4.136	-0.137	-29.9	3.838	3.841	-0.113
1 yr	(Interpolated)	4.144	4.142	-0.098	-34.9	3.796	3.799	-0.110
1 yr	T 4 3/8 06/30/31	4.151	4.148	-0.084	-34.9	3.776	3.776	-0.107
1 yr	(Interpolated)	4.170	4.168	-0.089	-40.8	3.762	3.762	-0.101
1 yr	(Interpolated)	4.189	4.186	-0.085	-43.0	3.768	3.768	-0.101
10 yr	T 4 3/8 05/15/34	4.204	4.202	-0.082	-76.1	3.698	3.703	-0.083
15 yr	(Interpolated)	4.362	4.361	-0.071	-80.0	3.611	3.616	-0.080
20 yr	T 4 3/8 05/15/44	4.511	4.509	-0.073				
25 yr	(Interpolated)	4.460	4.459	-0.070				
30 yr	T 4 3/8 05/15/54	4.412	4.411	-0.067				

Treasury Tone





Market Tone - Exercise

Cal City Joint Powers Financing Authority (AA) - Series 2023A (Lease Revenue Bonds) Pricing Worksheet

pfm Year	Term	Avg Life	Principal	PFM 5% CPN / 10.1 yr PC Scale					Benchmark 8/11/2023 BVAL AAA
				Coupon	ROY	YTC	YTM	Price	
10/1/2024	1.1		\$ 765,000	5.000%	3.16%			101.946	3.16%
10/1/2025	2.1		\$ 805,000	5.000%	3.05%			103.911	3.05%
10/1/2026	3.1		\$ 845,000	5.000%	2.91%			106.134	2.91%
10/1/2027	4.1		\$ 890,000	5.000%	2.80%			108.442	2.80%
10/1/2028	5.1		\$ 935,000	5.000%	2.74%			110.672	2.74%
10/1/2029	6.1		\$ 980,000	5.000%	2.70%			112.819	2.70%
10/1/2030	7.1		\$ 1,030,000	5.000%	2.67%			114.940	2.67%
10/1/2031	8.1		\$ 1,080,000	5.000%	2.67%			116.857	2.67%
10/1/2032	9.1		\$ 1,135,000	5.000%	2.67%			118.705	2.67%
10/1/2033	10.1		\$ 1,190,000	5.000%	2.70%			120.188	2.70%
10/1/2034	11.1		\$ 1,250,000	5.000%	2.78%		2.934%	119.434	2.78%
10/1/2035	12.1		\$ 1,315,000	5.000%	2.91%		3.175%	118.194	2.91%
10/1/2036	13.1		\$ 1,380,000	5.000%	3.05%		3.398%	116.811	3.05%
10/1/2037	14.1		\$ 1,445,000	5.000%	3.17%		3.572%	115.701	3.17%
10/1/2038	15.1		\$ 1,520,000	5.000%	3.23%		3.687%	115.091	3.23%
10/1/2039	16.1		\$ 1,595,000	5.000%	3.28%		3.773%	114.698	3.28%
10/1/2040	17.1		\$ 1,675,000	5.000%	3.33%		3.855%	114.224	3.33%
10/1/2041	18.1		\$ 1,760,000	5.000%	3.38%		3.928%	113.777	3.38%
10/1/2042	19.1		\$ 1,845,000	5.000%	3.43%		3.995%	113.325	3.43%
10/1/2043	20.1		\$ 1,940,000	5.000%	3.46%		4.047%	113.019	3.46%
10/1/2044	21.1	1	\$ 2,035,000						3.50%
10/1/2045	22.1	1	\$ 2,145,000						3.54%
10/1/2046	23.1	1	\$ 2,255,000						3.58%
10/1/2047	24.1	1	\$ 2,375,000						3.60%
10/1/2048	25.1	1	23.2 yrs \$ 2,500,000	5.000%	3.63%		4.252%	111.473	3.63%
10/1/2049	26.1	2	\$ 2,630,000						3.65%
10/1/2050	27.1	2	\$ 2,770,000						3.67%
10/1/2051	28.1	2	\$ 2,915,000						3.68%
10/1/2052	29.1	2	\$ 3,065,000						3.69%
10/1/2053	30.1	2	28.2 yrs \$ 3,230,000	5.000%	3.69%		4.344%	110.951	3.69%

Total Par \$ 51,300,000
 Avg Life 19.2 years
 PV01 \$ 45,108

Call Date: 10/1/2033

Year	Morning Market Tone
	Spread
1	
5	
10	
15	
20	
30	

- Based Market Data and Tone the morning of pricing.
- Enter in the Spreads that you think our Primary Issue Example should clear the market.
- Start with Spots on the Curve (ie 1, 5, 10, 15, 20, 30 Year Tenors)
- Does the change your initial spread thoughts?



Pricing Wire Negotiation

Maturity	Consensus	Lead Underwriter	FA/Issuer Independent Price Thoughts	Difference	Negotiated Pre-Marketing	Difference to Negotiated Pre-Marketing	Release Levels	Difference to Release
10/1/2024	15 bps	9 bps	2 bps	-7 bps	7 bps	-5 bps	5 bps	-3 bps
10/1/2025	16 bps	10 bps	3 bps	-7 bps	8 bps	-5 bps	6 bps	-3 bps
10/1/2026	18 bps	12 bps	6 bps	-6 bps	11 bps	-5 bps	9 bps	-3 bps
10/1/2027	21 bps	15 bps	10 bps	-5 bps	15 bps	-5 bps	13 bps	-3 bps
10/1/2028	24 bps	18 bps	13 bps	-5 bps	18 bps	-5 bps	16 bps	-3 bps
10/1/2029	27 bps	21 bps	15 bps	-6 bps	20 bps	-5 bps	18 bps	-3 bps
10/1/2030	23 bps	22 bps	17 bps	-5 bps	22 bps	-5 bps	20 bps	-3 bps
10/1/2031	25 bps	24 bps	17 bps	-7 bps	22 bps	-5 bps	20 bps	-3 bps
10/1/2032	34 bps	28 bps	20 bps	-8 bps	25 bps	-5 bps	23 bps	-3 bps
10/1/2033	36 bps	30 bps	25 bps	-5 bps	30 bps	-5 bps	28 bps	-3 bps
10/1/2034	40 bps	34 bps	30 bps	-4 bps	34 bps	-4 bps	32 bps	-2 bps
10/1/2035	38 bps	32 bps	25 bps	-7 bps	30 bps	-5 bps	28 bps	-3 bps
10/1/2036	34 bps	32 bps	22 bps	-10 bps	25 bps	-3 bps	23 bps	-1 bps
10/1/2037	34 bps	32 bps	22 bps	-10 bps	26 bps	-4 bps	24 bps	-2 bps
10/1/2038	34 bps	32 bps	26 bps	-6 bps	31 bps	-5 bps	29 bps	-3 bps
10/1/2039	46 bps	40 bps	34 bps	-6 bps	39 bps	-5 bps	37 bps	-3 bps
10/1/2040	46 bps	40 bps	37 bps	-3 bps	39 bps	-2 bps	37 bps	0 bps
10/1/2041	50 bps	44 bps	40 bps	-4 bps	43 bps	-3 bps	41 bps	-1 bps
10/1/2042	53 bps	47 bps	42 bps	-5 bps	46 bps	-4 bps	44 bps	-2 bps
10/1/2043	53 bps	47 bps	42 bps	-5 bps	46 bps	-4 bps	44 bps	-2 bps
10/1/2048	55 bps	53 bps	47 bps	-6 bps	51 bps	-4 bps	49 bps	-2 bps
10/1/2053	57 bps	57 bps	50 bps	-7 bps	55 bps	-5 bps	53 bps	-3 bps



Release Pricing Wire and Take Orders



NEGOTIATED SALE

Independent Pricing Scale

Issuer, FA, & Sr. underwriter
negotiate Pre-Marketing wire scale

Issuer, FA, & Sr. underwriter
negotiate pricing wire scale

Pricing wire released & bonds offered
directly to investors

Underwriting syndicate takes orders

Final price negotiated

Review Orders and Independently
Develop Reprice Thoughts



Initial Pricing Wire

MATURITY	AMOUNT*	COUPON	PRICE (Pts)	SPR TO 10/1	
10/01/2024	765M	5.00%	3.22	1/2	+0
			(Approx. \$ Price 101.882)		
10/01/2025	805M	5.00%	3.13	1/2	+5
			(Approx. \$ Price 103.745)		
10/01/2026	845M	5.00%	3.02	1/2	+10
			(Approx. \$ Price 105.790)		
10/01/2027	890M	5.00%	2.95	1/2	+13
			(Approx. \$ Price 107.834)		
10/01/2028	935M	5.00%	2.92	1/2	+15
			(Approx. \$ Price 109.762)		
10/01/2029	980M	5.00%	2.91	1/2	+18
			(Approx. \$ Price 111.577)		
10/01/2030	1,030M	5.00%	2.90	1/2	+20
			(Approx. \$ Price 113.361)		
10/01/2031	1,080M	5.00%	2.90	1/2	+23
			(Approx. \$ Price 115.037)		
10/01/2032	1,135M	5.00%	2.93	1/2	+25
			(Approx. \$ Price 116.405)		
10/01/2033	1,190M	5.00%	3.01	1/2	+25
			(Approx. \$ Price 117.197)		
10/01/2034	1,250M	5.00%	3.13	1/2	+30
			(Approx. \$ Price PTC 10/01/2033 116.064	Approx. YTM	3.261)
10/01/2035	1,315M	5.00%	3.22	1/2	+30
			(Approx. \$ Price PTC 10/01/2033 115.223	Approx. YTM	3.449)
10/01/2036	1,380M	5.00%	3.31	1/2	+30
			(Approx. \$ Price PTC 10/01/2033 114.389	Approx. YTM	3.610)
10/01/2037	1,445M	5.00%	3.44	1/2	+30
			(Approx. \$ Price PTC 10/01/2033 113.197	Approx. YTM	3.783)
10/01/2038	1,520M	5.00%	3.55	1/2	+30
			(Approx. \$ Price PTC 10/01/2033 112.200	Approx. YTM	3.921)
10/01/2039	1,595M	5.00%	3.67	0.425	+38
			(Approx. \$ Price PTC 10/01/2033 111.124	Approx. YTM	4.052)
10/01/2040	1,675M	5.00%	3.73	0.425	+40
			(Approx. \$ Price PTC 10/01/2033 110.591	Approx. YTM	4.130)
10/01/2041	1,760M	5.00%	3.81	0.425	+43
			(Approx. \$ Price PTC 10/01/2033 109.885	Approx. YTM	4.213)
10/01/2042	1,845M	5.00%	3.89	0.425	+45
			(Approx. \$ Price PTC 10/01/2033 109.184	Approx. YTM	4.290)
10/01/2043	1,940M	5.00%	3.93	0.425	+45
			(Approx. \$ Price PTC 10/01/2033 108.835	Approx. YTM	4.336)
10/01/2048	11,310M	5.00%	4.15	3/8	+49
			(Approx. \$ Price PTC 10/01/2033 109.418	Approx. YTM	4.612)
10/01/2053	14,610M	5.00%	4.24	3/8	+53
			(Approx. \$ Price PTC 10/01/2033 108.643	Approx. YTM	4.710)

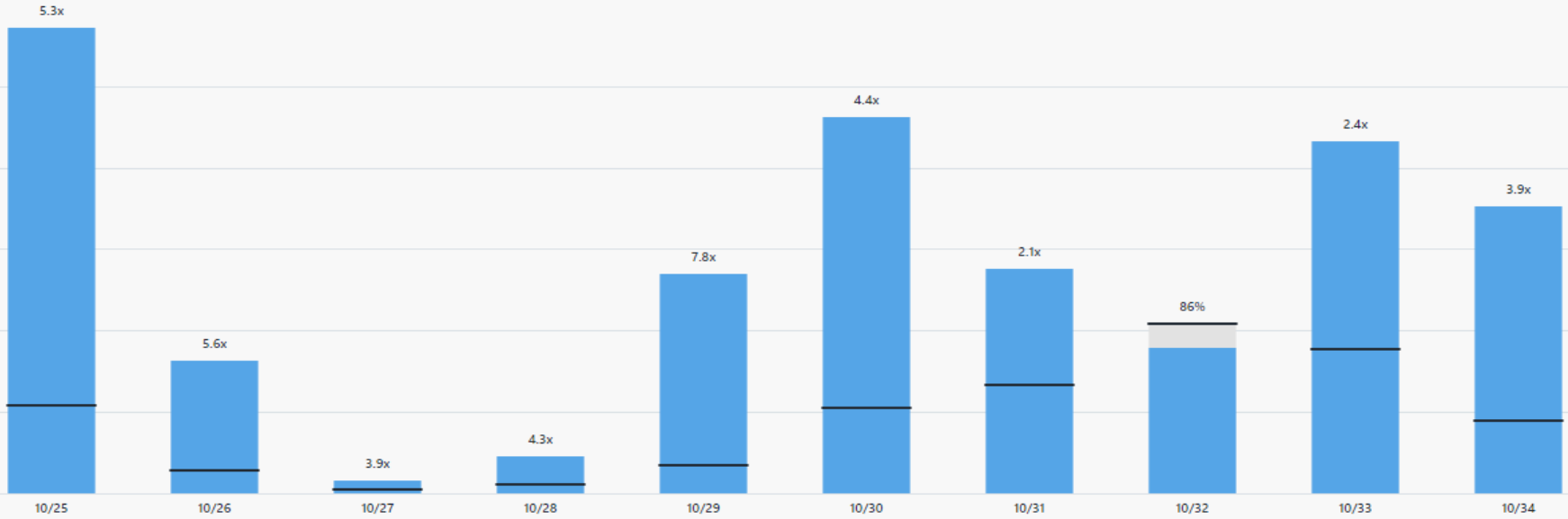
- Pricing wire is sent out to investors in order to announce the order period is open
- At this point, focus is on yields.
- Yields investors can purchase the bonds are posted to the wire.
- Spreads are generally removed from the wire.

CALL FEATURES: Optional call in 10/01/2033 @ 100.00



Overview **Retail** Managers Investors

■ NA Retail 0%
 ■ Institutional 100%
 ■ Stock 0%
 [Show All](#)



Recent Orders [View All \(112\)](#)

Gannett Welsh & Kotler	400	
Goldman Sachs	2024A: 10/01/2032, 5.000%	
Franklin SMA	1,050	
Goldman Sachs	2024A: 10/01/2039, 5.000%	
Franklin SMA	1,615	
Goldman Sachs	2024A: 10/01/2038, 5.000%	
Franklin SMA	1,565	
Goldman Sachs	2024A: 10/01/2037, 5.000%	
Franklin SMA	1,420	
Goldman Sachs	2024A: 10/01/2038, 5.000%	
Franklin SMA	60	
Goldman Sachs	2024A: 10/01/2035, 5.000%	
Franklin SMA	290	
Goldman Sachs	2024A: 10/01/2034, 5.000%	

Summary [View Order Monitor](#)

\$344,155 (3.1x)

TOTAL ORDERS (M)



\$106,430

FILL (M)

\$2,950

BALANCE (M)





- The Order Book should be analyzed on both as a whole, and on an individual maturity basis
- The Depth of the book consists of how many accounts are invested in a particular maturity
- The Breadth of a book consists of how many accounts are invested across maturities (strip orders)

Cal City Joint PFA Series 2023A, Tax-Exempt Order Detail Analysis																								
Series	2023A	2023A	2023A	2023A	2023A	2023A	2023A	2023A	2023A	2023A	2023A	2023A	2023A	2023A	2023A	2023A	2023A	2023A	2023A	2023A	2023A	Totals		
Maturity	10/1/2024	10/1/2025	10/1/2026	10/1/2027	10/1/2028	10/1/2029	10/1/2030	10/1/2031	10/1/2032	10/1/2033	10/1/2034	10/1/2035	10/1/2036	10/1/2037	10/1/2038	10/1/2039	10/1/2040	10/1/2041	10/1/2042	10/1/2043	10/1/2048	10/1/2053		
Coupon	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%		
Par	765	805	845	890	935	980	1,030	1,080	1,135	1,190	1,250	1,315	1,380	1,445	1,520	1,595	1,675	1,760	1,845	1,940	11,310	14,610	51,300	
Orders	7,375	6,505	7,185	4,450	4,675	5,025	4,120	2,160	2,385	2,695	6,945	5,550	7,785	11,635	7,380	3,840	2,075	1,200	1,845	1,200	33,820	60,045	189,895	
Subscription	964%	808%	850%	500%	500%	513%	400%	200%	210%	226%	556%	422%	564%	805%	486%	241%	124%	68%	100%	62%	299%	411%	370%	
PUTNAM ADVISORY COMPANY LLC																					11310	14610	25920	
Merrill Lynch Derivatives																					11310	14610	25920	
JP MORGAN	765	805	845	890		980				1190	1250	1315	1380	660	750	1595	1675							14100
Bluefin Trading																					6000	6000	12000	
Boston Company Trust		805	845	890	935	980	1030						1380	1445	1520								1000	10830
Tower Bay Asset Management LP																							10000	10000
Breckinridge Capital Advisors, Inc.	765	805	845	890	935	980	1030		1135					1445										8830
Individuals	2020	2385	400								1250											2400	325	8780
Franklin High Net Worth		95	845	890	935	125	1030		65	20	45	40	135	1445	1520									7190
American Century																							7000	7000
RNC Capital Management											1250	1315	1380	1445	1520									6910
Eagle Asset Management, Inc.												1315	1380	1445				1200		1200				6540
Blackrock Financial Management						980	1030	1080	1135	1190	500													5915
Invesco Advisors/Oppenheimer Rochester																							5000	5000
PIMCO	765	805	845																			2500		4915
Rockefeller and Company	765	805	845											1445										3860
Chilton Investment Company, Inc.			845	890	935	980																		3650
Dimensional Fund Advisors Inc.													1380	1445										2825
Fiduciary Trust											1250				1520									2770
Belle Haven Investments											1250	1315												2565
Segall Bryant & Hamill Investments	765														1595									2360
Wells Fargo Asset Management										100			400	300	400	650	400							2250
Hazoor Partners, LLC																					1845			1845
AGP Global																							1500	1500
NORTHWESTERN MUTUAL WEALTH	765													500										1265
Columbia SMA			25							50	295	50	250	350	60	150								1230
Allspring Funds Management LLC								1080																1080
Clark Capital Management Group Inc					935																			935
Capfinancial Partners			845																					845
Bel Air Investment Advisors LLC	765																							765
KeyBank NA																						300		300
Grand Total	7375	6505	7185	4450	4675	5025	4120	2160	2385	2695	6945	5550	7785	11635	7380	3840	2075	1200	1845	1200	33820	60045	189895	



Order Summary - Exercise

- Independent Reprice thoughts should be developed based on analysis of the book
- Market Factors may also contribute to reprice levels

Term	Change
2) 6 Month	-0.08
3) 2025	-0.08
4) 2026	-0.07
5) 2027	-0.07
6) 2028	-0.07
7) 2029	-0.07
8) 2030	-0.07
9) 2031	-0.07
10) 2032	-0.06
11) 2033	-0.06
12) 2034	-0.06
13) 2035	-0.05
14) 2036	-0.04
15) 2037	-0.03
16) 2038	-0.03
17) 2039	-0.02
18) 2040	-0.03
19) 2041	-0.04
20) 2042	-0.04
21) 2043	-0.04
22) 2044	-0.04
23) 2045	-0.04
24) 2046	-0.04
25) 2047	-0.04
26) 2048	-0.04
27) 2049	-0.04
28) 2050	-0.04
29) 2051	-0.04
30) 2052	-0.04
31) 2053	-0.04

Cal City Joint PFA Series 2023A, Tax-Exempt Order Summary Update

Maturity	Series	Coupon	ROY	BVAL Spread	Amount	Retail	Institutional	Stock	Priority Orders	#Priority	Priority Balance	Priority Subscription	Reprice Thoughts
10/1/2024	2023A	5.00%	3.22%	5 bps	765	2,020	5,355	0	7,375	8	(6,610)	964%	
10/1/2025	2023A	5.00%	3.13%	6 bps	805	2,385	4,120	0	6,505	7	(5,700)	808%	
10/1/2026	2023A	5.00%	3.02%	9 bps	845	400	6,785	0	7,185	10	(6,340)	850%	
10/1/2027	2023A	5.00%	2.95%	13 bps	890	0	4,450	0	4,450	5	(3,560)	500%	
10/1/2028	2023A	5.00%	2.92%	16 bps	935	0	4,675	0	4,675	5	(3,740)	500%	
10/1/2029	2023A	5.00%	2.91%	18 bps	980	0	5,025	0	5,025	6	(4,045)	513%	
10/1/2030	2023A	5.00%	2.90%	20 bps	1,030	0	4,120	0	4,120	4	(3,090)	400%	
10/1/2031	2023A	5.00%	2.90%	20 bps	1,080	0	2,160	0	2,160	2	(1,080)	200%	
10/1/2032	2023A	5.00%	2.93%	23 bps	1,135	0	2,385	0	2,385	4	(1,250)	210%	
10/1/2033	2023A	5.00%	3.01%	28 bps	1,190	0	2,695	0	2,695	4	(1,505)	226%	
10/1/2034	2023A	5.00%	3.13%	32 bps	1,250	1,250	5,695	0	6,945	9	(5,695)	556%	
10/1/2035	2023A	5.00%	3.22%	28 bps	1,315	0	5,550	0	5,550	6	(4,235)	422%	
10/1/2036	2023A	5.00%	3.31%	23 bps	1,380	0	7,785	0	7,785	8	(6,405)	564%	
10/1/2037	2023A	5.00%	3.44%	24 bps	1,445	0	11,635	0	11,635	11	(10,190)	805%	
10/1/2038	2023A	5.00%	3.55%	29 bps	1,520	0	7,380	0	7,380	7	(5,860)	486%	
10/1/2039	2023A	5.00%	3.67%	37 bps	1,595	0	3,840	0	3,840	4	(2,245)	241%	
10/1/2040	2023A	5.00%	3.73%	37 bps	1,675	0	2,075	0	2,075	2	(400)	124%	
10/1/2041	2023A	5.00%	3.81%	41 bps	1,760	0	1,200	0	1,200	1	560	68%	
10/1/2042	2023A	5.00%	3.89%	44 bps	1,845	0	1,845	0	1,845	1	0	100%	
10/1/2043	2023A	5.00%	3.93%	44 bps	1,940	0	1,200	0	1,200	1	740	62%	
10/1/2048	2023A	5.00%	4.15%	49 bps	11,310	2,400	31,420	0	33,820	6	(22,510)	299%	
10/1/2053	2023A	5.00%	4.24%	53 bps	14,610	325	59,720	0	60,045	9	(45,435)	411%	-4
Totals:					51,300	8,780	181,115	0	189,895	120	1,300	370%	



Reprice and Verbal Award



NEGOTIATED SALE



Independent Pricing Scale



Issuer, FA, & Sr. underwriter
negotiate Pre-Marketing wire scale



Issuer, FA, & Sr. underwriter
negotiate pricing wire scale



Pricing wire released & bonds offered
directly to investors



Underwriting syndicate takes orders



Final price negotiated



Compare Independent Reprice
Thoughts with Proposal



- Independent Reprice thoughts should be compared with the re-price offer obtained from the Underwriter
- Differences in viewpoint should be the negotiation points
- Use the Order Period data to support your negotiation of re-price levels

Cal City Joint PFA Series 2023A, Tax-Exempt Order Summary Update

Maturity	Series	Coupon	ROY	BVAL Spread	Amount	Retail	Institutional	Stock	Priority Orders	#Priority	Priority Balance	Priority Subscription	PFM Reprice	UW Reprice	Difference
10/1/2024	2023A	5.00%	3.22%	5 bps	765	2,020	5,355	0	7,375	8	(6,610)	964%	-10	-8	(2)
10/1/2025	2023A	5.00%	3.13%	6 bps	805	2,385	4,120	0	6,505	7	(5,700)	808%	-10	-8	(2)
10/1/2026	2023A	5.00%	3.02%	9 bps	845	400	6,785	0	7,185	10	(6,340)	850%	-10	-8	(2)
10/1/2027	2023A	5.00%	2.95%	13 bps	890	0	4,450	0	4,450	5	(3,560)	500%	-5	-5	0
10/1/2028	2023A	5.00%	2.92%	16 bps	935	0	4,675	0	4,675	5	(3,740)	500%	-5	-5	0
10/1/2029	2023A	5.00%	2.91%	18 bps	980	0	5,025	0	5,025	6	(4,045)	513%	-5	-5	0
10/1/2030	2023A	5.00%	2.90%	20 bps	1,030	0	4,120	0	4,120	4	(3,090)	400%	-5	-4	(1)
10/1/2031	2023A	5.00%	2.90%	20 bps	1,080	0	2,160	0	2,160	2	(1,080)	200%	-1	0	(1)
10/1/2032	2023A	5.00%	2.93%	23 bps	1,135	0	2,385	0	2,385	4	(1,250)	210%	-1	0	(1)
10/1/2033	2023A	5.00%	3.01%	28 bps	1,190	0	2,695	0	2,695	4	(1,505)	226%	-1	0	(1)
10/1/2034	2023A	5.00%	3.13%	32 bps	1,250	1,250	5,695	0	6,945	9	(5,695)	556%	-6	-5	(1)
10/1/2035	2023A	5.00%	3.22%	28 bps	1,315	0	5,550	0	5,550	6	(4,235)	422%	-6	-4	(2)
10/1/2036	2023A	5.00%	3.31%	23 bps	1,380	0	7,785	0	7,785	8	(6,405)	564%	-6	-5	(1)
10/1/2037	2023A	5.00%	3.44%	24 bps	1,445	0	11,635	0	11,635	11	(10,190)	805%	-8	-8	0
10/1/2038	2023A	5.00%	3.55%	29 bps	1,520	0	7,380	0	7,380	7	(5,860)	486%	-5	-6	1
10/1/2039	2023A	5.00%	3.67%	37 bps	1,595	0	3,840	0	3,840	4	(2,245)	241%	-3	-2	(1)
10/1/2040	2023A	5.00%	3.73%	37 bps	1,675	0	2,075	0	2,075	2	(400)	124%	0	0	0
10/1/2041	2023A	5.00%	3.81%	41 bps	1,760	0	1,200	0	1,200	1	560	68%	0	0	0
10/1/2042	2023A	5.00%	3.89%	44 bps	1,845	0	1,845	0	1,845	1	0	100%	0	0	0
10/1/2043	2023A	5.00%	3.93%	44 bps	1,940	0	1,200	0	1,200	1	740	62%	0	0	0
10/1/2048	2023A	5.00%	4.15%	49 bps	11,310	2,400	31,420	0	33,820	6	(22,510)	299%	-3	-2	(1)
10/1/2053	2023A	5.00%	4.24%	53 bps	14,610	325	59,720	0	60,045	9	(45,435)	411%	-4	-3	(1)
Totals:					51,300	8,780	181,115	0	189,895	120	1,300	370%			



Repricing Wire

Initial Pricing Wire

MATURITY	AMOUNT*	COUPON	PRICE (Pts)	
10/01/2024	765M	5.00%	3.22	1/2
		(Approx. \$	Price 101.882)	
10/01/2025	805M	5.00%	3.13	1/2
		(Approx. \$	Price 103.745)	
10/01/2026	845M	5.00%	3.02	1/2
		(Approx. \$	Price 105.790)	
10/01/2027	890M	5.00%	2.95	1/2
		(Approx. \$	Price 107.834)	
10/01/2028	935M	5.00%	2.92	1/2
		(Approx. \$	Price 109.762)	
10/01/2029	980M	5.00%	2.91	1/2
		(Approx. \$	Price 111.577)	
10/01/2030	1,030M	5.00%	2.90	1/2
		(Approx. \$	Price 113.361)	
10/01/2031	1,080M	5.00%	2.90	1/2
		(Approx. \$	Price 115.037)	
10/01/2032	1,135M	5.00%	2.93	1/2
		(Approx. \$	Price 116.405)	
10/01/2033	1,190M	5.00%	3.01	1/2
		(Approx. \$	Price 117.197)	
10/01/2034	1,250M	5.00%	3.13	1/2
		(Approx. \$	Price PTC 10/01/2033 116.064 Approx. YTM 3.261)	
10/01/2035	1,315M	5.00%	3.22	1/2
		(Approx. \$	Price PTC 10/01/2033 115.223 Approx. YTM 3.449)	
10/01/2036	1,380M	5.00%	3.31	1/2
		(Approx. \$	Price PTC 10/01/2033 114.389 Approx. YTM 3.610)	
10/01/2037	1,445M	5.00%	3.44	1/2
		(Approx. \$	Price PTC 10/01/2033 113.197 Approx. YTM 3.783)	
10/01/2038	1,520M	5.00%	3.55	1/2
		(Approx. \$	Price PTC 10/01/2033 112.200 Approx. YTM 3.921)	
10/01/2039	1,595M	5.00%	3.67	0.425
		(Approx. \$	Price PTC 10/01/2033 111.124 Approx. YTM 4.052)	
10/01/2040	1,675M	5.00%	3.73	0.425
		(Approx. \$	Price PTC 10/01/2033 110.591 Approx. YTM 4.130)	
10/01/2041	1,760M	5.00%	3.81	0.425
		(Approx. \$	Price PTC 10/01/2033 109.885 Approx. YTM 4.213)	
10/01/2042	1,845M	5.00%	3.89	0.425
		(Approx. \$	Price PTC 10/01/2033 109.184 Approx. YTM 4.290)	
10/01/2043	1,940M	5.00%	3.93	0.425
		(Approx. \$	Price PTC 10/01/2033 108.835 Approx. YTM 4.336)	
10/01/2048	11,310M	5.00%	4.15	3/8
		(Approx. \$	Price PTC 10/01/2033 109.418 Approx. YTM 4.612)	
10/01/2053	14,610M	5.00%	4.24	3/8
		(Approx. \$	Price PTC 10/01/2033 108.643 Approx. YTM 4.710)	

CALL FEATURES: Optional call in 10/01/2033 @ 100.00

Repricing Wire

MATURITY	AMOUNT*	COUPON	PRICE (Pts)		Adjustments
10/01/2024	765M	5.00%	3.12	1/2	-10
		(Approx. \$	Price 101.882)		
10/01/2025	805M	5.00%	3.03	1/2	-10
		(Approx. \$	Price 103.745)		
10/01/2026	845M	5.00%	2.92	1/2	-10
		(Approx. \$	Price 105.790)		
10/01/2027	890M	5.00%	2.90	1/2	-5
		(Approx. \$	Price 107.834)		
10/01/2028	935M	5.00%	2.87	1/2	-5
		(Approx. \$	Price 109.762)		
10/01/2029	980M	5.00%	2.86	1/2	-5
		(Approx. \$	Price 111.577)		
10/01/2030	1,030M	5.00%	2.85	1/2	-5
		(Approx. \$	Price 113.361)		
10/01/2031	1,080M	5.00%	2.90	1/2	0
		(Approx. \$	Price 115.037)		
10/01/2032	1,135M	5.00%	2.93	1/2	0
		(Approx. \$	Price 116.405)		
10/01/2033	1,190M	5.00%	3.01	1/2	0
		(Approx. \$	Price 117.197)		
10/01/2034	1,250M	5.00%	3.07	1/2	-6
		(Approx. \$	Price PTC 10/01/2033 116.064 Approx. YTM 3.261)		
10/01/2035	1,315M	5.00%	3.16	1/2	-6
		(Approx. \$	Price PTC 10/01/2033 115.223 Approx. YTM 3.449)		
10/01/2036	1,380M	5.00%	3.25	1/2	-6
		(Approx. \$	Price PTC 10/01/2033 114.389 Approx. YTM 3.610)		
10/01/2037	1,445M	5.00%	3.36	1/2	-9
		(Approx. \$	Price PTC 10/01/2033 113.197 Approx. YTM 3.783)		
10/01/2038	1,520M	5.00%	3.49	1/2	-6
		(Approx. \$	Price PTC 10/01/2033 112.200 Approx. YTM 3.921)		
10/01/2039	1,595M	5.00%	3.64	0.425	-3
		(Approx. \$	Price PTC 10/01/2033 111.124 Approx. YTM 4.052)		
10/01/2040	1,675M	5.00%	3.73	0.425	0
		(Approx. \$	Price PTC 10/01/2033 110.591 Approx. YTM 4.130)		
10/01/2041	1,760M	5.00%	3.81	0.425	0
		(Approx. \$	Price PTC 10/01/2033 109.885 Approx. YTM 4.213)		
10/01/2042	1,845M	5.00%	3.89	0.425	0
		(Approx. \$	Price PTC 10/01/2033 109.184 Approx. YTM 4.290)		
10/01/2043	1,940M	5.00%	3.93	0.425	0
		(Approx. \$	Price PTC 10/01/2033 108.835 Approx. YTM 4.336)		
10/01/2048	11,310M	5.00%	4.12	3/8	-3
		(Approx. \$	Price PTC 10/01/2033 109.418 Approx. YTM 4.612)		
10/01/2053	14,610M	5.00%	4.20	3/8	-4
		(Approx. \$	Price PTC 10/01/2033 108.643 Approx. YTM 4.710)		

CALL FEATURES: Optional call in 10/01/2033 @ 100.00



After finalizing the structure for the bonds and making any necessary adjustment to the yields after the order period, the underwriters will provide the final interest rate scale

Upon approval of the final scale, the underwriter will offer to buy the bonds, and ask for the **verbal award**

The underwriter will circulate a **re-pricing wire** with the final scale

Final numbers based on the final interest rate scale will be circulated followed by a **Bond Purchase Agreement (BPA)** with the terms of the bonds. Execution of the BPA by the issuer and underwriter is the formal award

QUESTIONS?



MATT RUDROFF, CFA, CPA
Director
PFM Financial Advisors LLC

NIKOLAI SKLAROFF
Capital Finance Director
San Francisco Public
Utilities Commission

