

UNDERWRITERS AND FINANCIAL ADVISORS

UNITED STATES MUNICIPALS REVIEW Full Year 2023



LSEG DATA & ANALYTICS

United States Municipal Review

Full Year 2023 | Underwriters, Financial Advisors & Credit Enhancers

Global Deals Intelligence

MUNICIPAL BOND ISSUANCE UP 1% TO TWO-YEAR HIGH

US municipal bond issuance totaled US\$362.8 billion during full year 2023, a 1% increase compared to a year ago and the strongest full year period for municipal bonds in two years. By number of issues, nearly 7,300 municipal bonds were brought to market during full year 2023, an 8% decrease compared to year ago levels. Fourth quarter 2023 municipal bond proceeds increased 2% compared to the third quarter of 2023.

TAXABLE MUNICIPAL BONDS DECLINE 30% FROM 2022 LEVELS

Taxable municipal bond offerings totaled US\$32.9 billion during full year 2023, a decrease of 30% compared to levels seen during full year 2022 and marking the slowest annual period for taxable municipal bonds since 2018. Taxable offerings accounted for 9% of full year 2023 municipal bond issuance, down from during full year 2022, when taxable bonds accounted for 13% of total US municipal bond issuance.

GREEN BOND ISSUANCE UP 9%; NUMBER OF OFFERINGS HIT SEVEN-YEAR LOW

Green bond issuance in the US municipal bond market totaled US\$16.7 billion during full year 2023, up 9% compared to full year 2022, and marking the strongest full year period for green municipal bond issuance in two years. By number of issues, 73 green bonds were sold during full year 2023, a 28% decrease compared to full year 2022 levels and a seven-year low. Green bond offerings from issuers in California, New York and Ohio accounted for 76% of full year 2023 issuance.

REFUNDINGS INCREASE 17%; NEW MONEY OFFERINGS FALL 3%

Refunding activity within the municipal bond market totaled US\$83.4 billion during full year 2023, a 17% increase compared to 2022 levels and the strongest annual period for refunding issuance since 2021. New money offerings totaled US\$279.4 billion during full year 2023, a 3% decrease compared to a year ago and the slowest opening period for new money municipal bonds since 2020.

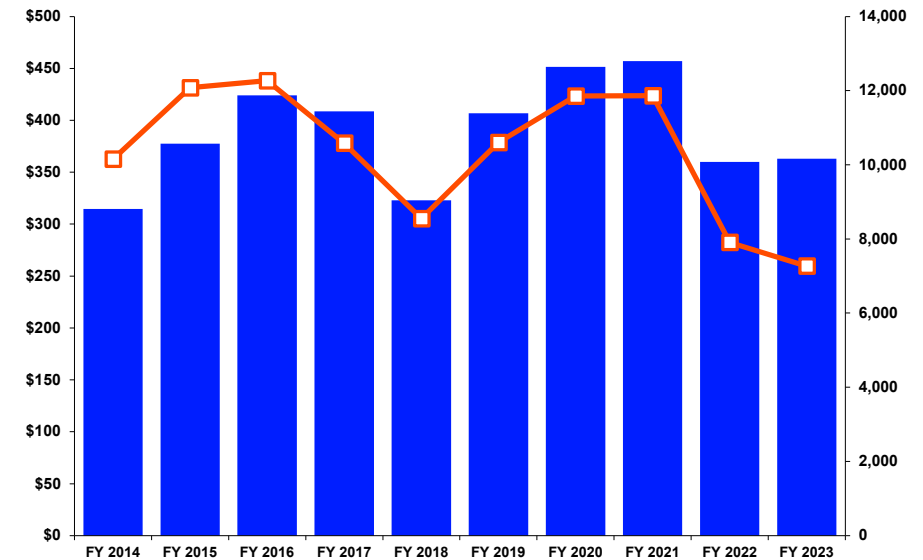
TEXAS, CALIFORNIA AND NEW YORK LEAD MUNI MARKET

Bond issuers in Texas, California and New York accounted for a combined 42% of the US municipal bond market during full year 2023, up from 38% during full year 2022. Texas, which lead the market for municipal bond issuance for the first time since 1981, saw a 24% increase compared to a year ago, followed by Ohio and Illinois, with year-over-year gains of 20% and 17%, respectively. Within the top 20 issuers, Colorado, Massachusetts, and Virginia registered double-digit declines.

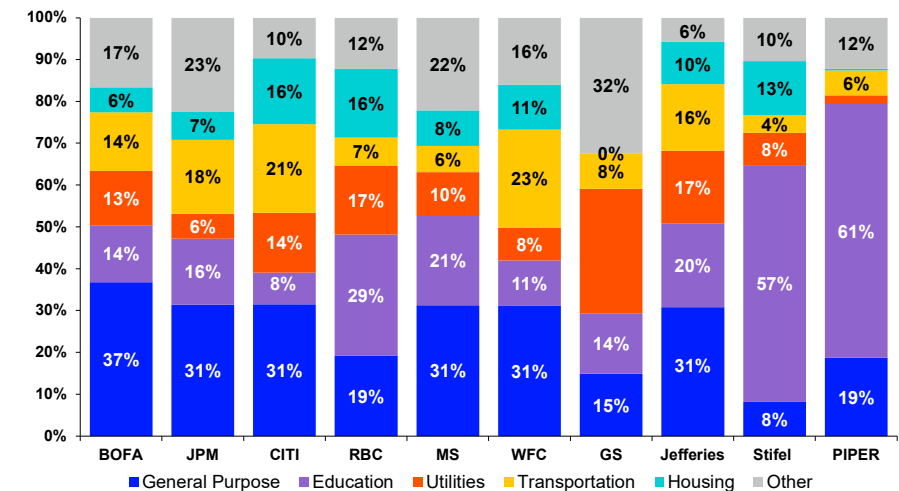
ELECTRIC POWER, PUBLIC FACILITIES AND HOUSING REGISTER GAINS

Municipal bonds with Electric Power, Public Facilities and Housing use of proceeds registered year-over-year gains compared to full year 2022, with an average par amount increase of 44%. New issuance with Healthcare, Transportation and General Purpose use of proceeds fell an average of 20%, by par amount, and 15% by number of issues, compared to full year 2022.

United States Municipals Issuance



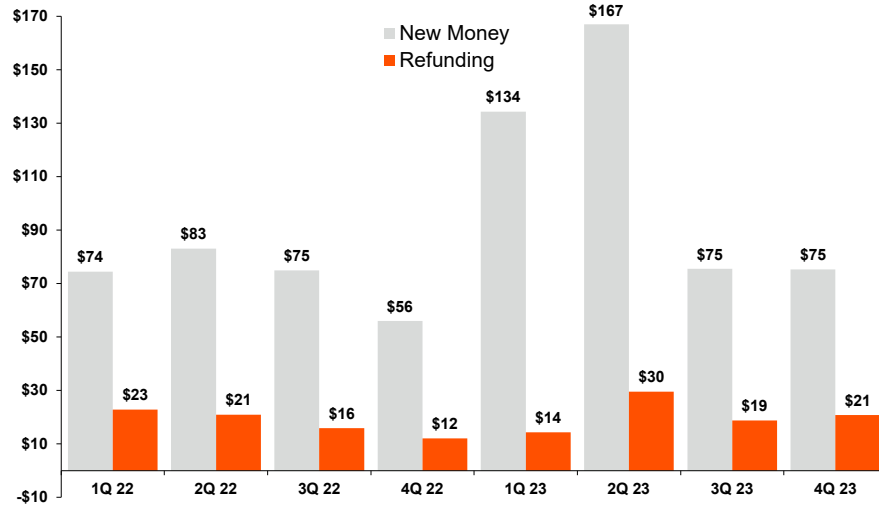
Top 10 Bookrunners by Proceeds - Use of Proceeds Composition



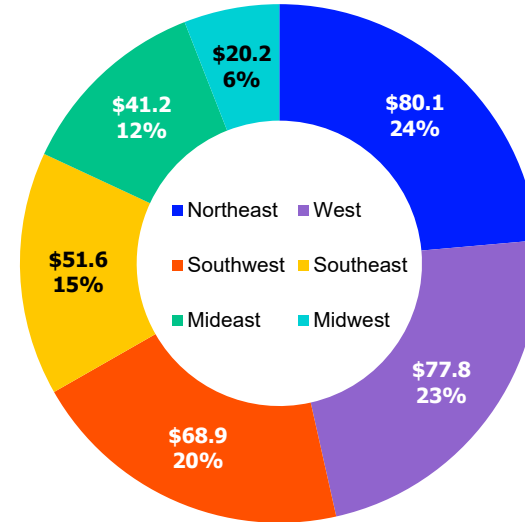
US Municipal Insights

Full Year 2023 | Underwriters, Financial Advisors & Credit Enhancers

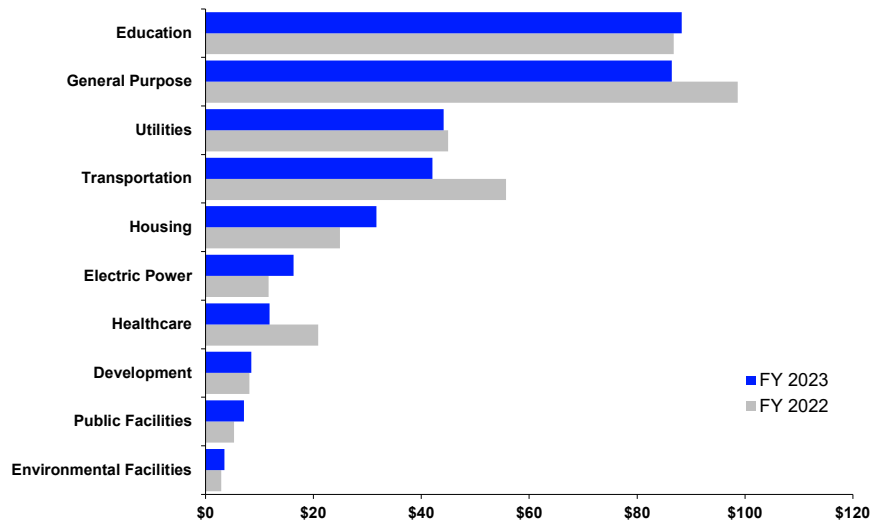
New Money vs. Refunding (US\$bil)



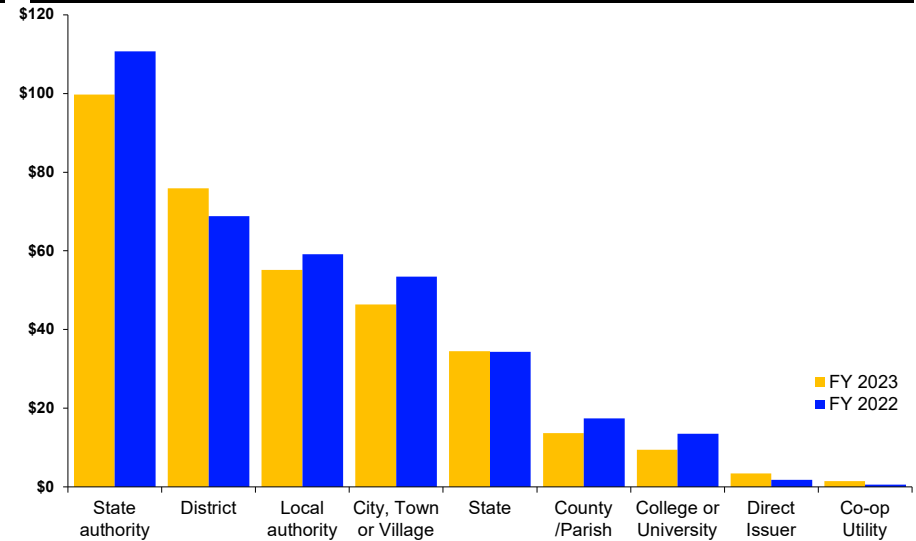
Regional Composition of Proceeds (US\$bil)



Use of Proceeds (US\$bil)



Issuer Type Composition (US\$bil)



US Underwriters

Full Year 2023 | Underwriters, Financial Advisors & Credit Enhancers

Bookrunners (AT01)						
	Rank	Rank	YoY Change (\$)	1% QoQ Change (\$)	2%	
Bookrunner	2023	2022	Procees ds	Market Share	Mkt. Sh.	# of Deals
BofA Securities Inc	1	1	45,219	12.5	0.1	321
RBC Capital Markets	2	5	32,878	9.1	2.7	398
Jefferies LLC	3	8	27,164	7.5	3.0	189
Morgan Stanley	4	3	26,988	7.4	-0.2	207
J P Morgan Securities LLC	5	2	25,874	7.1	-3.5	239
Citi	6	4	22,378	6.2	-1.3	160
Wells Fargo & Co	7	6	21,874	6.0	0.3	173
Goldman Sachs & Co LLC	8	7	18,880	5.2	0.6	76
Stifel Nicolaus & Co Inc	9	9	16,921	4.7	0.2	640
Raymond James	10	12	14,907	4.1	0.5	490
Barclays	11	10	12,763	3.5	-0.6	93
Piper Sandler & Co	12	11	12,348	3.4	-0.4	373
Siebert Williams Shank & Co	13	14	10,353	2.9	0.2	72
Robert W Baird & Co Inc	14	13	9,764	2.7	0.0	747
Ramirez & Co Inc	15	15	9,748	2.7	0.7	63
Industry Total			362,847	100.0		7,268

Long & Short Term (AT16)						
	Rank	Rank	YoY Change (\$)	1% QoQ Change (\$)	-3%	
Bookrunner	2023	2022	Procees ds	Market Share	Mkt. Sh.	# of Deals
BofA Securities Inc	1	1	49,151	12.7	0.3	371
RBC Capital Markets	2	5	32,903	8.5	2.4	401
Jefferies LLC	3	7	30,755	7.9	3.0	423
J P Morgan Securities LLC	4	2	30,362	7.8	-3.1	323
Morgan Stanley	5	4	27,306	7.0	-0.5	216
Citi	6	3	23,178	6.0	-1.6	162
Wells Fargo & Co	7	6	22,652	5.8	0.3	182
Goldman Sachs & Co LLC	8	8	19,030	4.9	0.5	77
Stifel Nicolaus & Co Inc	9	9	17,216	4.4	0.1	657
Raymond James	10	12	15,262	3.9	0.5	507
Piper Sandler & Co	11	11	13,961	3.6	-0.4	663
Barclays	12	10	12,942	3.3	-0.7	96
Siebert Williams Shank & Co	13	14	10,365	2.7	0.2	73
Robert W Baird & Co Inc	14	13	10,297	2.7	0.0	772
Ramirez & Co Inc	15	15	9,771	2.5	0.6	64
Industry Total			388,073	100.0		8,989

Issuers (AT15)						
	Rank	Rank	YoY Change (\$)	1% QoQ Change (\$)	2%	
Issuer	2023	2022	Procees ds	Market Share	Mkt. Sh.	# of Deals
California	1	3	8,570	2.4	0.6	7
NYC Transitional Finance Auth	2	1	6,968	1.9	-0.2	11
California Comm Choice Fin Auth	3	38	5,483	1.5	1.1	11
New York City-New York	4	6	5,420	1.5	0.1	9
Triborough Bridge & Tunnel Auth	5	2	4,947	1.4	-0.5	8
NYS Dorm Authority	6	5	4,721	1.3	-0.3	14
Main Street Natural Gas Inc	7	28	4,194	1.2	0.7	9
Washington	8	11	3,700	1.0	0.1	17
Texas Natural Gas Sec Fin Corp	9	-	3,522	1.0	1.0	1
Illinois	10	21	3,386	0.9	0.2	5
Massachusetts	11	4	3,214	0.9	-0.7	8
New York Transportation Development Corporation	12	40	3,013	0.8	0.4	3
Regents of the University of California	13	7	2,875	0.8	-0.3	6
Connecticut	14	12	2,766	0.8	-0.1	17
Los Angeles Dept Wtr & Pwr (LADWP)	15	18	2,535	0.7	0.0	10
Industry Total			362,847	100.0		7,268

Negotiated (AT03)						
	Rank	Rank	YoY Change (\$)	3% QoQ Change (\$)	-6%	
Bookrunner	2023	2022	Procees ds	Market Share	Mkt. Sh.	# of Deals
BofA Securities Inc	1	2	31,583	10.9	0.8	219
RBC Capital Markets	2	3	31,356	10.8	2.9	335
Jefferies LLC	3	10	20,767	7.1	2.6	122
Morgan Stanley	4	5	19,111	6.6	-0.5	123
Goldman Sachs & Co LLC	5	6	18,880	6.5	0.8	76
Citi	6	4	18,821	6.5	-1.0	119
J P Morgan Securities LLC	7	1	18,727	6.4	-3.9	153
Wells Fargo & Co	8	8	17,252	5.9	0.5	127
Stifel Nicolaus & Co Inc	9	7	16,720	5.7	0.0	615
Raymond James	10	12	13,092	4.5	0.6	328
Barclays	11	9	12,390	4.3	-0.6	92
Piper Sandler & Co	12	11	11,073	3.8	-0.3	277
Siebert Williams Shank & Co	13	13	10,353	3.6	0.1	72
Ramirez & Co Inc	14	14	9,748	3.4	0.9	63
Loop Capital Markets	15	16	6,004	2.1	0.2	53
Industry Total			291,101	100.0		4,129

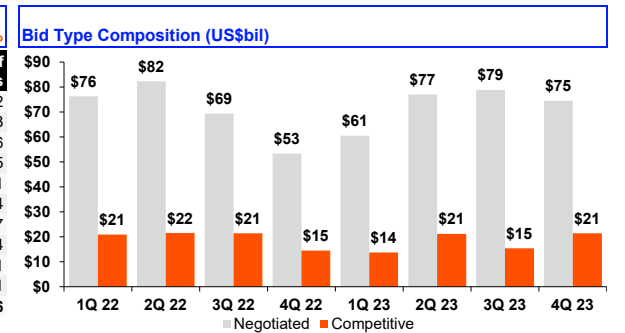
Competitive (AT04)						
	Rank	Rank	YoY Change (\$)	-9% QoQ Change (\$)	39%	
Bookrunner	2023	2022	Procees ds	Market Share	Mkt. Sh.	# of Deals
BofA Securities Inc	1	1	13,636	19.0	-1.8	102
Morgan Stanley	2	3	7,877	11.0	1.5	84
J P Morgan Securities LLC	3	2	7,147	10.0	-1.9	86
Jefferies LLC	4	7	6,397	8.9	4.1	67
Robert W Baird & Co Inc	5	5	5,574	7.8	0.5	536
Wells Fargo & Co	6	6	4,621	6.4	-0.5	46
Citi	7	4	3,557	5.0	-2.7	41
Hilltop Securities	8	12	1,964	2.7	0.9	125
Raymond James	9	8	1,815	2.5	-0.1	162
Mesirow Financial Inc	10	10	1,762	2.5	0.5	45
RBC Capital Markets	11	18	1,522	2.1	0.9	63
TD Securities (USA) LLC	12	22	1,346	1.9	1.0	147
Samco Capital Markets	13	16	1,340	1.9	0.4	157
Piper Sandler & Co	14	9	1,275	1.8	-0.8	96
Fidelity Capital Markets	15	20	1,155	1.6	0.4	98
Industry Total			71,745	100.0		3,139

Co-Manager (AT12)						
	Rank	Rank	YoY Change (\$)	3% QoQ Change (\$)	-5%	
Co-Manager	2023	2022	Procees ds	Market Share	Mkt. Sh.	# of Deals
Siebert Williams Shank & Co	1	1	12,323	3.4	0.3	292
Ramirez & Co Inc	2	2	11,559	3.2	0.2	607
Raymond James	3	4	11,277	3.1	0.3	481
BofA Securities Inc	4	7	10,290	2.8	0.3	304
Morgan Stanley	5	11	10,240	2.8	0.5	453
J P Morgan Securities LLC	6	9	10,035	2.8	0.4	290
Stifel Nicolaus & Co Inc	7	8	9,454	2.6	0.2	440
Loop Capital Markets	8	3	8,470	2.3	-0.6	293
RBC Capital Markets	9	6	8,063	2.2	-0.3	280
Citi	10	10	7,348	2.0	-0.4	263
Academy Securities Inc	11	5	7,277	2.0	-0.7	204
Jefferies LLC	12	15	7,165	2.0	0.1	198
Wells Fargo & Co	13	12	6,997	1.9	-0.3	267
Piper Sandler & Co	14	14	6,934	1.9	-0.1	174
Cabrera Capital Markets Inc	15	19	6,189	1.7	0.6	210
Industry Total			236,758	100.0		2,648

US Taxable Municipal Debt (AT62)						
	Rank	Rank	YoY Change (\$)	-45% QoQ Change (\$)	68%	
Bookrunner	2023	2022	Procees ds	Market Share	Mkt. Sh.	# of Deals
RBC Capital Markets	1	2	1,830	13.3	3.3	35
Citi	2	3	1,798	13.1	3.2	14
JP Morgan	3	9	1,369	10.0	4.1	19
Wells Fargo & Co	4	5	1,348	9.8	2.2	13
Morgan Stanley	5	10	1,011	7.4	3.1	16
Barclays	6	4	840	6.1	-2.6	10
Stifel/KBW	7	13	747	5.5	3.6	26
Goldman Sachs & Co	8	7	649	4.7	-2.1	13
BofA Securities Inc	9	1	556	4.1	-9.3	14
Robert W Baird & Co Inc	10	14	435	3.2	1.5	34
Industry Total			13,714	100.0		467

*Indicates a Tie

Minority Owned Firms (AT41)						
	Rank	Rank	YoY Change (\$)	3% QoQ Change (\$)	-3%	
Bookrunner	2023	2022	Procees ds	Market Share	Mkt. Sh.	# of Deals
Siebert Williams Shank & Co	1	1	10,353	5.8	0.2	72
Ramirez & Co Inc	2	2	9,748	5.5	1.4	63
Loop Capital Markets	3	3	6,287	3.5	0.4	76
Cabrera Capital Markets Inc	4	5	641	0.4	0.1	5
Academy Securities Inc	5	6	320	0.2	0.1	1
Estrada Hinojosa & Company Inc	6	4	233	0.1	-0.3	14
Bancroft Capital	7	-	166	0.1	0.1	17
Stern Brothers & Co	8	7	85	0.1	0.0	4
Rice Financial Products Company	9	8	12	0.0	0.0	1
Duncan-Williams Inc	10	9	2	0.0	0.0	1
Industry Total			178,359	100.0		1,856



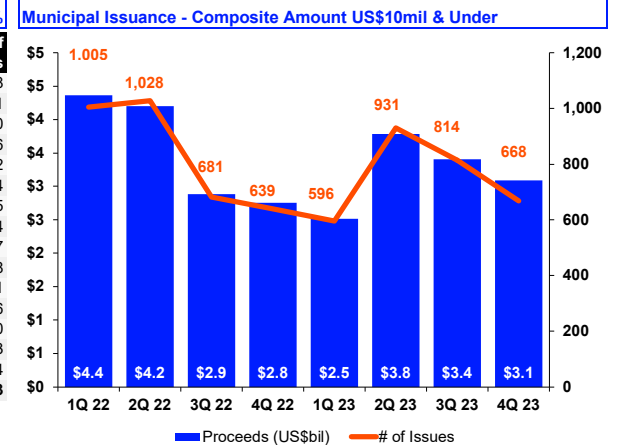
Composite Amount US\$10mln & Under

Full Year 2023 | Underwriters, Financial Advisors & Credit Enhancers

Bookrunner Composite Amount Under \$10mln (AT02)							Co-Manager Composite Amount Under \$10mln (AT12a)							Financial Advisor Composite Amt Under \$10mln (AT07a)						
	Rank	Rank	Proceeds	Market	Mkt.	# of		Rank	Rank	Proceeds	Market	Mkt.	# of		Rank	Rank	Proceeds	Market	Mkt.	# of
	2023	2022	US\$mil	Share	Sh.	Deals		2023	2022	US\$mil	Share	Sh.	Deals		2023	2022	US\$mil	Share	Sh.	Deals
Bookrunner							Co-Manager							Financial Advisor						
Robert W Baird & Co Inc	1	1	2,231	16.6	4.5	465	Cantor Fitzgerald LP	1	2	235	1.8	0.3	44	PFM Financial Advisors LLC	1	1	963	9.8	0.9	158
Stifel Nicolaus & Co Inc	2	2	1,401	10.4	0.2	249	Stifel Nicolaus & Co Inc	2	3	199	1.5	0.1	105	Robert W Baird & Co Inc	2	4	791	8.1	1.6	166
Raymond James	3	4	1,063	7.9	1.3	192	BOK Financial Securities Inc	3	5	146	1.1	-0.1	22	Baker Tilly Municipal Advisors	3	5	710	7.2	2.1	150
Piper Sandler & Co	4	3	800	5.9	-2.4	167	Fidelity Capital Markets	4	44	142	1.1	0.9	162	Ehlers & Associates	4	2	693	7.1	0.1	180
Samco Capital Markets	5	5	659	4.9	0.2	123	FMSbonds Inc	5	23	135	1.0	0.5	299	Hilltop Securities	5	3	611	6.2	-0.7	124
FMSbonds Inc	6	9	559	4.2	0.9	99	Sierra Pacific Securities	6	12	111	0.8	0.1	394	Masterson Advisors LLC	6	7	488	5.0	0.9	94
D A Davidson & Co	7	7	501	3.7	-0.8	143	Carty & Company Inc	7	25	110	0.8	0.4	393	Specialized Public Finance Inc	7	8	341	3.5	0.2	77
RBC Capital Markets	8	11	453	3.4	0.6	73	Celadon Financial Group	8	19	106	0.8	0.3	369	Stephen H McDonald & Associates Inc	8	10	254	2.6	-0.4	145
TD Securities (USA) LLC	9	35	451	3.4	3.0	116	R Seelaus & Company Inc	9	7	101	0.8	0.0	171	Phoenix Advisors LLC	9	9	253	2.6	-0.5	48
BOK Financial Securities Inc	10	10	429	3.2	0.4	159	CINCaP Investment Group	10	9	100	0.7	-0.1	171	PMA Securities Inc	10	14	249	2.5	0.7	50
Northland Securities	11	6	378	2.8	-1.9	107	Intercoastal Capital Markets	11	11	97	0.7	-0.1	161	Piper Sandler & Co	11	6	228	2.3	-1.9	44
Hilltop Securities	12	14	370	2.8	0.3	76	Edward D Jones & Co LP	12	14	96	0.7	0.1	304	GMS Group LLC	12	12	207	2.1	0.2	35
Roosevelt & Cross Inc	13	8	356	2.6	-1.5	129	Crews & Associates Inc	13	10	94	0.7	-0.1	341	Urban Futures Inc	13	18	200	2.0	0.6	39
Baker Group LP	14	13	301	2.2	-0.3	93	Estrada Hinojosa & Company Inc	14	13	93	0.7	0.0	113	Samco Capital Markets	14	15	197	2.0	0.2	34
LJ Hart & Company	15	16	268	2.0	-0.2	88	Raymond James	15	32*	93	0.7	0.3	50	Speer Financial Inc	15	13	177	1.8	0.0	60
Industry Total			13,469	100.0		3,153	Industry Total			4,027	100.0		802	Industry Total			9,825	100.0		2,310

Negotiated Composite Amt Under \$10mln (AT21)							Competitive Composite Amt Under \$10mln (AT20)							Municipal Issuance - Composite Amount US\$10mil & Under						
	Rank	Rank	Proceeds	Market	Mkt.	# of		Rank	Rank	Proceeds	Market	Mkt.	# of							
	2023	2022	US\$mil	Share	Sh.	Deals		2023	2022	US\$mil	Share	Sh.	Deals							
Bookrunner							Bookrunner													
Stifel Nicolaus & Co Inc	1	1	1,246	21.1	2.2	225	Robert W Baird & Co Inc	1	1	1,757	23.3	4.8	368							
Raymond James	2	4	571	9.7	1.4	92	Samco Capital Markets	2	2	607	8.0	0.2	111							
FMSbonds Inc	3	5	517	8.8	3.0	92	Raymond James	3	6	492	6.5	1.5	100							
D A Davidson & Co	4	2	486	8.2	-1.2	136	TD Securities (USA) LLC	4	24	451	6.0	5.2	116							
Robert W Baird & Co Inc	5	6	475	8.0	3.1	97	BOK Financial Securities Inc	5	7	399	5.3	0.6	152							
Piper Sandler & Co	6	3	448	7.6	-1.7	103	Piper Sandler & Co	6	3	352	4.7	-2.6	64							
RBC Capital Markets	7	7	283	4.8	0.2	40	Roosevelt & Cross Inc	7	5	344	4.6	-1.7	125							
LJ Hart & Company	8	8	268	4.5	-0.1	88	Baker Group LP	8	9	275	3.6	-0.6	84							
Northland Securities	9	12	130	2.2	0.5	39	Hilltop Securities	9	11	260	3.4	0.0	57							
Hilltop Securities	10	16	111	1.9	0.5	19	Northland Securities	10	4	249	3.3	-4.0	68							
PNC Financial Services Group Inc	11	10	96	1.6	-0.3	13	Fidelity Capital Markets	11	10	248	3.3	-0.3	51							
Bernardi Securities Inc	12	13	93	1.6	0.0	29	Janney Montgomery Scott LLC	12	15	209	2.8	1.3	26							
Colliers Securities	13	9	91	1.5	-1.1	21	FHNC Financial Capital Markets	13	8	173	2.3	-2.0	30							
Oppenheimer & Co	14	22	87	1.5	0.4	19	RBC Capital Markets	14	17	170	2.3	1.1	33							
Mesirow Financial Inc	15	25	75	1.3	0.6	18	Stifel Nicolaus & Co Inc	15	14	155	2.1	-0.3	24							
Industry Total			5,913	100.0		1,270	Industry Total			7,556	100.0		1,883							

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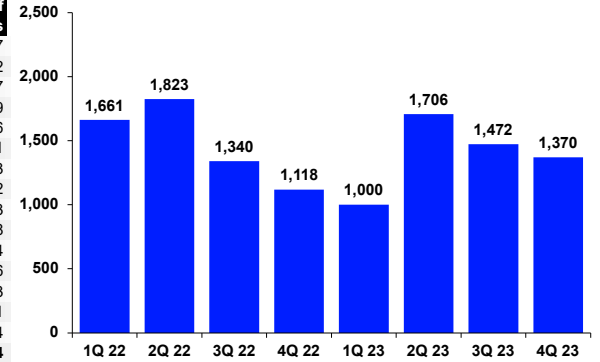
US Financial Advisors

Full Year 2023 | Underwriters, Financial Advisors & Credit Enhancers

Financial Advisors (AT07)							Financial Advisors Long & Short Term (AT18)							Financial Advisors Number of Issues (AT07d)						
YoY Change (\$)							YoY Change (\$)							YoY Change (\$)						
2%							3%							-7%						
QoQ Change (\$)							QoQ Change (\$)							QoQ Change (\$)						
0%							-5%							-7%						
Financial Advisor	Rank 2023	Rank 2022	Proceeds US\$mil	Market Share	Mkt. Sh.	# of Deals	Financial Advisor	Rank 2023	Rank 2022	Proceeds US\$mil	Market Share	Mkt. Sh.	# of Deals	Financial Advisor	Rank 2023	Rank 2022	# of Deals	Market Share	Mkt. Sh.	Proceeds US\$mil
PFM Financial Advisors LLC	1	1	61,811	19.8	3.4	672	PFM Financial Advisors LLC	1	1	63,068	18.8	3.1	686	PFM Financial Advisors LLC	1	1	672	12.1	1.4	61,811
Public Resources Advisory Group	2	2	34,721	11.1	-0.4	136	Public Resources Advisory Group	2	2	34,784	10.4	-0.5	139	Hilltop Securities	2	2	412	7.4	-0.7	20,975
Hilltop Securities	3	3	20,975	6.7	-0.7	412	Hilltop Securities	3	3	22,230	6.6	-0.7	565	Robert W Baird & Co Inc	3	5	265	4.8	0.6	3,350
Frasca & Associates	4	4	11,422	3.7	-1.9	39	Frasca & Associates	4	4	11,422	3.4	-2.2	39	Baker Tilly Municipal Advisors	4	4	259	4.7	0.4	5,428
Acacia Financial Group Inc	5	5	10,371	3.3	-0.1	92	Acacia Financial Group Inc	5	5	11,149	3.3	0.0	135	Ehlers & Associates	5	3	236	4.3	-0.2	2,236
Estrada Hinojosa & Company Inc	6	8	9,512	3.0	0.8	60	Estrada Hinojosa & Company Inc	6	8	9,524	2.8	0.7	61	Specialized Public Finance Inc	6	11	166	3.0	0.6	4,507
Caine Mitter & Associates Inc	7	13	8,427	2.7	1.2	126	Caine Mitter & Associates Inc	7	17	8,448	2.5	1.1	128	Stephen H McDonald & Associates Inc	7	7	151	2.7	-0.4	477
Municipal Capital Markets Group Inc	8	10	7,152	2.3	0.7	16	RBC Capital Markets	8	16	7,364	2.2	0.8	81	Masterson Advisors LLC	8	10	148	2.7	0.3	2,558
CSG Advisors Incorporated	9	9	6,569	2.1	0.4	123	Municipal Capital Markets Group Inc	9	11	7,152	2.1	0.6	16	Piper Sandler & Co	9	6	145	2.6	-0.5	6,358
RBC Capital Markets	10	16	6,439	2.1	0.8	79	Piper Sandler & Co	10	7	6,805	2.0	-0.2	149	Public Resources Advisory Group	10	8	136	2.5	-0.1	34,721
KNN Public Finance	11	14	6,381	2.0	0.5	53	KNN Public Finance	11	12	6,686	2.0	0.5	58	Caine Mitter & Associates Inc	11	23	126	2.3	1.0	8,427
Piper Sandler & Co	12	7	6,358	2.0	-0.3	145	CSG Advisors Incorporated	12	10	6,569	2.0	0.4	123	CSG Advisors Incorporated	12	16	123	2.2	0.6	6,569
Kaufman Hall & Associates Inc	13	6	5,734	1.8	-1.2	40	Kaufman Hall & Associates Inc	13	6	6,084	1.8	-1.0	42	Phoenix Advisors LLC	13	12	116	2.1	0.1	2,534
Baker Tilly Municipal Advisors	14	12	5,428	1.7	0.2	259	Baker Tilly Municipal Advisors	14	15	5,525	1.7	0.2	265	Stephen L Smith Corp	14	19	111	2.0	0.5	251
Columbia Capital Management	15	32	4,921	1.6	0.9	31	Montague DeRose & Associates LLC	15	9	5,129	1.5	-0.1	29	Fiscal Advisors & Marketing Inc	15	9	109	2.0	-0.5	535
Industry Total			312,508	100.0		5,548	Industry Total			335,641	100.0		7,058	Industry Total			5,548	100.0		312,508

Financial Advisors Negotiated (AT07b)							Financial Advisors Competitive (AT07c)							Financial Advisor - Number of Issues						
YoY Change (\$)							YoY Change (\$)							YoY Change (\$)						
6%							-9%							42%						
QoQ Change (\$)							QoQ Change (\$)							QoQ Change (\$)						
-9%							42%							42%						
Financial Advisor	Rank 2023	Rank 2022	Proceeds US\$mil	Market Share	Mkt. Sh.	# of Deals	Financial Advisor	Rank 2023	Rank 2022	Proceeds US\$mil	Market Share	Mkt. Sh.	# of Deals	Financial Advisor	Rank 2023	Rank 2022	# of Deals	Market Share	Mkt. Sh.	Proceeds US\$mil
PFM Financial Advisors LLC	1	1	51,609	21.3	4.1	425	PFM Financial Advisors LLC	1	1	10,202	14.6	0.3	247				1,661			
Public Resources Advisory Group	2	2	27,104	11.2	0.4	84	Public Resources Advisory Group	2	2	7,616	10.9	-2.8	52				1,823			
Hilltop Securities	3	3	16,375	6.8	-1.1	243	Piper Sandler & Co	3	4	5,230	7.5	1.5	107				1,340			
Frasca & Associates	4	4	11,062	4.6	-2.5	34	Hilltop Securities	4	3	4,600	6.6	0.5	169				1,118			
Estrada Hinojosa & Company Inc	5	7	9,337	3.9	1.0	53	Acacia Financial Group Inc	5	5	3,299	4.7	0.1	36				1,000			
Caine Mitter & Associates Inc	6	10	8,427	3.5	1.5	126	Davenport & Company LLC	6	7	2,727	3.9	0.5	51				1,706			
Municipal Capital Markets Group Inc	7	9	7,152	3.0	0.8	16	Baker Tilly Municipal Advisors	7	8	2,695	3.9	0.6	203				1,472			
Acacia Financial Group Inc	8	6	7,071	2.9	-0.1	56	Robert W Baird & Co Inc	8	6	2,594	3.7	0.1	252				1,370			
CSG Advisors Incorporated	9	8	6,569	2.7	0.5	123	Ehlers & Associates	9	9	2,198	3.2	0.1	233							
RBC Capital Markets	10	13	5,843	2.4	0.8	58	Specialized Public Finance Inc	10	14	2,004	2.9	1.2	108							
Kaufman Hall & Associates Inc	11	5	5,734	2.4	-1.6	40	Montague DeRose & Associates LLC	11	11	1,811	2.6	0.3	14							
KNN Public Finance	12	14	5,519	2.3	0.7	43	Phoenix Advisors LLC	12	12	1,495	2.1	-0.1	96							
Columbia Capital Management	13	26	4,667	1.9	1.2	20	Masterson Advisors LLC	13	19	1,391	2.0	0.7	133							
Stifel Nicolaus & Co Inc	14	12	3,525	1.5	-0.3	39	First Tryon Securities LLC	14	13	1,151	1.7	-0.1	21							
BOK Financial Securities Inc	15	24	3,522	1.5	0.7	39	Sustainable Capital Advisors	15	32	1,044	1.5	0.8	4							
Industry Total			242,749	100.0		2,464	Industry Total			69,759	100.0		3,084							

*Indicates a Tie



US Green Bonds

Full Year 2023 | Underwriters, Financial Advisors & Credit Enhancers

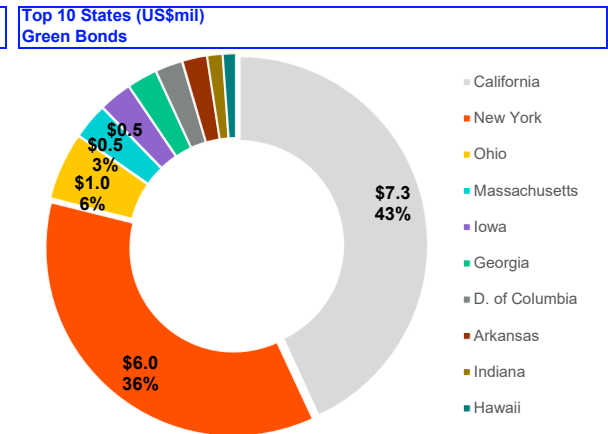
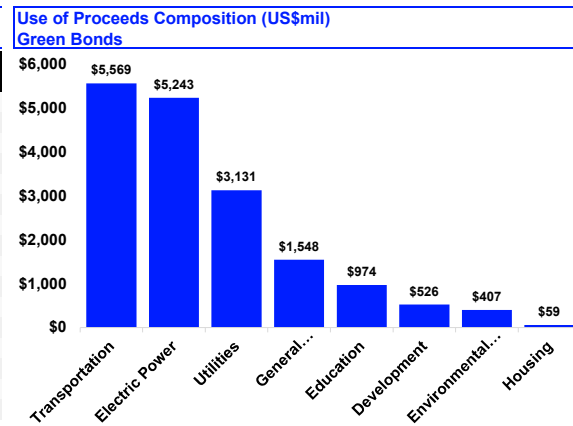
Bookrunner Green Bonds (AT70)						
			YoY Change (\$)	9%	QoQ Change (\$)	37%
Bookrunner	Rank 2023	Rank 2022	Proceeds US\$mil	Market Share	Mkt. Sh.	# of Deals
Goldman Sachs & Co LLC	1	3	5,852	35.0	17.5	17
Morgan Stanley	2	4	1,928	11.5	-2.4	6
BofA Securities Inc	3	2	1,743	10.4	-7.8	9
J P Morgan Securities LLC	4	1	1,541	9.2	-14.2	7
Citi	5	6	1,435	8.6	4.9	6
RBC Capital Markets	6	15	1,297	7.8	7.3	8
Ramirez & Co Inc	7	12	1,171	7.0	6.3	8
Jefferies LLC	8	8	650	3.9	1.6	4
Wells Fargo & Co	9	9	365	2.2	0.0	3
Loop Capital Markets	10	21	335	2.0	1.8	4
Barclays	11	7	161	1.0	-2.2	1
Siebert Williams Shank & Co	12	25	73	0.4	0.3	1
Mesirow Financial Inc	13	-	35	0.2	0.2	1
TD Securities (USA) LLC	14	-	29	0.2	0.2	1
Stifel Nicolaus & Co Inc	15	5	27	0.2	-7.8	2
Industry Total			16,733	100.0		73

Co-Manager Green Bonds (AT71)						
			YoY Change (\$)	-1%	QoQ Change (\$)	71%
Co-Manager	Rank 2023	Rank 2022	Proceeds US\$mil	Market Share	Mkt. Sh.	# of Deals
Siebert Williams Shank & Co	1	4	1,584	9.5	3.2	15
Stifel Nicolaus & Co Inc	2	16	715	4.3	2.6	7
Ramirez & Co Inc	3	1	687	4.1	-4.3	16
Citi	4	6	654	3.9	0.0	16
J P Morgan Securities LLC	5	10	613	3.7	0.9	13
BofA Securities Inc	6	9	582	3.5	0.6	13
Loop Capital Markets	7	8	482	2.9	-0.2	11
Morgan Stanley	8	13	470	2.8	0.4	14
Wells Fargo & Co	9	18	409	2.5	1.3	9
UBS Financial Services Inc	10	20	396	2.4	1.3	10
Goldman Sachs & Co LLC	11	17	374	2.2	1.0	9
Academy Securities Inc	12	2	368	2.2	-6.1	8
Jefferies LLC	13	5	358	2.1	-2.4	9
Barclays	14	11	315	1.9	-0.7	12
Piper Sandler & Co	15	15	283	1.7	-0.5	5
Industry Total			11,650	100.0		46

Financial Advisor Green Bonds (AT72)						
			YoY Change (\$)	20%	QoQ Change (\$)	63%
Financial Advisor	Rank 2023	Rank 2022	Proceeds US\$mil	Market Share	Mkt. Sh.	# of Deals
PFM Financial Advisors LLC	1	1	5,760	36.0	9.9	25
Municipal Capital Markets Group Inc	2	-	1,957	12.3	12.3	3
Public Resources Advisory Group	3	2	1,533	9.6	-1.3	7
Hilltop Securities	4	-	1,436	9.0	9.0	5
Municipal Capital Markets Corp	5	-	1,038	6.5	6.5	2
Backstrom McCarley Berry & Co	6	11	974	6.1	3.3	4
Sycamore Advisors LLC	7	5	884	5.5	-0.5	5
Montague DeRose & Associates LLC	8	14	592	3.7	1.8	3
Frasca & Associates	9	3	576	3.6	-6.6	3
KNN Public Finance	10	4	480	3.0	-4.3	3
Phoenix Capital Partners LLP	11	-	196	1.2	1.2	1
Stifel Nicolaus & Co Inc	12	9	154	1.0	-2.6	1
Rockfleet Financial Services Inc	13*	18*	79	0.5	-0.3	2
TKG & Associates LLP	13*	-	79	0.5	0.5	2
Robert W Baird & Co Inc	15	13	62	0.4	-1.7	1
Industry Total			15,982	100.0		63

Issuer Green Bonds (AT73)						
			YoY Change (\$)	9%	QoQ Change (\$)	37%
Issuer	Rank 2023	Rank 2022	Proceeds US\$mil	Market Share	Mkt. Sh.	# of Deals
California Comm Choice Fin Auth	1	2	5,433	32.5	23.5	10
Triborough Bridge & Tunnel Auth	2	1	2,495	14.9	5.5	5
San Francisco City/Co Public Util Comm	3	-	1,183	7.1	7.1	3
NYS Power Authority	4	8	734	4.4	0.4	1
Ohio Water Development Authority	5	-	600	3.6	3.6	2
California Infrstr & Eco Dev Bank	6	62	545	3.3	3.2	1
Iowa Finance Authority	7	23	472	2.8	1.5	3
San Diego USD	8	9	445	2.7	-1.1	2
Long Island Power Authority	9	-	400	2.4	2.4	1
Washington Metro Area Transit Au	10	-	392	2.3	2.3	1
Arkansas Development Fin Auth	11	16	330	2.0	0.1	2
Massachusetts Clean Water Trust	12	29	282	1.7	0.8	1
Ohio State University	13	-	266	1.6	1.6	1
Atlanta City-Georgia	14	-	256	1.5	1.5	1
Los Angeles Dept of Airports	15	3	248	1.5	-7.3	1
Industry Total			16,733	100.0		73

*Indicates a Tie



US Private Deals & Credit Enhancers

Full Year 2023 | Underwriters, Financial Advisors & Credit Enhancers

Private Placement Agent / Purchaser (AT24)

Placement Agent or Purchaser	Rank 2023	Rank 2022	Proceeds US\$mil	Market Share	Mkt. Sh.	# of Deals
Citi	1	5	3,550	24.2	17.3	76
BofA Securities Inc	2	1	1,712	11.7	-1.0	19
Piper Sandler & Co	3	2	1,280	8.7	-2.7	131
J P Morgan Securities LLC	4	7	756	5.1	0.9	13
Stifel Nicolaus & Co Inc	5	6	709	4.8	-1.3	85
Wells Fargo & Co	6	3	531	3.6	-4.2	9
RBC Capital Markets	7	10	477	3.3	0.2	15
Truist Financial Corp	8	4	389	2.7	-4.7	12
Bank of New York Mellon Corp	9	8	371	2.5	-1.1	18
TD Securities (USA) LLC	10	12	359	2.4	-0.3	15
Morgan Stanley	11	15	353	2.4	0.8	3
Jefferies LLC	12	63*	223	1.5	1.4	2
Deutsche Bank	13	-	206	1.4	1.4	8
Robert W Baird & Co Inc	14	11	199	1.4	-1.5	54
PNC Financial Services Group Inc	15	9	192	1.3	-2.2	6
Industry Total			14,687	100.0		660

Private Issuers (AT44)

Issuer	Rank 2023	Rank 2022	Proceeds US\$mil	Market Share	Mkt. Sh.	# of Deals
Mobile Airport Authority	1	-	1,000	6.8	6.8	2
Charlotte City-North Carolina	2	-	590	4.0	4.0	3
California Municipal Fin Auth	3	5	450	3.1	0.6	14
Maryland Dept Hsg & Com Dev (DHCD)	4	7	443	3.0	0.9	9
Ohio	5	152	366	2.5	2.4	2
Durham Co-North Carolina	6	-	366	2.5	2.5	2
California Housing Finance Agcy	7	84	304	2.1	1.8	8
Washington St Hsg Fin Commission	8	15	245	1.7	0.5	6
Pasco Co-Florida	9	227	238	1.6	1.5	4
Colorado Hsg & Fin Auth (CHFA)	10	11	236	1.6	0.3	9
Nevada Housing Division	11	46	223	1.5	1.0	5
California Statewide CDA (CSCDA)	12	38*	217	1.5	0.9	5
Illinois Finance Authority	13	192	208	1.4	1.3	1
Hawaii Dept of Budget & Finance	14	-	204	1.4	1.4	1
San Jose City-California	15	-	197	1.3	1.3	4
Industry Total			14,687	100.0		660

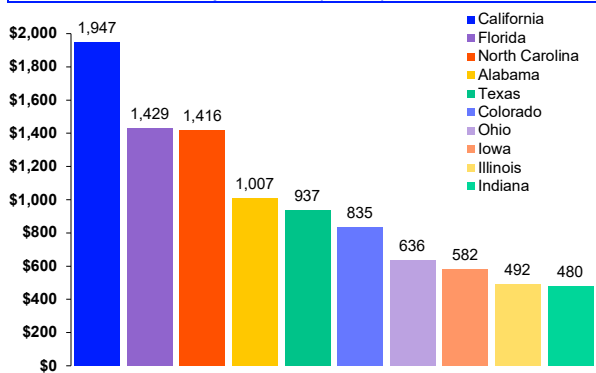
Private Financial Advisor (AT25)

Financial Advisor	Rank 2023	Rank 2022	Proceeds US\$mil	Market Share	Mkt. Sh.	# of Deals
DEC Associates Inc	1	42	818	16.0	15.7	5
Kaufman Hall & Associates Inc	2	1	800	15.6	-20.2	12
PFM Financial Advisors LLC	3	2	658	12.9	5.7	24
First Tryon Securities LLC	4	4	270	5.3	-1.1	7
Davenport & Company LLC	5	-	215	4.2	4.2	11
Acacia Financial Group Inc	6	-	208	4.1	4.1	1
Hammond Hanlon Camp LLC	7	13	204	4.0	2.6	1
Hilltop Securities	8	7	177	3.5	0.2	7
KNN Public Finance	9	64	161	3.2	3.1	3
Raymond James	10	-	150	2.9	2.9	1
MuniCap Inc	11	19	135	2.6	1.8	7
Stifel Nicolaus & Co Inc	12	9	117	2.3	0.2	6
Hendrickson Company	13	20	113	2.2	1.4	5
Piper Sandler & Co	14	3	105	2.1	-4.5	6
US Bancorp	15	-	105	2.1	2.1	2
Industry Total			5,122	100.0		176

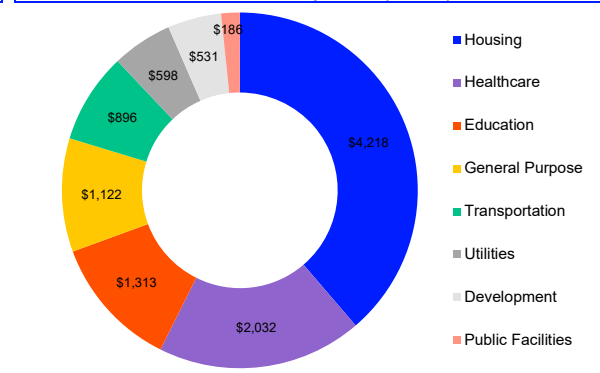
Public & Private Issuers (AT46)

Issuer	Rank 2023	Rank 2022	Proceeds US\$mil	Market Share	Mkt. Sh.	# of Deals
California	1	3	8,570	2.3	0.6	7
NYC Transitional Finance Auth	2	1	6,968	1.9	-0.1	11
California Comm Choice Fin Auth	3	43	5,483	1.5	1.1	11
New York City-New York	4	6	5,420	1.4	0.1	9
Triborough Bridge & Tunnel Auth	5	2	4,947	1.3	-0.5	8
NYS Dorm Authority	6	5	4,721	1.3	-0.2	14
Main Street Natural Gas Inc	7	31	4,194	1.1	0.6	9
Washington	8	12	3,700	1.0	0.2	17
Texas Natural Gas Sec Fin Corp	9	-	3,522	0.9	0.9	1
Illinois	10	22	3,386	0.9	0.3	5
Massachusetts	11	4	3,214	0.9	-0.6	8
New York Transportation Development Corporation	12	33	3,013	0.8	0.3	3
Regents of the University of California	13	8	2,875	0.8	-0.3	6
Connecticut	14	14	2,766	0.7	-0.1	17
Los Angeles Dept Wtr & Pwr (LADWP)	15	19	2,535	0.7	0.0	10
Industry Total			377,534	100.0		7,928

Private Transactions - Top Ten States (US\$mil)



Private Deals - Use of Proceeds Composition (US\$mil)



Bond Insurers (AT10)

Insurer	Rank 2023	Rank 2022	Proceeds US\$mil	Market Share	Mkt. Sh.	# of Deals
AGM formerly FSA Inc	1	1	19,516	61.3	10.5	645
Build America Mutual (BAM)	2	2	12,330	38.7	3.2	752
Industry Total			31,845	100.0		1,397

*Indicates a Tie

Credit Enhancers (AT80)

Credit Enhancers Types	Rank 2023	Rank 2022	Proceeds US\$mil	Market Share	Mkt. Sh.	# of Deals
Guaranteed	1	1	31,870	43.7	-1.2	933
Bond insurance	2	2	31,845	43.7	-5.3	1,397
LOC Domestic Bank	3	5	4,044	5.5	5.5	31
Standby Purch Agreement	4	4	798	1.1	-0.5	9
LOC Foreign Bank	5	3	733	1.0	-0.6	8
Mortgage backed	6	6	575	0.8	-0.6	28
Guaranteed investment contract	7	0	41	0.1	0.1	4
Industry Total			72,926	100.0		2,379

Top Issuers by Insured Amount

Top Issuers by Insured Amt	2023	US\$mil	Share	US\$mil	Deals
Chicago City-Illinois	1	1,676.8	5.3	1,714.3	7
NYS Dorm Authority	2	1,075.2	3.4	1,075.2	1
New York Transportation Development Corporation	3	800.0	2.5	2,000.0	1
Houston City-Texas	4	756.1	2.4	756.1	2
Lower Colorado River Authority (LCRA)	5	734.4	2.3	837.6	2
NYS Power Authority	6	734.2	2.3	734.2	1
Philadelphia City-Pennsylvania	7	564.8	1.8	564.8	1
Greater Texoma Utility Authority	8	531.0	1.7	531.0	3
Nashville-Davidson Co Sports Auth	9	425.4	1.3	425.4	1
Allegheny Co Airport Auth	10	415.0	1.3	415.0	3
Top 10 Total		7,712.9	24.3	9,053.6	22

United States Municipals Criteria

FULL YEAR 2023 | U.S. Underwriters, Financial Advisors & Credit Enhancers

If you would like to participate in the submission process, receive quarterly press releases, or have questions about our full league table criteria please contact:

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Rankings and volume totals include all municipal new issues underwritten during the period from October 1, 2023 to December 31, 2023, of which LSEG was made aware. All current data and previous year's data are as of 9:00am EDT on January 2, 2024. Except where indicated, the rankings quoted above do not include short-term, preliminary, private placement or rank-ineligible issues. Bookrunners receive full credit or true allocation credit if joint, on each issue of which they provide underwriting services. Co-managers receive equal credit for each issue on which they provide co-manager services. Financial advisors receive full credit, equal if joint, on each deal on which they provide advisory services.

LSEG introduced official League Table rankings of bank-contributed Municipal Private Deals as of January 1, 2013. Only deals placed privately or purchased directly by banks or brokers are included in the Private Deals League Tables. Transactions purchased by Government Sponsored Entities, Private Institutions, and individual investors are recorded in LSEG databases but ineligible for League Table accreditation. Otherwise eligible private placements are included in the rankings regardless of size; direct purchases must be at least US\$10 million for inclusion in the rankings.

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