

UNDERWRITERS AND FINANCIAL ADVISORS

# UNITED STATES MUNICIPALS REVIEW

First Half 2023

An LSEG Business

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# United States Municipal Review

First Half 2023 | Underwriters, Financial Advisors & Credit Enhancers

## Global Deals Intelligence

### MUNICIPAL BOND ISSUANCE FALLS 15% TO FOUR-YEAR LOW

US municipal bond issuance totaled US\$171.7 billion during the first half of 2023, a 15% decline compared to a year ago and the slowest opening period for municipal bonds in four years. By number of issues, just over 3,500 municipal bonds were brought to market during the first half of 2023, a 25% decrease compared to year ago levels. Second quarter 2023 municipal bond proceeds increased 31% compared to the first quarter of 2023.

### TAXABLE MUNICIPAL BONDS DECLINE 41% FROM 2022 LEVELS

Taxable municipal bond offerings totaled US\$17.7 billion during the first half of 2023, a decrease of 41% compared to levels seen during first half 2022 and marking the slowest opening period for taxable bonds since 2019. Taxable offerings accounted for 10% of first half 2023 municipal bond issuance, down from first half 2022, when taxable bonds accounted for 15% of total US municipal bond issuance.

### GREEN BOND ISSUANCE UP 1%; NUMBER OF OFFERINGS HIT SEVEN-YEAR LOW

Green bond issuance in the US municipal bond market totaled US\$8.3 billion during the first half of 2023, up 1% compared to first half 2022 levels, and marking the strongest first half for green municipal bond issuance since 2020. By number of issues, 36 green bonds were sold during first half 2023, a 39% decrease compared to first half 2022 levels and a seven-year low. Green bond offerings from issuers in California, New York and Iowa accounted for 78% of first half 2023 issuance.

### REFUNDINGS FALL TO 23-YEAR LOW; NEW MONEY OFFERINGS FALL 18%

Refunding activity within the municipal bond market totaled US\$42.4 billion during the first half of 2023, a 3% decrease compared to 2022 levels and the slowest opening period for refunding issuance since 2000. New money offerings totaled US\$129.3 billion during the first half of 2023, an 18% decrease compared to a year ago and the slowest opening period for new money municipal bonds since 2020.

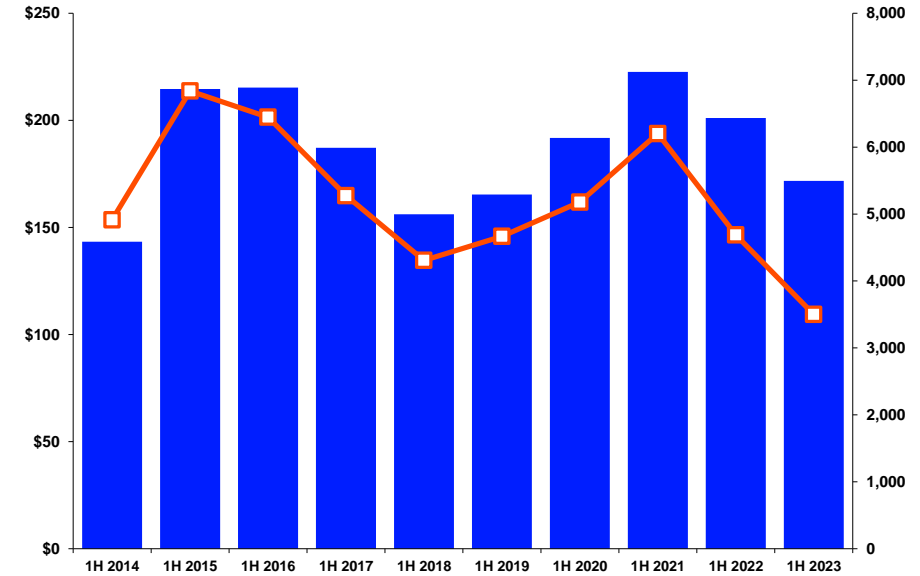
### TEXAS, CALIFORNIA AND NEW YORK LEAD MUNI MARKET

Bond issuers in Texas, California and New York accounted for a combined 41% of the US municipal bond market during the first half of 2023, up from 37% during first half 2022. Within the top 20 states for new municipal bonds, issuers in Oregon, New Jersey and Illinois registered strong percentage gains compared to a year ago, while Virginia, Michigan and Minnesota issuers registered average declines of 40% compared to first half 2022.

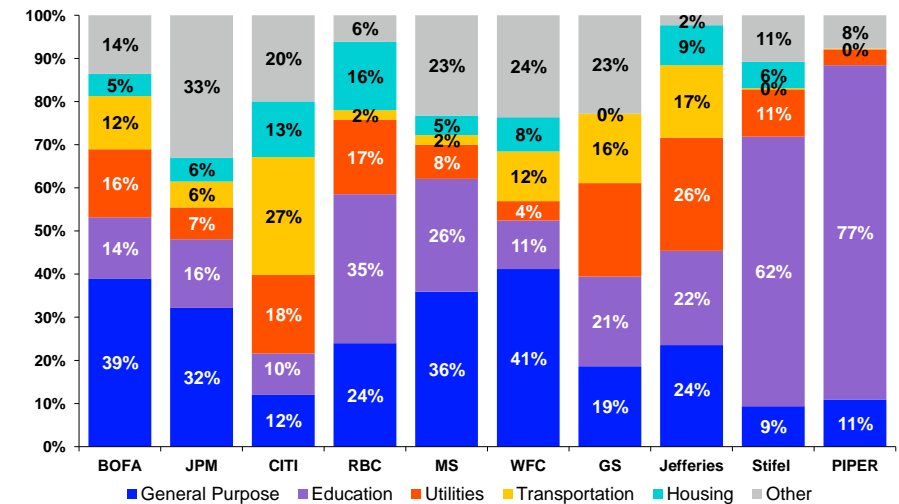
### EDUCATION, UTILITIES AND HOUSING BONDS GAIN SHARE

Municipal bonds with Education, Utilities and Housing use of proceeds registered market share gains compared to the first half of 2022, with an average increase of 1.6 market share points. Environmental Facilities and Housing bonds lead first half 2023 advancing use of proceeds compared to a year ago. New issuance with Healthcare, Transportation and Public Facilities use of proceeds fell an average of 42%, by par amount, and 37% by number of issues, compared to first half 2022.

## United States Municipals Issuance



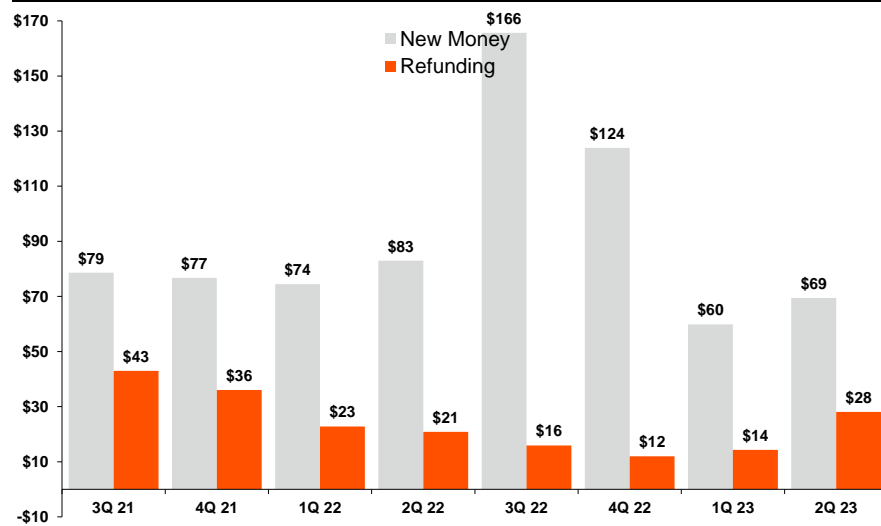
## Top 10 Bookrunners by Proceeds - Use of Proceeds Composition



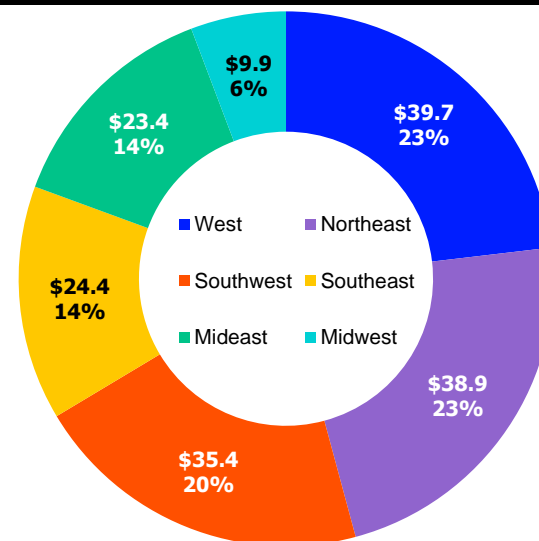
# US Municipal Insights

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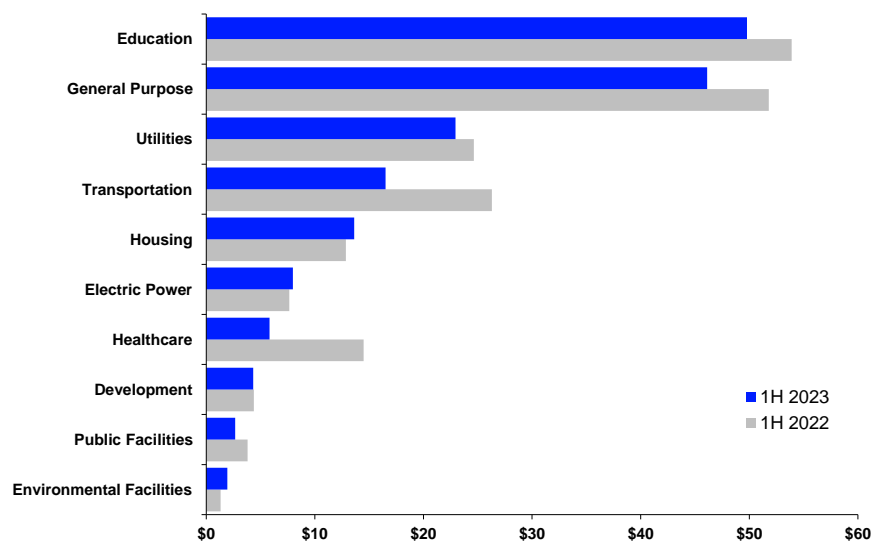
## New Money vs. Refunding (US\$bil)



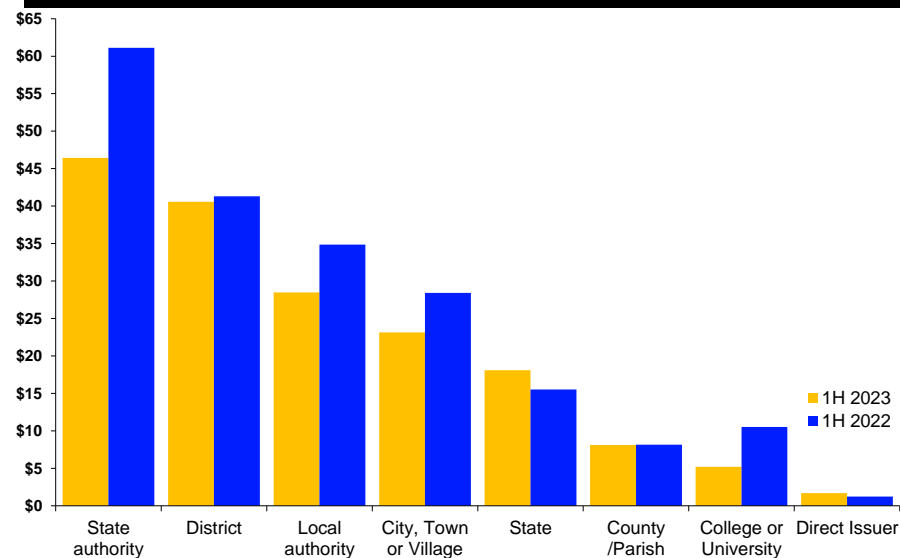
## Regional Composition of Proceeds (US\$bil)



## Use of Proceeds (US\$bil)



## Issuer Type Composition (US\$bil)



# US Underwriters

First Half 2023 | Underwriters, Financial Advisors & Credit Enhancers

## Bookrunners (AT01) YoY Change (\$) -15% QoQ Change (\$) 31%

Bookrunner	Rank 2023	Rank 2022	Proceeds	Market Share	Mkt. Sh.	# of Deals
BofA Securities Inc	1	1	22,948	13.4	1.0	161
RBC Capital Markets	2	4	16,278	9.5	2.4	206
Jefferies LLC	3	10	14,467	8.4	4.4	87
Morgan Stanley	4	3	13,918	8.1	0.8	119
J P Morgan Securities LLC	5	2	12,477	7.3	-3.8	117
Stifel Nicolaus & Co Inc	6	7	9,294	5.4	0.7	316
Goldman Sachs & Co LLC	7	8	9,116	5.3	1.2	36
Wells Fargo & Co	8	6	8,652	5.0	-0.7	77
Citi	9	5	8,333	4.9	-1.7	72
Barclays	10	11	6,177	3.6	-0.2	45
Robert W Baird & Co Inc	11	13	5,634	3.3	0.1	377
Siebert Williams Shank & Co	12	14	5,522	3.2	0.7	32
Raymond James	13	12	5,345	3.1	-0.6	188
Piper Sandler & Co	14	9	5,140	3.0	-1.1	170
Ramirez & Co Inc	15	15	4,580	2.7	0.2	20
<b>Industry Total</b>			<b>171,714</b>	<b>100.0</b>		<b>3,501</b>

## Long & Short Term (AT16) YoY Change (\$) -13% QoQ Change (\$) 37%

Bookrunner	Rank 2023	Rank 2022	Proceeds	Market Share	Mkt. Sh.	# of Deals
BofA Securities Inc	1	1	23,923	13.0	0.6	181
RBC Capital Markets	2	5	16,288	8.8	2.0	207
Jefferies LLC	3	8	16,194	8.8	4.5	196
J P Morgan Securities LLC	4	2	15,148	8.2	-3.1	172
Morgan Stanley	5	3	14,152	7.7	0.6	123
Stifel Nicolaus & Co Inc	6	7	9,442	5.1	0.5	324
Citi	7	4	9,133	5.0	-2.1	74
Goldman Sachs & Co LLC	8	10	9,116	4.9	1.0	36
Wells Fargo & Co	9	6	8,942	4.8	-0.7	80
Barclays	10	11	6,177	3.4	-0.4	45
Robert W Baird & Co Inc	11	13	5,986	3.2	0.1	390
Piper Sandler & Co	12	9	5,754	3.1	-1.1	290
Raymond James	13	12	5,671	3.1	-0.5	201
Siebert Williams Shank & Co	14	14	5,522	3.0	0.7	32
Ramirez & Co Inc	15	15	4,580	2.5	0.2	20
<b>Industry Total</b>			<b>184,613</b>	<b>100.0</b>		<b>4,316</b>

## Issuers (AT15) YoY Change (\$) -15% QoQ Change (\$) 31%

Issuer	Rank 2023	Rank 2022	Proceeds	Market Share	Mkt. Sh.	# of Deals
California	1	10	4,357	2.5	1.4	2
Texas Natural Gas Sec Fin Corp	2	-	3,522	2.1	2.1	1
Triborough Bridge & Tunnel Auth	3	5	3,447	2.0	0.7	6
New York City-New York	4	8	3,438	2.0	0.8	5
California Comm Choice Fin Auth	5	34	2,799	1.6	1.1	6
Main Street Natural Gas Inc	6	23	2,514	1.5	0.9	4
Illinois	7	13	2,511	1.5	0.7	2
NYC Transitional Finance Auth	8	2	2,446	1.4	-0.8	5
Regents of the University of California	9	4	2,168	1.3	-0.2	4
Washington	10	9	2,076	1.2	0.0	10
Louisiana Gov Env Fac & CDA (LCDA)	11	3	1,541	0.9	-0.7	4
NYC Municipal Water Fin Auth	12	16	1,493	0.9	0.2	2
Wisconsin	13	44	1,471	0.9	0.5	6
Oregon	14	56	1,395	0.8	0.5	8
NYS Dorm Authority	15	1	1,361	0.8	-1.9	3
<b>Industry Total</b>			<b>171,714</b>	<b>100.0</b>		<b>3,501</b>

## Negotiated (AT03) YoY Change (\$) -14% QoQ Change (\$) 27%

Bookrunner	Rank 2023	Rank 2022	Proceeds	Market Share	Mkt. Sh.	# of Deals
BofA Securities Inc	1	2	16,478	12.1	1.7	98
RBC Capital Markets	2	3	15,476	11.3	2.6	178
Jefferies LLC	3	12	11,415	8.4	4.5	52
Morgan Stanley	4	4	9,415	6.9	0.2	70
J P Morgan Securities LLC	5	1	9,278	6.8	-4.5	73
Stifel Nicolaus & Co Inc	6	6	9,195	6.7	0.8	307
Goldman Sachs & Co LLC	7	8	9,116	6.7	1.5	36
Wells Fargo & Co	8	7	6,431	4.7	-0.9	51
Citi	9	5	6,272	4.6	-1.6	47
Barclays	10	9	6,177	4.5	-0.2	45
Siebert Williams Shank & Co	11	13	5,522	4.0	0.9	32
Raymond James	12	11	4,645	3.4	-0.7	127
Ramirez & Co Inc	13	14	4,580	3.4	0.3	20
Piper Sandler & Co	14	10	4,573	3.4	-0.7	127
Loop Capital Markets	15	15	2,936	2.2	0.3	28
<b>Industry Total</b>			<b>136,678</b>	<b>100.0</b>		<b>1,931</b>

## Competitive (AT04) YoY Change (\$) -18% QoQ Change (\$) 52%

Bookrunner	Rank 2023	Rank 2022	Proceeds	Market Share	Mkt. Sh.	# of Deals
BofA Securities Inc	1	1	6,470	18.5	-1.3	63
Morgan Stanley	2	3	4,503	12.9	3.6	49
J P Morgan Securities LLC	3	2	3,199	9.1	-1.4	44
Jefferies LLC	4	7	3,053	8.7	4.3	35
Robert W Baird & Co Inc	5	4	2,869	8.2	-0.9	249
Wells Fargo & Co	6	6	2,221	6.3	0.3	26
Citi	7	5	2,061	5.9	-2.2	25
Mesirow Financial Inc	8	12	1,007	2.9	1.0	25
RBC Capital Markets	9	22	802	2.3	1.2	28
Hilltop Securities	10	11	775	2.2	0.1	54
Raymond James	11	10	700	2.0	-0.3	61
BOK Financial Securities Inc	12	17	673	1.9	0.5	118
Fidelity Capital Markets	13	21	627	1.8	0.7	56
Fifth Third Securities Inc	14	26	577	1.7	1.2	17
Piper Sandler & Co	15	8	566	1.6	-2.3	43
<b>Industry Total</b>			<b>35,037</b>	<b>100.0</b>		<b>1,570</b>

## Co-Manager (AT12) YoY Change (\$) -13% QoQ Change (\$) 27%

Co-Manager	Rank 2023	Rank 2022	Proceeds	Market Share	Mkt. Sh.	# of Deals
Raymond James	1	4	5,414	3.2	0.3	239
Ramirez & Co Inc	2	5	5,375	3.1	0.3	292
J P Morgan Securities LLC	3	6	5,083	3.0	0.2	153
Siebert Williams Shank & Co	4	1	4,737	2.8	-0.5	112
Stifel Nicolaus & Co Inc	5	8	4,521	2.6	0.0	234
BofA Securities Inc	6	3	4,504	2.6	-0.3	138
Morgan Stanley	7	11	4,432	2.6	0.4	209
Loop Capital Markets	8	2	3,934	2.3	-0.7	186
Wells Fargo & Co	9	10	3,835	2.2	-0.2	139
Wells Fargo & Co	10	13	3,476	2.0	-0.1	128
RBC Capital Markets	11	7	3,384	2.0	-0.7	143
Piper Sandler & Co	12	12	3,378	2.0	-0.2	73
Academy Securities Inc	13	9	3,296	1.9	-0.5	106
Jefferies LLC	14	15	3,177	1.9	0.0	104
UBS Financial Services Inc	15	16	3,009	1.8	-0.1	196
<b>Industry Total</b>			<b>113,179</b>	<b>100.0</b>		<b>1,262</b>

## US Taxable Municipal Debt (AT62) YoY Change (\$) -55% QoQ Change (\$) -29%

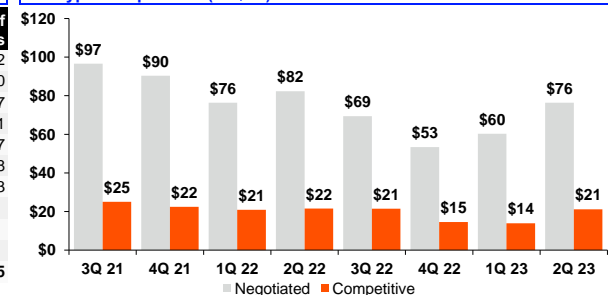
Bookrunner	Rank 2023	Rank 2022	Proceeds	Market Share	Mkt. Sh.	# of Deals
Citi	1	6	1,423	18.8	11.0	10
JP Morgan	2	8	1,135	15.0	8.0	13
Wells Fargo & Co	3	2	918	12.1	1.7	8
Morgan Stanley	4	10	907	12.0	8.8	9
RBC Capital Markets	5	3	644	8.5	-1.8	17
BofA Securities Inc	6	4	447	5.9	-3.8	10
Robert W Baird & Co Inc	7	12	367	4.9	3.0	19
Stifel/KBW	8	14	174	2.3	0.7	12
First Security Bank,Searcy,AR	9	27	169	2.2	1.9	1
UBS	10	11	164	2.2	-0.6	3
<b>Industry Total</b>			<b>7,562</b>	<b>100.0</b>		<b>275</b>

\*Indicates a Tie

## Minority Owned Firms (AT41) YoY Change (\$) -11% QoQ Change (\$) 20%

Bookrunner	Rank 2023	Rank 2022	Proceeds	Market Share	Mkt. Sh.	# of Deals
Siebert Williams Shank & Co	1	1	5,522	6.4	1.3	32
Ramirez & Co Inc	2	2	4,580	5.3	0.2	20
Loop Capital Markets	3	3	3,068	3.6	0.5	37
Cabrera Capital Markets Inc	4	4	231	0.3	-0.1	1
Estrada Hinojosa & Company Inc	5	6	193	0.2	0.1	7
Bancroft Capital	6	-	68	0.1	0.1	8
Stern Brothers & Co	7	5	30	0.0	-0.1	3
<b>Industry Total</b>			<b>86,322</b>	<b>100.0</b>		<b>885</b>

## Bid Type Composition (US\$bil)



# Composite Amount US\$10mln & Under

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## Bookrunner Composite Amount Under \$10mln (AT02)

	Rank 2023	Rank 2022	Proceeds US\$mil	Market Share	Mkt. Sh.	# of Deals
Robert W Baird & Co Inc	1	1	1,067	17.0	5.6	219
Stifel Nicolaus & Co Inc	2	2	656	10.5	0.8	115
Raymond James	3	4	415	6.6	0.3	75
Piper Sandler & Co	4	3	340	5.4	-3.6	79
Samco Capital Markets	5	8	300	4.8	1.2	56
TD Securities (USA) LLC	6	50	255	4.1	3.9	67
FMSbonds Inc	7	11	253	4.0	0.8	48
D A Davidson & Co	8	6	240	3.8	-1.3	72
RBC Capital Markets	9	13	221	3.5	0.8	34
Northland Securities	10	5	214	3.4	-2.1	58
BOK Financial Securities Inc	11	9	206	3.3	0.0	99
Baker Group LP	12	12	177	2.8	0.0	58
Roosevelt & Cross Inc	13	7	171	2.7	-1.5	55
Hilltop Securities	14	16	161	2.6	0.8	35
Fidelity Capital Markets	15	21	156	2.5	1.4	31
<b>Industry Total</b>			<b>6,272</b>	<b>100.0</b>		<b>1,520</b>

## Co-Manager Composite Amount Under \$10mln (AT12a)

	Rank 2023	Rank 2022	Proceeds US\$mil	Market Share	Mkt. Sh.	# of Deals
Stifel Nicolaus & Co Inc	1	1	93	1.5	-0.1	52
Cantor Fitzgerald LP	2	3	80	1.3	-0.2	17
FMSbonds Inc	3	24	58	0.9	0.5	142
Sierra Pacific Securities	4	12	48	0.8	0.1	182
Edward D Jones & Co LP	5	16	48	0.8	0.3	150
CINCaP Investment Group	6	11	48	0.8	0.1	81
Carty & Company Inc	7	45	47	0.8	0.6	182
Crews & Associates Inc	8	7	47	0.8	0.0	177
R Seelaus & Company Inc	9	10	47	0.8	0.1	79
United Bankers Bank	10	4	46	0.7	-0.7	43
D A Davidson & Co	11	5	45	0.7	-0.5	32
Fidelity Capital Markets	12	39	44	0.7	0.5	73
Intercoastal Capital Markets	13	14	43	0.7	0.1	70
Oppenheimer & Co	14	15	37	0.6	0.1	96
Mountainside Securities LLC	15*	17*	37	0.6	0.1	164
CL King & Associates	15*	20	37	0.6	0.1	164
<b>Industry Total</b>			<b>1,748</b>	<b>100.0</b>		<b>355</b>

## Financial Advisor Composite Amt Under \$10mln (AT07a)

	Rank 2023	Rank 2022	Proceeds US\$mil	Market Share	Mkt. Sh.	# of Deals
PFM Financial Advisors LLC	1	1	506	11.0	0.0	83
Ehlers & Associates	2	2	421	9.2	1.3	105
Hilltop Securities	3	3	302	6.6	0.0	60
Robert W Baird & Co Inc	4	4	301	6.5	0.6	64
Baker Tilly Municipal Advisors	5	7	262	5.7	1.8	51
Stephen H McDonald & Associates Inc	6	6	192	4.2	0.3	110
Masterson Advisors LLC	7	11	181	3.9	1.8	36
Stephen L Smith Corp	8	18	131	2.8	1.2	87
Piper Sandler & Co	9	5	117	2.6	-2.3	22
Speer Financial Inc	10	10	104	2.3	0.2	33
PMA Securities Inc	11	13	103	2.2	0.4	22
Phoenix Advisors LLC	12	8	103	2.2	-1.0	23
Urban Futures Inc	13	24	102	2.2	1.1	20
Samco Capital Markets	14	17	97	2.1	0.5	17
Specialized Public Finance Inc	15	12	93	2.0	0.2	18
<b>Industry Total</b>			<b>4,599</b>	<b>100.0</b>		<b>1,124</b>

## Negotiated Composite Amt Under \$10mln (AT21)

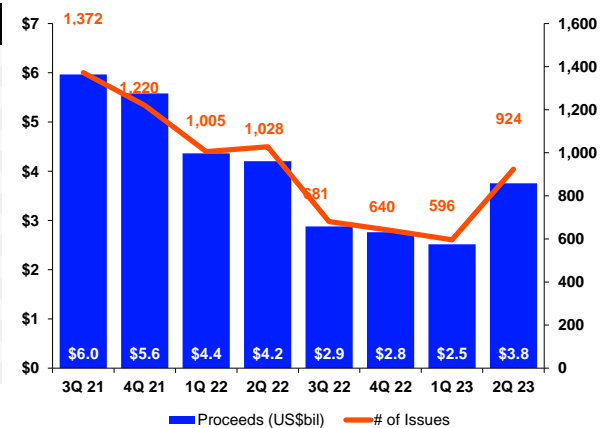
	Rank 2023	Rank 2022	Proceeds US\$mil	Market Share	Mkt. Sh.	# of Deals
Stifel Nicolaus & Co Inc	1	1	603	21.9	4.8	107
Robert W Baird & Co Inc	2	8	295	10.7	6.3	56
Raymond James	3	4	253	9.2	1.2	43
FMSbonds Inc	4	5	241	8.8	3.4	46
D A Davidson & Co	5	3	230	8.4	-1.5	67
Piper Sandler & Co	6	2	203	7.4	-2.9	53
RBC Capital Markets	7	6	151	5.5	0.8	23
LJ Hart & Company	8	7	142	5.2	0.7	46
Northland Securities	9	11	68	2.5	0.2	20
PNC Financial Services Group Inc	10	13	53	1.9	-0.1	7
Hilltop Securities	11	22	53	1.9	0.8	9
Bernardi Securities Inc	12	15	44	1.6	0.0	13
Mesirow Financial Inc	13	31	35	1.3	0.8	7
The Frazer Lanier Company Inc	14	18	31	1.1	-0.3	8
Samco Capital Markets	15	19	31	1.1	-0.2	7
<b>Industry Total</b>			<b>2,750</b>	<b>100.0</b>		<b>599</b>

\*Indicates a Tie

## Competitive Composite Amt Under \$10mln (AT20)

	Rank 2023	Rank 2022	Proceeds US\$mil	Market Share	Mkt. Sh.	# of Deals
Robert W Baird & Co Inc	1	1	773	22.0	3.8	163
Samco Capital Markets	2	7	269	7.7	2.0	49
TD Securities (USA) LLC	3	31	255	7.2	6.8	67
BOK Financial Securities Inc	4	5	200	5.7	-0.3	98
Roosevelt & Cross Inc	5	6	169	4.8	-1.0	54
Raymond James	6	9	162	4.6	0.0	32
Baker Group LP	7	8	161	4.6	-0.7	53
Fidelity Capital Markets	8	14	156	4.4	2.2	31
Northland Securities	9	2	146	4.1	-4.5	38
Piper Sandler & Co	10	3	137	3.9	-3.9	26
Janney Montgomery Scott LLC	11	16	114	3.2	2.0	14
Hilltop Securities	12	13	108	3.1	0.6	26
Country Club Bank	13	10	101	2.9	-0.5	45
FHNC Financial Capital Markets	14	4	85	2.4	-3.7	14
RBC Capital Markets	15	22	70	2.0	1.2	11
<b>Industry Total</b>			<b>3,522</b>	<b>100.0</b>		<b>921</b>

## Municipal Issuance - Composite Amount US\$10mil & Under



# US Financial Advisors

First Half 2023 | Underwriters. Financial Advisors & Credit Enhancers

**Financial Advisors (AT07)** YoY Change (\$) -12% QoQ Change (\$) 29%

Financial Advisor	Rank 2023	Rank 2022	Proceeds US\$mil	Market Share	Mkt. Sh.	# of Deals
PFM Financial Advisors LLC	1	1	27,688	18.9	3.7	348
Public Resources Advisory Group	2	2	17,023	11.6	0.4	67
Hilltop Securities	3	3	8,804	6.0	-0.4	204
Estrada Hinojosa & Company Inc	4	5	6,500	4.4	1.7	29
Acacia Financial Group Inc	5	7	5,139	3.5	1.2	47
Frasca & Associates	6	4	4,507	3.1	-2.3	16
Municipal Capital Markets Group Inc	7	12	4,363	3.0	1.3	8
Columbia Capital Management	8	27	3,806	2.6	1.6	15
Piper Sandler & Co	9	6	3,434	2.3	-0.2	78
Caine Mitter & Associates Inc	10	14	3,028	2.1	0.6	49
Baker Tilly Municipal Advisors	11	10	2,909	2.0	0.3	108
Specialized Public Finance Inc	12	22	2,717	1.9	0.8	60
CSG Advisors Incorporated	13	11	2,701	1.8	0.1	55
RBC Capital Markets	14	19	2,644	1.8	0.5	41
Backstrom McCarley Berry & Co	15	30	1,964	1.3	0.5	10
<b>Industry Total</b>			<b>146,805</b>	<b>100.0</b>		<b>2,685</b>

**Financial Advisors Long & Short Term (AT18)** YoY Change (\$) -11% QoQ Change (\$) 35%

Financial Advisor	Rank 2023	Rank 2022	Proceeds US\$mil	Market Share	Mkt. Sh.	# of Deals
PFM Financial Advisors LLC	1	1	28,007	17.7	3.2	354
Public Resources Advisory Group	2	2	17,028	10.7	0.1	68
Hilltop Securities	3	3	9,621	6.1	-0.3	313
Estrada Hinojosa & Company Inc	4	5	6,500	4.1	1.6	29
Acacia Financial Group Inc	5	8	5,697	3.6	1.3	69
Frasca & Associates	6	4	4,507	2.8	-2.3	16
Municipal Capital Markets Group Inc	7	14	4,363	2.8	1.2	8
Columbia Capital Management	8	28	3,880	2.5	1.5	16
Piper Sandler & Co	9	7	3,467	2.2	-0.1	80
Montague DeRose & Associates LLC	10	6	3,225	2.0	-0.4	13
RBC Capital Markets	11	16	3,069	1.9	0.5	42
Caine Mitter & Associates Inc	12	15	3,028	1.9	0.4	49
Baker Tilly Municipal Advisors	13	11	3,000	1.9	0.2	112
Specialized Public Finance Inc	14	26	2,717	1.7	0.7	60
CSG Advisors Incorporated	15	13	2,701	1.7	0.1	55
<b>Industry Total</b>			<b>158,578</b>	<b>100.0</b>		<b>3,397</b>

**Financial Advisors Number of Issues (AT07d)** YoY Change (\$) -23% QoQ Change (\$) 70%

Financial Advisor	Rank 2023	Rank 2022	# of Deals	Market Share	Mkt. Sh.	Proceeds US\$mil
PFM Financial Advisors LLC	1	1	348	13.0	1.1	27,688
Hilltop Securities	2	2	204	7.6	-0.2	8,804
Ehlers & Associates	3	3	132	4.9	0.2	977
Stephen H McDonald & Associates Inc	4	4	116	4.3	0.2	415
Baker Tilly Municipal Advisors	5	5	108	4.0	0.3	2,909
Robert W Baird & Co Inc	6	6	106	4.0	0.3	1,284
Stephen L Smith Corp	7	11	91	3.4	1.4	216
Piper Sandler & Co	8	7	78	2.9	-0.6	3,434
Public Resources Advisory Group	9	8	67	2.5	0.1	17,023
Phoenix Advisors LLC	10	10	64	2.4	0.3	1,727
Specialized Public Finance Inc	11	12*	60	2.2	0.4	2,717
Masterson Advisors LLC	12	15*	56	2.1	0.5	1,182
CSG Advisors Incorporated	13	21	55	2.1	0.7	2,701
Fiscal Advisors & Marketing Inc	14	9	50	1.9	-0.5	347
Caine Mitter & Associates Inc	15	25*	49	1.8	0.6	3,028
<b>Industry Total</b>			<b>2,685</b>	<b>100.0</b>		<b>146,805</b>

**Financial Advisors Negotiated (AT07b)** YoY Change (\$) -11% QoQ Change (\$) 20%

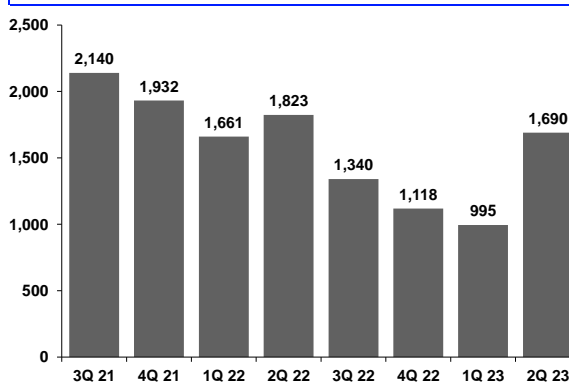
Financial Advisor	Rank 2023	Rank 2022	Proceeds US\$mil	Market Share	Mkt. Sh.	# of Deals
PFM Financial Advisors LLC	1	1	23,290	20.6	4.9	216
Public Resources Advisory Group	2	2	13,957	12.3	0.7	38
Estrada Hinojosa & Company Inc	3	5	6,345	5.6	2.1	24
Hilltop Securities	4	4	5,987	5.3	-1.1	113
Acacia Financial Group Inc	5	9	4,820	4.3	2.1	34
Municipal Capital Markets Group Inc	6	8	4,363	3.9	1.6	8
Frasca & Associates	7	3	4,297	3.8	-2.8	13
Columbia Capital Management	8	21	3,720	3.3	2.2	12
Caine Mitter & Associates Inc	9	11	3,028	2.7	0.7	49
CSG Advisors Incorporated	10	7	2,701	2.4	0.1	55
RBC Capital Markets	11	15	2,131	1.9	0.4	27
Backstrom McCarley Berry & Co	12	26	1,926	1.7	0.8	9
Specialized Public Finance Inc	13	24	1,884	1.7	0.7	23
Kaufman Hall & Associates Inc	14	12	1,697	1.5	-0.3	11
Baker Tilly Municipal Advisors	15	22	1,561	1.4	0.4	32
<b>Industry Total</b>			<b>113,272</b>	<b>100.0</b>		<b>1,146</b>

\*Indicates a Tie

**Financial Advisors Competitive (AT07c)** YoY Change (\$) -18% QoQ Change (\$) 66%

Financial Advisor	Rank 2023	Rank 2022	Proceeds US\$mil	Market Share	Mkt. Sh.	# of Deals
PFM Financial Advisors LLC	1	1	4,398	13.1	-0.3	132
Public Resources Advisory Group	2	2	3,066	9.1	-0.9	29
Piper Sandler & Co	3	3	2,909	8.7	1.1	57
Hilltop Securities	4	4	2,817	8.4	2.0	91
Davenport & Company LLC	5	7	1,399	4.2	0.5	22
Baker Tilly Municipal Advisors	6	6	1,349	4.0	0.0	76
Robert W Baird & Co Inc	7	5	1,058	3.2	-0.9	102
Montague DeRose & Associates LLC	8	10	1,018	3.0	0.4	8
Ehlers & Associates	9	8	973	2.9	-0.3	130
Phoenix Advisors LLC	10	12	844	2.5	0.6	52
Specialized Public Finance Inc	11	18	833	2.5	0.9	37
First Tryon Securities LLC	12	17	737	2.2	0.6	11
PMA Securities Inc	13	14	576	1.7	-0.2	31
Masterson Advisors LLC	14	28	562	1.7	0.9	49
Zions Bank	15	21	534	1.6	0.2	8
<b>Industry Total</b>			<b>33,534</b>	<b>100.0</b>		<b>1,539</b>

**Financial Advisor - Number of Issues**





# US Green Bonds

First Half 2023 | Underwriters. Financial Advisors & Credit Enhancers

## Bookrunner Green Bonds (AT70)

	Rank	Rank	Proceeds	Market	Mkt.	# of
	2023	2022	US\$mil	Share	Sh.	Deals
Goldman Sachs & Co LLC	1	3	3,049	36.9	21.1	8
BofA Securities Inc	2	2	1,283	15.5	-4.4	5
Morgan Stanley	3	4	900	10.9	-2.9	3
RBC Capital Markets	4	11	864	10.5	9.6	4
Ramirez & Co Inc	5	-	848	10.3	10.3	4
Citi	6	7	677	8.2	4.5	3
Loop Capital Markets	7	-	311	3.8	3.8	2
Wells Fargo & Co	8	10	145	1.8	0.1	2
J P Morgan Securities LLC	9	1	94	1.1	-19.0	2
TD Securities (USA) LLC	10	-	29	0.4	0.4	1
Jefferies LLC	11	-	26	0.3	0.3	1
Stifel Nicolaus & Co Inc	12	5	18	0.2	-9.1	1
Raymond James	13	14	9	0.1	-0.4	1
Piper Sandler & Co	14	12	2	0.0	-0.8	1
The Frazer Lanier Company Inc	15	22	2	0.0	-0.1	1
<b>Industry Total</b>			<b>8,257</b>	<b>100.0</b>		<b>36</b>

## Co-Manager Green Bonds (AT71)

	Rank	Rank	Proceeds	Market	Mkt.	# of
	2023	2022	US\$mil	Share	Sh.	Deals
Citi	1	4	457	5.5	0.3	10
J P Morgan Securities LLC	2	6	455	5.5	1.5	9
Ramirez & Co Inc	3	3	355	4.3	-3.1	9
Siebert Williams Shank & Co	4	2	347	4.2	-4.2	7
Morgan Stanley	5	9	287	3.5	0.4	9
BofA Securities Inc	6	10	283	3.4	0.4	6
Jefferies LLC	7	16	241	2.9	1.7	7
Goldman Sachs & Co LLC	8	21*	215	2.6	2.1	6
UBS Financial Services Inc	9	58*	196	2.4	2.4	4
Academy Securities Inc	10	7	183	2.2	-1.6	6
Loop Capital Markets	11	5	165	2.0	-2.0	6
American Veterans Group PBC	12	19	149	1.8	1.1	2
Stern Brothers & Co	13*	52*	143	1.7	1.6	5
Rice Financial Products Company	13*	52*	143	1.7	1.6	5
Barclays	15	11	134	1.6	-1.4	6
<b>Industry Total</b>			<b>4,995</b>	<b>100.0</b>		<b>22</b>

## Financial Advisor Green Bonds (AT72)

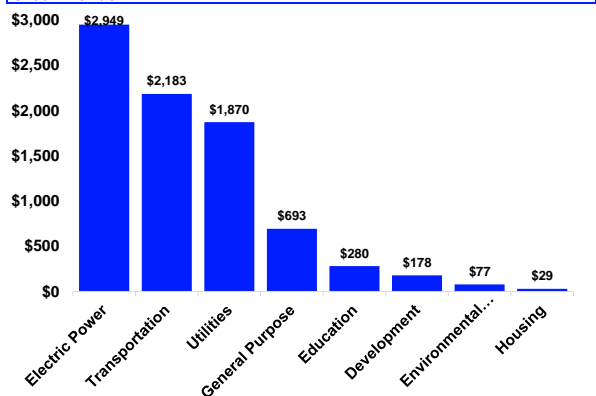
	Rank	Rank	Proceeds	Market	Mkt.	# of
	2023	2022	US\$mil	Share	Sh.	Deals
PFM Financial Advisors LLC	1	1	2,354	29.1	8.8	12
Municipal Capital Markets Group Inc	2	-	1,957	24.2	24.2	3
Public Resources Advisory Group	3	14	807	10.0	8.7	5
Backstrom McCarley Berry & Co	4	-	731	9.0	9.0	3
Hilltop Securities	5	-	673	8.3	8.3	3
Montague DeRose & Associates LLC	6	11	348	4.3	0.7	2
Frasca & Associates	7	5	320	4.0	-4.1	2
Sycamore Advisors LLC	8	17	300	3.7	3.0	3
Phoenix Capital Partners LLP	9	-	196	2.4	2.4	1
Stifel Nicolaus & Co Inc	10	6	154	1.9	-5.2	1
Robert W Baird & Co Inc	11	10	62	0.8	-3.3	1
Rockfleet Financial Services Inc	12*	-	50	0.6	0.6	1
TKG & Associates LLP	12*	-	50	0.6	0.6	1
Caine Mitter & Associates Inc	14	-	29	0.4	0.4	1
Davenport & Company LLC	15	-	19	0.2	0.2	1
<b>Industry Total</b>			<b>8,095</b>	<b>100.0</b>		<b>34</b>

## Issuer Green Bonds (AT73)

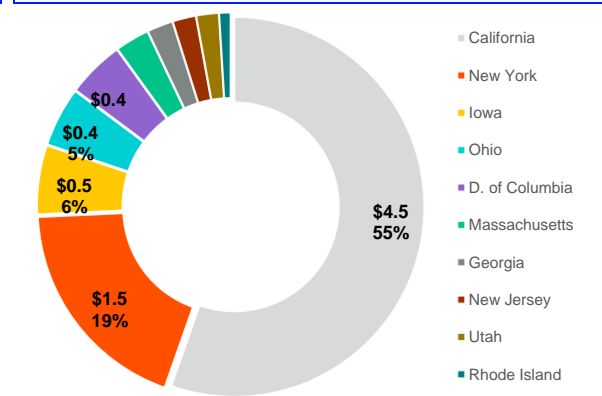
	Rank	Rank	Proceeds	Market	Mkt.	# of
	2023	2022	US\$mil	Share	Sh.	Deals
California Comm Choice Fin Auth	1	1	2,749	33.3	21.9	5
Triborough Bridge & Tunnel Auth	2	-	1,365	16.5	16.5	4
San Francisco City/Co Public Util Comm	3	-	696	8.4	8.4	2
California Infrstr & Eco Dev Bank	4	-	545	6.6	6.6	1
Iowa Finance Authority	5	15	472	5.7	3.2	3
Washington Metro Area Transit Au	6	-	392	4.8	4.8	1
Ohio Water Development Authority	7	-	300	3.6	3.6	1
Los Angeles Dept of Airports	8	5	248	3.0	-3.7	1
Massachusetts Wtr Resources Auth	9	-	234	2.8	2.8	1
Sacramento MUD (SMUD)	10	-	200	2.4	2.4	1
Metro Atlanta Rapid Transit Au (MARTA)	11	-	178	2.2	2.2	2
New Jersey Econ Dev Auth	12	-	160	1.9	1.9	1
Utah State Board of Regents	13	6	154	1.9	-3.9	1
NYS Environmental Facs Corp	14	-	151	1.8	1.8	1
Ohio	15	-	109	1.3	1.3	1
<b>Industry Total</b>			<b>8,257</b>	<b>100.0</b>		<b>36</b>

\*Indicates a Tie

## Use of Proceeds Composition (US\$mil) Green Bonds



## Top 10 States (US\$mil) Green Bonds



# US Private Deals & Credit Enhancers

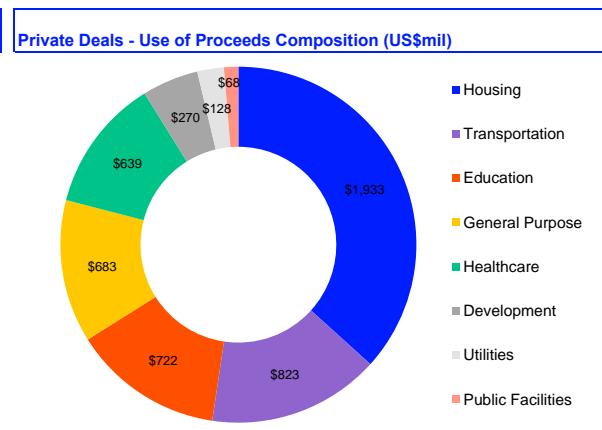
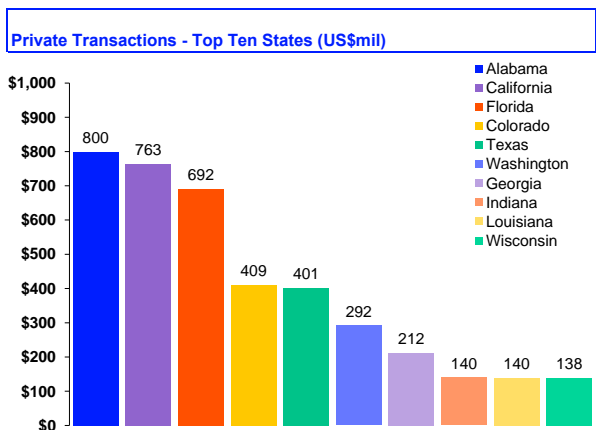
First Half 2023 | Underwriters, Financial Advisors & Credit Enhancers

Private Placement Agent / Purchaser (AT24)						
YoY Change (\$) -61% QoQ Change (\$) -40%						
Placement Agent or Purchaser	Rank 2023	Rank 2022	Proceeds US\$mil	Market Share	Mkt. Sh.	# of Deals
Citi	1	3	1,933	36.2	27.5	28
Piper Sandler & Co	2	2	433	8.1	-2.8	59
BoFA Securities Inc	3	1	295	5.5	-7.4	5
Stifel Nicolaus & Co Inc	4	5	260	4.9	-1.0	26
RBC Capital Markets	5	15	246	4.6	3.0	9
Jefferies LLC	6	44*	223	4.2	4.0	2
Truist Financial Corp	7	7	202	3.8	-1.3	5
J P Morgan Securities LLC	8	6	186	3.5	-2.1	2
TD Securities (USA) LLC	9	8	151	2.8	-1.3	5
Deutsche Bank	10	-	121	2.3	2.3	4
Goldman Sachs & Co LLC	11	-	120	2.3	2.3	2
Robert W Baird & Co Inc	12	10	112	2.1	-1.5	28
Cedar Rapids Bank & Trust Company	13	31	84	1.6	1.2	3
PacWest Bancorp	14	38	73	1.4	1.1	3
Zions Bank	15	14	72	1.4	-0.3	4
<b>Industry Total</b>			<b>5,334</b>	<b>100.0</b>		<b>243</b>

Private Issuers (AT44)						
YoY Change (\$) -61% QoQ Change (\$) -40%						
Issuer	Rank 2023	Rank 2022	Proceeds US\$mil	Market Share	Mkt. Sh.	# of Deals
Mobile Airport Authority	1	-	800	15.0	15.0	1
California Municipal Fin Auth	2	3	229	4.3	0.3	5
New Hope Cultural Ed Facs Fin Corp	3	-	196	3.7	3.7	5
Washington Econ Dev Fin Auth	4	-	160	3.0	3.0	1
California Housing Finance Agcy	5	49	156	2.9	2.4	4
Florida Insurance Assistance Interlocal Agcy	6	-	150	2.8	2.8	1
Georgia Priv College & Univ Auth	7	-	143	2.7	2.7	1
Colorado Hsg & Fin Auth (CHFA)	8	13	132	2.5	1.2	5
Washington St Hsg Fin Commission	9	27	128	2.4	1.7	3
California Statewide CDA (CSCDA)	10	19*	117	2.2	1.2	2
Nevada Housing Division	11	104*	104	2.0	1.8	2
West Virginia Hospital Fin Auth	12	-	100	1.9	1.9	1
San Jose City-California	13	-	100	1.9	1.9	2
Broward Co Housing Finance Auth	14	-	98	1.8	1.8	2
Wisconsin Hlth & Ed Fac Auth (WHEFA)	15	14	93	1.8	0.7	3
<b>Industry Total</b>			<b>5,334</b>	<b>100.0</b>		<b>243</b>

Private Financial Advisor (AT25)						
YoY Change (\$) -79% QoQ Change (\$) -44%						
Financial Advisor	Rank 2023	Rank 2022	Proceeds US\$mil	Market Share	Mkt. Sh.	# of Deals
PFM Financial Advisors LLC	1	4	319	24.0	14.8	10
Raymond James	2	-	150	11.3	11.3	1
Kaufman Hall & Associates Inc	3	2	143	10.7	-0.1	1
Baker Tilly Municipal Advisors	4	14	82	6.2	4.9	3
Hilltop Securities	5	8	54	4.0	0.1	2
Davenport & Company LLC	6	-	49	3.7	3.7	2
Crowe LLP	7	18	47	3.5	2.7	3
CSG Advisors Incorporated	8	12	46	3.4	1.9	2
Blue Rose Capital Advisors	9	-	43	3.3	3.3	1
Government Consultants Inc	10	7	42	3.2	-1.1	2
Stifel Nicolaus & Co Inc	11	10	41	3.1	1.3	2
Hendrickson Company	12	24*	40	3.0	2.4	2
D A Davidson & Co	13	58	40	3.0	2.9	2
Piper Sandler & Co	14	3	24	1.8	-8.8	1
Zomermaand Financial Advisory Services LLC	15	-	21	1.6	1.6	1
<b>Industry Total</b>			<b>1,329</b>	<b>100.0</b>		<b>56</b>

Public & Private Issuers (AT46)						
YoY Change (\$) -18% QoQ Change (\$) 28%						
Issuer	Rank 2023	Rank 2022	Proceeds US\$mil	Market Share	Mkt. Sh.	# of Deals
California	1	10	4,357	2.5	1.5	2
Texas Natural Gas Sec Fin Corp	2	-	3,522	2.0	2.0	1
Triborough Bridge & Tunnel Auth	3	5	3,447	2.0	0.8	6
New York City-New York	4	8	3,438	1.9	0.8	5
California Comm Choice Fin Auth	5	34	2,799	1.6	1.2	6
Main Street Natural Gas Inc	6	24	2,514	1.4	0.9	4
Illinois	7	14	2,511	1.4	0.6	2
NYC Transitional Finance Auth	8	2	2,446	1.4	-0.7	5
Regents of the University of California	9	4	2,168	1.2	-0.2	4
Washington	10	9	2,076	1.2	0.1	10
Louisiana Gov Env Fac & CDA (LCDA)	11	3	1,566	0.9	-0.7	6
NYC Municipal Water Fin Auth	12	11	1,493	0.8	-0.2	2
Wisconsin	13	45	1,471	0.8	0.5	6
Oregon	14	59	1,395	0.8	0.5	8
NYS Dorm Authority	15	1	1,361	0.8	-1.7	3
<b>Industry Total</b>			<b>177,048</b>	<b>100.0</b>		<b>3,744</b>



Bond Insurers (AT10)						
YoY Change (\$) 17.3%						
Insurer	Rank 2023	Rank 2022	Proceeds US\$mil	Market Share	Mkt. Sh.	# of Deals
AGM formerly FSA Inc	1	1	9,776	62.8	10.5	290
Build America Mutual (BAM)	2	2	5,795	37.2	-3.2	331
<b>Industry Total</b>			<b>15,571</b>	<b>100.0</b>		<b>621</b>

\*Indicates a Tie

Credit Enhancers (AT80)						
YoY Change (\$) -9%						
Credit Enhancers Types	Rank 2023	Rank 2022	Proceeds US\$mil	Market Share	Mkt. Sh.	# of Deals
Bond insurance	1	1	15,571	47.6	-2.2	621
Guaranteed	2	2	13,927	42.5	-0.9	436
LOC Domestic Bank	3	5	1,491	4.6	4.6	10
Standby Purch Agreement	4	4	634	1.9	0.4	3
Mortgage backed	5	3	224	0.7	-0.6	11
LOC Foreign Bank	6	6	154	0.5	-0.2	3
<b>Industry Total</b>			<b>32,739</b>	<b>100.0</b>		<b>1,068</b>

Top Issuers by Insured Amount					
Top Issuers by Insured Amt	2023	US\$mil	Share	US\$mil	Deals
NYS Dorm Authority	1	1,742.1	3.9	1,834.3	2
Chicago City-Illinois	2	1,353.5	3.1	2,646.6	7
Houston City-Texas	3	756.1	1.7	756.1	2
Metro Washington Airports Auth	4	754.8	1.7	754.8	2
Lower Colorado River Authority (LCRA)	5	734.4	1.7	837.6	2
Montgomery Co Highr Ed & Health Auth	6	672.8	1.5	672.8	1
NYS Power Authority	7	608.3	1.4	608.3	1
Pennsylvania Econ Dev Fin Auth	8	572.0	1.3	1,759.1	1
Los Angeles Dept of Airports	9	546.0	1.2	546.0	1
Duval Co School Board	10	508.7	1.1	561.5	1
<b>Top 10 Total</b>		<b>8,248.7</b>	<b>18.6</b>	<b>10,977.1</b>	<b>20</b>



# United States Municipals Criteria

FIRST HALF 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 April 1, 2023 to June 30, 2023, of which Refinitiv was made aware. All current data and previous year's data are as of 9:00am EDT on July 3, 2023. 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.

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