

United States Municipal Review

First Nine Months 2022 | Underwriters, Financial Advisors & Credit Enhancers

Global Deals Intelligence

MUNICIPAL BOND ISSUANCE FALLS 15% TO THREE-YEAR LOW

US municipal bond issuance totaled US\$292.4 billion during the first nine months of 2022, a 15% decline compared to a year ago and the slowest opening nine months for municipal bonds in three years. By number of issues, just over 6,400 municipal bonds were brought to market during the first nine months of 2022, a 30% decrease compared to year ago levels. Compared to the second quarter of this year, third quarter 2022 municipal bond proceeds decreased 12%, by par amount and 28%, by number of offerings.

TAXABLE MUNICIPAL BONDS DECLINE 50% FROM 2021 LEVELS

Taxable municipal bond offerings totaled US\$41.6 billion during the first nine months of 2022, a decrease of 50% compared to levels seen during the first nine months of 2021 and marking the slowest opening period for taxable bonds since 2019. Taxable offerings accounted for 14% of first nine-month 2022 municipal bond issuance, down from the first nine months of 2021, when taxable bonds accounted for 24% of total US municipal bond issuance.

GREEN BOND ISSUANCE UP 1%

Green bond issuance in the US municipal bond market totaled US\$12.2 billion during the first nine months of 2022, a 1% increase compared to last year and the strongest opening period for green bond issuance since 2020. By number of issues, 76 green bonds were sold during the first nine months of 2022, a 51% decrease compared to 2021 levels and a four-year low. Green bond offerings from issuers in California, New York and Florida accounted for 61% of first nine-month 2022 issuance.

NEW MONEY OFFERINGS HIT ALL-TIME 9M HIGH; REFUNDINGS FALL 54%

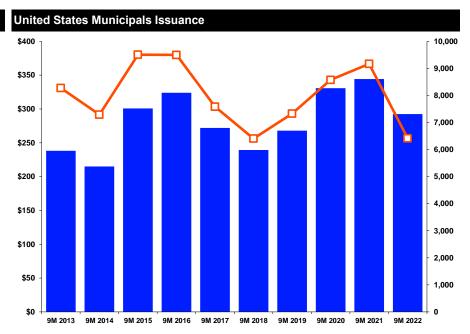
New money offerings totaled US\$237.8 billion during the first nine months of 2022, a 5% increase compared to a year ago and the strongest opening period for new money municipal bonds since records began in 1980. Refunding activity within the municipal bond market totaled US\$54.7 billion during the first nine months of 2022, a 54% decrease compared to 2021 levels and the slowest first half for refunding issuance since 2000.

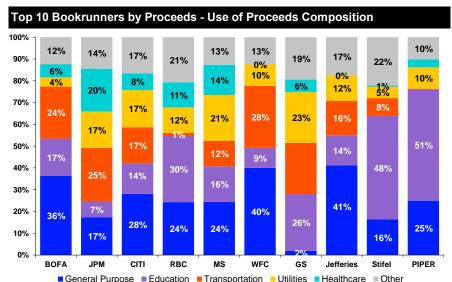
TEXAS. NEW YORK AND CALIFORNIA LEAD MUNI MARKET

Bond issuers in Texas, New York and California for a combined 39% of the US municipal bond market during the first nine months of 2022, on par with the first nine months of 2021. Within the top 20 states for new municipal bonds, issuers in Oklahoma, Louisiana and Minnesota registered strong percentage gains compared to a year ago, while Pennsylvania, Maryland and Ohio issuers registered average declines of 43% compared to the first nine months of 2021.

ELECTRIC POWER REGISTER GAINS

Municipal bonds with Electric Power use of proceeds registered a 2% increase compared to year-ago levels, the only use of proceeds category to record an increase during the first nine months of 2022. New issuance with Public Facilities and Development use of proceeds fell an average of 46%, by par amount, and 35% by number of issues, compared to the first nine months of 2021.

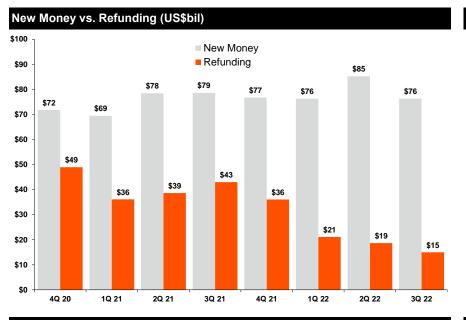


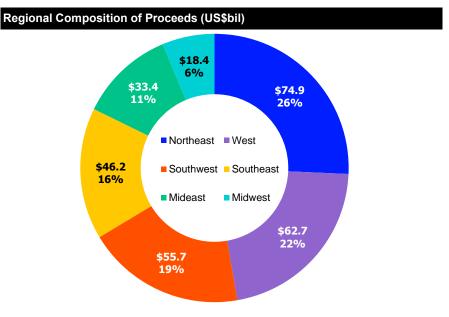


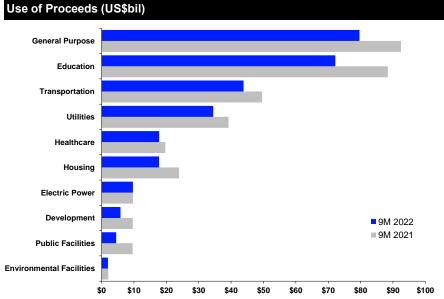


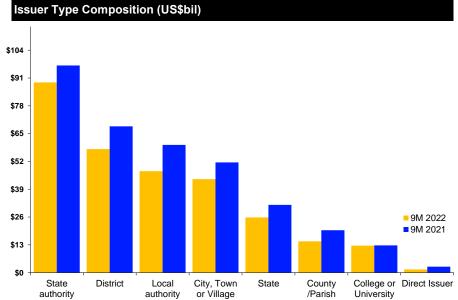
US Municipal Insights

First Nine Months 2022 | Underwriters, Financial Advisors & Credit Enhancers









REFINITIV -

US Underwriters

First Nine Months 2022 | Underwriters, Financial Advisors & Credit Enhancers

| Bookrunners (AT01) | | Yo | Y Change (\$) | -15% Q | oQ Change (\$) | -12% | Long & Short Term (AT1) | 6) | Yo | Y Change (\$) | -16% Qo | Q Change (\$) | -13% | Issuers | (AT15 |) | | | YoY Change (\$) | -15% Q | oQ Change (\$) | -12% |
|-----------------------------|--------|--------------|---------------|-----------------|----------------|---------------|---------------------------------|----------------|--------------|---------------|-----------------|---------------|---------------|--------------|-------------|------------------|-------------|---------|-----------------|--------|----------------|-------|
| | Rank | | | Market | Mkt. | # of | | | | Proceed | | Mkt. | # of | | | | | | k Proceed | | Mkt. | # of |
| Bookrunner | | 2021 | eds | Share | Sh. | Deals | Bookrunner | 2022 | 2021 | s | Share | Sh. | Deals | Issuer | | | 202 | | | | Sh. | Deals |
| BofA Securities Inc | 1 | 1 | 37,350 | 12.8 | 12.8 | 234 | BofA Securities Inc | 1 | 1 | 39,609 | 12.8 | -1.8 | 266 | | | inance Auth | | | 2 6,219 | | 0.5 | 16 |
| J P Morgan Securities LLC | 2 | 4 | 33,248 | 11.4 | 11.4 | 221 | J P Morgan Securities LLC | 2 | 3 | 36,080 | 11.6 | 3.1 | 308 | NYS Dor | | , | | | 3 5,470 | | 0.5 | 14 |
| Citi | 3 | 2 | 21,958 | 7.5 | -2.0 | 152 | Citi | 3 | 2 | 23,886 | 7.7 | -1.8 | 157 | | | & Tunnel Au | | | 4 5,324 | | 0.9 | 8 |
| RBC Capital Markets | 4 | 6 | 20,151 | 6.9 | -0.3 | 321 | Morgan Stanley | 4 | 4 | 20,919 | 6.7 | -1.2 | 199 | California | | | | • | 1 4,546 | | 0.0 | 5 |
| Morgan Stanley | 5 | 3 | 19,828 | 6.8 | -0.4 | 180 | RBC Capital Markets | 5 | 5 | 20,277 | 6.5 | 1.1 | 325 | - | | sity of Californ | | - | 5 4,086 | | 0.5 | 5 |
| Wells Fargo & Co | 6 | 8 | 14,261 | 4.9 | 1.8 | 142 | Jefferies LLC | 6 | 10 | 15,346 | 4.9 | 8.0 | 203 | New York | | lew York | | | 6 3,711 | | 0.5 | 9 |
| Goldman Sachs & Co LLC | 7 | 5 | 13,749 | 4.7 | 1.2 | 80 | Wells Fargo & Co | 7 | 8 | 14,890 | 4.8 | 0.3 | 147 | Massach | | | | 7 1 | - , | 1.3 | 0.6 | 5 |
| Jefferies LLC | 8 | 9 | 13,335 | 4.6 | -1.0 | 86 | Goldman Sachs & Co LLC | 8 | 6 | 13,752 | 4.4 | -0.9 | 81 | | | & CDA (LCD | | 8 13 | -, | | 0.9 | 5 |
| Stifel Nicolaus & Co Inc | 9 | 7 | 12,845 | 4.4 | 0.2 | 586 | Stifel Nicolaus & Co Inc | 9 | 7 | 13,153 | 4.2 | -0.8 | 606 | Washing | | | | 9 1 | | | 0.4 | 14 |
| Piper Sandler & Co | 10 | 10 | 11,553 | 4.0 | -0.4 | 426 | Piper Sandler & Co | 10 | 9 | 12,744 | 4.1 | 0.0 | 617 | NYS Thr | | | 1 | | 8 2,902 | | 0.3 | 8 |
| Raymond James | 11 | 11 | 10,905 | 3.7 | 0.0 | 375 | Barclays | 11 | 12 | 11,109 | 3.6 | 0.0 | 77 | | | nance Autl | | | | | 1.0 | 4 |
| Barclays | 12 | 12 | 10,754 | 3.7 | 0.0 | 75 | Raymond James | 12 | 11 | 11,014 | 3.6 | -0.1 | 387 | U | | ot of Airpor | | | . , . | 0.9 | 0.4 | 9 |
| Robert W Baird & Co Inc | 13 | 13 | 8,126 | 2.8 | -0.3 | 572 | Robert W Baird & Co Inc | 13 | 13 | 8,181 | 2.6 | -0.8 | 575 | - | | ness Fin Au | | | - ,- | 0.9 | 0.9 | 7 |
| Siebert Williams Shank & Co | 14 | 15 | 7,658 | 2.6 | -0.6 | 32 | Siebert Williams Shank & Co | 14 | 15 | 7,666 | 2.5 | 1.1 | 33 | Regents of t | the Univers | sity of Michiga | an 1 | 4 | - 2,469 | 0.8 | 0.8 | 4 |
| Ramirez & Co Inc | 15 | 19 | 6,455 | 2.2 | 0.4 | 45 | Ramirez & Co Inc | 15 | 20 | 6,461 | 2.1 | 1.2 | 46 | Illinois | | | 1: | 5 2 | 0 2,338 | 0.8 | 0.3 | 4 |
| Industry Total | | | 292,446 | 100.0 | | 6,418 | Industry Total | | | 310,441 | 100.0 | | 7,743 | Industry | Total | | | | 292,446 | 100.0 | | 6,418 |
| | | | | | | | | | | | | | | | | | | | | | | |
| Negotiated (AT03) | | Yo | Y Change (\$) | -14% Q | oQ Change (\$) | -15% | Competitive (AT04) | | Yo | Y Change (\$) | -17% Qo | Q Change (\$) | -1% | Co-Man | ager (A | AT12) | | | YoY Change (\$) | -10% o | oQ Change (\$) | -14% |
| 3 | Rank | | Proceed | | Mkt. | # of | | Rank F | | Proceed | | Mkt. | # of | | - J · (| , | Ran | | k Proceed | | Mkt. | # of |
| Bookrunner | 2022 | 2021 | s | Share | Sh. | Deals | Bookrunner | 2022 | 2021 | s | Share | Sh. | Deals | Co-Mana | ager | | 202 | 2 202 | 1 s | Share | Sh. | Deals |
| J P Morgan Securities LLC | 1 | 7 | 25,037 | 11.0 | 4.7 | 120 | BofA Securities Inc | 1 | 1 | 13,374 | 20.9 | 2.4 | 77 | Ramirez | | iC | | 1 1 | 1 8,901 | 3.0 | 0.7 | 509 |
| BofA Securities Inc | 2 | 1 | 23,976 | 10.5 | -2.5 | 157 | J P Morgan Securities LLC | 2 | 2 | 8,211 | 12.8 | 0.2 | 101 | Siebert W | /illiams § | Shank & Co | ю : | 2 . | 4 8,838 | 3.0 | 0.4 | 191 |
| RBC Capital Markets | 3 | 4 | 19,450 | 8.5 | 1.3 | 287 | Morgan Stanley | 3 | 3 | 5,716 | 8.9 | -1.6 | 80 | Loop Car | pital Ma | rkets | | 3 | 5 8,713 | | 0.4 | 611 |
| Citi | 4 | 2 | 16,639 | 7.3 | -3.1 | 93 | Citi | 4 | 5 | 5,319 | 8.3 | -0.2 | 59 | Raymond | | | | 4 | 7 8.638 | | 0.6 | 338 |
| Morgan Stanley | 5 | 5 | 14,113 | 6.2 | -0.9 | 100 | Robert W Baird & Co Inc | 5 | 4 | 4,791 | 7.5 | -2.8 | 407 | Academy | | | | 5 ! | 9 8.253 | | 0.4 | 180 |
| Goldman Sachs & Co LLC | 6 | 3 | 13,207 | 5.8 | -1.4 | 78 | Wells Fargo & Co | 6 | 6 | 3,599 | 5.6 | -0.8 | 35 | BofA Sec | | | | 6 : | 3 8.092 | | 0.1 | 211 |
| Stifel Nicolaus & Co Inc | 7 | 6 | 12,649 | 5.5 | -1.0 | 551 | Jefferies LLC | 7 | 10 | 2.943 | 4.6 | 2.5 | 32 | | | urities LLC | g . | 7 | 1 7.650 | | -0.2 | 173 |
| Wells Fargo & Co | 8 | 10 | 10,662 | 4.7 | 0.4 | 107 | Piper Sandler & Co | 8 | 9 | 1,875 | 2.9 | 0.3 | 122 | Stifel Nic | • | | | • | 6 7.577 | | 0.1 | 350 |
| Jefferies LLC | 9 | 8 | 10.392 | 4.6 | 0.0 | 54 | Raymond James | 9 | 7 | 1,539 | 2.4 | -0.5 | 106 | RBC Car | | | | 9 1 | - ,- | | 0.1 | 212 |
| Barclays | 10 | 11 | 9,987 | 4.4 | 0.1 | 70 | FHNC Financial Capital Markets | 10 | 8 | 1,405 | 2.2 | -0.6 | 93 | Morgan S | | inclo | 1 | | . , | | 0.3 | 270 |
| Piper Sandler & Co | 11 | 9 | 9,678 | 4.2 | -0.2 | 304 | Mesirow Financial Inc | 11 | 11 | 1,373 | 2.2 | 0.3 | 29 | Citi | otarnoy | | 1 | | 8 6.609 | | -0.1 | 189 |
| Raymond James | 12 | 12 | 9.366 | 4.1 | -0.1 | 269 | Huntington Bancshares Inc | 12 | 15 | 1,208 | 1.9 | 0.2 | 77 | Wells Fa | rao & C | `n | 1: | | 2 6.500 | | -0.6 | 199 |
| Siebert Williams Shank & Co | 13 | 13 | 7,658 | 3.4 | 1.5 | 32 | Hilltop Securities | 13 | 12 | 1,140 | 1.8 | -0.1 | 72 | | 3 | Company In | | | -, | | 0.5 | 262 |
| Ramirez & Co Inc | 14 | 17 | 6.455 | 2.8 | 1.5 | 45 | Roosevelt & Cross Inc | 14 | 14 | 1,090 | 1.7 | 0.0 | 157 | Piper Sar | | | 1. | | -, | | 0.5 | 131 |
| UBS Financial Services Inc | 15 | 14 | 4,735 | 2.0 | 0.4 | 36 | Janney Montgomery Scott LLC | 15 | 17 | 967 | 1.7 | 0.0 | 47 | | | Services In | | | , | | 0.1 | 293 |
| Industry Total | 15 | 14 | 228,467 | 100.0 | 0.4 | 3,747 | Industry Total | 15 | 17 | 63,980 | 100.0 | 0.3 | 2,671 | Industry | | ervices iri | ic i | J 1 | 190,226 | | 0.3 | 2.202 |
| , | | | 220,101 | | | 0,1 | , | | | 00,000 | | | _,0 | | | | | | .00,220 | | | _, |
| US Taxable Municipal De | ebt | | | 400/ | | 400/ | Min | T44) | | | 00/ | | 400/ | Did T | | | (1104) | | | | | |
| (AT62) | | | Y Change (\$) | | oQ Change (\$) | | Minority Owned Firms (A | | | Y Change (\$) | | Q Change (\$) | | | e Com | position | (US\$01 |) | | | | |
| Bookrunner | Rank | Rank 2021 | Proceed s | Market Share | Mkt. Sh. | # of Deals | Bookrunner | Rank F 2022 | Rank 2021 | Proceed s | Market Share | Mkt. Sh. | # of Deals | \$120 | | | | | | | | |
| BofA Securities Inc | 1 | 3 | 3,269 | 14.3 | 3.7 | 15 | Siebert Williams Shank & Co | 1 | 1 | 7,658 | 5.4 | 2.0 | 32 | \$100 - \$9 | 92 | | | \$97 | \$90 | | | |
| RBC Capital Markets | 2 | 4 | 2,607 | 11.4 | 4.1 | 35 | Ramirez & Co Inc | 2 | 3 | 6,455 | 4.6 | 2.3 | 45 | | | \$83 | \$88 | | φου | | \$82 | |
| Citi | 3 | 2 | 2,140 | 9.4 | -2.6 | 15 | Loop Capital Markets | 3 | 2 | 3,751 | 2.7 | -0.3 | 31 | \$80 - | | | | | | \$76 | | \$70 |
| Barclays | 4 | 10 | 1.853 | 8.1 | 4.3 | 8 | Estrada Hinojosa & Company Inc | 4 | 4 | 539 | 0.4 | 0.2 | 11 | | | | | | | | | ,. 5 |
| Wells Fargo & Co | 5 | 10 | 1,853 | 7.7 | 4.3 1.0 | - | Cabrera Capital Markets Inc | 4 5 | 9 | 486 | 0.4 | 0.2 | 6 | \$60 - | | | | | | | | |
| • | 5 6 | 7 | , - | | | 14 | | 5 6 | 5 | | | | - | | | | | | | | | |
| Goldman Sachs & Co | - | • | 1,684 | 7.4 | 1.2 | 13 | Academy Securities Inc | - | - | 118 | 0.1 | 0.0 | 3 | \$40 - | \$28 | | \$29 | | 0.5 | | | |
| Jefferies LLC | 7 | 9 | 1,613 | 7.1 | 2.7 | 4 | Stern Brothers & Co | 7 | 7 | 114 | 0.1 | 0.0 | 2 | | ΨΖΟ | \$23 | 41 0 | \$2 | 25 \$22 | \$21 | \$22 | \$21 |
| Raymond James Financial Inc | 8 | 11 | 1,573 | 6.9 | 3.9 | 23 | Rice Financial Products Company | 8 | 8 | 51 | 0.0 | 0.0 | 3 | \$20 - | | | | | | | | |
| JP Morgan | 9 | 8 | 1,276 | 5.6 | -0.5 | 11 | Duncan-Williams Inc | 9 | 6 | 11 | 0.0 | -0.1 | 3 | . | | | | | | | | |
| Loop Capital Markets | 10 | 43 | 852 | 3.7 | 3.6 | 6 | American Veterans Group PBC | 10 | - | 4 | 0.0 | 0.0 | 1 | \$0 ₩ | 1000 | 40.51 | 00.51 | 00 - | 4 40 0: | 40.00 | 00.00 | 00.55 |
| Industry Total | | | 22,795 | 100.0 | | 497 | Industry Total | | | 141,697 | 100.0 | | 1,449 | 4 | 4Q20 | 1Q 21 | 2Q 21 | 3Q 2 | | 1Q 22 | 2Q 22 | 3Q 22 |
| *Indicates a Tie | | | | | | | | | | | | | | | | | = Neg | ollated | Competitive | ve | _ | |

REFINITIV

Composite Amount US\$10mln & Under First Nine Months 2022 | Underwriters, Financial Advisors & Credit Enhancers

| Bookrunner Composite A | mount | t | | | | | Co-Manager Composite | Amoun | t | | | | | Financial Advisor Compo | osite Ar | nt | | | | |
|--------------------------------|-------|------|---------------|--------|-----------------|-------|--------------------------------|--------------|------|---------------|--------|---------------|-------|-------------------------------------|----------|------|-------------|---------|--------------|--------|
| Under \$10mln (AT02) | | Y | Y Change (\$) | -40% | QoQ Change (\$) | -32% | Under \$10mln (AT12a) | | Yo | Y Change (\$) | -30% Q | Q Change (\$) | -36% | Under \$10mln (AT07a) | | YoY | Change (\$) | -37% Qo | Q Change (\$ |) -29% |
| | Rank | Rank | Proceed | Market | Mkt. | # of | | Rank | Rank | Proceed | Market | Mkt. | # of | | Rank | Rank | Proceed | Market | Mkt. | # of |
| Bookrunner | 2022 | 2021 | s | Share | Sh. | Deals | Co-Manager | 2022 | 2021 | s | Share | Sh. | Deals | Financial Advisor | 2022 | 2021 | s | Share | Sh. | Deals |
| Robert W Baird & Co Inc | 1 | 1 | 1,291 | 11.3 | -1.8 | 286 | Stifel Nicolaus & Co Inc | 1 | 6 | 169 | 1.5 | 0.9 | 111 | PFM Financial Advisors LLC | 1 | 1 | 797 | 9.7 | -1.0 | 135 |
| Stifel Nicolaus & Co Inc | 2 | 3 | 1,116 | 9.8 | 1.9 | 208 | Truist Financial Corp | 2 | 43 | 158 | 1.4 | 1.2 | 49 | Ehlers & Associates | 2 | 2 | 607 | 7.4 | 1.0 | 172 |
| Piper Sandler & Co | 3 | 2 | 952 | 8.3 | -1.6 | 193 | Cantor Fitzgerald LP | 3 | 1 | 157 | 1.4 | -0.2 | 48 | Hilltop Securities | 3 | 3 | 590 | 7.2 | 1.5 | 113 |
| Raymond James | 4 | 4 | 748 | 6.6 | 0.7 | 136 | BOK Financial Securities Inc | 4 | 42 | 147 | 1.3 | 1.1 | 30 | Robert W Baird & Co Inc | 4 | 5 | 489 | 6.0 | 0.9 | 111 |
| D A Davidson & Co | 5 | 5 | 577 | 5.1 | -0.1 | 156 | United Bankers Bank | 5 | 5 | 147 | 1.3 | 0.6 | 89 | Piper Sandler & Co | 5 | 9 | 369 | 4.5 | 1.8 | 63 |
| Northland Securities | 6 | 10 | 554 | 4.9 | 1.7 | 143 | D A Davidson & Co | 6 | 3 | 121 | 1.1 | 0.3 | 63 | Baker Tilly Municipal Advisors | 6 | 4 | 345 | 4.2 | -1.0 | 77 |
| Roosevelt & Cross Inc | 7 | 8 | 513 | 4.5 | 0.3 | 135 | Ramirez & Co Inc | 7 | 4 | 97 | 0.9 | 0.2 | 164 | Phoenix Advisors LLC | 7 | 8 | 270 | 3.3 | 0.6 | 48 |
| Samco Capital Markets | 8 | 9 | 467 | 4.1 | 0.0 | 103 | R Seelaus & Company Inc | 8 | 10 | 90 | 0.8 | 0.2 | 158 | Stephen H McDonald & Associates Inc | 8 | 23 | 254 | 3.1 | 1.9 | 140 |
| BOK Financial Securities Inc | 9 | 12 | 368 | 3.2 | 1.2 | 124 | CINCaP Investment Group | 9 | 11 | 89 | 0.8 | 0.2 | 160 | Masterson Advisors LLC | 9 | 6 | 252 | 3.1 | 0.0 | 58 |
| FMSbonds Inc | 10 | 13 | 362 | 3.2 | 1.3 | 64 | Crews & Associates Inc | 10 | 8 | 86 | 0.8 | 0.2 | 289 | Specialized Public Finance Inc | 10 | 7 | 213 | 2.6 | -0.2 | 42 |
| FHNC Financial Capital Markets | 11 | 7 | 339 | 3.0 | -1.4 | 57 | Intercoastal Capital Markets | 11 | 13 | 80 | 0.7 | 0.1 | 149 | Fiscal Advisors & Marketing Inc | 11 | 10 | 182 | 2.2 | -0.3 | 79 |
| RBC Capital Markets | 12 | 6 | 326 | 2.9 | -1.8 | 55 | Estrada Hinojosa & Company Inc | 12 | 38 | 78 | 0.7 | 0.5 | 89 | Speer Financial Inc | 12 | 13 | 158 | 1.9 | -0.2 | 57 |
| Baker Group LP | 13 | 17 | 317 | 2.8 | 1.4 | 79 | Sierra Pacific Securities | 13 | 7 | 76 | 0.7 | 0.1 | 288 | RBC Capital Markets | 13 | 17 | 151 | 1.8 | 0.4 | 30 |
| Huntington Bancshares Inc | 14 | 11 | 282 | 2.5 | 0.2 | 53 | Loop Capital Markets | 14 | 16 | 68 | 0.6 | 0.1 | 245 | Samco Capital Markets | 14 | 21 | 148 | 1.8 | 0.5 | 25 |
| LJ Hart & Company | 15 | 25 | 270 | 2.4 | 1.4 | 78 | Edward D Jones & Co LP | 15 | 14 | 64 | 0.6 | 0.0 | 164 | GMS Group LLC | 15 | 16 | 139 | 1.7 | 0.2 | 25 |
| Industry Total | | | 11,418 | 100.0 | | 2,713 | Industry Total | | | 3,061 | 100.0 | | 619 | Industry Total | | | 8,209 | 100.0 | | 1,969 |

| Negotiated Composite Am Jnder \$10mln (AT21) | t | Yc | Y Change (\$) | -47% Q | oQ Change (\$) | -27% | Competitive Composite A Under \$10mln (AT20) | Amt | Yo | Y Change (\$) | -30% Qo | Q Change (\$) | -36% | Muni | icipal Is | suance | - Comp | osite A | mount L | IS\$10mi | il & Und | er | |
|---|----|--------------|---------------|--------|----------------|---------------|--|-----|----|---------------|---------|---------------|---------------|-------|-----------|--------|--------|---------|---------|----------|----------|-------|--------------------|
| | | Rank 2021 | Proceed s | | Mkt. Sh. | # of Deals | Bookrunner | | | Proceed s | Market | Mkt. Sh. | # of Deals | ** | 1,490 | | 1.702 | | | | | | __ 1,800 |
| Stifel Nicolaus & Co Inc | 1 | 1 | 963 | 17.3 | 4.0 | 177 | Robert W Baird & Co Inc | 1 | 1 | 1,046 | 17.8 | -3.8 | 231 | | | | | | | | | | 1.600 |
| O A Davidson & Co | 2 | 3 | 560 | 10.1 | 1.1 | 150 | Northland Securities | 2 | 6 | 448 | 7.6 | 2.8 | 115 | \$7 - | | | | | | | | | 1,600 |
| Piper Sandler & Co | 3 | 2 | 524 | 9.4 | -3.1 | 119 | Piper Sandler & Co | 3 | 3 | 428 | 7.3 | 0.7 | 74 | | | 1,330 | | 372 | | | | | 1.400 |
| Raymond James | 4 | 6 | 453 | 8.2 | 2.5 | 77 | Roosevelt & Cross Inc | 4 | 4 | 409 | 7.0 | 0.6 | 111 | \$6 - | | \sim | | | 1,218 | | | | ','' |
| MSbonds Inc | 5 | 8 | 308 | 5.6 | 2.5 | 55 | Samco Capital Markets | 5 | 7 | 391 | 6.7 | 2.3 | 84 | | | | | | | | 1,028 | | 1,200 |
| J Hart & Company | 6 | 16 | 270 | 4.9 | 3.1 | 78 | BOK Financial Securities Inc | 6 | 8 | 321 | 5.5 | 1.5 | 116 | \$5 - | | | | | | 1,004 | | | |
| RBC Capital Markets | 7 | 4 | 266 | 4.8 | -3.1 | 39 | Raymond James | 7 | 5 | 295 | 5.0 | -1.1 | 59 | | | | | | | | | 681 | 1,000 |
| Robert W Baird & Co Inc | 8 | 5 | 245 | 4.4 | -2.1 | 55 | FHNC Financial Capital Markets | 8 | 2 | 291 | 5.0 | -3.8 | 49 | \$4 - | | | | | | | | | |
| Colliers Securities | 9 | 12 | 153 | 2.8 | 0.8 | 29 | Baker Group LP | 9 | 11 | 288 | 4.9 | 2.0 | 71 | | | | | | | | | | 800 |
| Huntington Bancshares Inc | 10 | 15 | 122 | 2.2 | 0.4 | 22 | Fidelity Capital Markets | 10 | 14 | 175 | 3.0 | 0.8 | 45 | \$3 - | | | | | | | | | 600 |
| Northland Securities | 11 | 13 | 106 | 1.9 | 0.0 | 28 | Country Club Bank | 11 | 12 | 168 | 2.9 | 0.0 | 58 | | | | | | | | | | 600 |
| Roosevelt & Cross Inc | 12 | 10 | 104 | 1.9 | -0.5 | 24 | Hilltop Securities | 12 | 18 | 164 | 2.8 | 1.4 | 33 | \$2 - | | | | | | | | | 400 |
| NC Financial Services Group Inc | 13 | 9 | 99 | 1.8 | -1.2 | 15 | Huntington Bancshares Inc | 13 | 10 | 160 | 2.7 | -0.2 | 31 | | | | | | | | | | |
| Bernardi Securities Inc | 14 | 18 | 85 | 1.5 | 0.0 | 27 | Stifel Nicolaus & Co Inc | 14 | 21 | 153 | 2.6 | 1.6 | 31 | \$1 - | | | | | | | | | 200 |
| Hilltop Securities | 15 | 11 | 78 | 1.4 | -0.8 | 21 | Janney Montgomery Scott LLC | 15 | 17 | 79 | 1.4 | -0.3 | 9 | | \$6.5 | \$5.7 | \$7.2 | \$6.0 | \$5.6 | \$4.4 | \$4.2 | \$2.9 | |
| ndustry Total | | | 5,553 | 100.0 | | 1,198 | Industry Total | | | 5,865 | 100.0 | | 1,515 | \$0 + | | | | | 1 | | | | + 0 |
| Indicates a Tie | | | | | | | | | | | | | | | 4Q 20 | 1Q 21 | 2Q 21 | 3Q 21 | 4Q 21 | 1Q 22 | 2Q 22 | 3Q 22 | |



US Financial Advisors

First Nine Months 2022 | Underwriters, Financial Advisors & Credit Enhancers

| Financial Advisors (AT07 | | | | 400/ | | 70/ | Financial Advisors | 9) | | | 420/ | | 00/ | Financial Advisors Number of Issues (AT076 | n | | | 200/ | | 270/ |
|-------------------------------------|------|------|---------|-------|-----------------|-------|-------------------------------------|------|------|---------------|-------|------|-------|--|------|------|-------|--------|----------|---------|
| | | | | | QoQ Change (\$) | | Long & Short Term (AT18 | _ | | Y Change (\$) | | | | Number of Issues (A1070 | | | | | Q Change | |
| | | | Proceed | | | # of | | | | Proceed | | Mkt. | # of | | | Rank | # of | Market | | Proceed |
| Financial Advisor | 2022 | 2021 | s | Share | Sh. | Deals | Financial Advisor | 2022 | 2021 | s | Share | Sh. | Deals | Financial Advisor | 2022 | 2021 | Deals | Share | Sh. | s |
| PFM Financial Advisors LLC | 1 | 1 | 38,318 | 15.4 | -1.9 | 528 | PFM Financial Advisors LLC | 1 | 1 | 39,293 | 14.8 | -1.7 | 540 | PFM Financial Advisors LLC | 1 | 1 | 528 | 11.0 | -1.1 | 38,318 |
| Public Resources Advisory Group | 2 | 2 | 28,553 | 11.5 | -0.3 | 126 | Public Resources Advisory Group | 2 | 2 | 28,703 | 10.8 | -0.3 | 127 | Hilltop Securities | 2 | 2 | 405 | 8.4 | 1.1 | 20,188 |
| Hilltop Securities | 3 | 3 | 20,188 | 8.1 | 0.0 | 405 | Hilltop Securities | 3 | 3 | 21,149 | 8.0 | 0.1 | 545 | Ehlers & Associates | 3 | 4 | 225 | 4.7 | 0.7 | 1,992 |
| Frasca & Associates | 4 | 4 | 14,524 | 5.8 | 2.1 | 61 | Frasca & Associates | 4 | 4 | 14,524 | 5.5 | 2.1 | 61 | Robert W Baird & Co Inc | 4 | 5 | 198 | 4.1 | 1.0 | 3,164 |
| Estrada Hinojosa & Company Inc | 5 | 13 | 7,302 | 2.9 | 1.6 | 52 | Estrada Hinojosa & Company Inc | 5 | 18 | 7,302 | 2.8 | 1.6 | 52 | Baker Tilly Municipal Advisors | 5 | 3 | 178 | 3.7 | -0.4 | 3,592 |
| Acacia Financial Group Inc | 6 | 5 | 6,540 | 2.6 | -0.4 | 74 | Acacia Financial Group Inc | 6 | 5 | 6,803 | 2.6 | -0.3 | 96 | Piper Sandler & Co | 6 | 6 | 160 | 3.3 | 0.7 | 6,231 |
| Piper Sandler & Co | 7 | 6 | 6,231 | 2.5 | -0.3 | 160 | Piper Sandler & Co | 7 | 6 | 6,390 | 2.4 | -0.4 | 163 | Stephen H McDonald & Associates Inc | 7 | 17* | 153 | 3.2 | 1.7 | 542 |
| Ponder & Co | 8 | 17 | 4,812 | 1.9 | 0.7 | 31 | Montague DeRose & Associates LLC | 8 | 10 | 5,144 | 1.9 | -0.1 | 27 | Public Resources Advisory Group | 8 | 8 | 126 | 2.6 | 0.2 | 28,553 |
| Swap Financial Group LLC | 9 | 8 | 4,086 | 1.6 | -0.6 | 5 | Ponder & Co | 9 | 20 | 4,812 | 1.8 | 0.6 | 31 | Fiscal Advisors & Marketing Inc | 9 | 9 | 124 | 2.6 | 0.2 | 1,663 |
| Municipal Capital Markets Group Inc | 10 | 23 | 4,064 | 1.6 | 0.6 | 14 | Fiscal Advisors & Marketing Inc | 10 | 14 | 4,630 | 1.7 | 0.3 | 434 | Specialized Public Finance Inc | 10 | 7 | 109 | 2.3 | -0.2 | 3,346 |
| Stifel Nicolaus & Co Inc | 11 | 14 | 3,994 | 1.6 | 0.3 | 42 | KNN Public Finance | 11 | 7 | 4,330 | 1.6 | -1.2 | 51 | Phoenix Advisors LLC | 11 | 11 | 100 | 2.1 | 0.1 | 1,719 |
| KNN Public Finance | 12 | 7 | 3,900 | 1.6 | -1.2 | 43 | Swap Financial Group LLC | 12 | 9 | 4,086 | 1.5 | -0.5 | 5 | Masterson Advisors LLC | 12 | 10 | 94 | 2.0 | -0.1 | 2,524 |
| CSG Advisors Incorporated | 13 | 18 | 3,843 | 1.5 | 0.3 | 69 | Stifel Nicolaus & Co Inc | 13 | 17 | 4,074 | 1.5 | 0.2 | 45 | Stephen L Smith Corp | 13 | 13 | 87 | 1.8 | 0.0 | 216 |
| Backstrom McCarley Berry & Co | 14 | 35 | 3,679 | 1.5 | 1.0 | 20 | Municipal Capital Markets Group Inc | 14 | 25 | 4,064 | 1.5 | 0.6 | 14 | RBC Capital Markets | 14 | 12 | 82 | 1.7 | -0.2 | 3,308 |
| Baker Tilly Municipal Advisors | 15 | 10 | 3,592 | 1.4 | -0.4 | 178 | RBC Capital Markets | 15 | 8 | 4,058 | 1.5 | -0.6 | 87 | Urban Futures Inc | 15 | 19 | 79 | 1.6 | 0.2 | 1,342 |
| Industry Total | | | 249,158 | 100.0 | | 4,818 | Industry Total | | | 265,784 | 100.0 | | 5,956 | Industry Total | | | 4,818 | 100.0 | | 249,158 |

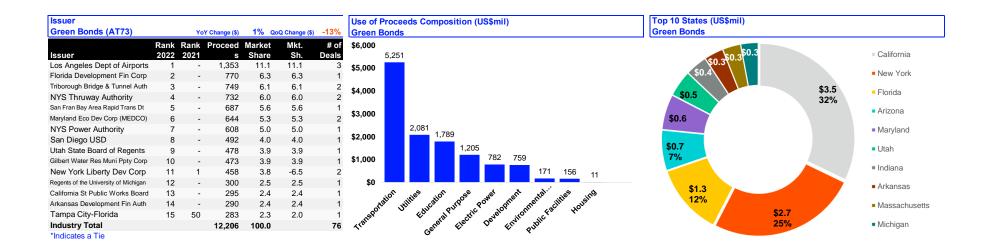
| Financial Advisors | | | | | | | Financial Advisors | | | | | | | | | | | | | | | |
|-------------------------------------|------|------|---------------|--------|----------------|-------|----------------------------------|------|------|-------------|---------|---------------|-------|---------|----------|-----------|----------|--------|-------|-------|-------|-------|
| Negotiated (AT07b) | | Yo | Y Change (\$) | -11% Q | oQ Change (\$) | -9% | Competitive (AT07c) | | YoY | Change (\$) | -16% Qo | Q Change (\$) | 1% | Finan | cial Adv | isor - Nu | umber of | Issues | | | | |
| | Rank | Rank | Proceed | Market | Mkt. | # of | | Rank | Rank | Proceed | Market | Mkt. | # of | 3.000 - | | | | | | | | |
| Financial Advisor | 2022 | 2021 | s | Share | Sh. | Deals | Financial Advisor | 2022 | 2021 | s | Share | Sh. | Deals | 0,000 | | | | | | | | |
| PFM Financial Advisors LLC | 1 | 1 | 30,001 | 16.1 | -2.4 | 318 | PFM Financial Advisors LLC | 1 | 2 | 8,318 | 13.3 | -0.3 | 210 | | | | 2,617 | | | | | |
| Public Resources Advisory Group | 2 | 2 | 20,956 | 11.2 | 0.5 | 69 | Public Resources Advisory Group | 2 | 1 | 7,597 | 12.2 | -2.8 | 57 | 2,500 - | 2,414 | | | | | | | |
| Hilltop Securities | 3 | 3 | 15,956 | 8.5 | 0.5 | 227 | Hilltop Securities | 3 | 3 | 4,232 | 6.8 | -1.3 | 178 | | | | | 2,140 | | | | |
| Frasca & Associates | 4 | 4 | 13,677 | 7.3 | 3.0 | 52 | Piper Sandler & Co | 4 | 4 | 4,094 | 6.6 | 0.7 | 126 | | | 1,923 | | | 1,931 | | | |
| Estrada Hinojosa & Company Inc | 5 | 13 | 7,189 | 3.9 | 2.4 | 49 | Acacia Financial Group Inc | 5 | 6 | 2,680 | 4.3 | 0.5 | 33 | 2,000 - | | 1,020 | | | ., | | 1,823 | |
| Ponder & Co | 6 | 11 | 4,812 | 2.6 | 0.9 | 31 | Robert W Baird & Co Inc | 6 | 9 | 2,373 | 3.8 | 2.0 | 182 | | | | | | | 1,662 | | |
| Swap Financial Group LLC | 7 | 6 | 4,086 | 2.2 | -0.8 | 5 | Backstrom McCarley Berry & Co | 7 | - | 2,149 | 3.4 | 3.4 | 13 | 1.500 - | | | | | | | | 1,333 |
| Municipal Capital Markets Group Inc | 8 | 18 | 4,064 | 2.2 | 8.0 | 14 | Baker Tilly Municipal Advisors | 8 | 7 | 2,053 | 3.3 | -0.2 | 140 | , | | | | | | | | 1,333 |
| Acacia Financial Group Inc | 9 | 7 | 3,861 | 2.1 | -0.6 | 41 | Davenport & Company LLC | 9 | 5 | 1,995 | 3.2 | -0.7 | 42 | | | | | | | | | |
| CSG Advisors Incorporated | 10 | 12 | 3,843 | 2.1 | 0.4 | 69 | Ehlers & Associates | 10 | 8 | 1,958 | 3.1 | 1.0 | 216 | 1,000 - | | | | | | | | |
| Caine Mitter & Associates Inc | 11 | 17 | 3,507 | 1.9 | 0.5 | 56 | Montague DeRose & Associates LLC | 11 | 14 | 1,736 | 2.8 | 1.2 | 13 | | | | | | | | | |
| Stifel Nicolaus & Co Inc | 12 | 16 | 3,404 | 1.8 | 0.4 | 21 | First Tryon Securities LLC | 12 | 36 | 1,172 | 1.9 | 1.3 | 17 | 500 - | | | | | | | | |
| RBC Capital Markets | 13 | 8 | 3,063 | 1.6 | -0.7 | 60 | Fiscal Advisors & Marketing Inc | 13 | 19 | 1,148 | 1.8 | 0.7 | 95 | 300 | | | | | | | | |
| KNN Public Finance | 14 | 5 | 3,018 | 1.6 | -1.6 | 36 | Phoenix Advisors LLC | 14 | 11 | 1,096 | 1.8 | 0.0 | 84 | | | | | | | | | |
| Samco Capital Markets | 15 | 30 | 2,545 | 1.4 | 0.7 | 57 | Specialized Public Finance Inc | 15 | 15 | 1,012 | 1.6 | 0.0 | 59 | 0 - | | | | | | | | |
| Industry Total | | | 186,762 | 100.0 | | 2,186 | Industry Total | | | 62,395 | 100.0 | | 2,632 | | 4Q 20 | 1Q 21 | 2Q 21 | 3Q 21 | 4Q 21 | 1Q 22 | 2Q 22 | 3Q 22 |
| *Indicates a Tie | | | | | | | | | | | | | | | | | | | | | | |

REFINITIV -

US Green Bonds

First Nine Months 2022 | Underwriters, Financial Advisors & Credit Enhancers

| Bookrunner | | | | | | | Co-Manager | | | | | | | Financial Advisor | | | | | | |
|----------------------------|------|------|---------------|--------|-----------------|-------|-------------------------------------|------|------|---------------|----------------|---------------|-------|----------------------------------|--------|------|-------------|--------|---------------|-------|
| Green Bonds (AT70) | | Yo | Y Change (\$) | 1% | QoQ Change (\$) | -13% | Green Bonds (AT71) | | Yo | Y Change (\$) | 20 % Qo | Q Change (\$) | -22% | Green Bonds (AT72) | | YoY | Change (\$) | 7% Q | Q Change (\$) | -7% |
| | Rank | Rank | Proceed | Market | t Mkt. | # of | | Rank | Rank | Proceed | Market | Mkt. | # of | | Rank F | Rank | Proceed | Market | Mkt. | # of |
| Bookrunner | 2022 | 2021 | s | Share | Sh. | Deals | Co-Manager | 2022 | 2021 | s | Share | Sh. | Deals | Financial Advisor | 2022 | 2021 | s | Share | Sh. | Deals |
| J P Morgan Securities LLC | 1 | 4 | 2,905 | 23.8 | 15.6 | 12 | Ramirez & Co Inc | 1 | 12 | 1,075 | 8.8 | 6.7 | 16 | PFM Financial Advisors LLC | 1 | 1 | 1,734 | 17.3 | -10.1 | 12 |
| BofA Securities Inc | 2 | 1 | 2,665 | 21.8 | 3 1.1 | 12 | RBC Capital Markets | 2 | 1 | 1,029 | 8.4 | 0.7 | 12 | Frasca & Associates | 2 | 4 | 1,353 | 13.5 | 7.3 | 3 |
| Goldman Sachs & Co LLC | 3 | 2 | 2,123 | 17.4 | -1.1 | 10 | Siebert Williams Shank & Co | 3 | 2 | 819 | 6.7 | -0.1 | 15 | KNN Public Finance | 3 | - | 872 | 8.7 | 8.7 | 4 |
| Morgan Stanley | 4 | 3 | 969 | 7.9 | -7.6 | 4 | Academy Securities Inc | 4 | 4 | 679 | 5.6 | -0.3 | 7 | Public Resources Advisory Group | 4 | 7 | 825 | 8.2 | 4.1 | 6 |
| Stifel Nicolaus & Co Inc | 5 | 11 | 875 | 7.2 | 4.9 | 4 | Estrada Hinojosa & Company Inc | 5 | 17 | 504 | 4.1 | 2.9 | 4 | Sperry Capital Inc | 5 | 11 | 687 | 6.8 | 4.9 | 1 |
| Barclays | 6 | 6 | 726 | 6.0 | 0.7 | 3 | Citi | 6 | 8 | 483 | 4.0 | 1.2 | 11 | Agentis Capital | 6 | 5 | 644 | 6.4 | 0.8 | 2 |
| Citi | 7 | 7 | 552 | 4.5 | 0.1 | 3 | J P Morgan Securities LLC | 7 | 9 | 479 | 3.9 | 1.3 | 8 | Prager & Co LLC | 7 | - | 608 | 6.1 | 6.1 | 1 |
| UBS Financial Services Inc | 8 | 12 | 364 | 3.0 | 2.0 | 4 | Jefferies LLC | 8 | 18 | 454 | 3.7 | 2.6 | 7 | Stifel Nicolaus & Co Inc | 8 | 35 | 478 | 4.8 | 4.6 | 1 |
| Robert W Baird & Co Inc | 9 | 14 | 151 | 1.2 | 0.3 | 2 | Stifel Nicolaus & Co Inc | 9 | 7 | 408 | 3.3 | -0.5 | 5 | Wedbush Morgan Securities | 9 | - | 473 | 4.7 | 4.7 | 1 |
| Wells Fargo & Co | 10 | 10 | 140 | 1.2 | -2.8 | 3 | Sumitomo Mitsui Financial Group Inc | 10 | - | 403 | 3.3 | 3.3 | 2 | Sycamore Advisors LLC | 10 | - | 450 | 4.5 | 4.5 | 4 |
| Ramirez & Co Inc | 11 | - | 114 | 0.9 | 0.9 | 2 | Morgan Stanley | 11 | 5 | 371 | 3.0 | -1.3 | 11 | Backstrom McCarley Berry & Co | 11 | 17 | 366 | 3.7 | 2.3 | 2 |
| Academy Securities Inc | 12 | - | 81 | 0.7 | 0.7 | 2 | Loop Capital Markets | 12 | 3 | 327 | 2.7 | -3.9 | 8 | Ford & Associates | 12 | - | 283 | 2.8 | 2.8 | 1 |
| Piper Sandler & Co | 13 | 9 | 72 | 0.6 | -3.6 | 4 | BofA Securities Inc | 13 | 21 | 322 | 2.6 | 1.8 | 9 | Robert W Baird & Co Inc | 13 | 28 | 275 | 2.7 | 2.2 | 2 |
| RBC Capital Markets | 14 | 5 | 70 | 0.6 | -5.0 | 2 | Barclays | 14 | 13 | 300 | 2.5 | 0.9 | 7 | Montague DeRose & Associates LLC | 14 | 8 | 242 | 2.4 | -1.2 | 3 |
| Loop Capital Markets | 15 | - | 67 | 0.6 | 0.6 | 3 | Piper Sandler & Co | 15 | 22 | 285 | 2.3 | 1.6 | 6 | RBC Capital Markets | 15 | 23 | 147 | 1.5 | 8.0 | 2 |
| Industry Total | | | 12,206 | 100.0 |) | 76 | Industry Total | | | 9,650 | 100.0 | | 46 | Industry Total | | | 10,035 | 100.0 | | 55 |





US Private Deals & Credit Enhancers

First Nine Months 2022 | Underwriters, Financial Advisors & Credit Enhancers

| Private Placement Agent / Purchaser (AT24) | | VoV | Change (\$) | 1% 00 | Q Change (\$) | -65% | Private Issuers (AT44) | | Vol | Change (\$) | 1% 00 | Q Change (\$) | -65% | Private Financial Adviso | r (AT25) | YoY Ch | ange (\$) | -5% 00 | Q Change (\$) | -64% |
|--|--|---|--|--|---|---|--|--------------|------|--------------|--------|--|----------------------------|-----------------------------------|--------------|--------------------------------|-----------|------------|--|---------------|
| Placement Agent or Purchaser | Rank 2022 | Rank | Proceed s | | Mkt. Sh. | # of Deals | Issuer | Rank 2022 | Rank | Proceed s | | Mkt. Sh. | # of Deals | Financial Advisor | | Rank Pro | | | Mkt. Sh. | # of Deals |
| BofA Securities Inc | 1 | 7 | 1,838 | 13.2 | 9.7 | 22 | NYC Municipal Water Fin Auth | 1 | 4 | 745 | 5.4 | 2.9 | 1 | Ponder & Co | 1 | | 1,528 | 25.7 | 18.6 | 20 |
| Piper Sandler & Co | 2 | 1 | 1,726 | 12.4 | -0.6 | 121 | Maricopa Co-Arizona | 2 | - | 644 | 4.6 | 4.6 | 2 | Piper Sandler & Co | 2 | 10 | 710 | 12.0 | 8.8 | 15 |
| Wells Fargo & Co | 3 | 4 | 1,552 | 11.2 | 4.0 | 13 | California Municipal Fin Auth | 3 | 5 | 540 | 3.9 | 1.5 | 18 | PFM Financial Advisors LLC | 3 | 2 | 507 | 8.5 | -2.9 | 29 |
| Citi | 4 | 3 | 1,415 | 10.2 | -0.9 | 51 | NYS Housing Fin-Mortgage Agcy | 4 | - | 428 | 3.1 | 3.1 | 5 | Echo Financial Products LLC | 4 | 9 | 357 | 6.0 | 2.0 | 4 |
| Stifel Nicolaus & Co Inc | 5 | 24 | 1.001 | 7.2 | 6.3 | 109 | Missouri HIth & Ed Facs Authority | 5 | 18 | 381 | 2.7 | 1.7 | 3 | Government Consultants Inc | 5 | 5 | 349 | 5.9 | -0.8 | 20 |
| Robert W Baird & Co Inc | 6 | 5 | 599 | 4.3 | -0.3 | 106 | Michigan Finance Authority | 6 | 39 | 311 | 2.2 | 1.6 | 4 | Hilltop Securities | 6 | 18 | 280 | 4.7 | 3.2 | 17 |
| Truist Financial Corp | 7 | 2 | 597 | 4.3 | -7.0 | 20 | Highlands Co Health Facs Auth | 7 | - | 244 | 1.8 | 1.8 | 1 | Caine Mitter & Associates Inc | 7 | 19 | 244 | 4.1 | 2.7 | 5 |
| J P Morgan Securities LLC | 8 | 6 | 509 | 3.7 | -0.3 | 14 | Colorado Hsg & Fin Auth (CHFA) | 8 | 297* | 205 | 1.5 | 1.5 | 11 | Kaufman Hall & Associates Inc | 8 | 6 | 216 | 3.6 | -2.5 | 4 |
| Bank of New York Mellon Corp | 9 | 87 | 505 | 3.6 | 3.6 | 14 | University of Alabama BOT | 9 | | 204 | 1.5 | 1.5 | 1 | North Slope Capital Advisors | 9 | 4 | 164 | 2.8 | -4.2 | 10 |
| TD Securities (USA) LLC | 10 | 8 | 469 | 3.4 | 0.0 | 13 | Philadelphia Auth for Indus Dev | 10 | 9 | 202 | 1.5 | -0.3 | 1 | Public Resources Advisory Group | 10 | 15 | 159 | 2.7 | 0.9 | 5 |
| KeyBanc Capital Markets | 11 | 10 | 286 | 2.1 | -0.5 | 14 | Colorado Reg Transportation Dt | 11 | | 195 | 1.4 | 1.4 | 1 | First Tryon Securities LLC | 11 | 1 | 146 | 2.5 | -10.2 | 7 |
| PNC Financial Services Group Inc | 12 | 11 | 264 | 1.9 | -0.6 | 6 | Washington St Hsg Fin Commission | 12 | 3 | 194 | 1.4 | -1.4 | 6 | Baker Tilly Municipal Advisors | 12 | 28 | 103 | 1.7 | 1.1 | 10 |
| Regions Financial Corp | 13 | 19 | 239 | 1.7 | 0.5 | 9 | Oregon Education Dt | 13 | - | 176 | 1.3 | 1.3 | 1 | DiPerna & Co LLC | 13 | | 81 | 1.4 | 1.4 | 4 |
| Zions Bank | 14 | 23 | 217 | 1.6 | 0.7 | 7 | Wisconsin Hlth & Ed Fac Auth (WHEFA) | 14 | 7 | 153 | 1.1 | -0.9 | 7 | Tijerina Galvan Lawrence LLC | 14 | - | 72 | 1.2 | 1.2 | 1 |
| Capital One Financial Corp | 15 | 17 | 211 | 1.5 | 0.0 | 3 | Gulf Shores City-Alabama | 15* | - | 150 | 1.1 | 1.1 | 1 | Hendrickson Company | 15 | 20 | 67 | 1.1 | 0.0 | 3 |
| Industry Total | | | 13,923 | 100.0 | | 709 | Lee Memorial Health System | 15* | - | 150 | 1.1 | 1.1 | 2 | Industry Total | | | 5,940 | 100.0 | | 244 |
| • | | | -,- | | | | Industry Total | | | 13,923 | 100.0 | | 709 | , | | | ,- | | | |
| NYS Dorm Authority Triborough Bridge & Tunnel Auth California Regents of the University of California New York City-New York Massachusetts Lousiana Gov Env Fac & CDA (LCDA) Washington NYS Thruway Authority Oklahoma Dev Finance Auth Los Angeles Dept of Airports Virginia Small Business Fin Auth Regents of the University of Michigan Wisconsin Public Finance Auth Industry Total | 2 3 4 5 6 7 8 9 10 11 12 13 14 | 3 4 1 5 7 14 116 13 8 540 19 762 | 5,470 5,324 4,546 4,086 3,711 3,681 3,389 3,150 2,902 2,835 2,701 2,511 2,469 2,346 306,370 | 1.8 1.7 1.5 1.3 1.2 1.2 1.1 1.0 1.0 0.9 0.9 0.8 0.8 0.8 | 0.4 0.8 -0.1 0.5 0.6 0.9 0.4 0.3 0.9 0.4 0.8 0.8 | 14 8 5 5 9 5 11 14 8 4 9 7 4 47 7,127 | \$1,400 \$1,400 \$1,200 \$1,000 \$800 \$400 \$200 \$0 | 941 | 786 | 614 | 605 54 | Califor Colora Colora Arizon Texas Orego Missor Indian Georg | ado ia n uri a | \$2,531 19% \$2,762 21% | | \$3,54 27% \$2,91 22% | 3 | ■ G ■ E | ealthcare seneral Purp ducation tilities | |
| Bond Insurers (AT10) | Rank | | Change (\$) | 17.3% Market | Mkt. | # of | Credit Enhancers (AT80) | | YoY | Change (\$) | -9% | | | Top Issuers by Insured Amt | mount 202 | 2 US\$r | nil Sh | are l | JS\$mil | Deals |
| Insurer | | 2021 | s | Share | Sh. | Deals | | Rank | Rank | Proceed | Market | Mkt. | # of | Metro Washington Airports A | | 1 754 | | 3.3 | 754.8 | 2 |
| AGM formerly FSA Inc | 1 | 1 | 12,859 | 56.2 | 4.0 | 529 | Credit Enhancers Types | 2022 | | s | Share | Sh. | Deals | Montgomery Co Hghr Ed & Health Au | th | 2 672 | | 2.9 | 672.8 | 1 |
| Build America Mutual (BAM) | 2 | 2 | 10,039 | 43.8 | 9.0 | 617 | Bond insurance | 1 | 1 | 22,937 | 41.7 | -32.0 | 1,149 | NYS Dorm Authority | | 3 666 | | 2.9 | 759.1 | 1 |
| , | | | | | | | Guaranteed | 2 | 2 | 22,221 | 40.4 | 18.2 | 651 | NYS Power Authority | | 4 608 | | 2.7 | 608.3 | 1 |
| Industry Total | | | 22,897 | 100.0 | | 1,146 | LOC Foreign Bank | 3 | 5 | 825 | 1.5 | 1.5 | 4 | Los Angeles Dept of Airports | | 5 546 | 3.0 | 2.4 | 546.0 | 1 |
| *Indicates a Tie | | | | | | | Mortgage backed | 4 | 4 | 698 | 1.3 | -1.2 | 36 | Alameda Corridor Transport Au | uth | 6 459 | | 2.0 | 613.5 | 3 |
| | | | | | | | LOC Domestic Bank | 5 | 3 | 693 | 1.3 | 0.4 | 8 | Louisville-Jefferson Co Metro G | Sov | 7 411 | | 1.8 | 411.0 | 2 |
| | | | | | | | Standby Purch Agreement | 6 | 6 | 537 | 1.0 | 0.3 | 8 | Chicago City-Illinois | | 8 362 | | | 1,617.6 | 3 |
| | | | | | | | Guaranteed investment contract | 7 | 0 | 84 | 0.2 | 0.2 | 1 | Sacramento City USD | | 9 280 | | 1.2 | 280.9 | 1 |
| | | | | | | | Industry Total | | | | | | 4 0 4 5 | Miami Dada Ca CD | | | | | 070 - | |



5,033.4 22.0

1.2

270.8

10 270.8

1,842 Miami-Dade Co SD

Top 10 Total

54,961 100.0

Industry Total

United States Municipals Criteria

FIRST NINE MONTHS 2022 | 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:

AMERICAS

David Kaplan Tel: +1 646-709-1041 david.kaplan@lseq.com Rankings and volume totals include all municipal new issues underwritten during the period from January 1, 2022 to Sep 30, 2022, of which Refinitiv was made aware. All current data and previous year's data are as of 10:00am EDT on Oct 3, 2022. 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.

Refinitiv 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 Refinitiv 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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