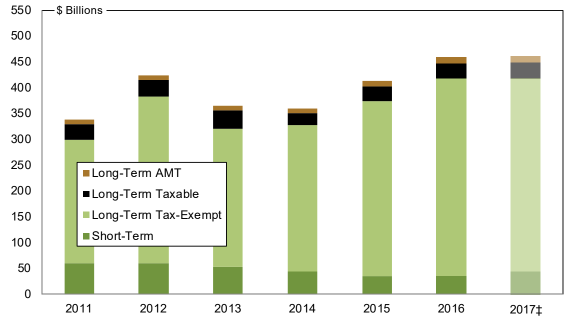
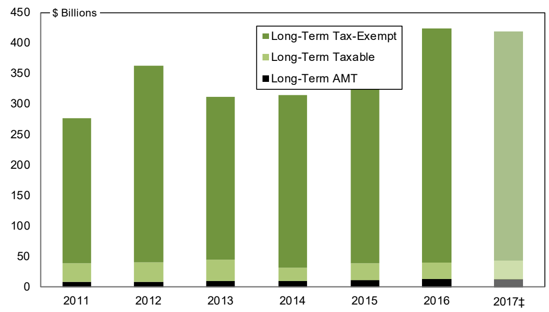
Total Municipal Issuance
2011 - 2017



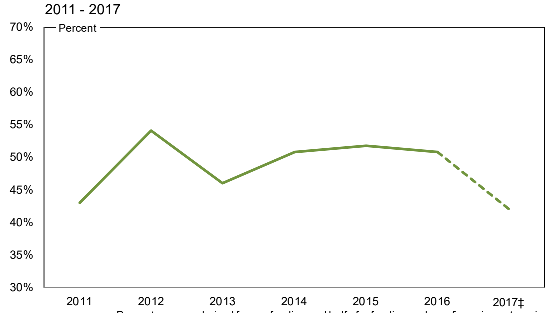
‡Survey Forecast
Sources: Thomson Reuters, 2017 SIFMA Municipal Issuance Survey

Long-Term Only Municipal Issuance
2011 - 2017



‡Survey Forecast
Sources: Thomson Reuters, 2017 SIFMA Municipal Issuance Survey

Refundings as % of Total Long-Term Tax Exempt Municipal Issuance
2011 - 2017



Percentages are derived from refunding and half of refunding and new financing categories;
‡Survey Forecast
Sources: Thomson Reuters, 2017 SIFMA Municipal Issuance Survey

Issuance Forecast Highlights

MUNICIPAL ISSUANCE FORECAST			
$ Billions	**2016**	**2017**	**% Change**
Long-Term Issuance			
Tax-Exempt Municipal Issuance	383.1	375.0	-2.1%
Taxable Municipal Issuance	28.5	30.0	5.2%
AMT Municipal Issuance	12.2	12.5	2.2%
Short-Term Issuance	35.6	43.5	22.2%
Total	459.4	461.0	0.3%
of which are Long-Term Municipal Bonds	423.8	417.5	-1.5%
Refunding as % of Long-Term Tax-Exempt Total	0.51	0.42	

Respondents to the 2017 SIFMA Municipal Issuance Survey[1] expect total long-term municipal issuance to reach $417.5.0 billion in 2017, down slightly from the $423.8 billion issuance in 2016.[2] Short-term issuance is expected to increase in 2017, with $43.5 billion in short-term notes expected to be financed compared to $35.6 billion in 2016. Including short-term issuance, total municipal issuance is expected to rise to $461.0 billion, up from $459.4 billion in 2016.

Respondents were polled as to events that would most likely have the greatest effect on the municipal market in 2017. Survey respondents, as in prior years, continue to agree that the curtailment of the tax-exemption on municipal bond interest would be one of the factors to have the greatest impact on the municipal market along with regulatory and compliance burdens. One respondent also noted that lesser liquidity due to tax reform to be a factor of some importance in 2017.

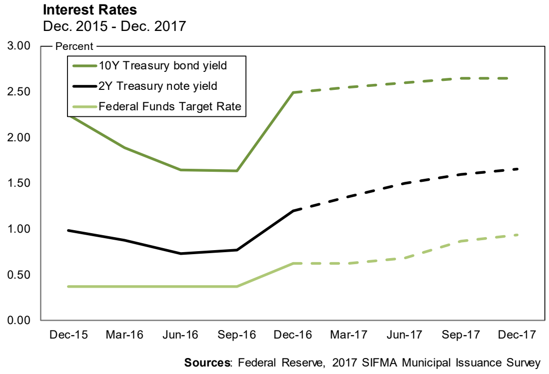
Respondents project long-term tax-exempt municipal issuance to reach $375.0 billion in 2017, 2.1 percent below the $383.1 billion issued in 2016.[3] On the other hand, alternative minimum tax (AMT) issuance is expected to rise by 2.2 percent to $12.5 billion in 2017 from $12.2 billion in 2016. [4] Taxable municipal issuance is expected to rise by 5.2 percent to $30.0 billion in 2017 from $28.5 billion in 2016.[5]

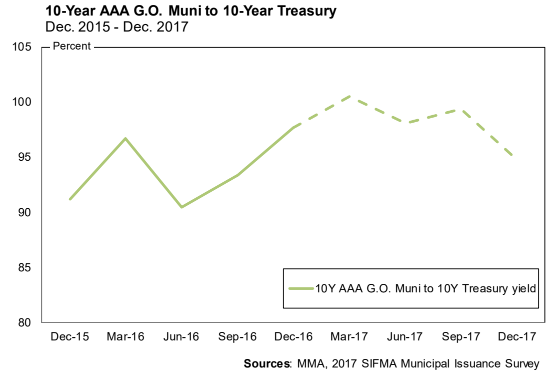
The share of refundings of the total issuance is expected to decline in 2017, with 42.0 percent of long-term tax exempt issuance expected as refundings in 2017, compared to 51.0 percent in 2016.[6]

The majority of respondents (66.7 percent) agreed that the largest issuing use-of-proceeds sector will be general purpose for 2017, with the balance split evenly between transportation, education and public facilities as the largest sectors. In prior years, the general purpose sector has traditionally been the largest issuing sector by gross amount.

Respondents expected approximately 23 issuers to default in 2017 for a par value of $15 billion, defined for the purpose of the survey as the occurrence of a missed interest or principal payment or a bankruptcy filing.[7]

[1] The survey was conducted from November 14, 2016 – February 3, 2017. The forecasts discussed in the text and appearing in the accompanying data tables are the median values of all submissions of individual member firms, unless otherwise specified.
[2] Annual figures from 2016 do not include private placements; source: Thomson Reuters.
[3] Survey estimates for long-term tax-exempt municipal bonds ranged from $320 billion to $450 billion for 2017.
[4] Survey estimates for long-term AMT municipal bonds ranged from $10 billion to $80 billion for 2017.
[5] Survey estimates for long-term taxable municipal bonds ranged from $26 billion to $60 billion for 2017.
[6] Survey estimates for refundings as a percentage of long-term tax-exempt issuance ranged from 30 percent to 79 percent in 2017.
[7] Survey estimate for the number of issuers to default ranged from 20 to 25 issuers. Par value estimated to be in default ranged from $400 million to $26 billion.





Interest Rate Forecast Highlights

Following the FOMC raising the federal funds target rate to 0.50-0.75 percent in mid-December 2016, the federal funds rate is expected to rise from 0.62 percent in end-March 2017 to 0.94 percent by end-December 2017.[8] The two-year Treasury note yield is expected to rise from 1.35 percent end-March 2017 to 1.65 percent by end-December 2017.[9] The 10-year Treasury note yield is also expected to climb from 2.55 percent end-March 2017 to 2.65 percent end-December 2017.[10] The ratio of the yield on 10-year AAA G.O. municipal securities to the 10-year Treasury benchmark is expected to rise to 100.5 percent at end-March 2017 before falling to 94.7 percent end-December 2017.[11]

[8] The range for the federal funds target rate was 0.50 percent to 0.75 percent in March 2017, 0.62 percent to 0.75 percent in June 2017, 0.75 percent to 1.0 percent in September 2017, and 0.87 percent to 1.25 percent in December 2017.

[9] The range for the two-year Treasury note yield was 1.15 percent to 2.0 percent in March 2017, 1.4 percent to 2.25 percent in June 2017, 1.5 percent to 2.25 percent in September 2017, and 1.55 percent to 2.0 percent in December 2017.

[10] The range for the 10-year Treasury yield was 2.45 percent to 3.5 percent in March 2017, 2.45 percent to 3.5 percent in June 2017, 2.6 percent to 3.5 percent for September 2017, and 2.55 percent to 3.5 percent in December 2017.

[11] The range for the 10-year AAA G.O. muni yield as a percentage of the 10-Year Treasury bond yield was 94 percent to 110 percent in March 2017, 93 percent to 110 percent in June 2017, 93 percent to 105 percent in September 2017, and 92 percent to 95 percent in December 2017.

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