

U.S. MUNICIPAL BOND MARKET

Municipal Bond Analyst Survey, 2018

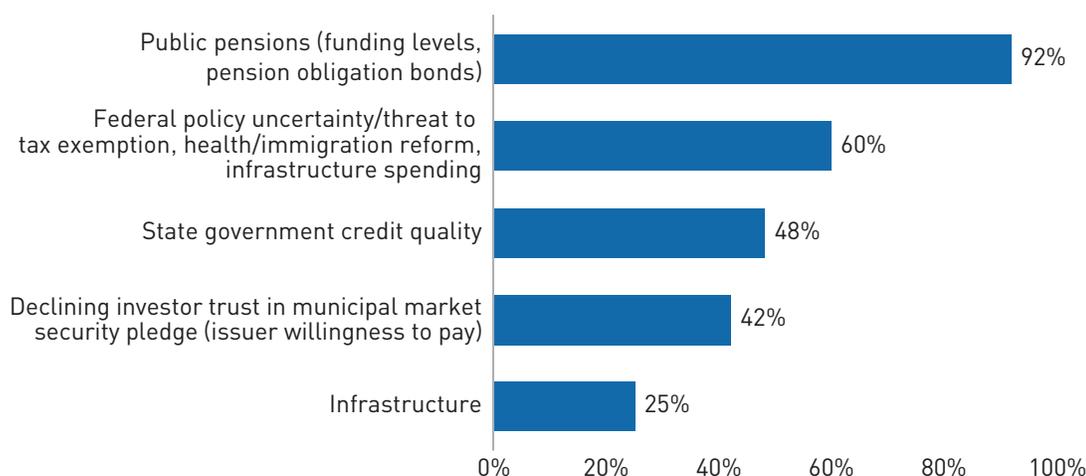
Key Survey Findings: Pensions still the top issue, but state government credit quality jumped to the third most important issue

- State government credit quality (48%) jumped to the third-ranked “most important trend” in our survey of 168 municipal analysts. Last year, state credit quality was ranked eighth (24%).
- Public pensions (92%) and federal policy uncertainty (60%) remain the first and second most important issues/trends facing the market.
- The 2017 Tax Cuts and Jobs Act impact on municipals: 78% of analysts forecast 2018 municipal bond issuance will be under \$350 billion versus \$446 billion in 2017.
- More related to the 2017 tax cut: 29% expect the elimination of advance refundings to have the greatest impact on the municipal bond market. Total 2017 issuance was a record \$446 billion.
- Tax-exemption threat: Only 11% of municipal bond analysts see a “strong” or “very strong” threat to the municipal bond tax exemption after the passage of last year’s tax cut legislation.
- Climate change: Only 3% of those surveyed believe state and local governments are “prepared” or “very prepared” for climate change.
- Infrastructure: President Donald Trump’s infrastructure proposal did not resonate well with those analysts surveyed, with 37% having a “negative” or “very negative” opinion of the plan.
- Pensions: Half of the municipal analysts polled think there is a public pension funding crisis.
- Recoveries: Most (79%) analysts do not expect future municipal bond recoveries to be “strong” or “very strong.”
- A total of 64% of analysts polled have a “somewhat unfavorable,” “very unfavorable,” “undecided,” or “do not consider ratings” view about Kroll’s municipal bond ratings. This is a slight improvement compared with the total of 66% reported in our 2017 survey.

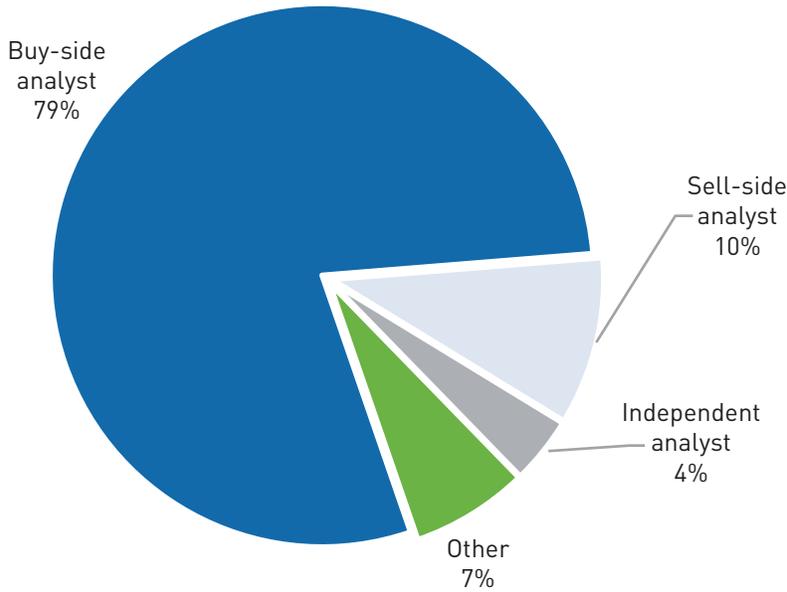
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State government credit quality is now the third “most important issue/trend” facing the municipal bond market today, according to our 2018 municipal analyst survey.

1. Top Five Most Important Issues/Trends Facing the Municipal Bond Market Today, 2018



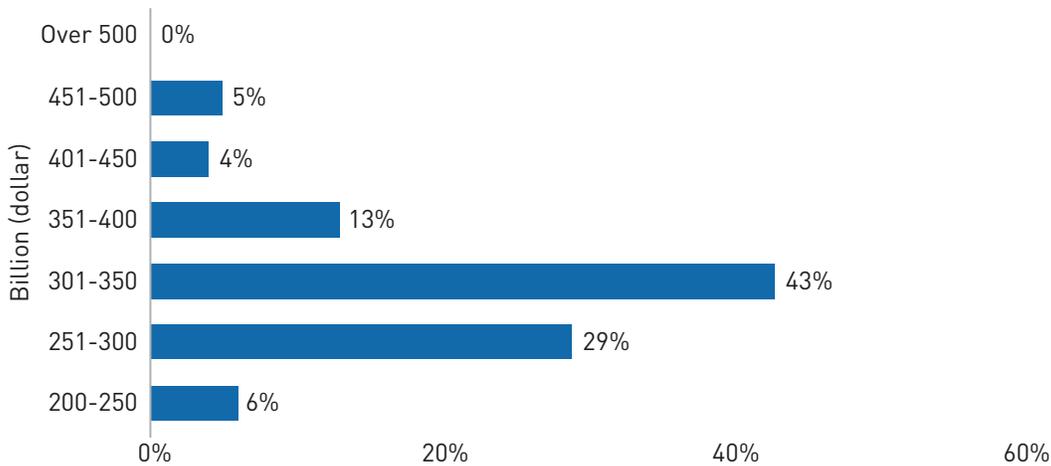
2. How Would Your Role as a Municipal Bond Analyst Be Best Described?



Responses from 168 municipal bond analysts were included in our March 2018 survey.

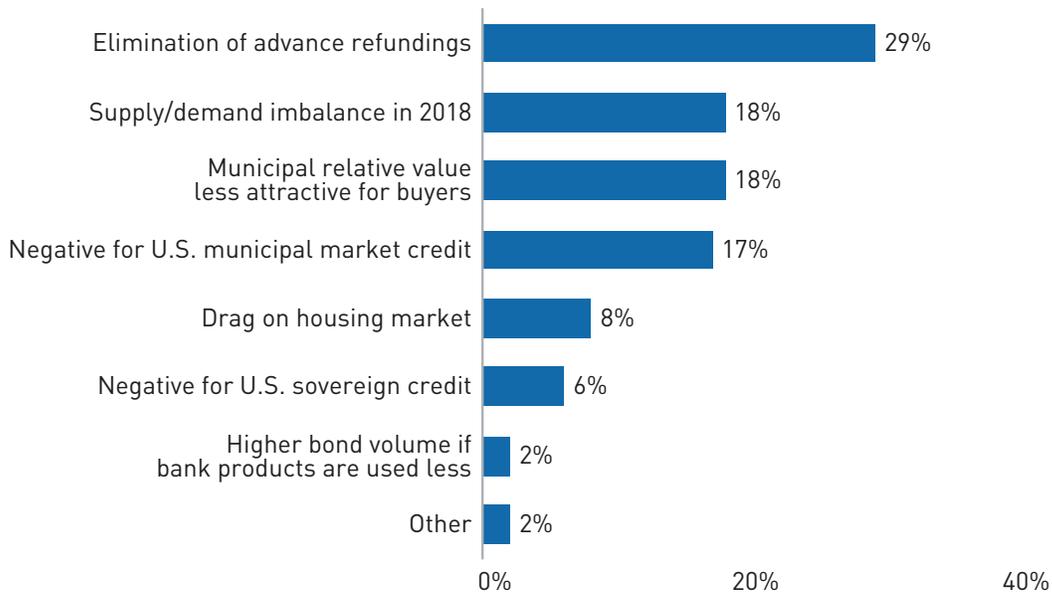
78% of those who participated in the survey expect 2018 issuance to be below \$350 billion.

3. What do you think total primary municipal bond market issuance will be in 2018?



Only 9% of analysts surveyed expect 2018 issuance to be above \$400 billion.

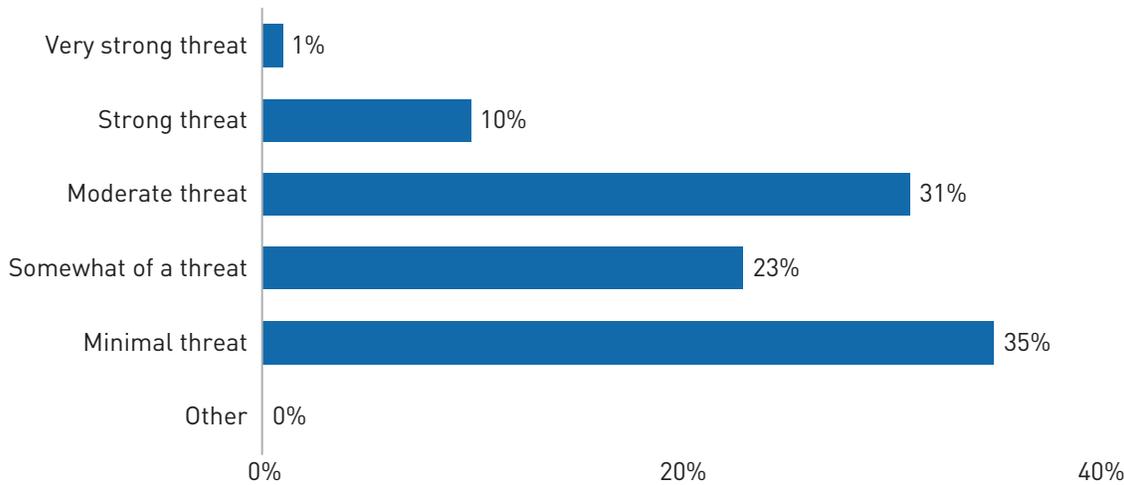
4. What potential outcomes from the Tax Cuts and Jobs Act of 2017 will have the greatest impact on the municipal bond market (choose three)?



The potential market impact from the Tax Cuts and Jobs Act of 2017 is still on the minds of most municipal analysts.

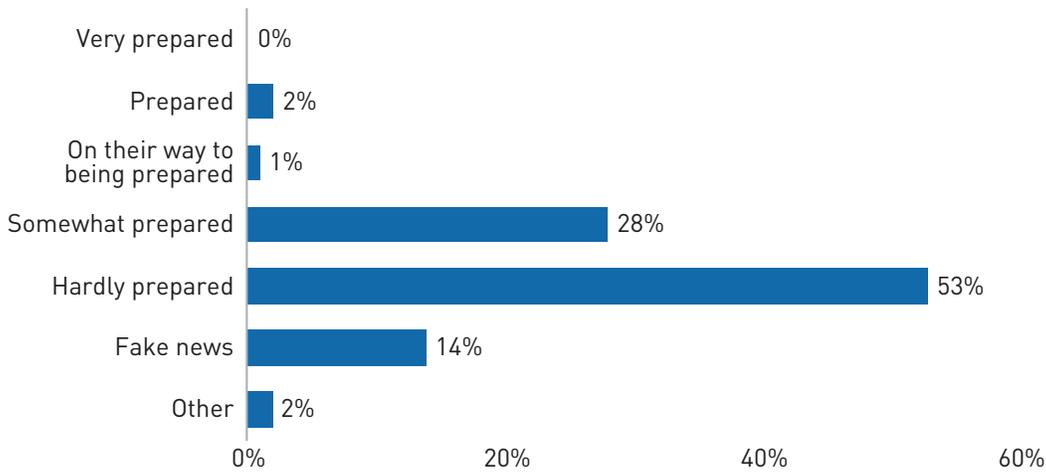
Related to the 2017 tax cut, 29% expect the elimination of advance refundings to have the greatest impact on the municipal market.

5. How strong of a threat to the municipal bond tax exemption do you believe exists post the Tax Cuts and Jobs Act of 2017?



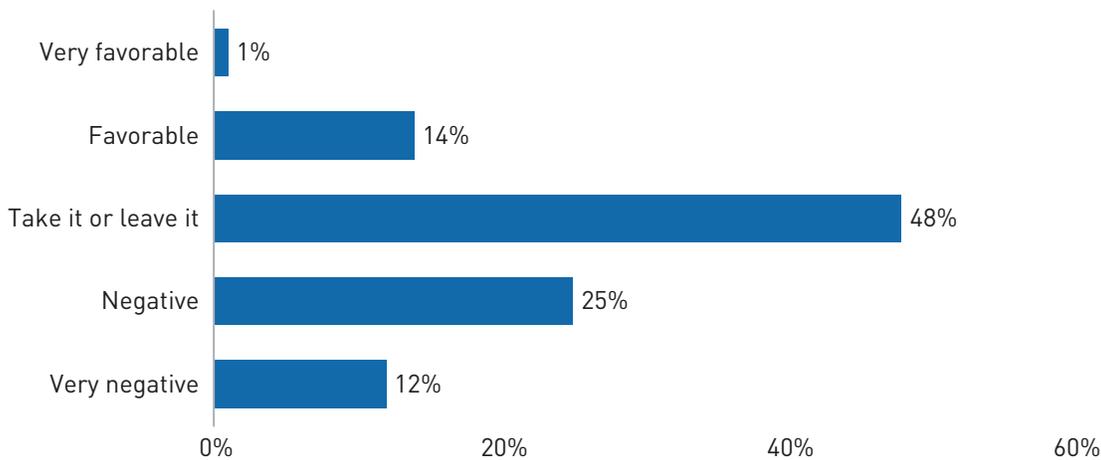
Only 11% of municipal bond analysts see a "strong" or "very strong" threat to the municipal bond tax exemption after passage of the tax cut legislation.

6. What is your opinion of how prepared state and local governments and other municipal market participants are currently for climate change?



Only 3% of those surveyed believe state and local governments are “prepared” or “very prepared” for climate change.

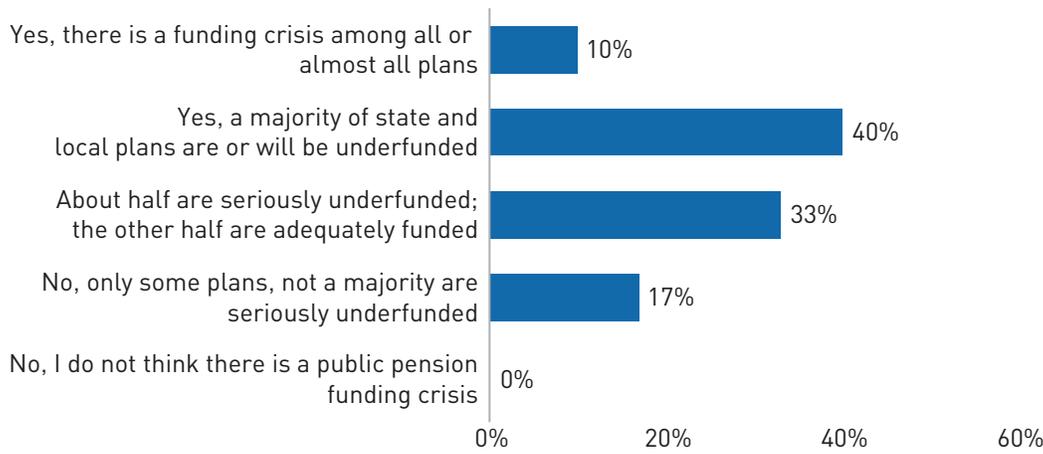
7. What is your opinion of the Trump White House’s 2018 infrastructure proposal?



More than half (53%) of respondents think state and local governments are “hardly prepared” for climate change.

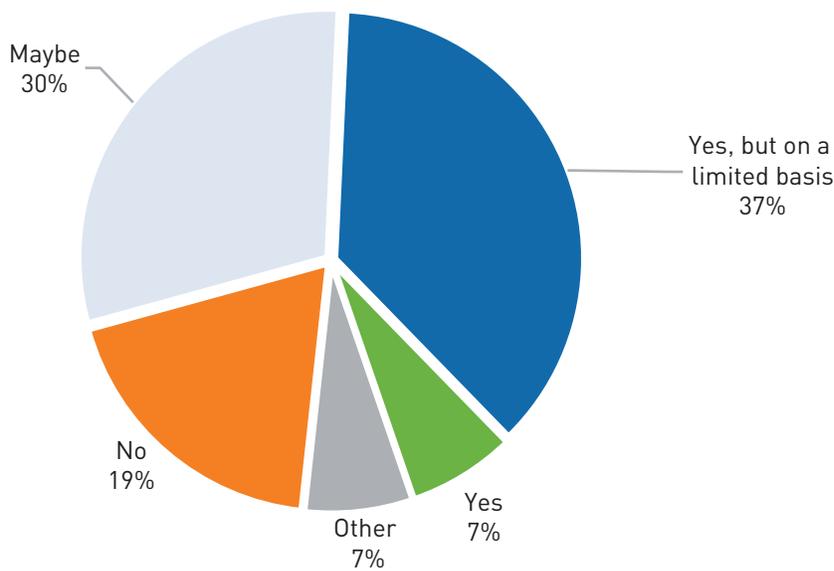
President Donald Trump’s infrastructure proposal did not resonate well with those surveyed, with 37% having a “negative” or “very negative” opinion of it.

8. Do you think there is a public pension funding crisis among state and local governments?



50% of municipal analysts think there is a public pension funding crisis.

9. Do state and local governments have the fiscal tools available to them to solve the pension funding crisis?

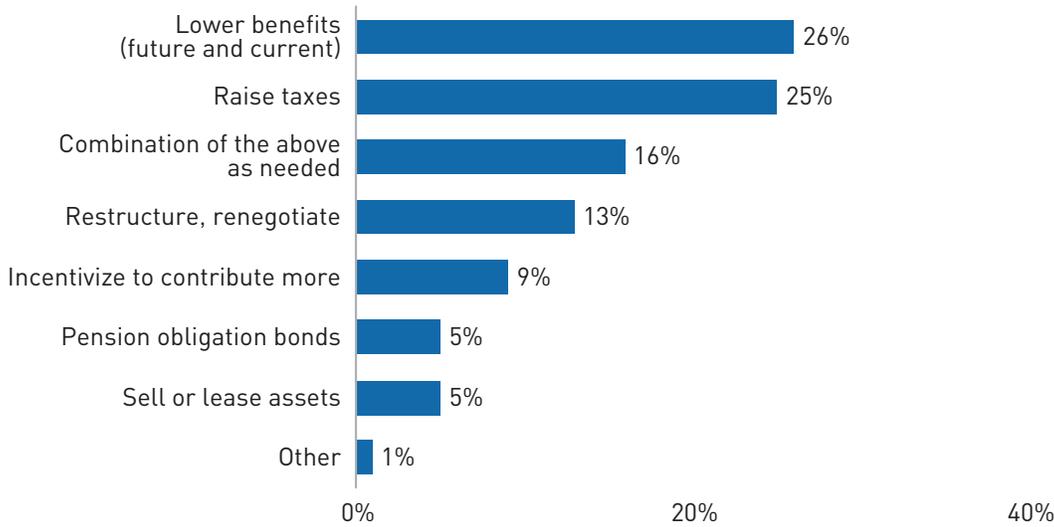


17% still do not think a public pension funding crisis exists.

Only 44% of analysts believe state and local governments possess the fiscal tools to solve the current public pension funding crisis.

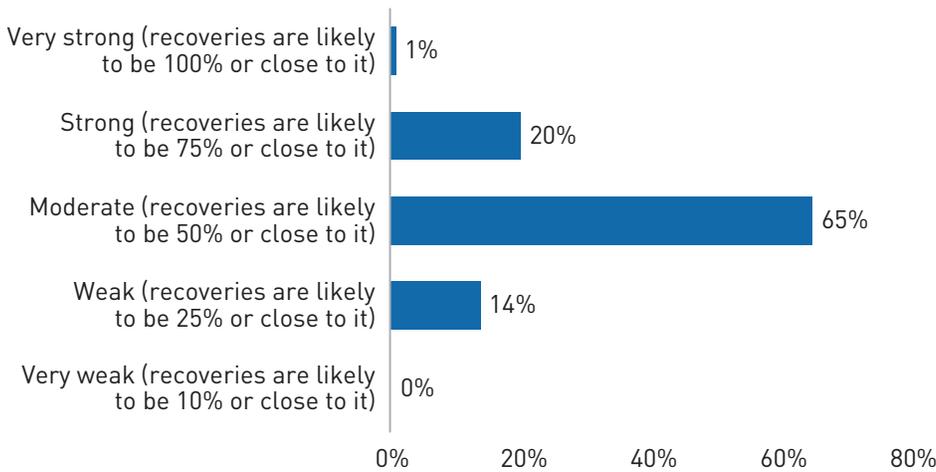
10. What are the three most likely solutions for state and local governments experiencing budget stress from rising pension liabilities (select up to three)?

Analysts identified several potential solutions to funding public pensions.



51% think “lower benefits” and “higher taxes” could help fully fund public pensions.

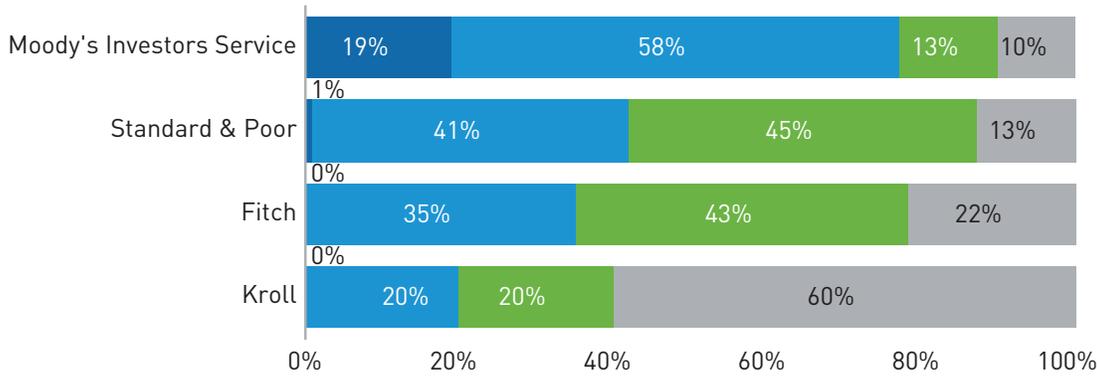
11. How strong do you feel bondholder security will be going forward, keeping in mind the developing trend (recoveries were 55% in San Bernardino, CA; 50% in Stockton, CA; 60% in Vallejo, CA; 25% in Detroit, MI; and potentially less than 100% in Puerto Rico)?



Most analysts do not expect future municipal bond recoveries to be “strong” or “very strong.”

12. What is your opinion of the rating agencies' treatment of pension liabilities as indicated by their methodologies and ratings (choose one per rating agency)?

- Too Much Emphasis
- Just the Right Amount of Emphasis
- Not Enough Emphasis
- I Do Not Consider Opinion on Pensions



19% of analysts believe Moody's Investors Service puts "too much" emphasis on pension liabilities.

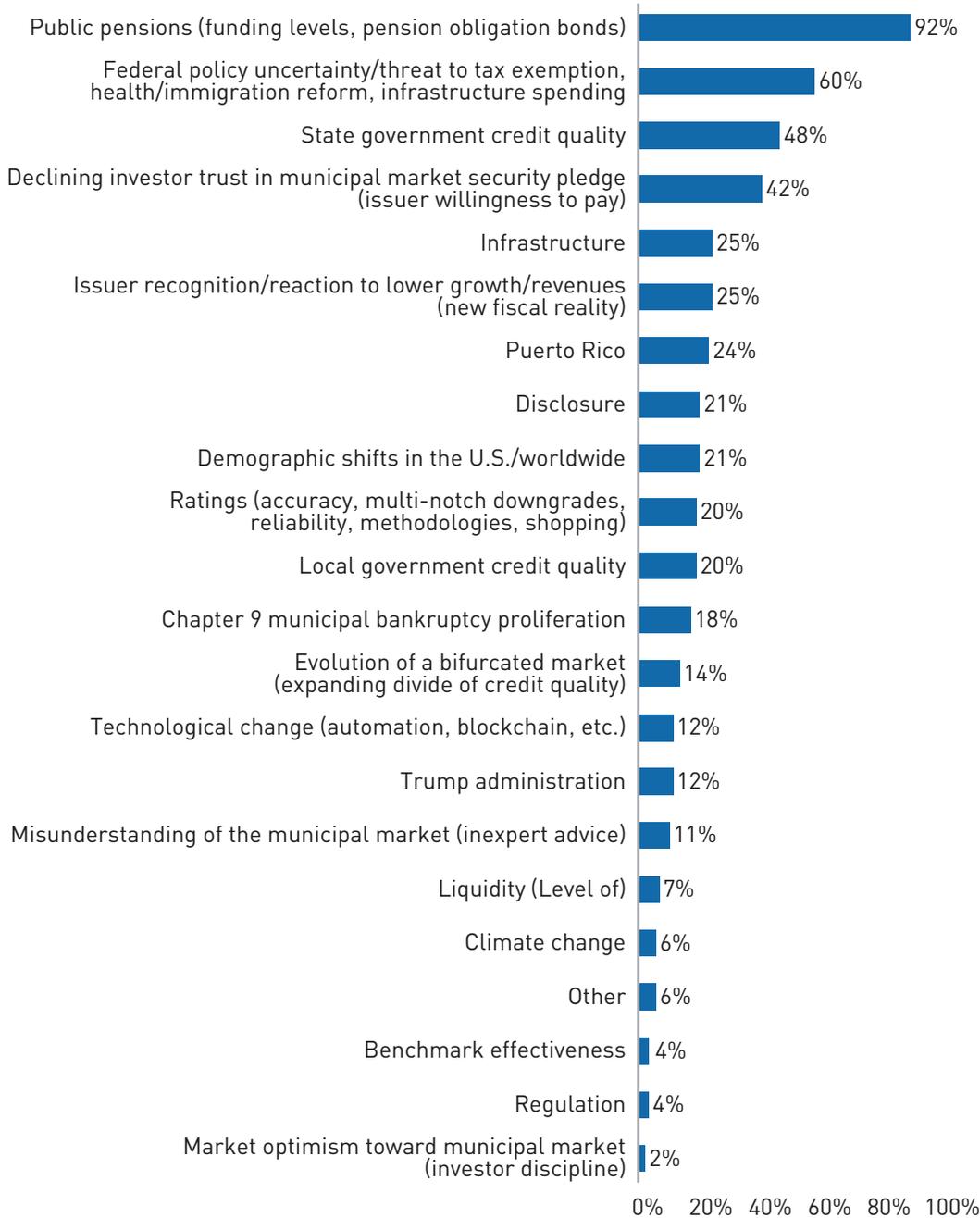
Pension liabilities are "not given enough" emphasis by Standard & Poor's (45%) or Fitch (43%), according to our 2018 municipal analyst survey.

13. What is your opinion of municipal bond ratings from the following credit rating agencies (choose one per rating agency)?

Rating Agency	Very Favorable	Somewhat Favorable	Neutral	Somewhat Unfavorable	Very Unfavorable	Undecided	Do Not Consider Ratings
Moody's	20%	43%	18%	12%	4%	1%	2%
S&P	6%	43%	27%	16%	5%	1%	2%
Fitch	7%	36%	32%	15%	3%	2%	5%
Kroll	5%	12%	19%	9%	7%	5%	43%

A total of 64% of analysts have a "somewhat unfavorable," "very unfavorable," "undecided," or "do not consider ratings" view about Kroll's municipal bond ratings. This is a slight improvement compared to the total of 66% reported in our 2017 survey.

14. What do you think are the five most important issues/trends facing the municipal bond market right now?



Public pensions remain the number one issue/trend facing the municipal bond market right now, according to 92% of analysts who responded to our survey.

Federal policy uncertainty is still the second most important issue/trend facing the municipal bond market right now, with 60% of analysts including it in their top five.

State government credit quality jumped up to the third spot (48%) compared to (24%) last year.

Description of the Survey and Methodology

The results published in this commentary are based on a survey conducted between Monday, March 12, 2018, and Wednesday, March 28, 2018. The survey was conducted by the PNC Financial Services Group. The statistics collected during this process represent responses from 168 municipal bond credit specialists. Rating agency analysts were not asked to participate in this survey. Please email thomas.kozlik@pnc.com if you are a municipal credit specialist and would like to participate in the next survey. We would like to thank everyone who participated in this year's survey.

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