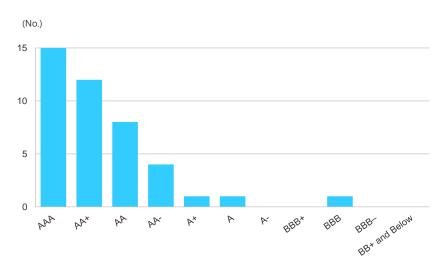


Are State & Local Governments Prepared for the Next Recession?

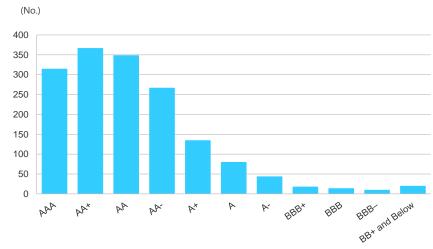
- For the vast majority of state & local governments, Fitch believes the answer is YES
- States and local governments have been bolstering financial resilience and will be able to adjust to anticipated challenges
- Most state and local government ratings maintain Stable Rating Outlooks and we expect that will remain the case throughout the next recession

Rating Distribution – State and Local Governments

States - Rating Distribution



Local Tax-Supported - Rating Distribution



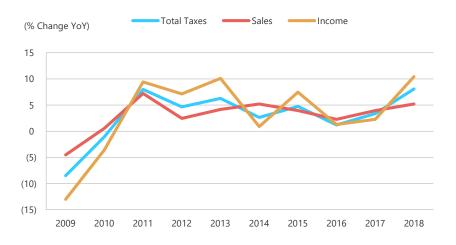
Source: Fitch Ratings

Source: Fitch Ratings



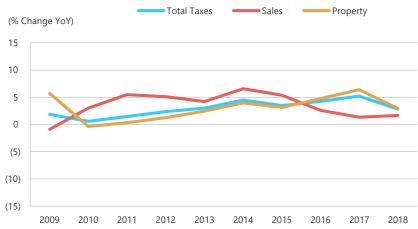
Revenues Respond to Changing Economic Conditions

State Tax Revenues



YoY – Year over year Source: U.S. Census

Local Government Tax Revenues



YoY - Year over year Source: U.S. Bureau of Economic Analysis



Rating Through The Cycle

- Fitch's rating definitions distinguish credits primarily based on relative vulnerability to adverse business or economic conditions
- Focus is on forward-looking expectations rather than point-in-time assessments
- Expect a government's performance to vary, potentially considerably, throughout an economic cycle
- Overarching philosophy is that fundamental credit quality does not, and ratings should not, change due to normal cyclical variations

Rating Criteria for U.S. State & Local Governments

- Four key areas of analytical consideration:
 - Revenue Framework
 - Expenditure Framework
 - Long-Term Liability Burden
 - Operating Performance

• Scenario analysis considers issuer-specific fundamentals and potential performance under a standard economic stress, highlighting how cycles affect individual issuers differently

Scenario Analysis

- From a credit evaluation perspective, scenario analysis helps isolate characteristics that make credit/rating transition more likely
- Fitch Analytical Stress Test (FAST) model illustrates how an issuer's financial position can change through an economic cycle and the level of change considered consistent with the existing rating
- The tool supports Fitch's through-the-cycle analysis and is an important consideration in the rating process, although it does not dictate a rating outcome
- The tool generates scenarios, not forecasts

Scenario Analysis Differs for State & Local Governments

- Governments have three broad categories of financial flexibility: revenue increases, expenditure cuts and use of reserves
- States have substantial control over revenue raising and spending, while local governments have less control but in general a higher level of available reserves
- As such, local scenario analysis is focused on the maintenance of reserves, whereas state scenario analysis is more oriented to comparisons of the level of budget shortfall that may need to be addressed in a downturn
- Both state and local scenario analyses incorporate an assessment of (1) the tools that the government has to respond to downturns and (2) which of these tools they are more or less likely to use

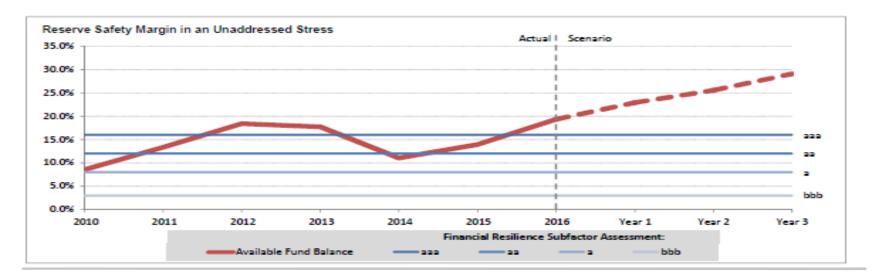
Consideration of Reserve Fund Adequacy

- Fitch does not set static reserve expectations by rating level
- Fitch considers reserve adequacy in the context of the issuer's ability to control revenues and spending ('inherent budget flexibility') and historical revenue volatility
- Reserve levels are expected to fluctuate throughout the economic cycle
- Reserve expectations are issuer and rating specific, tied to assessed inherent budget flexibility and communicated as a multiple of likely revenue decline in a moderate downturn scenario

Scenario Analysis Example Minimal Inherent Budget Flexibility

Select an issuer:

Scenario Parameters:	Year 1	Year 2	Year 3
US GDP Assumption (% Change)	-1.0%	0.5%	2.0%
Inflation/Expenditure Growth Assumption (% Change)	2.096	2.0%	2.0%
Revenue Output (% Change)	-1.0%	1.2%	2.9%
Inherent Budget Flexibility:	Minimal		~

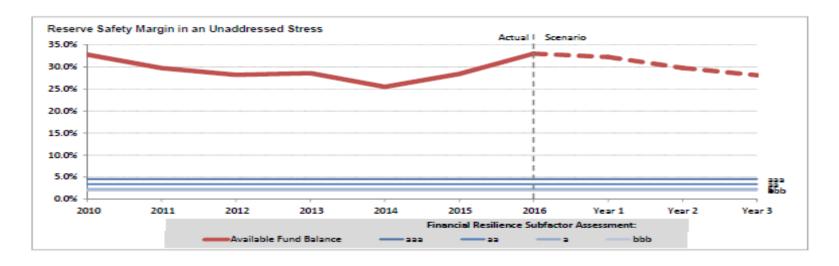




Scenario Analysis Example Superior Inherent Budget Flexibility

Select an issuer:

Scenario Parameters:	Year 1	Year 2	Year 3
US GDP Assumption (% Change)	-1.0%	0.5%	2.0%
Inflation/Expenditure Growth Assumption (% Change)	2.0%	2.0%	2.0%
Revenue Output (% Change)	-2.3%	0.2%	2.8%
Inherent Budget Flexibility:	Superior		-





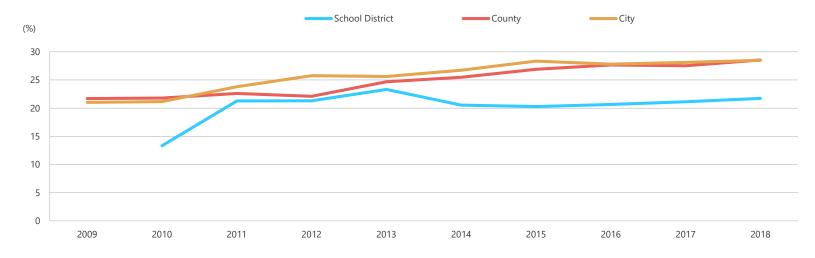
Local Governments Have Strong Financial Resilience

- The average IDR of 'AA' reflects local governments' inherent strengths:
 - The authority to levy property taxes, nonpayment of which can result in property foreclosures
 - Additional taxing power that can include sales, utility, and income taxes
 - The ability to control spending to at least a moderate degree
 - The essentiality of and lack of competition for services provided by local governments
 - Moderate carrying costs relative to spending and reasonable long-term liabilities (including debt and pensions) relative to economic resources
 - Sufficient reserves to offset a revenue decline in a typical economic recession
- These attributes contribute to our assessment that most Fitch-rated local governments have a high level of financial resilience throughout economic cycles



Growth in Local Government General Fund Reserves

Available Local Government General Fund Balance as % of Expenditures



Note: Fitch portfolio medians Source: Fitch Ratings.



From Fitch's Tax-Supported Rating Criteria

"Strong financial decision making can result in a high rating for a credit with a comparatively higher underlying risk profile if Fitch judges that adequate steps have been taken to mitigate risks. On the other hand, weak financial decision making can result in a lower rating than a credit's underlying risk profile would suggest."

Fitch Forecasting Slowdown, Not Recession

Fitch U.S. Economic Forecast (Dec. 2019)							
(%)	2018	2019	2020F	2021F			
GDP Growth	2.90	2.30	1.70	1.70			
CPI Inflation (End-year)	1.90	2.20	2.30	2.50			
Policy Interest Rate (End-year)	2.50	2.00	2.00	2.25			
U.S. 10-Year Yield	2.83	1.85	2.25	2.75			
F – Forecast Source: Fitch Ratings							

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