## SPECIAL COMMENT

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## Most Aaa-Rated State and Local Governments Revert to Stable Outlooks, Despite Negative Pressure on U.S. Government Rating

## Summary Opinion

This report provides additional information on today's announcement that we have concluded our additional assessments of the rating outlooks of Aaa-rated states and local government issuers that we had previously identified as indirectly linked to the negative pressure on the U.S. government. Our assessments involved five states and 161 local governments, with a combined $\$ 69$ billion of debt affected. As a result, we have revised the outlook to stable from negative for two states (South Carolina and Tennessee) and 119 local governments while the outlook remains negative for three states (Maryland, New Mexico and Virginia) and 36 local governments. In addition, six local governments continue to carry negative outlooks (and one was previously downgraded to Aa1) for reasons unrelated to the U.S. government. While Moody's does not view these issuers as indirectly linked to the U.S. government, their ratings are under stress due to other credit factors.

These actions reflect our view that the vast majority of Aaa-rated state and local governments demonstrate an adequate degree of independence from the U.S. government and therefore could be rated higher than the sovereign. The Aaa-rated state and local government issuers with outlooks that have been restored to stable are considered to have lesser financial and economic linkage to the U.S. government, and if the U.S. sovereign rating was downgraded by one notch, these state and local governments could continue to be rated Aaa. In contrast, those municipalities with negative outlooks would not likely be rated higher than the U.S. government.

We had assigned negative outlooks to these issuers on August 4, following the August 2 confirmation of the U.S. government's Aaa rating and assignment of a negative outlook. That sovereign rating action concluded a review for possible downgrade that we had initiated on July 13. Since the August announcement, we have had discussions with each of these issuers and conducted additional studies to further gauge their indirect linkages to the U.S. government. We have now concluded this extensive assessment.

Following today's actions, 12 of 15 Aaa-rated states and 397 of 439 Aaa-rated local governments carry stable outlooks, in contrast to the U.S. government's negative outlook. Approximately $4 \%$ of all Moody's-rated state and local governments are rated Aaa with a stable outlook, which is roughly consistent with the very small minority of sub-sovereign ratings outside the U.S. that are rated higher than their respective sovereign ratings.

In general, Aaa-rated state and local government issuers with stable outlooks demonstrate low to moderate levels of exposure to the federal government. They have relatively low levels of federal employment, federal procurement and exposure to the healthcare industry. In addition, these issuers had relatively low levels of capital markets exposure through a need to refinance short-term and puttable debt. By contrast, Aaa-rated issuers with recently assigned negative outlooks have some combination of economies that are highly dependent on federal employment and spending, a significant healthcare presence in their economies, have direct healthcare operations, or high levels of short-term and puttable debt. As a result, their vulnerability to sovereign credit deterioration is stronger than elsewhere and they are more exposed to the risks posed by federal downsizing or capital markets disruptions.

## U.S. Government Exposure Measured by Federal Spending, Capital Market Risks

Today's actions were based on our evaluation of each affected credit's vulnerability to sovereign risk. In our June 29 report, Implications of a U.S. Rating Action for other Aaa Issuers, we noted that sovereign rating downgrades often coincide with an increase in long-term credit risk for other domestic issuers, even in the absence of a direct credit link. Vulnerable sub-sovereign credits are overly sensitive to elevated risks of the sovereign, which include:

1. Deteriorating macroeconomic conditions;
2. Large budget deficits or high inflation, which can prompt fiscal and monetary policy tightening that slows economic growth;
3. An increased likelihood that the sovereign will raise taxes, reduce services or curb spending on federal contracts, adversely affecting issuers in the sectors directly impacted; and
4. A contraction in domestic credit availability and, in the extreme, a banking crisis.

The importance of these indirect connections to sovereign risk is supported by empirical evidence that when sovereigns default, the default rates of their domestic corporations, banks, and local and regional governments also escalate ${ }^{1}$.

To further assess these broad risk factors in the context of Aaa-rated state and local governments, Moody's developed five quantitative metrics (expressed as ratios) to measure each issuer's exposure to sovereign credit deterioration. While the initial metrics outlined in our July 13 special comment also included measures for employment volatility and financial reserves, we subsequently refined our approach to focus on factors that better measure which issuers have the greatest exposure to sovereign risk. For more information on the data and formulas underlying the calculations used here, please refer to Exhibit D.

[^0]For states, the five metrics used in our analysis are the following ratios:

1. Economic Sensitivity: Federal employment to total employment (using state-level data)
2. Economic Sensitivity: Federal procurement to GDP (using state-level data)
3. Economic Sensitivity: Healthcare employment to total employment (using state-level data)
4. Exposure to Federal Transfers: Medicaid expenditures to total state expenditures
5. Capital Markets Exposure: Short-term and puttable debt to available resources ${ }^{2}$

For local governments, the five metrics are the following ratios:

1. Economic Sensitivity: Federal employment to total employment (using MSA-level data)
2. Economic Sensitivity: Federal procurement to GDP (using MSA-level data)
3. Economic Sensitivity: Healthcare employment to total employment (using county-level data)
4. Exposure to Federal Transfers: Public hospital expenditures to issuer's total operating revenues
5. Capital Markets Exposure: Short-term and puttable debt to available resources ${ }^{2}$

We calculated these metrics for each issuer and compared them to defined thresholds for vulnerability and outliers for each metric, as compared to national norms. Vulnerability thresholds were defined to measure material risk exposure for each metric while outlier thresholds were defined to measure high risk exposure. These thresholds were established at levels that indicate meaningful levels of economic and financial risk to issuers in the event of sovereign credit deterioration. For federal employment, federal procurement, healthcare employment, and the state Medicaid metric, the vulnerability and outlier thresholds were set at $150 \%$ and $200 \%$ of the national rate, respectively. For the local government public hospital expenditure metric, the vulnerability and outlier thresholds were set at $50 \%$ and $100 \%$. The short-term and puttable debt vulnerability and outlier thresholds were set at $100 \%$ and $200 \%$, respectively, for both states and local governments.

The following table summarizes these thresholds:

TABLE 1

## Summary of Vulnerability and Outlier Thresholds by Metric

|  | Federal <br> Employment as \% of Total Employment | Federal Procurement Contracts as \% of GDP | Health Care Employment as \% of Total Employment | Medicaid/Public Hospital Expenditures as \% of General Fund Revenues | Puttable Variable Rate Debt as \% of Available Resources |
| :---: | :---: | :---: | :---: | :---: | :---: |
| National Rate | 2.29\% | 3.40\% | 13.15\% | - | - |
| Vulnerability Threshold | 3.43\% | 5.11\% | 19.72\% | 50.00\% | 100.00\% |
| Outlier Threshold | 4.57\% | 6.81\% | 26.30\% | 100.00\% | 200.00\% |

[^1]In applying these screens, we determined that if two or more of an issuer's ratios exceed the vulnerability threshold, or one ratio exceeds the outlier threshold, then the issuer is considered to have enough financial and economic vulnerability to the U.S. sovereign such that their own rating and outlook could not exceed that of the U.S. government. Based on these results, the ratings of issuers with negative outlooks will move in tandem in the event of a subsequent rating action on the U.S. government. Moody's notes, however, that even with a return to a stable outlook for the U.S. sovereign rating, the ratings of some of these states and local governments may remain pressured if the measures designed to reduce the federal deficit significantly cut government spending or transfers in areas in which the municipality has concentrations.

If the U.S. government bond rating remains Aaa with a negative outlook, Moody's does not expect to take further rating actions on the Aaa-rated municipal issuers with negative outlooks based solely on sovereign exposure. However, based upon the actions taken by the U.S. government to address its structural budget deficit, issuers in the U.S. municipal market at all rating levels may become more fiscally strained. The shift toward decreased federal government spending is now a larger factor in municipal credit risk than before given its potential impact on dependent municipal issuers and its repercussion on the broader economy and financial system. Given the lack of a deficit reduction agreement by the Joint Select Committee on Deficit Reduction, $\$ 1.2$ trillion in automatic triggers will take effect beginning in January 2013 absent further legislative action. Further, the super committee failure indicates that significant deficit reduction measures are unlikely to be adopted before the November 2012 elections. For more information on vulnerability to federal budget cuts across the rating spectrum, please refer to our November 14 special comment The Impact of U.S. Federal Fiscal and Economic Strain on Municipal Credits.

Certain Aaa-rated municipal issuers that had negative outlooks prior to the August rating actions will retain their negative outlooks for reasons unrelated to the U.S. government rating pressure. Additional information on those issuers can be found in the individual research on those entities at www.moodys.com.

The list of affected issuers can be found below. A complete list of affected securities and additional analysis is available at www.moodys.com/USRatingActions.

Exhibit A: U.S. Public Finance Issuers with Outlooks Revised to Stable from Negative


| HILLSBOROUGH (COUNTY OF) FL |
| :---: |
| HINGHAM (TOWN OF) MA |
| JEFFERSON (COUNTY OF) CO |
| JOHNSON \& MIAMI COUNTY UNIFIED SCHOOL DISTRICT 229 (BLUE VALLEY) KS |
| JOHNSON (COUNTY OF) KS |
| JOHNSON COUNTY COMMUNITY COLLEGE KS |
| JOHNSON COUNTY UNIFIED SCHOOL DISTRICT 512 (SHAWNEE MISSION) KS |
| JOHNSON COUNTY WATER DISTRICT 1 KS |
| JORDAN SCHOOL DISTRICT UT |
| KING (COUNTY OF) WA |
| KING COUNTY SCHOOL DISTRICT 1 (SEATTLE) WA |
| KING COUNTY SCHOOL DISTRICT 400 (MERCER ISLAND) WA |
| KING COUNTY SCHOOL DISTRICT 405 (BELLEVUE) WA |
| KING COUNTY SCHOOL DISTRICT 411 (ISSAQUAH) WA |
| KING COUNTY SCHOOL DISTRICT 414 (LAKE WASHINGTON) WA |
| LEAWOOD (CITY OF) KS |
| LEE'S SUMMIT (CITY OF) MO |
| LENEXA (CITY OF) KS |
| LEXINGTON (TOWN OF) MA |
| LINCOLN-SUDBURY REGIONAL SCHOOL DISTRICT MA |
| LOUISVILLE WATER WORKS BOARD KY |
| LOWER GWYNEDD (TOWNSHIP OF) PA |
| LOWER MERION (TOWNSHIP OF) PA |
| MADISON (TOWN OF) CT |
| MANHATTAN BEACH (CITY OF) CA |
| MAPLE GROVE (CITY OF) MN |
| MECKLENBURG (COUNTY OF) NC |
| MEMPHIS (CITY OF) WATER ENTERPRISE TN |
| MEQUON-THIENSVILLE SCHOOL DISTRICT WI |
| METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA |
| MINNEAPOLIS (CITY OF) MN |
| MINNETONKA INDEPENDENT SCHOOL DISTRICT 276 MN |
| MONMOUTH (COUNTY OF) NJ |
| MONTGOMERY (COUNTY OF) PA |
| MORRIS (COUNTY OF) NJ |
| MOUNTAIN BROOK (CITY OF) AL |
| NEW CANAAN (TOWN OF) CT |
| NEW CASTLE (COUNTY OF) DE |
| NEW HANOVER (COUNTY OF) NC |
| NEWTON (CITY OF) MA |
| NORWALK (CITY OF) CT |
| OAKLAND SCHOOL DISTRICT MI |


| OMAHA (CITY OF) NE |
| :---: |
| OVERLAND PARK (CITY OF) KS |
| PALM BEACH (COUNTY OF) FL |
| PALM BEACH (COUNTY OF) WATER AND SEWER ENTERPRISE FL |
| PORTLAND (CITY OF) OR |
| PRAIRIE VILLAGE (CITY OF) KS |
| RAMSEY (COUNTY OF) MN |
| RICHARDSON (CITY OF) TX |
| RIDGEFIELD (TOWN OF) CT |
| SALT LAKE (COUNTY OF) UT |
| SALT LAKE CITY (CITY OF) UT |
| SALT LAKE CITY SCHOOL DISTRICT UT |
| SEATTLE (CITY OF) WA |
| SOUTH CAROLINA (STATE OF) |
| ST. LOUIS PARK (CITY OF) MN |
| TENNESSEE (STATE OF) |
| TRAVIS (COUNTY OF) TX |
| TREDYFFRIN (TOWNSHIP OF) PA |
| TREDYFFRIN-EASTTOWN SCHOOL DISTRICT PA |
| UPPER MERION (TOWNSHIP OF) PA |
| VESTAVIA HILLS (CITY OF) AL |
| WAKE (COUNTY OF) NC |
| WALLINGFORD (TOWN OF) CT |
| WASHINGTON (COUNTY OF) MN |
| WASHINGTON (TOWNSHIP OF) OH |
| WAYLAND (TOWN OF) MA |
| WAYZATA (CITY OF) MN |
| WAYZATA INDEPENDENT SCHOOL DISTRICT 284 MN |
| WELLESLEY (TOWN OF) MA |
| WEST CHESTER AREA SCHOOL DISTRICT PA |
| WESTON (TOWN OF) CT |
| WESTON (TOWN OF) MA |
| WESTPORT (TOWN OF) CT |
| WILLIAMSON (COUNTY OF) TN |
| WILMETTE (VILLAGE OF) IL |
| WILTON (TOWN OF) CT |
| WINSTON-SALEM (CITY OF) NC |
| WISSAHICKON SCHOOL DISTRICT PA |
| WOODBRIDGE (TOWN OF) CT |

Exhibit B: Results Table for U.S. Public Finance Issuers with Outlooks that Remain Negative Due to Linkage with U.S. Government

|  | Federal Employment as $\%$ of Total Employment | Federal Procurement Contracts as \% of GDP | Health Care Employment as \% of Total Employment | Medicaid/ Public Hospital Expenditures as \% of General Fund Revenues | Puttable Variable Rate Debt as \% of Available Resources |
| :---: | :---: | :---: | :---: | :---: | :---: |
| ALAMO COMMUNITY COLLEGE DISTRICT TX | X | X |  |  |  |
| ALBUQUERQUE METROPOLITAN ARROYO FLOOD CONTROL AUTHORITY NM | X | XX |  |  |  |
| ALEXANDRIA (CITY OF) VA | XX | XX |  |  |  |
| ARLINGTON (COUNTY OF) VA | XX | XX |  |  |  |
| BALTIMORE (COUNTY OF) MD | X | X |  |  |  |
| BERNALILLO (COUNTY OF) NM | X | XX |  |  |  |
| BEXAR (COUNTY OF) TX | X | X |  | XX |  |
| BOWIE (CITY OF) MD | XX | XX |  |  |  |
| CHESTERFIELD (CITY OF) MO |  | XX |  |  |  |
| DALLAS (COUNTY OF) TX |  |  |  | XX |  |
| DENVER (CITY \& COUNTY OF) CO |  |  |  | X | X |
| EL PASO COUNTY SCHOOL DISTRICT 12 (CHEYENNE MOUNTAIN) CO | XX | XX |  |  |  |
| FAIRFAX (CITY OF) VA | XX | XX |  |  |  |
| FAIRFAX (COUNTY OF) VA | XX | XX |  |  |  |
| FAIRFAX COUNTY WATER AUTHORITY VA | XX | XX |  |  |  |
| HAMILTON (COUNTY OF) IN |  |  |  | XX |  |
| HARFORD (COUNTY OF) MD | X | X |  |  |  |
| HERNDON (TOWN OF) VA | XX | XX |  |  |  |
| HOWARD (COUNTY OF) MD | X | X |  |  | X |
| HUNTSVILLE (CITY OF) AL | XX | XX |  |  |  |
| LOUDOUN (COUNTY OF) VA | XX | XX |  |  |  |
| LOWER MERION SCHOOL DISTRICT (MONTGOMERY CO.) PA |  |  |  |  | XX |
| MARYLAND (STATE OF) | XX | XX |  |  |  |
| MONTGOMERY (COUNTY OF) MD | XX | XX |  |  | XX |
| NEW MEXICO (STATE OF) | X | XX |  |  |  |
| OKLAHOMA (COUNTY OF) OK | XX |  |  |  |  |
| OKLAHOMA CITY (CITY OF) OK | XX |  |  |  |  |
| PRINCE GEORGE'S (COUNTY OF) MD | XX | XX |  |  |  |
| PRINCE WILLIAM (COUNTY OF) VA | XX | XX |  |  |  |
| ROCKVILLE (CITY OF) MD | XX | XX |  |  |  |
| SAN ANTONIO (CITY OF) TX | X | X |  |  |  |
| SAN ANTONIO RIVER AUTHORITY TX | X | X |  |  |  |
| ST. LOUIS (COUNTY OF) MO |  | XX |  |  |  |
| TARRANT (COUNTY OF) TX |  |  |  | XX |  |
| TARRANT COUNTY HOSPITAL DISTRICT TX |  |  |  | XX |  |
| VIENNA (TOWN OF) VA | XX | XX |  |  |  |
| VIRGINIA (STATE OF) | XX | XX |  |  |  |
| VIRGINIA BEACH (CITY OF) VA | XX | XX |  |  |  |
| WASHINGTON SUBURBAN SANITARY DISTRICT MD | XX | XX |  |  |  |

## Notes:

X - Indicates a ratio value exceeding the vulnerability threshold
XX - Indicates a ratio value exceeding the outlier threshold

Exhibit C: U.S. Public Finance Issuers with Outlooks that Remain Negative Due to Factors Other than Linkage with U.S. Government

| FAIRFIELD (TOWN OF) CT |
| :--- |
| GARLAND INDEPENDENT SCHOOL DISTRICT TX |
| HARRIS (COUNTY OF) TX |
| LAKOTA LOCAL SCHOOL DISTRICT (BUTLER COUNTY) OH |
| UNION (COUNTY OF) NJ |
| WESTCHESTER (COUNTY OF) NY |

## Exhibit D: Description of Economic Sensitivity Data and Ratios

| Ratio | Federal Employment / Total NonFarm Employment | Total Federal Procurement Contracts / GDP | Private Health Care and Social Assistance Employment / Total Employment |
| :---: | :---: | :---: | :---: |
| Calculation by Data Series | XEGVF / XET | $\begin{aligned} & (\text { CFFRPCD }+ \text { CFFRPCN) } / \\ & \text { GDPA } \end{aligned}$ | XESP62M / XESM |
| Data Series Description | XEGVF-Employment: Government - Federal | CFFRPCD: Procurement Contracts - Department of Defense | XESP62M: NAICS 62 Private - <br> Health care and social assistance* |
|  | XET -Employment: Total nonfarm | CFFRPCN: Procurement Contracts - Non Defense | XESM -Employment: Total - <br> Total |
|  |  | GDPA: GDP All Industries |  |
| Date of Datapoints | December 2010 | December 2010 | December 2010 |
| Data Reported as of: | November 2011 | November 2011 | November 2011 |
| Source by Agency, Report Name | U.S. Bureau of Labor Statistics: Covered Employment \& Wages (ES202) NAICS basis | CFF data: Bureau of U. S. Census, Consolidated Report on Federal Funds <br> GDPA data: Bureau of Economic Analysis, GDP by State | U.S. Bureau of Labor Statistics, Covered Employment \& Wages (ES202) NAICS basis |

Note:
Data Series codes as reported by Moodyseconomy.com

## Moody's Related Research

## Announcements:

" US Rating Unaffected by Deficit Committee Outcome, November 2011
" Moody's confirms Aaa ratings of 5 U.S. states and 303 other public finance issuers indirectly linked to U.S. Government bond rating; negative outlooks assigned, August 2011
" Moody's confirms US Aaa rating, assigns negative outlook, August 2011
" Moody's confirms Aaa ratings directly linked to US Government bond rating; outlook changed to negative, August 2011
" Moody's Places Aaa Ratings of 177 U.S. Public Finance Issuers on Review for Possible Downgrade Due to Review of U.S. Government's Aaa Rating, July 2011
" Moody's Places U.S Aaa Government Bond Rating and Related Ratings on Review for Possible Downgrade, July 2011
" Moody's Updates on Rating Implications of US Debt Limit, Long-Term Budget Negotiations, Lune 2011

Special Comments:
" The Impact of US Federal Fiscal and Economic Strain on Municipal Credits, November 2011 (135447)
" Implications of a U.S. Rating Action for Aaa-Rated U.S. Municipal Credits, July 2011 (134369)
" Implications of a U.S. Rating Action for other Aaa Issuers, June 2011 (134092)
" Emerging Market Corporate and Sub-Sovereign Defaults and Sovereign Crises: Perspectives on Country Risk, February 2009 (113931)

Issuer Comments:
" The Key Drivers Behind Moody's Confirmation of the US Aaa Rating, August 2011 (135136)
" Potential Outcomes in Review of US Aaa Rating, July 2011 (134953)
To access any of these reports, click on the entry above. Note that these references are current as of the date of publication of this report and that more recent reports may be available. All research may not be available to all clients.

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[^0]:    ${ }^{1}$ See Moody's report, "Emerging Market Corporate and Sub-Sovereign Defaults and Sovereign Crises: Perspectives on Country Risk" February 2009.

[^1]:    2 We include Bond Anticipation Notes, Commercial Paper, Variable Rate Demand Bonds and other instruments which issuers typically expect to refinance in the capital markets, but do not include short-term cash flow notes, which are typically repaid from issuers' own resources.

