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Forecasting the Bond Market in 2017

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Katie Kramer

Vice President
Council of Development Finance Agencies
Columbus, OH

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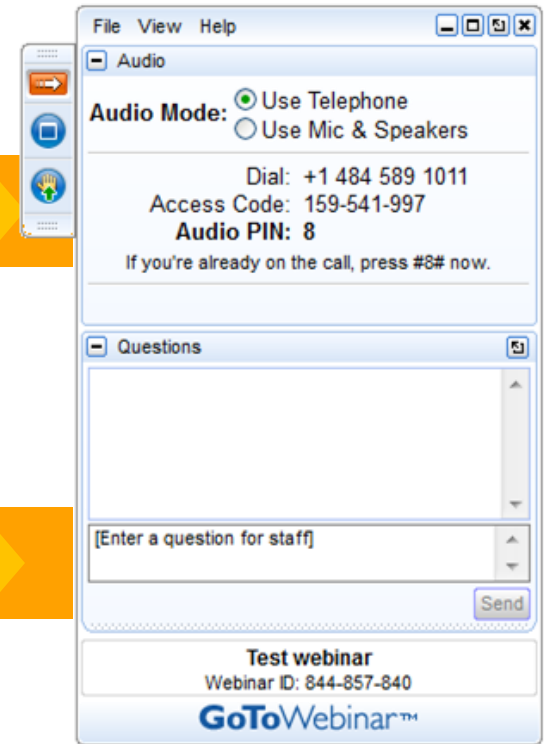
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Panelists

Rena Nakashima, *Moderator*

Senior Project Manager
BNY Mellon

John Piemonte

Municipal Advisor
Ehlers, Inc.

Nick Samuels

Vice President/Senior Credit Officer
Moody's Investors Service

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Rena Nakashima

Vice President
BNY Mellon
Los Angeles, CA

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Nick Samuels

Vice President/Senior Credit Officer

Moody's Investors Service

New York, NY

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State & Local Government Outlook

2017 Outlook – Stability in US Public Finance Sectors Tempered by Tepid Growth and Federal Policy Uncertainty

2017 US Public Finance Outlooks

Outlook Key:

NEGATIVE

STABLE

POSITIVE

STABLE

States

- » State tax revenues to **grow** 2%-3%
- » Modest economic and revenue growth that is strong enough to keep most states in a stable credit position, but will not be strong enough to foster broad credit improvement
- » [Full report](#)

STABLE

Local Governments

- » Property taxes to **grow** 3%-5%
- » Stable, healthy reserves demonstrate strong management and generally strong legal ability to maintain structurally balanced operations
- » Still modest but growing portion of issuers face compounding pressures and credit challenges
- » [Full report](#)

STABLE

Water and Sewer Utilities

- » Annual coverage to **remain** in line with the fiscal 2015 median of 2.0 times for combined systems and 1.9 for single-service systems
- » Healthy debt service coverage and liquidity metrics
- » [Full report](#)

STABLE

Not-for-Profit Healthcare

- » Operating cash flow to **grow** 0%-1%
- » Solid patient volume and revenue growth drive albeit slower operating cash flow growth
- » Growth offsets pressures from rising drug costs, pension liabilities and employment expenses
- » [Full report](#)

POSITIVE

State Housing Finance Agencies

- » Revised to positive from stable
- » Median HFA margins will **remain** between 19%-20%
- » Reduced debt service costs due to refundings
- » Growth of newly originated loans
- » Improved portfolio performance
- » [Full report](#)

2017 US Public Finance Outlooks

Outlook Key:

NEGATIVE

STABLE

POSITIVE

STABLE

Higher Education

- » Aggregate operating revenue to **grow** at or above 3%
- » Demand will remain sound, contributing to overall steady enrollment
- » Continued focus on affordability and accountability will limit net tuition revenue growth to inflationary increases
- » Clouds are beginning to form on horizon
- » [Full report](#)

STABLE

Community Colleges with Revenue Bonds

- » Aggregate annual revenue to **grow** 1.5%-2%
- » Modest increases in net tuition revenue
- » Continued growth in state funding and property tax revenue
- » Enrollment to remain steady
- » [Full report](#)

STABLE

Not-for-Profit Organizations

- » Aggregate annual operating revenue to **grow** 2.5%-3.5%
- » Favorable prospects for growth in earned revenue and healthy philanthropy
- » Higher labor costs are driving budgetary pressures
- » Vulnerability to investment market performance
- » [Full report](#)

STABLE

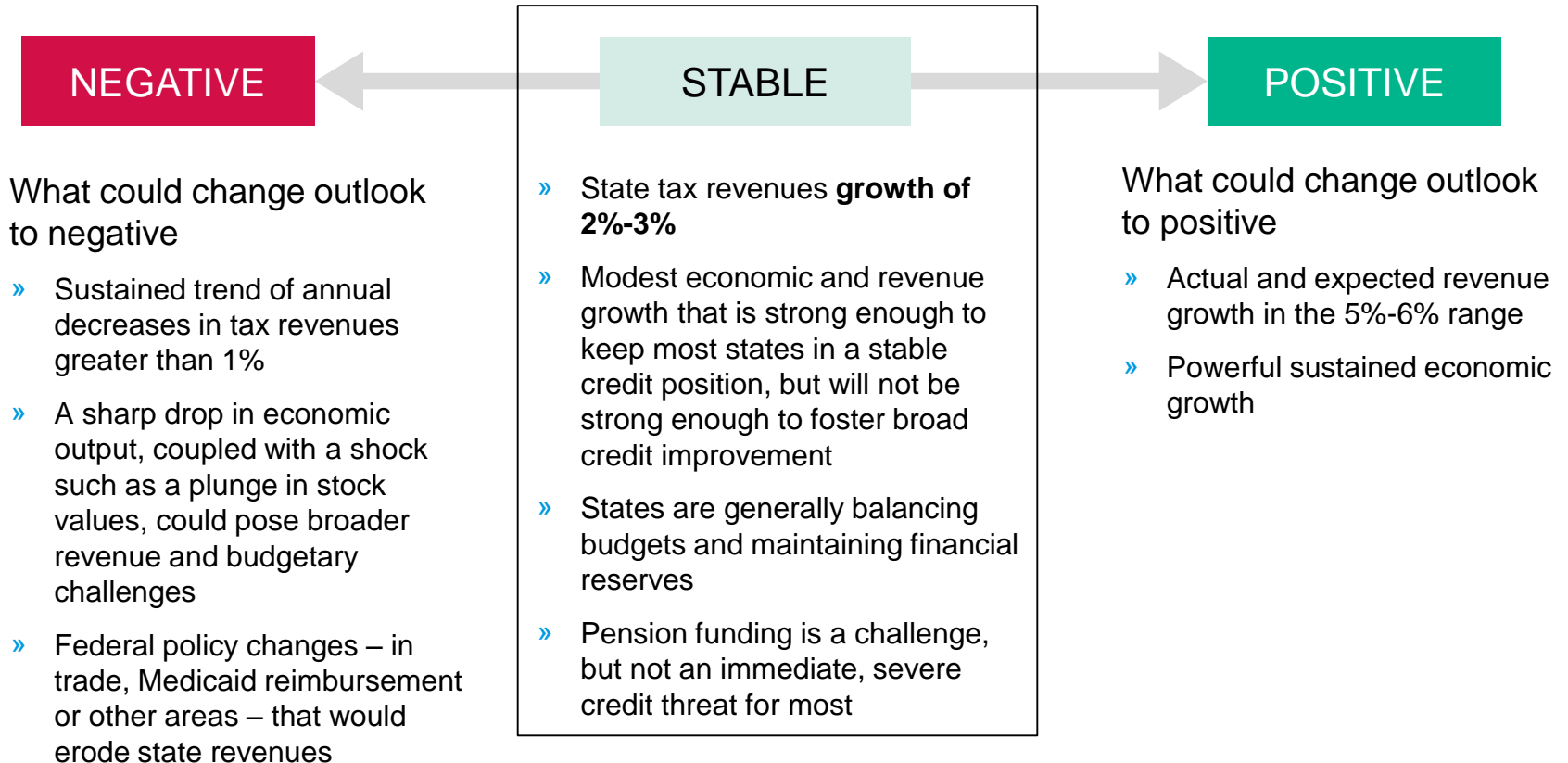
Independent K-12 Schools

- » Overall revenue to **grow** 3%-4%
- » Excellent student demand
- » Prospects for more moderate investment returns may limit reserve growth
- » Alumni and parents' gifts to be sustained at high levels
- » [Full report](#)

1

States

States



A negative sector outlook indicates our view that fundamental business conditions will worsen. A positive outlook indicates that we expect fundamental business conditions to improve. A stable sector outlook indicates that conditions are not expected to change significantly. Since sector outlooks represent our forward looking view on conditions that factor into ratings, a negative (positive) outlook indicates that negative (positive) rating actions are more likely on average.

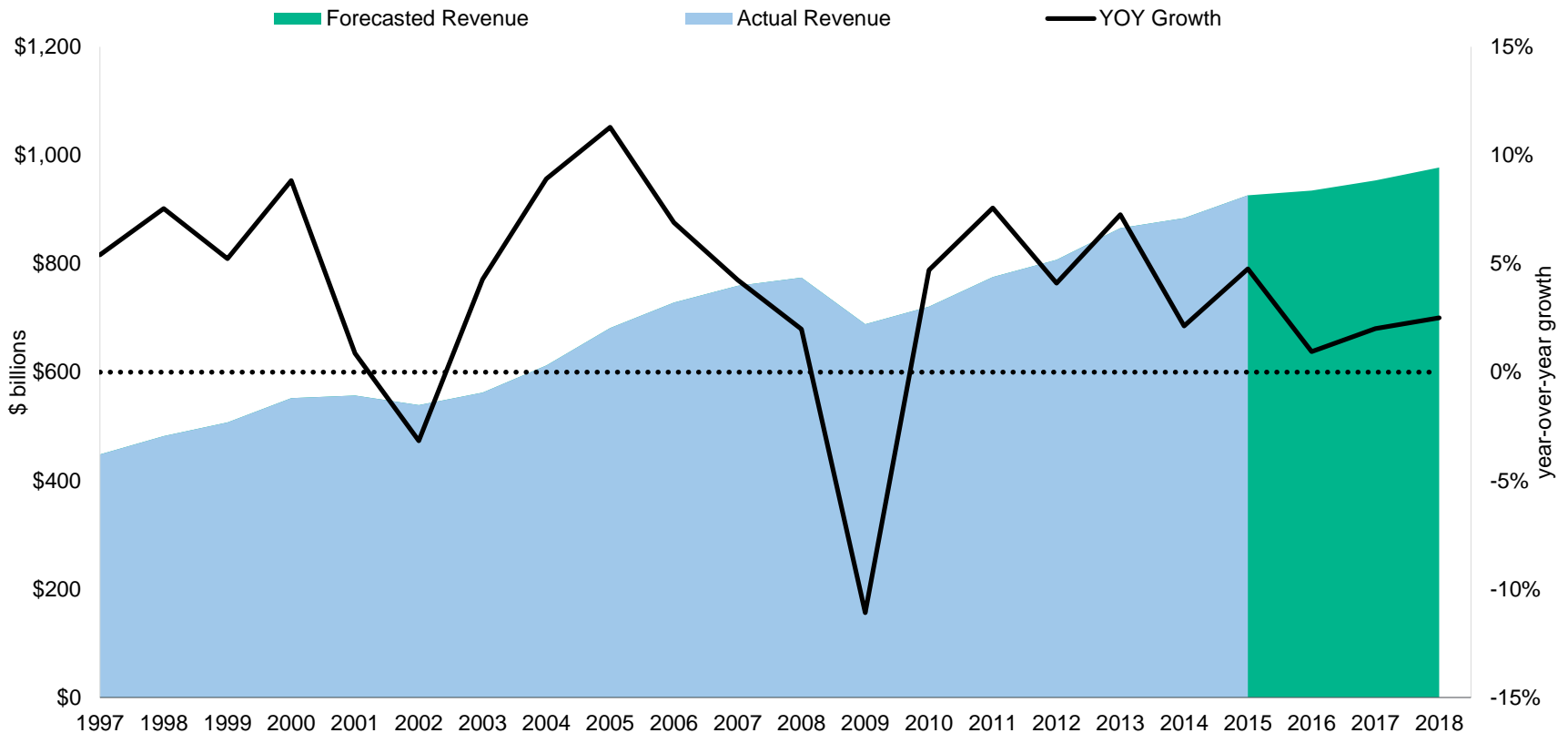
Revenue Trends Support Stability; Some States Still Pressured

Key credit themes

- » **State tax revenues will resume modest growth of 2%-3% for the next 12 to 18 months.** This moderate growth, which is below the five-year average of about 4%, follows a spring 2016 tax revenue decline of 2.1%, only the second quarterly decline since 2009. Renewed but modest revenue growth would be consistent with broad economic trends.
- » **Several weaker states risk falling further behind, amid prevailing low-growth conditions.** Sluggish gross product and personal income will add to the challenge of meeting pension funding needs, balancing budgets and maintaining financial reserves. US states typically have very strong credit quality, but [Illinois](#) (Baa2 negative), [Connecticut](#) (Aa3 negative) and [New Jersey](#) (A2 negative) show how states with severely underfunded pensions can become outliers with comparatively weak overall credit positions.
- » **Debt levels will rise as states address deferred infrastructure needs.** State and local governments increased street and highway capital spending by about 14% in the past two years, disrupting what had been a steady decline in the investment to depreciation ratio from 2001 through 2013. Continued focus on infrastructure improvements will likely add to state debt burdens, especially if interest rates remain low, but it will also yield economic benefits over time.

State Tax Revenues Will Resume Modest Growth After Faltering Last Spring

State Tax Revenue Growth Projected to Remain Resilient, But Slower Pace Reflects Spring 2016 Pause

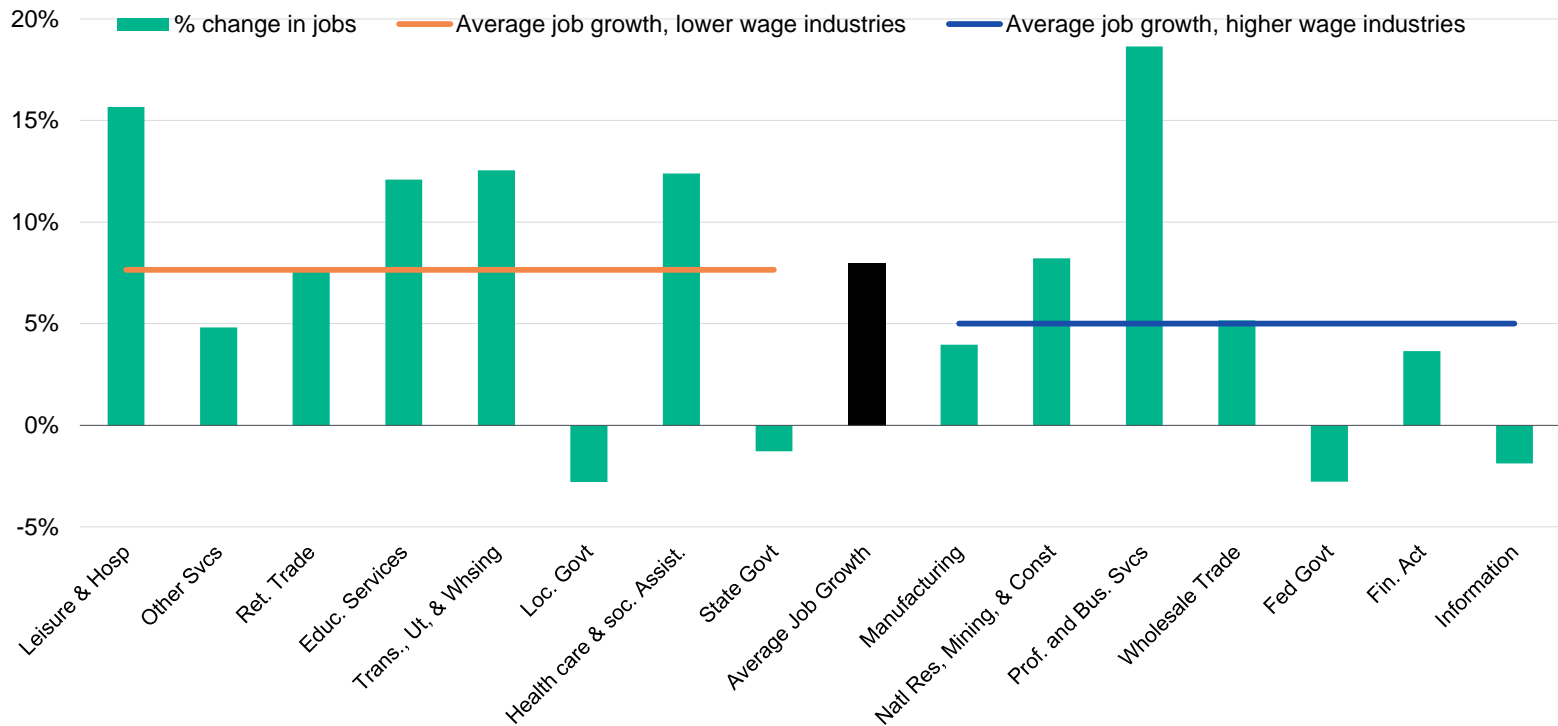


Note: Actual state tax revenues for each calendar year through the first half of 2016 and preliminary third quarter; our estimated growth trend is incorporated from fourth quarter of 2016 through 2018.

Source: Nelson A. Rockefeller Institute of Government, Moody's Investors Service estimates

Lower-paying industries have added jobs at faster pace, on average

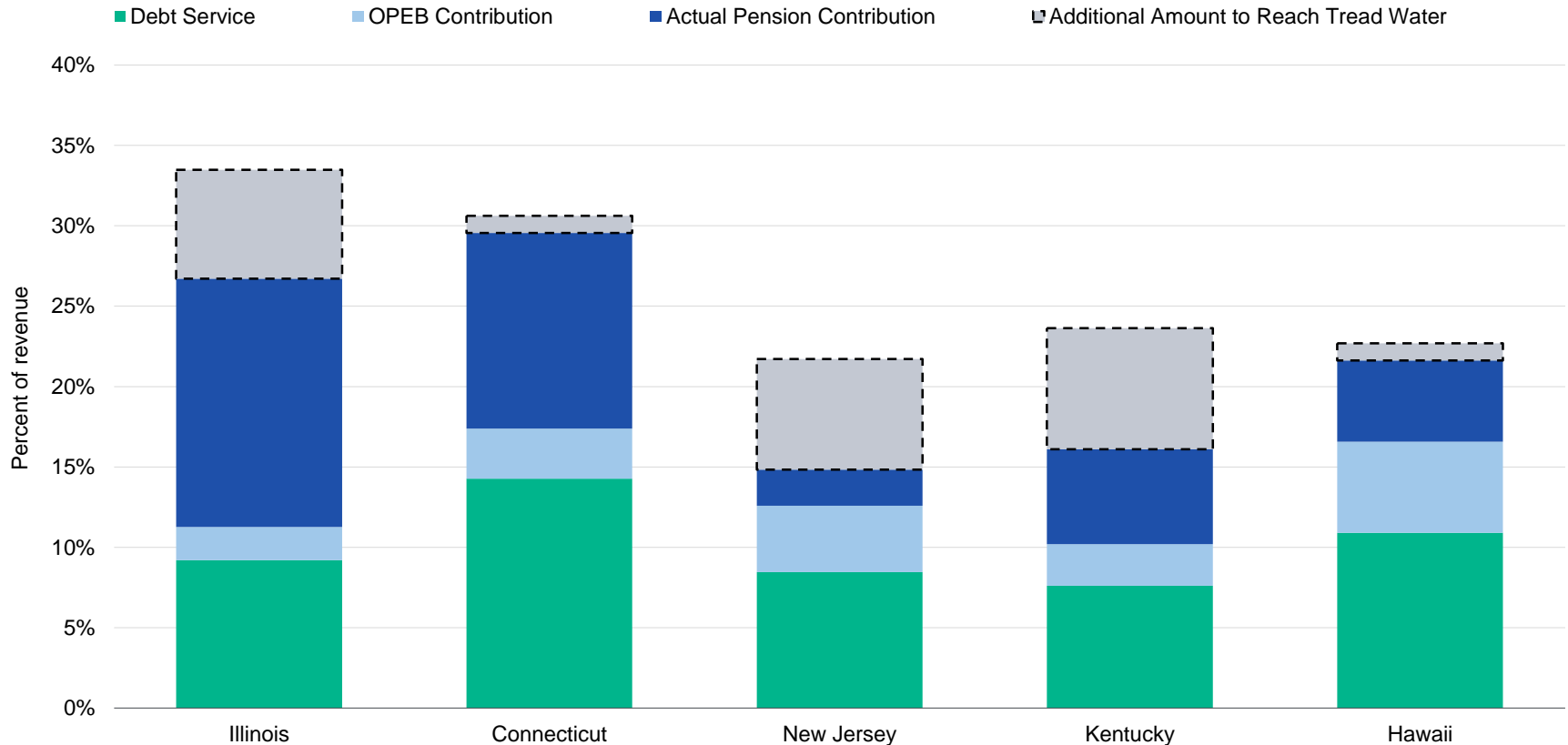
Job growth by industry, from 2009 through 2015



Sources: US Bureau of Labor Statistics, US Bureau of Economic Analysis

Weaker States Risk Falling Further Behind In Face of Pension Challenges

Some States' Fixed Costs Account for More Than 20% of Their Revenues in Fiscal 2015



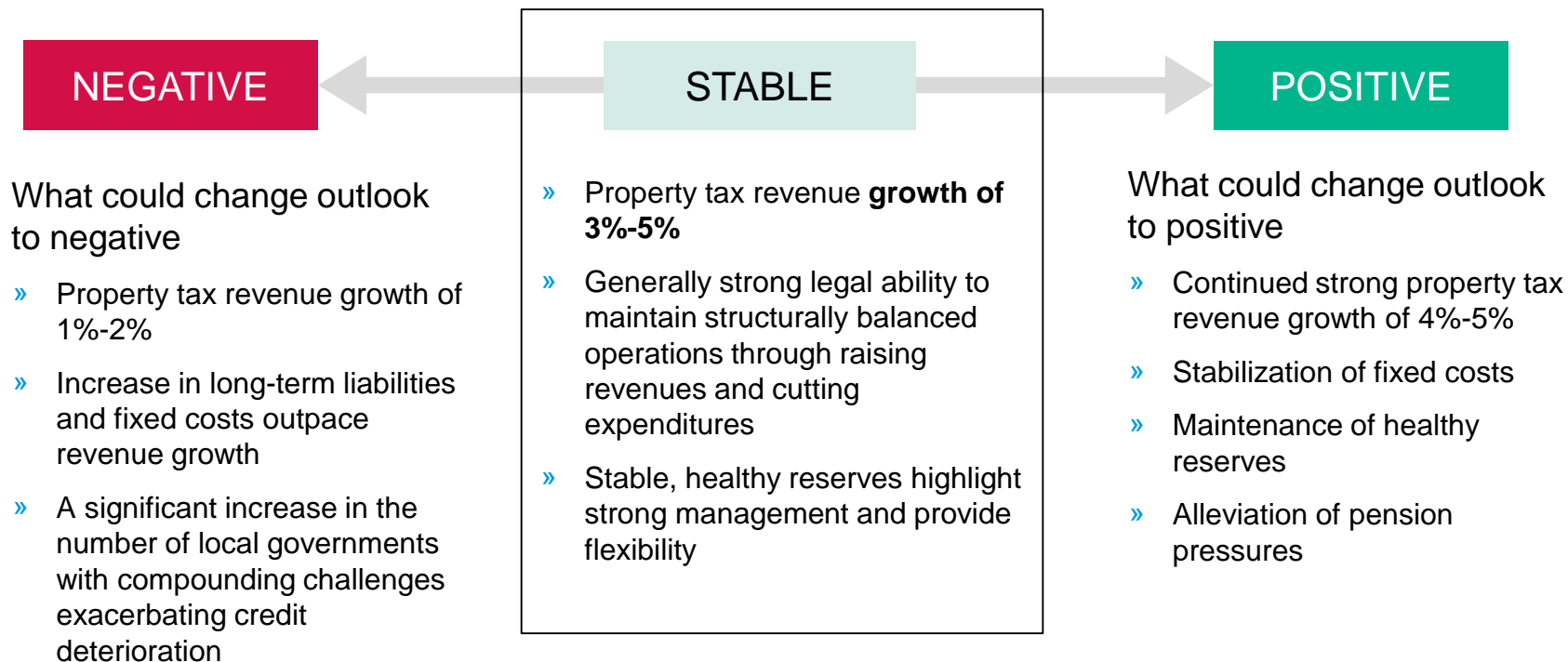
Note: Reflects growth from calendar year 2009 through 2015.

Sources: US Bureau of Labor Statistics, US Bureau of Economic Analysis

2

Local Governments

Local Governments



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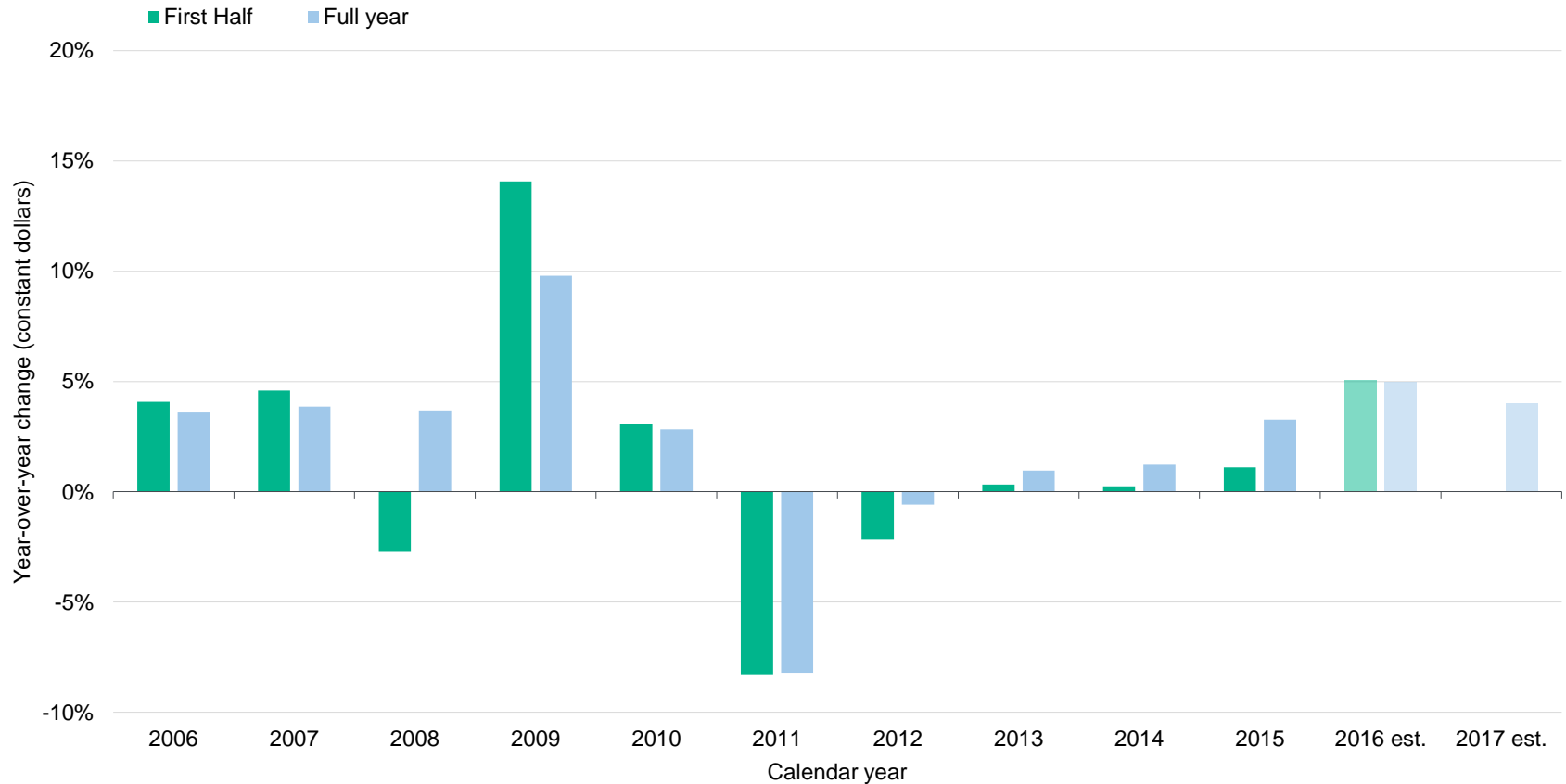
Strong Tax Revenues and Healthy Reserves Drive Stability for Most

Key credit themes

- » **Property taxes, the bedrock of local governments, are healthy.** A combination of property value growth and tax rate increases drove revenues 5.1% higher in the first half of 2016. We expect these factors will continue to support revenue growth of 3%-5% in 2017.
- » **Stable, healthy reserves highlight strong management and provide flexibility.** An ongoing commitment to align revenues and expenditures supports stable financial performance and healthy reserve levels across the sector.
- » **Growing balance sheet liabilities and fixed costs continue to pressure operations but remain manageable for most.** Pensions are the sector's fastest growing long-term liability. Local governments will focus on balancing rising fixed costs with infrastructure demands and essential services. Stable to improving revenue trends will keep these costs manageable for most over the near term.
- » **Despite overall stability across the sector, compounding pressures are deteriorating credit quality for a small group.** Most local governments face one or two credit challenges. However, a modest but growing portion of the sector is experiencing a confluence of challenges, often including revenue stagnation combined with fixed cost growth, leading to a trend of credit deterioration.

Property Taxes, the Bedrock of Local Governments, are Healthy

Strong Growth Through First Half of 2016 Will Likely Carry Through Full Year



Note: Full year 2016 and 2017 estimated.

Source: US Census Bureau, Bureau of Labor Statistics, Moody's Investors Service Estimates

Despite Overall Stability Across Sector, Compounding Pressures are Deteriorating Credit Quality for Small Group

While most local governments face one or two credit challenges, those facing compounding pressures have, and will likely continue to see, deterioration of credit quality. These are not necessarily temporary challenges that have emerged since the recession but instead reflect long-term underlying and fundamental credit weaknesses.

In contrast to most governments, a growing minority of credits are facing a confluence of these factors with less margin or appetite to increase taxes further and weaker positions to weather the next recession. Inherent credit characteristics drive these challenges more than regional and state/sector characteristics.



Weak economic trends

- » Falling property values
- » Poor demographic and employment trends
- » Low wealth levels
- » Limited economic or industrial development prospects



Revenue and reserve challenges

- » Tax caps or other legal limits on revenue raising
- » Anti-tax sentiment, high rates or demographic profile eroding political willingness to raise rates
- » Heavy reliance on state aid and vulnerability to cuts
- » Declining, limited or no reserves
- » Weak revenue trends



Expenditure pressures

- » Limited legal ability to cut expenditures
- » Rising fixed costs
- » Few expenditure cuts available
- » Deteriorating infrastructure with acute need to invest
- » States shifting costs to local governments

Nick Samuels

Vice President-Senior Credit Officer

+1.212.553.7121

nicholas.samuels@moodys.com



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Tuesday, February 21 @ 1:00 PM Eastern

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BNY MELLON

Rena Nakashima

Vice President

213-309-3413

Rena.nakashima@bnymellon.com



Katie Kramer

Vice President

614-705-1316

kkramer@cdfa.net

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