NCSL Budget and Revenue Committee
State Debt Situation: An Update and Discussion

Natalie Cohen
Head of Municipal Research
natalie.cohen@wellsfargo.com
212-214-8014

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Please see the disclosure appendix of this publication for certification and disclosure information. Also note that all estimates and forecasts are current as of July 27, 2015 unless otherwise stated.
A 35-year view of treasury rates, the stock market and the fed funds target rate (as of July 24, 2015)

- Interventions bolstered markets; discussions of tapering QE that began in May 2013 led to 130bp movement in yields. Bond markets rallied back to some extent, but rates are still elevated from 2011-2013 lows.
- Also note 2014 (unexpected) fixed-income rally – particularly slope of 30-year
A Few Notes on the Preceding Charts

• **Financial markets**, rather than wage and salary growth have been key drivers of state revenues – and pension earnings as well, since the recession.

• Until the mid-1990’s, public pensions could achieve their target returns using “risk free” Treasuries. During the “dot-com” bubble in the late 1990’s many states liberalized their investment policies to expand equity investments. This subjected public pensions to greater earnings volatility.

• States with capital gains and progressive income tax schemes have done well during market growth; less well during downturns (California and New Jersey, e.g.).

• Have financial markets “uncoupled” from the underlying economy?
  • A number of studies have shown that real personal income tax revenue fell between 2001-2003 while real personal income increased slightly. Between 2004-2007, growth in personal income tax revenue exceeded growth in personal income.
Volatility of Investment Income, Particularly Since 2000

Ratio of Investment Income to Adjusted Gross Income, Individual Tax Returns
1996-2012, California vs. total United States

Source: IRS and Wells Fargo Securities, LLC
Another Consequence of Market Volatility: Pensions
Returns were healthy throughout the 1990’s, but weak in 2001, 2003 and 2012 and negative in 2002, 2008, 2009
$100 in 2000 would become $272 by 2013 at a steady 8% compound rate, but $174 at the actual earnings rates below

Revenues of Total Government Employee Retirement Systems, 1993-2013

Returns were healthy throughout the 1990’s, but weak in 2001, 2003 and 2012 and negative in 2002, 2008, 2009
$100 in 2000 would become $272 by 2013 at a steady 8% compound rate, but $174 at the actual earnings rates below

Source: US Census and Wells Fargo Securities, LLC
The Employment Picture Shows How Government Lags the Private Sector, but has Tightened its Belt Since the Recession

<table>
<thead>
<tr>
<th>Period</th>
<th>Total Nonfarm</th>
<th>Private Total</th>
<th>Govt Total</th>
<th>Federal</th>
<th>State</th>
<th>Local</th>
</tr>
</thead>
<tbody>
<tr>
<td>2007</td>
<td>137,947</td>
<td>115,754</td>
<td>22,193</td>
<td>2,733</td>
<td>5,121</td>
<td>14,339</td>
</tr>
<tr>
<td>2008</td>
<td>137,803</td>
<td>115,320</td>
<td>22,483</td>
<td>2,757</td>
<td>5,162</td>
<td>14,564</td>
</tr>
<tr>
<td>2009</td>
<td>131,411</td>
<td>108,794</td>
<td>22,617</td>
<td>2,860</td>
<td>5,187</td>
<td>14,570</td>
</tr>
<tr>
<td>2010</td>
<td>130,575</td>
<td>107,579</td>
<td>22,996</td>
<td>3,416</td>
<td>5,135</td>
<td>14,445</td>
</tr>
<tr>
<td>2011</td>
<td>131,623</td>
<td>109,495</td>
<td>22,128</td>
<td>2,873</td>
<td>5,082</td>
<td>14,173</td>
</tr>
<tr>
<td>2012</td>
<td>133,874</td>
<td>111,961</td>
<td>21,913</td>
<td>2,827</td>
<td>5,050</td>
<td>14,036</td>
</tr>
<tr>
<td>2013</td>
<td>136,128</td>
<td>114,271</td>
<td>21,857</td>
<td>2,776</td>
<td>5,049</td>
<td>14,032</td>
</tr>
<tr>
<td>2014</td>
<td>138,621</td>
<td>116,780</td>
<td>21,841</td>
<td>2,726</td>
<td>5,054</td>
<td>14,061</td>
</tr>
<tr>
<td>2015*</td>
<td>141,679</td>
<td>119,738</td>
<td>21,941</td>
<td>2,738</td>
<td>5,083</td>
<td>14,120</td>
</tr>
</tbody>
</table>

\[\Delta 2007-2009\] -4.74\%  -6.01\%  1.91\%  4.65\%  1.29\%  1.61\%

\[\Delta 2009-2015\] 7.81\%  10.06\%  -2.99\%  -4.27\%  -2.01\%  -3.09\%

\[\Delta 2012-2015\] 5.83\%  6.95\%  -0.13\%  -3.15\%  0.65\%  0.60\%

* preliminary

Source: US Department of Labor, Bureau of Labor Statistics and Wells Fargo Securities, LLC
The employment picture is improving but taking place in lower wage service jobs

<table>
<thead>
<tr>
<th>Industry</th>
<th>Mar-15</th>
<th>Dec-07</th>
<th>%</th>
<th>#</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total nonfarm</td>
<td>141,183</td>
<td>138,350</td>
<td>2.05%</td>
<td>2,833</td>
</tr>
<tr>
<td>Total private</td>
<td>119,285</td>
<td>115,974</td>
<td>2.85%</td>
<td>3,311</td>
</tr>
<tr>
<td>Goods-producing</td>
<td>19,547</td>
<td>21,976</td>
<td>-11.05%</td>
<td>-2,429</td>
</tr>
<tr>
<td>Service providing</td>
<td>99,738</td>
<td>93,998</td>
<td>6.11%</td>
<td>5,740</td>
</tr>
<tr>
<td>Total Government</td>
<td>21,898</td>
<td>22,376</td>
<td>-2.14%</td>
<td>-478</td>
</tr>
<tr>
<td>Total education and health services, selected sectors below</td>
<td>21,855</td>
<td>18,861</td>
<td>15.87%</td>
<td>2,994</td>
</tr>
<tr>
<td>Total Health care(1)</td>
<td>14,952</td>
<td>13,103</td>
<td>14.11%</td>
<td>1,849</td>
</tr>
<tr>
<td>Leisure and hospitality</td>
<td>15,055</td>
<td>13,550</td>
<td>11.11%</td>
<td>1,505</td>
</tr>
<tr>
<td>Food services and drinking places</td>
<td>11,017</td>
<td>9,673</td>
<td>13.90%</td>
<td>1,344</td>
</tr>
<tr>
<td>Total Professional and business services</td>
<td>19,541</td>
<td>18,051</td>
<td>8.25%</td>
<td>1,490</td>
</tr>
</tbody>
</table>

Source: Bureau of Labor Statistics, Establishment Data, seasonally adjusted and Wells Fargo Securities, LLC

(1) Includes ambulatory health care services, hospitals, and nursing and residential care facilities.
The Shape of Municipal Bond Volume 2001-2008 Resembles the Housing Boom and was Propelled by Low Rates

- Volume jump in 2012 was largely due to an increase in refundings and mirrors 10-years ago (10-year call); this pattern is likely to continue in 2015 looking at 2005 volume unless rates spike above what’s economical
- Eventually volume is more likely to return to pre-2001 levels
- Volume would have been lower in 2009-2010 if not for the $181 billion Build America Bond program
- Note uptick in bond insurance

New Issue Volume (1980-2015) and the Percentage of Bond Insurance

As of June 30, 2015
Source: Bond Buyer, Assured Guaranty, Thomson Reuters and Wells Fargo Securities, LLC
The Municipal Market in this Context:
Refunding has increased and infrastructure funding decreased as a percent of annual volume since 2011 – following the end of fiscal stimulus (ARRA/BABs)

Municipal Bond Volume by Funding Status (2006 - Present)

As of June 30, 2015
Source: Bond Buyer and Wells Fargo Securities, LLC
Debt Market Themes H2 2015

- Greater Volatility
  - Federal Reserve rate hike speculation
  - Geo-political factors affecting global investor sentiment
  - Debt default by Puerto Rico could cause temporary volatility in the municipal market
  - Other fiscal crises such as in Illinois or Chicago and pension underfunding/rating downgrades could also create investor jitters.

- Market differentiation among states will continue to grow
  - Poorly funded pensions pressure the budgets in New Jersey, Pennsylvania and Illinois, Connecticut, Kansas, Kentucky; rating agencies and markets react.
  - Strength in California and Texas (each for different reasons) allows them to bypass short-term borrowing this year.

- Partisan politics affect fiscal policy as we lead up to the presidential election
  - Thirty states currently have single party “trifecta” across gubernatorial and legislative bodies (7 Democrat, 23 Republican) Divided government in remaining 20. Two states with a partisan divide, Illinois and Pennsylvania, still have not adopted FY2016 budgets.
  - Sequestration returns in October 2015 following a brief hiatus.
  - Perhaps after presidential election headlines calm down, state budgeting will too.

- High redemptions during June, July and August, both in the tax exempt market and internationally, influence supply and demand

- Why isn’t more infrastructure being financed? (low interest rates, needs are there, buyers are there)
  - No tax hike pledges
  - High unfunded pension and OPEB costs weigh on budgets
  - Increased Medicaid costs and lingering costs of recessionary social services
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