Chicago -- City at the Turning Point

“Do Ratings Agencies Create Fiscal Discipline?”

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“Do Ratings Agencies Create Fiscal Discipline?”
Focus on Chicago

Putting Muni Ratings into Perspective:

- Role of a rating agency? evaluator, policeman or prophet?
- Foundational basis of rating – Default history of security class combined with strength of economic base.
- Emphasis on standard methodology and key metrics -- using the right metrics at the right time?

Chicago – Formidable Economic Base
Breakdown of City Ratings –
(Using Highest and Lowest Rating by Three Major Agencies)

AA Ratings Dominate

By Highest Rating

- AAA: 259, 15%
- AA: 934, 54%
- A: 279, 16%
- BBB: 29, 2%
- BB: 7, 0%
- B0: 2, 0%
- CCC: 2, 0%
- NR: 2, 0%

By Lowest Rating

- AAA: 231, 13%
- AA: 143, 8%
- A: 15%, 16%
- BBB: 259, 15%
- BB: 49, 3%
- B0: 6, 0%
- CCC: 345, 20%
- NR: 933, 54%

54% of all 1743 cities have a AA rating; 63% of all ratings assigned excluding non-rated are AA. 79% of all assigned ratings excluding non-rated are either AA or AAA. Recalibration in 2010 pulled up Ratings.

Source: Merritt Research Services, LLC as of 3/28/14. There are 1743 cities included in analysis.
Rating Distribution by Three Major Agencies for Large Cities (over 100,000 Persons)

Source: Merritt Research Services, LLC based on ratings applying to cities with population of 100,000 or more provided by agencies as of March 28, 2014.
Chicago GO Ratings History Since 2005

Three Notch Downgrade Took Place In 2013. Moody’s & Fitch Recalibrated In 2010

Source: Merritt Research Services, LLC data
Chicago vs. the Rating Agencies

• Focusing on the Achilles Heel – pensions
• Taking a look at other Rating Agency criteria
• Correlations with other key metrics:
  – Financial cushions
  – Net position
City Total Pension Funded Ratio


Steady funding ratio shown since recent low point in 2010. Coming GASB changes likely to depress ratios when new rules are implemented. Funding Ratio for 2013 may not be indicative of trend due to a smaller sample size received to date from early reporters.

Pension Funding Ratio by Rating Bracket
For States and Cities (FY 2012)
High Correlation for States – Not for Cities

Source: Merritt Research Services, LLC as of April 11, 2014. Rating Bracket medians are based on the highest of the most recent non-credit enhanced ratings by Moody’s, S&P or Fitch. Number of Credits used: 55 states and territories and 1566 cities.

Chicago’s Falling Funding ratios have falling sharply since 2007. “A” Rated City Medians Declined in 2008 but have been showing Gradual Recovery. Coming GASB changes likely to depress ratios when new rules are implemented.

Source: Merritt Research Services, LLC. Median for “A” Rated Cities includes all cities rated by Moody’s, S&P and Fitch using the highest of the three ratings for each city to compute the benchmark. Rating Bracket medians are based on the highest of the most recent non-credit enhanced ratings by Moody’s, S&P or Fitch.
Total Liabilities: Net Direct Debt + Unfunded Pension Liability as a Percent of Full Market Value


Source: Merritt Research Services, LLC data. Median for “A” Rated Cities includes all cities rated by Moody’s, S&P and Fitch using the highest of the three ratings for each city to compute the benchmark. Rating Bracket medians are based on the highest of the most recent non-credit enhanced ratings by Moody’s, S&P or Fitch.
Squeezing Governmental Expenditures: Chicago Vs. National City Annual Median:
*Current Debt Service + Contribution To Pension & OPEB To Total Primary Government Expenditures FY 2009 – 2013*
*(Preliminary -- Median For 2013 Represents A Smaller Sample Of Early Reporters)*

Important ratio to watch because, as it rises, it squeezes discretionary budget items.

<table>
<thead>
<tr>
<th></th>
<th>National City Median</th>
<th>Chicago</th>
</tr>
</thead>
<tbody>
<tr>
<td>2009</td>
<td>12.54</td>
<td>17.08</td>
</tr>
<tr>
<td>2010</td>
<td>12.81</td>
<td>15.78</td>
</tr>
<tr>
<td>2011</td>
<td>12.90</td>
<td>13.58</td>
</tr>
<tr>
<td>2012</td>
<td>13.11</td>
<td>15.70</td>
</tr>
<tr>
<td>2013</td>
<td>13.43</td>
<td></td>
</tr>
</tbody>
</table>

Source: Merritt Research Services, LLC. As of April 7, 2014. Not all cities are required to contribute to pensions or OPEB. Number reporting numbers in each year: In 2013, early reporters represented only 394 cities. In 2012, 1347 cities reported; 1504 in 2011; 1400 in 2010 and 1125 in 2009. Primary Government Expenditures, includes Governmental Activities and Business Enterprises.
Chicago Pension Burden: Relative to General Fund

The Gap Widens: Chicago Actual Pension Contributions as a % of the General Fund and Annual (Actuarial) Pension Cost as % of Gen Fund 2006-2012

Source: Merritt Research Services, LLC. Data.
City Pensions – Breakdown by 2012 by Pension % Funding Status

- Out of 723 reporting cities, 107 cities (15% of total) funded less than 60% and had at least $3 million in unfunded liabilities and 64% had a funding ratio of 70% or more.

Cities by Pension Funding (2012)

- 90% or higher
- 70-89%
- 60-69%
- <60% & over $3 million liability
- <60% & less than $3 million liability

- Source: Merritt Research Services, LLC Data as of April 11, 2014. Total number of cities reported with single employer plans -- 723.
## Sample Cities with Low Pension Funding Ratios 2012

(Plan Liabilities of over $200 million)

<table>
<thead>
<tr>
<th>City</th>
<th>Moody’s/S&amp;P/ Fitch</th>
<th>Population</th>
<th>Funding Ratio (%)</th>
<th>Total Valuation Of Pension Unfunded Liabilities ($Mil)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Portland, OR</td>
<td>Aaa/NR/NR</td>
<td>593,893</td>
<td>1*</td>
<td>2653.8</td>
</tr>
<tr>
<td>Springfield, MA</td>
<td>A2/AA/NR</td>
<td>153,552</td>
<td>29</td>
<td>657.1</td>
</tr>
<tr>
<td>Chicago, IL</td>
<td>Baa1/A+/A-</td>
<td>2,714,856</td>
<td>35</td>
<td>19,352</td>
</tr>
<tr>
<td>Philadelphia, PA</td>
<td>A2/A+/A-</td>
<td>1,538,567</td>
<td>46</td>
<td>5,313.1</td>
</tr>
<tr>
<td>New Orleans LA</td>
<td>A3/BBB+/A-</td>
<td>369,250</td>
<td>47</td>
<td>604.2</td>
</tr>
<tr>
<td>Omaha, NE</td>
<td>Aa1/AA+/NR</td>
<td>421,570</td>
<td>47</td>
<td>813.7</td>
</tr>
</tbody>
</table>

*Portland Pension Plan is funded by a continuing annual special property tax levy to cover annual pension requirements.*

Source: Merritt Research Services, LLC based on over 717 cities reporting pension information for FY 2012 as of April 11, 2014.
Pension Fund Discount Rates for All Cities with Single Employer Plans (2008-2013 Early Reporters)

Median Discount Rate for City Pension Funds is 7.5%. New GASB Rules Requires Discount Rate to be Reset for Unfunded Portion at a “AA” Tax Exempt Index Rate. Change is effective after June 15, 2014.

Discount Rates for Single Plan City Pensions

<table>
<thead>
<tr>
<th>Year</th>
<th>Discount Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>2009</td>
<td>7.75</td>
</tr>
<tr>
<td>2010</td>
<td>7.5</td>
</tr>
<tr>
<td>2011</td>
<td>7.5</td>
</tr>
<tr>
<td>2012</td>
<td>7.5</td>
</tr>
<tr>
<td>2013</td>
<td>7.5</td>
</tr>
</tbody>
</table>

2012 All City Pension Funds Breakdown by City Single Payer Plan (%)

- 8% or higher: 22%
- 7.5 to 7.9%: 32%
- 7 to 7.4%: 32%
- Under 7%: 14%

Chicago Pension Discount Rates
New Discount Likely to Be Adverse Impact Factor for GASB
Pension Ratios

Unfunded Pension Liability Portion will have Discount Rate Related to Tax Exempt “AA” Index causing a blended discount rate with investment return expectations.

Source: Merritt Research Services, LLC derived from Chicago CAFRs (2010-2012)
Gen Fund Days Cash on Hand by Investment Grade Rating Bracket For Cities (FY 2012)
Breakdown by Lowest of Three Major Agency Ratings

Source: Merritt Research Services, LLC. Credits placed based on highest rating by Moody’s, S&P or Fitch. Number of Credits used: 1743 cities in total 2012 analysis. Rating Bracket medians are based on the highest of the most recent non-credit enhanced ratings by Moody’s, S&P or Fitch. Credits either rated non-investment grade or those that were not rated by any of the rating agencies were excluded from this chart.
Other Key Comparative Ratios: Days Cash Compared to Cities Rated “A” (2006, 2009 and 2012)

Chicago Days Cash on Hand (General Fund vs. “A” Rated Medians)

Chicago Days Cash on Hand (Gov. Activities) vs. “A” Rated Medians

Source: Merritt research services, LLC. Data as of 4/4/14. Rating bracket medians are based on the highest of the most recent non-credit enhanced ratings by Moody’s, S&P or Fitch.
Key Comparative Ratios: Fund Balance
Chicago Compared to Cities Rated “A” (2006, 2009 and 2012)

**Total General Fund Balance as % of Revenues vs. “A” Rated Medians**

<table>
<thead>
<tr>
<th>Year</th>
<th>Chicago</th>
<th>Median “A” Rated Cities</th>
</tr>
</thead>
<tbody>
<tr>
<td>2006</td>
<td>2.3</td>
<td>27.6</td>
</tr>
<tr>
<td>2009</td>
<td>2.1</td>
<td>23.5</td>
</tr>
<tr>
<td>2012</td>
<td>7.9</td>
<td>23.4</td>
</tr>
</tbody>
</table>

**Unreserved (Assigned & Unassigned) as a % of Revenues vs. “A” Rated Medians**

<table>
<thead>
<tr>
<th>Year</th>
<th>Chicago</th>
<th>Median “A” Rated Cities</th>
</tr>
</thead>
<tbody>
<tr>
<td>2006</td>
<td>1</td>
<td>24</td>
</tr>
<tr>
<td>2009</td>
<td>0.01</td>
<td>20.8</td>
</tr>
<tr>
<td>2012</td>
<td>7.2</td>
<td>18.6</td>
</tr>
</tbody>
</table>

Source: Merritt Research Services, LLC. Data as of 4/4/2014. Rating Bracket medians are based on the highest of the most recent non-credit enhanced ratings by Moody’s, S&P or Fitch.
Key Comparative Ratios:
Unrestricted Net Assets as % of Governmental Expenditures – Chicago vs. Other Cities and Rating Medians
FY 2012

Unrestricted Net Assets of represents “Net Position” of a City, including all governmental assets and infrastructure as well as all liabilities. It is comparable to a net worth of a company.

Source: Merritt Research Services, LLC. Data as of 4/4/14. Cities over 500,000 include 34. Unrestricted assets, also called net position of city, including all governmental assets, including infrastructure net of depreciation, and all liabilities, including debt, pensions, OPEB and carryover deficits. Rating Bracket medians are based on the highest of the most recent non-credit enhanced ratings by Moody’s, S&P or Fitch.
Key Comparative Ratios:
Total Tax Revenue (Gov. Activities) Per Capita
Chicago vs. Other Cities over 500,000 Population

The median total Governmental Activities Total Tax Revenue Per Capita for the nations’ largest cities over 500,000 population is $813. While the combined city/school Total Tax Revenue Per Capita for these cities $1453, the combined total for Chicago and School Board for FY 2012 was $1955.

Source: Merritt Research Services, LLC. Data as of 4/11/14 includes 34 Cities over 500,000. Total represent most taxes for the most recent fiscal year audit available (FY 2013 and FY 2012) for the cities shown.
The Carrot and the Stick

• Future borrowing costs determined by rating as well as market perceptions

• Recent S&P 30 yr. Index spread between AA and A rated credits around 30 basis points*

• Recent S&P 30 yr. Index spread between A and BBB rated credits around 90 basis points*

* S&P indexes based on levels available on April 15, 2014. Actual yield differences on individual bonds can vary significantly at any point in time relative to a rating band index depending on wide variety of factors, including state tax exemption, coupon, call and unique credit characteristics.
“Do Ratings Agencies Create Fiscal Discipline?”

Summary & Considerations:

• City ratings concentrated in AA and AAA brackets

• Role primarily of evaluator not policeman...until....

• Opinions Follow Methodology
  – Starting point begins with breadth and strength of economy and default history of class.
  – Key ratios don’t always correlate with rating brackets or “perceived risks”
  – Methodology subject to change and recalibration.

• Rating agencies more prone to become “de facto” fiscal policymakers when credits on the margins.

• Focus is more on “here and now” conditions

• **Better approach would be to distinguish credits with long term structural vulnerabilities earlier in rating assignment**
Notes and Disclosures

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