"IL-annoying" times for the state's municipal bonds

Illinois' nearly two year budget impasse continues to plague all municipal bonds linked to the state's credit. The state's budget deficit is expected to reach a staggering $6 billion by the end of June, with the severity of the situation increasing after a federal judge recently ordered the state to negotiate a plan to pay down approximately $2 billion of Medicaid debt owed to healthcare companies. The combination of its over $130 billion in underfunded pensions that are nevertheless protected from being "diminished or impaired" under the state's constitution and a $15 billion backlog in paying its bills has led to the state recently being downgraded to BBB- and Baa3 by S&P and Moody's, making Illinois the lowest rated US state in history and putting it one downgrade away from below investment grade.

In addition, lawmakers' failure to agree on a budget by the May 31 deadline triggered the requirement for a three-fifths majority to pass the budget instead of the standard simple majority vote. Rating agencies have also made it clear that another rating action is possible if a budget that addresses the state's deficits is not passed by the beginning of July. Given the severity of the situation, Illinois Gov. Rauner called the state legislature back from recess for a special session starting on June 21 with the goal of finalizing a budget within 10 days .

The state's economic malaises did not occur overnight, as the state has gradually been losing ability to attract and maintain large corporate employers. The exodus of the auto industry from the Midwest region and large industrial companies like Caterpillar pushing to increase productivity through technology and moving operations to lower cost regions, have made it clear that achieving high levels of employment will be a challenge. The state has come under significant competitive pressure from other states' generous tax incentives and accommodative labor laws. All of these issues are apparent in IRS migration data (**Figure 1**), which indicated almost $1.25 billion in adjusted gross revenue migrated to Florida alone from 2014 to 2015. In fact, IHS Markit's US Regional Economics group's five year forecast for total resident population has Illinois at #50 with a compounded annual growth rate (CAGR) -0.03% versus #2 Texas at a +1.71% CAGR.

Bulk carrier ship traffic at Illinois' ports has been noticeably on the decline since last year ( ). We reviewed port traffic, from IHS Markit's Maritime & Trade division, at the state's Lake Michigan and major river ports in a similar way to our May 12 publication entitled Using Puerto Rico's ports to gauge government income, but this time we focused on bulk carrier traffic and not cruise ships. Bulk carriers transport materials like coal, iron ore, grains, and limestone, and this year's total of only 15 ships as of May is the lowest count when compared to the same period each of the past four years. The decline in the ships' traffic could potentially be driven by a combination of increased land based transportation and/or declines in coal shipments, but some aspects of the declines may be attributable to weaker manufacturing in the area.

Figure 1: 2014 to 2015 Illinois net migration of total adjusted gross income by state ($3.5bn adjusted gross income net outflow)

Source: IHS Markit, Internal Revenue Service

Figure 2: Cumulative annual bulk carrier ship traffic at Illinois ports

Source: IHS Markit

Web search trends coincide with some large IL GO spread movements

Illinois' budget issues have been especially high profile and followed very closely by constituents and municipal bonds investors given the direct implications on both groups. We used Google Trends to gauge market participants' and other's interest in the state's finances by measuring the relative search frequencies of "Illinois budget" since January 2016 and comparing it to Illinois' 10-year GO bond spreads to the IHS Markit AAA municipal bond curve. When using the search trend data, a value of 100 indicates the period with the peak in search counts (for that specific search date range) and 0 being less than 1% of the peak. The results are either weekly or daily based on the date range and do not enable the determination of the actual search counts. It is important to point out that the application uses sampling to produce the report, so historical trends can change from day-to-day for lower volume search terms.

The data in **Figure 3** indicates that when using the time range January 1, 2016 to June 16, 2017, the "Illinois budget" search phrase peaked the week of June 27, 2016, which was immediately after the significant widening of Illinois GO bonds that began on June 24, 2015. The peak in spreads at that time, which reported 10yr Illinois GOs widening to as much as AAA +180bps after beginning that month at AAA +34bps, occurred the same day as the Brexit vote outcome and a week before the Illinois stopgap budget was passed.

The week of June 27, 2016 is also the highest level for that search since June 2012 (and potentially earlier), so it does overshadow the scale of the prior trends before that date. To highlight the activity pre-peak, we ran a daily trend analysis that ended the search period prior to the week of June 27, 2016 and the data highlights a major uptick in searches on June 1, 2016; preceding the major spread widening later that month (**Figure 4**).

We note that recent data in **Figure 3** does show a slight uptick in searches during the week of May 29 of this year, which does coincide with the latest IL budget impasse and the downgrade of the state's credit rating. 10yr IL GO spreads did widen out over 100bps within two weeks of that recent peak, reaching a new record wide of AAA +342bps on June 8 and then tightening modestly afterwards.

By no means do we believe that the weekly search trend data is a very reliable leading indicator of large spread movements, but the dataset and technique do warrant further analysis. Given that the data is sampled and not based on the full dataset, the potential for a time series of lower search volume phrases to change significantly from day-to-day could make it difficult to create a meaningful analysis. It is quite possible that a combination of various higher volume positive and negative search phrases could be an effective way to assess the market's sentiment on the credit and potentially foreshadow price movements.

Figure 3: Daily 10yr IL general obligation spreads to AAA muni curve versus weekly relative "Illinois budget" Google search trends
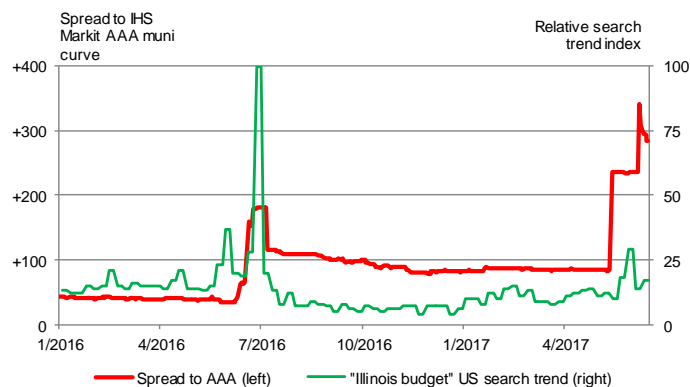
Source: IHS Markit, Google

Figure 4: Daily 10yr IL general obligation spreads to AAA muni curve versus daily relative "Illinois budget" Google search trends (pre-peak)
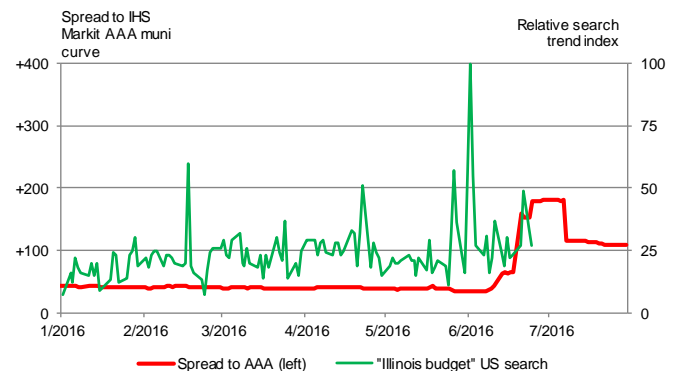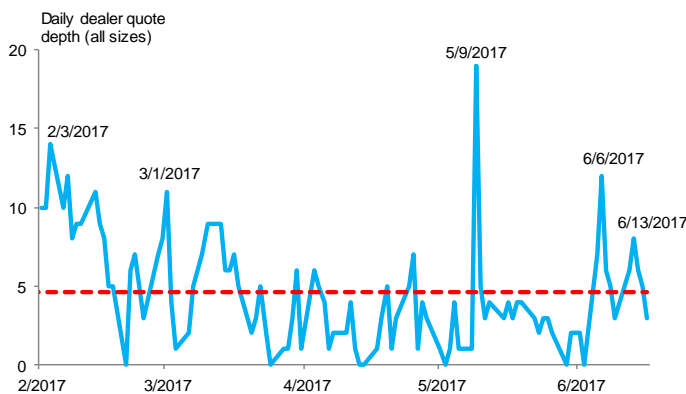

Source: IHS Markit, Google

Nine IL GOs averaged two or more dealers quoting the bonds daily this year

Prior IHS Markit analyses have indicated that the probability of a bond trading increases with the number of dealers quoting the bond on a given day[1], so quote depth can often be used as a proxy for certain bond's relative liquidity. Parsed quote data indicates that the City of Chicago's general obligation 6.0% 1/2038, with a daily average of 4.6 dealers quoting it daily in 2017, had by far the highest average quote depth compared to all the Illinois general obligation bonds. **Figure 5** shows the bond's daily quote depth trends and highlights certain peak levels starting shortly after it was issued in late-January.

When examining the 2017 YTD quote depth and count of $100K+ trades for the remainder of the IL GO universe as of June 9, the Illinois GO 5.0% 11/2023 had the second highest average quote depth (3.2) after the previously mentioned City of Chicago's GO 6.0% 1/2038. We note that the City of Chicago issue also had a very high trade count of 453 trades $100K+, which required it to be excluded from the graph due to how much it skewed the axis scale for the broader IL GO universe. The data also indicates that Illinois GO 4.5% 11/2039 had the second highest $100K+ trading volume of the IL GOs in the analysis. The data in the graph does show a somewhat linear relationship between this year's $100K+ trade counts and the average daily dealer depth, with a linear regression of the dataset indicating the $R^2=0.276$.

Web search and quote data only two very small pieces of a huge puzzle

In the short term, the performance of Illinois' bond issues will be driven by political parties' ability to propose and pass a deficit reducing budget. With each passing day without a budget, schools and other critical infrastructure will likely come under additional distress. At the end of the day, a long term economic incentive plan that encourages industries to return to the state will be the only way to combat the massively underfunded pensions and promote economic growth. This is particularly important for Chicago, which accounts for approximately 80% of the state economy.

Alternative data like quote and search trends cannot tell you when the credit issues have been solved, but can be used to gauge the market's relative sentiment and track liquidity of a state's debt at a specific point in time.

Figure 5: February 2017[2] through June 16 daily dealer quote depth for City of Chicago general obligation 6.0% 1/2038

Source: IHS Markit

Figure 6: 2017 YTD daily average dealer quote depth vs $100K+ trade count for Illinois general obligation bonds
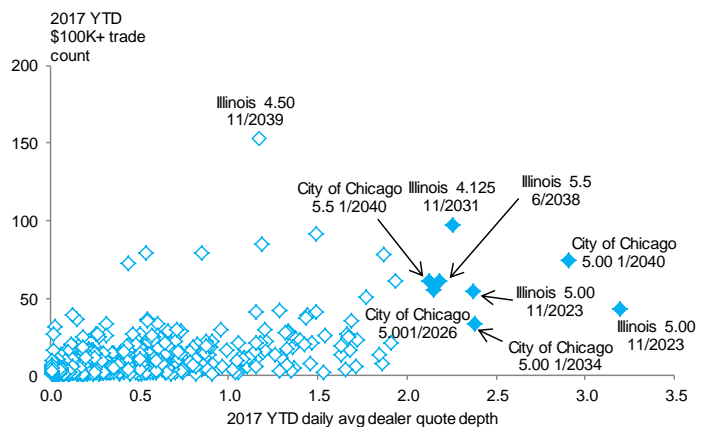
Source: IHS Markit, MSRB

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[1] For more information please refer to the IHS Markit special report entitled Measuring municipal bond market liquidity published on May 9, 2016
[2] Bond was issued in January 2017, so time series begins in February to avoid including new issue trades

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