



Municipal Market Review

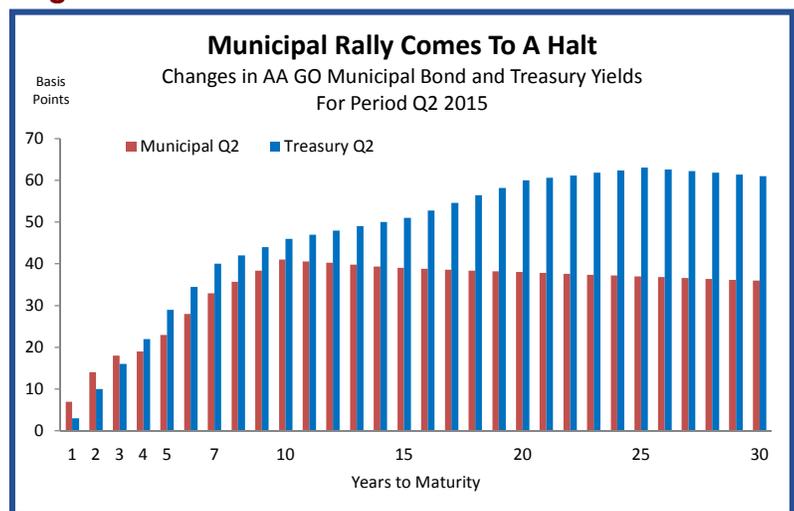
Second Quarter 2015

"The Fed has opinions; the market has positions."

Jack McIntyre, Brandywine Global Investment

The municipal bond rally that started back at the beginning of 2014 came to an end this quarter, as yields rose across the yield curve, with the largest rise in yields coming at the longer end of the curve. The average increase was 40 basis points in the 10-to-30 year range of the curve. Treasury yields ended the quarter higher across the yield curve as well, selling off more than municipals particularly at the longer end of the curve. The reshaping of the yield curve is reflected in **Figure 1** which graphs the changes in municipal and treasury yields for the second quarter of 2015. Municipal relative value ratios largely held steady this quarter, and **remain attractive with ratios above 100 percent** for 1-3 year and 7-30 year maturities, and in the upper 90s for the 4-5 year segment. Municipals joined a selloff in global bonds as speculation that the Fed could raise interest rates as soon as September weighed on the market. The correction in rates this quarter has reintroduced value in the market and created attractive purchase yields that should draw retail and non-traditional buyers back to the tax-exempt asset class.

Fig 1

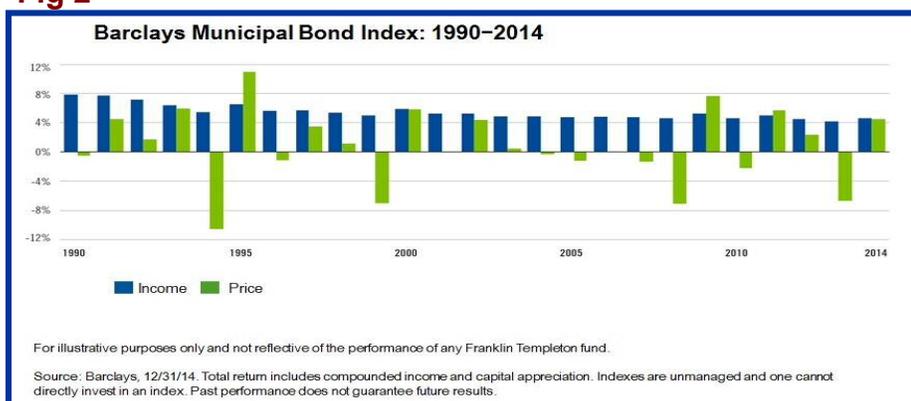


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It is important to keep in mind that for municipal bond investors, the income generated by the bonds has its advantages and has been the primary driver of total returns. Over the long term, **income historically has contributed more to municipal bond total returns than price appreciation.** (See **Figure 2**) Additionally, over the short term, income has served to cushion overall municipal bond total returns when prices have fallen. In fact, after considering income, municipal bonds posted negative total returns in only four out of the past twenty-four calendar years.

Fig 2



Municipalities as of the beginning of May had issued a robust \$145 billion in bonds so far this year, the most to start a year since 2003. A remarkable seventy percent of that issuance has gone to refinance higher-cost debt instead of funding capital

expenditures and infrastructure projects. Clearly, many local governments have taken advantage of borrowing costs hovering at five decade lows to refinance their outstanding debt, reduce interest payments and strengthen their overall fiscal health. Muni issuance to finance infrastructure has remained unchanged from the same period last year, disappointing those who are concerned about America's aging roads and bridges. Phil Fischer, head of municipal research at Bank of America, notes that "Refunding has taken precedence over infrastructure financing. It's going to save state and local governments a lot on debt-service costs, and it's going to help them catch up in terms of their pensions and other fixed obligations. That can't go on forever, infrastructure projects are needed all over the country." Indeed, the American Society of Civil Engineers estimates that the

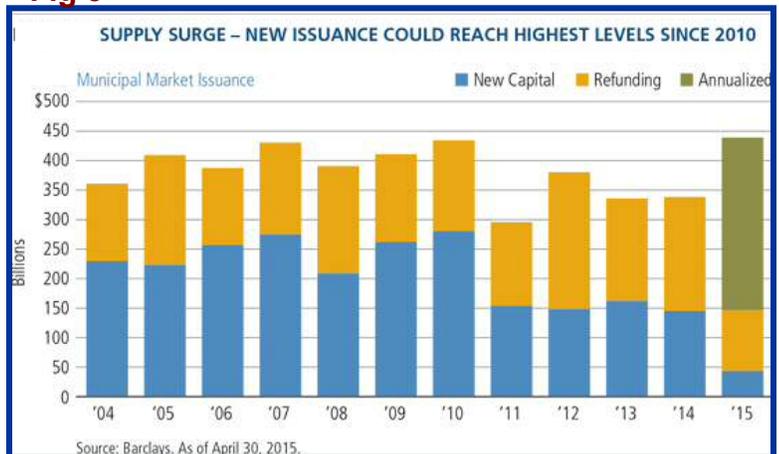
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United States needs about \$3.6 trillion of investment in infrastructure by 2020. The group's 2013 report gave America a "D+" grade. Issuance this year is on pace to surpass the record \$408 billion of supply in 2010, when municipalities rushed to issue debt in the final year of the federally subsidized Build America Bonds (BAB) program. Municipal market issuance going back to 2004 can be seen in **Figure 3**. This year's issuance pace is a marked turnaround from the past four years, which have seen net negative issuance.

In mid-May Moody's downgraded \$8.9 billion of Chicago general obligation, sales tax and motor fuel bonds to speculative or junk status, citing concerns about the impact of the Illinois Supreme Court's ruling that overturned state pension reforms. In its decision, Moody's wrote that they believe the city's options for curbing growth in its own unfunded pension

Fig 3



liabilities have now narrowed considerably. The rating agency expects the cost of servicing Chicago's unfunded liabilities to rise, placing significant strain on the city's financial operations absent commensurate growth in revenue and/or reductions in other expenditures. Moody's analysts surmised that the **magnitude of the budget adjustments that will be required of the city will be significant**. Chicago is burdened with nearly \$20 billion of unfunded pension obligations. The city is in a league of its own in terms of its debt and pension costs. The combined cost to service both consumed 45 percent of fiscal 2013 governmental revenue. The next closest city is San Jose at 28 percent. Illinois, which has the lowest credit rating of any state in the union, said it cannot help the troubled city. Chicago's GO bonds were already trading at junk bond levels for several months, so

the downgrade came as little surprise. Rating actions tend to lag the market rather than lead it. Chicago's predicament can be traced back to a 2003 decision by Illinois to kick the pension can down the road. The state opted to borrow money to fund pensions rather than trying to get the benefits reduced or increasing payments to make them financially sound. Illinois ended up borrowing an enormous amount, \$10 billion, the biggest bond issue in its history, on the premise that investing the proceeds would earn more than the interest on the bonds. Unfortunately for Illinois taxpayers, the pension funds' investments, hurt badly by the financial crisis of 2008-2009, have performed worse than expected. The net effect is that unfunded liabilities swelled from \$43 billion when the bonds were sold to \$86 billion by 2010. The hard lesson learned by taxpayers is that borrowing allowed the politicians to duck the contentious issue of pension reform and kick the can down the road instead of making the necessary changes. Now most municipal analysts expect that the city will attempt to solve its unfunded pension liabilities problem and high debt burden by increasing residents' property taxes. However, Chicago officials have been unwilling to raise property taxes for nearly a decade. Bottom line, some tough and unpopular decisions are going to have to be made.

Chicago's downgrade certainly sparked a market debate about divided ratings and the role of rating agencies in the post-financial crisis world. After Moody's action, Standard & Poor's downgraded the city's rating two notches to A- with a negative outlook while Fitch lowered the city one notch to BBB+ with a negative outlook. Matt Fabian of Municipal Market Analytics (MMA) wrote that, *"It strikes us that underlying this debate may be a discrepancy between what ratings are and what the industry ideally wants them to be."* In reality, bond ratings are the product of objective information and subjective assessments made by private companies and scored against their internally developed methodologies and algorithms. There is no single scale, uniform methodology or consistent interpretation of data across all the rating agencies. Some analysts believed Moody's

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should have given the city more time to complete the restructuring of its floating-rate bonds to ease liquidity pressures. Other analysts disagreed, arguing that any issuer who is susceptible to this kind of short-term liquidity crisis just cannot be viewed as investment grade. For its part, Moody's sought to tamp down default concerns, pointing out that its analysis of Ba-

Fig 4

Who Owns Puerto Rico's Debt?

Oppenheimer municipal-bond funds have by far the highest exposure to Puerto Rico debt in the industry. Franklin also has a sizable holding, while Vanguard, Fidelity, and T. Rowe Price have less than 1%.

Family	Number of Municipal Funds	% Holding Puerto Rico Bonds	Mkt Val of Puerto Rico Issues (mil)	Weight %	Total Investments As of Most Recent Portfolio Date (mil)
OppenheimerFunds	20	100%	\$4,969.38	14.8%	\$33,678
Franklin Templeton	32	97	4,819.39	6.5	74,612
Legg Mason	13	100	622.32	4.3	14,574
AllianceBernstein	19	95	521.67	3.5	14,769
Lord Abbett	8	100	390.71	3.4	11,421
Eaton Vance	32	84	295.47	2.9	10,218
USAA	6	100	191.90	1.9	10,018
DWS Investments	7	86	214.17	1.9	11,575
Nuveen	34	91	467.01	1.8	26,323
Invesco	7	86	144.68	1.3	10,956
Wells Fargo Advantage	14	86	257.73	1.3	20,506
Columbia	18	83	140.35	1.0	14,596
Fidelity Investments	22	86	226.05	0.8	28,677
T. Rowe Price	12	92	104.96	0.7	15,158
Vanguard	12	100	644.21	0.6	105,328

Source: Moministar

level credits show just a 5% likelihood of default in the coming years. Supporters of Moody's decision argue that an unbiased assessment of pension funding status is crucial information for investors, given the bankruptcy cases of Detroit and Stockton, California in which pension obligations were treated as senior to bond obligations. We believe a healthy difference of opinion not only provides competition among the rating agencies but is also central to the making of markets. Investors are well served to be skeptical of any single agency's rating. Moreover, ratings do not serve as an adequate substitute for independent, bottom-up credit analysis by an experienced asset manager.

In late June, Puerto Rico's governor, Alejandro Garcia Padilla, gave an interview with the New York Times where he said he needed to pull the island out of a "death spiral" and frankly concluded that the commonwealth cannot pay its roughly \$72 billion in debts, a startling admission that could potentially have wide-reaching consequences. Puerto Rico has piled on more municipal bond debt per capita than any other American state. The amount of debt the island has issued is equal to 70% of

its economic output, more than triple the ratio of the next highest state. No state's condition is remotely as dire as Puerto Rico's. As a commonwealth, it does not have the option of bankruptcy. A default on its debts would most likely leave the island, its creditors and its residents in a legal and financial limbo that could take years to sort out. While the market has expected news of a possible default for months, the debate over tactics in what is seen as the biggest fiscal debacle in municipal bond history is likely to intensify. John Mousseau of Cumberland Advisors noted that, *"the important thing is municipals are moving in the same direction as Treasuries and not in the opposite direction, which would be the case if the market thought a possible default by Puerto Rico was indicative of more problems across the board."* Most analysts don't expect any involvement by the U.S. Congress to provide Chapter 9 bankruptcy relief that would bail out the troubled island. Market observers see three key issues that need to be solved: finding the cash to pay current interest payments, restructuring long-term debt, and fixing the economic structure so that it can be viable long term. The crisis is seen as the result of years of government mismanagement. Declining population, low labor-force participation and a costly business climate have caused the tax base to steadily shrink while a bloated public sector has inflated spending. A big part of the allure of Puerto Rico bonds is that they are triple exempt, not subject to local, state and federal taxes for any investor, no matter where he/she resides. A recent industry report calculated that roughly **three in four municipal mutual funds held Puerto Rico debt** of some kind. The municipal bond funds with the highest exposure to Puerto Rico can be seen in **Figure 4**. In the last two years, as the commonwealth's credit rating was cut to junk and the prospect of default rose, many of those mutual funds cut their holdings. Many hedge fund and municipal mutual fund managers are surely regretting including the island's debt in their portfolios in an attempt to reach for yield and juice returns. Over 20% of all bond funds own Puerto Rican bonds, according to data from Morningstar. Governor Padilla said he

plans to seek significant concessions from as many as all of the island's creditors. Our view remains that **Chicago and Puerto Rico are isolated cases and are not indicative of the vast, uniquely fragmented and largely healthy municipal market.**

A Dodd-Frank Act rule went into effect on June 15 that requires ratings agencies to adopt procedures designed to ensure that credit ratings measure default risk "in a manner that is consistent" for all rated obligors and securities. A Moody's spokesperson said the company had been making preparations for this rule for years and that most of the changes have already been made. Analysts see this new rule as helping the municipal upgrade trend, given that historically, municipal bonds have been rated lower than comparable corporate bonds, thus exaggerating the risk of default. Moody's Investors Service and Standard & Poor's have both published studies showing that the default rates of municipal bonds 10 years after being rated BBB are lower than the default rates of corporate bonds 10 years after being rated AAA. According to Moody's recent report "US Municipal Bond Defaults and Recoveries, 1970-2013", the 10-year cumulative default rate for municipals rated Baa1, Baa2 or Baa3 was 0.32%. The same study found that the default rate for Aaa corporates was 0.49%. The S&P report found that 10 years after municipal bonds were rated BBB+, BBB, or BBB-, 0.42% defaulted. Meanwhile, the S&P report discovered that in the 10 years after corporate bonds were rated AAA, 0.87% defaulted. For the entire period covered by the study, the **10-year cumulative default rate for municipal bonds rated by Moody's was 0.13% versus 11.73% for corporate bonds, a 90-fold increase.** The bottom line is that under the current ratings system, a **municipal bond has significantly less default risk than a comparable corporate bond, and offers better after-tax yields to boot.**

In late May the Federal Reserve announced it planned to allow banks to hold investment-grade municipal bonds to comply with a rule aimed at ensuring banks have enough high-quality

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liquid assets (HQLA) to deal with a financial crisis. The original liquidity coverage ratio rule, which excluded municipals as HQLA, was passed back in September. That drew a sharp response from cities, states and numerous lawmakers who pushed for a change, warning that limiting the use of municipal debt could prompt an exodus from the market and make it more expensive to build schools, roads and bridges. The largest U.S. banks account for about thirteen percent of the \$3.6 trillion municipal bond market, making them the third-largest holder after households and mutual funds. The prior exclusion of municipals as HQLA hasn't appeared to suppress demand from U.S. banks for the bonds. Fed data showed that U.S. banks owned \$452 billion of municipal securities as of the end of last year, double their holdings from back in June of 2009. The Fed's decision marked a split from other financial regulators, specifically the Federal Deposit Insurance Corp. (FDIC) and the Office of the Comptroller of the Currency (OCC). Municipal market analysts viewed the inclusion of munis as HQLA as a boost for the market, though far from essential. Banks almost always buy municipals for their income and safety, not necessarily for their liquidity.

A likely driver of municipal bond prices for the rest of 2015 is the words and actions of the Federal Reserve. As many expected, the Fed kept the federal funds rate it controls at effectively zero percent at the conclusion of its two-day policy meeting in mid-June. The Fed also signaled that improving economic data is keeping it on track to raise interest rates at some point later this year, although subsequent increases are likely to be more gradual than earlier forecast. New forecasts by the Federal Open Market Committee (FOMC) implied two quarter-point rate rises this year but a shallower pace of increases in 2016. Fed Chair Janet Yellen emphasized that the **timing of the first rate hike is less important than the trajectory of subsequent ones**. Yellen said she wanted "more decisive evidence" that the labor market was healing, and that workers' wages would increase beyond their current "subdued pace." She also noted how cyclical weakness in the labor market

Fig 5

AA General Market Yields

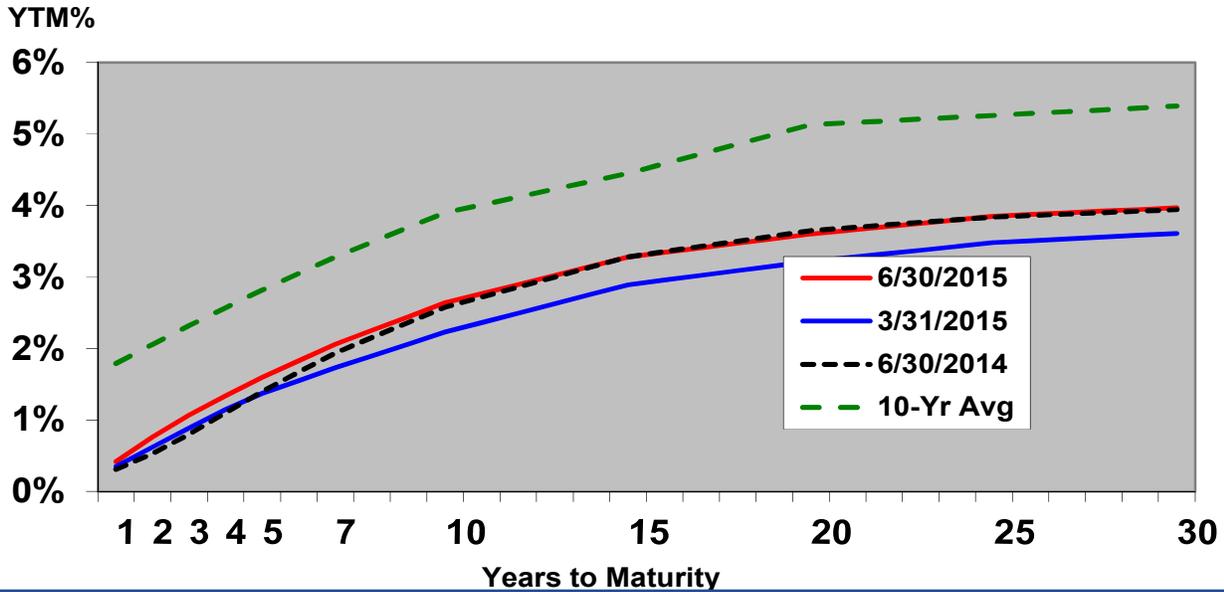
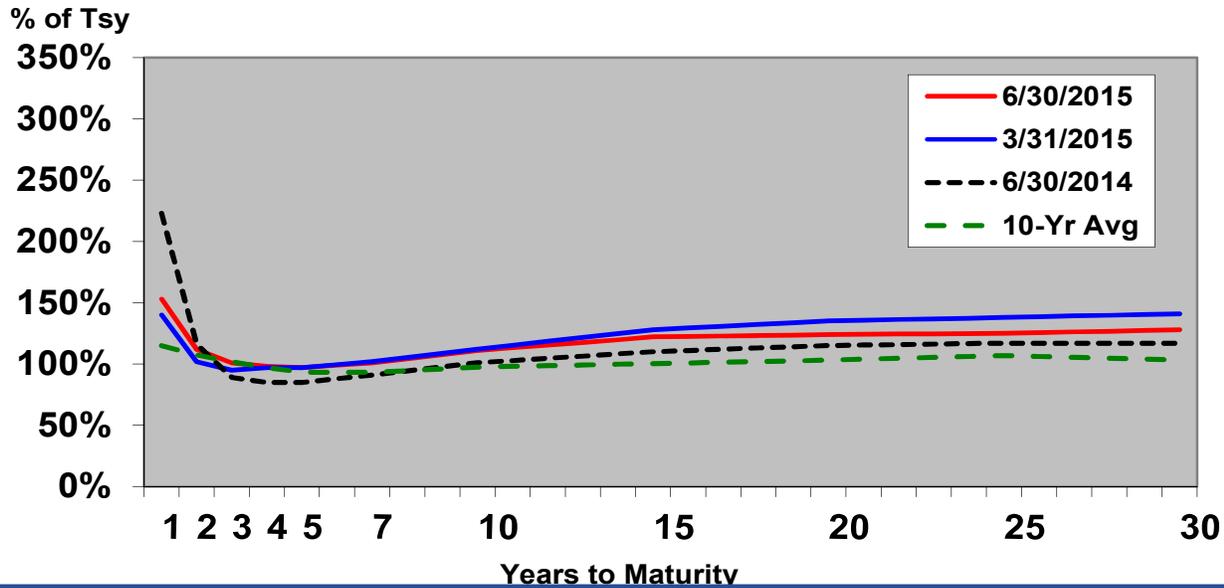


Fig 6

AA General Market Yields as % of Treasury



2-Year AA Municipal
5-Year AA Municipal
10-Year AA Municipal
25-Year AA Municipal

10 Yr Avg	3/31/2015	6/30/2015
107%	102%	112%
93%	97%	97%
97%	112%	111%
106%	138%	125%