CONTRA COSTA transportation authority

Financial Markets & Debt Portfolio Update

August 23, 2016

Introduction

Public Financial Management Inc., (PFM), financial advisor to the Contra Costa Transportation Authority (CCTA) has prepared the following report as an update of market conditions through June 30, 2016. The information herein is intended to keep CCTA informed about the latest developments in the financial markets, the economy, the current CCTA debt and swap portfolio, and potential financing opportunities.

Market Review and Update

Overview

During the second quarter of 2016, the market was characterized by volatility and uncertainty. Much of this volatility and uncertainty related to continued concerns surrounding the health of the global economy as well as the United Kingdom's June 23rd vote to leave the European Union ("Brexit"). Pre-vote polling indicated that a Brexit was unlikely. As a result, the UK's final vote to leave the EU surprised the global markets and caused volatility as investors fled equities for fixed income securities. In the two trading days following the Brexit, the S&P declined 5.34% to 2,000.54 – its lowest point since mid-March. After the immediate shock, US equities rebounded as more became known about the Brexit and concerns about its near-term impact on the US economy subsided. The S&P finished the quarter at pre-Brexit levels.

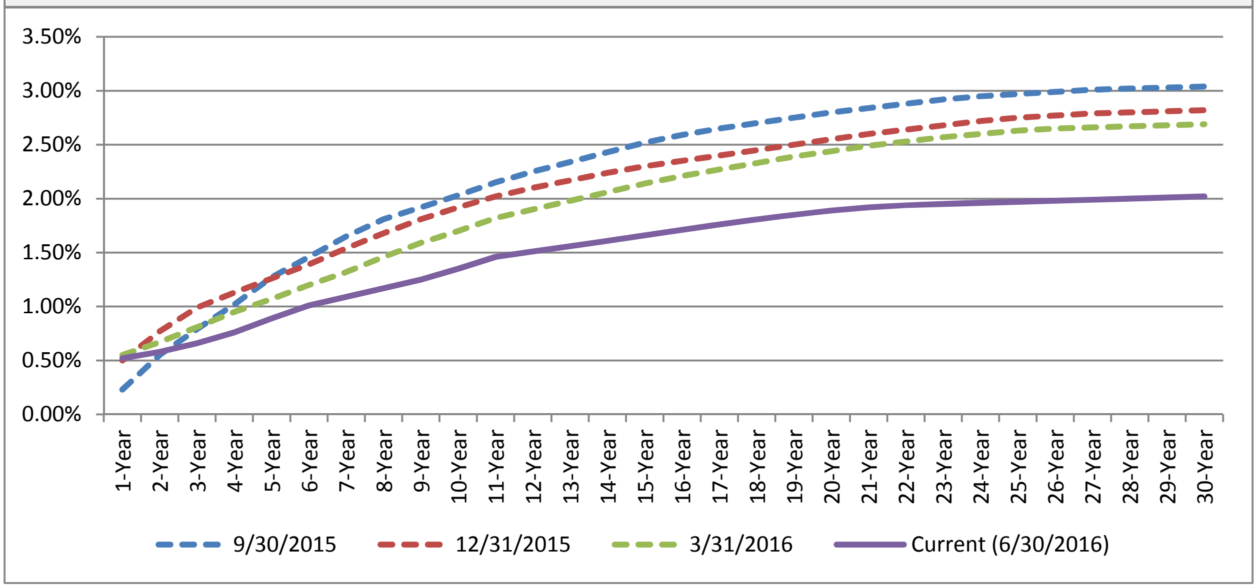
US GDP is estimated to have grown by 1.2% in the second quarter, an improvement over the 0.8% seen in the first quarter. Despite improvements in GDP and other economic indicators, inflation continued to run below the Federal Open Market Committee's ("FOMC") target of 2%. Under these circumstances, the FOMC voted against raising the federal funds target rate at its June meeting.

	2015 AAA MMD Rate Movements				
Maturity	**6/30/15**	**9/30/15**	**12/31/15**	**3/31/16**	**6/30/16**
3-Year	0.93%	0.79%	0.99%	0.55%	0.66%
5-Year	1.38%	1.27%	1.26%	1.07%	0.89%
10-Year	2.28%	2.03%	1.92%	1.70%	1.35%
20-Year	3.01%	2.80%	2.55%	2.44%	1.89%
30-Year	3.28%	3.04%	2.82%	2.69%	2.02%

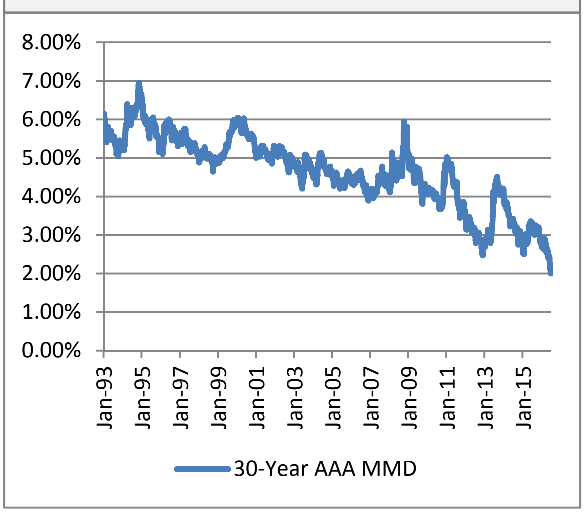
Municipal Bonds

In the immediate aftermath of the Brexit, investors sought safe, high-quality investments. As a result, demand for municipal bonds helped drive down rates to all-time lows. The AAA MMD yield curve is the bench mark yield curve in the municipal bond market. The 30-year maturity is used to approximate long term municipal bond rates. At the end of the quarter, the 30-year AAA MMD was 2.02%. At the time, this rate has been lower only 0.14% of the time since 1993.

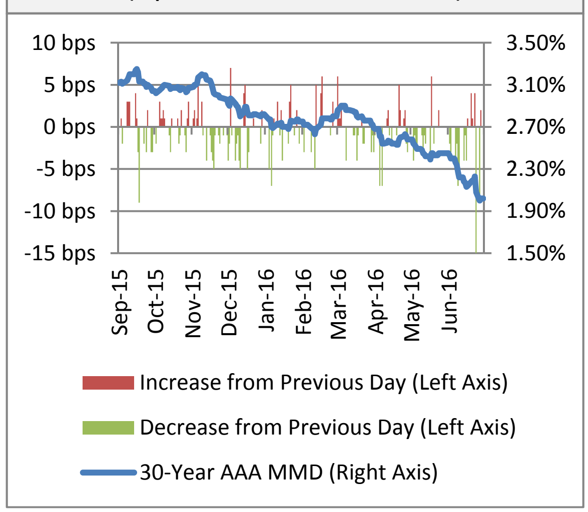
AAA MMD Yield Curve Movement



Benchmark Tax-Exempt Rate History (January 1, 1993 to June 30, 2016)



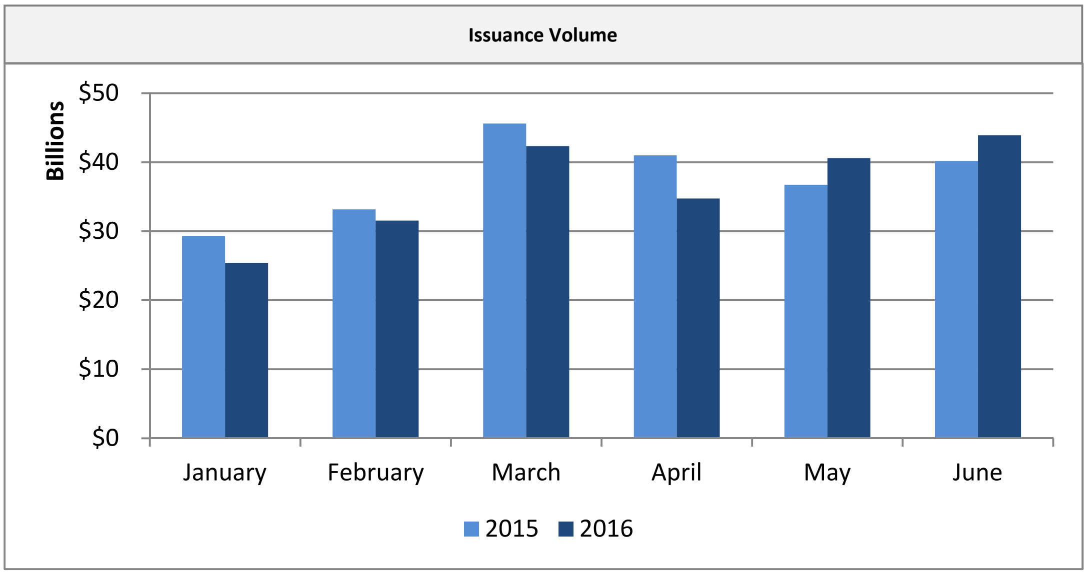
Benchmark Tax-Exempt Rate History (September 1, 2015, to June 30, 2016)



Municipal Market Supply[1]

Through June, municipal market supply totaled $218.5 billion in par amount for 2016, nearly equivalent to 2015 which was a record issuance year.

So far in 2016, issuers have been refunding outstanding debt nearly as frequently as issuing new debt with $86.5 billion in new money and $90.5 billion in refundings. The transportation sector's supply is $24.5 billion, 11.2% of 2016 market supply. This slightly lags last year's pace when the transportation sector contributed 12.0% of supply.



Supply is a market indicator that provides insight to the sentiments of issuers and investors. Increased supply may indicate that issuers are taking advantage of a low interest rate environment, but may also serve as justification for investors to demand a higher yield. Decreased supply may indicate that borrowing costs are prohibitively high for issuers, but may also compel investors to lower interest rates. In either case, market supply is a metric to help the Authority understand the ongoing market dynamics.

[1] Issuance data from The Bond Buyer

Interest Rate Forecasts[2]

As mentioned earlier, the FOMC voted against raising the federal funds target rate at its June meeting. Inflation, which remains below the FOMC's 2% objective, is a primary reason the FOMC has not raised rates since its December 2015 meeting.

The table below provides an average of interest rate forecasts by industry professionals. These are surveyed and compiled by Bloomberg. As noted, the 30-year US Treasury is forecast to increase to 2.48% by the fourth quarter of calendar year 2016. The 10-year US Treasury rate is forecast to increase to 1.62% by the fourth quarter of calendar year 2016. The 2-year US Treasury is forecasted to increase to 0.77% by the fourth quarter of 2016.

The Street's Interest Rate Forecast							
Forecast	**6/30/16**	**Q3 16**	**Q4 16**	**Q1 17**	**Q2 17**	**Q3 17**	**Q4 17**
30-Year UST	2.29%	2.35%	2.48%	2.59%	2.71%	2.78%	2.89%
10-Year UST	1.47%	1.46%	1.62%	1.78%	1.94%	2.07%	2.21%
2-Year UST	0.58%	0.65%	0.77%	0.93%	1.09%	1.22%	1.42%
3M LIBOR	0.26%	0.58%	0.71%	0.83%	1.01%	1.15%	1.41%
Fed Funds Target Rate Upper Bound	0.50%	0.55%	0.65%	0.75%	0.95%	1.00%	1.20%
Fed Funds Target Rate Lower Bound	0.25%	0.29%	0.43%	0.52%	0.68%	0.77%	0.96%

Separate from these forecasts, Bloomberg calculates the probability of the FOMC raising the target Fed Funds Rate based on trading data. Based on the current market, the FOMC's June 2017 meeting is the first time the probability of a rate hike is greater than 50%.

[2] Forecast survey compiled by Bloomberg

Debt Portfolio Overview and Update

Outstanding Debt Overview

CCTA has $436.0 million of outstanding long-term debt, consisting of the Series 2012A Floating Rate Notes ("FRNs"), the Series 2012B tax-exempt fixed-rate bonds, and the Series 2015A tax-exempt fixed-rate bonds. Of the total debt portfolio, 46% consists of variable-rate bonds and the remaining 54% are fixed-rate bonds. The variable rate debt is hedged by an interest rate swap that protects CCTA from interest rate volatility. A summary of the outstanding bonds is presented in the table below.

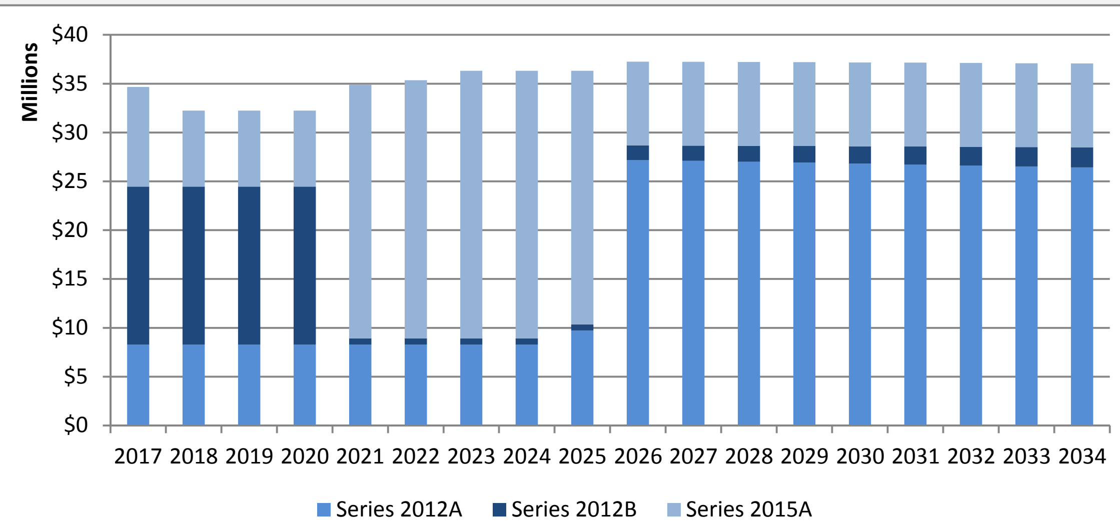
Summary of Outstanding Debt

Series	Tax Status	Coupon Type	Original Issue Size	Outstanding Par	Call Option	Mandatory Tender Date	Final Maturity
2012A	Tax-Exempt	Variable-Rate	201,450,000	201,450,000	1-Year Make Whole[3]	12/14/2020	3/1/2034
2012B	Tax-Exempt	Fixed-Rate	188,770,000	67,885,000	3/1/2023	N/A	3/1/2034
2015A	Tax-Exempt	Fixed-Rate	166,640,000	166,640,000	3/1/2025	N/A	3/1/2034
Total				435,975,000			

Debt Service and Coverage

As seen in the chart below, CCTA has a slightly deferred debt service structure that gradually rises until FY 2026 when it peaks at $37.3 million and then is level through FY 2034. Using estimated FY 2016 sales tax receipts, maximum annual debt service coverage is 2.24 times. For every $1.00 of peak debt service, CCTA received $2.24 of Measure J revenue providing ample coverage. This high debt service coverage is a critical factor supporting CCTA's "AAA" and "AA+" ratings from Fitch and S&P, respectively.

Aggregate Debt Service Profile



[3] 1-year Make Whole call option requires the Authority to pay the remaining interest due at the 1-year anniversary of the bond issuance in order to prepay the FRNs

Interest Rate Swap Performance

CCTA has a $200.0 million fixed-payer interest rate swap outstanding, the purpose of which is to hedge the interest rate variability associated with the FRNs. The market value of the swap changes with interest rate fluctuations and as of June 30, 2016, the market value was approximately ($62,262,755). CCTA intends to hold the swap through maturity in 2034 and not incur a loss by terminating the swap early.

Swap Portfolio Overview								
Associated Series	CCTA Pays	CCTA Receives	Trade Date	Effective Date	Maturity Date	MTM Value *(As of 6/30/16)*	Notional Outstanding	Bank Counterparty
Series 2012A	3.6574%	63.5% of USD-LIBOR + 0.29%	11/22/2005	9/23/2009	3/1/2034	($62,262,755)	$200,000,000	Bank of America, N.A. (A1/A/A+)

CCTA is required to post collateral in instances where the swap valuation is below -$40 million. At this current time, CCTA has posted $23.3 million of US Treasuries as collateral held by Bank of America, N.A., the swap counterparty. It is important to note that while Bank of America, N.A. holds the securities, CCTA still receives the interest income from those securities. Regardless, the swap is performing as expected and currently there are no reasons that CCTA would terminate the swap.

Cost of Capital

CCTA has a very attractive weighted average cost of capital (WACC) of 3.12%. This cost can vary slightly, based upon swap performance.

CCTA's WACC Calculations									
Series	**Original Par**	**Outstanding Par**	**Swap Rate**	**Fixed Spread**	**Total Cost of Capital w/o Current Basis**	**Floating Rate Index (70% of LIBOR)**	**Swap Receipts (63.5% of LIBOR + 0.29%)**	**Current Basis**	**Total Cost of Capital w/ Current Basis**
2012A	201,450,000	201,450,000	3.657%	0.480%	4.137%	0.320%	0.580%	-0.260%	3.877%
Series	**Original Par**	**Outstanding Par**			**All-In TIC**				**All-In TIC**
2012B	188,770,000	67,885,000			2.123%				2.123%
2015A	166,640,000	166,640,000			2.617%				2.617%
Total/ Weighted Avg	**556,860,000**	**435,975,000**			**3.243%**				**3.122%**

The outstanding Series 2012A Bonds, unlike other variable rate products, do not require liquidity support from a financial institution. The interest rate is calculated as 70% of 1-Month London Interbank Offer Rate (LIBOR) plus a spread of 0.48%. The LIBOR rate is reset monthly. On average, LIBOR has been 0.43% since December 14, 2015.

Refinancing Analyses

CCTA and its financing team continue to monitor the Authority's debt portfolio for opportunities to refinance outstanding debt for savings. With the Series 2015A Bond transaction, CCTA refunded a significant portion of its outstanding callable bonds for savings. Of CCTA's $275.0 million of outstanding callable bonds, $201.5 million is variable rate and would only be refunded if the associated interest rate swap was terminated at a cost of $61.2 million ($60.5 million mark-to-market valuation, as of July 25th, plus additional termination costs).

The Series 2012A FRNs has ten maturities outstanding – nine of which have a coupon rate of 4.14%. Under current market conditions a refunding of the FRNs with fixed rate bonds produces present value (PV) savings of $31.9 million. However, the swap termination cost of $61.2 million must be paid at closing. Once this expense is subtracted from PV Savings, the FRNs show dissavings or a net cost of -$29.3 million. The table below summarizes the 2012A FRNs refunding results on a maturity-by-maturity basis:

Series 2012A Maturity-by-Maturity Refunding Analysis (Variable Rate to Fixed Rate Refunding)						
Maturity	**Original Par**	**Coupon**	**PV Savings**	**Swap Termination Cost[4]**	**Total PV Savings**	**Percent of Par**
2025	$1,450,000	0.59%	($135,254)		($135,254)	-9.33%
2026	$19,100,000	4.14%	$3,859,773	($4,441,411)	($581,638)	-3.05%
2027	$19,815,000	4.14%	$3,737,226	($4,975,295)	($1,238,069)	-6.25%
2028	$20,555,000	4.14%	$3,630,214	($5,527,713)	($1,897,499)	-9.23%
2029	$21,325,000	4.14%	$3,614,698	($6,104,927)	($2,490,229)	-11.68%
2030	$22,120,000	4.14%	$3,587,389	($6,707,394)	($3,120,005)	-14.10%
2031	$22,950,000	4.14%	$3,473,159	($7,339,190)	($3,866,031)	-16.85%
2032	$23,810,000	4.14%	$3,419,176	($7,998,702)	($4,579,526)	-19.23%
2033	$24,700,000	4.14%	$3,352,007	($8,688,609)	($5,336,602)	-21.61%
2034	$25,625,000	4.14%	$3,330,903	($9,411,879)	($6,080,976)	-23.73%
Total	**$201,450,000**		**$31,869,289**	**($61,195,120)**	**($29,325,831)**	**-14.56%**

The Series 2015A Bonds refinanced $84.5 million of the Series 2012B Bonds. There remains $12.5 million of the Series 2012B Bonds that are callable but do not produce meaningful savings in the current market given the length of time until their initial call date. The Series 2015A Bonds were issued too recently to generate savings. PFM will continue to work with staff to monitor market conditions and identify cost saving opportunities as they arise.

Additional Bonds

The Authority anticipates its next bond issuance to occur in late 2017 and to be in an amount between $50 and $100 million in principal amount. The amount will be determined on the basis of need, but will adhere to the Authority's additional bonds test of maintaining a debt service coverage ratio greater than or equal to 1.75 times. In the interim, projects will be funded on a pay-as-you-go basis.

[4] Swap Termination Cost assumes an additional 0.03% of costs related to the termination

Bond Stakeholders Outreach & Communication

CCTA takes communication with its stakeholders very seriously. The Authority maintains an ongoing dialogue with investors and both rating agencies: Fitch, who rates the Authority's bonds "AAA" and S&P who rates them "AA+". CCTA has agreements in place that determine which documents are disseminated to investors and when those documents are disseminated for both publicly and privately sold bonds. Currently, CCTA is in compliance with its disclosure agreements. Any notices or new documents pertaining to the Authority's bonds can be found on the Electronic Municipal Market Access (EMMA) – an online service provided by the Municipal Securities Rulemaking Board (MSRB) to make state and local governments' financial disclosures available to investors. In addition, CCTA maintains an investor relations page on its website. Here, investors can find the latest financial reports as well as documents from the Authority's bond sales.