



Financial Markets & Debt Portfolio Update

May 25, 2016

Introduction

Public Financial Management Inc., (PFM), financial advisor to the Contra Costa Transportation Authority (CCTA) has prepared the following report as a market update for the period ended March 31, 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

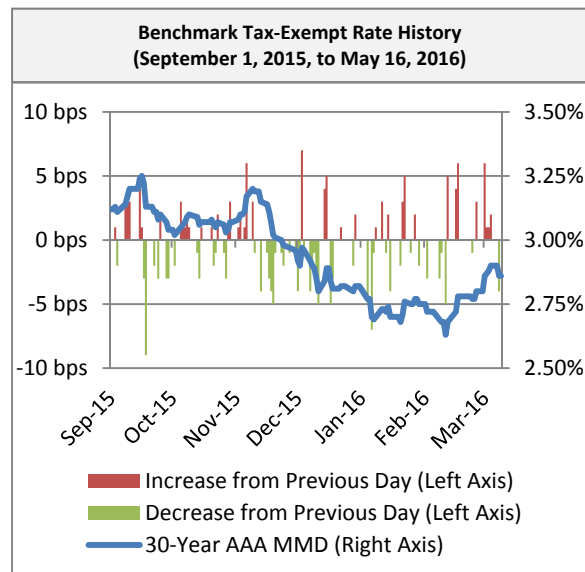
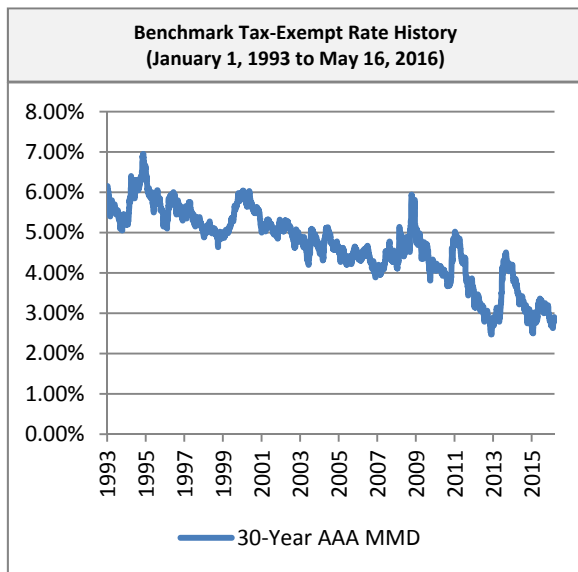
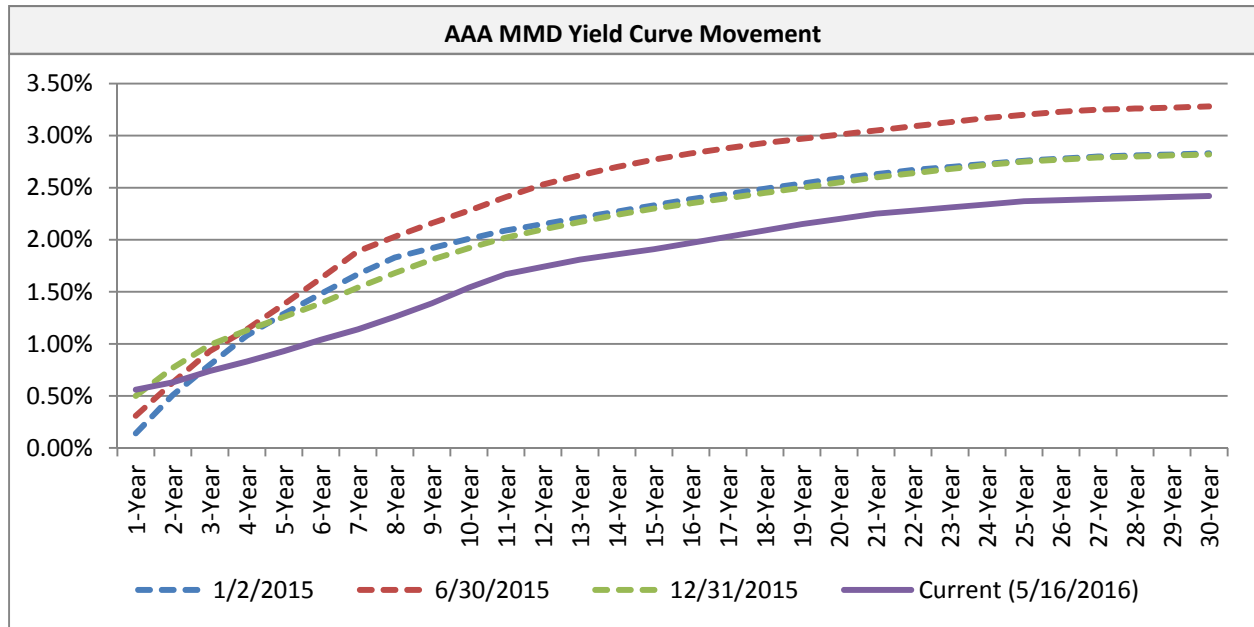
While global uncertainty remains after a volatile start to the year, easing from international central banks boosted the performance of equities abroad and slightly offset the losses incurred through February. The prospect of the Organization of the Petroleum Exporting Countries (OPEC) instituting a production freeze combined with actual disruptions in supply spurred the recovery of oil prices. Today oil prices are above \$48 per barrel after falling below \$27 per barrel in January.

Amidst the global economic uncertainty, US GDP grew by 0.5 percent in the first quarter, the slowest pace in two years, as American consumers reined in spending and companies tightened their belts. Under these economic conditions and with inflation running below the 2 percent objective, the Federal Open Market Committee (FOMC) has left the federal funds target rate unchanged at its January and March meetings, after raising it at its December meeting.

Maturity	2015 AAA MMD Rate Movements					
	3/31/15	6/30/15	9/30/15	12/31/15	3/31/16	5/16/16
3-Year	0.82%	0.93%	0.79%	0.99%	0.55%	0.74%
5-Year	1.35%	1.38%	1.27%	1.26%	1.07%	0.93%
10-Year	1.96%	2.28%	2.03%	1.92%	1.70%	1.54%
20-Year	2.45%	3.01%	2.80%	2.55%	2.44%	2.20%
30-Year	2.80%	3.28%	3.04%	2.82%	2.69%	2.42%

Municipal Bonds

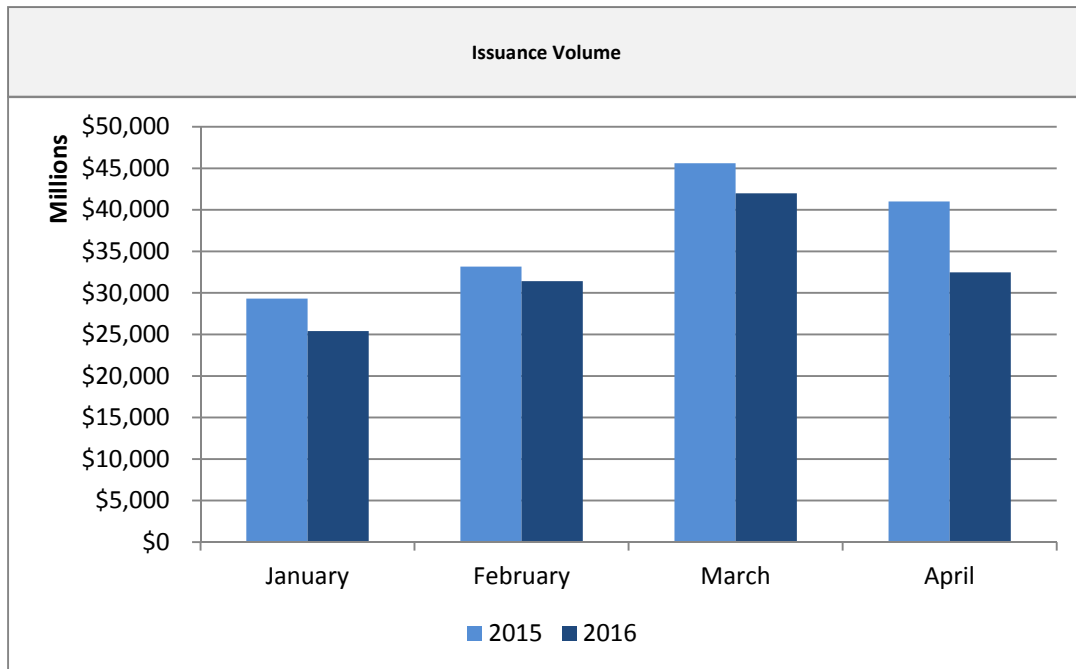
Investor's anticipation of a rate increase at the FOMC's March meeting helped drive rates up. However, once the FOMC announced its decision to hold rates steady and signaled fewer rate increases in 2016, rates began to decline and have continued to do so through May. The AAA MMD yield curve is the benchmark yield curve in the municipal bond market. The 30-year maturity is used to approximate long term municipal bond rates. Currently, the 30-year AAA MMD is 2.42% – this rate has been lower only 0.03% of the time since 1993.



Municipal Market Supply¹

Through April, municipal market supply has totaled \$131.3 billion in par amount for 2016, down 11.9% year-over-year. The decline is not surprising given that 2015 was the largest year in supply since 2010.

So far in 2016, issuers have been refunding outstanding debt nearly as frequently as issuing new debt with \$52.5 billion in new money and \$54.1 billion in refundings. The transportation sector's supply is \$9.9 billion, 7.5% of 2016 market supply. This 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 Forecasts²

As mentioned earlier, the FOMC raised the federal funds target rate at its December meeting. However, with inflation still below the 2% objective, FOMC officials decided against another rate hike at the January and March meetings. Projections released along with the FOMC's monetary statement show the median projection for the federal funds target rate to be 0.875% in December 2016. This projection seemingly indicates that FOMC officials are anticipating two more rate increases for 2016, down from the four originally projected in December 2015.

The table below provides an average of interest rate forecasts by industry professionals. These are surveyed and compiled by Bloomberg. As noted, the 10-year US Treasury rate is forecast to increase to 2.20% by the fourth quarter of calendar year 2016. The 30-year US Treasury is forecast to increase to 2.99% by the fourth quarter of calendar year 2016. The 2-year US Treasury is forecasted to increase to 1.17% by the fourth quarter of 2016.

The Street's Interest Rate Forecast							
Forecast	5/16/16	Q2 16	Q3 16	Q4 16	Q1 17	Q2 17	Q3 17
30-Year UST	2.59%	2.76%	2.89%	2.99%	3.09%	3.17%	3.26%
10-Year UST	1.75%	1.90%	2.05%	2.20%	2.34%	2.45%	2.59%
2-Year UST	0.78%	0.85%	1.00%	1.17%	1.34%	1.49%	1.68%
3M LIBOR	0.27%	0.68%	0.80%	0.95%	1.12%	1.30%	1.51%
Fed Funds Target Rate Upper Bound	0.50%	0.55%	0.70%	0.90%	1.05%	1.25%	1.40%
Fed Funds Target Rate Lower Bound	0.25%	0.32%	0.47%	0.64%	0.80%	1.00%	1.18%

² Forecast survey compiled by Bloomberg

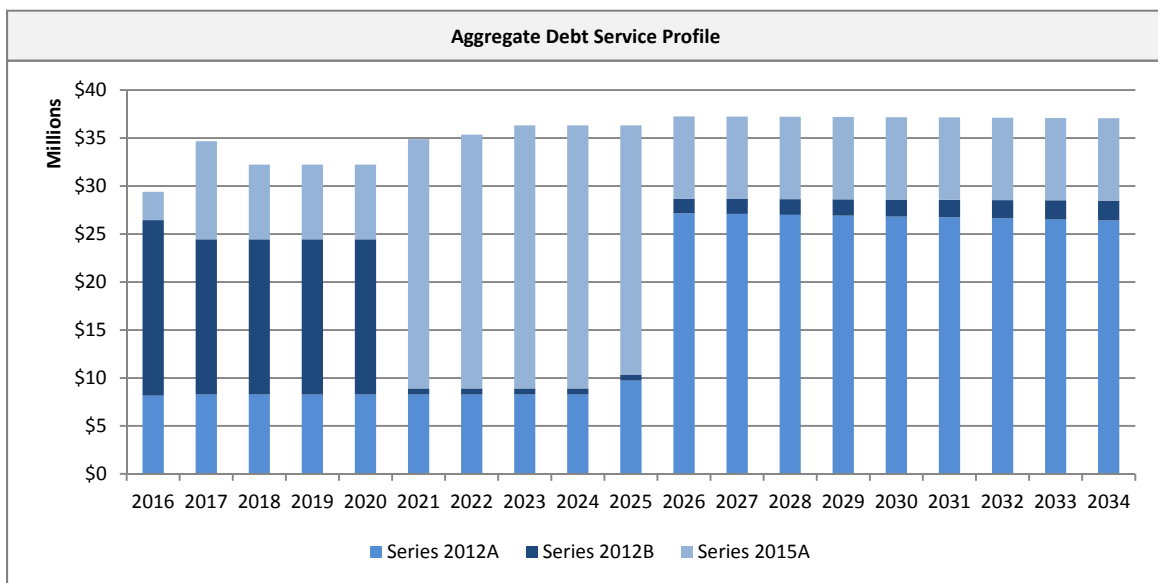
Outstanding Debt Overview

CCTA has \$448.4 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, 45% consists of variable-rate bonds and the remaining 55% are fixed-rate bonds. The variable rate debt is hedged by an interest rate swap and 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	80,345,000	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				448,435,000			

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 FY 2015 sales tax receipts, maximum annual debt service coverage is 2.13 times. For every \$1.00 of peak debt service, CCTA received \$2.13 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.



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 May 16, 2016, the market value was approximately (\$57,652,245). 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 5/16/16)	Notional Outstanding	Bank Counterparty
Series 2012A	3.6574%	63.5% of USD-LIBOR + 0.29%	11/22/2005	9/23/2009	3/1/2034	(\$57,652,245)	\$200,000,000	Bank of America, N.A. (A1/A/A+)

Additionally, CCTA is required to post collateral in instances where the swap valuation is below -\$40 million. At this current time, CCTA has posted \$21.4 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 3.09%. 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%	0.307%	0.568%	-0.262%	3.876%
Series	Original Par	Outstanding Par			All-In TIC				All-In TIC
2012B	188,770,000	80,345,000			2.123%				2.123%
2015A	166,640,000	166,640,000			2.617%				2.617%
Total/ Weighted Avg	556,860,000	448,435,000			3.212%				3.094%

Series 2012A of \$201.5 million, 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 \$58.1 million (\$57.7 million mark-to-market valuation 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 \$29.7 million. However, the swap termination cost of \$58.1 million must be paid at closing. Once this expense is subtracted from PV Savings, the FRNs show dissavings or a net cost of - \$28.4 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%	(\$136,497)		(\$136,497)	-9.41%
2026	\$19,100,000	4.14%	\$3,730,930	(\$4,321,730)	(\$590,800)	-3.09%
2027	\$19,815,000	4.14%	\$3,540,764	(\$4,810,220)	(\$1,269,456)	-6.41%
2028	\$20,555,000	4.14%	\$3,444,478	(\$5,312,048)	(\$1,867,570)	-9.09%
2029	\$21,325,000	4.14%	\$3,395,270	(\$5,834,164)	(\$2,438,894)	-11.44%
2030	\$22,120,000	4.14%	\$3,355,781	(\$6,377,269)	(\$3,021,488)	-13.66%
2031	\$22,950,000	4.14%	\$3,230,698	(\$6,946,007)	(\$3,715,309)	-16.19%
2032	\$23,810,000	4.14%	\$3,138,149	(\$7,539,704)	(\$4,401,555)	-18.49%
2033	\$24,700,000	4.14%	\$3,030,546	(\$8,161,431)	(\$5,130,885)	-20.77%
2034	\$25,625,000	4.14%	\$2,964,584	(\$8,813,307)	(\$5,848,723)	-22.82%
Total	\$201,450,000		\$29,694,705	(\$58,115,880)	(\$28,421,175)	-14.11%

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 overall savings in the current market. 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.