January 25, 2017

Financial Markets & Debt Portfolio Update

Contra Costa Transportation Authority

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 December 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

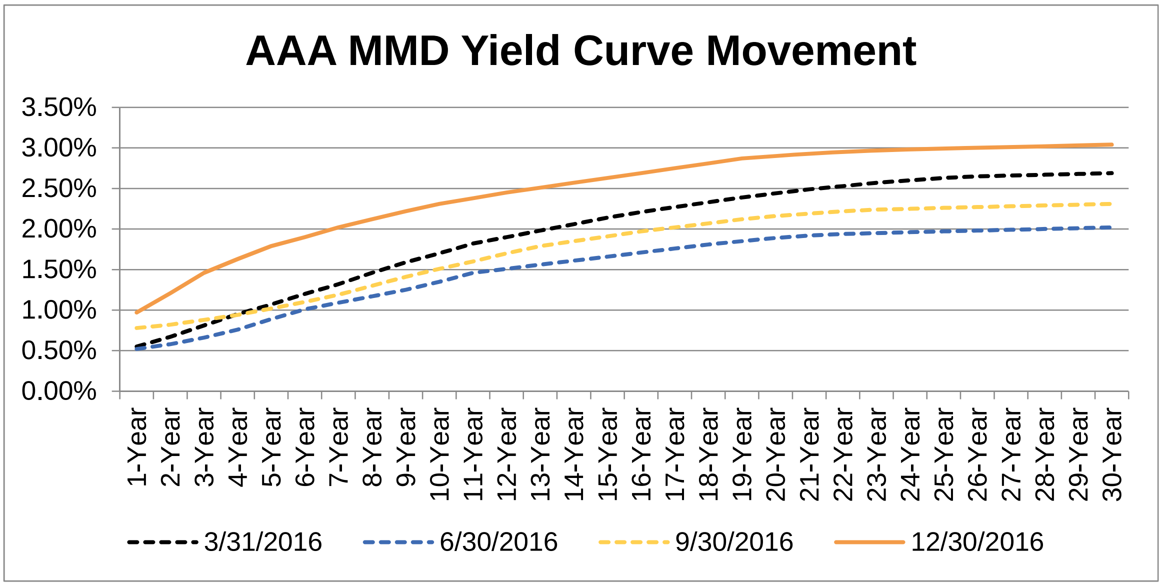
2016 finished with many positive economic indicators in response to the more business friendly Trump administration. Major stock indexes including the S&P 500, NASDAQ, and Dow Jones Industrial Average closed at record highs. During the quarter US equities have held gains following the election, with more confident investors. The Dow reached an all-time closing high of 19,974.62 on December 20th. The improvement in investor confidence is matched in consumer confidence increases.

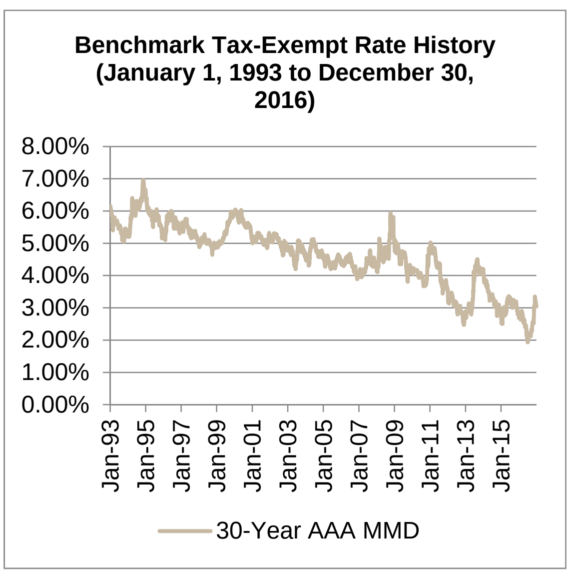
Third quarter US GDP growth was revised upward to 3.5%, over double the growth seen in the second quarter, at 1.4%. The labor market remained strong as 495,000 jobs were added from October through December, marking the 75th consecutive month of job gains, the best on record. Although inflation continued to run below the Federal Open Market Committee's (FOMC) target of 2%, the FOMC voted to raise the federal funds target rate at its December meeting citing that it expects inflation would rise above 2% in the coming years. In 2017, the FOMC is expected to raise rates 3 times. Central banks outside the U.S. continued to pursue accommodative monetary policy amid slow growth and low inflation. The European Central Bank kept its benchmark interest rate at 0% and continued its asset purchasing program, as did the Bank of England. At the same time, the Bank of Japan continued its quantitative easing programs aimed at keeping the 10-year Japanese government bond yield near 0% and expanding money supply until inflation remains above the 2% target.

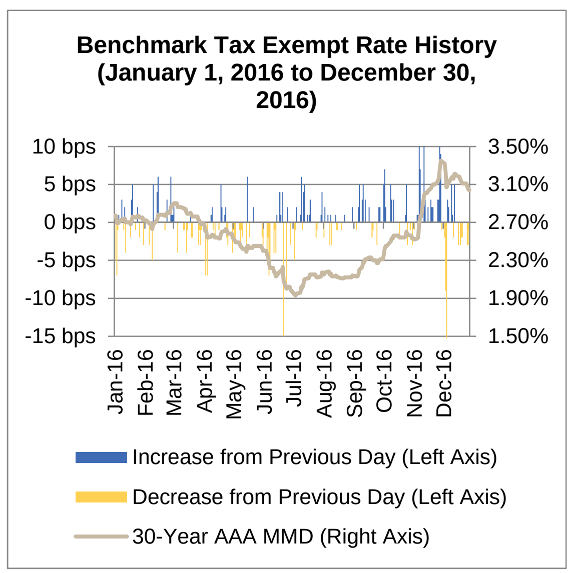
Tax-Exempt Bond Rates: 2015-2016 AAA MMD Rate Movements					
Maturity	**12/31/2015**	**3/31/2016**	**6/30/2016**	**9/30/2016**	**12/30/2016**
3-Year	0.99%	0.55%	0.66%	0.88%	1.46%
5-Year	1.26%	1.07%	0.89%	1.02%	1.79%
10-Year	1.92%	1.70%	1.35%	1.51%	2.31%
20-Year	2.55%	2.44%	1.89%	2.16%	2.90%
30-Year	2.82%	2.69%	2.02%	2.31%	3.04%

Municipal Bonds

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. Following the presidential election, MMD has seen dramatic increases. As the market stabilized, rates increased and the 30-year AAA MMD finished the calendar year at a high of 3.04%.





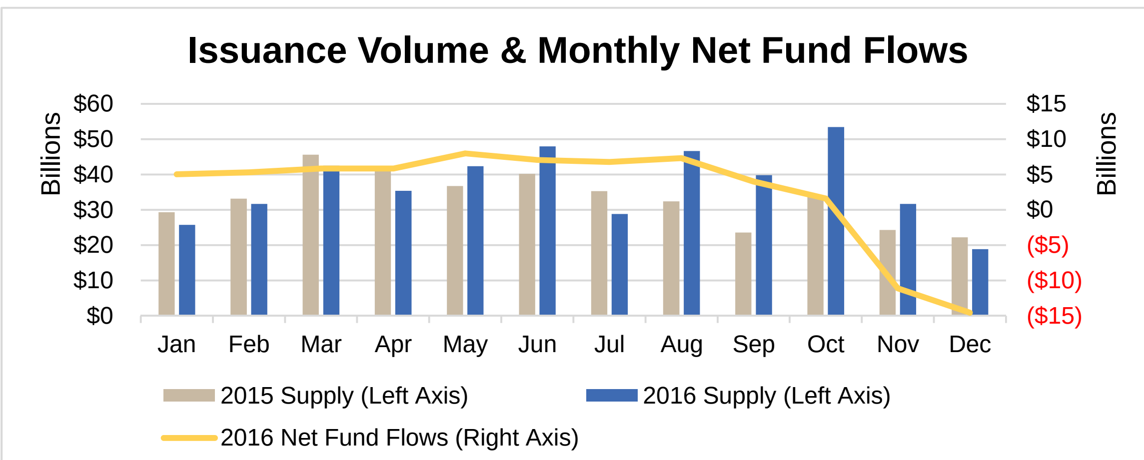


Municipal Market Supply[1]

For 2016, municipal market supply totaled $444.8 billion in par amount; 11.84% greater than in 2015.

In 2016, issuers refunded outstanding debt nearly as frequently as they issued new debt with $173.1 billion in new money and $178.1 billion in refundings. The transportation sector's supply was $50.9 billion, 11.44% of 2016 market supply. This slightly lags last year's pace when the transportation sector contributed 12.03% of supply.

Many issuers came to market as rates remained low through October. However, gains in the equity markets following President Trump's election drew investors away from bonds forcing yields higher. The increase in rates took many deals, especially refundings, off the table. As a result, supply declined over the final quarter.



Like any market, the municipal bond market is subject to the forces of supply and demand, which are market indicators that provide insight into 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 higher yields. Decreased supply may indicate that borrowing costs are prohibitively high for issuers, but may also compel investors to lower interest rates.

Net bond fund flows serves as an approximation for demand. Increased demand may be a signal that interest rates on municipal bonds are higher, but may also allow issuers to demand lower borrowing rates. Decreased demand may signal that interest rates are too low and may push borrowing rates higher. In any case, market supply and demand are metrics that help the Authority understand the ongoing market dynamics.

[1] *Issuance data sourced from The Bond Buyer; Monthly Net Fund Flows data sourced from the Investment Company Institute*

Interest Rate Forecasts[2]

As mentioned earlier, the FOMC voted to raise the federal funds target rate at its December meeting, for the first time in 2016 and the second time in a decade. The decision to do so reflects the further strengthening job market and expectation that inflation will rise above 2% in the coming years.

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 3.41% by the fourth quarter of calendar year 2017. The 10-year US Treasury rate is forecast to increase to 2.81% by the fourth quarter of calendar year 2017. The 2-year US Treasury is forecasted to increase to 1.69% by fourth quarter of calendar year 2017.

The Street's Interest Rate Forecast

Forecast	12/30/2016	Q1 17	Q2 17	Q3 17	Q4 17	Q1 18	Q2 18
30-Year UST	3.00%	3.13%	3.23%	3.32%	3.41%	3.49%	3.62%
10-Year UST	2.41%	2.49%	2.61%	2.70%	2.81%	2.87%	3.01%
2-Year UST	1.21%	1.24%	1.39%	1.53%	1.69%	1.83%	2.05%
3M LIBOR	1.01%	1.08%	1.24%	1.41%	1.59%	1.77%	1.97%
Fed Funds Target Rate Upper Bound	0.75%	0.80%	1.00%	1.10%	1.30%	1.45%	1.65%
Fed Funds Target Rate Lower Bound	0.50%	0.53%	0.73%	0.85%	1.07%	1.20%	1.42%

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 data, there's a 26% chance of second rate hike at the Fed's March 2017 meeting, and a 71% chance in the June 2017 meeting.

[2] *Forecast survey compiled by Bloomberg*

Debt Portfolio Overview and Update

Outstanding Debt Overview

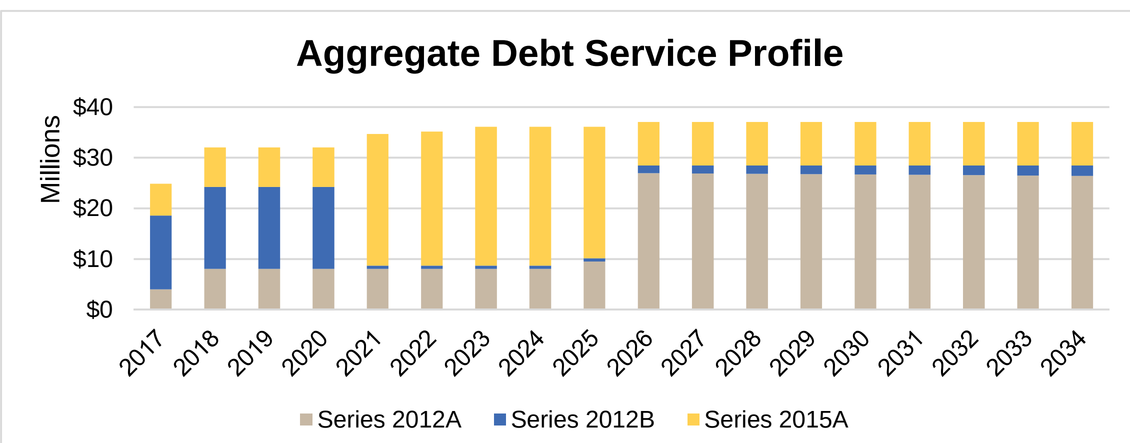
CCTA has $436.0 million of outstanding long-term debt, consisting of the Series 2012A Floating Rate Notes (FRNs), the Series 2012B tax-exempt fixed-rate bonds, and the Series 2015A tax-exempt fixed-rate bonds. Of the total debt portfolio, 46% consists of variable-rate bonds and the remaining 54% are 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	Callable at the Authority's discretion	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.



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 December 30, 2016, the market value was approximately ($43,508,882). 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 12/30/2016)**	**Notional Outstanding**	**Bank Counterparty**
Series 2012A	3.6574%	63.5% of USD-LIBOR + 0.29%	11/22/2005	9/23/2009	3/1/2034	($43,508,882)	$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 $2.6 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 3.127%. 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%	0.432%	0.682%	-0.250%	3.887%
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%**				**3.127%**

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 LIBOR plus a spread of 0.48%. The LIBOR rate is reset monthly. On average, LIBOR has been 0.49% 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 $42.5 million ($42.1 million mark-to-market valuation, as of January 25th, plus additional termination costs).

The Series 2012A FRN 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 $21.4 million. However, the swap termination cost of $42.5 million must be paid at closing. Once this expense is subtracted from PV Savings, the FRNs show dissavings or a net cost of -$21.1 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[3]	Total PV Savings	Percent of Par
2025	$1,450,000	0.59%	($170,587)		($170,587)	-11.76%
2026	$19,100,000	4.14%	$2,797,863	($3,118,596)	($320,733)	-1.68%
2027	$19,815,000	4.14%	$2,988,647	($3,476,727)	($488,080)	-2.46%
2028	$20,555,000	4.14%	$2,780,882	($3,852,260)	($1,071,378)	-5.21%
2029	$21,325,000	4.14%	$2,651,125	($4,247,754)	($1,596,629)	-7.49%
2030	$22,120,000	4.14%	$2,417,139	($4,658,406)	($2,241,268)	-10.13%
2031	$22,950,000	4.14%	$2,227,152	($5,086,907)	($2,859,755)	-12.46%
2032	$23,810,000	4.14%	$2,088,819	($5,532,797)	($3,443,978)	-14.46%
2033	$24,700,000	4.14%	$1,887,478	($5,999,382)	($4,111,904)	-16.65%
2034	$25,625,000	4.14%	$1,719,766	($6,488,874)	($4,769,108)	-18.61%
Total	**$201,450,000**		**$21,388,282**	**($42,461,703)**	**($21,073,421)**	**-10.46%**

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

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

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 the next six months and to be in an amount sufficient to raise approximately $75 to $100 million in project funds. Proceeds will be used to advance projects under Measure J. 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.

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+". Senior staff will organize in-person meetings with the rating agencies and potential investors as part of the upcoming 2017 bond issuance process. 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.