Treasury Strategies

The Power of Experience®

Maintaining Public Sector Funding Access:
The Importance of Preserving Money Market Mutual Funds (MMFs)

New MMF regulations that were implemented in October 2016 are having major negative consequences for issuers and borrowers of debt held by money market funds. Specifically, Tax-Exempt MMFs (TE MMFs) are closing and assets are leaving. This is drying up a very important municipal financing conduit. Additionally, the flight of assets out of Prime MMFs is resulting in higher borrowing costs for municipalities as the pool of available capital decreases.

As TE MMFs close, municipalities have fewer buyers for their debt. Even when they are able to place issues with the remaining TE funds, due to the shortened maturity structure, they are less able to lock in rates and more subject to weekly rate resets. This increases volatility and adds to their borrowing costs. If they are not able to place their issues with TE MMFs, only two options are available. They must turn to other lenders that have higher transaction costs / charge higher rates, or they must defer / cancel planned infrastructure, educational, healthcare and other municipal projects.

This paper will show the following, all of which demonstrate the negative impacts on municipal financing of new MMF regulation:

- Massive amounts of assets are leaving Tax-Exempt MMFs;
- Borrowing rates for municipal borrowers have increased dramatically;
- Investment managers that use TE funds on behalf of their customers are exiting those funds; and
- Assets that leave Prime MMFs and go into Government and Treasury funds deplete the overall pool of private capital, raising borrowing rates for municipalities.

Between January 2016 and August 2017, around $120 billion left TE MMFs, a decline of nearly 50%. Since TE MMFs provide significant financing to municipal borrowers, the short-term market for municipal debt is significantly smaller. The SIFMA Municipal Borrowing Index moved from 1 to 92 bps - an increase of 91 bps. That is more than double the Fed rate increase over the same period. Fed Funds rose from 50 to 125 bps - an after-tax increase equal to 45 bps.[1] Without Tax-Exempt MMFs, municipalities are forced to use higher-cost financing sources like bank credit, or reduce their short-term capital consumption. Projects in infrastructure, healthcare, education and government services will be impacted.

Treasury Strategies, Inc.
309 W. Washington
11th Floor
Chicago, Illinois 60606
t +1 312-443-0840
f +1 312-443-0847
www.TreasuryStrategies.com

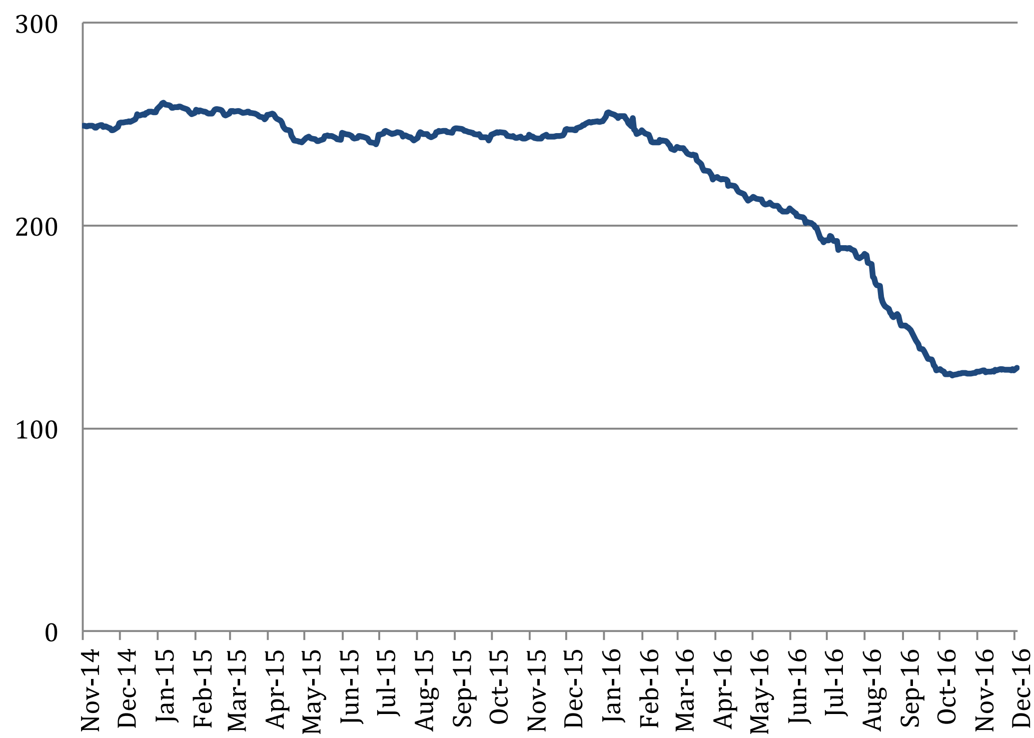
[1] A 75 bp increase at an assumed 40% tax rate. 60% of 75 bps = 45 bps.

TE MMF assets declined 50% in the months before implementation of new regulations and remain at those historic low levels one year later.

MMFs have historically been an important holder of short-term municipal debt. As of January 2016, they provided over $250 billion of short-term funding to municipalities by purchasing their short-term debt instruments. By August 2017, TE MMFs were at barely half that level, and were one-quarter of pre-crisis June 2008 levels.

Figure 1 shows the precipitous 2016 decline in TE MMF assets prior to the implementation of new regulations in October. Note that **TE MMF assets in August 2017 stood at $128 billion, virtually flat for the year.**

Figure 1.Tax-Exempt Money Fund Asset Levels ($B),
Source: CraneData.com, Treasury Strategies (December 2016)



The decline in TE MMF assets is impacting municipal borrowers of all types and in every state.

The asset declines have affected all types of municipal borrowers - the general obligation bonds of state governments, local governments, and bonds supporting healthcare, education, economic development and infrastructure.

Figure 2 shows the impact of asset outflows for important municipal issuers in a number of selected states – all of which have seen significant declines.

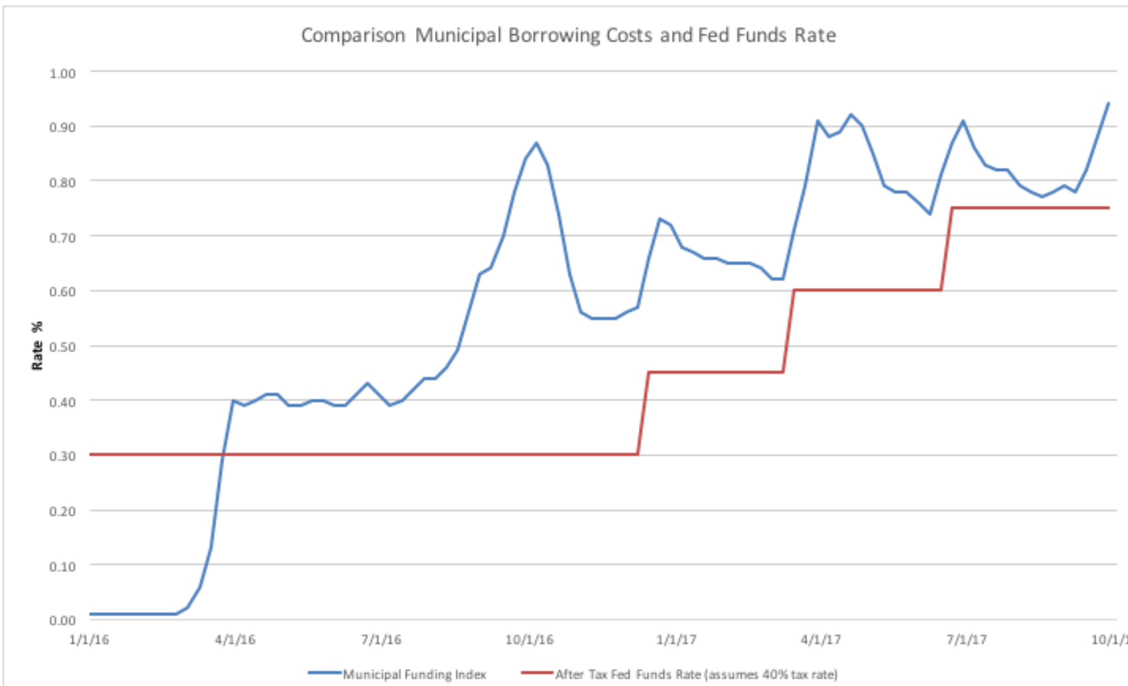
Figure 2. Loss of Funding to Tax-Exempt Money Fund issuers ($MM)
Source: Cranedata.com, Treasury Strategies (August 2017)

TE MMF Issuer	Principal 1/1/16	Principal 8/1/17	Change in Funding	% Change
New York				
NYS Housing Finance Agcy	$4,205	$398	($3,807)	-91%
NYC General Oblig.	$4,395	$1,648	($2,747)	-63%
NYC Muni. Water Auth.	$4,139	$1,615	($2,524)	-61%
NYC Housing Dev. Auth.	$2,506	$1,023	($1,483)	-59%
California				
CA Communities Dev. Auth	$4,061	$2,757	($1,304)	-32%
City of Los Angeles	$1,308	$10	($1,298)	-99%
Los Angeles County	$752	$0	($752)	-100%
CA Pollution Control	$1,017	$587	($430)	-42%
Illinois				
Illinois Finance Authority	$3,294	$1,775	($1,519)	-46%
Chicago Water Dist	$420	$0	($420)	-100%
IL Toll Hwy. Auth.	$1,142	$848	($294)	-26%
Northwestern Univ.	$226	$5	($221)	-98%
Massachusetts				
MA General Oblig.	$2,672	$883	($1,789)	-67%
MA Health & Ed. Facilities	$1,953	$665	($1,288)	-66%
MA School Building Auth.	$449	$130	($319)	-71%
MA State Dev. Fin. Agcy.	$352	$50	($302)	-86%
Michigan				
MI Housing Dev. Auth	$945	$536	($409)	-43%
Univ. of Michigan	$481	$171	($310)	-64%
MI Hosp. Fin. Auth.	$399	$173	($226)	-57%
MI Strategic Fund	$407	$240	($167)	-41%
Connecticut				
CT Health & Ed. Facilities	$1,161	$427	($734)	-63%
CT Housing Fin. Auth	$563	$344	($219)	-39%
CT General Oblig.	$492	$402	($90)	-18%
Hartford Cty Metro Dist.	$134	$0	($134)	-100%

Municipal borrowing rates have increased dramatically

As TE MMFs assets have fallen and numerous TE funds have closed, municipal borrowers are paying increasingly high rates to secure financing. Figure 5 shows that the SIFMA Index of municipal short term borrowing has jumped from just 1 basis point at the beginning of 2016 to 92 basis points in Sept. 2017. This greatly increases borrowing costs for municipalities, university and hospitals. Since most debt resets weekly, borrowing costs on existing debt has increased over ten times for many borrowers.

Figure 3. Comparison SIFMA Municipal Swap Index Rates (% vs. Fed Funds), Source: SIFMA (Oct. 2017), Treasury Strategies (August 2017)



Before the new MMF regulations went into effect, municipal short term borrowing rates were consistently lower than the after-tax Fed Funds rate. Since then, however, municipal rates have been well above the after-tax Fed Funds rate.

Municipalities fortunate enough to continue selling VRNDs to Tax Exempt MMFs saw borrowing costs skyrocket at double the Fed rate increase – 91 bps vs. 45 bps after tax. Other municipalities would have to borrow from different investors or replace their VRDNs with bank loans at much higher rates.

Treasury Strategies
The Power of Experience®

Municipal borrowing rates have increased dramatically

Municipalies in ALL states have lost funding from MMFs between Jan. 2016 and August 2017. For twenty six states, the toll has been in excess of $1 billion each.

In addition, ALL states have seen funding costs from MMFs increase by 90 bps. The SIFMA Municipal Borrowing Index moved from 1 to 92 bps - an increase of 91 bps. That is more than double the Fed rate increase over the same period. Fed Funds rose from 50 to 125 bps - an after-tax increase equal to 45 bps.[2]

The following table shows the impact on a reprentative sample of states.

Figure 4. Loss of Funding to Tax-Exempt Money Fund issuers from Select States
Source: Cranedata.com, Treasury Strategies (August 2017)

State	Principal 1/1/16 ($000,000)	Principal 8/1/17 ($000,000)	Change in Funding ($000,000)	Change in Funding %
Arizona	1,667	1,179	(488)	-29%
Arkansas	142	56	(86)	-61%
California	32,389	17,951	(14,438)	-45%
Connecticut	3,067	1,516	(1,551)	-51%
Georgia	3,364	2,226	(1,138)	-34%
Illinois	7,970	4,323	(3,647)	-46%
Indiana	4,294	1,524	(2,771)	-65%
Maine	232	86	(146)	-63%
Massachusetts	9,605	4,056	(5,549)	-58%
Michigan	3,977	2,416	(1,561)	-39%
Minnesota	2,822	955	(1,866)	-66%
Missouri	2,445	1,197	(1,249)	-51%
NewJersey	6,396	3,663	(2,733)	-43%
NewYork	36,979	21,205	(15,774)	-43%
NorthCarolina	3,967	1,449	(2,517)	-63%
Ohio	4,305	1,915	(2,391)	-56%
Texas	14,963	8,830	(6,133)	-41%
WestVirginia	715	343	(372)	-52%
Wisconsin	2,860	1,336	(1,524)	-53%

[2] A 75 bp increase at an assumed 40% tax rate. 60% of 75 bps = 45 bps.

Conclusion

New SEC rules that change how MMFs function are having many unintended consequences. One such consequence now manifesting itself is a material reduction in the short-term credit available to municipal borrowers whose debt is held by Tax-Exempt MMFs. As recently as January 2016, Tax-Exempt MMF assets exceeded $250B. As of August, 2017, they are now under $130B, a loss of $120 B.

These changes have also lead to a dramatic increase in municipal borrowing costs. Many municipalities have seen borrowing rates increase ten-fold in 2016.

With seriously shrinking Tax-Exempt MMFs, municipalities are being forced to seek higher cost borrowing options like bank credit. Their only other alternative is to scrap projects and reduce their short-term capital consumption. Neither option bodes well for the U.S. economy and tax payer.

About Treasury Strategies

Treasury Strategies, a division of Novantas, Inc., is the leading treasury consulting firm. Armed with decades of experience, we've developed solutions and delivered insights on leading practices, funding, treasury operations, technology, investment and risk management for hundreds of companies and governmental entities around the globe.

We serve corporate and municipal treasurers, their financial services providers and technology providers for the complete 360° view of treasury. Novantas is the industry leader in analytic advisory services and technology solutions for retail and commercial banks. We create superior value for our clients through deep and insightful analysis of the information that drives the financial services industry — across pricing, product development, treasury and risk management, distribution, marketing, and sales management.

With more than 200 professionals, Novantas and Treasury Strategies make a formidable team in both bank and treasury markets. Email us at info@treasurystrategies.com

Treasury Strategies

The Power of Experience®