Negative Impacts of New US Money Market Fund Regulations on Businesses and Municipalities

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Treasury Strategies
A Division of Novantas, Inc.
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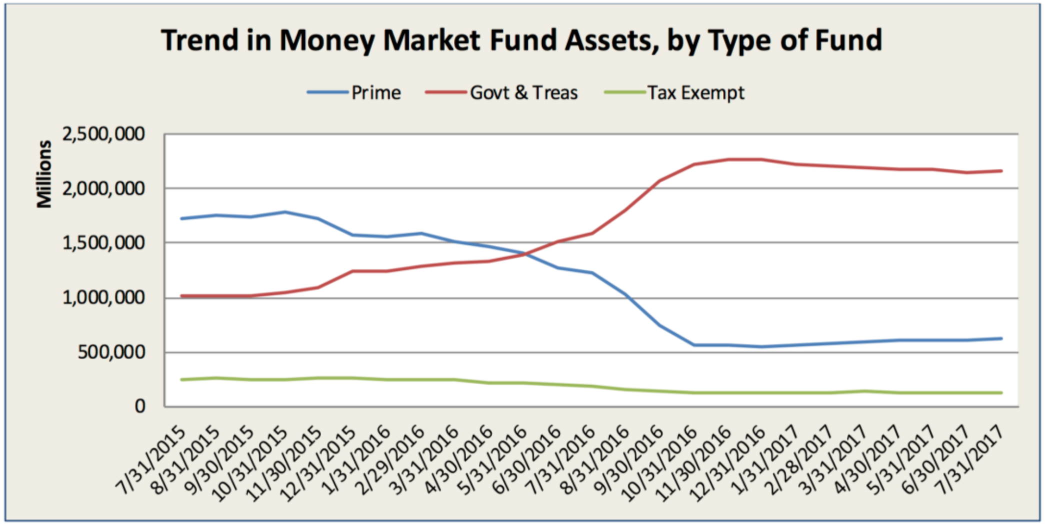
Overall Impact of SEC MMF regulations

- Massive flight from Prime and Tax Exempt money funds
  - Prime funds, a key funding source for corporations and banks, fell from \$1.73 trillion to \$0.62 trillion
  - Tax exempt funds, a key funding source for municipalities, universities and hospitals, fell from \$254 billion to \$135 billion
  - In total, \$1.22 trillion has exited Prime and Tax Exempt funds between July 2015 and July 2017
- Municipal borrowers hit with higher rates
- Main street businesses see credit contraction
- Investors see sub par returns



Source: SEC, Treasury Strategies

New Operating Features Made Prime and Tax Exempt Funds Un-useable

Investors forced to abandon Prime and Tax Exempt funds

- Sweep Accounts rendered inoperable by the fluctuating NAV.
- Fees, gates and FNAVs not permitted under many corporate investment policies.
- Fees, gates and FNAVs not permitted by many loan covenants and bond indentures.
- Fees, gates and FNAVs not permitted by most state and local government investment policies.
- Tax and recordkeeping requirements raise operational costs to investors in Prime and Tax Exempt funds.

These structural barriers will prevent much money from ever returning - no matter how wide Prime vs. Government fund spreads, nor how attractive Prime and Tax Exempt rates.

Current Prime vs. Government spreads recently hit 30 bps – double the historic average (cranedata.com) – yet only a few billion of the $1.2 trillion exodus has trickled back.

TE MMFs exceeded $500 billion prior to interest rates falling to zero after the financial crisis. Absent the regulations, assets in TE MMFs today would likely be much greater than before rates started to rise.

Winners and Losers in the Money Fund Rout

Biggest Winners

US Government and Agencies - $1.2 Trillion

- GSEs such as the Federal Home Loan Bank and Freddie Mac - $263 Billion
- US Treasury and Repo - $567 Billion

Winners are rewarded with lower borrowing costs and significantly increased access to credit

Biggest Losers

Business and Municipal borrowers - $1.2 Trillion

- Business borrowers - $371 Billion
- Municipal borrowers - $145 Billion
- Financial institutions - $700+ Billion

Investors - $1.2 Trillion

Main Street business borrowers get crowded out by large borrowers; pay higher borrowing costs and see more credit limits.

Municipalities maintain credit access but at higher premium to market rates

Investors get 20bps – 30 bps lower rates on Gov't funds, with $2.5 - $4 billion in lost income

Note: Large, highly rated corporate borrowers seek credit elsewhere; find it at competitive rates

Source: SEC, Cranedata, Treasury Strategies

Why Municipalities Pay Higher Rates

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Tax Exempt MMFs assets fell from $254 Billion to $135 Billion between July 2015 and July 2017, shrinking the funding pool available to municipal borrowers.

Primary instruments for municipal borrowing are variable rate demand notes (VRDNs), mainly held by Tax Exempt MMFs. Rates reset weekly or monthly based on the SIFMA index, even though they are long-term instruments.

- **In a radical shift of the supply and demand dynamics, the supply of funds to buy VRDNs fell more than half, yet demand remained constant, which caused rates to rise**
- Some municipalities still have Tax Exempt MMFs owning their VRDNs but now pay substantially higher rates
- The remaining municipalities must resell their notes to other investors at even higher rates
- Municipalities unable to find buyers must put their notes back to a commercial bank, at still higher rates

The lowest municipal borrowing costs are up far more than Fed rate increases

- From July 2015 thru July 2017, the SIFMA index increased 90bps, from 1 to 91 bps
- Over the same period, Fed Funds rose from 50 to 125 bps - an after-tax increase equal of 45 bps*

Municipalities fortunate enough to continue selling VRDNs to Tax Exempt MMFs saw borrowing costs skyrocket at double the Fed rate increase – 90 bps vs. 45 bps after tax. For others, they would have to borrow from other investors or replace the VRDN with bank loans at much higher rates.

*Assumes a 40% tax rate; 60% of 75 bps = 45 bps

How Main Street Borrowers Have Been Crowded Out

Primary pools of short term capital for U.S. businesses are bank commercial and industrial (C & I) loans and Prime MMFs

- Large firms with top credit ratings borrow from Prime funds
- Small and medium businesses borrow from commercial banks

In July 2015, capital available from these sources was $2.35 trillion

- Bank C & I loans totaled $1.89 trillion
- Prime MMFs provided $460 billion

By July 2017, that capital pool shrank by $161 billion to $2.19 trillion, the direct result of investors leaving Prime MMFs.

- Banks C & I loans grew $210 billion, to $2.1 trillion
- Prime MMFs funding for businesses shrank by $371 billion, to $88 billion

Main street businesses were much more severely impacted by this shift

- Large, highly rated borrowers could replace their Prime MMF debt with bank borrowings
- The $161 billion shortfall burden fell on the shoulders of main street businesses. They have been crowded out of bank lending sources by the larger companies. Some now pay higher rates to alternative lenders; others may be simply unable to borrow at any competitive rate.

For each $1 billion of Prime MMF debt that a large company replaces with bank borrowing, 10,000 main street businesses lose access to $100,000 in funding.

Companies and Municipalities Losing MMF Funding

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Companies Experiencing Diminished Money Market Fund Funding ($B) January 2014 – January 2017			
Rank	Company	US HQ	Change in MMF Funding
1	General Electric	CT	(9,398,927,716)
2	Toyota	TX	(7,675,118,979)
3	Coca-Cola Co	GA	(5,301,411,344)
4	Exxon Mobil	TX	(1,721,496,466)
5	Wal-Mart Stores Inc	AR	(1,466,221,550)
6	Nestle	VA	(1,280,893,607)
7	Shell Intl Finance BV	-	(1,061,278,100)
8	PepsiCo Inc	NY	(1,000,576,802)
9	Ford	MI	(961,331,697)
10	Johnson & Johnson	NJ	(919,664,902)
11	Chevron Co	CA	(891,831,910)
12	Devon Energy Co	OK	(779,900,000)
13	Procter & Gamble Co	OH	(749,725,812)
14	GlaxoSmithKline	PA	(740,312,916)
15	BHP Billiton	-	(644,991,295)
16	Pfizer Inc	NY	(596,029,101)
17	Comcast Co	PA	(576,437,747)
18	Honda	OH	(550,085,158)
19	BMW	NJ	(475,743,839)
20	Siemens	DC	(429,964,965)
21	Dominion Resources Inc	VA	(330,684,727)
22	Northeast Utilities	MA	(252,994,048)
23	Google Inc	CA	(248,454,776)
24	IBM	NY	(236,598,140)
25	Caterpillar Inc	IL	(228,319,041)
26	Altria Group Inc	VA	(216,238,132)
25	Catholic Health Initiatives	CO	(212,948,155)
26	Deere & Co	IL	(209,240,368)
25	Merck	NJ	(160,988,657)
26	Abbott Laboratories	IL	(154,841,812)
25	EI Du Pont De Nemours	DE	(138,833,700)
26	Kimberly-Clark Co	TX	(137,979,774)
25	Army and Air Force Exch.	TX	(123,487,295)
26	Unilever	NJ	(111,589,638)
25	Walt Disney Co	CA	(100,478,020)
26	Medtronic Inc	MN	(100,000,000)

States Whose Municipalities Collectively Lost Over $1B in Funding from Tax Exempt MMFs January 2014 – January 2017		
Rank	State	Change in Funding
1	CA	(17,202,647,697)
2	TX	(13,990,172,568)
3	NY	(13,398,460,179)
4	IL	(5,507,365,891)
5	MA	(4,370,357,152)
6	NJ	(3,918,888,439)
7	OH	(3,822,490,622)
8	FL	(3,805,395,018)
9	PA	(3,485,409,956)
10	NC	(3,053,745,477)
11	IN	(2,921,762,474)
12	WI	(2,665,796,950)
13	MI	(2,182,836,426)
14	WA	(2,094,249,275)
15	GA	(2,034,489,393)
16	MD	(1,911,268,987)
17	CO	(1,779,366,954)
18	MN	(1,775,202,506)
19	CT	(1,557,701,345)
20	TN	(1,501,056,283)
21	KY	(1,474,179,464)
22	DC	(1,403,541,709)
23	AZ	(1,397,280,655)
24	VA	(1,383,868,448)
25	LA	(1,272,004,969)
26	OR	(1,152,823,509)
27	SC	(1,138,497,387)
28	UT	(1,053,796,415)
29	NV	(1,023,054,197)
30	NE	(1,009,883,937)

Source: Treasury Strategies and Crane Data

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, treasury operations, technology, and risk management for hundreds of companies around the globe.

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