

# MONTHLY REVIEW

June 2018



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## June 2018 Muni Market Monthly Report – “Fund I and the 2008 Economic Crisis – A Case Study”

The muni market lethargically made its way through the month of June. The month was highlighted by low issuance, a modest rise in yields, and positive regulatory and political news. Illinois and New Jersey passed budgets on time, which lent itself to strength in those bonds. Further, the Supreme Court ruled on two major cases that were both positive for the muni market. We remain bullish on munis, as cash from maturing bonds grows and issuance remains below average.

At the request of an investor, we have used this month’s monthly review to conduct a case study on Mainline West Tax Advantaged Opportunity Fund I and its performance during the economic crisis of 2008. This gives us a chance to share with you how the Fund performed, and how its investment strategy and proprietary structure became “battle-tested”. It also allows us to reflect and think about the lessons that were learned during one of the worst economic and municipal market crises ever. ***It is a case study on how conservative, principled investing, paired with a robust hedging strategy, can weather severe market volatility.***

## Muni Market Review

The muni market had a quiet month of June characterized by low issuance, a modest increase in yields, and good news from the regulatory and political landscapes in muni land. Highlights of June were as follows:

- Muni yields increased from 2 to 7 bps, with the curve steepening a bit. Long-term munis represent good value versus the taxable market
- Taxable yields increased from 0 to 3 bps, with the curve staying the same
- Issuance remains down 19% versus year-to-date 2017 and appears to be slowing
- The state of Illinois and New Jersey have both announced they have passed budgets for the upcoming year. For the first time in years, sentiment on these states has turned bullish and bonds in these states are outperforming the municipal market. We were ahead of this, and have been buyers during 2018.

***We remain bullish on munis, as we feel they remain fundamentally and technically strong for the near-term.*** There are pockets of strength in the market that should spread as cash builds and issuance remains significantly below the amount of maturing bonds. We have seen good spread tightening in Illinois, California, and high yield bonds.



## Market News and Credit Update

**The State of California will be voting in the fall on breaking itself up into three new states.** If approved by the voters, and then the US Congress, the ramifications on the credit quality of the \$74 billion long-term debt of the State would be far reaching. However, this proposition still has a number of hurdles to clear, and we estimate that the If you are a California investor, I would not lose any sleep over this.

**The US Supreme Court has ruled in favor of states levying and collecting sales tax on online transactions.** A recent US Government study estimated that the states and localities could collect from on-line sales, up to \$8.5 to \$13.4 billion in sales tax revenue. A nice increase to what has been a slow growth in tax revenues over recent years for municipalities. Different states will be impacted differently, but overall this is a positive credit quality event for the muni market.

**The US Supreme Court also ruled that compulsory union fees for non-union public employees violates First Amendment rights in Janus v. AFSCME, meaning that all states effectively became right-to-work for public employment purposes.** Overall, this is extremely positive for municipal credit as it gives state and local government more leverage in negotiating employment related liabilities, such as pensions, going forward.

## A Case Study on MainLine West Tax Advantaged Opportunity Fund I and the Economic Crisis of 2008-2010

### Introduction:

With rising rates at the forefront of many investors' minds and the potential for a late cycle calamity rising, we thought it would be a great idea to review what happened with Fund I during 2008. It provides us a chance to show how the Fund works, educate our investors about its risks, and, most importantly, how we manage them. ***This case study focuses on what happened to the investments in Fund I, the management decisions made, and how the safeguards built into the Fund worked from September 2008 to April 2010.***



## A Case Study on MainLine West Tax Advantaged Opportunity Fund I and the Economic Crisis of 2008-2010 (cont'd)

In the spring of 2008, MainLine was just getting started. Fund I had reengineered a proven investment strategy (TOB) to strengthen up what MainLine felt were some weaknesses in the trade. The Tender Option Bond (TOB) trade was prevalent in the industry in the period leading up to the crisis. Various funds and most of the major banks were running large TOB books and garnering huge investment results. However, TOB is a levered trade and many of them took unnecessary risks that would lead to their downfall during the crisis of 2008.

MainLine's reengineered product implements a proprietary structure that is complemented with an investment strategy intended to better protect investor principal in times of market dislocation. Little did we know we were months from testing these safeguards. Although a bit unconventional and extremely challenging to sell to our initial investors, we believed that these seemingly draconian safeguards were needed to adequately protect investor principal. In hindsight, our forethought was the only thing that kept us in business during our first year. ***We were the only TOB Fund to withstand the crisis and continue in operation successfully.*** The unconventional safeguards added were as follows:

- ***Investors are locked up, and not allowed to redeem their subscriptions.*** This safeguard is to protect investors from each other, and to match the expected life of our assets with our liabilities. We look to match the duration of our assets, hedges, and capital with each other so that short-term events and dislocation do not expose the trade to collapse. Further, this keeps investors from selling their ownership during a time of panic and realizing losses instead of waiting for these periods to play out and the relationships to normalize as they always do.
- ***We call only a portion of the total commitment to the Fund with the expectation that there may be times of turmoil that require fresh capital to avoid fire sale prices.*** This deleveraging capital is reserved in order to provide the Fund with fresh capital in times of market turbulence until things normalize. This capital is needed to meet collateral calls from the bank as collateral assets are losing value. If the Fund does not meet collateral calls, it would be forced to liquidate at disadvantageous prices. The Funds are managed in a way so as to only need this deleveraging capital when there is a two standard deviation adverse dislocation in the muni market.



## A Case Study on MainLine West Tax Advantaged Opportunity Fund I and the Economic Crisis of 2008-2010 (cont'd)

MainLine knows markets can be irrational; this can create an opportunity or disaster. These two safeguards were added to help the Funds ride out irrational market activity until rationality returns. This happened with Fund I. MainLine invested the commitments for Fund I after the Bear Stearns bankruptcy, but before the “main event” of the financial crisis. During the fall of 2008, Fund I, the safeguards, and our investment strategy were challenged under the harshest of conditions. ***Not only did Fund I and its safeguards perform as advertised, the Fund went on to thrive and meet all of its investment objectives.***

### Background:

We feel that the two biggest risks are the following:

- **Basis Risk** – This is the yield ratio when comparing municipal yields with swap rates, and reflects the difference in performance between tax-exempt and taxable bonds.
  - When this ratio goes up (for example, from 90% to 200%) this means the municipal bonds are underperforming swaps, as muni rates are going up faster than swap rates. This means the muni bonds are incurring losses greater than the gains the swaps are incurring. When the ratio goes down, the NAV is going down, and thus the value of our investor’s subscriptions are also declining.
  - When the ratio goes down from 200% to 90%, this means the municipal bonds are outperforming swaps, as muni rates are going down faster than swap rates. This means the muni bonds are creating gains greater than the losses the swaps are incurring. When the ratio goes up the NAV is going up, and thus the value of our investor’s subscriptions are also rising.
- **Bank Support Risk** – For the Fund to receive its funding and provide its high tax-exempt income, it needs a Bank that money funds feel is strong enough to provide liquidity on a 7 day notice. The Fund needs a bank that is strong financially, and has access to funds to repay any floaters the money funds may want to redeem. If a bank is no longer viewed as financially solid, floaters will be put back at par, the bonds will need to be sold and any losses/gains on the bonds passed back to investors. It does not matter if the bonds are high quality, or have big gains in their value, it is the short-term risk the bank is creating.



## A Case Study on MainLine West Tax Advantaged Opportunity Fund I and the Economic Crisis of 2008-2010 (cont'd)

The Lehman crisis challenged the Fund's structure in place to manage these risks. The initial risk when the crisis began was the bank support risk. As the economic crisis grew, the basis risk became the bigger risk to manage. Below is a timeline highlighting the events of Fund I during the crisis.

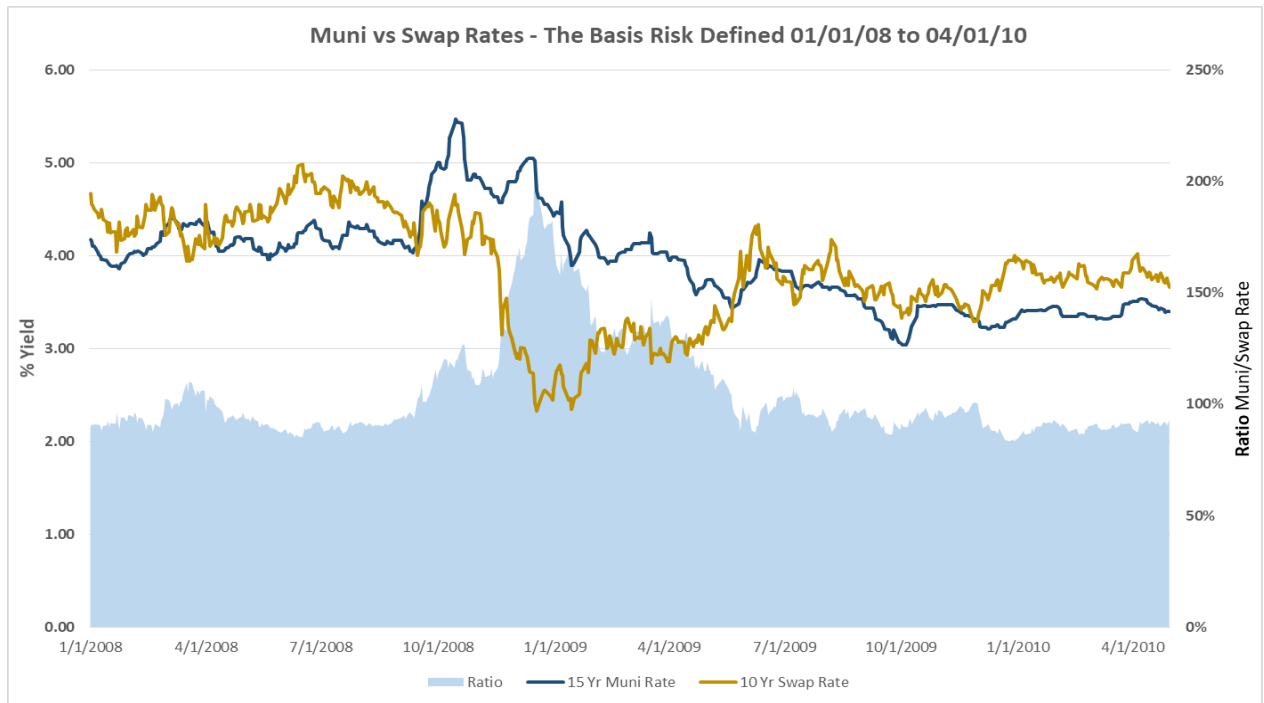
### Markets and Fund Performance:

#### The Crisis: 9/30/08-3/31/09:

- Day 1 of the crisis was Monday, September 14, 2008. The bankruptcy of Lehman had the capital markets selling off, and predicting a further collapse of the banking system with Goldman Sachs and Morgan Stanley next to be insolvent. Fund I was using Morgan Stanley to provide its bank support. This meant the money funds would no longer provide us funding, and due to the nature of the floaters, we had 7 days to find a new bank. If not, the Fund would have to sell the bonds, terminate the swaps and realize losses as the muni market was selling off. The Fund would be terminated and investors would have lost a portion of their principal.
- MainLine had a secondary banking provider waiting in the wings for a situation such as this. On Monday morning, as markets melted down, we informed Citibank we would be moving our portfolio to them that week. We completed the orderly transition by the close of business. It is for situations that we cannot predict that we always organize a back-up plan for our major risks. ***We continue to have alternate service providers for all facets of our trade should our counterparty risk become unpalatable.***
- Unfortunately, as the economic crisis continued to grow, fear soon became pervasive. This impacted asset classes that were unrelated to the events that caused the crisis. This included municipal bonds which were then determined by the market to be a "risk asset". The basis risk grew to never before seen levels and muni bonds severely underperformed the swap market. The Fund's NAV declined rapidly and the unrealized losses ballooned, lowering collateral balances at Citi being used to support our funding.



## A Case Study on MainLine West Tax Advantaged Opportunity Fund I and the Economic Crisis of 2008-2010 (cont'd)



The basis risk reached its highest in December 2008 topping out at 208%, muni rates had gone up roughly 95 bps, while USD swap rates went down roughly 195 bps since the Lehman bankruptcy. This left the 15-year tax-exempt municipal bond yield at 5.02% versus a taxable swap yield of 2.41%. Prior to the crisis, this ratio was at 89%. This was a record dislocation with a relationship of 165% being the previous record. ***The 2008 crisis was much worse than anything that had ever happened.***

We called in the full 30% deleveraging capital in reserve within a week of the Lehman collapse, received the funds within 3 days, and funded our collateral commitments with the fresh capital. Munis continued to underperform and we continued to provide Citi with additional collateral to cover the Fund's unrealized losses. The Fund reached its published month-end NAV low of .70 on November 30, 2008. We monitor the capital position daily, and we estimate the Fund could have met collateral calls until the Fund reached a NAV of .57. ***Even in the most disastrous of times, we were comfortably within our margin of error with the safeguards put in place.***



## A Case Study on MainLine West Tax Advantaged Opportunity Fund I and the Economic Crisis of 2008-2010 (cont'd)

In early 2009 the markets still seemed sensitive, but with the efforts of the US Government, and no further bankruptcies of a major bank, the foundation for a muni market recovery began to take form. Investors decided that a protected principal, tax-exempt asset should not be yielding twice that of a safe taxable investment. It was then MainLine knew the Fund was on the path to NAV recovery. ***We had stayed capitalized longer than the market had been irrational. We had weathered the greatest financial storm of our lifetimes.***

### **The Recovery 3/31/09 to 04/30/10:**

Fear slowly started to dissipate from the markets in late first quarter 2009 and investors started looking for "value". The swap market started seeing rates go up as the flight to quality stopped, and muni yields started to go down, as investors realized the ability for municipalities to pay their debt costs was not going to be impacted by the forces that caused the crisis.

In December 2009, the Fund returned 38% of the deleveraging capital called as the NAV had recovered to .92, and munis continued to outperform. Much carnage came about during the crisis, which was healthy for the municipal market. Monoline insurers that had provided credit enhancement to the municipal market were also insuring sub-prime mortgages, and obliterated their capital base because of it. ***This caused great turmoil in the municipal market, but cleansing the market of risky insurers proved to be healthy for the market as a whole.*** Further, municipal over-leverage was widespread.

When the dust settled, many of these operators, including the banks, had blown up and sent back a few cents on the dollar to their investors. ***Once the muni market "shed" these flawed products, the market went back to its true identity, safety.*** MainLine felt this had happened by December 2009 and, therefore, Fund I began returning the deleveraging capital to its investors. The final deleveraging capital was returned in early April 2010. ***This signaled the Fund had ridden out one of the worst muni market and economic crisis ever all while providing the returns it had set out to achieve.*** The NAV was now at .95, having almost fully recovered from its low of .70 seventeen months before.



## A Case Study on MainLine West Tax Advantaged Opportunity Fund I and the Economic Crisis of 2008-2010 (cont'd)

### Conclusion - Final Fund Facts & Lessons Learned:

Final performance numbers for Fund I are as follows:

<b>Inception Date/Termination Date</b>	<b>March 2008 / December 2015</b>
<b>Capital Pledged</b>	\$18 mln
<b>Avg Assets Owned</b>	\$45.7 mln
<b>Credit Quality</b>	AAA - AA
<b>Cash Payout (Life of Fund Tax-Exempt)</b>	8.27%
<b>Total Return</b>	8.95% / 13.75% (Tax Equiv) (*)
	(*) Based on federal rate of 39.6% and Medicare tax of 3.80%
<b>Final Net Asset Value (NAV)</b>	\$ 1.07

### ***What are the takeaways MainLine would like Fund investors to learn from this case study?***

- The Funds have contingency plans in place for all service providers, but, most importantly, for our bank liquidity provider. We cannot be too careful when assessing counterparty risk.
- The proprietary structure of the Funds provides unparalleled principal protection to our investors in all market environments.

***We have never had to use the deleveraging capital since the fall of 2008. Our strategy is managed so as not to require the deleveraging capital unless we get a two standard deviation event in our market.*** This is draconian, and illustrates our commitment to protecting investor principal. We are excited for the next event that creates the need to use the deleveraging capital, as we view these periods as periods of opportunity. As always, we will be buyers when the rest of the market becomes sellers.

This document is for informational purposes only and is summary in nature. It does not contain all material information and considerations relevant to an investment in MainLine West Tax Advantaged Opportunity Fund IV LLC ("The Fund"). No representations or warranties express or implied, are made as to the accuracy or the completeness of the information contained herein. Any prior investment results presented herein are provided for illustrative purposes only and have not been verified by a third party. Further, any hypothetical or simulated performance results contained herein have inherent limitations and do not represent an actual performance record. Actual future performance will likely vary and may vary sharply from such hypothetical or simulated performance results. This document does not constitute an offer to invest in securities in the fund. No offer of securities in the fund can be made without delivery of The Fund's confidential private placement memorandum and related offering materials. An investment in securities of The Fund involves risk, including potential risks that could lead to a loss of some, or all, of one's capital investment. There is no assurance that the fund will achieve its investment objective. Past performance does not guarantee future results. There can be no possibility of profit without the risk of loss, including loss of one's entire investment. There are interest and management fees associated with an investment in The Fund which are disclosed in The Fund's offering materials.