MONTHLY REVIEW

May 2024

MAINLINE WEST

The Age of the Algo Trader:

Quants and munis, oil and water, cheap sushi, cats and dogs sleeping together are all things that just do not seem to go well together. Well, I am here to tell you the hard to imagine has happened - in the form of "Algo" trading in muniland. Yes, the quants are trying to take advantage of the for "the good of the public" market. Is nothing sacred? It's ok, though. *This month, MainLine explains how it works, how it is impacting the muni market, and how it affects MainLine West clients.*

Munis did a reverse-move in May, giving up all their year-to-date outperformance, setting things up for an interesting summer. Not only are supply and demand technicals bullish for munis to do well, but now valuations are, as well. May was a good month to get cash to work as the Family of Funds did some reinvesting and MainLine put some SMA cash to work.

Muni Market Review

Munis went in reverse in the month of May versus the taxable rally, as growth in issuance and rich relative ratios caused munis to move up in yields. Munis are now underperforming year-to-date as the Muni Bloomberg composite was down -.29% for the month, -1.91% year-to-date, US Treasuries were up 1.46% for the month, -1.85% year-to-date, and US Corporates up 1.87% for the month, -1.12% year-to-date. May highlights were as follows:

- Muni yields were higher by 29 bps to 0 bps (flattening curve), while taxables were lower 16 bps to 11 bps (steeper curve).
- Year-to-date, issuance is up 33% from 2023 and growing. Flows are still positive on the year (inflows of $10.9 billion). The market is expecting issuance to remain high, as issuers look to sell bonds prior to the election in the fall.
- As munis move into the summer, over the next three months, there is over $170 billion of cash from coupon and maturities coming due, compared to forecasted new issuance of $119 billion. This $51 billion of additional demand (provided everyone reinvests in munis) should help fuel munis outperformance over the next 3 months.
- The longer the bond, the better the relative value, while the 5 to 10-year has cheapened, but still remains rich.

The Funds have done some reinvesting over the last 30 days, taking advantage of the muni sell off and getting cash reinvested. Details to come next month in the second quarter Fund Updates.

MainLine has started the process of getting documents and bank approval for the **Tax Advantaged Opportunity Fund VIII.**

Market News & Credit Update:

- As of May 28, the standard settlement cycle for most securities transactions will be shortened from 2 business days after trade date (T+2) to one (T+1). This includes municipal bonds and purchases/sells made for your accounts at MainLine West.
- Muni mega deals (greater than $1 billion in size) are in fashion and on pace to set a record for issuance. To date, 22 mega deals have been priced. The record was 26 in 2020. The increase in mega deals reflects the size and higher costs of capital programs, lower interest rates, and the strong market demand for muni bonds.
- A recent poll shows both Democrats, Republicans and, even more so, Independents fear violence around the US Election. There is also concern that their will be misinformation and fraud. Surprise! It's starting to smell a lot like 1876.

The Age of the Algo Trader:
Introduction:

The concept of algo trading is not new, but its execution and the extent of its presence in munis in just a few short years is. *It is now a "player" in munis and is reshaping how bonds are sold and bought, especially for separately managed accounts (SMA).* Who would have ever thought "quants" would design a computer model to profit off a market with small-size transactions, low liquidity, diverse issuers, and a unique, safe for the public good investment? This month MainLine will review algo trading in munis, and then give our insights on how it impacts you and your muni bonds.

Background:

Algo (algorithmic) trading is the use of predefined programs to execute trades. A set of instructions or an algorithm is fed into a computer program, and it automatically executes the trade when the command is met.

Not every algo trading platform is designed and executed in the same way. Some are trader driven, some or computer driven, some are more selective on what they will trade, others try to accommodate the current market. The algo details can be different, but the formula of having a computer driven model buy and sell bonds based off historical and current evals to make money on the bid offer spread remains the same.

There are two big top ten underwriting firms running aggressive algo trading programs, and many smaller shops growing in presence. *Wells Fargo and Morgan Stanley are leading the way, but firms like Sumridge, Brownstone, and Headlands (TD Bank) are active in making markets with their own algo models.* The whisper on the street is that there are several more firms involved - just not, at this time, willing to admit to it.
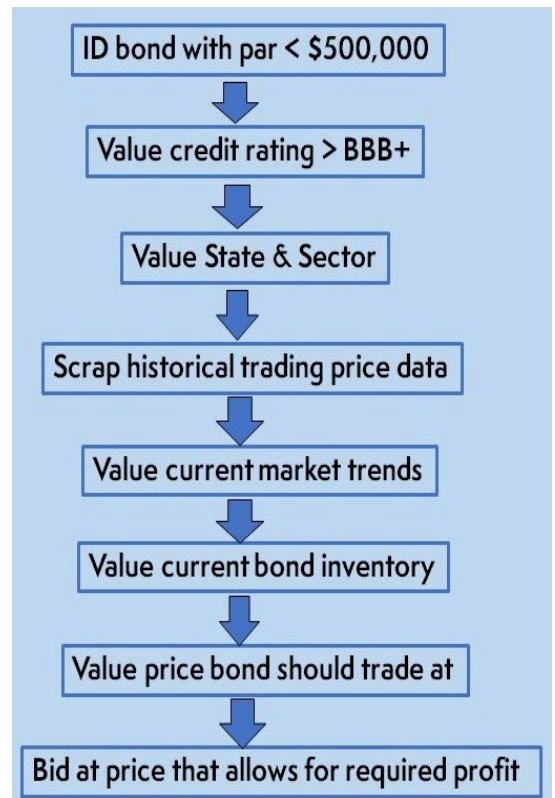
The algo program is proprietary and how it decides what to buy and at what price to sell is the "secret". What we do know is it involves scraping trade data from MSRB, analyzing the trades and creating a trading model to allow it to buy bonds "cheap", and to sell at a price to make a profit. It is designed to be a quick transaction limiting market exposure to changes in rates and allow for volume to make a little money on every trade with average trade sizes from $5,000 to $500,000 in par.

Algos are providing bonds to the growing use of SMAs by muni investors. They make a market for bonds that SMA managers can buy quick and easy without much work, and then divide them up into their various accounts. *For large SMA managers, it is an efficient way to invest - but it comes at a cost.*

How Algos work:

An Algo program will create its own price by valuing certain bond characteristics, scraping historical trade data over time and setting a price it is willing to buy and then able to sell at a profit. The buy/sell spread is different depending on the bond, size, use of proceeds and current market trends. *MainLine has observed that the average take for an algo trader is 2% to 3% price profit but at times can be twice that.* In most cases, the offering price has a negotiable 3 to 5 bps flexibility priced in.

For Algos at firms who have clients (Morgan Stanley, Wells Fargo), bids can be replaced by a trader or customer bid if it is better. The algo bid is a **default price.** The algo bid is posted one minute before bid time, allowing a trader or customer from the firm first chance to bid better. Other Algo firms, such as Headlands, who have no individual clients, will bid immediately based on what the computer spits out. *In both cases, the bid is usually way below eval price.*

Flowchart:

ID bond with par < $500,000
↓
Value credit rating > BBB+
↓
Value State & Sector
↓
Scrap historical trading price data
↓
Value current market trends
↓
Value current bond inventory
↓
Value price bond should trade at
↓
Bid at price that allows for required profit

Algos source their bonds from all platforms that are selling them: platforms such as Charles Schwab, Trade Web, underwriters with inventory like Bank of America, and Bloomberg pick offerings from broker dealers like MainLine West. Due to the access to multiple platforms and the speed to place a value on a bond, the big algos can bid on 70% to 80% of the smaller bid wanted items that day. On average, a big algo can trade $100 mln to $200 mln a day in bonds and hold inventory of $300 to $600 mln.

Each day the algo program is adjusted by what was bought and sold the day before, its current inventory and the flow in the market. The algo then looks to be more aggressive to buy or sell bonds based on its exposure and market demand. Algos tend to have more aggressive bids in the early morning and look to flip inventory as fast as possible by days end.

Review of Algo Trading Criteria

Algos can bid freely for par amounts of $5,000 to $500,000 and can bid up to $1 mln, if reviewed by a trader. They are not involved in the large block size trades or primary market deals that are the domain of mutual funds, most ETFs and MainLine West. Sometimes an ETF may buy from an algo in the small size as part of an add-on position to one currently owned.

An Algo prefers bonds with a trading history, significant debt outstanding and issuers with which it has familiarity. The more data, and more homogenous the bond, the better the bid. Some bonds that are avoided by algos are:

- Housing
- Put bonds
- Small size deals from issuers with no history
- Bonds with credit ratings below "A-"
- "A" rated hospital, airports, charter schools, gas back bonds and other "credit sensitive" sectors

The algo model treats muni bonds as more of a commodity. No credit work is conducted, no review of demographics, no review of the flow of funds, no climate risk review or repayment sources. This may be appropriate most of the time, as default rates on munis are very low, but the algo will not know that an issuer currently "AA" rated, due to its credit trend, will be downgraded to "A" rated in the future. *The buyer from the Algo will pay an "AA" credit rating price, for a bond that is about to be "A" rated.*

What does this mean for Municipal Investors?

An Algo bid, is considered a "default" bid by most firms. What does that mean? It means that nobody else bidding directly for the bond is willing to pay a higher price and the algo bidder doesn't want the bond unless everyone else passes on it. The algo program will calculate this default price by determining what it can sell it at plus its profit spread on a platform for buyers who do not source their own bonds.

- The good news is there is going to be a bid for most bonds. The bad news is that it will come at a cost.
- The good news for SMA managers is that they can buy bonds from algos without doing much work, right off platforms. The bad news is the investor losses income to the algo trading program.

The more liquid and well-known issuers and the bigger the deal size the lower the "cost" to the investor, as the algo has more confidence in its bid and will have less of a spread built in. Algo trading creates a bifurcated market for different bonds with par amounts less than $500,000. Bonds that algos will not bid on will trade at a higher yield. If you think, at some point, you may be selling the bond, you need a bond that fits the profile of good algo traders. If you can hold bonds that are not algo eligible, they will trade much cheaper and provide more income.

Credit ratings that are correct and updated are now even more important. They are a major part of what drives the algo price evaluation. The algo and investor is trusting the credit rating agencies and that the outlook, going forward, is good.

How will an algo perform in a sharp down trade market? One where they buy bonds and then quickly have illiquidity hit the market, just like it did in March 2020 and COVID. Will hedges work? Will they be out of business or fire sell everything to make capital calls?

What does this mean for MainLine West Clients?

Nothing!, MainLine West will continue to use our resources to source bonds and our expertise to buy and sell them.

70% to 80% of our clients' purchases are made in the primary market directly from the underwriter at institutional prices, the same prices that the large mutual funds pay. This is usually 2 to 4 levels lower in the price markup food chain as a $50 million deal gets broke down and sold in $100,00 increments. Algos are not able to buy in the primary market, they are doing their buying 2 to 4 levels higher in price than MainLine West clients. Which means the *Algos are paying higher prices*, and then reoffering them even higher to SMAs.

If MainLine is buying in the secondary market, we bid directly with the seller in a bid list or on a reoffer. MainLine will evaluate the bond using our expertise and bid at a price we think offers value. If the price of a bond is not fair because an algo model is building in profits and marking up bonds, MainLine will not execute the transaction.

When MainLine does a competitive bid process to sell client bonds, the algo bids are usually in the bottom quartile of prices received. In times of illiquidity, or small par amounts, the algo price could have the highest price, as no one else is bidding on the bond. In these cases, MainLine will not trade the bond if it doesn't have to be sold, because, in most cases, the bid is way below what the bond is worth.

We have access to all of the bonds the algo trader does, and in the secondary market for smaller block sizes we can bid against them. So, what is the difference? *The 2% to 3% mark up in the price is not taken away from your income at MainLine West.*

This doesn't mean MainLine will not do business with algo traders. The algo is only as good as the data that is in it. They can misprice bonds and, if we think they are wrong, it could provide an opportunity for our clients.

MainLine does not need a model to tell us where a bond should trade; those without expertise or just wanting to get the transaction done and collect their fees or commissions will let the algo trader do it for them. MainLine looks for bonds that represent value, a 2% to 3% increase in price when buying, on a long maturity can be over 25 to 40 bps in yield, which for a $5 mln portfolio is $12,500 to $20,000 of income lost every year. That is your income going into the Algo's bank account.
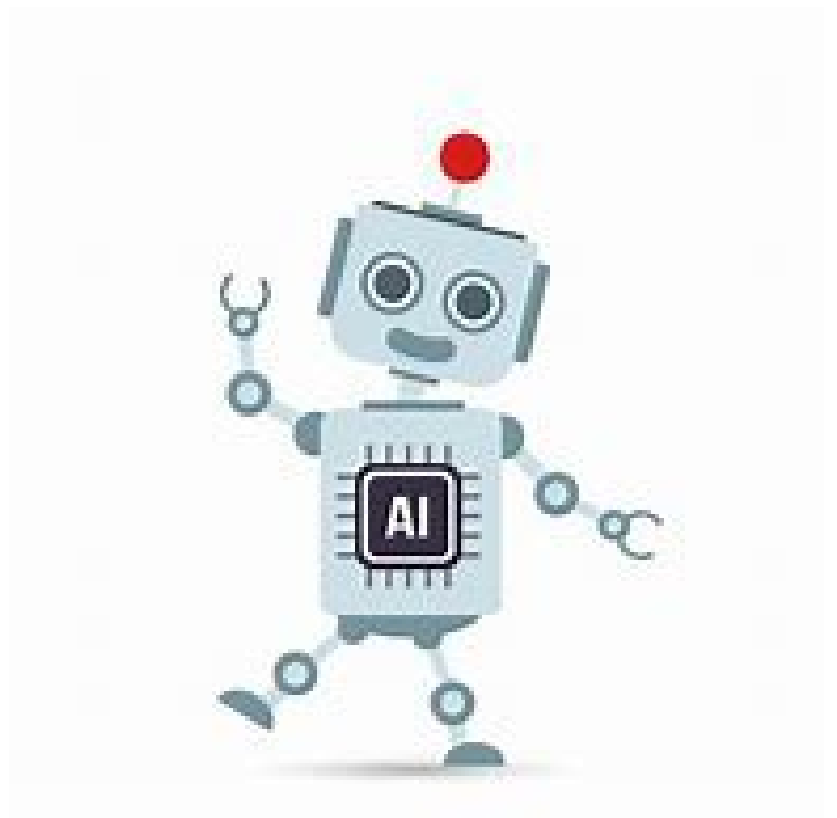
Conclusion:

When I first started thinking about Algo trading in munis, my initial reaction was: What a waste of time and effort! Yet, as I learned more about it and started thinking of what makes for a good algo strategy, I now think munis are the perfect market and customer base to exploit. There is not a lot of price transparency to begin with, credit quality is high and not a concern to many, liquidity and accessibility can be a problem for some SMA buyers, and the increase activity on computer driven platforms minimizes labor costs and allows for quick efficient transacting. All of this fits the profile of a good algo trading market. *It can take advantage of the uneducated muni investor - who wants convenience and sees munis as a commodity.*

MainLine West will let the high volume SMA firms work with the Algos and make quick easy purchases, marked up in price, and give the algo trader its clients income, and still charge its fees without doing much work. At MainLine, we will do the credit and price discovery work. Always have, always will. Even when "AAA" monoline insurance back in the mid 2000's tried to commoditize munis, MainLine never used it as an excuse to buy a bond. We also have and always will analyze and place our own value on each bond we buy. Those that represent good value we buy, those that don't we, don't. *Buying whatever is being offered from an algo that is designed to make money, because it is convenient, is not the MainLine Advantage.*

What's next AI Portfolio Management?