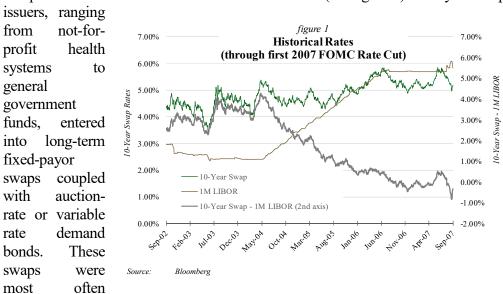
Municipal Swaps: Is it Time for Municipals to Reconsider the Swap Market?

By: Bryan Kern and Jay Saunders April 9, 2020

A Brief History of Municipal Swaps

Prior to the 2007-2009 Great Recession, municipal entities were active participants in the USD interest rate swap markets. These swaps took many forms including both synthetic fixed and synthetic floating rate debt as well as different types of basis swaps⁽¹⁾. However, two types of trades ultimately drove the long-term aversion to swaps that we have witnessed over the past decade: long-dated non-callable swaps and synthetic advance refundings.

First, the historically flat yield curve leading up to the Great Recession, characterized by LIBOR rates rising more quickly than long-term rates, appeared to present good opportunities for municipal entities to lock in long-dated interest rate swaps at levels comparable to or better than current short-term rates (see figure 1). Many municipal



structured to mature contemporaneously with the underlying bonds, up to 30-year maturities. Given a lack of balance sheet constraints and risk-based capital concerns at the nation's banks, these swaps were rarely structured with call rights similar to those contained in traditional municipal bonds.

Rather than proving to be "bad bets" as these swaps were frequently referred to in the financial press, they were in fact well-deliberated decisions to accept interest rates that appeared, at that time, to be attractive relative to historical rates. Further, while many market participants focus on the increased costs of capital the swap payments created over the underlying floating rate debt, the more appropriate comparison was the "all-in" synthetic cost of funds relative to a traditional fixed rate bond at the time

of issuance. Unhedged variable rate debt was generally never the alternative to fixed or synthetic fixed rate debt.

This "flat" yield curve ultimately proved to foreshadow a long-term bull market in treasuries that drove interest rates lower for a decade following the Great Recession. Coupled with the collapse of the auction rate securities ("ARS") market in 2008, deterioration in the credit quality of certain swap providers, and increasing costs of liquidity or credit facilities to support variable rate demand bonds, these trades caused significant headaches and higher than anticipated costs for many issuers.

A second form of trade created many of the same issues as the long-dated floating-to-fixed swaps, only with exaggerated downsides. These trades were typically referred to as synthetic advance refundings ("SARs"). Under a SAR, rather than entering into a floating-to-fixed swap at its market rate, issuers sold a swap provider the right, or "option", to put them into a swap with an above-market coupon modeled to replicate the coupon on the existing underlying bonds. The issuer took an upfront payment that reflected the "savings" generated by the trade.

These swaps typically required the issuer to sell floating rate bonds and often required the issuer to provide AAA-rated insurance for the swap and bond payments. The deterioration of credit ratings for the municipal swap insurers as well as many of the swap providers, falling interest rates causing sky-high swap valuations, difficultly in accessing floating rate markets, and a healthy dose of legal and regulatory scrutiny around the municipal swap market all combined to cause many of these SARs to end up in litigation. To complicate the issue further, many issuers had long ago spent the upfront premium the trade provided.

For all these as well as various other reasons, since the Great Recession municipal swaps have become a very small component of the municipal market. Many swap providers have all but exited the market and swap advisors have turned their focus on general municipal advisory. Even a decade removed, municipal issuers seem conditioned to dismiss solutions to their financing needs that involve swaps.

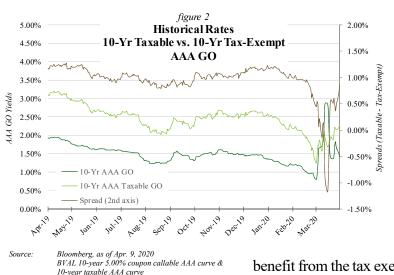
However, we currently see municipal issuers entering into trades that are relatively inefficient given current regulations and are designed to provide benefits that could be better achieved by well-structured interest rate swaps. Furthermore, the current market disruptions caused by the COVID-19 pandemic create opportunities for municipal issuers to delay bond deals, avoiding the need to issue debt into difficult cash markets, while still taking advantage of the lowest absolute treasury yields in history.

Tax Cut and Jobs Act

"An Act to Provide for Reconciliation Pursuant to Titles II and V of the Concurrent Resolution on the Budget for Fiscal Year 2018", the Act originally introduced and better known as The Tax Cut and Jobs Act ("TCJA"), among other things, eliminated the ability of municipal issuers to sell tax-exempt advance refunding bonds⁽²⁾. In a typical advance refunding, an issuer sells tax-exempt advance refunding bonds and invests the proceeds in an escrow account that is funded with treasuries and produces

the cash flows necessary to defease the prior bonds. These advance refundings allowed issuers to restructure their debt service, provide debt service savings, and eliminate burdensome covenants.

With the elimination of the ability to sell advance refunding bonds on a tax-exempt basis, we have seen issuers either i) selling "Cinderella" bonds that start taxable at issuance and convert to tax-exempt at a predetermined price once the escrow if fully disbursed, or ii) selling taxable refunding bonds. While these are innovative approaches to refunding existing bonds, they have many drawbacks.



Cinderella First. bonds create complex tax issues and generally require an issuer to meet certain conditions to "convert" the bonds to taxexempt. Second, taxable refunding bonds require an issuer to bonds that don't

benefit from the tax exemption the issuer's bonds typically receive. While the benefit

of tax exemption has compressed in today's very low interest environment (see figure 2), forfeiting of this benefit should be considered a "cost" to the issuer involved in the refunding.

Lastly, the very low interest rates available to issuers on the treasuries they use to fund the escrow causes significant "negative arbitrage." This negative arbitrage is the difference between the yield on the refunding bonds and the yield received on the investments in the escrow account. The issuer must fund the negative arbitrage through an increased par amount of refunding bonds.

An issuer selling taxable refunding bonds has already decided that interest rates are attractive enough to sell the refunding bonds while forfeiting the advantage of tax-exemption on its debt. Once this economic decision has been made, an issuer should then consider ALL the options available to it, including cash market and swap market solutions.

COVID-19

In addition to a humanitarian crisis and massive disruptions in the everyday lives of people around the world, the COVID-19 crisis has caused significant dislocations in the municipal bond market. While treasury rates are near the lowest levels ever, 0.72% on the 10-year treasury as of April 9, 2020, the 10-year municipal bond rate, as measured by the Bloomberg BVAL AAA yield curve, as of the same date

was 1.24%. This relationship between treasury and municipal bond yields is a significant improvement since the AAA municipal bond rate hit a one-year high of 2.87% on March 23⁽³⁾; however, as of publication, the AAA municipal yields have remained near two times treasury rates. Significant withdrawals from municipal bond funds and unwinding of TOBs, along with credit concerns from falling tax rolls and on-going business disruptions, have significantly impaired the ability of issuers to sell refunding or new money bonds. These disruptions in the cash market have happened as long-term treasury rates have fallen to all-time lows.

This lack of liquidity is also observable in the short-term municipal market. The SIFMA Municipal Swap Index reset at 5.20% on March 18, and 4.71% on the 25th, and most recently 0.74%. While improving, these rates are still significantly elevated relative to LIBOR and certain individual bond rates have been much higher for smaller, less liquid names. The improvement in short-term yields is generally considered to be a result of massive federal government intervention in the market.

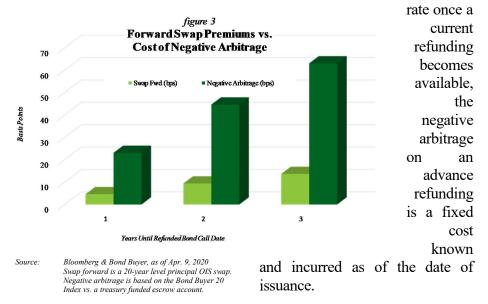
In order to sell bonds in the current market, an issuer must decide between i) taking advantage of the absolute low yields in the treasury market but coupled with historically high muni-to-treasury ratios, or ii) waiting for the cash market to improve and risking a rise in absolute levels of rates. Interest rate swaps allow an issuer to lock-in current rates while deferring the need to issue bonds until the cash market improves.

Interest Rate Swap Solutions

Legislative restrictions on refunding tax-exempt debt in a market characterized by very low interest rates along with significant cash market disruptions have created opportunities for municipal borrowers to use swaps as an efficient financial tool. While many municipal issuers have recently shunned the swap markets, corporate and commercial entities have continued to benefit from the ability to manage interest rate risk apart from the need to access the capital markets. Given the current market dynamics, floating-to-fixed anticipatory interest rate swaps offer the following benefits relative to a cash market refunding:

The forward premium, the difference in the fixed rate associated with a spotstarting interest rate swap and the rate associated with a forward-starting interest rate swap, is negligible. This small premium means issuers can lock in a fixed swap rate today on a swap that is effective in the future, generally on the earliest call date of the underlying bonds, without having to pay a forward premium.

This minimal forward premium embedded in a swap can be juxtaposed to the negative arbitrage associated with a traditional advance refunding (see figure 3). While only time will tell if rates will be higher or lower than the hedged



- Municipal borrowers can defer the cost-of-issuance associated with a refunding bond until the refunded bonds become currently callable. The costs associated with a swap are limited to some legal and professional expenses, and the swap dealer's bid/offer spread.
- 3 By deferring the issuance of refunding bonds until the existing bonds are currently callable, an issuer eliminates the need to issue taxable bonds.
- An issuer can separate the desire to take advantage of current levels of interest rates with the need to issue bonds. Issuers that either have new money needs or currently callable refunding candidates can lock in today's yield curve dynamics while deferring the need to access the cash market until the appetite from cash buyers improves.
- Should interest rates rise significantly between the time the swap is executed and the effective date of the swap such that a cash refunding of the underlying bonds would be non-economic absent the swap termination payment, the issuer could terminate the swap for a gain and retain the ability to refund the underlying bonds. This dynamic creates the opportunity for an issuer to take advantage of future economic cycles that may not otherwise be available to it.

Clearly, all swaps, including anticipatory swaps, do involve risks that are not inherent in the cash market; most notably, the risk that market access will deteriorate between the time the swap is entered into and its effective date. Swaps that remain in place to hedge variable rate debt involve downgrade risk of the swap provider as well as all the risks involved in the underlying variable rate bonds. Any swap, fixed

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payor or fixed receiver, involves the risk that interest rates will move such that the swap is unprofitable to the issuer.

Further, the anticipated cessation of LIBOR adds complication to a hedging program. The timing of the anticipated LIBOR transition is in question given the significant reallocation of resources to address the COVID19 crisis and also given concerning spread characteristics between SOFR and LIBOR. LIBOR is currently trading at levels almost 0.80% higher than SOFR. This spread is a significant deviation from the historical average and raises concerns about how the two indices will perform in times of stress. Further, SOFR swaps continue to trade primarily inside of one-year maturity (75% of recorded trades), and almost no SOFR swaps trade beyond 5-years⁽⁴⁾.

The current market presents challenges and opportunities. Many of these challenges can be overcome by a well-structured transaction and by using some of the benefits of hindsight provided by the decade following the Great Recession. Well thought out documentation and timely board education are also necessary when utilizing instruments such as swaps.

More than a decade post-Great Recession, we believe municipal entities should reconsider the benefits versus risks involved in the swap market. A swap is simply a tool that can be used to generate outcomes not achievable through the cash market alone. A swap advisor that is intimately familiar with both the swap markets and the municipal bond market can help an issuer structure an advantageous hedging program that enhances the issuer's overall debt strategy.

⁽¹⁾ Basis swaps are interest rate swaps where both parties pay a floating rate. Typical municipal basis swaps involved exchanging the SIFMA Municipal Swap Index for a LIBOR index or a version of this that involved the Constant Maturity Swap Index.

⁽²⁾ Section 13532 of the Tax Cuts and Jobs Act eliminates the exclusion from gross income of interest on advance refunding bonds. Issuers may still be able to sell tax-exempt bonds to refund BABs or other taxable bonds.

⁽³⁾ Source: Bloomberg BVAL AAA 5.0% coupon callable curves and Bloomberg treasury rates.

⁽⁴⁾ Source: ISDA

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