

**GENERAL SESSION: A WHOLE NEW (MUNI BOND) WORLD:
PREPARING FOR NEW ECONOMIC REALITIES**

Chair:

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Panelists:

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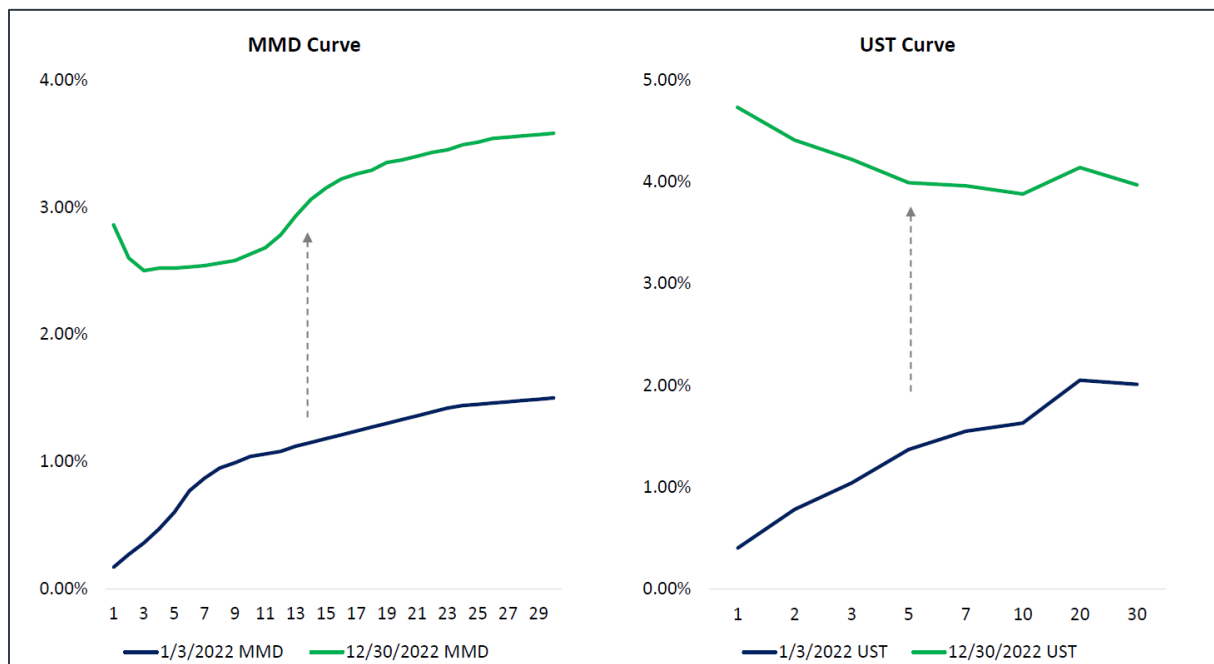
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Many NABL members have started and lived their public finance careers in a relatively low-interest-rate environment and generally stable economic conditions, and as a result may have had limited experience with financing structures that are less commonly used during these conditions. As the interest rate and economic climate shifts and becomes more volatile, issuers and borrowers may have less leverage and may need to use different credit structures, some of which may necessitate greater negotiations with investors, complex structuring analysis and enhanced consideration of the scope and content of disclosure. Issuers and borrowers may also experience financial pressures that may precipitate a default or workout because previously stable economic conditions as well as the large inflows of federal funds helped to stabilize otherwise shaky financial situations. With interest rates continuing to rise, we need to prepare for new complexities in the municipal securities market. This panel will address the history of similar market conditions and consider relevant challenges the municipal securities market may face and how to address them. Topics for discussion will include the use of bond structures such as variable rate demand obligations (VRDOs), private placement transactions, liquidity instruments, short-term borrowing alternatives, strategies for investing bond proceeds including investment products use of forward delivery contracts, tender and/or exchange transactions, and relevant tax and disclosure considerations.

- **Municipal Space Introduction**

- Market Update

- Inverted yield curve: Intuitively perhaps, the longer we invest our money and expose ourselves to repayment risk, the greater the return on our investment we expect. Interest rates for longer-term maturities exceed those for shorter-term maturities. Graphing this relationship creates a yield curve. Some macro-economic factors, nevertheless, may invert the relationship such that short-term interest rates exceed longer-term interest rates. In this situation, the yield curve is said to be inverted. It reflects investor drive into longer-term maturities and aversion to shorter-term maturities.



Source: TM3

- Volatile credit spreads: Looking at the 10-year Municipal Market Data (MMD) Index, tax-exempt rates rose steadily through most of the year, mirroring rising inflation and recurring Fed rate hikes. On top of that, though, credit spreads widened, meaning the difference in borrowing costs for issuers to the MMD (and other market indices) also increased.

The table below shows the dramatic increase in tax-exempt municipal benchmark and Treasury bond yields.

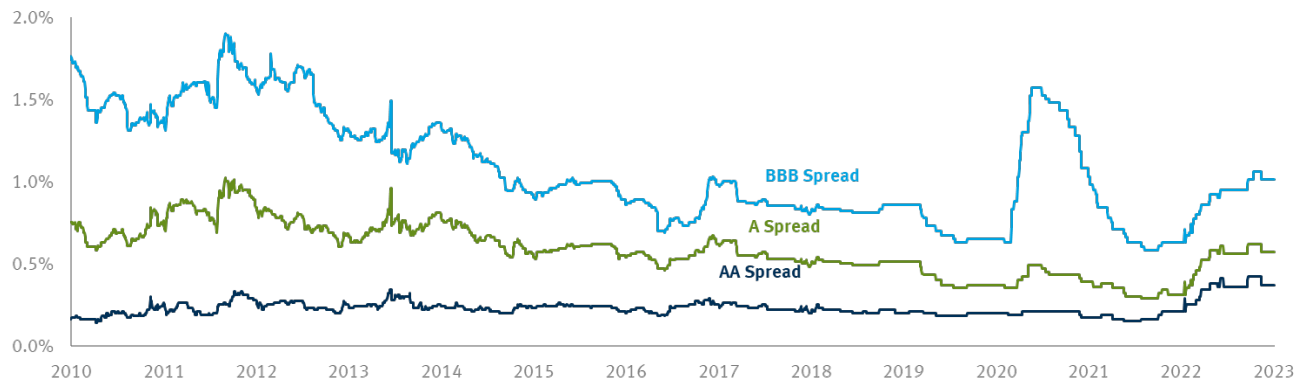
Municipal and Treasury Yields

Year	Bloomberg BVAL 11/30	Treasury 11/30	Muni/Treasury Ratio	Muni/Treasury Ratio 12/31/21	Bloomberg BVAL YTD Change in BPS	Treasury YTD Change in BPS	Bloomberg BVAL 12/31/21	Treasury 12/31/21
1	2.801	4.73	59%	43%	263	434	0.168	0.39
2	2.655	4.41	60%	31%	243	368	0.225	0.73
3	2.561	4.22	61%	33%	224	325	0.318	0.97
5	2.534	3.99	64%	45%	196	273	0.573	1.26
10	2.624	3.88	68%	68%	159	236	1.036	1.52
20	3.256	4.14	79%	67%	195	220	1.304	1.94
30	3.565	3.97	90%	78%	208	207	1.485	1.90

Source: MSRB 2022 Municipal Market Year in Review. January 2023

(<https://www.msrb.org/sites/default/files/2023-01/MSRB-2022-Municipal-Market-Year-in-Review.pdf>)

Tax-Exempt Credit Spreads over the AAA MMD Index Since 2010



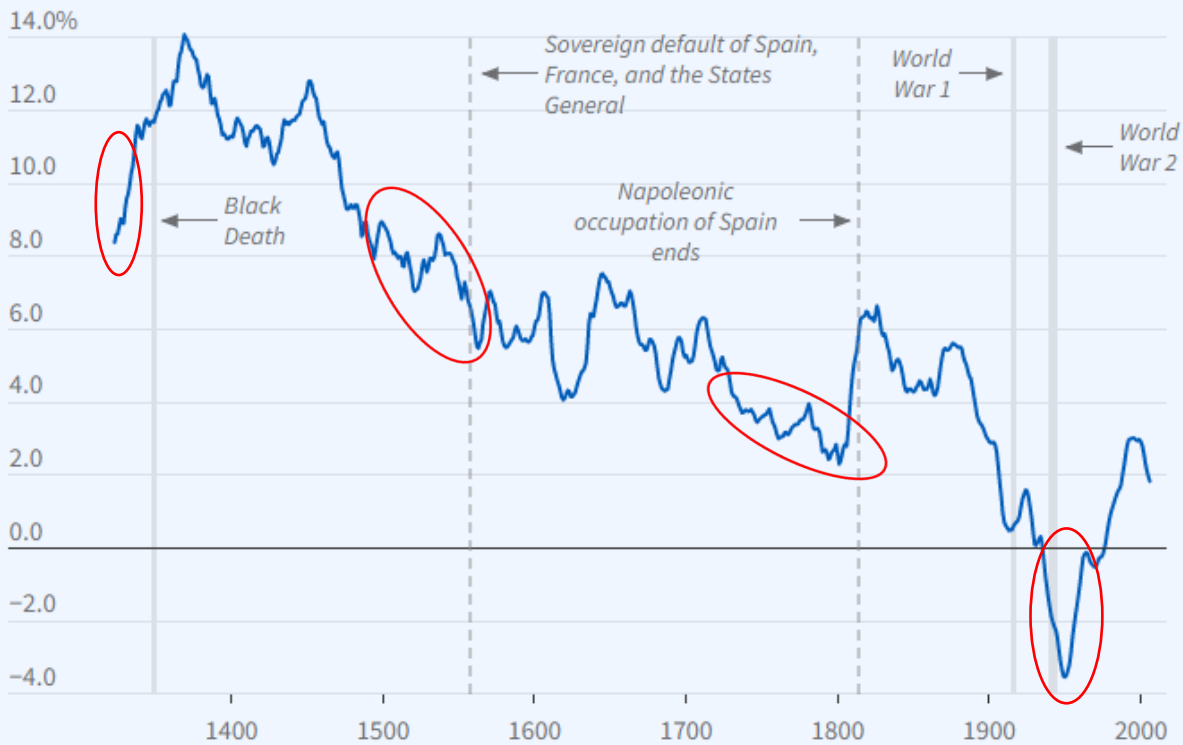
Sources: SDC, US Treasury, Thomson Reuters. As of 1/19/2023.

Putting the current market into historical context: The current market is an outlier in 3 ways: (1) Historical Real Interest Rates, (2) US Sovereign Debt to GDP, and (3) the Federal Reserve reverse repo. What that means for the future, we do not know. The great history of the central bank intervention was that if you had to put money at the Fed, you had to pay them. Now, the only way the Federal Reserve Bank has had bank interest rates up is to actually pay interest on the reverse repo. The reverse repo had approximately \$0.01 billion on deposit with the Fed on February 25, 2021. Recently, it hit a high of approximately \$2.4 trillion. For all of the conversations about quantitative easing or tightening, the simple observation is that the Federal Reserve Bank is already tightening and is on pace to pay the financial institutions nearly \$100 billion to not make loans or private investments. One result will be a shift in transaction structures allowing banks to continue to leverage their capital without putting it on their balance sheets.

A recent National Bureau of Economic Research study (<https://www.nber.org/digest/202212/real-interest-rate-decline-long-historical-perspective>) focuses on long-dated sovereign debt since the 1300s and finds that “long-term global real interest rates have exhibited a persistent downward trend of about 1.6 basis points per year.”

- The 10-year sovereign bond has a long history across various large economies including Italian City-States, England, Holland, France, Germany, Spain, the US, and Japan.
- The past 150 years have seen a departure from the long-term trend of a modest decline in real interest rates.
- The researchers identify four eras of low real interest rates: prior to the Black Death in 1311–53, after the Great Bullion Famine in 1483–1541, during a credit boom in 1732–1810, and during the foreign exchange transition era of 1937–85. Each of these eras ended abruptly.
- Until very recently, there is little evidence of a positive correlation between real rates and either output or population growth.

Filtered Long-Run Trend in the Global Real Interest Rate



Source: P. Schmelzing, "Eight centuries of global real rates, R-G, and the 'suprasecular' decline, 1311-2018," Bank of England Staff Working Paper 845, and Rogoff, Rossi, and Schmelzing (2022)

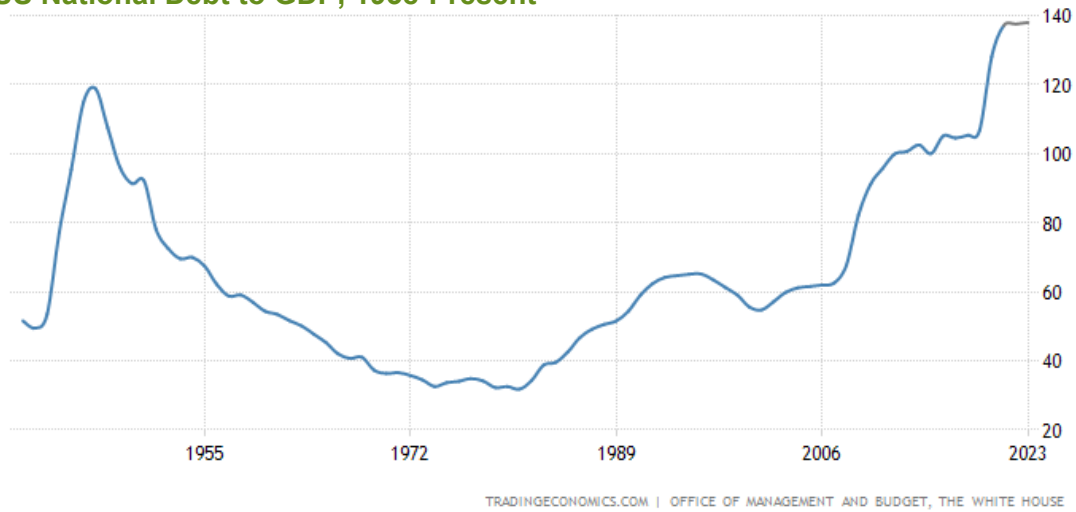
Source: <https://www.nber.org/digest/202212/real-interest-rate-decline-long-historical-perspective>. National Bureau of Economic Research, The Digest: No. 12, December 2022, "The Real Interest Rate Decline in Long Historical Perspective"

US Treasury rates are about much more than just credit quality or debt burdens.

- The national debt fluctuated as high as \$127 million from the late-1700s to the mid-1800s but has seen 10-fold increases during our largest wars, with periods of relative stability between the Civil War and World War One and between World War One and World War Two:
 - National debt grew to \$2.7 billion in the Civil War
 - Grew to \$27 billion in World War One
 - Grew to \$269 billion in World War Two
- Shown in the top graph below, from the end of World War Two until the early 1980s, the continued growth in the national debt was far outpaced by growth in GDP.

- Since the 1980s, while GDP has continued to grow, the national debt grew even faster, and current levels of National Debt-to-GDP now exceed the prior highs seen in World War Two.
- Perhaps counterintuitively, the 10-year US Treasury rate (bottom graph below) appears to be inversely correlated with the National Debt-to-GDP ratio: at the point in the early 1980s when the national debt was at its lowest level relative to GDP, the 10-year Treasury rate was at a record high, and vice versa in the early 2020s.

US National Debt to GDP, 1938-Present



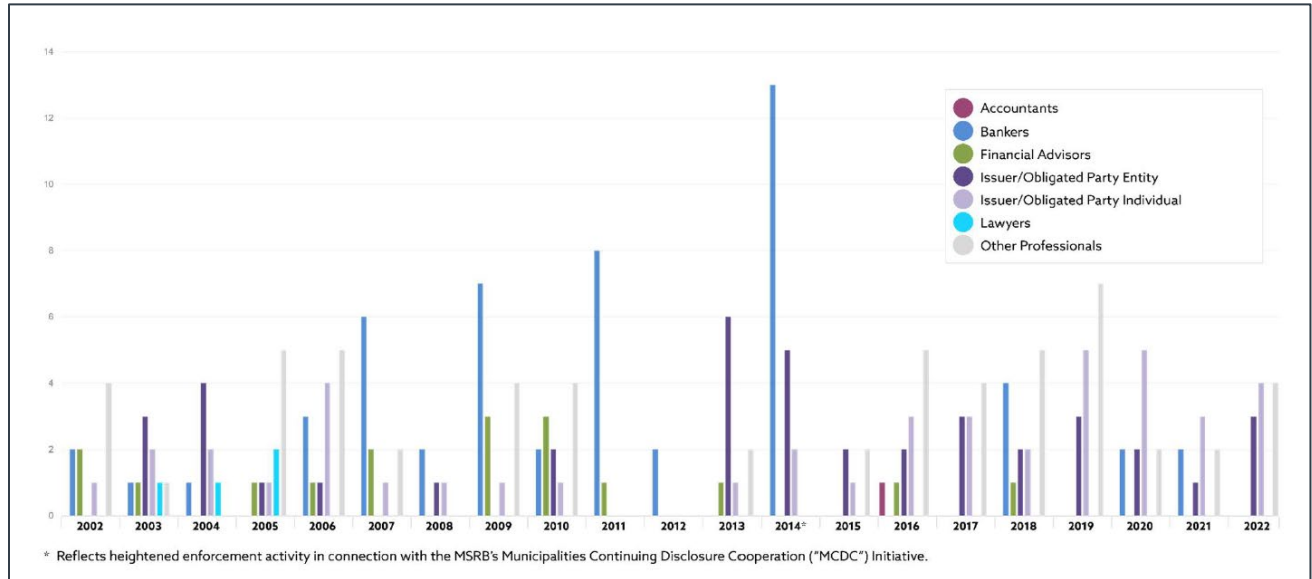
10-Year US Treasury Rate, 1938-Present



- Changes in federal funding
 - *ARPA* - Signed into law on March 11, 2021, The American Rescue Plan Act of 2021 (“ARPA”), Pub. L. 117-2, provides \$350 billion in additional funding for state and local governments.
 - *Bipartisan Infrastructure Law* – The Infrastructure Investment and Jobs Act (“IIJA”), Pub. L. 117-58, was signed into law by President Biden on November 15, 2021. The law authorizes \$1.2 trillion for transportation and infrastructure spending with \$550 billion of that figure going toward “new” investments and programs. Funding from the IIJA is expansive in its reach, addressing energy and power infrastructure, access to broadband internet, water infrastructure, and more. Some of the new programs funded by the bill could provide the resources needed to address a variety of infrastructure needs at the local level.
 - *Inflation Reduction Act* – On August 16, 2022, President Biden signed into law the Inflation Reduction Act (the “IRA”), Pub. L. 117-169. Arguably, the most advantageous component of the IRA for municipalities, states, and non-profits is a new direct payment subsidy from the US Treasury in an amount equal to 30% of the qualified costs of renewable energy projects, including solar, wind, biogas, combined heat/power (CHP), and geothermal, among others. This subsidy greatly reduces the net capital costs for renewable projects for tax-exempt entities. The IRA incentivizes prompt project commencement with a stair-step reduction in the upfront subsidy after 2024. The IRA also includes a new limited corporate alternative minimum tax that is effective for tax years beginning after Dec. 31, 2022, but at this point, market analysts generally anticipate this will have only a minimal impact to muni market participants over time.
 - *Impact of Federal Funds*: May provide access to credits previously unable to make it to market. On the other hand, an influx of federal aid increased issuer cash positions, especially for local governments, may have reduced borrowing needs for new money projects. Eventually, issuers and borrowers will need to consider cost-sharing and matching percentages with regards to state and federal funds.
- Regulatory pressures and increasing emphasis and focus on municipal market by regulators: The Securities and Exchange Commission (“SEC”) announced on November 15, 2022, that it filed 760 total enforcement actions in (federal) fiscal year 2022, a 9-percent increase over the prior year. (Includes corporate and municipal actions.) <https://www.sec.gov/news/press-release/2022-206>
 - This includes enforcement against 16 broker dealers and one investment advisor for text-message record keeping and supervision (in aggregate, the firms paid \$1.235 billion in penalties), Ernst & Young LLP for cheating on ethics exams, the first-ever charges against an underwriter for allegedly

failing to satisfy the limited offering exemption under 15c2-12, the first-ever action against a broker-dealer for violating a municipal advisor registration rule, charges against four investment advisers for violating the SEC’s pay-to-play rule for investment advisers, and a case charging a Louisiana town, its mayor, and its unregistered muni advisor and its owner, alleging that they misled investors in the sale of \$5.8 million in municipal bonds across two offerings in 2017 and 2018.

SEC Municipal Enforcement Actions 2002 to Year-End 2022



Source: Data derived from review of SEC web page <https://www.sec.gov/municipal/oms-enforcement-actions.html> MSRB as of December 2022

- **Takeaway:** Municipal market transactions going forward should not be business as usual. Financing teams – including bond counsel – should take time to carefully evaluate transaction structures, available resources, and tax considerations as they relate to issuers’ objectives.
- **Transaction Structures That May be More Prevalent in This Environment**
 - Traditional fixed rate borrowing – with an inverted yield curve, issuers/borrowers actually will pay a lower interest rate for having longer maturities and do not have the cost of negative carry for project funds.
 - Cinderella/forwards – with an inverted yield curve, issuers/borrowers should have a lower monthly delivery for forward delivery.
- Traditional “demand” paper - 7-day VRDOs and potential return of the swap market
 - VRDO Considerations
 - Liquidity/credit enhancements:

- direct pay letters of credit
 - standby bond purchase agreements
 - self-liquidity – highly rated and liquid issuers; back-up or hybrid liquidity facilities may be needed
- Market timing considerations
- Balanced issuer/borrower portfolio between long-term and short-term products
- On the investor side, the money markets should need more paper (increased retail incentive to make deposits in their money market accounts).
- The banks will prefer other flexible-rate structures – indexed debt (formally LIBOR and now SOFR, BSBY, SIFMA or Ameribor)
 - Long dated bonds with a short mandatory tender date issued in a variable rate mode until the tender date
 - Flexibility to stay short on tenor or convert to a long-term fixed rate
 - Public market Floating Rate Notes (FRNs) or directly placed with a bank or other financial institution with a scheduled mandatory tender date
 - There will be tension between the banks’ desire for shorter duration and higher flexibility and the borrowers looking for longer, lower rates, like they see in the Treasury curve. Flow of funds to ETFs and the bond funds will help resolve this tension.
- Interim Funding Options Include – Commercial Paper (CP), Revolving Credit Agreements (RCA), and others.
 - Commercial Paper - CP provides another option for banks to leverage their capital without adding the debt to their balance sheet.
 - CP has its own set of special rules, particularly relating to 18-month periods. See Treas. Reg. § 1.150-1(c)(4)(ii).
 - Results in some unique considerations with respect to opinions.
 - RCAs may be an alternative to Commercial Paper Programs. Unlike CP, multiple draws are made under a “master” document, putting RCAs into the broader class of drawdown loans. Drawdown loans also have a special – but substantially shorter – section of the income tax regulations applicable to them. See Treas. Reg. § 1.150-1(c)(4)(i). That regulations simply states:

- “Bonds issued pursuant to a draw-down loan are treated as part of a single issue. The issue date of that issue is the first date on which the aggregate draws under the loan exceed the lesser of \$50,000 or 5 percent of the issue price.”
- There is no 18-month-period limitation, nor are there any express limitations on the amounts that may be drawn under drawdown loans, including RCAs.
- Benefits: No offering document, no issuing and paying agent or dealers, no requirement for public rating or structured rating, and ease of borrowing.
- Other options: TANS, RANS, BANS, interfund/interagency loans
- Legal Considerations: Does the municipal issuer have state law authority to enter into these transactions? Or is authority limited to the issuance of bonds and notes?
- **Tax Structuring Considerations in this Environment**
 - Tax Implications of Higher Interest Rate Environment Include:
 - Positive arbitrage – ability to invest above bond yield
 - Rebate vs. yield restriction considerations: For issuers or other parties relatively new to yield restriction and/or rebate, there is little reason to be fearful. Yes, the compliance, including calculations and paperwork, burden will be greater; but after all, that is what bond counsel are there to advise on, and issuers’ arbitrage consultants or other municipal advisors are typically expert in performing the necessary calculations to assure compliance.
 - Early/Over issuance/replacement/hedging (you don’t have to be broke to borrow adage): In a higher interest-rate environment, and particularly where tax-exempt vs. taxable yields open the door for positive arbitrage, issuers may be more tempted to invest their own funds while borrowing on a tax-exempt basis to fund legitimate capital projects. One must be mindful, however, that although one does “not need to be broke to be borrow,” that adage will not protect an issuer in situations where moneys are earmarked or otherwise designated for particular projects for which the issuer then seeks to borrow on a tax-exempt basis. That scenario has the potential to create overissuance and “replacement proceeds” concerns, neither of which an issuer wants to confront.
 - Be mindful of requirement to acquire any investment at its fair market value
 - Specific regulatory guidance (e.g., GICs, yield-restricted escrows, traded on an established securities market, etc. - safe harbors in Regulations). *See, e.g.*, Treas. Reg. § 1.148-5(d)(6)(iii) relating to GICs and yield-restricted defeasance escrows.

- Rebuttable presumption if safe harbor is not met that investment not purchased at Fair Market Value
- Recall enforcement cases (both IRS and SEC) relating to yield burning largely in the 1990s
 - Yield burning is a term that refers to the improper transfer of arbitrage from the issuer and subject to arbitrage rebate to the Federal government or yield restriction limitations to some other party through manipulation of the yield on the issuer's investments.
- SEC Announces Global Resolution of Yield Burning Claims (2000)<https://www.sec.gov/news/press/2000-45.txt>
 - Yield burning involves overcharges by brokerage firms on Treasury securities purchased with proceeds from the sale of municipal bonds. Yield burning by brokerage firms jeopardized the tax-exempt status of interest paid to holders of those bonds. As part of the global resolution, seventeen brokerage firms paid a total of more than \$120 million directly to the United States Treasury.
- Draw-down loans have a limited number of special rules in the Treasury Regs
 - Reporting (8038) considerations for both CP and draw-down loans. The IRS issued an early set of information reporting regulations in the late 1980s, which were modified slightly in 1992. *See* Treas. Reg. § 1.149(e)-1. The IRS, though, in 1993, issued a broader, more comprehensive set of regulations, primarily covering arbitrage-related matters, but containing a definitional section that was applicable generally for Section 103 purposes. Tax counsel have had to wrestle with some of the inconsistencies in these regs, particularly as the earlier set applied to short-term products such as commercial paper and drawdown loans.
- Building in adjustments to an instrument's interest rate:
 - Default Rate
 - Taxable Rate
 - Margin Rate (i.e., changes in corporate tax rates)
 - Downgrade Pricing Adjustments
 - Is any increase in what is denominated interest still interest for tax purposes?

- Tax counsel’s consideration of the unique “CPDI” (contingent payment debt instrument) rules.
 - The CPDI rules are intricate and complex and do not lend themselves neatly to a short description. In cases where there are any “bells & whistles” embedded in an interest rate, parties are best advised to consult tax counsel to address and help resolve the particular issues.
- Coupons and pricing:
 - Bondholders for years have asked for 5% coupons, even with yields significantly lower, resulting in significant original issue premiums.
 - In part due to a buffer against higher interest rates and falling into “market discount” territory
 - Market discount can arise if the market value of the bond is sufficiently below par. If so, a buyer may, upon bond redemption, have taxable market discount, which differs from original issue discount (which reflects an issuer’s initial cost of borrowing).
- Potential increased use of swaps and GICs and other derivative products? What scenarios might that arise in?
 - Under current market conditions, the bank’s incentives to actually make a loan have substantially lessened (see reverse repo above). Their incentive to leverage their capital and earn a fee has increased. This could lead to more synthetic transactions.
- **Proactive Document Drafting** – be responsive to evolving market conditions (economic, market, government programs)
 - Take a fresh look at documents – learn and apply the lessons from the changing forces in the world (across all credits – even GO bonds)
 - Renewed focus on the scope and content of the covenants
 - Ask whether existing document set provide flexibility to use available market tools (e.g., new tax credits, federal government loan programs).
 - Trend over the last two to three years has been towards amending and restating documents (e.g. Master Trust Indenture (MTI)) to make them more borrower friendly; but as market conditions change, will this continue, and what are the implications in stressed credit situations? How will changing market conditions affect amendments/restructuring going forward? What are the tax implications?
 - Multiple security sources (e.g., adding in a lease or a guaranty) or additional protections for payment (deposit accounts, security accounts, reserves, etc.)

- Be aware of securities law implications – separate securities analysis – need to analyze the full chain of collateral
 - In the context of any revenue bond financing, it is possible that one or more contractual arrangements, credit enhancements and/or security agreements in the transaction could constitute securities that are separate from the revenue bonds themselves. If any of the agreements constitutes a security it would be required to be registered under Section 5 of the Securities Act (unless otherwise exempt from registration) and would also be subject to the antifraud provisions of Section 17.
- Be aware of tax limitations and other implications
 - Reissuance considerations related to changes in security or credit enhancement
- Liquidity Covenants
 - Increased focus on tightening liquidity covenants
 - Participants in the bank placement realm who deal with liquidity covenants are very familiar with the “black & white” requirement that an issuer (or conduit borrower) may not agree pursuant to the covenant to maintain an amount at all times. Rather, determining whether the amount has been maintained may occur no more frequently than semiannually.
 - The trickier part of the analysis is how to test the size of the liquidity covenant for reasonableness. In part because the language of the applicable regulations is less than crystal clear – see Treas. Reg. § 1.148-1(c)(3)(ii) – counsel have often employed differing approaches in gaining an appropriate level of comfort that the size of the covenant is reasonable.
- SEC Rule 15c2-12 considerations
 - Application/Exemptions:
 - Corporate issuances under 3(a)(4) and/or 144A are not subject to 15c2-12.
 - Since 2010, VRDO issuances with letters of credit are subject to 15c2-12, unless structured and sold in a limited offering.
 - While investors tend to look at the letter of credit provider for credit quality, the offering document still includes 10b-5-adequate disclosure about the issuer and/or obligated person. So, the continuing disclosure agreement annual reporting obligations should reflect that information.

- Enforcement Actions – Beyond MCDC, the new round of enforcement actions against broker dealers focus on the limited offering exemption and find the underwriters failed to establish a reasonable basis to believe that the investors were sophisticated, buying for their own account, and buying without a view to distribute (buying to hold). In response to these enforcement actions, underwriters are augmenting existing procedures to document existing diligence standards. This includes questionnaires or investor letters for the buy-side to review, digest and accept.
- **In Practice – Scenarios and Considerations**
 - Issuer calls and says they have tripped up a debt service coverage covenant because of declining revenues, for example, what is next?
 - Private placements; bank covenants; tripping covenants – discussions about waivers {or forbearances} vs. amendments;
 - Proactive amendments and consents may avoid a covenant breach and default situation; Amending bond documents to help alleviate pressure.
 - Tax considerations that may arise include:
 - Tax Issues – reissuance questions – opinions, TEFRA hearings, re-testing of tax requirements
 - Process for getting amendments done with issuers that have large public portfolio (plus some private placed debt which is easier to get consents)
 - Market conditions matter – amendment process can be opportunity for tender/exchange – buyout the holders
 - Disclosure considerations –
 - Does the amendment or other event trigger an obligation to make a material event notice filing under any of the listed events, including modification to rights of security holders, if material (7); agreement to new terms to a financial obligation that is material (15); modification of terms to a financial obligation which reflect financial difficulties (16)(15)
 - How does the buy-side view these situations, what do they expect to see from issuers?
 - Considerations include posting notices to EMMA (voluntary/required); engaging in investor calls; hiring consultants

- Disclosure Issues – material event considerations (Is it an event? Is it material?); timing of actions relative to required disclosure filings. If the issuer/obligated person has outstanding debt subject to a continuing disclosure agreement, the continuing disclosure agreement (if dated after February 2017) likely will require notice of Incurrence of a financial obligation of the obligated person, if material.
 - What are the practical disclosure considerations for material event notices and for required annual (and quarterly) filings to ensure accurate speech to the market? Rule 10b-5 standards also apply to dissemination of other documents, such as Annual Comprehensive Financial Report (“ACFR”), or to other circumstances where the issuer is “speaking to the market” in a manner reasonably expected to be perceived by market participants as important to making a decision to buy, hold, tender or sell the issuer’s securities. See also <https://www.sec.gov/news/public-statement/statement-clayton-olsen-2020-05-04>
 - Brings up the perpetually grey area question of materiality
- Issuer calls and says, we cannot make our debt service payments – what is next?
 - There are potential reissuance implications – call tax counsel early!
 - Bank relationship implications – communications, gather the team and engage in the process (don’t hide)
 - Be engaged and proactive in managing reaction, timing, expectations
- Issuer calls to talk about a new deal and the possibility of using a limited offering or bank placement structure, or doing a public offering. What are the considerations?
 - Limited Offerings (including the use of 144A and 4(a)(2)) provide more flexibility with respect to disclosure and continuing disclosure – dealing with highly sophisticated investors who may be able to take on more credit risk.
 - With increased access to federal funds providing a way for new credits to access the public market, the federal and state securities registration exemptions may need to be considered, primarily for taxable transactions. SEC Rule 131 might deem the transaction to have a separate security which has no registration exemption. Even with a federal registration exemption, state blue sky laws might be satisfied with restricting the offering to certain buyers.
 - Draw-down loans for new money projects (revolving/non-revolving)
 - Public offerings

- Competitive vs. negotiated sales
 - Note 2022 MSRB Report: The MSRB conducted a study and published its findings in a report released in October 2022 (<https://www.msrb.org/sites/default/files/2022-10/Competitive-and-Negotiated-Offerings.pdf>). The authors found that overall, the competitive bidding process for municipal securities tends to improve the selling price and produce a lower yield cost for the issuer when more competitive bids are received, and negotiated offerings tend to trade at a higher level in the immediate secondary market when compared to competitive offerings. (in other words, the more competitive bids you get the better your pricing, which intuitively makes sense. The report does not conclude that competitive or negotiated, overall, is superior to the other).
 - More scrutiny on competitive sales with small number of bids
 - Trend of larger syndicates: When markets are volatile, price discovery is a more demanding job, particularly for BBB-ish or non-rated credits. Many hands make light work.