PUBLIC MEETING NOTICE

MUNICIPAL DEBT ADVISORY COMMISSION MEETING

Tuesday, November 3, 2020
1:30 – 3:00 PM

Audio and video participation: Join Microsoft Teams Meeting
Audio participation only: 971-279-6217 Conference ID: 835 346 22#

Meeting materials are accessible on the MDAC web page under “Meeting Dates, Agendas, and Minutes”

AGENDA

BEGIN1 END1 Presenter
1. Call to Order and Roll Call 1:30 PM 1:35 PM Christine Reynolds
2. June 15, 2020 Meeting Minutes/Recording 1:35 PM 1:40 PM Christine Reynolds
3. MDAC Member Introductions 1:40 PM 2:00 PM Christine Reynolds
4. Proposed Legislative Concepts:
   a. Electronic Legal Document Execution: ORS 286A, ORS 287A, ORS 84
      (Uniform Electronic Transactions Act)
   b. Consistent Notice Publications about Revenue Bond Authorizing Actions
      (e.g., Conform ORS 777 & ORS 778 to ORS 287A Revenue Bond Notice Timing)
   c. Other Legal Functions Affected by Remote Work
5. Direct Purchases and Private Placements 2:00 PM 2:10 PM Lee Helgerson
6. LIBOR/SOFR Transition 2:10 PM 2:40 PM Christine Reynolds
   Jacqueline Knights
   Howard S. Altarescu
   Nikiforos Mathews
   https://www.orrick.com/en/People/1/A/F/Nikiforos-Mathews
7. Taxable vs. Tax-Exempt Bond Sales 2:40 PM 2:55 PM Margie Backstrom
   a. Taxable Bonds in the Current Market
8. Q & A / Public Comment 2:55 PM 3:00 PM Matthew Harris
9. Adjournment

1 Estimated times
TAB 5 – Direct Purchases and Private Placements

TAB 6 – LIBOR/SOFR Transition
Topic 5: Direct Purchases and Private Placements
Lee Helgerson, Debt Management Division

Topic 6: LIBOR/SOFR Transition
Jacqueline Knights
Director, Debt Management Division

Howard Altarescu and Nik Mathews
Partners, Orrick Herrington & Sutcliffe LLP
TOPICS 5 & 6:

- DIRECT PURCHASE & PRIVATE PLACEMENT CONSIDERATIONS
- LIBOR / SOFR TRANSITION
TOPIC 5:
DIRECT PURCHASE & PRIVATE PLACEMENT CONSIDERATIONS
Benefits of Bank Loans and Private Placements

Bank loans and private placements have historically been a common source of funding for small or short-term financings such as for vehicles and equipment. More recently both have come to be used to fund larger capital projects traditionally financed with publicly sold bonds or lease obligations. Some benefits include:

- Perceived lower cost of issuance
  - Generally lower up-front fees and associated underwriting costs
  - May not require opinion from bond counsel or a municipal advisor*
- Less time and resources required of the borrower
  - No official statement or rating requirement
  - Possible limited scope of ongoing disclosure obligations directly to lender (no EMMA filings)
- Ability to customize financing structure
- Flexibility to avoid issuance in volatile market environments and times of pricing uncertainty

*Note that while the absence of bond counsel or municipal advisor may reduce costs of issuance, the exclusion of these parties is often not in the best interest of the issuer.
Private Placements, Direct Purchases and Bank Loans

- **Private Placement** – Sale of securities in a non-public offering directly to a single purchaser or to a limited number of investors. Also referred to as a direct purchase.

- **Bank Loan** – Direct loans in which the borrower enters into a loan agreement with a bank.
  - The borrower often has an established relationship with the lending bank and the transaction is generally conducted without the use of a placement agent.
  - A bank loan or direct borrowing is basically a type of a direct purchase.

- **Primary difference between a bank loan and a private placement:**
  - A bank borrowing is usually a loan instrument.
  - A private placement is usually a security.
Negatives of Bank Loans and Private Placements

While certain costs of issuance such as underwriting fees and rating agency fees may not be required with bank loans and private placements they are often not an issuers’ best financing option. Some negatives include:

- Generally higher interest rates as compared to rates obtained from a public offering.
  - No ratings makes it difficult for investors to determine risk = “risk premium”

- **Certain structures are sold to a** limited number and variety of investors.
  - May require minimum denominations (e.g. $100,000 or more)
  - Private placements limited to sophisticated (accredited) investors
  - Traveling investor letter requirements

- Banks often require short-term financing (generally 10 years or shorter).
  - May impose risk of uncertain access to refinancing when the loan matures

- Banks may require unfavorable covenants that can have negative implications on existing bond ratings, among other considerations

While banks may provide issuers easy financing with lower costs of issuance they have no fiduciary duty to protect the issuer’s interests.
Unfavorable Terms and Covenants

Some examples of unfavorable terms and covenants include:

- Bank loans often include events of default that can result in a mandatory redemption of the loan.
  - Cross-defaults to other unrelated obligations
  - Rating downgrade provisions may put issuer at risk especially given that ratings are not something that the issuer directly controls
  - Adverse change provisions are often unclear and subject to interpretation
- Waiver of jury trial

- Many loans have provisions known as “gross-up provisions” that allow the bank to change the rate on the loan if the corporate tax rate is changed. Billions of bank loans and private placements had rate resets after the 2017 Tax Act was enacted and changed the corporate tax rate from 35% to 21%.
- Many bank loans include rate resets related to the length of the loan. For example, you may have a 10-year loan in which the rate is only fixed for 5 years and then adjusted based on some predefined future condition such as the bank’s prime rate.
- Some bank loans are structured with balloon payments which may, depending on the circumstances, require the issuer to refinance the loan.
Prior to February 2019 there were no SEC or MSRB requirements relating to continuing disclosure for private placements and bank loans.

Effective February 27, 2019 changes to SEC Rule 15c2-12 require disclosure of private placements and bank loans in certain circumstances. Specifically, SEC Rule 15c2-12 was amended to include new events 15 and 16:

15. Incurrence of a financial obligation of the obligated person, if material, or agreement to covenants, events of default, remedies, priority rights, or other similar terms of a financial obligation of the obligated person, any of which affect security holders, if material; and

16. Default, event of acceleration, termination event, modification of terms, or other similar events under the terms of a financial obligation of the obligated person, any of which reflect financial difficulties.

For more information regarding the SEC Rule 15c2-12 disclosure changes see:

See http://www.msrb.org/~media/Files/Resources/10-Things-to-Know-New-SEC-Rule-15c2-12.ashx?
Bank loans or private placements may be feasible for a particular transaction but consider your options.

For large capital expenditures, bank loans and private placements may be an expensive alternative to publicly sold bonds or other debt obligations.

Use a request for proposals that permits firms to submit proposals for either a private placement or public offering

- If you determine that a bank loan or private placement is the best approach, then a competitive proposal will also help you determine which bank offers the best rates and terms.

Finally, if you determine to proceed with a bank loan or private placement, then a municipal advisor and bond counsel can assist in the development of favorable financing terms and covenants that won’t negatively affect your financial situation or bond rating.
TOPIC 6:
LIBOR/SOFR TRANSITION
LIBOR: A Historical Perspective

- LIBOR (London Interbank Offered Rate) is the reference rate at which large banks can borrow short-term funds on an unsecured basis
  - USD LIBOR Fixing is determined by the collection of data daily (11am) from the largest and most creditworthy banks that are active in the US markets
  - LIBOR serves as the reference or benchmark rate for short-term financial contracts
    - A futures market was developed that provided for the development of a LIBOR rate curve for use in structuring long term contracts
  - At its peak, it is estimated that LIBOR based contracts were valued at $350 Trillion
    - This compares to total outstanding US Fixed Income securities of $42 Trillion

- Banks and market participants employ the use of LIBOR for many financing vehicles
  - Interbank Lending
  - Adjustable Rate Mortgages
  - Interest rate and other swaps
  - Bank Loans
  - Student Loans
  - Floating Rate Notes

Source: Federal Reserve Bank of NY, Statements from Chairman Powell
LIBOR: Inherent Weaknesses as a Benchmark Index

- The Financial Crisis, (2007-2009), highlighted fundamental weaknesses in LIBOR as a Benchmark
  - LIBOR exhibited tremendous volatility as early as July 2007 when the initial mortgage market issues came to light
  - Volatility increased significantly in the credit crunch preceding the Lehman bankruptcy and the ensuing liquidity / credit freeze in the banking sector, reflecting the credit risk component of LIBOR
  - When used as a benchmark, the credit component LIBOR transfers to LIBOR Based financial contracts that were unrelated to the banking sector credit risks
  - The Liquidity Crisis escalated LIBOR rate manipulation by representatives of major financial institutions during LIBOR Fixings
    - Some banks provided inaccurate borrowing information and estimated borrowing costs, with the potential of increasing bank profits in certain situations
    - This led to the erosion of the credibility of LIBOR as a viable index
- In 2017, The Financial Conduct Authority (“FCA”) and UK Regulators determined LIBOR to be untenable and established August 2021 to be the end of LIBOR as an Index

Source: Federal Reserve Bank of NY, Statements from Chairman Powell, Bloomberg
**The Emergence of SOFR (Secured Overnight Financing Rate)**

- SOFR is a broad measure of the cost of borrowing cash overnight using transactions that are collateralized by US Treasury Securities

- Key features of SOFR
  - Collateralized by US Treasuries, which approximates a risk free rate
  - Rate determined based on actual transactions - volume weighted repo transactions cleared through designated and established clearing centers including BNY Mellon, Fixed Income Clearing Corp (FICC) / Depository Trust & Clearing Corp (DTCC)
  - Since consideration of SOFR as a potential LIBOR replacement, SOFR volume has increased and daily trades now approximate $800 Bn to $1,000 Bn

- SOFR addresses fundamental concerns with LIBOR
  - Credit risk of banking sector / financial institutions is removed from pricing
  - Market manipulation risk is minimized as rate is based on actual transactions

- SOFR Considerations
  - SOFR is primarily an overnight index rate
  - In May of 2020, SOFR futures contracts began trading on the Chicago Mercantile Exchange
    - Futures contracts permit the development of an interest rate curve using SOFR
    - With longer term rates, SOFR can be used for longer term securities

*Source: Federal Reserve Bank of NY, Statements from Chairman Powell, Bloomberg*
LIBOR and SOFR: Nuances of the Transition

- LIBOR is embedded in a variety of municipal transactions
  - Direct placements with banking institutions
  - Variable Contracts (“VRDOs”) / Floating Rate Notes ("FRNs"): [% of] LIBOR + [Spread]
  - LIBOR Based Interest Rate Swap Language will need to be reviewed to determine how a successor index will be treated

**Fixed Interest Rate Swap Illustration**

- Issuer
- Swap Counterparty
- Bond Proceeds
- Floating Index
- Floating Index +/- Spread
- VRDO or FRN Bond Holder

- Many financial documents have language regarding conversion to a successor index
  - Issuers need to be concerned with the conversion factor from LIBOR to SOFR
  - For hedging instruments, will a conversion cause a reissuance or no longer satisfy the definition of an integrated swap for hedging purposes
  - As these contracts are heavily negotiated, issuers need to carefully review the conversion language to determine the effect of the conversion on their overall cost
How to prepare for LIBOR/SOFR Conversion

- With compression of LIBOR / SOFR Spread and an active SOFR market, wait until the market determines the conversion factor
- Review bond and swap documents to determine if there is language governing a successor index
- Review indentures to determine if it needs to be amended to include SOFR as a permissible index
- Review agreements that could potentially have LIBOR embedded structures
  - Loan Agreements
  - Standby / Direct Pay LOC’s
  - Direct Placement with Banks
  - Reserve Funds
  - Swaps and Bond Documents
  - Indentures
LIBOR DISCONTINUANCE AND ITS IMPLICATIONS

PREPARED FOR:

HOWARD ALTARESCU, PARTNER
NIKIFOROS MATHEWS, PARTNER
Industry Focus / Legal Considerations

• Critical Areas of Focus
  – Triggers
  – Replacement Benchmark
  – Replacement Benchmark Spread
Industry Focus / Legal Considerations (cont.)

• Alternative Reference Rates Committee (the ARRC)
• New Cash Instruments
  – The ARRC has published its final recommended language for the following products, as well as for spread adjustment methodologies.
    ○ Adjustable Rate Mortgages
    ○ Bilateral Business Loans
    ○ Floating Rate Notes
    ○ Securitizations
    ○ Syndicated Loans
    ○ Variable Rate Private Student Loans
    ○ Spread Adjustment Methodologies for Fallbacks in Cash Products
Derivatives

- Derivatives account for approximately 95% of USD LIBOR exposure
- Most interest rate derivatives use some form of LIBOR as their reference rate.
- The predominant one in the U.S. is USD-LIBOR-ICE of varying maturities
Derivatives – What Currently Happens?

• Incorporation of 2006 ISDA Definitions
• LIBOR determined with respect to each “Reset Date”
• Fallback to “USD-LIBOR-Reference Banks” determined on the basis of a dealer poll
• In case of permanent discontinuance of LIBOR, looking to “Reference Banks” would be unworkable
ISDA Initiatives – Transition to SOFR

• 2018 / 2019 IBOR Consultations
• Selection of Vendor
• Amendment of 2006 Definitions
• Protocol for “Legacy” Derivatives
The LIBOR Transition

Legacy Cash Instruments

• Contract Inventory and Exposure Assessment
  – Fallback provisions
  – Alternative benchmarks
  – Choice of the alternative
  – Margin
  – Trigger determination
  – Amendment/consent provisions
Legal Considerations: The Problem

If LIBOR is not available, legacy instruments provide for a fallback to …

• Last Available LIBOR
• Average Quotes Provided by Bank Poll
• Administrative Agent (Or Other) Determination
• No Fallback Provisions
• Lender Cost of Funds/ Prime Rate, etc.
The State Legislation “Solution”

ARRC Proposed New York State legislation

• Last Available LIBOR
  – Replace with SOFR and related adjustment provisions
• Average of Quotes Provided by Bank Poll
  – Replace with SOFR and related adjustment provisions
• Administrative Agent (Or Other) Determination
  – Litigation safe harbor if they select SOFR and related adjustment provisions
• No Fallback Provisions
  – Insert SOFR and related adjustment provisions
• Lender Cost of Funds/ Base Rate (i.e., Prime Rate)
  – No override

Contract parties may mutually opt-out of mandatory application of the proposed legislation at any time. New York law is the governing law in the vast majority of corporate financing documents in the U.S.
The Contracts Clause Hurdle

United States Constitution (Article I, section 10, clause 1)
• United States Constitution (Article I, section 10, clause 1)
• Prohibits states from passing any “Law impairing the Obligation of Contracts”

U.S. Supreme Court opinions – Questions to be asked
• Does the statute effect a “substantial impairment” of contracts?
• Is the law designed to reflect the intent of the parties?
• Is the law likely to disturb any parties’ expectations at the time of contracting?
• If a substantial impairment is shown …
  – whether the impairment is supported by “a significant and legitimate purpose,” and
  – whether it does so in an “appropriate” and “reasonable” manner
The U.S. Federal Legislation "Solution", etc.

Possible Federal Legislation

• Terms essentially the same as New York Legislation
• Nationwide Fix
• Timing: TBD

UK Legislation/ Regulations

• Financial Services Legislation
• Amendments to the Benchmarks Regulation to support LIBOR transition: Policy Statement
Litigation Risks

“When you looked at the underlying contracts that used LIBOR, they didn’t provide very well for LIBOR simply disappearing.... This is a DEFCON 1 litigation event if I’ve ever seen one.”

— NY Fed Exec. VP and General Counsel Michael Held

- Impracticality
- Breach of contract
- Unexpected-circumstances doctrines
  - Impossibility
  - Frustration of purpose
  - Mutual mistake of fact
- Implied covenant of good faith and fair dealing
- Force majeure
- Federal securities law disclosure
- Federal securities law fraud
- Consumer protection claims
APPENDIX A

KEY RESOURCES
Key Resources

- **ARRC – Alternative Reference Rates Committee** In 2014, the Board of Governors of the Federal Reserve System and the Federal Reserve Bank of New York convened the Alternative Reference Rates Committee in order to identify best practices for alternative reference rates, identify best practices for contract robustness, develop an adoption plan, and create an implementation plan with metrics of success and a timeline.

- **ISDA – International Swaps and Derivatives Association** The Official Sector Steering Group (OSSG) approached ISDA in 2016 and requested that ISDA embark on an initiative designed to improve the contractual robustness of contracts referencing IBOR rates. ISDA has since published certain related consultative papers.

- **LSTA – Loan Syndication and Trading Association** The LSTA promotes a fair, orderly, efficient, and growing corporate loan market and provides leadership in advancing and balancing the interests of all market participants. The LIBOR Working Group engages with ARRC, regulators and other trade associations to help with LIBOR replacement.

- **LMA – Loan Market Association** The LMA has as its key objective improving liquidity, efficiency and transparency in the primary and secondary syndicated loan markets in Europe, the Middle East and Africa (EMEA). The LMA is working with the market, other trade associations and the regulators on contingencies.

- **SFIG – Structured Finance Industry Group** SFIG’s LIBOR Task Force was formed to identify potential membership actions that should be taken in response to the phase-out of LIBOR. Given that the impact of this change will be felt across the securitization industry, a Steering Committee representing key sectors of the industry helps guide the Task Force.
SIFMA – Securities Industry and Financial Markets Association SIFMA plays a central role among our stakeholders in ensuring market resiliency and preparedness. By laying the foundation to transition away from the use of LIBOR, identifying new risk-free rates (with futures trading now underway), improving our fallbacks in derivatives and new securities transactions, and implementing other elements of the Alternative Reference Rate Committee’s (ARRC) paced transition plan, we are reducing risk in our marketplaces and making our system more resilient.

FCA – Financial Conduct Authority In July 2017, the chief executive of the UK’s Financial Conduct Authority (FCA), Andrew Bailey, announced that the FCA would no longer compel or persuade banks to provide submissions for LIBOR post-2021.

ICE Benchmark Administration ICE LIBOR is a benchmark rate produced for five currencies with seven maturities quoted for each - ranging from overnight to 12 months, producing 35 rates each business day.

IBOR Global Benchmark Transition Report June 2018 SIFMA, SIFMA AMG, ISDA, AFME and ICMA published a new report that assesses the issues involved with benchmark reform, and makes recommendations on steps firms can take to prepare for the transition from interbank offered rates (IBORs) to alternative risk-free rates (RFRs).
APPENDIX B
ARRC UPDATE AS OF OCTOBER 28, 2020
The ARRC has published its final recommended language for the following products, as well as for spread adjustment methodologies.

- **Adjustable Rate Mortgages**
- **Bilateral Business Loans**
- **Floating Rate Notes**
- **Securitizations**
- **Syndicated Loans**
  - Technical Appendices
- **Variable Rate Private Student Loans**
- **Spread Adjustment Methodologies for Fallbacks in Cash Products**
TAB 7 – Taxable vs. Tax-Exempt Bond Sales
Taxable Municipal Bonds

Discussion Materials

November 3, 2020
Municipal Bond Market Overview

- The majority of municipal bonds (85%) are issued as federally tax-exempt, but a small portion is taxable.
- Issuer may issue taxable bonds for a number of reasons including, but not limited to:
  - Private use of facility
  - Advance refunding
  - Relative rates in tax-exempt versus taxable markets
  - Decreases post-issuance tax compliance

Percent of Market by Tax Status

- Federally Tax-exempt: 78%
- Federally Taxable: 15%
- Subject to AMT: 4%
- Bank Qualified: 3%

Source: Morgan Stanley Research, Bloomberg MSRC as of 8/21/3030
Ratings Distribution

**Main Index Composite Ratings**
Market Value ($B)

- AAA, 449.4
- AA, 1,317.1
- A, 467.5
- BBB, 157.9
- BB, 32.0
- CCC, 4.5
- CC, 4.4
- C, 1.5
- D, 0.1
- Not Rated, 121.8

**Taxable Index Composite Ratings**
Market Value ($B)

- AAA, 77.9
- AA, 310.2
- A, 881.1
- BBB, 193.5
- BB, 0.7
- Not Rated, 1.7

Source: Morgan Stanley Research, S&P as of 8/31/2020
Top Buyers

Top Buyers of Tax-Exempt Municipal Bonds
Market Value ($B)

- Bond Funds, 779.2
- Municipal/Gov, 4.3
- SMAs, 53.6
- Money Manager, 116.2
- Other, 0.4
- ETF, 4.9
- Prop/Trading, 6.5

Top Buyers of Taxable Municipal Bonds
Market Value ($B)

- Bond Funds, 101.3
- Municipal/Gov, 5.0
- SMAs, 10.2
- Money Manager, 29.6
- Broker Dealer, 12.6
- Corporate, 11.0
- Hedge Fund, 3.8
- Insurance, 35.6
- Other, 2.1

Source: Bloomberg as of 10/21/2020
Primary Differences Between Taxable and Tax-Exempt Transactions

• Taxable buyer base may include more insurance companies and fewer retail investors
  – Underwriter may suggest including language in the POS that allows international investors to purchase the bonds

• Taxable market developed from corporate market, so certain conventions in call provisions and pricing can vary
  – **Call provisions**: 10 year par call that is dominant in tax-exempt market is uncommon in corporate market, but common for taxable municipal bonds
  – **Issue Price**: Taxable bonds price at par, which means that the coupon and the yield on the bond at issuance will be the same, in contrast to tax-exempt bonds in which premium bonds are currently dominant. This results in higher par amounts for taxable sales (to get the same amount of proceeds), but often lower debt service in early years due to lower coupons
  – **Pricing convention**: Tax-exempt bonds price from the yield while taxable bonds price at a spread to US Treasuries and a separate process is completed to lock the yields
  – **Pricing range**: Initial taxable bonds pricing may indicate a range of spreads using terms like “Area” or “+-5”
### Pricing Progression

**State of Oregon Department of Transportation**

#### $186,465,000 Subordinate Lien Bonds Series 2020A (Tax-Exempt)

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<th>Maturity</th>
<th>Coupon (%)</th>
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#### Pre-Marking (9/9) Preliminary Pricing (9/10) Reprice (9/10)

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#### Spread Progression

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#### $611,505,000 Senior Lien Refunding Bonds Series 2020B (Federally Taxable)

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<td>90,125</td>
<td>100</td>
<td></td>
</tr>
<tr>
<td>11/15/2032</td>
<td>70,085</td>
<td>110</td>
<td></td>
</tr>
<tr>
<td>11/15/2033</td>
<td>17,660</td>
<td>120</td>
<td></td>
</tr>
<tr>
<td>11/15/2034</td>
<td>22,420</td>
<td>125</td>
<td></td>
</tr>
</tbody>
</table>

#### Indications of Interest (IOI's) (9/9) Price Guidance (9/10) Launch (9/10) Coupon Set (9/10) Spread Progression

<table>
<thead>
<tr>
<th>Maturity</th>
<th>Par ($000)</th>
<th>Spread</th>
<th>Spread Δ vs. IOI's</th>
</tr>
</thead>
<tbody>
<tr>
<td>11/15/2021</td>
<td>12,120</td>
<td>15</td>
<td></td>
</tr>
<tr>
<td>11/15/2022</td>
<td>12,160</td>
<td>25</td>
<td></td>
</tr>
<tr>
<td>11/15/2023</td>
<td>12,220</td>
<td>35</td>
<td></td>
</tr>
<tr>
<td>11/15/2024</td>
<td>12,295</td>
<td>40</td>
<td></td>
</tr>
<tr>
<td>11/15/2025</td>
<td>21,675</td>
<td>50</td>
<td></td>
</tr>
<tr>
<td>11/15/2026</td>
<td>31,950</td>
<td>55</td>
<td></td>
</tr>
<tr>
<td>11/15/2027</td>
<td>61,810</td>
<td>70</td>
<td></td>
</tr>
<tr>
<td>11/15/2028</td>
<td>80,845</td>
<td>65</td>
<td></td>
</tr>
<tr>
<td>11/15/2029</td>
<td>81,075</td>
<td>75</td>
<td></td>
</tr>
<tr>
<td>11/15/2030</td>
<td>84,950</td>
<td>85</td>
<td></td>
</tr>
<tr>
<td>11/15/2031</td>
<td>90,125</td>
<td>100</td>
<td></td>
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<td>22,420</td>
<td>125</td>
<td></td>
</tr>
</tbody>
</table>
# Taxable Sales Process Overview

## Sample Taxable Sales Process

<table>
<thead>
<tr>
<th>Date</th>
<th>Time (EDT)</th>
<th>Event</th>
<th>Differences to Tax-Exempt Process</th>
</tr>
</thead>
<tbody>
<tr>
<td>Day 1</td>
<td>9:30 am</td>
<td>Call to determine spreads to Treasuries for Taxable Indications of Interest (&quot;IOI&quot;) Process</td>
<td>Tax-Exempt process does not include Indications of Interest step. Retail order period (if any) rates will be determined on this call as well, but for the taxable sale, it is for all interested buyers rather than just retail.</td>
</tr>
<tr>
<td></td>
<td>10 am (approx)</td>
<td>Indications of Interest Process begins</td>
<td>Investors place orders based on the spreads to Treasuries and not an exact yield.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Orders on IPREO for the Taxable bonds will be viewable during the IOI process</td>
<td>Retail orders (if holding a ROP) on the tax-exempt bonds will also come in on IPREO during this time.</td>
</tr>
<tr>
<td></td>
<td>4 pm</td>
<td>Call to discuss results of the day and discuss potential adjustments to spreads based on the order book</td>
<td></td>
</tr>
<tr>
<td>Day 2</td>
<td>9:30 am</td>
<td>Call to determine adjustments to spreads to Treasuries and go out with Price Guidance</td>
<td>Adjustments are to the spreads and not to the yields.</td>
</tr>
<tr>
<td></td>
<td>10 am (approx)</td>
<td>Price Guidance begins</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>During Price Guidance process, depending on the market tone and the adjustments that were agreed upon, additional orders could come in or orders could drop</td>
<td></td>
</tr>
<tr>
<td></td>
<td>11 am</td>
<td>Taxable Launch call. Exact spreads to Treasuries are agreed upon between the underwriters and the Issuer and its Advisors</td>
<td>This is equivalent to the Verbal Award call for a tax-exempt bond sale. This locks in the spreads to Treasuries, but not the actual yields however for the taxable sale.</td>
</tr>
<tr>
<td></td>
<td>2 pm</td>
<td>Escrow bids received. Issuer determines whether to accept the winning bid for the escrow or use SLGS. This allows the final bond sizing to be calculated and allotments to be made prior to the Coupon Set.</td>
<td>The taxable sale requires allotments prior to the coupon set because investors may hedge their purchases with Treasuries simultaneous with the Coupon Set, so they need to know how many bonds they have been allotted. In a tax exempt sale, allotment occurs after the pricing process is complete.</td>
</tr>
<tr>
<td></td>
<td>2:30 pm</td>
<td>Coupon Set Call. The exact coupons on the taxable bonds are determined based on the reference Treasury yields at that moment in time and the spreads agreed upon during the Taxable Launch call</td>
<td>In a tax-exempt sale, the exact yields are determined on the Verbal Award call.</td>
</tr>
</tbody>
</table>
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