



**SFMTA**

# Revenue Bond Refunding and New Issuance

## SFMTA Board Update and Approval

December 15, 2020

Financial Analysis Office  
Budget, Financial Planning and Analysis  
Finance & IT

# The Opportunity

- SFMTA Board updated on 12/1 with FY21/22 deficit scenarios
- With its good credit rating, the SFMTA can take advantage of historically low interest rates to save the agency in debt service and increase budget resilience
- Advance refunding of previously issued bonds could provide:
  - Up-to \$43M in near-term cash flow in FY21 through FY23
  - Up-to \$21M in NPV savings through FY2044
- The SFMTA may decide not to move ahead with refunding depending on financial position or market conditions

Assumes rates as of 11/13/2020, subject to change based on market conditions

# SFMTA Outstanding Debt

| Series        | Original Par | Outstanding Par | Avg Yield | Dated Date | Final Maturity | 1st Call Date | DSRF Purpose   |
|---------------|--------------|-----------------|-----------|------------|----------------|---------------|--|
| Series 2012-A | 38 M         | 12 M            | 2.28      | Jul-12     | Mar-32         | Mar-22        | 1.7 M Refunding prior parking bonds                  |
| Series 2012-B | 26 M         | 26 M            | 3.42      | Jul-12     | Mar-42         | Mar-22        | 1.8 M New \$: Parking Garages                        |
| Series 2013   | 75 M         | 56 M            | 2.68      | Dec-13     | Mar-33         | Mar-23        | 6.0 M New \$: Traffic safety, vehicles               |
| Series 2014   | 71 M         | 62 M            | 2.09      | Dec-14     | Mar-44         | Mar-24        | 4.5 M New \$: Traffic safety, vehicles               |
| Series 2017   | 178 M        | 167 M           | NA        | Jun-17     | Mar-47         | Mar-27        | NA New \$: Van Ness BRT, Mission Bay/Chase, vehicles |
| <b>Total</b>  | <b>388 M</b> | <b>323 M</b>    |           |            |                |               | <b>14.0 M</b>  |

The SFMTA proposes to refund series 2012 through 2014

Refunding Series 2017 would not result in cost savings

# Refunding Summary Comparison of Scenarios

| Scenario                            | 1) Base Case  | 2) Upfront Savings  |
|-------------------------------------|---|---|
| Approach                            | Level Savings w/ Releases   | Amortization in 2024 w/ Releases  |
| Objective                           | Reap max cashflow savings over the life of the bonds                  | Greatly enhance near-term cash flow for slightly less aggregate gross (long-term) savings |
| Tradeoff                            | More aggregate gross (long-term) savings for less near-term cash flow | More near-term flexibility for less long-term savings                                     |
| Gross Aggregate Savings (Long-term) | \$24.3 M  | \$20.5 M  |
| NPV Savings (Today's Dollars)       | \$20.9 M  | \$20.4 M  |
| FY21-23 Net Cash Flow (Near-term)   | \$33.5 M  | \$43.0 M  |

Assumes rates as of 11/13/2020, subject to change based on market conditions

# Refunding Detailed Comparison of Scenarios

|  | 1) Base Case  | 2) Upfront Savings |
|--|---------------|--------------------|
| <b>Funds Available for SFMTA in FY 2021<sup>1</sup> (Dollars in thousands)</b> |               |                    |
| Aggregate DSRF Releases  | 14,071        | 14,071             |
| Aggregate Interest Fund Releases   | 3,193         | 3,193              |
| Aggregate Principal Fund Releases  | 5,317         | 5,317              |
| New Money Proceeds   | 0             | 0                  |
| <b>Sub-Total: Available Funds</b>  | <b>22,581</b> | <b>22,581</b>      |
| <b>Near-Term Net Cash Flow Benefit<sup>3</sup></b>                             |               |                    |
| FY 2021 Net Change in Cash Flow  | 9,631         | 9,631              |
| FY 2022 Net Change in Cash Flow  | 635           | 9,625              |
| FY 2023 Net Change in Cash Flow  | 638           | 1,187              |
| <b>Sub-Total: FY21-23 Net Cash Flow Benefit<sup>3</sup></b>                    | <b>10,904</b> | <b>20,443</b>      |
| <b>Total Near-Term Financial Impact<sup>4</sup></b>                            | <b>33,485</b> | <b>43,024</b>      |

## Net PV Savings Calculation

|                                       |               |               |
|---------------------------------------|---------------|---------------|
| Aggregate Gross Savings               | 24,301        | 20,528        |
| PV Savings From Cash Flows            | 20,949        | 20,377        |
| Plus: Refunding Funds on Hand         | 5             | 5             |
| <b>Net PV Savings</b>                 | <b>20,954</b> | <b>20,382</b> |
| <b>Net PV Savings to Refunded Par</b> | <b>13.4%</b>  | <b>13.1%</b>  |

- Option 1 provides level savings over life of bond
- Option 2 includes amortization in 2024 to open near term cash flow
- NPV is approximate for each option

Assumes rates as of 11/13/2020, subject to change based on market conditions

1) Indicates funds not used as a source of funds for the refunding bonds that are made available at financial close for SFMTA's use  
 2) Gross annual savings generated by refunding bonds only, does not account for impact of new money debt service, if any  
 3) Net Cash Flow Benefit is equal to the savings generated by the refunding bonds, less any debt service due on new money bonds  
 4) Total Near Term Financial Impact is equal to the sum of the Sub-Total: Available Funds and the Sub-Total: FY21-23 Net Cash Flow Benefit

# Refunding Proposed Benchmarks

| Criterion   | Description                                       | Benchmark |
|-------------|---|-----------|
| NPV Savings | Minimum NPV savings as percentage of refunded par | 3%        |

- Benchmarks will be used when making the decision whether to go-to-market
- Citywide and SFMTA refunding policy is that NPV savings must be at least three percent

## Note

- *NPV savings differ from upfront savings– NPV savings are due to interest rates, while upfront savings are due to deal structure*
- *While both are desirable, upfront savings are more important from a near-term budget perspective*

# Refunding Sensitivity Analysis

Sensitivity analysis on the base case shows aggregate savings above benchmarks with a 100bps (1.0%) rise in rates

## NPV Savings Analysis (Dollars in thousands)

|   | 2012A        | 2012B        | 2013         | 2014             | Aggregate     |
|---|--------------|--------------|--------------|------------------|---------------|
| <b>Current Rates</b>                    |              |              |              |                  |               |
| Refunded Par                            | 11,690       | 25,835       | 56,190       | 62,495           | 156,210       |
| Refunding Par                           | 0            | 0            | 0            | 0                | 173,315       |
| Cash-Flow Savings                       | 0            | 0            | 0            | 0                | 24,301        |
| <b>NPV Savings</b>                      | <b>1,663</b> | <b>5,196</b> | <b>6,428</b> | <b>7,668</b>     | <b>20,954</b> |
| <b>NPV Savings %</b>                    | <b>14.2%</b> | <b>20.1%</b> | <b>11.4%</b> | <b>12.3%</b>     | <b>13.4%</b>  |
| <b>50bp Increase in Interest Rates</b>  |              |              |              |                  |               |
| Refunded Par                            | 11,690       | 25,835       | 56,190       | 62,495           | 156,210       |
| Refunding Par                           | 0            | 0            | 0            | 0                | 173,615       |
| Cash-Flow Savings                       | 0            | 0            | 0            | 0                | 13,505        |
| <b>NPV Savings</b>                      | <b>1,313</b> | <b>3,342</b> | <b>4,469</b> | <b>3,446</b>     | <b>12,570</b> |
| <b>NPV Savings %</b>                    | <b>11.2%</b> | <b>12.9%</b> | <b>7.9%</b>  | <b>5.5%</b>      | <b>8.1%</b>   |
| <b>100bp Increase in Interest Rates</b> |              |              |              |                  |               |
| Refunded Par                            | 11,690       | 25,835       | 56,190       | 62,495           | 156,210       |
| Refunding Par                           | 0            | 0            | 0            | 0                | 173,925       |
| Cash-Flow Savings                       | 0            | 0            | 0            | 0                | 2,298         |
| <b>NPV Savings</b>                      | <b>1,023</b> | <b>1,723</b> | <b>2,767</b> | <b>(766,415)</b> | <b>4,747</b>  |
| <b>NPV Savings %</b>                    | <b>8.8%</b>  | <b>6.7%</b>  | <b>4.9%</b>  | <b>-1.2%</b>     | <b>3.0%</b>   |

Assumes rates as of 11/13/2020, subject to change based on market conditions

# New Money Option

- The SFMTA Board requested that the Agency consider all options to mitigate negative financial impacts while preserving transit and transportation services to the greatest extent possible
- The SFMTA wishes to retain the option to issue up-to \$300 million in tax-exempt new money bonds capital projects
- This option bolsters the SFMTA's operating position while issuing debt at historically low cost



# New Money Summary Comparison of Scenarios

| Scenario                  | 1) Base Case   | 2) Level Debt Service and Downgrade   | 3) Backloaded Debt Service w/ Level Aggregate   |
|---------------------------|--|---|---|
| Approach                  | Level debt service over the life of the bonds                      | Level debt service over the life of the bonds, adjusted for potential credit downgrade of 25bps (0.25%) | Debt service backloaded to outer years, structured so that sum of existing debt and new debt is level starting FY25 |
| Objective                 | Spread debt service evenly across years while securing lowest cost | Spread debt service evenly across years while securing lowest cost                                      | Increase near-term budget flexibility while providing future debt service predictability                            |
| Tradeoff                  | Lower cost but less budget flexibility                             | Lower cost but less budget flexibility  | More near-term flexibility for increased cost   |
| <b>Total Debt Service</b> | <b>\$513.8 M</b>   | <b>\$525.6 M</b>  | <b>\$586.M</b>  |
| Difference from Base Case | -  | \$11.8 M  | \$72.2 M  |

Assumes rates as of 12/02/2020, subject to change based on market conditions

# New Money Detailed Comparison of Scenarios

|                            | 1) Base Case | 2) Base Case and<br>Downgrade | 3) Backloaded Debt<br>Service |
|----------------------------|--------------|-------------------------------|-------------------------------|
| New Money Par Amount       | 276.4        | 282.8                         | 284.4                         |
| Original Issue Premium     | 71.8         | 66.6                          | 71.9                          |
| Estimated Cost of Issuance | (1.4)        | (1.4)                         | (1.4)                         |
| Debt Service Reserve Fund  | (19.2)       | (19.7)                        | (26.5)                        |
| Capitalized Interest       | (27.6)       | (28.3)                        | (28.4)                        |
| Net Capital Project Fund   | \$300.0      | \$300.0                       | \$300.0                       |
| Begin Amortization         | 2025         | 2025                          | 2025                          |

Dollars in millions

- All scenarios assume a 30-year term and include capitalized interest for 24 months, providing a grace period during which the operating budget does not need to allocate funds to make annual debt service payments
- Amortization begins FY25, at which point some principal becomes payable, providing enhanced near-term budget relief
- DSRF will only be included if it provides a financial benefit at pricing

Assumes rates as of 12/02/2020, subject to change based on market conditions

# Credit Rating Considerations

- Rating downgrade by S&P to 'AA-' from 'AA' (negative outlook) may increase rates an estimated 25bps (0.25%)– SFMTA's debt is still high-quality investment grade
- SFMTA retains “a very strong enterprise risk profile, a strong financial risk profile, and significant support by various tax revenue,” with “strong debt and liabilities capacity”
- An additional rating from S&P and Moody's is required

## Farebox Recovery

- While historically, farebox recovery below 30% was a negative, in the post-pandemic period it is less of a factor.

## Critical Service Provider

- San Francisco is amongst the wealthiest cities in the country with a strong economic base. SFMTA plays a key role in the City's transport network.

## Broad Revenue Pledge

- SFMTA has a diverse enterprise revenue base (farebox, parking, fine and fee revenues) that is expected to be resilient under a wide range of scenarios.

## General Fund/Public Support

- Generally supportive political establishment and voter base, translated into steady financial resources (e.g., General Fund support)

## Competent Management

- With low overall leverage and high liquidity, SFMTA is well positioned both to manage the immediate and long-term challenges related to COVID-19.

# Underwriter Selection

Ten proposals were received and scored by the MTA and independent advisors

## Selected Team

- Sr. Manager: Royal Bank of Canada Capital Markets (RBCCM)
- Co-Managers:
  - Goldman Sachs Group
  - Siebert Williams Shank & Co. (SWS)
- The team will provide broad market coverage and deep, diverse expertise in the transportation sector
- SWS is a MWBE with a substantial local desk— added benefit of being in the syndicate for past MTA deals

# Today's Approval

- The SFMTA Director of Transportation is authorized and directed to approve and to execute the Bonds dependent on approval from the SF Board of Supervisors
- Detailed draft legal documents in the package are included to show the final form but transaction-specific information will be inserted by bond counsel and disclosure counsel
- The Preliminary Official Statement (POS) is currently scheduled for presentation and approval by the SFMTA Board in January, prior to the transaction

# Schedule Milestones and Decision Gates

- 12/14 Capital Planning Committee approvals
- 12/15: SFMTA Board approvals
- 12/21: Distribute documents to rating agencies
- 1/4: Rating agency presentations
- 1/11: Ratings received
- 1/13: Board of Supervisors (BOS) Budget and Finance Committee
- 1/19: SFMTA Board approval of POS
- 1/26: BOS Adoption of Bond Resolution
- **DECISION GATE: Does estimated pricing meet benchmarks?**
- 2/8: Pricing
- 2/22: Closing

# Thank You.

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**SFMTA**

# Glossary of Terms

- Aggregate Gross Savings: Nominal savings, prior to calculating NPV.
- Advance Refunding: Advance refunding refers to the practice of taking the funds received from a new bond issuance to pay off a prior issue's debt. The issue of the new bond is, usually, at a lower interest rate than the older, unpaid obligation.
- Amortization: Amortization is paying off a debt over time in installments.
- Basis Points (bps): One hundredth of one percent, used chiefly in expressing differences of interest rates.
- Debt Service Reserve Fund (DSRF): Debt service reserves are cash assets that are designated by a borrower to ensure full and timely payments to bond holders.
- Capitalized Interest: The addition of interest cost incurred while capital projects are under construction, and such cost is added to the principal amount of the bonds.
- Escrow Efficiency: Escrow efficiency is the opportunity cost of holding money in escrow for a period of time (usually in cash or short-term treasury investments) until the money is able to be put to use to fund a project, or to repay investors.
- Maturity: A bond's term to maturity is the period during which its owner will receive interest payments on the investment. When the bond reaches maturity, the owner is repaid its par, or face, value.
- Negative Arbitrage: Negative arbitrage is the opportunity lost when bond issuers assume proceeds from debt offerings and then hold that money in escrow for a period of time (usually in cash or short-term treasury investments) until the money is able to be put to use to fund a project, or to repay investors.
- Net Present Value (NPV): NPV is the difference between the present value of cash inflows and the present value of cash outflows over a period of time. NPV is used to analyze the economic value of an investment, translating returns into today's dollars.
- Par Value: The par value is the amount of money that bond issuers promise to repay bondholders at the maturity date of the bond.
- Underwriter: An underwriter is any party that evaluates and assumes another party's risk for a fee. The fee paid to an underwriter often takes the form of a commission, premium, spread, or interest.
- Yield: Bond yield is the return an investor realizes on a bond. Setting the bond yield equal to its coupon rate is the simplest definition.



# Refunding Scenarios Comparison of Gross Annual Savings

|  | 1) Base Case  | 2) Upfront Savings | 3) Upfront + New Money |
|--|---------------|--------------------|------------------------|
| <b>Funds Available for SFMTA in FY 2021<sup>1</sup> (Dollars in thousands)</b> |               |                    |                        |
| Aggregate DSRF Releases  | 14,071        | 14,071             | 14,071                 |
| Aggregate Interest Fund Releases   | 3,193         | 3,193              | 3,193                  |
| Aggregate Principal Fund Releases  | 5,317         | 5,317              | 5,317                  |
| New Money Proceeds   | 0             | 0                  | 10,734                 |
| Sub-Total: Available Funds   | 22,581        | 22,581             | 33,315                 |
| <b>Near-Term Net Cash Flow Benefit<sup>3</sup></b>                             |               |                    |                        |
| FY 2021 Net Change in Cash Flow  | 9,631         | 9,631              | 9,631                  |
| FY 2022 Net Change in Cash Flow  | 635           | 9,625              | 4                      |
| FY 2023 Net Change in Cash Flow  | 638           | 1,187              | 0                      |
| Sub-Total: FY21-23 Net Cash Flow Benefit <sup>3</sup>                          | 10,904        | 20,443             | 9,636                  |
| <b>Total Near-Term Financial Impact<sup>4</sup></b>                            | <b>33,485</b> | <b>43,024</b>      | <b>42,950</b>          |
| <b>Net PV Savings Calculation</b>  |               |                    |                        |
| Aggregate Gross Savings  | 24,301        | 20,528             | 20,551                 |
| PV Savings From Cash Flows   | 20,949        | 20,377             | 20,398                 |
| Plus: Refunding Funds on Hand  | 5             | 5                  | 9                      |
| <b>Net PV Savings</b>  | <b>20,954</b> | <b>20,382</b>      | <b>20,407</b>          |
| <b>Net PV Savings to Refunded Par</b>  | <b>13.4%</b>  | <b>13.1%</b>       | <b>13.1%</b>           |

## Gross Annual Savings<sup>2</sup>

| Fiscal Year  | 1) Base Case        | 2) Upfront Savings  | 3) Upfront + New Money |
|--------------|---------------------|---------------------|------------------------|
| 2021         | 9,631,422           | 9,631,422           | 9,631,422              |
| 2022         | 634,922             | 9,625,289           | 9,625,560              |
| 2023         | 638,021             | 1,186,743           | 1,197,004              |
| 2024         | 639,506             | 5,323               | 5,547                  |
| 2025         | 635,595             | 8,506               | 8,730                  |
| 2026         | 639,273             | 5,343               | 5,567                  |
| 2027         | 635,937             | 5,847               | 6,071                  |
| 2028         | 638,137             | 8,047               | 8,271                  |
| 2029         | 637,349             | 8,132               | 8,356                  |
| 2030         | 635,818             | 8,734               | 8,958                  |
| 2031         | 639,072             | 4,832               | 5,056                  |
| 2032         | 638,533             | 3,065               | 8,289                  |
| 2033         | 636,122             | 290                 | 5,405                  |
| 2034         | 639,173             | 3,646               | 3,646                  |
| 2035         | 634,998             | 465                 | 465                    |
| 2036         | 638,365             | 535                 | 535                    |
| 2037         | 639,815             | 2,020               | 2,020                  |
| 2038         | 638,975             | 1,680               | 1,680                  |
| 2039         | 635,500             | 4,170               | 4,170                  |
| 2040         | 638,950             | 3,895               | 3,895                  |
| 2041         | 638,670             | 510                 | 510                    |
| 2042         | 639,220             | 3,575               | 3,575                  |
| 2043         | 639,815             | 2,150               | 2,150                  |
| 2044         | 638,250             | 4,185               | 4,185                  |
| <b>Total</b> | <b>\$24,301,436</b> | <b>\$20,528,403</b> | <b>\$20,551,065</b>    |

Assumes rates as of 11/13/2020, subject to change based on market conditions

- 1) Indicates funds not used as a source of funds for the refunding bonds that are made available at financial close for SFMTA's use
- 2) Gross annual savings generated by refunding bonds only, does not account for impact of new money debt service, if any
- 3) Net Cash Flow Benefit is equal to the savings generated by the refunding bonds, less any debt service due on new money bonds
- 4) Total Near Term Financial Impact is equal to the sum of the Sub-Total: Available Funds and the Sub-Total: FY21-23 Net Cash Flow Benefit

# New Money Scenarios Debt Service to 2050 (in millions)

New Money Bond Options Debt Service to 2050

| Fiscal Year  | 1) Base Case   | 2) Base Case and Downgrade | 3) Backloaded Debt Service for Level Aggregate |
|--------------|----------------|----------------------------|--|
| 2021         | -              | -                          | -  |
| *2022        | -              | -                          | -  |
| *2023        | -              | -                          | -  |
| 2024         | 13.8           | 14.1                       | 14.2   |
| 2025         | 19.2           | 19.7                       | 15.0   |
| 2026         | 19.2           | 19.7                       | 15.0   |
| 2027         | 19.2           | 19.7                       | 15.0   |
| 2028         | 19.2           | 19.7                       | 15.0   |
| 2029         | 19.2           | 19.7                       | 15.0   |
| 2030         | 19.2           | 19.7                       | 15.0   |
| 2031         | 19.2           | 19.7                       | 15.0   |
| 2032         | 19.2           | 19.7                       | 15.0   |
| 2033         | 19.2           | 19.7                       | 15.0   |
| 2034         | 19.2           | 19.7                       | 21.0   |
| 2035         | 19.2           | 19.7                       | 21.0   |
| 2036         | 19.2           | 19.7                       | 21.0   |
| 2037         | 19.2           | 19.7                       | 21.0   |
| 2038         | 19.2           | 19.7                       | 21.0   |
| 2039         | 19.2           | 19.7                       | 21.0   |
| 2040         | 19.2           | 19.7                       | 21.0   |
| 2041         | 19.2           | 19.7                       | 21.0   |
| 2042         | 19.2           | 19.7                       | 21.0   |
| 2043         | 19.2           | 19.7                       | 23.8   |
| 2044         | 19.2           | 19.7                       | 23.8   |
| 2045         | 19.2           | 19.7                       | 28.3   |
| 2046         | 19.2           | 19.7                       | 28.3   |
| 2047         | 19.2           | 19.7                       | 28.3   |
| 2048         | 19.2           | 19.7                       | 38.4   |
| 2049         | 19.2           | 19.7                       | 38.4   |
| 2050         | 19.2           | 19.7                       | 38.4   |
| <b>Total</b> | <b>\$513.8</b> | <b>\$525.6</b>             | <b>\$586.0</b>                                 |

Assumes rates as of 12/2/2020, subject to change based on market conditions

Option 3 Breakout: Level Aggregate Debt Service

| Fiscal Year  | 3) Backloaded Debt Service | Existing Debt Service | Total New Net Debt Service (Level Aggregate) |
|--------------|----------------------------|-----------------------|--|
| 2021         | -                          | -                     | -  |
| 2022         | *                          | 23.5                  | 23.5   |
| 2023         | *                          | 23.3                  | 23.3   |
| 2024         | 14.2                       | 23.3                  | 37.6   |
| 2025         | 15.0                       | 23.3                  | 38.4   |
| 2026         | 15.0                       | 23.3                  | 38.4   |
| 2027         | 15.0                       | 23.3                  | 38.4   |
| 2028         | 15.0                       | 23.3                  | 38.4   |
| 2029         | 15.0                       | 23.3                  | 38.4   |
| 2030         | 15.0                       | 23.3                  | 38.4   |
| 2031         | 15.0                       | 23.3                  | 38.4   |
| 2032         | 15.0                       | 23.3                  | 38.4   |
| 2033         | 15.0                       | 23.3                  | 38.4   |
| 2034         | 21.0                       | 17.4                  | 38.4   |
| 2035         | 21.0                       | 17.4                  | 38.4   |
| 2036         | 21.0                       | 17.4                  | 38.4   |
| 2037         | 21.0                       | 17.4                  | 38.4   |
| 2038         | 21.0                       | 17.4                  | 38.4   |
| 2039         | 21.0                       | 17.4                  | 38.4   |
| 2040         | 21.0                       | 17.4                  | 38.4   |
| 2041         | 21.0                       | 17.4                  | 38.4   |
| 2042         | 21.0                       | 17.4                  | 38.4   |
| 2043         | 23.8                       | 14.6                  | 38.4   |
| 2044         | 23.8                       | 14.6                  | 38.4   |
| 2045         | 28.3                       | 10.1                  | 38.4   |
| 2046         | 28.3                       | 10.1                  | 38.4   |
| 2047         | 28.3                       | 10.1                  | 38.4   |
| 2048         | 38.4                       | -                     | 38.4   |
| 2049         | 38.4                       | -                     | 38.4   |
| 2050         | 38.4                       | -                     | 38.4   |
| <b>Total</b> | <b>\$586.0</b>             | <b>\$495.7</b>        | <b>\$1,081.7</b>                             |

\*Paid by capitalized interest

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# Comps

## RECENTLY PRICED DEALS BY TRANSPORTATION AGENCIES

| Pricing Date  | 8/18/2020   |            | 8/19/2020                         |            | 8/18/2020                                 |            | 8/13/2020            |            | 8/11/2020              |            | 8/5/2020                            |            |
|---------------|-------------|------------|-----------------------------------|------------|---|------------|----------------------|------------|------------------------|------------|-------------------------------------|------------|
| Issuer        | SF BART     |            | Los Angeles International Airport |            | NYS Metropolitan Transportation Authority |            | Miami-Dade County    |            | Los Angeles County MTA |            | San Francisco International Airport |            |
| Security Type | GO          |            | GARB                              |            | BANS - MLF                                |            | Sales Surtax Revenue |            | Measure R Jr Sub Lien  |            | GARB                                |            |
| Ratings       | Aaa/AAA     |            | Aa2/AA-/AA                        |            | SP-2                                      |            | nr / AA/AA           |            | nr/AA/AA               |            | A1/AA+                              |            |
| Tax Status    | Tax-Exempt  |            | Tax-Exempt (Non-AMT)              |            | Tax-Exempt                                |            | Taxable              |            | Tax-Exempt             |            | Tax-Exempt (AMT) / Taxable          |            |
| Par Amount    | 625,005,000 |            | 558,500,000                       |            | 465,000,000                               |            | 513,405,000          |            | 1,356,095,000          |            | 291,275,000                         |            |
|               | Yield       | T/E Spread | Yield                             | T/E Spread | Yield                                     | T/E Spread | Yield                | Tax Spread | Yield                  | T/E Spread | Yield                               | T/E Spread |
| 2021          |             |            |                                   |            |   |            | 0.410                | + 25       |                        |            |                                     |            |
| 2022          |             |            |                                   |            |   |            | 0.460                | + 30       |                        |            |                                     |            |
| 2023          |             |            |                                   |            | 1.920                                     | + 179.5    | 0.540                | + 35       | 0.090                  | + 2        |                                     |            |
| 2024          | 0.100 (5s)  | -5         | 0.370                             | + 20       |   |            | 0.750                | + 45       | 0.140                  | + 3        |                                     |            |
| 2025          | 0.150 (5s)  | -6         | 0.470                             | + 25       |   |            | 0.900                | + 60       | 0.200                  | + 4        |                                     |            |
| 2026          | 0.230 (5s)  | -8         | 0.570                             | + 26       |   |            | 1.100                | + 60       | 0.340                  | + 9        |                                     |            |
| 2027          | 0.330 (5s)  | -6         | 0.690                             | + 29       |   |            | 1.250                | + 75       | 0.480                  | + 16       |                                     |            |
| 2028          | 0.430 (5s)  | -3         | 0.850                             | + 37       |   |            | 1.500                | + 82       | 0.600                  | + 21       |                                     |            |
| 2029          | 0.550 (5s)  | + 1        | 0.950                             | + 39       |   |            | 1.550                | + 87       | 0.690                  | + 23       |                                     |            |
| 2030          | 0.660 (4s)  | + 6        | 1.040                             | + 41       |   |            | 1.650                | + 92       | 0.770                  | + 24       |                                     |            |
| 2031          | 0.800 (4s)  | + 11       | 1.150                             | + 44       |   |            | 1.750                | + 107      | 0.860                  | + 28       |                                     |            |
| 2032          | 0.940 (4s)  | + 19       | 1.230                             | + 45       |   |            |                      |            | 0.930                  | + 32       |                                     |            |
| 2033          | 1.020 (4s)  | + 20       | 1.330                             | + 48       |   |            |                      |            | 1.010                  | + 26       |                                     |            |
| 2034          | 1.130 (4s)  | + 24       | 1.450                             | + 53       |   |            |                      |            | 1.060                  | + 24       |                                     |            |
| 2035          | 1.190 (4s)  | + 25       | 1.500                             | + 53       |   |            |                      |            | 1.080                  | + 21       |                                     |            |
| 2036          | 1.490 (3s)  | + 50       | 1.740                             | + 72       |   |            |                      |            | 1.100                  | + 18       |                                     |            |
| 2037          | 1.550 (3s)  | + 52       | 1.780                             | + 71       |   |            |                      |            | 1.140                  | + 18       | 1.750 (5s)                          | + 72       |
| 2038          | 1.590 (3s)  | + 53       | 1.820                             | + 72       |   |            |                      |            |                        |            | 1.780 (5s)                          | + 72       |
| 2039          | 2.030 (2s)  | + 94       | 1.860                             | + 73       |   |            |                      |            |                        |            | 1.960 (4s)                          | + 87       |
| 2040          | 2.070 (2s)  | + 95       | 1.900                             | + 74       |   |            |                      |            |                        |            | 2.010 (4s)                          | + 89       |
| 2041          | 2.100 (2s)  | + 94       |                                   |            |   |            |                      |            |                        |            |                                     |            |
| 2042          | 2.130 (2s)  | + 94       |                                   |            |   |            |                      |            |                        |            |                                     |            |
| 2043          |             |            |                                   |            |   |            | 2.600                | + 130      |                        |            |                                     |            |
| 2044          |             |            | 1.820 (5s)                        | + 52       |   |            |                      |            |                        |            |                                     |            |
| 2045          | 1.640 (4s)  | + 36       |                                   |            |   |            |                      |            |                        |            |                                     |            |
| 2046          | 2.220 (2s)  | + 93       |                                   |            |   |            |                      |            |                        |            |                                     |            |
| 2047          |             |            | 2.070 (4s)                        | + 70       |   |            |                      |            |                        |            |                                     |            |
| 2048          |             |            |                                   |            |   |            |                      |            |                        |            |                                     |            |
| 2049          |             |            |                                   |            |   |            |                      |            |                        |            |                                     |            |
| 2050          | 2.060 (3s)  | + 72       |                                   |            |   |            |                      |            |                        |            |                                     |            |
| 2051          |             |            |                                   |            |   |            |                      |            |                        |            | 2.958                               | + 175      |

5s '24-'35  
4s '35-'40

+\$239.55mm T-E

20 competitive bids from 10 firms  
all bids rejected; TIC avg 2.79%  
MLF TIC = 1.92%

taxable 2051

### Transportation Deals pricing the week of 8/24 (\$ mils)

|           |   |              |
|-----------|---|--------------|
| 537.630   | Chicago Transit Authority, Sales Tax Rev Refunding (Taxable)                      | nr/A+/nr/AA- |
| 345.070   | Chicago Transit Authority, Sales Tax Rev Refunding (Exempt)                       | nr/A+/nr/AA- |
| 1,300.000 | NYS Transportation Dev Auth - LaGuardia Airport Terminal-Delta Airlines, Spec Fac |              |
| 215.405   | Delaware Transportation Authority, Sr Rev Refunding                               | Aa1/AA+      |
| 84.980    | Regional Transit Auth (New Orleans) Sales Tax Refunding (Exempt+Taxable)          | Aa3/AA       |
| 12.690    | Metropolitan Airport Auth of Rock Island, IL (AGM) Refunding                      | nr/AA        |

## RECENTLY PRICED DEALS BY TRANSPORTATION AGENCIES (cont.)

| Pricing Date  | 7/28/2020                             |            | 7/15/2020                                       |            | 7/30/2020     |            | 7/7/2020                           |            | 6/17/2020                      |            |
|---------------|---------------------------------------|------------|---|------------|---------------|------------|------------------------------------|------------|--------------------------------|------------|
| Issuer        | Colorado Department of Transportation |            | Southeast Pennsylvania Transportation Authority |            | DFW Airport   |            | Bi-State Development Authority, MO |            | Transbay Joint Power Authority |            |
| Security Type | COP Lease                             |            | GANs  |            | GARB          |            | Sales Tax                          |            | Sr Tax Allocation              |            |
| Ratings       | Aa2/AA-                               |            | AA-   |            | A1/A/A+/AA    |            | Aa2/AA-/nr/AA+                     |            | nr/nr/A-                       |            |
| Tax Status    | Tax-Exempt                            |            | Tax-Exempt                                      |            | Taxable       |            | Taxable                            |            | Tax-Exempt                     |            |
| Par Amount    | 19,050,000                            |            | 97,250,000                                      |            | 1,193,985,000 |            | 271,205,000                        |            | 189,480,000                    |            |
|               | Yield                                 | T/E Spread | Yield   | T/E Spread | Yield         | Tax Spread | Yield                              | Tax Spread | Yield                          | T/E Spread |
| 2021          |                                       |            | 0.410   | + 24       |               |            | 0.765                              | + 60       |                                |            |
| 2022          |                                       |            | 0.490   | + 29       |               |            | 0.895                              | + 73       |                                |            |
| 2023          |                                       |            | 0.530   | + 31       | 1.041         | + 90       | 1.016                              | + 83       |                                |            |
| 2024          |                                       |            | 0.620   | + 34       | 1.229         | + 100      | 1.224                              | + 93       |                                |            |
| 2025          |                                       |            | 0.720   | + 36       | 1.329         | + 110      | 1.344                              | + 105      | 1.340                          | + 90       |
| 2026          |                                       |            | 0.880   | + 42       | 1.649         | + 125      | 1.616                              | + 113      | 1.530                          | + 100      |
| 2027          |                                       |            | 1.020   | + 49       | 1.749         | + 135      | 1.716                              | + 123      | 1.690                          | + 109      |
| 2028          |                                       |            | 1.160   | + 56       | 1.946         | + 140      | 1.870                              | + 122      | 1.830                          | + 115      |
| 2029          |                                       |            | 1.240   | + 56       | 2.046         | + 150      | 1.970                              | + 132      | 1.930                          | + 116      |
| 2030          |                                       |            | 1.330   | + 58       | 2.096         | + 155      | 2.020                              | + 137      | 2.030                          | + 118      |
| 2031          |                                       |            | 1.380   | + 54       | 2.246         | + 170      | 2.150                              | + 150      | 2.170                          | + 122      |
| 2032          |                                       |            | 1.430   | + 52       | 2.416         | + 187      | 2.250                              | + 160      | 2.320                          | + 130      |
| 2033          |                                       |            |   |            | 2.516         | + 197      | 2.350                              | + 170      | 2.410                          | + 131      |
| 2034          |                                       |            | (all 5s)  |            | 2.696         | + 215      |                                    |            | 2.440                          | + 126      |
| 2035          |                                       |            |   |            | 2.796         | + 225      |                                    |            | 2.490                          | + 125      |
| 2036          |                                       |            |   |            | 2.896         | + 235      |                                    |            | 2.530                          | + 124      |
| 2037          | 1.720                                 | + 60       |   |            |               |            |                                    |            | 2.570                          | + 124      |
| 2038          | 1.770                                 | + 62       |   |            |               |            |                                    |            | 2.610                          | + 125      |
| 2039          | 1.810                                 | + 63       |   |            |               |            |                                    |            | 2.650                          | + 126      |
| 2040          | 1.860                                 | + 64       |   |            | 3.089         | + 190      | 2.929                              | + 155      | 2.690                          | + 126      |
| 2041          | 1.900                                 | + 65       |   |            |               |            |                                    |            |                                |            |
| 2042          |                                       |            |   |            |               |            | 2.979                              | + 160      |                                |            |
| 2043          | (all 4s)                              |            |   |            |               |            |                                    |            |                                |            |
| 2044          |                                       |            |   |            |               |            |                                    |            |                                |            |
| 2045          |                                       |            |   |            |               |            |                                    |            | 2.710                          | + 112      |
| 2046          |                                       |            |   |            |               |            |                                    |            |                                |            |
| 2047          |                                       |            |   |            |               |            |                                    |            |                                |            |
| 2048          |                                       |            |   |            |               |            |                                    |            |                                |            |
| 2049          |                                       |            |   |            |               |            |                                    |            | 2.750                          | + 111      |
| 2050          |                                       |            |   |            | 2.919         | + 173      |                                    |            |                                |            |
| 2051          |                                       |            |   |            |               |            |                                    |            | (all 5s)                       |            |