

SESSION THREE

Evaluation of Refunding Strategy



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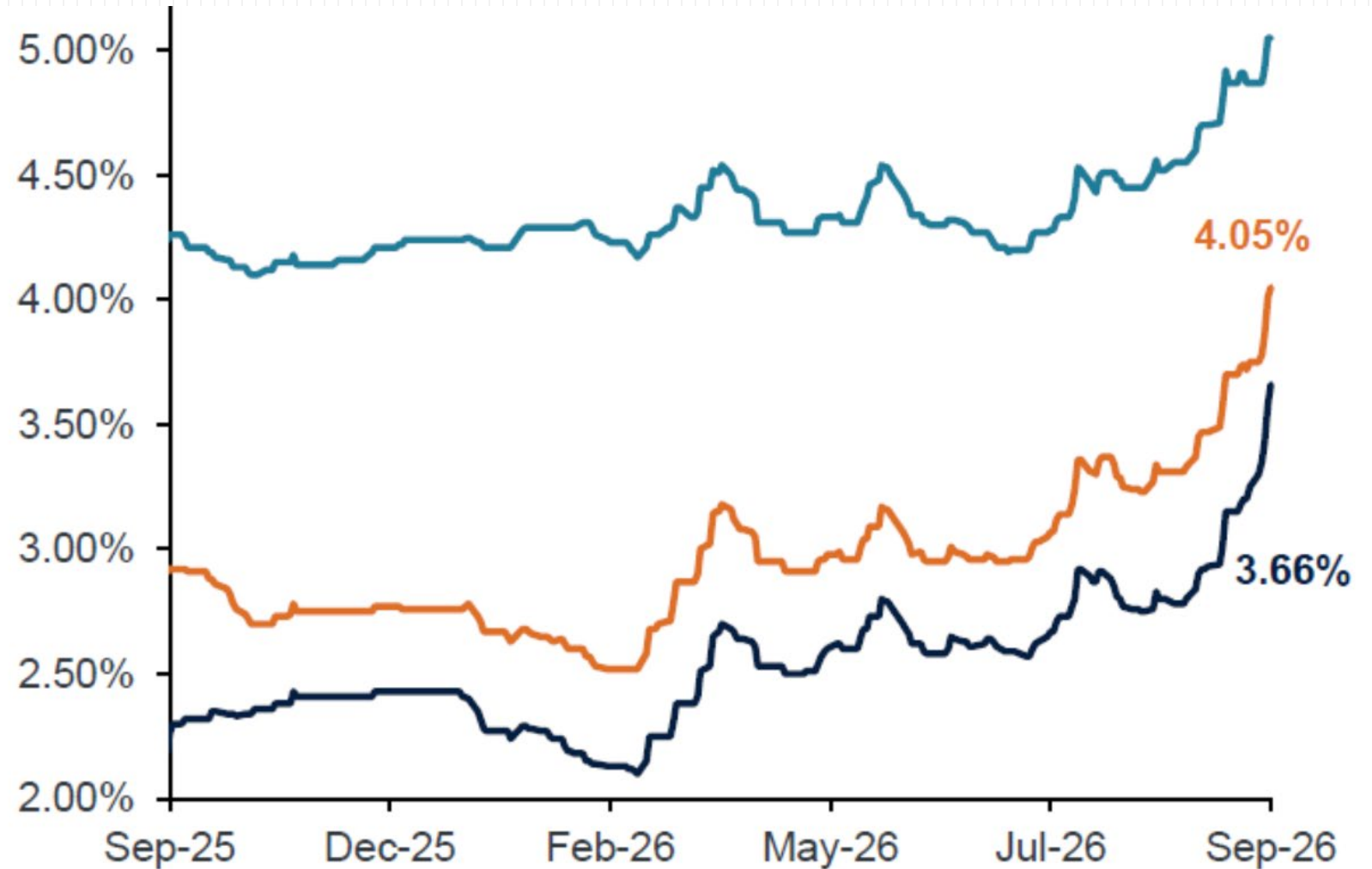
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Caught in the Middle??



Making Decisions in Changing Markets

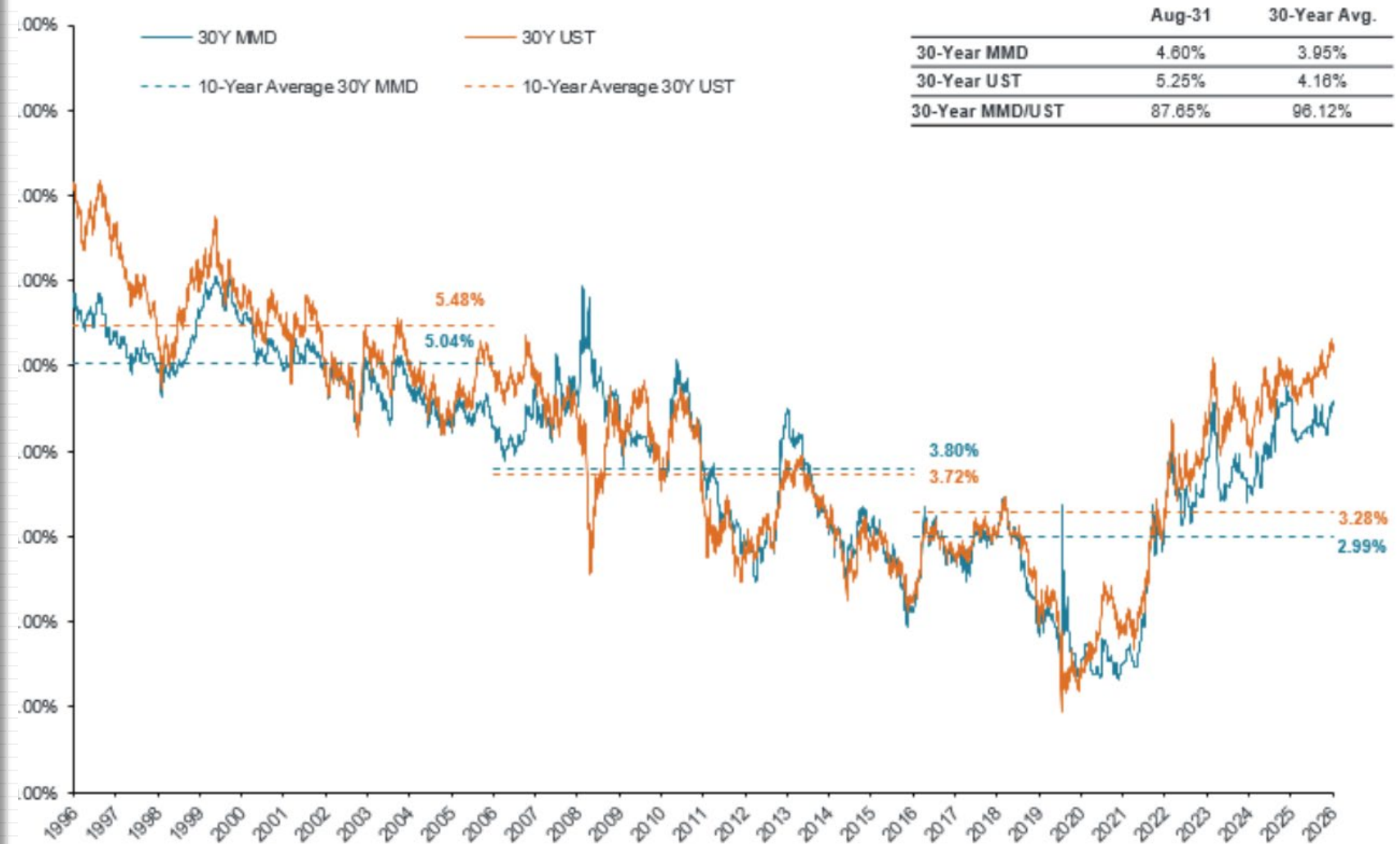
MMD YIELDS OVER THE PAST YEAR



Source: J.P. Morgan as of 9/25/2026; LSEG Municipal Market Monitor as of 9/25/2026; Weekly changes reflect a five-business day lookback

Taxable and Tax-Exempt 30-Year Yields:

Three Decades since 1996

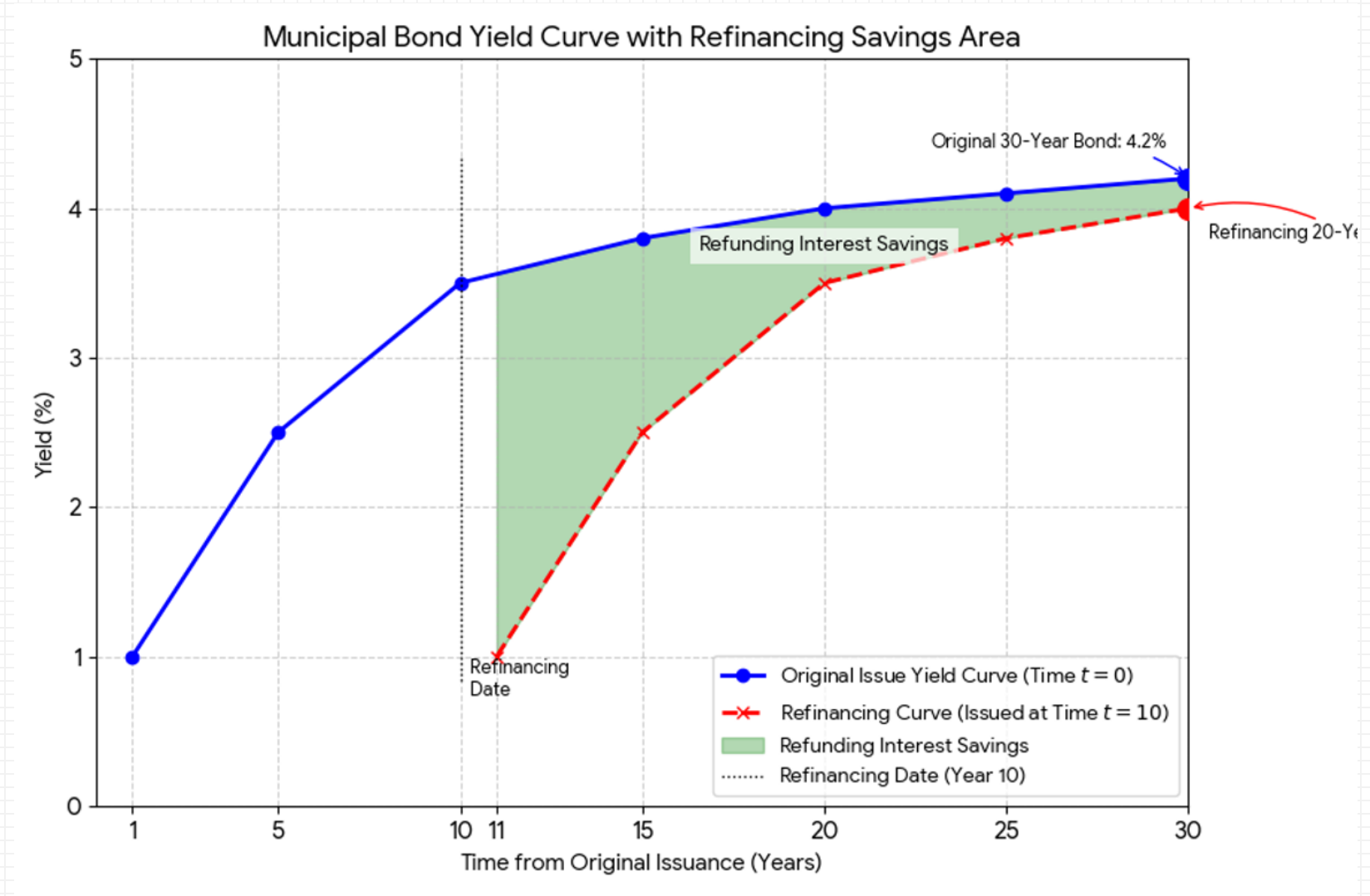


Source: LSEG Municipal Market Monitor,
J.P. Morgan as of 8/31/2026

Refunding Dynamics:

Serial Bonds,
Callable Bonds,

Moving
Down the
Yield Curve



SFPUC Has Issued \$5.8B Billion of Obligations Over the Past Four Years

- Over the past four years:
- **\$5.8** billion of Revenue Bonds (Water, Wastewater and Power)
- **\$408 million** of Federal and State Loans
- **\$2.4 billion** of new money and **\$3.4 billion** of refunding or refinancing bonds

	Cashflow Savings	NPV Savings
Water	\$181.0M	\$100.4M
Wastewater	\$88.6M	\$52.9M
Power	\$8.5M	\$3.9M
Total	\$278.1M	\$157.2M

- Refundings have allowed us to save ratepayers **\$278.1M** over the next three decades and mitigate subsidy reduction risk.



DEBT MANAGEMENT

Refunding Municipal Bonds

Issuers should include guidelines and criteria in their debt management policies that address when a refunding is permitted based on potential debt savings, future refunding flexibility when issuing any new debt, and opportunities on outstanding debt.

Bond refinancings or “refundings” are used by state and local governments to replace or restructure existing debt on outstanding bonds. Though less frequent, refunding is used to reduce interest costs, eliminate burdensome bond covenants or to restructure debt securities.

[HTTPS://WWW.GFOA.ORG](https://www.gfoa.org)



DEBT MANAGEMENT

Tender Refunding of Municipal Bonds

GFOA recommends that organizations pursuing tender refunding of municipal bonds establish policies and procedures around the tender refunding transaction that include specific guidance on articulating the intended goals, picking a financing team, calculating attributable costs, ensuring a clear understanding of fair pricing and determination of goal attainment.

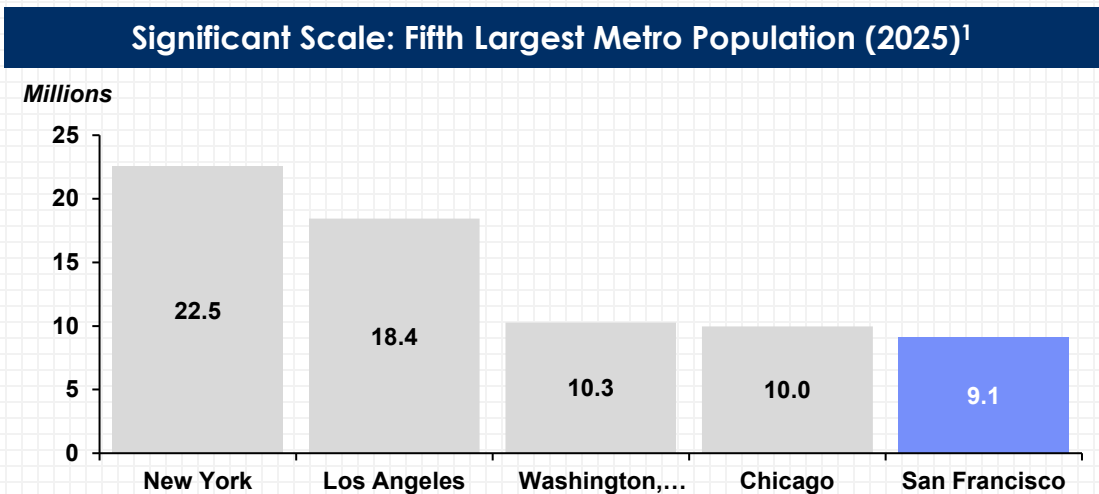
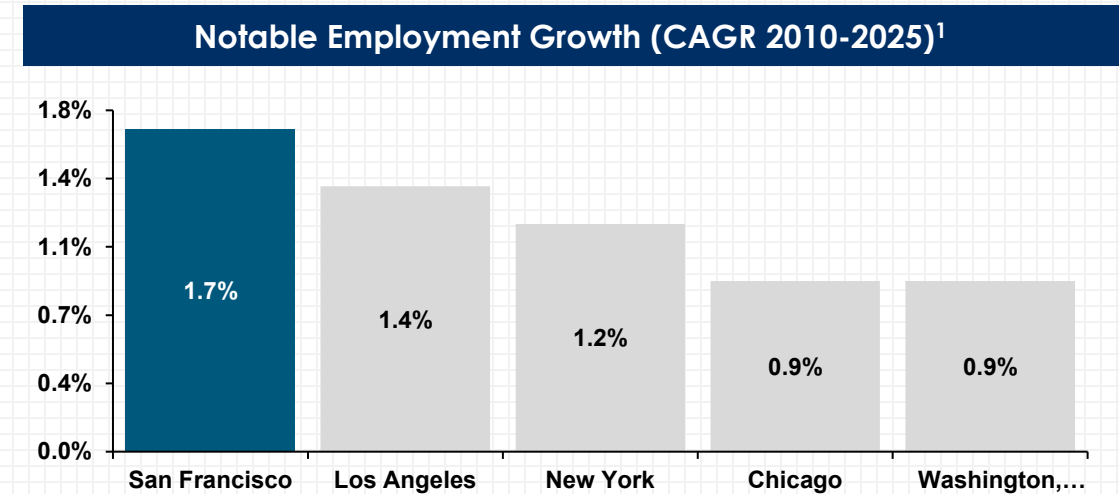
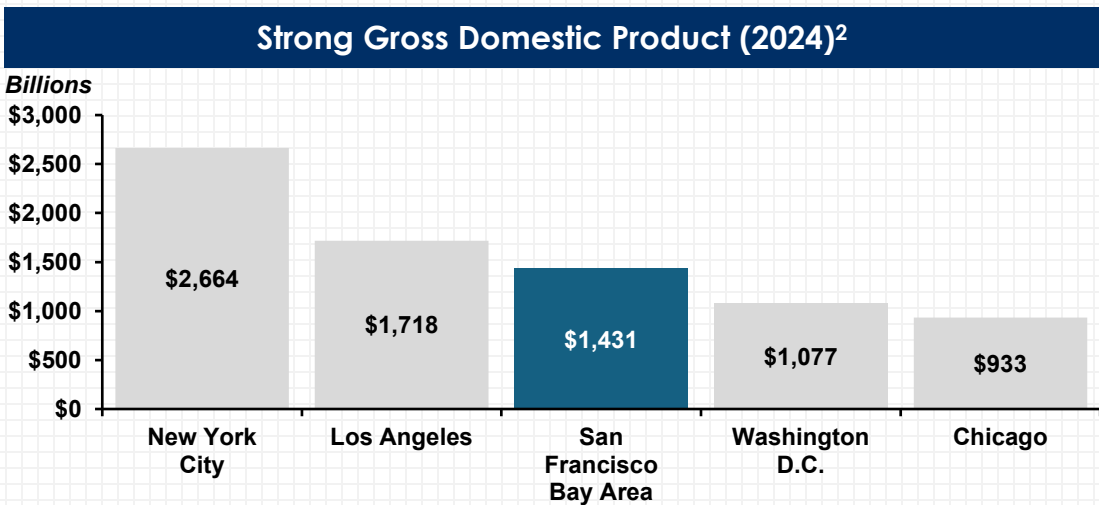
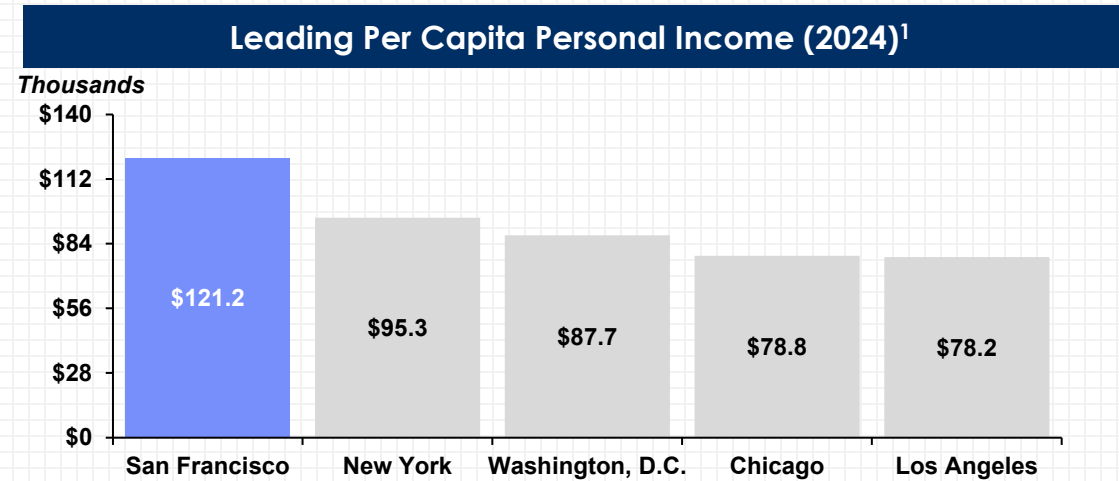
[Read Best Practice](#)

Committees: Governmental Debt Management (DEBT)
Board approval date: Thursday, June 26, 2025



The San Francisco Bay Area – A Unique Air Service Market

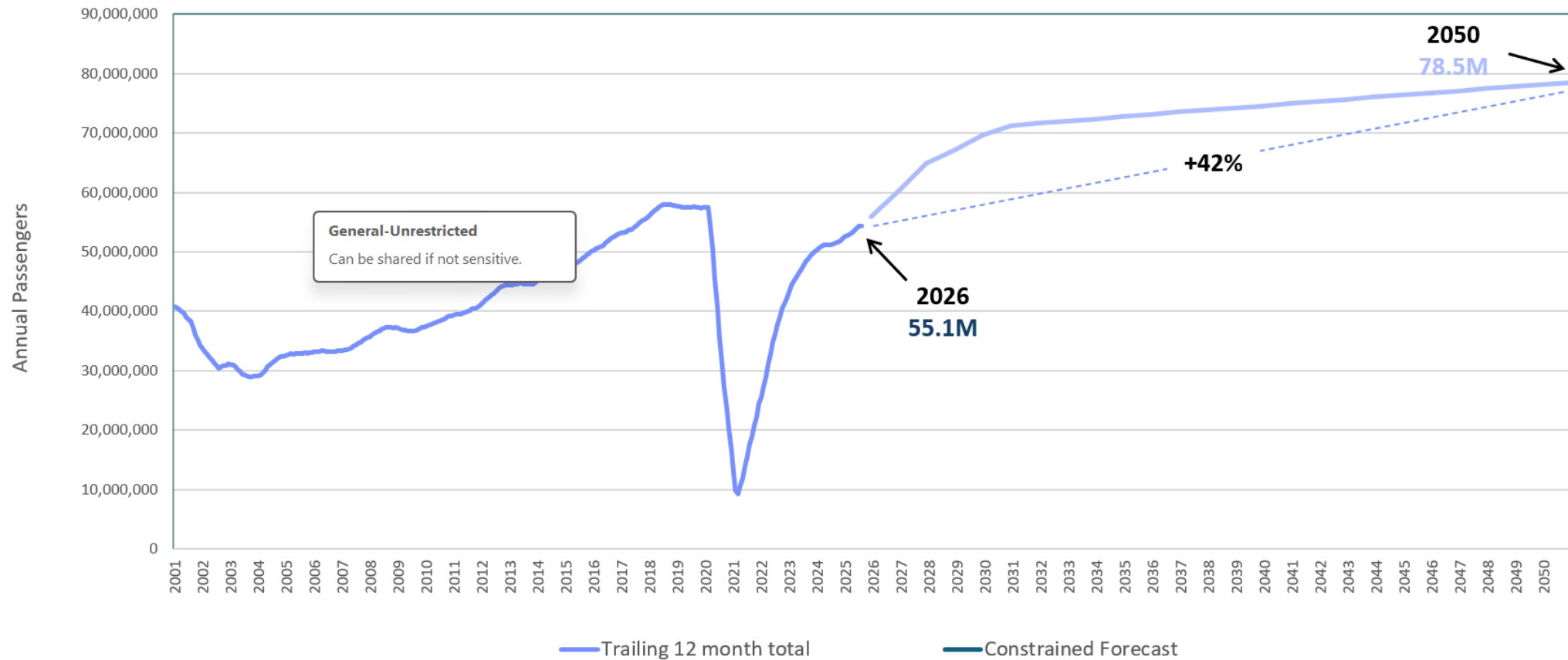
Leading Tourist and Business Destination, Exceptional Demographics, and a High Propensity for Travel



¹ Source: SFO Series 2026CDE Official Statement, Report of the Airport Consultant, Table 10
"Comparative Socioeconomic Trends for the 10 Most Populous U.S. Metropolitan Areas".
² Source: S&P Global database.

SFO's Future

Annual Passengers Project to Increase 42% from 55.1 million (FY2026) to 78.5 million by 2050



Source: San Francisco International Airport Planning

Accommodating Growth

Capital Improvement Plan

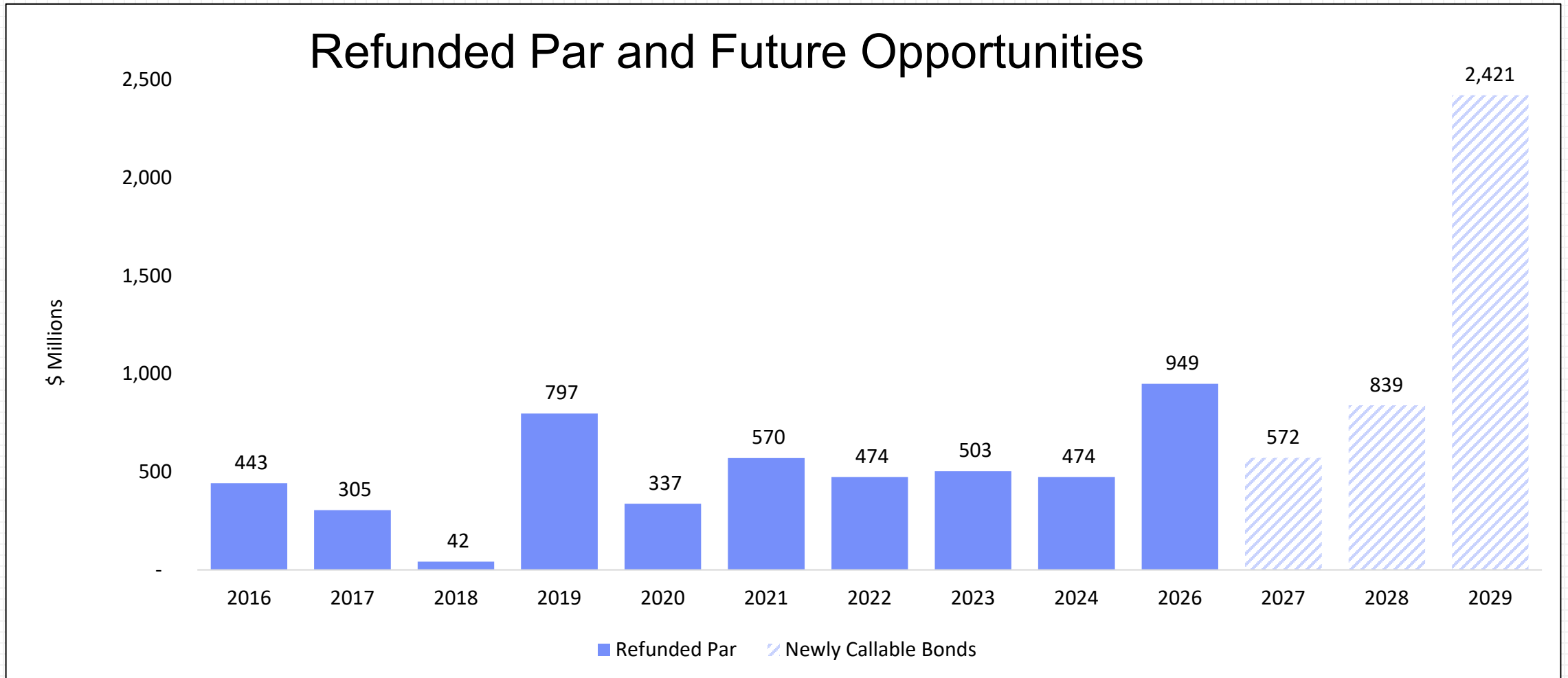
- \$12.5 billion, 10-year Capital Improvement underway



- SFO is a large, regular issuer of bonds - generally in the market twice per year
- \$11.0 billion in bonds currently outstanding
 - SFO is presented with annual refunding opportunities (as rates accommodate...)
- Philosophy
 1. **Primary Mission:** Funding the Capital Improvement Program
 2. **Secondary Mission:** Opportunistically capitalizing on refunding opportunities
 - Typically, this means focusing on current refundings in the context of new-money transactions.

Looking Ahead

Future Refunding Opportunities (Interest-Rate Dependent)



EBMUD View: The Right Bogey is "Wait," Not "Never Call"

- Standard PV savings compares the refunding to leaving the bonds outstanding to maturity.
- For 5% coupon bonds, the "never call" baseline has historically been inaccurate: in practice you usually call the bonds.
- The real alternative to refunding today is refunding later, so headline PV savings often overstates what you gain by acting now.

We Look at Breakevens vs. Waiting For a Current Call

- We ask our bankers and advisors to provide breakeven analyses.
- How far would rates have to rise before waiting to refund at the call date is worse than acting now?
- The question isn't whether there are savings, but whether locking them in now beats waiting.
- Taxable advance refundings and tenders add costs a current refunding doesn't have.
- Those costs hurt the breakeven: rates have to rise further before going early beats waiting.

What This Means in Practice for EBMUD

- We are less aggressive than some issuers with non-current refundings.
- We're usually comfortable waiting until bonds are currently callable.
- We consider how many eggs are in one pricing-day basket.
 - Each pricing is a one-day exposure to market conditions.
 - If we're already issuing a lot of bonds on one day, we may be even less aggressive on refundings.
- The fair counterpoint we hear: taking savings early does take risk off the table.

Sample Taxable Advance Refunding Analysis

			Taxable Advance Refunding			Future Tax-Exempt Current Refunding (Current Market Rates)			Advance Refunding Escrow	
Refunding Candidate	Call Date	Maturities Defeased/ Refunded	Net PV Savings (%)	Net PV Savings (\$)	Avg. Annual Savings (\$)	Net PV Savings (%)	Net PV Savings (\$)	Current Refunding Breakeven (Basis Points)	Escrow Efficiency (%)	Negative Arbitrage (\$)
1	3/1/2023	2022-2038	13.9%	\$40.4	\$2.9	24.2%	\$64.7	+110	81.6%	\$9.1
2	6/1/2023	2022-2029	7.0%	\$14.0	\$2.0	12.0%	\$21.6	+115	76.6%	\$4.2
3	6/1/2023	2022-2038	12.4%	\$6.1	\$0.4	22.0%	\$10.4	+119	77.0%	\$1.8

above \$ in millions; numbers are rounded; analysis date assumed to be Spring of 2021

- Taxable Advance Refunding Analysis includes multiple metrics: PV Savings (\$ and %), hypothetical future Current Refunding “breakeven analysis” and negative arbitrage/escrow efficiency
- Interest rate outlook and cyclicalities
- Issuer considerations such as timing of need for budgetary savings

“Good” Reasons to Execute a Tender in the Muni Market

- **Taxable to Tax-exempt**
- **Credit Arbitrage**
 - City of Chicago
 - Buy outstanding GOs/sell Sales Tax Bonds
- **Deminimus Arbitrage**
 - Tender for deep discounts and replace for premium bonds
 - Take advantage of tax treatment of municipal bonds
- **Yield Curve Arbitrage**
 - Long callable bonds sold in a flat yield curve environment
 - Tender for bonds at a discount to par
 - Finance with shorter bonds at lower yields
 - Take rollover risk
- **Necessity**
 - “I need savings relief like I need Oxygen!”
 - Cheaper than taxable borrowing (Line of credit, Public Taxable deal, Private taxable deal)
 - “Scoop and Toss” (it works!)
 - Examples (NYC, Commonwealth of Mass, etc.)



DISCUSSION

QUESTIONS?



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