



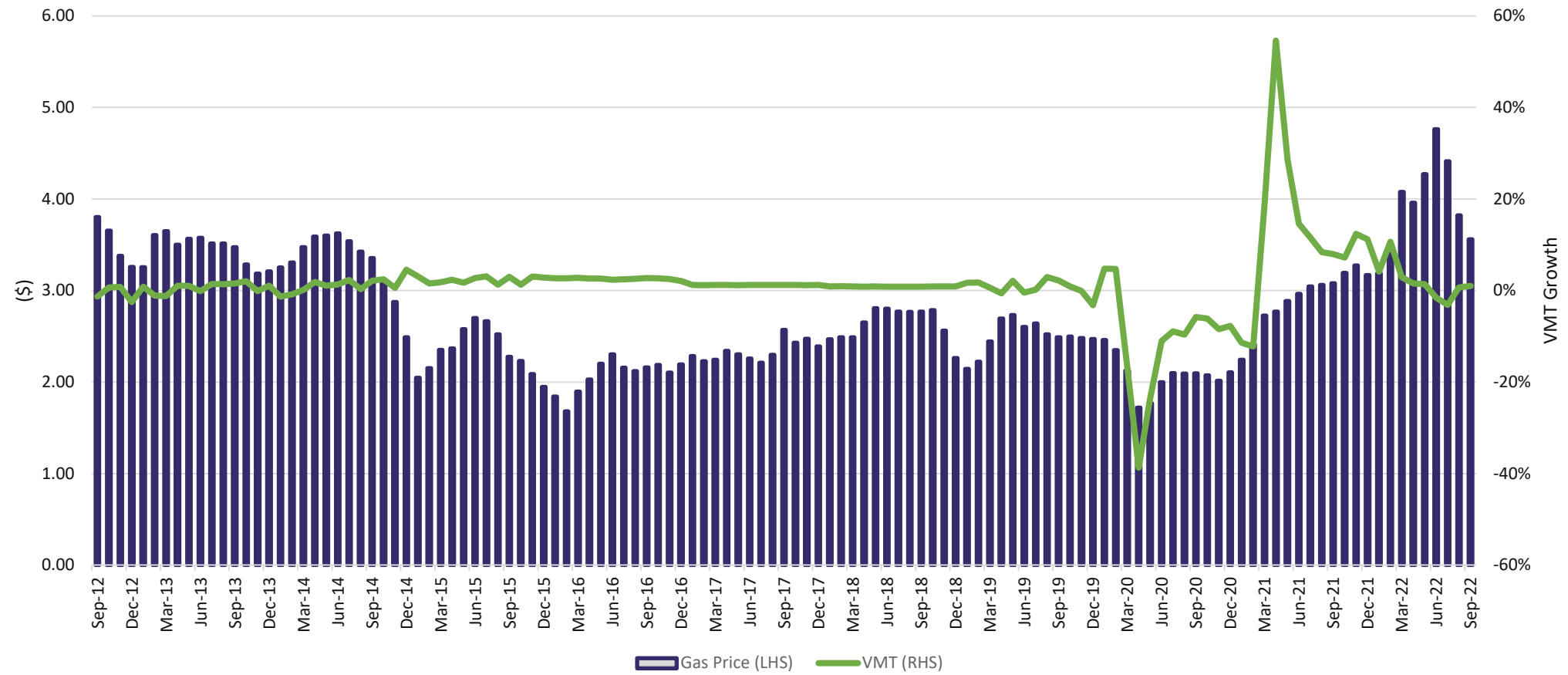
No Flying DeLoreans?

How to Utilize Capital Markets and Federal Legislation to Fund Your Community's Transportation Needs

Impact of COVID on Transportation

COVID's Impact on Toll Roads

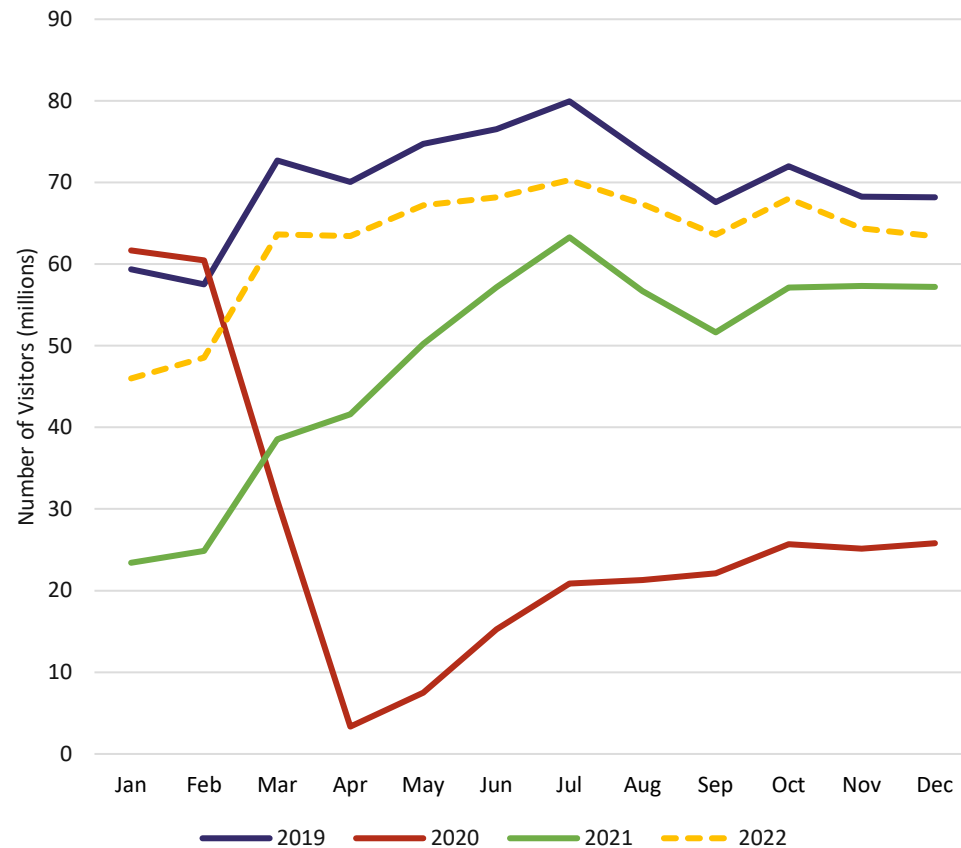
Gas Prices and Year-over-Year Vehicle Miles Traveled (VMT) Growth



Source: Energy Information Administration and the Federal Highway Administration as of September 19, 2022

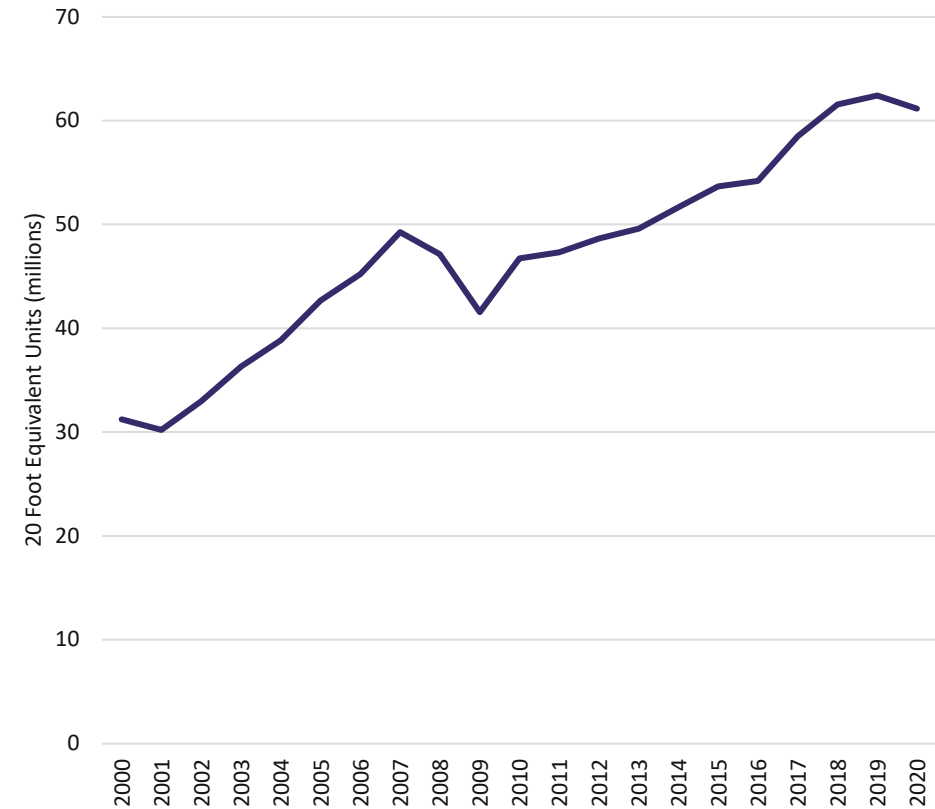
COVID's Impact on Ports and Airports

Monthly TSA Checkpoint Numbers



Source: US Transportation Security Administration as of December 31, 2022

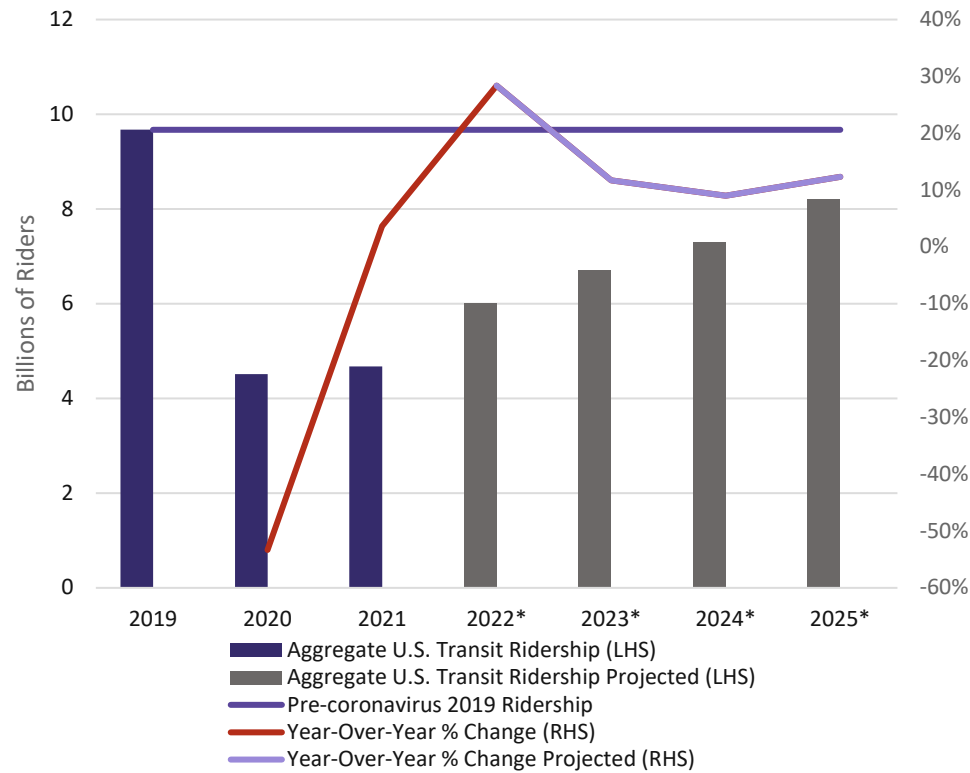
North American Container Port Traffic



Source: The World Bank as of December 31, 2020

COVID's Impact on Mass Transit

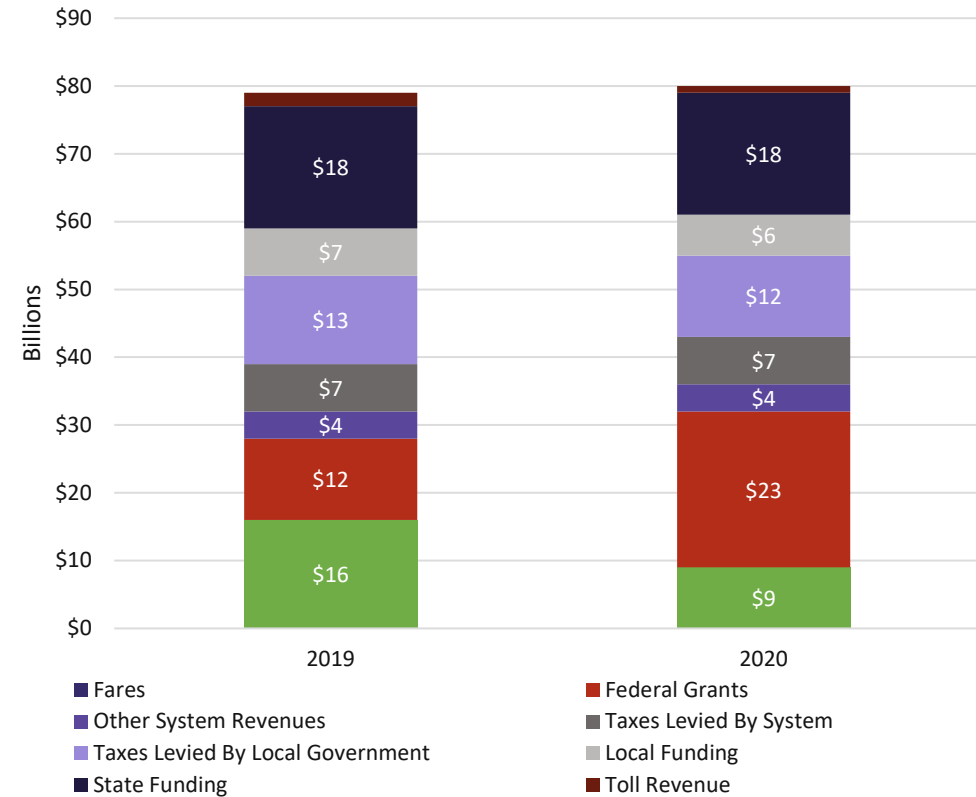
Mass Transit Ridership Recovery



Source: FTA as of December 15, 2022

**Moody's projections shown for 2022 and beyond

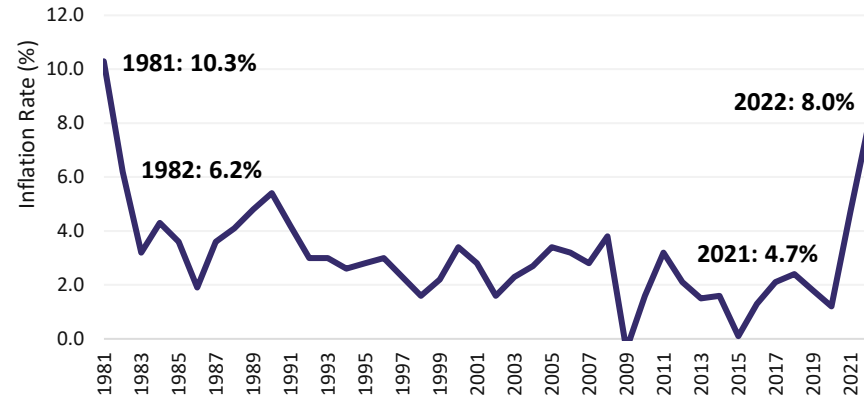
Distribution of Transit Systems' Capital and Operating Funding



Source: Federal Transit Administration's National Transit Database as of December 31, 2020

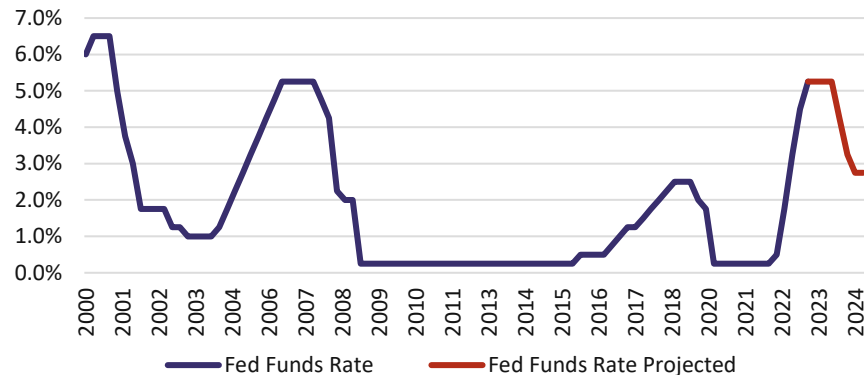
Federal Intervention During COVID-19 Prevented a more Severe Recession, But Has Lead to Wide Spread Inflation

U.S. Inflation at 40-Year Highs (Avg Ann. Rates & 2022 YTD Rates)



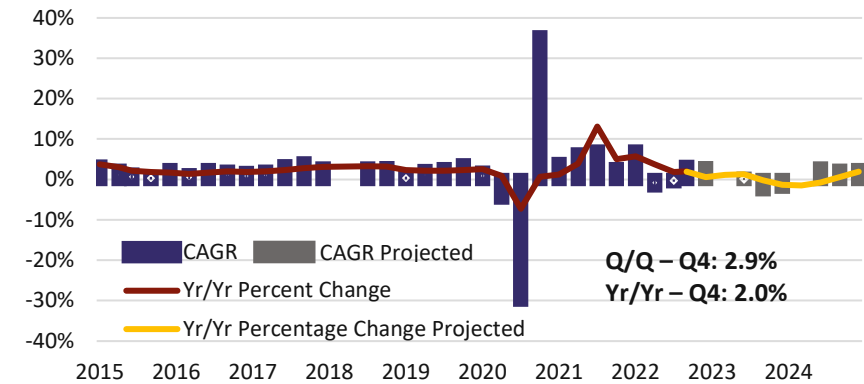
Source: US Inflation / CPI Data through 1/14/2023

Fed Funds Target Rate (Upper Bound)



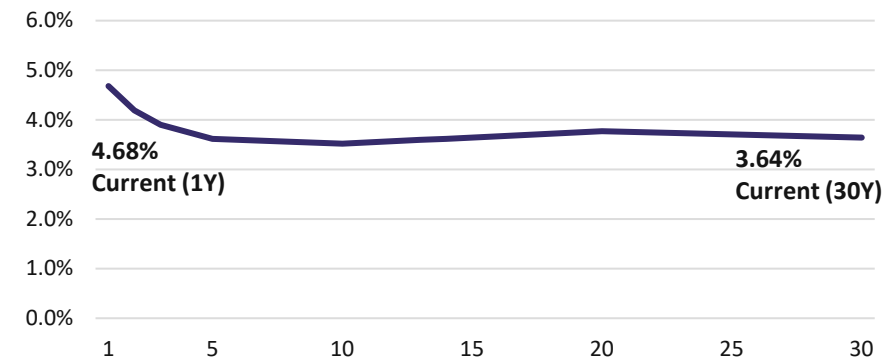
Source: Bloomberg, Wells Fargo: 2023, 2024 data are projections from Wells Fargo as of 1/20/2023

US Real GDP Growth by Quarter



Source: St. Louis Federal Reserve and Wells Fargo. 2022 Q4, 2023, 2024 data are projections from Wells Fargo as of 1/20/2023

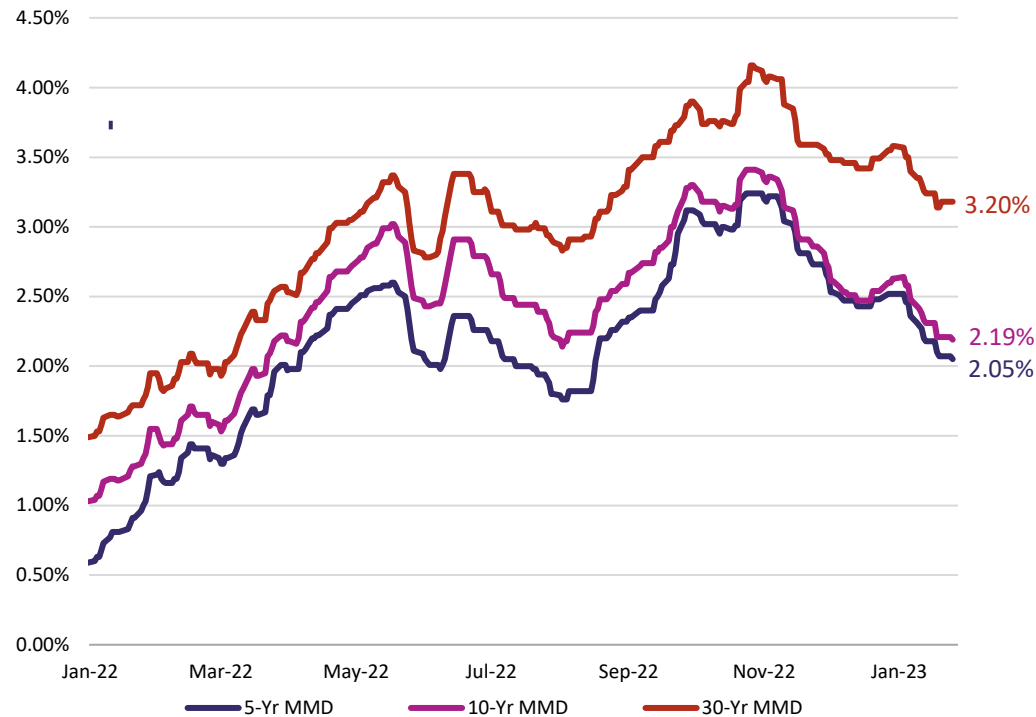
US Treasury Yield Curve



Source: US Treasury as of 1/27/2023

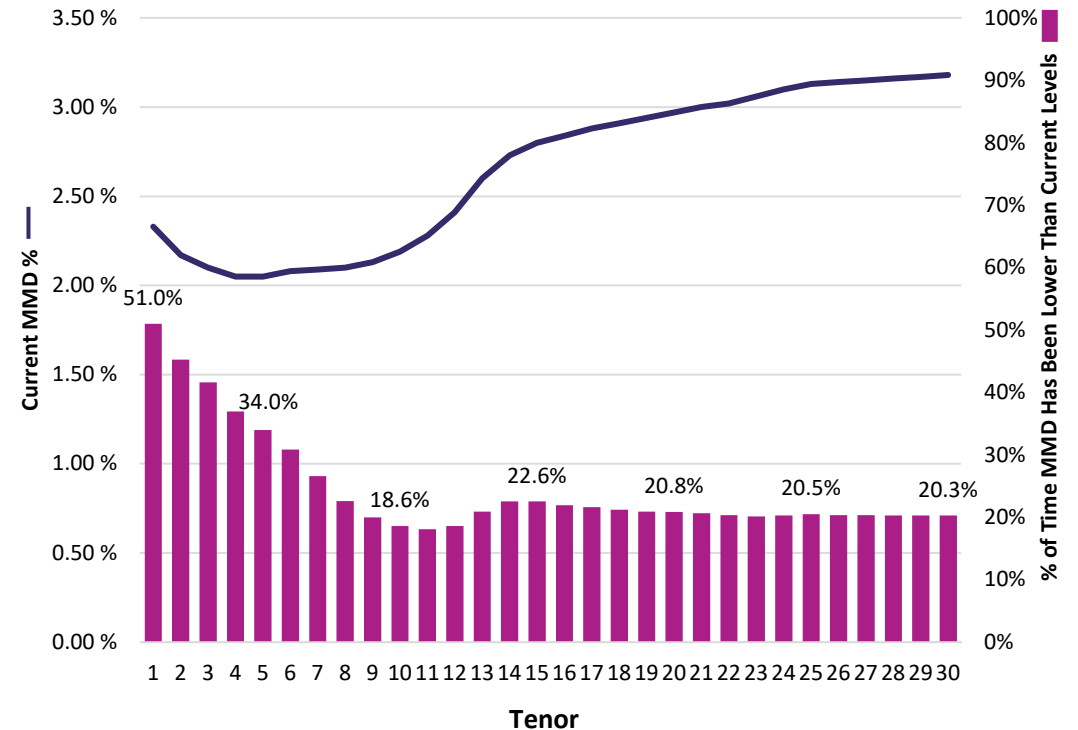
Federal Reserve Monetary Policy Has Resulted in Higher Rates, Though Still Below Long-Term Historical Averages

Tax-Exempt Interest Rates (MMD)



Source: Thomson Reuters TM3 as of 1/27/2023

% of Time MMD has been Lower Since 1990



Source: Thomson Reuters TM3 as of 1/27/2023

Transportation Planning and Funding

Transportation Funding Bolstered by Federal Funding Bills and Strong Tax Receipts

Federal Pandemic Funding

- CARES Act: \$115 billion
- CRRSA Act: \$45 billion
- ARP Act: \$58 billion

State

- Strong sales tax receipts increased funding to local entities

Federal Infrastructure Bills

- Infrastructure Investment and Jobs Act: \$685 billion
- Inflation Reduction Act: \$23 billion

Local Funding

- Robust sales tax receipts
- Resilient property taxes
- Recovering user fees/charges

Ok... But Where Do I Begin?

- Developing a long-term financial plan is important
 - Identify timing of project needs and funding capacity
 - Analyze opportunities to accelerate projects based on funding opportunities
 - Layer and blend to create optimal funding strategies
- Analyze funding opportunities
 - Capital markets solutions
 - Federal/state loan programs
 - Grants
- Analyze considerations
 - Cost / benefit of pay-go funding vs. borrowing
 - Equity
 - Federalizing projects
 - Material costs and inflation
 - Resource availability

Long-Term Financial Planning – Key Considerations for Implementation

- Be prepared for the revenue and expenditure impacts of the post-pandemic economy
- Address the loss of one-time funding from ARPA
- Make certain that both operating, and capital spending are aligned with goals and outcomes
- Align capacity and timing of projects with other non-federal funding opportunities
- Create sufficient local capacity and partnerships to implement the desired projects in a strategic order
- Take advantage of investments that can help increase future revenue and/or stabilize or reduce future cost
- Ensure O&M costs related to infrastructure are accounted for in outyear operating budgets
- Analyze the fit of “alternative” funding options within your organization's existing financial condition, CIP needs and debt-related covenants

Long-Term Financial Planning – Service Optimization

- Long-term financial planning also involves analyzing the O&M and service side of the equation
 - Service and route optimization
 - Exploring types of transit service offered
 - Analyzing operational and CIP needs in light of changing political, market and economic conditions

OCTA's Approach to Long-Term Financial Planning

- OCTA develops a 20-year financial planning document called the Comprehensive Business Plan (CBP) that assesses the financial sustainability of all OCTA's programs and services
- The development of the CBP includes updating all funding sources and anticipated expenses on an annual basis and determines the amount of service that is sustainable, the funding necessary to keep assets in a state of good repair and an appropriate level of reserves
- OCTA's bus program has three reserves including a short-term operating reserve (STOR), a long-term operating service (LTOR) and a capital replacement fund (CRF)
- The STOR maintains a 60-day working capital balance to accommodate fluctuations in revenue and expenditures
- The CRF is used to fund the rehabilitation and replacement of all capital assets
- The LTOR is used to fund bus service levels into the future and is funded after both the STOR and CRF
- The CBP is updated each year and used as the foundation for the annual budget

Transportation Funding and Financing Options

Funding and Financing Options for Transportation Projects

- Transportation projects have a variety of funding and financing alternatives
 - Leveraging existing revenue streams (fees, charges, taxes, etc.)
 - Federal infrastructure bill funding
 - Alternative delivery
- The capital markets continue to provide a dependable means of raising capital for projects
 - Borrowing may require customized funding structures to access capital
- IIJA and IRA are two important infrastructure funding/financing bills that are relevant to the transportation sector
 - Expansion and/or extension of existing federal transportation funding
 - Creation of new funding programs

Capital Market and Other Strategies to Consider

Tool	Overview	Examples
Revenue Bonds / Certificates of Participation	<ul style="list-style-type: none">Secured by local revenues, including sales tax, farebox revenue, toll revenue, or other available revenue stream	<ul style="list-style-type: none">Santa Clara VTARiverside County TA
TIFIA/RRIF	<ul style="list-style-type: none">Federal loans provide low cost alternative at 30-year UST (or ½ of 30-year UST for Rural Projects)TIFIA49 now allows higher, 49% share for certain eligible transit projects	<ul style="list-style-type: none">Orange County TASan Bernardino CTA
Commercial Paper	<ul style="list-style-type: none">Can provide short-term liquidity that proved benefit for entities during the height of COVID-19	<ul style="list-style-type: none">Los Angeles County MTACaltrain
GANs	<ul style="list-style-type: none">Federal grants can be securitized to accelerate the timing of receipt	<ul style="list-style-type: none">SANDAGLos Angeles County MTA
P3/Alternative Delivery	<ul style="list-style-type: none">Pursuing alternative delivery methods to transfer risk and/or leverage private expertise	<ul style="list-style-type: none">San Francisco MTA

TIFIA and RRIF

- Transportation Infrastructure Finance and Innovation Act (TIFIA) program provides credit assistance for qualified transportation projects of regional and national significance.
 - Eligible applicants historically included state and local governments, transit agencies, railroad companies, special authorities, special districts, and private entities. ¹
- Railroad Rehabilitation and Improvement Financing (RRIF) program was established to finance railroad infrastructure including transit-oriented development
 - Eligible borrowers include railroads, state and local governments, government sponsored authorities and corporations, and limited option freight shippers that intend to construct a new rail connection. ²

What's New in IIJA?

- Airports and transit-oriented developments added as eligible projects
- Extends maximum final maturity for assets with longer average lives
- Expands the eligible period for closing loans under master credit agreements
- Raised threshold for a single rating from \$75 million to \$150 million
- Removes prepayment requirement for governmental loans
- Requires value for money analysis of delivery alternatives for projects >\$750 million

¹ <https://www.transportation.gov/buildamerica/financing/tifia> - and - IIJA Sections 12001-12002

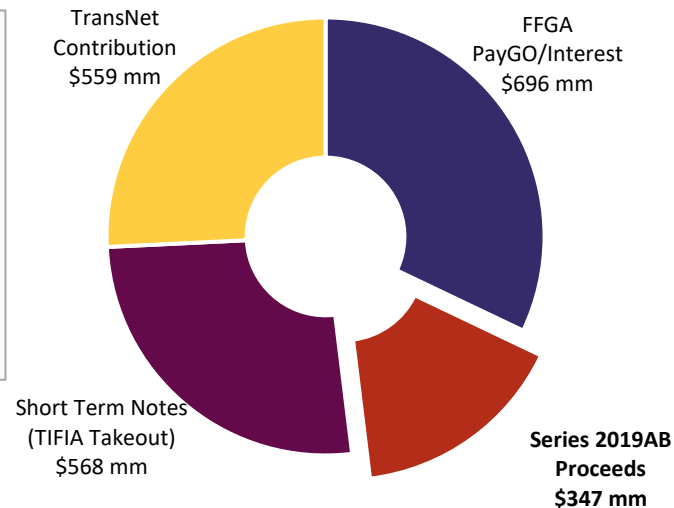
² <https://www.transportation.gov/buildamerica/financing/rrif>

Case Study: SANDAG's Mid-Coast Corridor GANs

- SANDAG executed an approximately \$1.04 billion Full Funding Grant Agreement under the Capital Investment Grant, New Starts Program in September 2016 for the \$2.1 billion Mid-Coast Corridor Transit Project
- The Mid-Coast Corridor Transit Project is an 11-mile double track extension from the Old Town Transit Center in downtown San Diego north to the University City community
- GANs were issued in 2019 to accelerate future payments expected under the Capital Investment Grant
- In addition to GANs, SANDAG also received a \$537.5 million TIFIA loan and provided a \$559 million direct contribution from TransNet Sales Tax dollars

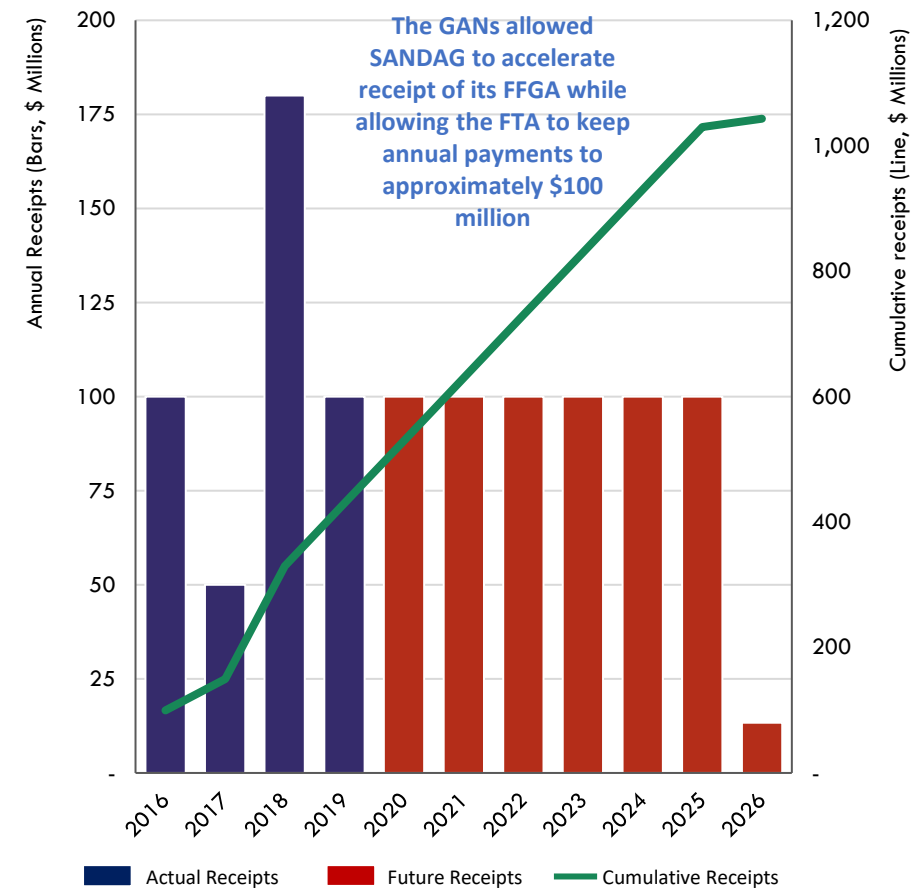
Project Funding Sources

The Series 2019AB GANs were issued to accelerate receipt of funds under an existing FFGA, allowing SANDAG to complete the Project by 2021 while staying within the FTA's constraints for annual FFGA payments



Source: SANDAG

The Use of GANs Accelerated Grants Scheduled Through 2026



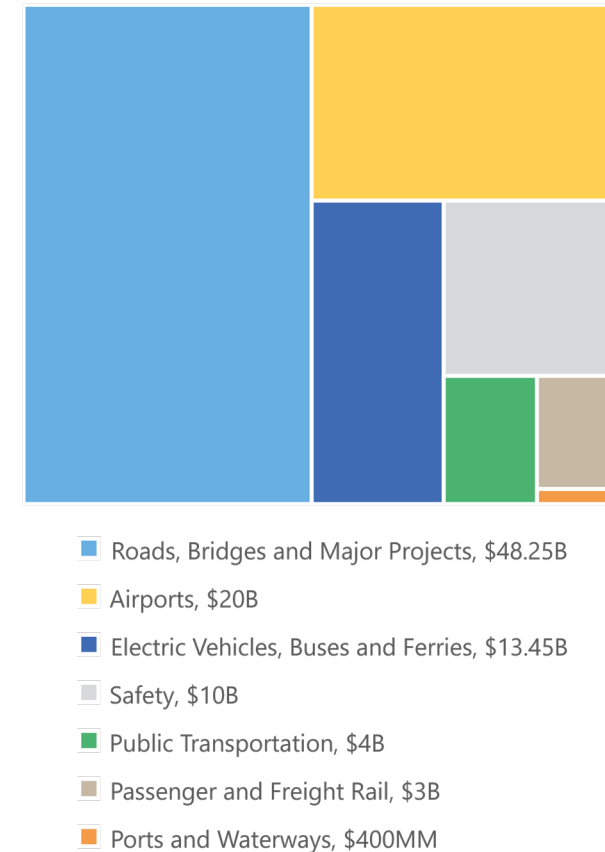
IIJA Transportation Funding Opportunities

Surface transportation largely funded through existing programs




New programs created

- Bridge Investment Program
- National Infrastructure Project Assistance
- Safe Streets and Roads for All
- Culvert removal, replacement, and restoration
- Strengthening Mobility and Revolutionizing Transportation Grant Program
- Electric vehicles and charging infrastructure funding
- Reconnecting Communities Pilot Program
- Railroad Crossing Elimination Grant Program

IIJA Transportation Investments for States and Local Governments



Complementary IIJA and IRA Programs

IIJA (November 2021)			IRA (August 2022)	
Electric Vehicles		\$7.5 billion for charging infrastructure	\$2 billion for domestic manufacturing grants	
Schools & Ports		\$5 billion for clean or zero-emission school buses	\$3 billion for zero-emissions equipment at ports	
Transit		\$66 billion for passenger and freight rail	\$3 billion Neighborhood Access and Equity Grants to improve transportation access	

Sources: Infrastructure Investment and Jobs Act, Pub. L. No. 117-58, 135 Stat. 429 (2021), <https://www.congress.gov/bill/117th-congress/housebill/3684/text/pl>

Inflation Reduction Act, Pub. L. No. 117-169, 136 Stat. 1818 (2022), <https://www.congress.gov/bill/117th-congress/house-bill/5376>

Resources for IIJA and IRA Funding Information

<https://www.nga.org/iija-implementation-resources/>

<https://www.fhwa.dot.gov/bipartisan-infrastructure-law/>

<https://www.whitehouse.gov/wp-content/uploads/2022/12/Inflation-Reduction-Act-Guidebook.pdf>

<https://www.whitehouse.gov/wp-content/uploads/2022/05/BUILDING-A-BETTER-AMERICA-V2.pdf>

<https://www.gfoa.org/the-infrastructure-investment-and-jobs-act-iija-was>

Zero Emission Vehicles

Zero Emission Vehicles

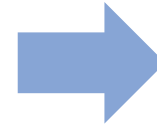
- State ZEV mandates and plans have been set
 - CARB Innovative Clean Transit Rule
 - New passenger cars and trucks
 - Medium- and heavy-duty vehicles
 - Drayage trucks
 - Off-road vehicles
- While ZEV's are not new for many municipalities, planning for meeting these mandates and plans is important
- Key considerations
 - Coordination across municipalities and private industry
 - Power supply and grid management
 - Infrastructure funding
 - Equity

Zero Emission Vehicles – OCTA Perspective and Experience

- OCTA is currently piloting hydrogen fuel cell electric buses (FCEB) and battery electric buses (BEB)
- FCEB Pilot – Initiated February 2020 and included ten 40-foot FCEBs, a hydrogen fueling station, and shop upgrades
- BEB Pilot – Partially initiated July 2022 with two BEBs with the remaining eight buses arriving by January 2023
 - Charging stations to be installed in January 2023 which include 10 – 150 kilowatt chargers
- Battery-Electric Cutaway Bus Pilot – Federal Transit Administration awarded \$2.5M for ten battery-electric paratransit buses and infrastructure

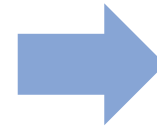
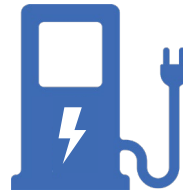
Inflation Reduction Act – Transportation Related Tax Credits

UPFRONT purchase of
clean vehicles (e.g.,
electric, hybrid)



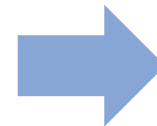
Qualified Commercial
Clean Vehicle direct
tax credit

UPFRONT installation of EV
charging stations in low-
income or rural areas



Alternative Fuel
Refueling Property
direct tax credit

ONGOING purchase of
alternative fuels



Alternative Fuel
Excise tax credit

Source: Inflation Reduction Act, Pub. L. No. 117-169, 136 Stat. 1818 (2022),
<https://www.congress.gov/bills/117/congress/house-bill/5376/text>