

The Impact of COVID-19 on California Transportation Revenue

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Asha Weinstein Agrawal, PhD, Hannah King, and Martin Wachs, PhD

California's ability to plan and deliver an excellent transportation system depends upon the state having a stable, predictable, and adequate revenue stream. The COVID-19 pandemic, which has severely reduced travel as well as economic activity, creates uncertainty about future transportation revenues.

To explore the possible revenue futures for which California may need to prepare, we created five potential economic recovery scenarios and projected future transportation revenue in California through 2030 under each of these. The differences among the scenarios illuminate a range of possible futures for which the state may wish to prepare.

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Study Methods

The study used a tested spreadsheet model and well-known data sources to project transportation revenues generated by California's Senate Bill 1 (2017) package of taxes and fees. These are taxes on gasoline and diesel fuel, plus two annual fees levied on vehicles. The Transportation Improvement Fee (TIF) is based on vehicle value, and the Road Improvement Fee (RIF) is an annual fee on Zero Emission Vehicles (ZEVs).

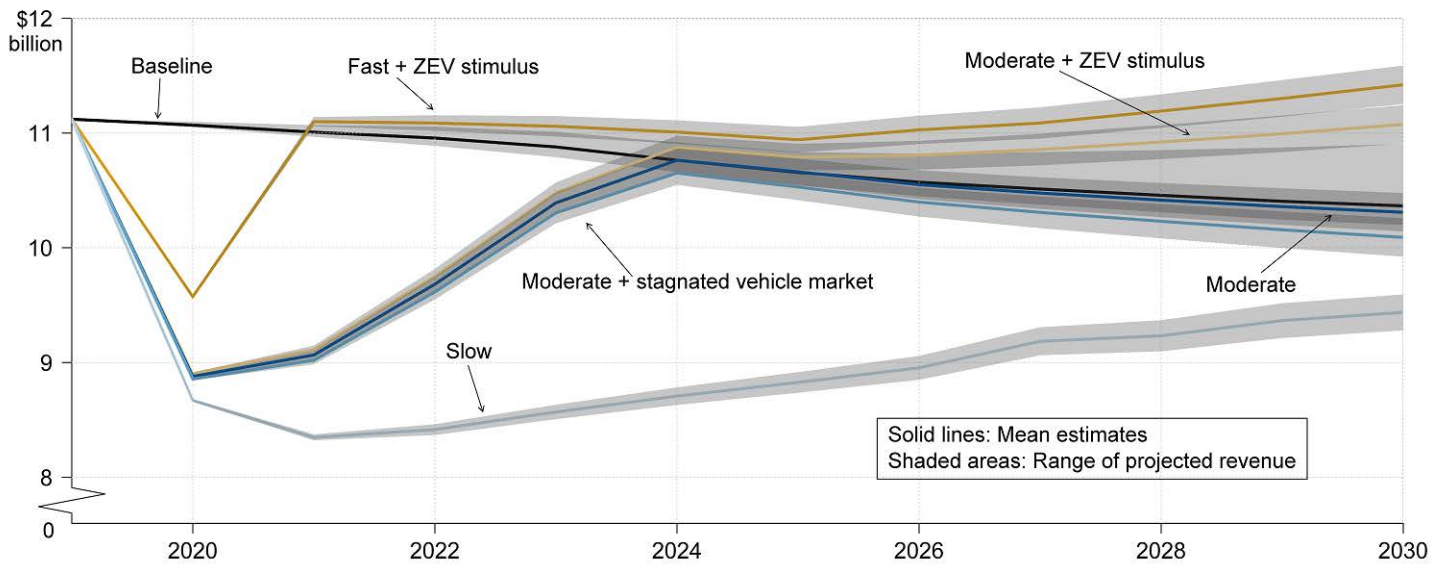
Recognizing that COVID-19 has created unprecedented uncertainty as to future economic conditions and travel volumes, we created five possible economic recovery scenarios and projected transportation revenue under each. The scenarios assume different rates of recovery for travel and vehicle markets, as well as different levels of policy

support to stimulate vehicle markets in general and ZEV purchases in particular.

Findings

The figure shows the revenue projections under all scenarios. Key findings include:

- ***The total revenue raised varies considerably among the scenarios.*** For example, the mean total projected revenues in 2030 range from \$9.4 billion (2020\$) in a slow-recovery scenario, to a high of \$11.4 billion in a scenario that pairs a fast economic recovery with ZEV stimulus policies.
- ***Fuel taxes generate the majority of revenues in all scenarios.*** Across all six scenarios, gasoline taxes remain at least half of revenues through 2030. Adding diesel excise and sales tax revenues, the sum of revenue from taxes on both fuels is roughly three-quarters of the total in all scenarios for all years.
- ***The user fees levied on ZEVs could replace and potentially even exceed the state revenue that will be lost because of declining gasoline sales tax revenue.*** RIF and TIF revenues both rise notably as the proportion of ZEVs in the light-duty fleet rises, because the TIF rate is based on vehicle value, and ZEVs tend to be more expensive than comparable ICE vehicles. Looking at mean projected cumulative revenues from 2020 to 2030, a moderate-recovery scenario with the stagnated vehicle market raises \$5 billion less than a moderate-recovery scenario with strong ZEV stimulus policies.



Comparison of Total State Revenue under Different Hypothetical Economic Recovery Scenarios, 2019–2030 (in 2020 dollars)

Note: The full report contains complete details about the hypothetical economic recovery scenarios

Policy Implications

The study findings highlight the possibility that California’s policy leaders will need to prepare for a future with considerably less revenue than has been expected. At the same time, the study also finds that revenue shortfalls are not inevitable, even should the economy recover slowly. Aggressive state policies to stimulate ZEV adoption could lead to revenue levels close to or even exceeding what the state would have generated in a world without the COVID-19 pandemic.

About the Authors

Asha Weinstein Agrawal, PhD, is Professor at San José State University, Hannah King is a doctoral student at UCLA, and Martin Wachs, PhD, is Professor Emeritus of the University of California.

To Learn More

For more details about the study, download the full report at transweb.sjsu.edu/research/2018.



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