



**ANSWERS TO QUESTIONS
FOR THE RECORD**

Following a Hearing on
**Options for Funding and
Financing Highway Spending**

Conducted by the
Committee on Finance
United States Senate

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On May 18, 2021, the Senate Committee on Finance convened a hearing at which Joseph Kile, the Congressional Budget Office's Director of Microeconomic Analysis, testified on options for funding and financing highway spending.¹ After the hearing, Senator Portman and Senator Barrasso submitted questions for the record. This document provides CBO's answers. It is available at www.cbo.gov/publication/57289.

Senator Portman's Questions About Infrastructure Banks

Question. Dr. Kile, you noted in your testimony that only about a dozen states use their infrastructure banks despite 33 having enabling legislation on the books. Further, you indicated that from 2007–2016, the average annual financing for highway infrastructure provided by State Infrastructure Banks amounted to \$200 million, or about 1% of new financing by state and local governments.

Can you discuss what barriers exist to increased use of state infrastructure banks?

Answer. State infrastructure banks and revolving funds—financial institutions that state governments create and run to lend money for infrastructure projects—are used less often for surface transportation than for water utilities. One reason is that state infrastructure banks do not receive federal grants that are specifically designated to capitalize them, unlike revolving funds for water infrastructure. As a result, infrastructure banks for water utilities typically offer more favorable loan terms than infrastructure banks for highways. Meanwhile, states must choose between allocating federal grant money to capitalize a state infrastructure bank for highways or funding highway projects directly with that grant money. Another reason is that when state infrastructure banks issue loans to local governments, the local governments must repay the loans. Local governments can repay loans made for water projects with fees from users of the water utility. But highway projects often lack such revenue streams. Therefore, state and local governments

frequently draw on the municipal bond market for highway projects rather than on state infrastructure banks.

State infrastructure banks are attractive sources of financing for local highways and transit projects when the financing is cheaper for local entities than the cost of issuing their own bonds, such as when local entities want to finance relatively small amounts of capital. State banks can generally issue bonds on a larger scale; therefore, costs for underwriting, legal fees, and marketing are typically lower for them than for local entities.

State infrastructure banks for transportation have also proved advantageous when financing has needed to be executed quickly. After some natural disasters, loans provided by those banks have provided temporary funding for relief, allowing recovery efforts to start before federal grant money for disaster relief was received.

Question. There have been several Congressional proposals for the creation of a federal infrastructure bank. While often there is an appropriation to start the bank, many of these proposals assume a 10:1 debt-to-equity ratio and an ability to leverage \$100 billion or more in infrastructure investment.

Could you describe the way leverage in a national infrastructure bank could be used to stretch the federal dollars? That is—to get more investment in infrastructure at a smaller federal price tag?

Answer. The federal government can provide grants, loans and other credit assistance, and tax preferences to help state and local governments (or the private sector) build infrastructure. Loans and tax preferences for borrowing cost the federal government less than grants because loans and borrowed funds are eventually repaid and grants are not. Infrastructure projects that generate user fees, tolls, or another form of revenue are better candidates for loans than projects that do not generate funds that could be used to repay the loan.

Spending by a national infrastructure bank that was funded and controlled by the federal government would be included in the federal budget. Because of the Federal Credit Reform Act of 1990, such a national infrastructure bank would not be able to revolve loans (that is, relend loan repayments) in the same way that state infrastructure banks can. Alternatively, spending by a national infrastructure bank that was independent

1. See testimony of Joseph Kile, Director of Microeconomic Analysis, Congressional Budget Office, before the Senate Committee on Finance, *Options for Funding and Financing Highway Spending* (May 18, 2021), www.cbo.gov/publication/57206.

of federal control would be outside the federal budget. However, to attract additional capital to leverage the initial funding by the federal government, an independent bank—one that the federal government was not obliged to support—would have to subsidize providers of additional capital to compensate them for the increased risk of losing money on their investments. Such subsidies are an additional cost for the federal government.

Some state and local infrastructure banks issue tax-preferred debt to leverage their federal funding, which increases the federal government's costs by reducing the amount of taxes it collects. To illustrate the impact on the federal government, CBO projected that loans from state infrastructure banks will cost the federal government 23 cents in 2023 (as a representative future year) for every dollar financed; if those banks leveraged their federal funds by issuing tax-exempt bonds, the cost to the federal government would rise to 43 cents for every dollar financed.²

Some federal programs that serve particular kinds of infrastructure have many of the characteristics of a national infrastructure bank. For instance, the Transportation Infrastructure Finance and Innovation Act (TIFIA) program provides loans, loan guarantees, and lines of credit to help finance transportation projects. In 2019, TIFIA provided about \$1.5 billion in loans. TIFIA loans, which cover up to half of a project's costs, provide flexible repayment terms and more favorable interest rates than applicants could secure in private capital markets. Demand for TIFIA loans is limited, however, because the federal government requires borrowers to have a source of funding for repayment.

Senator Portman's Questions About Airports' Passenger Facility Charges

Question. The passenger facility charge that helps fund airport maintenance and improvement is currently capped at \$4.50 per flight segment with a maximum of two PFCs charged on a one-way trip or four PFCs on a round trip, for a maximum of \$18 total.

Does CBO have an estimation of how much revenue could be generated for airport maintenance if the

passenger facility charge (PFC) was indexed to inflation starting from 2000? Starting from 2021?

Answer. Although PFCs are authorized by federal law, they are collected by commercial airports that are controlled by nonfederal public agencies. Because the fees are not paid to the federal government, increasing them would not increase federal revenues. Indeed, CBO and the staff of the Joint Committee on Taxation (JCT) expect that increasing the maximum allowable PFC would result in an increase in tax-exempt financing and a subsequent loss of federal revenues.

If PFCs had been indexed to inflation beginning in 2000, the maximum charge per flight segment would be \$6.79 in 2022.³ If that indexing continued through 2031 and airports charged the maximum fee, CBO estimates that airports would collect an additional \$25.7 billion from 2022 through 2031.

If PFCs were instead indexed to inflation from the current \$4.50 in 2021, CBO projects that the maximum fee per flight segment would be \$4.61 in 2022. If indexing of the 2021 amount continued through 2031 and airports charged the maximum fee, CBO estimates that airports would collect an additional \$5.1 billion from 2022 through 2031.

Question. How much revenue could be generated by an increase of the PFC by \$1.00? By \$2.00?

Answer. CBO estimates that increasing the maximum allowable PFC per flight segment by \$1 in 2022 would yield airports an additional \$8.5 billion in collections from 2022 through 2031. CBO projects that an increase of \$2 would yield \$17 billion in additional collections for airports over the same period.

Senator Portman's Question About Fees on Electric Vehicles

Question. In your testimony, you note that an annual fee on light-duty electric vehicles would generate revenues averaging about \$0.2 billion per year over the next five years. I recognize that electric vehicles make up only 2 percent of the vehicles on the road today. However, the

2. See Congressional Budget Office, *Federal Support for Financing State and Local Transportation and Water Infrastructure* (October 2018), www.cbo.gov/publication/54549.

3. CBO calculated inflation by using the chained consumer price index for all urban consumers.

electric vehicle industry estimates a 30 percent growth rate in EV adoption over the next ten years.

What would the implication of this growth be on annual fee revenue?

Answer. CBO's estimate of the revenues from an annual fee on light-duty electric vehicles relied on the Energy Information Administration's projections of the number of light-duty electric vehicles. In those projections, the stock of electric vehicles in the United States grows by about 55 percent between 2022 and 2026, and sales of electric vehicles increase by about 15 percent a year, on average. If electric vehicles were adopted more quickly, those fee revenues would be higher. If annual sales growth was 30 percent, the number of electric vehicles would roughly double over the 2022–2026 period, and revenues would be about 20 percent more than CBO projected (that is, an average of \$0.3 billion per year, taking rounding into account).

Two additional factors would affect the net amount the government collected from an annual fee on electric vehicles. One, that fee would reduce taxable business and individual income. Those reductions and the decreases in income and payroll tax receipts that would follow would not affect the Highway Trust Fund, but they would partially offset the amount of money the federal government collected from the new tax. Two, the administrative and auditing systems necessary to collect such a fee or tax might be challenging to implement. A system to identify owners of electric vehicles, assess a tax or fee, and collect it would have to be developed and would need to be funded.

Senator Barrasso's Questions About Electric Vehicles

Question. Chairman Wyden has introduced legislation to provide a \$7,500 refundable tax credit for electric vehicles that will not begin to phase out until electric vehicles represent half of all U.S. vehicle sales.

Because electric vehicles do not support the Highway Trust Fund, what impact will electric vehicles' representing 50% of U.S. vehicle sales have on the Highway Trust Fund?

Answer. As electric vehicles become a larger share of the light-duty vehicle fleet, the Highway Trust Fund's revenues will decline because drivers of electric vehicles do not pay fuel taxes. The Energy Information

Administration projects that electric vehicle sales will account for about 7 percent of vehicle sales in 2031. If the federal government offered a \$7,500 refundable tax credit on electric vehicles and fuel-cell vehicles (fuel cells, another new technology, use hydrogen as an energy source), JCT projects that sales of those vehicles would account for 10 percent to 20 percent of light-duty vehicle sales by 2031. JCT did not project that electric vehicles would account for 50 percent of vehicle sales by 2031. If electric vehicles were adopted more rapidly than JCT projected, the Highway Trust Fund's revenues would be lower than those in CBO's most recent baseline projections. If sales of electric vehicles were half of all sales of U.S. vehicles from 2028 to 2031, the trust fund's revenues would be roughly \$4 billion lower in 2031 than CBO projects. However, sales of electric vehicles would need to grow by 66 percent a year, on average, between now and 2028 to represent half of all vehicles sold annually.

Question. What are the estimated job losses within the auto manufacturing, auto parts, auto sales, and auto repair industries if electric vehicles represent 50% of all U.S. vehicle sales annually?

Answer. CBO has not analyzed the impact on employment of increases in sales of electric vehicles. That analysis would depend on where the electric vehicles and their key components were manufactured and whether their production was more or less labor-intensive than production of vehicles with internal combustion engines. (The National Highway Traffic Safety Administration assesses the domestic manufacturing content of different vehicle models each year.)⁴ Because electric vehicles generally require less maintenance than conventional vehicles, employment in the auto repair industry would probably decline if sales of electric vehicles increased.

Senator Barrasso's Question About Funding for the Transit Account of the Highway Trust Fund

Question. Currently, the Mass Transit Account within the Highway Trust Fund receives revenues equivalent to 2.86 cents per gallon of highway motor fuels excise taxes.

4. See National Highway Traffic Safety Administration, "Part 583 American Automobile Labeling Act Reports" (accessed August 2, 2021), <https://go.usa.gov/xFXrs>.

Given the significant investment needed to modernize America's roads and bridges, what options are available for mass transit to create the necessary revenue stream to provide for future investments and maintenance of their own systems, rather than relying on allocations from the highway motor fuels excise taxes?

Answer. About two-thirds of the funding for public transit comes from subsidies provided by federal, state, and local governments. At the federal level, the Highway Trust Fund's transit account receives revenue from the excise taxes on motor fuels and from the trust fund's highway account (an estimated \$1.2 billion is transferred from the highway account to the transit account each year). Those two sources of funds total \$64 billion over the 2022–2031 period, or 46 percent of the anticipated \$140 billion shortfall between spending and revenues in the highway account over that period, according to CBO's baseline projections from July 2021.

Additional funds for transit systems could come from state and local governments, transit users, or federal sources other than excise taxes on motor fuels. States and localities, which account for about one-half of public transportation funding, could raise the taxes received by transit systems or impose new taxes. New taxes for state and local areas might include value capture strategies such as taxes on businesses or properties located near transit stations, which typically benefit most from the transit service. Such taxes could include sales taxes on

goods sold within special districts, land value taxes (a levy on the value of unimproved land), and tax increment financing (in which a share of the revenues from real estate taxes is dedicated to transit), among others.⁵ Transit agencies could also increase user fees. In 2019, before the pandemic, transit agencies' operating receipts (most of which come from passenger fares) totaled about \$20 billion. However, with fewer riders as a result of the coronavirus pandemic, raising fares may not increase revenues by much, and how much ridership will rebound is unclear. Additional funds could also be transferred from the Treasury's general fund; between 2008 and 2018, the Congress authorized \$29 billion in transfers to the transit account.

Alternatively, the Congress could prompt transit systems to reduce their use of federal grants. About two-thirds of federal outlays for transit are for capital spending. The federal government could limit its grants for capital spending to projects that rehabilitate existing facilities or replace worn-out or unsafe equipment, or it could stop making grants for capital spending and instead make grants only for operation and maintenance of transit systems. The federal government could also replace capital grants with federal loans to transit systems or direct pay tax credit bonds.

5. For more information on value capture strategies, see Federal Highway Administration, "Value Capture" (accessed August 2, 2021), www.fhwa.dot.gov/ipd/value_capture/.