



Answer to a Question for the Record Following a Hearing on the Long-Term Financing of the Highway Trust Fund Conducted by the House Committee on Ways and Means

On June 17, 2015, the House Committee on Ways and Means convened a hearing at which Chad Shirley, Deputy Assistant Director for Microeconomic Studies at the Congressional Budget Office, testified about the status of the Highway Trust Fund and about options for paying for highway spending. After the hearing, Congressman Larson submitted a question for the record. This document provides CBO's answer.

Question. I'm sure you are familiar with the Hamilton Project and its May 2015 report on "Financing U.S. Transportation Infrastructure in the 21st Century." Could you comment on the report and the various recommendations in it?

Answer. The May 2015 report from the Brookings Institution's Hamilton Project offers recommendations in four main areas related to funding or financing highway spending:

- Fuel taxes;
- Alternatives for funding highways, such as a vehicle-miles traveled (VMT) tax;
- Loans authorized by the Transportation Infrastructure Finance and Innovation Act of 1998 (TIFIA); and
- Direct-pay tax credit bonds.

Each of those topics is discussed below. The inclusion or exclusion below of any particular policy approach does not imply an endorsement or lack thereof by CBO, which does not make policy recommendations.

Fuel Taxes. Excise taxes credited to the Highway Trust Fund come primarily from taxes on gasoline, ethanol-blended fuels, and diesel fuels. Those excise taxes were last increased in 1993, and their purchasing power is about 40 percent below that in 1993. If those taxes had been adjusted to keep pace with the consumer price index, for example, the tax on gasoline, which is currently 18.4 cents per gallon, would be about 30 cents per gallon, and the tax on diesel fuel, currently 24.4 cents per gallon, would be about 40 cents per gallon.

Fuel taxes offer a mix of positive and negative characteristics in terms of many people's conception of equity. They satisfy a "user pays" criterion—that those who receive the benefits of a good or service should pay its cost. But they also can impose a larger burden relative to

income on people who live in low-income or rural households because those people tend to spend a larger share of their income on transportation. Fuel taxes impose a burden even on households that do not own passenger vehicles by raising transportation costs, which are reflected in the prices of purchased goods.

Fuel taxes have two desirable characteristics that are related to economic efficiency: They cost relatively little to implement (the government collects taxes from fuel distributors, and users pay the taxes when they purchase fuel), and they offer users some incentive to curtail fuel use, thus reducing some of the social costs of travel.

However, a fuel tax discourages some travel too much and other travel too little, because it does not reflect the large differences in cost for use of crowded roads compared with uncrowded roads or for travel by trucks that have similar fuel efficiency but cause different amounts of pavement damage. Moreover, for a given tax rate on fuels, the incentive to reduce mileage-related costs diminishes over time as more driving is done in vehicles that are more fuel efficient.

Alternatives for Funding Highways. VMT taxes, which may replace or supplement fuel taxes, provide stronger incentives for efficient use of highways than fuel taxes do because VMT taxes are better aligned with the costs imposed by users. Most of those costs—including pavement damage, congestion, accidents, and noise—are tied more closely to the number of miles vehicles travel than they are to fuel consumption.

For VMT taxes to significantly improve efficiency, however, they would need to vary greatly according to vehicle type, time of travel, place of travel, or some combination of such characteristics. For example, because pavement damage increases sharply with vehicle weight but decreases with the number of axles on a vehicle, the portion of VMT taxes assessed to maintain pavement could be small or nonexistent for passenger vehicles but substantial for heavy-duty trucks, particularly those with high weight per axle. Similarly, VMT taxes could be higher for any travel on crowded urban roads during peak hours than for travel in off-peak hours or on roads that are less congested.

The costs of implementing VMT taxes include capital costs for equipment and operating costs for metering, payment collection, and enforcement. The cost to establish and operate a nationwide program of VMT taxes is uncertain and difficult to estimate because projections so far are based mainly on small trials that have used a variety of evolving technologies and because the cost would depend on whether VMT taxes varied by time, place, or type of vehicle. Although the costs of charging drivers are declining with improvements in technology, the costs remain higher than those for collecting revenues through the motor fuel taxes. The idea of imposing variable VMT taxes also has raised concerns about privacy: The collection process could give the government access to specific information about when and where individual vehicles are used.

Loans Made Under TIFIA. The Department of Transportation (DOT) administers a loan program under TIFIA that provides credit assistance to state and local governments to finance highway projects and other types of surface transportation infrastructure. The program offers subordinated federal loans for up to 35 years at interest rates that are based on the rate for Treasury securities of similar maturity. (On June 1, 2015, the interest rate on the 30-year Treasury bond was 2.94 percent.) TIFIA assistance may be used for up to 49 percent of a project's cost. Combined with other federal grants and credit assistance, TIFIA loans can be

part of a package of federal assistance that funds up to 80 percent of the cost of a project. TIFIA provides flexible repayment terms and potentially more favorable interest rates than applicants could secure in private capital markets. However, only a limited number of projects are likely to be able to generate revenues that could be used to repay a TIFIA loan.

The Moving Ahead for Progress in the 21st Century Act of 2012 (MAP-21) made several changes to the TIFIA program, notably increasing the amount of budget authority for the subsidy cost of the program's loans from \$122 million per year in the previous authorization for highway and transit programs to \$750 million in 2013 and \$1 billion in 2014. Because contract authority is provided for only about three-fourths of 2015, TIFIA has received \$750 million so far this year. If an insufficient amount of that budget authority was used, provisions of the law directed DOT to reallocate some of those funds to states. As of April 1, 2015, uncommitted budget authority for TIFIA totaled \$1.139 billion. As a result, on April 24, 2015, DOT reallocated about \$640 million to states.

MAP-21 also authorized master credit agreements and created an extra interest rate subsidy for projects in rural areas. Master credit agreements would allow DOT to make commitments of future TIFIA loans, contingent on future authorizations, to a group of projects secured by a common revenue source. Under provisions of MAP-21, rural projects receive a minimum of 10 percent of the funds appropriated and are eligible to receive loans at half the Treasury rate. Such an interest rate subsidy makes a project relatively less expensive for the borrowers and relatively more expensive for the federal government. It may result in federal loans for projects that would not otherwise generate enough revenues to cover the costs of financing the projects.

Direct-Pay Tax Credit Bonds. The federal government provides several types of tax preferences to subsidize infrastructure financing. *Tax-exempt bonds* use the well-established tax preference of paying interest that is not subject to federal income tax. Such bonds can be issued to finance the functions of state and local governments or, in the case of qualified private activity bonds (QPABs), certain types of projects undertaken by the private sector. A second, more recently developed type of tax preference for infrastructure financing is associated with *tax credit bonds*. Such bonds come in two basic forms: those that provide a tax credit to the bondholder in lieu of paying interest and those that allow the bond issuer to claim a tax credit. For issuers with no tax liability, the credit in the second scenario takes the form of a payment from the Secretary of the Treasury; such bonds are known as direct-pay tax credit bonds. Tax-exempt and tax credit bonds alike transfer some of the cost of borrowing from state and local governments and the private sector to the federal government, either in the form of forgone federal tax revenues or, in the case of direct-pay tax credit bonds, a federal outlay.

Tax preferences provide federal support for infrastructure financing while generally allowing state and local governments to exercise broad discretion over the types of projects they finance and the amount of debt they issue. However, tax preferences are not governed by the annual appropriation process, so lawmakers exercise less oversight over their continuation and use than is applied to federal grant and loan programs. Also, because forgone revenues are not identifiable in the federal budget, the use of tax preferences can mask the full scope of the government's financial activities. Using some types of tax-preferred bonds can be an inefficient way to deliver a federal financial subsidy to state and local governments. With a tax exemption for interest income, for example, state and local borrowing costs (and the costs of the private entities that make use of QPABs) are reduced by significantly less than the amount of forgone

federal revenues; the remainder of that tax expenditure accrues to bond buyers in the highest income tax brackets.

Tax credit bonds offer some advantages over other types of tax-preferred bonds, including tax-exempt bonds. Because bondholders pay taxes on the amount of credit they claim, tax credit bonds do not cause investors in high marginal tax brackets to receive a portion of the forgone tax revenues. Rather, the revenues forgone by the federal government through tax credit bonds reduce state and local borrowing costs dollar for dollar, a more efficient use of federal resources than that resulting from tax-exempt bonds. Tax credit bonds also allow the amount of federal subsidy to be determined explicitly, rather than depending on other federal policies (such as marginal income tax rates).

The American Recovery and Reinvestment Act of 2009 authorized Build America Bonds, tax credit bonds that were sold only in 2009 and 2010. State and local governments issued the bonds either as traditional tax credit bonds or, if certain conditions were met, as direct-pay tax credit bonds (known as qualified Build America Bonds). In contrast to earlier tax credit bonds, Build America Bonds have an interest rate (or coupon) that is set by the issuer rather than by the Secretary of the Treasury. For the direct-pay bonds, the federal government provided payments directly to issuing state and local governments equal to 35 percent of the interest, in lieu of a tax credit going to the bondholder. The amount of that financing subsidy is greater than the reduction in the interest costs that those state and local governments would have realized if they had issued traditional tax-credit bonds because, in the latter case, the bond buyer claiming the tax credit would have had to be compensated with additional interest income for the resulting tax liability.

The interest subsidies provided by direct-pay tax credit bonds appear as outlays in the federal budget, making the cost more transparent and, in principle, enabling comparison with other federal outlays for the same purposes. Also, because the yields provided to holders of direct-pay tax credit bonds are similar to the yields of other taxable securities, direct-pay tax credit bonds are more attractive to tax-exempt entities than other tax credit bonds are and may therefore increase the pool of funds available to state and local governments to finance infrastructure projects and other activities.