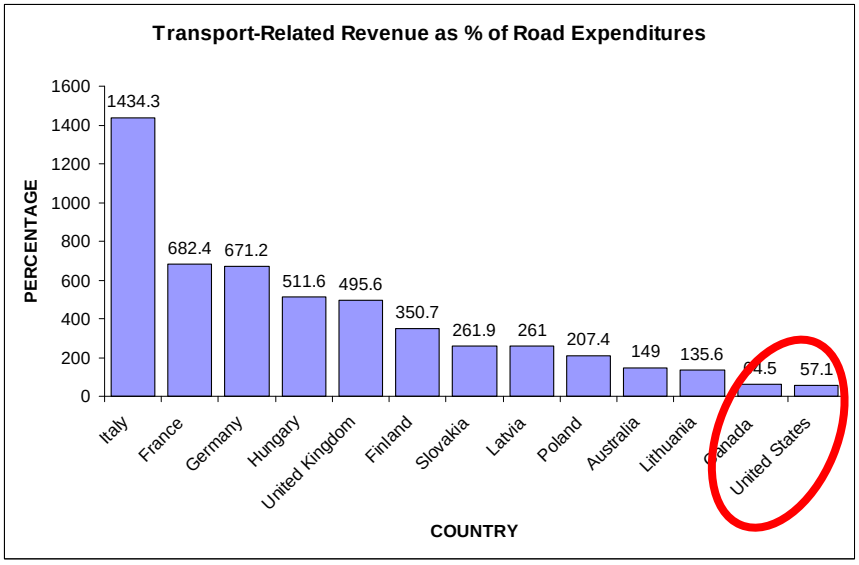
The Leadership Initiative for Transportation Solvency (LITS) is a research project of the Carnegie Endowment for International Peace. LITS is an effort to identify alternative strategies for (1) eliminating the contribution of federal transportation expenditures to the federal deficit, (2) leveraging transportation investments to increase productivity and GDP, and (3) pricing transportation carbon to fund the federal surface transportation program while (a) maximizing program-related co-benefits and (b) reducing serious transportation externalities such as air pollution (including carbon emissions), energy dependence, and public health costs.

Transportation is a key engine of our economy. It enables economic exchange and knowledge transfer—the building blocks of national economic growth. As such, it should be able to pay for itself through a modest tax, fee, or other assessment on publicly-provided transportation services. This is the case in nearly every developed economy across the globe.

However, the United States is one of the rare developed nations whose transportation program does not pay for itself.[1]



In the United States general fund revenues subsidize transportation services across all program areas—roads, rail, transit, air travel and maritime travel. In just the area of surface transportation (roads, rail and transit) this deficit contribution averages over $24 billion annually (or nearly $48 billion if you include the recent stimulus infrastructure funding). In addition, it is estimated that our current transportation system requires $60-$85 billion annually simply to keep at a good state of repair. Not maintaining our roads today means that the cost of deferred maintenance grows, thereby

[1] Audige, Michel, et al. "Road User Charges: Current Practice and Perspectives in Central and Eastern Europe." World Bank Group. Transport Papers: TP-23. November 2008; Australian Government: Public road-related expenditure and revenue in Australia 2009. Department of Infrastructure, Transport, Regional Development and Local Government. Bureau of Infrastructure, Transport and Regional Economics. November 2009. Accessed 3 Nov. 2010. http://www.bitre.gov.au/publications/38/Files/IS37_RoadExpend.pdf; Canadian Government. Transportation in Canada 2009: An Overview Minister of Transport, Infrastructure, and Communities. 4 June 2010. Accessed 3 Nov. 2010. http://www.tc.gc.ca/media/documents/policy/overview2009.pdf

contributing to the deficit.[2] The resulting deficit expenditures and deferred maintenance costs represent, in effect, a deferred tax that will be assessed against future generations and will have to be paid with interest. This is neither prudent nor fair.

Our research project is scheduled to be completed in March 2011. However, we have identified three distinct areas where revisions in transportation revenue and spending programs can, in concert, shrink the deficit. These findings, and our specific deficit reduction strategies recommended for mention in your final report, are as follows:

END WASTEFUL SPENDING ON EXISTING SURFACE TRANSPORTATION ACCOUNTS

Finding: The surface transportation program covers 108 spending accounts. Many of these programs were initially authorized in the 1950's and 1960's when transportation was about building a new Interstate Highway System. Since then, priorities have changed but the structure of the program remains the same. According to a recent study, the rate of economic return to invested highway capital is approaching the long-term interest rate (cost of capital).[3] This makes it impossible for transportation investments to enable economic growth.

A key problem is that the federal surface transportation program, as a state-aid program, plays a supporting role to states, which essentially control decisions as to where and what to build and for what purposes.[4] This reduces the federal ability to align spending decisions with changing national priorities, creates a sense of entitlement on the part of states for continued federal support, and makes it difficult to terminate federal-aid programs that have completed their mission.

Recommendation: The next transportation authorization bill should create a Transportation Realignment and Accountability Commission (TRAC), similar to the BRAC commission on Defense Department base closures. The commission could review all non-core surface transportation programs as defined in the next transportation authorization bill and recommend, based on performance against their original legislative justifications, whether they should be continued or terminated.

INVEST IN INFRASTRUCTURE TO GROW THE ECONOMY

Finding: Over the last 50 years, the United States has reduced infrastructure investment at the same time that our population continues to grow. We currently spend approximately 2 percent of our GDP on infrastructure—a 50 percent decline from 1960 when it was 4 percent[5]—but our population is expected to grow by 100 million, a 30 percent increase, between 2005 and 2040**.** In addition to facing a serious problem of under-investment, we are investing in transportation infrastructure in a manner that provides minimal, if any, contribution to economic growth (see above).

This is a huge lost opportunity. Studies broadly show that infrastructure investment underpins economic productivity because it facilitates access to jobs while stimulating long-term job

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[2] National Surface Transportation Infrastructure Financing Commission, *Paying Our Way* 2009
[3] Mamuneas, Theofanis and Ishaq Nadiri, *Production, Consumption and Rates of Return to Highway Infrastructure Capital (August, 2006).*
[4] 23 U.S.C Sec. 145 of the Highway Code states "The authorization of appropriation of Federal funds or their availability for expenditure under this chapter shall in no way infringe on the sovereign rights of the States to determine which projects shall be federally financed." This places national transportation policy in a subservient position to 50 state transportation policies.
[5] Progressive Policy Institute, "Building America's 21st Century Infrastructure" January 15, 2009.

development and a multitude of other positive economic consequences, such as more efficient business supply chains, knowledge transfer resulting in creation of new businesses, and reduced household transportation expenses through more trip choices. These are all necessary to remain globally competitive. Our present surface transportation investment program, based on formula allocations to 50 states and financed by a declining revenue base, falls short of delivering on this vision. As stated in a recent economic analysis of infrastructure investment by the U.S. Treasury and the Council of Economic Advisors:

"…federal funding for infrastructure investments is not distributed on the basis of competition between projects using rigorous economic analysis or cost-benefit comparisons. The current system virtually ensures that the distribution of investment in infrastructure is suboptimal from the standpoint of raising the productive capacity of the economy."[6]

The Congressional Budget Office estimates that for every 0.1 percent reduction in the rate of GDP growth, the deficit increases $288 billion over 10 years.[7] It also says the reverse is true: every 0.1 percent increase in the rate of GDP growth reduces the deficit by $288 billion over 10 years.[8] The federal government now spends annually between $70-$90 billion on surface transportation programs, including tax expenditures, or approximately 0.5 percent of our GDP.[9] We should be able to increase GDP by the same level of investment, thus covering the entire costs of the program through increased economic growth.

Recommendation: Require all federal capital surface transportation investments, other than assistance for reconstruction and state of good repair programs, to be distributed on a competitive basis and subject to rigorous economic analysis. Funding should be predicated on projects meeting minimum benefit-cost requirements.

FULLY FUND A REFORM FEDERAL SURFACE TRANSPORTATION PROGRAM WITH NEW REVENUE SOURCES

Finding: The United States must join almost all other developed countries in raising sufficient public revenues from the transportation sector to fund its surface transportation investment program. To do less than fully fund the program is either to under-invest in needed infrastructure to remain globally competitive or to continue digging the deficit hole deeper, causing economic hardship and disruption for future generations, or both. Most countries achieve this full-funding goal by pricing transportation fuels at a level that covers all transportation program costs.

Recommendation: The Commission should include in its final report a requirement that publicly-funded or financed (through credit enhancements, tax expenditures or other federal financing assistance) transportation investment programs should, on an aggregated basis, add revenues to the general fund of the U.S. Treasury. We further recommend that this funding goal be achieved through pricing of carbon emissions from within the transportation sector, either through (1) increased gas taxes, (2) a sales tax (or other tax indexed to price and inflation) on gasoline, (3) emission-based user fees for access to capacity on the National Transportation System (NTS), or (4) a fee on oil

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[6] *An Economic Analysis of Infrastructure Investment,* A Report Prepared by the Department of the Treasury with the Council of Economic Advisors, October 11, 2010, p. 20.

[7] Congressional Budget Office, "The Budget and Economic Outlook, Fiscal Years 2010 to 2020," January 2010, p. 111.

[8] *ibid*

consumption imposed at the well-head or the point of importation of oil or refined oil products. While we are agnostic on the mix of pricing strategies to achieve this funding goal, the key points are that (1) federal transportation investments should reduce, not increase, the deficit, and (2) the pricing strategy to achieve this result should be based on a fee attached to a significant externality (carbon emissions) caused by our current transportation system.

Summary

Our strategies are to (1) cut wasteful and obsolete federal surface transportation spending, (2) strategically invest in productivity-improving transportation infrastructure, and (3) price transportation carbon emissions to fully fund the total cost of federal surface transportation spending programs. They constitute a three-pronged attack on our national deficit. If enacted together they will eliminate deficit-spending for transportation, grow an economy that generates revenues sufficient to further reduce the deficit, and price transportation carbon in a manner that reduces future costs of our public infrastructure.